UT Austin | Portugal

INTERNATIONAL COLLABORATORY FOR EMERGING TECHNOLOGIES, COLAB

2nd ANNUAL REPORT | September 2007 – August 2008

Submitted to:

The Portuguese Science and Technology Foundation (FCT) &

The External Review Committee (ERC)

November 11, 2008

By:

The University of Texas at Austin &

Collaborating Portuguese Institutions

Contents

Section 1 | Int'l Collaboratory for Emerging Technologies (CoLab)

1-1. Introduction and Overview[1]

The International Collaboratory for Emerging Technologies' (CoLab) main objective is to enhance Portugal's globally competitive excellence in research and graduate education in Digital Media, Advanced Computing, and Mathematics through mutually beneficial partnerships among select Portuguese universities and the University of Texas at Austin. In addition, CoLab's University Technology Enterprise Network (UTEN) is focused on building a globally competitive, sustainable Portuguese S&T commercialization infrastructure.

The six-month, Year 1 of the UT Austin|Portugal CoLab Program (March through August 2007), was focused on building networks and relationships across institutions within Portugal and between Portuguese and UT Austin faculty, students, and staff.

CoLab Year 2 (September 2007 – August 2008) focused on the organization and delivery of collaborative education opportunities, workshops, and other select programs and activities in support of CoLab's core academic programs in post-graduate education and research. In addition, UTEN implemented "Pilot" training, internships, and S&T commercialization programs for select Technology Transfer Officers (TTO) managers and staff, university-based entrepreneurs, and early- and later-stage Portuguese companies including U.S. business development for select Portuguese technology-based firms. In addition, CoLab has promoted the development of the Digital Media Industrial Affiliates Program, with companies that originally signed the FCT agreement, and has also recruited new companies with potential and strategy suitable to partner with and help sustain CoLab. In this regard, CoLab Portugal and industry meetings, programs, and activities were delivered including Executive Masters Workshops, collaboration and sponsoring with the Summer Institute and Future Places events, R&D project meetings, Media Design Master participation, and liaisons with Universities.

CoLab Communication

Follow the recommendations of the ERC meeting in November 30, 2007 and Year 1 Report CoLab Portugal initiated a broad based and extensive communication and promotion media campaign to Portuguese press, institutions, and companies. Please refer to CoLab Annex B for a detailed list which includes:

1. Media Press releases: 18 press distributions
2. Advertisements 10 in local hardcopy newspapers
3. Advertisement on Web: 2 (1 week each)
4. Posters: total of 450 posters distributed to Institutions
    a. 100 Summer Institute event

[1] Please see Annex A for a current list of CoLab staff, participating institutions, Industrial Affiliates, Board of Directors, External Review Committee, and Research Proposal Panel.

b. 100Future Place call
c. 150 Projects call
d. 100Future Places event

5. CoLab Square Newsletter
    a. Electronic mailing: 380 (300 subscription, 20 affiliates, 60 CoLab distribution list)
    b. Hard Copy:170 (60 Summer Institute, 30 TACC Workshop, 60 projects sessions, 20 personal meetings)
6. Mailing Report (see attached for detailed information)
    a. Institutions : 332 (see Institutions and Labs DL)
    b. Companies: 366 (see DL Mailing report)

Metrics

As detailed in subsequent sections of this report, UT Austin faculty, student, and staff support of CoLab's academic and commercialization programs has been outstanding as has been the cooperative and enthusiastic effort and support of Portuguese faculty, students, and staff. Quantitative and qualitative documentation of CoLab accomplishments is noted by program area in the following sections of this report as well as in the monthly CoLab Newsletter. In addition, when appropriate, each of the following program sections reference key observations, recommendations, and responses to the External Review Committee (ERC) report dated November 30, 2007.

CoLab appreciates the need for increased emphasis on metrics for CoLab programs and activities. The ERC emphasized the importance of Program metrics at the 1st CoLab Review as well as in the Year 1 ERC Report. In Year 3, CoLab intends to review current program metrics in order to assess and use the most productive across all CoLab Programs. In addition, Annex C presents additional considerations for collecting CoLab metric data.

During Year 1 and Year 2, it is emphasized that each of the four CoLab programs has evolved differently based on different operating budgets, the number of participating institutions, pre-existing and developing relationships among participants, and initial challenges and opportunities. CoLab was initially organized around what are currently the largest and most heavily funded programs: Digital Media and UTEN. Accordingly, CoLab program areas differ in the number and type of activities reported for Year 2 and planned for Year 3.

CoLab Year 3, will focus on organizing and funding major academic research projects, joint PhD and Masters degrees in Portugal with dual degree possibilities with UT Austin as well the continuation of academic workshops, faculty and student exchange, and increased relationship building. UTEN plans to expand its Pilot Training Programs to include greater numbers of Interns and trainees and to hold FCT sponsored national competitions to select best candidates for TTO and entrepreneurial training and for U.S. business development and continued "learning by doing."

1-2. Key Year 2 CoLab Academic and Research Initiatives

Common to all Three Academic Programs

Sections 2-4 of this report provide a detailed overview of Year 2 accomplishments and challenges and Year 3 plans for each of the three academic programs. These reviews

also include program discussions of the ERC Year 1 review and comments. However, in this section of the report we present major PhD degree and research initiatives that are common to all three academic programs.

A main CoLab objective for all three academic programs is to strengthen collaborative research and advanced education among participating Portuguese universities toward the objective of building critical mass in research and education excellence in Digital Media, Advanced Computing, and Mathematics and to institutionalize these collaborations so that they survive past the planned five years of CoLab. Accordingly, during Year 2 all three academic programs worked to establish joint degree PhD programs among participating Portuguese institutions with the ultimate objective of establishing dual degree programs with The University of Texas at Austin.

In this regard, participating Portuguese universities have formed or are in the final stages of forming joint (single) PhD degree programs for Digital Media (two Portuguese universities) and Mathematics (four Portuguese universities). Regarding Advanced Computing, key Portuguese universities have already approved joint national doctoral programs (e.g., the MAP-i program in Computer Science, run by UMinho, UAveiro and UPorto), while others are planning to have them running in next academic year (e.g., a program on Computational Engineering and Sciences, run by UTL/IST and UPorto). All three academic programs are working toward establishing dual degrees with UT Austin.

In addition the Digital Media Program has organized four masters programs and one certificate program as follows:

- Online Journalism (MA, initially as part of an existing program at FCSH/UNL)
- Film, Television and New Media (MA, initially as part of an existing program at FCSH/UNL)
- Sound and Music Design (MA at UPorto)
- Interactive Content for Science and Education (MA at UPorto)
- Media Design (Executive Masters at UNL)

A. 2008 Call for Doctoral and Post-Doctoral Scholarships

From July 1 to September 8, 2008, the FCT (Ministry of Science, Technology and Higher Education) opened a national call for applications for CoLab doctoral scholarships in the following areas:

1. ***Digital Media:*** Participative Media for Education and Culture; Interactive Media Design; Interactive Music and Sound Design; Online Journalism; and Film and Television.
2. ***Advanced Computing:*** Methodologies and techniques in High Performance Computing (HPC); distributed/grid computing and large scale data analysis and management to solve computational engineering and science problems
3. ***Mathematics:*** Algebra and Number Theory; Applied and Numerical Analysis; Analyses and Partial Differential Equations; Geometry and Topology; Optimization; Stochastic Processes and Mathematical Finance; and Dynamical Systems.

Following is the projected time-line and associated activities for PhD applicants:

- Academic year 2008-2009: Portuguese student applicants are currently attending classes at participating Portuguese universities.

- By December 15, 2008 Portuguese PhD candidates for dual degrees need to formally apply for admission to UT Austin's Graduate School and to the department of their choice (e.g., Computer Sciences, Mathematics, Journalism, or Radio-Television-Film). Student applications are to include resumes of academic and professional experience, transcripts, GRE and TOEFL scores, and letters of recommendation.
- Portuguese students who are admitted to UT Austin to pursue a PhD are expected to start attending UT Austin in Fall 2009 for two years residence while pursuing their PhD degree in cooperation with their Portuguese universities. Competencies will differ across UT Colleges but will normally include required courses, candidacy exams, and initial work on their dissertations.
- In Year 4 the Portuguese students are expected to return to their home institution to complete their dissertations and additional PhD requirements.
- Students are expected to defend their dissertations before their PhD committee including professors from both UT Austin and participating Portuguese universities.

It is intended that in subsequent years participating CoLab academic institutions will work together to increase cross-institutional recognition of Portuguese and UT Austin courses as well as other requirements for dual degrees in Digital Media, Mathematics, and Advanced Computing.

CoLab Post-Docs

Also during July 1 to September 8, 2008 the FCT issued a call for applications for post-doctoral CoLab scholarships in the following areas:

1. ***Digital Media:*** Participative Media for education and Culture; Interactive Media Design; Interactive Music and Sound Design; Online Journalism; and Film and Television.
2. ***Mathematics:*** Algebra and Number Theory; Applied and Numerical Analysis; Analyses and Partial Differential Equations; Geometry and Topology; Optimization; Stochastic Processes and Mathematical Finance; and Dynamical Systems.

The FCT and CoLab Portugal received a total of 31 PhD and Post Doc scholarship applications: 16 for Digital Media, 8 for Advanced Computing, and 7 for Mathematics.

B. 2008 Call for Research Proposals

During July 1, 2008 to October 15, 2008 the FCT issued a national call for joint research and development projects in areas matching the PhD call as follows:

1. ***Digital Media:*** Participative Media for Education and Culture; Interactive Media Design; Interactive Music and Sound Design; Online Journalism; and Film and Television.
2. ***Advanced Computing:*** Methodologies and techniques in HPC; distributed/grid computing and large scale data analysis and management to solve computational engineering and science problems.
3. ***Mathematics:*** Algebra and Number Theory; Applied and Numerical Analysis; Analyses and Partial Differential Equations; Geometry and Topology; Optimization; Stochastic Processes and Mathematical Finance; and Dynamical Systems.

Twenty-eight CoLab Proposals were received by the FCT by October 15, 2008. The proposals included 17 for Digital Media, 7 for Advanced Computing, and 4 for Mathematics. The proposals are currently being evaluated by the Review Panel.

Research proposals must meet FCT guidelines to be reviewed by the CoLab Research Panel, See Annex A for panel participants. The most fundamental FCT requirements are that research proposals include:

1. Research teams from two or more public or private Portuguese research institutions.
2. One or more researcher from UT Austin.
3. An industrial affiliate of the UT Austin Portugal CoLab Program or another entity complying with the FCT regulations for R&D projects.

The research proposal evaluation process is also based on the following criteria:

- The projects relevance with the subjects defined for each area
- Scientific merit, relevance, originality and expected results of the proposed project
- Scientific merit and productivity of the research teams and their qualifications to execute the project including reference to scientific resumes in relevant domains for the projects' successful execution.
- Ability to execute the work plan and within the defined budget
- Ability to integrate in the Portuguese research centers and/or involved companies PhD researchers, PhD students involved in the CoLab Program, and to involve in the research 1st cycle students in higher education
- Special consideration will also be given to involvement of undergraduate and graduate researchers

Considerable priority will also be given to high impact research proposals, those that have significant merit in terms of potential impact on Portuguese and global science and education, society, and the private sector. In this regard, it is the goal of CoLab that, when possible, individual research projects and budgets be combined to form a smaller number of larger more significant projects.

The CoLab Research Grants will be funded by the Ministry of Science, Technology and Higher Education with CoLab@Austin contributing funds needed for UT Austin faculty and students. The expected FCT funding amounts are as follows:

1. Digital Media: A maximum of five projects with a maximum duration of two years funded at up to 200,000 Euros per project.
2. Advanced Computing: A maximum of six projects with a maximum duration of two years funded at up to 150,000 Euros per project.
3. Mathematics: A maximum of three projects with a maximum duration of four years funded at up to 150,000 Euros per project.

1-3. Overview of Key Developments in The University Technology Enterprise Network (UTEN)

A main objective of The *University Technology Enterprise Network* (UTEN) is to help build Portugal's competence in S&T commercialization with emphasis on training technology transfer officers, building a community of technology transfer and commercialization offices in Portugal, and competitive access to U.S. and international

markets for Portuguese technologies and entrepreneurs. The UTEN Program includes 13 Portuguese universities, four technology parks, and select research organizations throughout Portugal and is directly linked to the IC² Institute at The University of Texas at Austin (www.ic2.utaustin.edu). As noted in the CoLab ERC Report 1, UTEN is especially challenged because of the large number of involved Portuguese entities and given their geographical dispersion, institutional differences, and unique histories regarding S&T commercialization.

Added to this challenge, UTEN contracts were not signed during Year 2, preventing the hiring of a Portuguese UTEN management team and the issuing of national calls for applicants for UTEN's main objectives supporting the promotion of a national network of technology transfer and commercialization offices, technology entrepreneurship, incubation, and competence building within Portugal. Despite these considerable challenges Pilot Programs, funded by UTEN Austin, were launched with the significant volunteer contributions of key Portuguese champions at several institutions, and with contributions of their institutional budgets. These Portuguese champions worked with UTEN Austin to initiate Pilot Programs in each of the specified objectives: TTO training, entrepreneur mentoring, and U.S. business development.

To facilitate the implementation and coordination of UTEN programs and activities a Portuguese UTEN Executive Board was formed in June 2008. This "UTEN Executive Board" is composed of the Portuguese institutions that have been most active in working with UTEN Austin during the first 18 months. It is believed, that this strategy will encourage a bottom-up approach to build a community of technology transfer and commercialization offices in Portugal. The UTEN Executive Board is currently composed of:

(1) INESC Porto, Associated Laboratory: Contact: José Manuel Mendonça
(2) TECMINHO, Associação Universidade Empresa para o Desenvolvimento: Contacts: Manuel Mota, Jaime Ferreira da Silva, Marta Catarino
(3) University of Porto, through UPIN, Universidade do Porto Inovação: Contacts: Jorge Gonçalves, Maria Oliveira
(4) Instituto Pedro Nunes (IPN), Associação para a Inovação e o Desenvolvimento em Ciência e Tecnologia, IPN: Contact: Teresa Mendes
(5) Instituto Superior Técnico, IST: Contacts: Carlos Matos Ferreira, Rui Baptista, Maria José Francisco

It is intended that the UTEN Executive Board will work to build sustainable participation of the entire UTEN network in relevant UTEN programs and activities. In addition, it is suggested that the UTEN Executive Board make use of a "rotating coordination scheme" among its partner institutions and that INESC Porto (*Instituto de Engenharia de Sistemas e Computadores do Porto*) provides the initial management support and coordination of UTEN Portugal.

1-4. Key CoLab Challenges Across All CoLab Programs

As noted in ERC Report 1, November 30, 2007, to accomplish Year 2 objectives CoLab need to overcome challenges in organization, communication within and between CoLab Programs, and funding for Portuguese partners so that CoLab can move toward the self-sustainability of its most productive and important cooperative programs and activities. Following is a status report on several of these critical issues.

A. Communication and Coordination

During Year 1 and at the 1st ERC Review it was determined that for CoLab Programs to be successful in Year 2 and beyond, new strategies need to be developed to encourage regular and effective communication across the participating universities and other entities within Portugal, and between Portuguese and UT Austin participants. Suggested elements of these strategies included the following which were implemented in Year 2:

Travel: Sufficient travel to allow for needed face-to-face working meetings of key personnel

- All CoLab Academic Programs and UTEN demonstrated increased travel of faculty, students, and staff as will be detailed in the following sections of this report.

Voice Communication: Increased voice communication between UT Austin and Portugal

- Skype has emerged as an important communication tool for all CoLab programs.

Newsletter: Production of a CoLab newsletter

- One of the more ambitious and successful efforts to increase communication and promotion of CoLab activities within CoLab and to external markets and customers has been the monthly CoLab Square newsletter.

Web: Developing an effective CoLab web presence (see www.utaustinportugal.org and others, Annex D) has proven to be a continuing challenge. Most importantly the central utaustinportugal.org site, created during Year 1 by a contractor hired by the FCT, has not been sufficiently flexible (adaptable and current) to keep current with emerging program needs. Only select portions of the site are directly editable by CoLab staff and the site does not permit changes in design or to support new organizational structures or categories of information. Nor is the site open to the inclusion of external sources of information by syndication or "web 2.0" tools.

During Year 2 CoLab encouraged individual programs and projects to create their own websites as needed, provided they were well coordinated with mutual links with the central site. Sufficient coordination has been difficult to achieve. Accordingly at the CoLab Board Meeting on October 3, 2008 it was decided to CoLab staff in Austin and Portugal work together to replace the central CoLab web site with a new, more flexible one based at UT Austin.

B. Timing of FCT calls for PhD and Post Doc applicants

An ongoing challenge for CoLab has been the timing of the public calls (*editais*) which govern its major activities. It is essential that the opening and closing of calls be timed strategically to match the Portuguese and UT Austin academic calendars. This is important so individuals and institutions that wish to participate can learn about the calls and prepare their applications in a timely manner. Timing the *editais* is also crucial for CoLab to be able to recruit the best applicants possible in the nationally competitive environment. If CoLab's calls for students and post docs are issued later in the year than other Portuguese funding opportunities, the most promising students and researchers will have already made commitments elsewhere.

To date, all of CoLab's major calls have been announced in the summer months, when publicizing the calls to potential applicants and communicating among prospective research teams was difficult. The solution is for the Directors and the appropriate staff at the FCT to work together to establish a calendar for future calls which both (a) allows the FCT ample time to complete all necessary administrative steps, and (b) meets the strategic timing needs of CoLab.

C. Funding in Portugal

Because not all of the programs at all partner institutions in Portugal have yet signed contracts with the FCT or received CoLab funds under these contracts, an ongoing challenge for the Portuguese participants has been to find travel funds needed for travel to Austin, Texas as well as for CoLab events held in Portugal. An additional funding challenge for the Portuguese has been securing relatively small amounts of funds for hosting local events. The recent FCT Strategy, Major Guidelines and Funding Allocation Mechanisms discussed at the October 3, 2008 Board Meeting, references "seed funding" possibilities that may alleviate some of these concerns.

1-5. Significant "Extra" CoLab Initiatives for Year 3

In addition to program-specific academic, research, and S&T commercialization training projects which make up the core of the CoLab's mission, a number of potential initiatives have been proposed to help integrate, promote, and otherwise support and complement CoLab's primary activities.

A. CoLab Research Workshop

CoLab expects to plan a Research Workshop in Lisbon in June 2009. The main objective is to provide a six-month status report on the FCT funded research projects in all three academic programs. In addition, Portuguese press and interested parties will be invited for special information sessions.

B. Portuguese University Deans to visit UT Austin

Portuguese CoLab Program Directors and Co-Directors will be asked to invite select Deans, Rectors, Vice-Rectors, etc. for a coordinated CoLab visit to UT Austin to discuss CoLab programs and activities as well as the sustainability of key CoLab initiatives including dual degree possibilities.

C. Development of An Industrial Affiliates MOU

There is a need to further develop the CoLab Industrial Affiliates Program. One key task is the structuring of a CoLab Industrial Affiliates Memorandum of Understanding (MOU) that clearly specifies industrial affiliate responsibilities and benefits. Suggested benefits include preferential involvement in CoLab research projects, Industry Targeted Workshops, and networking with CoLab affiliated faculty and students in Portugal and UT Austin including student interns. Suggested industry responsibilities include financial support for a CoLab speaker series, student support, research partnering, and the establishment of University–based Research Chairs in key industry-related sectors. It is important that the CoLab Affiliates Program be structured to facilitate sustainability of key CoLab programs and activities.

D. Cross-CoLab-Program Research Proposals

ERC Report 1 it was suggested that "the synergies between the different aspects of CoLab be explored." While the 1st CoLab Research Calls focused on each academic program, the MCTES has also recently emphasized the desire pursue a small number of projects which cross all CoLab program areas: DM, AC, Math, and UTEN. Accordingly, CoLab Program Directors are having initial discussions to identify possible areas of cross-program collaboration, with more formal exploration with industry representatives to follow.

In addition, CoLab will plan a workshop of CoLab Academic Program Directors and others to explore research topics which could leverage and cross-pollinate Advanced Computing, Digital Media and Mathematics. An additional goal would be to involve private companies and UTEN staff in the design of the research projects, in order to prepare from the outset for the effective commercialization of resulting innovations. An example of broad topics which have been identified include possibilities for immersive and generative media of advances in high-performance visualization and simulation, and similarly the potential for new kinds of locative media enabled by of multi-core computing in portable devices.

E. Increased Promotion of CoLab: Nationally and Internationally

As noted in ERC Report 1, CoLab needs to be doing a better job of promoting its programs and activities to public and private sectors within Portugal as well as to international audiences. The CoLab Square newsletter has helped with this needed promotion as has significant Portuguese press coverage of CoLab activities and programs as well as CoLab communication outreach (See Annex B). But more promotional activity is needed within public and private sectors in Portugal and in Austin. For example, an increase in CoLab awareness might benefit from the development and distribution of promotional material such as flyers and posters on CoLab in general, in addition to specific program events.

In this regard, three events planned for 2009 are expected to help promote CoLab to national and international audiences.

Days of Innovation

The "4as Jornadas de Inovação," planned for June 2009 in Lisbon and organized by the Portuguese Innovation Agency (AdI), will be a large showcase of R&D projects and organizations from throughout Portugal. The previous event in 2007 attracted 13000 attendees and showcased 556 projects involving 700 R&D entities. UTEN did have a presence at the 2007 AdI event, but a larger CoLab participation is being planned for June 2009. UTEN is planning to use Days of Innovation as a venue for the delivery of training and mentoring services to the large number of TTOs and entrepreneurs in attendance. The event will also an opportunity to promote awareness of CoLab's academic programs.

International Conference on Technology Policy and Innovation

The International Conference on Technology Policy and Innovation (ICTPI, http://in3.dem.ist.utl.pt/confpolicy/) brings together leading representatives of academic, business, and government sectors worldwide to present and discuss current and future issues of critical importance for using science and technology

to foster regional economic development and shared prosperity at home and abroad. This annual conference was launched in Macau in 1997. In 1998 it was held at IST in Lisbon and in 1999 it was hosted by the University of Texas in Austin. The 10th annual conference was held in Stavanger, Norway (www.ictpi.no) and the 11th annual conference will take place in New Delhi, India, in December, 2008 (http://ictpi08.in/). A proposal is in development to hold the 12th annual ICTPI in Porto in July 2009.

Creative Cities/Regions Conference and Network

A "Creative Cities/Regions and Network Building Conference" is being planned for Lisbon in Fall 2009. It is envisioned that this conference will be a yearly two day event that will move from city-to-city worldwide. The Lisbon conference has received initial support from the President of the Metropolitan Area of Lisbon. Initial targeted cities/regions include Amsterdam, Barcelona, Austin, Berlin, and others. Initial ideas for the focus on the conference include: (1) Examples of urban planning – problems and solutions; (2) the Role of the university, (3) Cultural Events and Exchange (e.g., film, music, art, museums), (4) Actionable initiatives, and (5) including creative industries leaders and speakers on such topics as: New Media, Web, Advertising, Gaming, and Renewable Energy.

F. Increased "Think and Do" Research on CoLab program metrics

In the following sections of this report each of the CoLab Programs report a variety of quantitative and qualitative data on program metrics. Some have proven to be more viable and useful than others. In Year 3 a key CoLab objective is to determine the best methodologies, to be more proactive in data collection on metrics, and to standardize data collection and analysis across all CoLab Programs, see Annex C as an example effort in this regard. One idea under discussion is to hold a CoLab-sponsored workshop in Portugal on methods and metrics for assessing the impact and effectiveness of CoLab academic and technology commercialization programs. , to include the participation of non-CoLab researchers as well as CoLab participants

G. Regional Benchmark Studies

Regional Benchmark Studies are being proposed to assess regional assets and challenges for S&T commercialization and regional technology-based development. Qualitative and quantitative data would be collected on such indicators as (1) the training, retention, and attraction of scientific and entrepreneurial talent; (2) regional scientific and technology research sectors of excellence and emerging and developed industry sectors; (3) regional sources of financing for entrepreneurial ventures including start-ups and university spin-outs; (4) regional business know-how including legal and management support for launching international ventures; and (5) regional cooperation and action across regional business, government, and academic sectors. In short, it is considered important for building critical mass and CoLab sustainability, in Portugal, to have a clear assessment of different regional assets and challenges for sustainable academic excellence and accelerated technology-based growth in targeted academic and industry sectors such as Digital Media.

H. Portuguese Undergraduate Students

Promotion of Undergraduate Research in Portugal

The EUREKA Program at the University of Texas at Austin is a university-wide outreach program connecting undergraduate students with professors in order to encourage

students to become active researchers at a pivotal early stage in their education. The program consists of a web database of professors' research interests (http://www.utexas.edu/research/eureka/) as well as staff who actively recruit and advise students and professors on how to incorporate undergraduate students into the university's research activities.

At the invitation of MCTES, in February, 2008, CoLab@Austin sent two UT-Austin EUREKA participants to Porto to participate in a conference focused on involving undergraduates in university research: Investigação Jovem na Universidade do Porto (IJUP08). Lynda Gonzales, Undergraduate Research Coordinator at UT Austin delivered a presentation on UT-Austin's EUREKA Program and Sarah Imboden, a second-year undergraduate student in Computer Sciences delivered a poster session on her research in alternative user interfaces for game controls.

As a result of encouraging meetings with Vice-Rector Jorge Gonçalves, University of Porto as well as other university officials and at MCTES, Lynda Gonzales and her associates in the UT Austin School of Undergraduate Studies have developed a proposal to implement an undergraduate research program on the EUREKA model at four Portuguese universities (UNL, U.Porto, IST and U.Coimbra). Their proposal includes both the development and deployment of a web database of professors' research interests at the four institutions, as well as consultation on the best practices in establishing university-wide undergraduate research programs.

Support for Undergraduate Student Exchange and Internships

While CoLab's academic programs focus on funding PhD and post-doc travel to Austin, there are other categories of student exchange which would benefit CoLab sustainability but which fall outside the bounds of CoLab's core programs. The University of Texas at Austin sends large numbers of students each year to Spain and to Brazil but has no formal exchange program with Portugal. Creating a bidirectional flow of younger students, particularly but not limited to students involved in research or studying in CoLab's academic areas, would contribute to the development of networks across academic "generations" and so to the sustainability of the program.

An additional gap in the funding of personnel exchange is for internships. Both UTEN and the Digital Media program offer partial support for internships in Austin, but institutional rules at the University of Texas make it difficult to compensate interns for all of their living expenses. An outside funding source which could supplement interns with a stipend would make the internships more attractive to applicants with limited funds.

1-6. Annex A | CoLab Offices & Personnel by Program, Nov. '08

A. CoLab Offices

Portugal

The New University of Lisbon (UNL) | Staff

1. António Câmara, CoLab Director and Professor of Environmental Science and Engineering
2. Nuno Correia, Digital Media Co-Director and Assistant Professor of Computer Science
3. Pedro Medeiros, Advanced Computing Co-Director and Associate Professor of Informatics
4. Pedro Madeira, Executive Director
5. Sofia Santos, CoLab Press Officer
6. Luíza Oliveira, CoLab administrative duties

UT Austin

IC² Institute | Staff

1. Robert Peterson, Principal Investigator for CoLab and Associate VP for Research, UT Austin
2. David Gibson, CoLab Director and Associate Director of IC² Institute
3. James Jarrett, Senior Research Scientist, IC2 Institute
4. Prentiss Riddle, CoLab UT Austin Management
5. Erin Daley, Graduate Research Assistant, CoLab Staff
6. Steve Molloy, Overview CoLab Finances

B. CoLab Participating Institutions

Digital Media

The New University of Lisbon | The Faculty of Science and Technology (FCT); Faculty of Social Sciences and Humanities (FCSH); and School of Economics.
The University of Porto | Faculties of Engineering, Fine Arts, Humanities and Economics, and INESC Porto

UT Austin | The College of Communication, the Department of Radio, Television and Film, the School of Journalism, the College of Fine Arts, the Department of Computer Sciences, and the Digital Media Collaboratory.

Mathematics

The Technical University of Lisbon | Department of Mathematics at Instituto Superior Tecnico (IST/UTL)

The University of Lisbon | Through the Department of Mathematics at the School of Sciences (FCUL)

The New University of Lisbon | Through the Department of Mathematics at The Faculty of Science and Technology (FCT/UNL)

The University of Coimbra | Through the Department of Mathematics of the School of Sciences and Technology UC (FCTUC)

Advanced Computing

New University of Lisbon **|** Department of Computer Science at Faculdade de Ciências e Tecnologia (CS-FCT-UNL);

University of Coimbra **|** The Dependable Systems Group of the Department of Computer Science (DSG-CS-UC); Centre for Computational Physics (CFC-UC)

University of Minho **|** Department of Computer Science (CS-UM)

Laboratory for Particle Physics **|** Lisbon (LIP)

University Technology Enterprise Network (UTEN)

UTEN's main participants include an Executive Board including 5 geographically dispersed Portuguese Institutions that are linked to and support 13 Portuguese Universities, four Technology Parks, and select research organizations and The University of Texas at Austin, IC² Institute

CoLab Industrial Affiliates

- Brandia Central
- Bycom
- Casa da Música
- Critical Software
- Duvideo
- Fundação de Serralves
- Innovagency
- Inteli
- Media Capital Editora Multimédia
- Mog Solutions
- Porto Editora
- Público
- YDreams

C . CoLab Board of Directors

Portugal

- João Sentiero, Chair, President of the Portuguese Science and Technology foundation (FCT)
- Luis Magalhães, President of the Portuguese Knowledge Agency (UMIC)
- António Câmara, School of Science and Technology, New University of Lisbon

Austin

- Juan Sanchez, VP for Research, University of Texas at Austin
- Robert Peterson, Associate VP for Research, University of Texas at Austin
- David V. Gibson, Director, CoLab and Associate Director IC² Institute

Directorate of the Board of Directors

- António Câmara, School of Science and Technology, New University of Lisbon
- David V. Gibson, Associate Director, IC² Institute

D. External Review Committee (ERC)

- David W. Walker, Chair ERC and Professor, School of Computer Science, Cardiff University, UK
- Josep Blat, Professor, Interactive Technologies Group, Universitat Pompeu Fabra, Spain
- Glorianna Davenport, Principle Research Scientist, MIT Media Laboratory
- Bob Hodgson, Managing Director, Zernike, UK
- Benoit Perthame, Professor Mathematics, Ecole Normale Superieure, Paris

E. CoLab Research Proposal Panel

UT-Austin Chair

- Robert Peterson, Principal Investigator for CoLab and Associate VP for Research, UT Austin

UT-Austin Program Directors

- Digital Media: Professor Sharon Strover, Chair, Radio, Television and Film, College of Communication
- Mathematics: Professor Luis Caffarelli, Department of Mathematics
- Advanced Computing: Professor Keshav Pingali, Department of Computer Science, College of Engineering

External reviewers

- Digital Media: Dr. Christian Sandvig, Associate Professor of Communication and Research Associate Professor at the Coordinated Science Laboratory of the University of Illinois at Urbana-Champaign.
- Mathematics: Prof. Henri Berestycki, Centre d'Analyse et Mathèmatiques Sociales (CAMS) Ècole des Hautes Ètudes en Sciences Sociales (EHESS), Paris, France
- Advanced Computing: David Padua, Department of Computer Science University of Illinois at Urbana-Champaign

1-7. Annex B | CoLab External Communiction

A. Press DL Business

MEIO

1. Carteira
2. Correio da Manhã
3. Diário de Notícias
4. Diário Digital
5. Diário Económico
6. Exame
7. Expresso
8. Focus
9. Homem Magazine
10. Jornal de Negócios
11. Jornal de Notícias
12. Just Leader
13. Lusa
14. Market Report
15. Marketeer
16. Meios & Publicidade
17. OJE
18. Portugal Diário
19. Prémio
20. Público
21. Recursos Humanos Magazine
22. Revista Pessoal
23. Sábado
24. Semanário Económico
25. Sol
26. Vida Económica
27. Visão

B. Entidades

1. Associação de Imagem Portuguesa Cinema e Televisão
2. ISEL | DEETC
3. Universidade do Porto - FEUP
4. Centro Protocolar de Formação Profissional para Jornalistas
5. Clube de Jornalistas
6. Conservatório de Música do Porto
7. Escola de Música Conservatório Nacional
8. Escola Superior Artística do Porto
9. Escola Superior de Artes e Design
10. Escola Superior de Comunicação Social
11. Escola Superior de Educação de Coimbra - ESEC
12. Escola Superior de Educação Setúbal - IPS
13. Escola Superior de Jornalismo
14. Escola Superior de Marketing e Publicidade
15. Escola Superior de Música de Lisboa
16. Escola Superior de Música e das Artes do Espectáculo(ESMAE)
17. Escola Superior de Teatro e Cinema de Lisboa
18. Escola Superior de Tecnologias e Artes de Lisboa
19. ESJ - Escola Superior de Jornalismo do Porto
20. ETIC
21. Faculdade de Belas Artes da Universidade de Lisboa
22. Faculdade de Ciências da Universidade de Lisboa
23. FCSH

24. FCT/UNL
25. FCT/Universidade de Coimbra
26. Instituto de Estudos Jornalísticos - Faculdade de Letras
27. Instituto Superior de Ciências Sociais e Políticas-ISCSP
28. Instituto Superior Miguel Torga
29. Instituto Superior Técnico - Deptº. Engª.Inf. (DEI)
30. Restart
31. U.Porto - Ciências de Comunicação
32. Universidade Aberta
33. Universidade Católica Portuguesa
34. Universidade Católica Portuguesa - Sintra
35. Universidade da Beira Interior
36. Universidade da Madeira
37. Universidade de Aveiro
38. Universidade de Évora
39. Universidade de Trás-os-Montes e Alto Douro
40. Universidade do Algarve
41. Universidade do Minho
42. Universidade dos Açores
43. Universidade Fernando Pessoa
44. Universidade Lusíada de Vila Nova de Famalicão
45. Universidade Lusiada de Lisboa
46. Universidade Lusófona
47. Universidade Moderna
48. Universidade Nova de Lisboa - FCT
49. Universidade Portucalense

C. Laboratories

1. Oficina de Transferência de Tecnologia e de Conhecimento - OTIC - Universidade da Beira Inferior
2. Gabinete de Apoio à Promoção da Propriedade Industrial - GAPI - Madeira Tecnopolo
3. Oficina de Transferência de Tecnologia e de Conhecimento - OTIC Madeira
4. Universidade de Aveiro - UAtec - Unidade de Transferência de Tecnologia
5. Universidade de Aveiro - grupUNAVE - Inovação & Serviços
6. Instituto Pedro Nunes, including GAPI
7. Oficina de Transferência de Tecnologia e de Conhecimento - OTIC Universidade de Coimbra
8. Oficina de Transferência de Tecnologia e de Conhecimento - OTIC Universidade de Évora
9. Fundação Luís Molina - GAPI FLM-UE
10. TTC - Ofícina de Transferência de Tecnologia e Conhecimento da Universidade de Lisboa
11. Instituto de Ciência Aplicada e Tecnologia - ICAT - Universidade de Lisboa
12. Oficina de Tranferência de Tecnologia e de Conhecimento - OTIC - UTAD - Universidade de Trás-os-Montes e Alto Douro
13. Oficina de Transferência de Tecnologia e de Conhecimento - Algarve TransferTECH
14. UALG - Universidade do Algarve
15. TecMinho - Associação Universidade-Empresa para o Desenvolvimento
16. Spinvalor - Consultoria em Gestão Empresarial e Desenvolvimento Científico, Lda
17. INESC Porto (Instituto de Eng. de Sistemas e Computadores do Porto)*Campus da FEUP
18. Oficina de Transferência de tecnologia e de Conhecimento - OTIC - Universidade do Porto
19. Fundação Gomes Teixeira/ Universidade do Porto
20. UPTEC – Associação de Transferência de Tecnologia da Asprela

21. Gabinete de Apoio à Promoção da Propriedade Industrial - GAPI - Universidade dos Açores
22. Oficina de Transferência de Tecnologia e de Conhecimento - OTIC - UNL
23. INOVISA - Associação para Inovação e Desenvolvimento Empresarial (UTL)
24. IN+ - Centro de Estudos em Inovação, Tecnologia e Políticas de Desenvolvimento*
25. GALTEC - Gabinete de Apoio ao Licenciamento de Tecnologia
26. Gabinete de Apoio à Promoção da Propriedade Industrial - GAPI
27. CPIN-BIC - Centro Promotor de Inovação e Negócios
28. Oficina de Transferência de Tecnologia e de Conhecimento - OTIC UTL
29. INDEG/ISCTE - ISCTE INDEG/Audax (Empreendedorismo e Empresas Familiares)
30. Universidade Católica Portuguesa - Escola Superior de Biotecnologia - TRANSMED - Valorização de tecnologias e conhecimentos biomédicos
31. Avepark - Parque de Ciência e Tecnologia
32. Spinpark (Incubadora de Base Tecnológica)
33. MADAN PARQUE DE CIÊNCIA - Parque da Ciência e Tecnologia Almada/Setúbal PCTAS
34. Parkurbis - Parque de Ciência e Tecnologia da Covilhã, SA
35. AdI, Innovation agency
36. UMIC - Agência para a Sociedade do Conhecimento, IP
37. Instituto de Medicina Molecular
38. Gabinete de Apoio à Investigação (GAI)

D. Comunicações

Comunicado as Instituições

1. Comunicado Summer institute – Enviado para BD de Universidades em Portugal Continental, Açores e Madeira
2. Comunicado Future Places - Enviado para BD de Universidades em Portugal Continental, Açores e Madeira
3. Comunicado – 16.04.2008 – Enviado para BD de Universidades em Portugal Continental, Açores e Madeira
4. Poster FUTURE PLACES (Concurso) – 29.05.2008 – Enviado para BD de Universidades de Portugal Continental, Açores e Madeira
5. Poster Concurso de Projectos I&D – 05.08.2008 – BD de Universidades de Portugal Continental, Açores e Madeira e BD de Laboratórios de I&D
6. Poster FUTURE PLACES – 01.10.2008 – BD Universidades de Portugal Continental, Açores e Madeira
7. OBS.: A base da dados das instituições é composta por - 49 Universidades/Escolas/Institutos + 38 Laboratórios (Anexo Lista)

Nº Total de comunicados a Instituições: 332

Comunicado à Empresas:

Pedido de Patrocínio:
Summer Institute 2008 - 21
Future Places 2008 - 25
Comunicações diversas -150 (Abertura do Concurso de Bolsas/Abertura do Concurso de Projectos de I&D, Sessão de esclarecimento, etc…)
Workshops - Empresas - 20
Convite Summer Institute/Futute Places - 150
Comunicado:

Nº Total de comunicados às Empresas: 366

Lista das Empresas

(Brandia Central, ByCom, Casa da Música, Crtical Software, Duvideo, Fundação Serralves, INESC Posto, Innovagency, Inteli, Media Capital Editora Multimédia, Mog Solutions, Porto Editora, Público, YDreams, Caltec, Take the Wind, Rádio Renascença, Correios de Portugal, SONAE, Impresa, Media Capital (TVI), Sapo, ZON, APMP, Deimos, Efacec, Empordef, RTP, INOV, Microsoft, Vodafone, TMN, Plux, Edisoft, Metro do Porto, Lusófona, Cofina)

E. Marketing UT Austin|Portugal

Comunicados de Imprensa

1. PR Workshops MAPA – 26.10.2007 – Recipientes: BD Jornalistas de Educação e Norte
2. PR Apresentação – 21.11.2007 – Recipientes: BD Jornalistas de Educação e TI
3. PR Novo Director Executivo – 1.12.2007 – Recipientes: BD Jornalistas Passaporte
4. PR Reunião ERC – 29.11.2007 – Recipientes: BD Jornalistas de Educação
5. PR Primeiros Bolseiros – 06.02.2008 – Recipientes: BD Jornalistas de Educação, TI
6. PR Seminário Don Turnbull – 21.02.2008 – Recipientes: BD Jornalistas de Educação, Ciência, TI
7. PR Conf. Rosental Alves – 25.02.2008 – Recipientes: BD Jornalistas de Educação e Ciência, TI
8. PR Lançamento da Newsletter - 04.03.2008 – Recipientes: BD Jornalistas de TI
9. PR Um ano de Existência – 02.04.2008 – Recipientes: BD Jornalistas de Educação, Ciência e TI
10. PR Prémio Criatividade em Multimédia (parceria ZON) – 03.04.2008 – Recipientes: BD Jornalistas TI
11. PR Lançamento Summer Institute – 16.04.2008 – Recipientes: BD Jornalistas de Educação, Ciência e TI
12. PR Lançamento FUTUREPLACES e Programa Residências Criativas – 29.04.2008 – BD Jornalistas Educação, TI e Norte
13. PR Abertura Summer Institute – 02.06.2008 – BD Jornalistas de Educação e TI
14. PR Visita David Gibson – 17.06.2008 – BD Jornalistas Região Minho (parceria com Gab.Com. da UMinho)
15. PR Curso TACC em Coimbra – 23.06.2008 – BD Jornalistas de Educação e Ciência de Coimbra (parceria com o Gab. Com. da UCoimbra)
16. PR Abertura de Concurso de Bolsas e Projectos 2008 – 10.07.2008 – BD Jornalistas Educação, Ciência e TI
17. PR Summer Institute (done by UT Austin Communications Office) – 20.07.2008 - Austin media
18. PR FUTURE PLACES – 1.10.2008 – BD Jornalistas Educação, Cultura, TI e Grande Porto

Anúncios UT Austin|Portugal (Papel e Digital)

1. Anúncio Edital Bolsas – Jornal Público – 04.07.2008
2. Anúncio Edital Bolsas – Jornal Expresso – 19.07.2008
3. Anúncio Edital Bolsas – Jornal Mundo Universitário – 21.07.2008
4. Anúncio Edital Bolsas – Jornal Mundo Universitário – 28.08.2008
5. Anúncio Edital de Projectos – Jornal Expresso – 19.07.2008
6. Anúncio Edital de Projectos – Jornal Diário de Notícias – 08.08.2008
7. Anúncio Edital de Projectos – Jornal Público – 07.08.2008
8. Anúncio Edital de Projectos – Jornal Expresso – 30.08.2008
9. Anúncio Edital de Projectos – Jornal Diário de Notícias – 01.09.2008

10. Anúncio Edital de Projectos – Jornal Público – 01.09.2008
11. Anúncio Digital de Bolsas e Projectos (oferta MU) – Portal Mundo Universitário – entre 21.07.2008 e 27.07.2008 e entre25.08.2008 e 01.09.2008.

Posters

1. 100 Posters Summer Institute – 16.04.2008 – Enviado para BD de Universidades em Portugal Continental, Açores e Madeira
2. 100 Posters FUTURE PLACES (Concurso) – 29.05.2008 – Enviado para BD de Universidades de Portugal Continental, Açores e Madeira
3. 150 Posters Concurso de Projectos I&D – 05.08.2008 – BD de Universidades de Portugal Continental, Açores e Madeira e BD de Laboratórios de I&D
4. 100 Posters FUTURE PLACES – 01.10.2008 – BD Universidades de Portugal Continental, Açores e Madeira

Newsletter

1. Listas de Distribuição electrónica:
2. BD de emails submetidos no site www.utaustinportugal.org (Cerca de 300 pax)
3. BD de Industrial Affiliates (Cerca de 20 pax)
4. BD do CoLab@Portugal e CoLab@Austin (Cerca de 20 pax)
5. Outros (Professores participantes, empresas, outros interessados.) – (Cerca de 40 pax)

Distribuições em Papel

1. Entregue na Abertura do Summer Institute: 60 cópias
2. Entregue na Sessão Inaugural do FUTURE PLACES: 50 cópias

F. General Press Distribution

General Distribution

OCS

1. Cidade FM
2. M80
3. Porto Canal
4. Rádio Clube Português
5. Rádio Comercial
6. Rádio Renascença
7. RDP - Antena 1
8. RDP - Antena 2
9. RFM
10. RTP1/RTP2
11. RTPN
12. SIC/SIC Notícias
13. TSF
14. TVI - Informação

Education

OCS

1. 24 Horas - Bits&Bytes
2. Agência Lusa
3. Agência Reuters
4. Aúdio

5. Bit
6. Cienciapt.net; Cienciaportugal.net; Cienciapt.info
7. Computerworld
8. Comunicações
9. Connect
10. Correio da Manhã
11. Destak
12. Diário de Notícias
13. Diário Digital
14. Diário Económico
15. Exame
16. Exame Informática
17. Expresso
18. Expresso (Única)
19. Focus
20. Fórum Estudante
21. Global Notícias
22. Hipersuper
23. Homem Magazine
24. Interface Banca e Seguros
25. Interface Utilities
26. Intergráficas
27. Jornal de Negócios
28. Jornal de Notícias
29. Meia-Hora
30. Metro
31. Notícias Magazine (Sup. Diário de Notícias)
32. Nsábado (Sup. Jornal de Notícias)
33. OJE
34. PC Guia
35. PC Mais
36. Portugal Diário
37. Portugal Diário
38. Prémio
39. Produção Aúdio
40. Pública (Sup. Público)
41. Público
42. Rádio Comercial
43. Rádio RFM
44. Rádio TSF
45. Recursos Humanos Magazine
46. Revista Domingo (Sup. Correio da Manhã)
47. RSM
48. RTP 2010
49. Sábado Magazine
50. Sapo.pt
51. Semana Informática
52. Semanário
53. Semanário Económico
54. SOL
55. Super Interessante
56. T3
57. Tecmania.com
58. Tek.sapo.pt
59. TV Ciência Online

60. Vida Económica
61. Visão

Radio & Television

OCS

1. Cidade FM
2. M80
3. Porto Canal
4. Rádio Clube Português
5. Rádio Comercial
6. Rádio Renascença
7. RDP - Antena 1
8. RDP - Antena 2
9. RFM
10. RTP1/RTP2
11. RTPN
12. SIC/SIC Notícias
13. TSF
14. TVI - Informação

1- 8. Annex C| CoLab Metrics

A. Objectives

Based on direction and guidance from the External Review Committee Report 1 (30 November 2007), supplemented by contributions from knowledgeable individuals about appropriate metrics, metrics have been designed to provide information to different decision-makers involved with the International Collaboratory for Emerging Technologies. Specifically metrics:

1. Serve as a planning mechanism and decision-making aid for sub-program directors in directing and allocating resources within their sub-program area (Digital Media, Advanced Computing, Mathematics, and UTEN);
2. Serve as a method for tracking performance and as a decision-support aid for the ERC and sponsors in directing and allocating resources across program areas; and
3. Determine ultimately the benefits from invested resources (return on investment) for policy makers.

B. Appropriate Metrics and Data

Different types of data and information are being collected and whenever possible, these are quantified data. This follows the ERC report:

> *"Consideration needs to be given to the definition of quantifiable metrics against which to assess the progress and success of the CoLab program. Metrics should be used where they are likely to be of value (for example, number of students in the graduate-level student programs, and the publication of high-quality joint UT Austin/Portuguese research papers)."* [2]

Quantifiable metrics are being collected or are planned for such activities as the number of workshops held, the number of attendees and organizational attributes

[2] General Comments and Recommendations, issue number 1.

(graduate/undergraduate student; industrial affiliates), the number of lectures given by UT Austin and Portuguese faculty and so forth. Other metrics focus on progress in implementation of proposed sub-program activities by tracking actual activities compared to scheduled project activities.

In addition to basic quantitative and compliance metrics, qualitative data and information are being collected with various instruments about activities and participation which occur in more than one sub-program, such as short-term visits and workshops. Some of these instruments have been developed specifically for the CoLab activities while other instruments have been used for years.

As the Co-Lab Program evolves, some categories of data will become more useful in assessing sub-program objectives, activities, and participation. While numbers of students taught and number of publications jointly produced will be important for the entire five years of the CoLab initiative, in the later years, more emphasis should be placed on output and outcome measures. This evolution in metrics can be illustrated with the UTEN sub-program. An initial metric during the first two years was counting how many Portuguese start-up companies were reviewed for their potential to enter the U.S. market. Subsequent metrics will be the number of entrepreneurs who establish operations in Texas, and later, how many Portuguese entrepreneurs are selling their products in the U.S. because of UTEN activities. Eventually, it will be important to determine the approximate annual sales volume in the U.S. of all Portuguese companies which are due to UTEN activities and how many jobs in Portugal can be attributed to UTEN actions.[3]

The metrics described up to this point represent a “bottoms up” or “micro” approach. A second approach being used is a “top down” or “macro” approach. This approach focuses on changes over time in educational and economic outcomes for Portuguese universities, and then seeks to determine what amount of the improvement can be attributed to CoLab. Several surveys have been drafted which would establish baselines of important outcomes for Portuguese universities and entrepreneurs in calendar years 2005 and 2006 prior to the start of Co-Lab. Data collected at later time intervals would identify what changes and improvements have occurred. Because some positive impacts will be due to non-CoLab activities or due only partly to CoLab activities, judgment would be required in sorting out the primary causes for the improvements. Annex D shows the list of baseline instruments.

C. Summary

In a program of this size, no single metric or program activity will be the most essential. Patterns of performance, however, should become evident. Providing the data and information which enables decision-makers to perceive those patterns is the primary goal for the metrics effort. This information will show to what degree CoLab initiatives have strengthened Portuguese institutions by enhancing scholarly research, graduate-

[3] Data collection and program assessment challenges remain, however. Some effects from CoLab actions will occur after program activities have concluded. Consequently not all program benefits will be captured during the active funding period. Also some important outcomes cannot be easily calculated, for instance, activities which enable a company or organization to avoid an expenditure or negative outcome. Third, certain types of intangible outcomes such as networking and collaboration among colleagues, are difficult to quantify, and yet are acknowledged to be very important. Those will be described in qualitative terms.

level education, industrial links, technology commercialization of university intellectual property, and entrepreneurship.

Data Collection Instruments for Sub-Program Exchanges, Visits, and Activities for the following:

- Short-term visit
- Long-term visit
- Internship (person)
- Internship (host organization)
- Workshop
- Intellectual Property Training—Pre-Workshop
- Intellectual Property Training—Post-Workshop
- Planning and coordination visit
- Industrial partners
- Entrepreneur visit

D. Long Visit Form For Academic Visits To UT-Austin

Please specify your status:

Faculty __x__
Post-doc _____
Graduate student _____
University staff _____
Entrepreneur _____
Other _____

Please specify your primary field(s): (Note this was suppressed to preserve confidentiality)

Digital Media _____
Mathematics _____
Advanced Computing _____
Technology Transfer _____
Intellectual Property _____
Private Company _____
Other _____

What were the dates of your visit? (Note this was suppressed to preserve confidentiality)

What were the primary purposes of your visit? Please choose as many items as are appropriate from among the following and add other reasons if necessary.

Perform research independently _____
Perform research in collaboration with UT faculty or staff __x__
Networking with faculty or researchers __x__
Teach one or more classes for students _____
Assess market opportunities for my company _____
Investigate financing possibilities for my company _____
Networking with entrepreneurs _____
Other _____Investigate possible future collaborations_____

What specifically did you achieve during your visit or how was the visit beneficial?

One purpose of this visit was to start working on a new research topic. I had this opportunity and by working with a PhD student in the use of *(Note this was suppressed to preserve confidentiality*). We defined a new technique which will be described in a paper that we are starting to write.

What was the highlight of your visit?

The time the UT staff dedicated to collaborate in this visit.

How would you rate your visit to UT-Austin and elsewhere in the US?

_____ Far exceeded my expectations
___x_ Exceeded my expectations
_____ Met my expectations
_____ Did not meet my expectations
_____ Was very disappointing
_____ Other (please describe _____)

On a scale of 1 to 10, with 10 being the highest/best score, how do you rate your visit for each of the following? Please put N/A for items which do not apply to your visit.

A.	Immediate professional value to you	__8___
B.	Long-term professional value to you	__8___
C.	Immediate value to your department/university	__5___
D.	Long-term value to your department/university	__8___
E.	Immediate value to your company	__N/A___
F.	Long-term value to your company	__N/A___
G.	Immediate educational or economic value to Portugal	__5___
H.	Long-term educational or economic value to Portugal	__7___
E.	Other _____	_____

What would have made this visit more valuable to you?
It is difficult to express anything else than positive aspects. But I think that a greater involvement in departmental meetings and research talks could help the integration in the culture of the university.

Please provide any other comments about your visit which would improve future visits for you or your colleagues:

Thank you for providing this information.

E. Entrepreneur Visit Evaluation Instrument

Please specify your position:

- ☐ Entrepreneur and University Faculty
- ☐ Entrepreneur (full-time)
- ☐ Other (Please describe:

Please specify your primary field(s):

- ☐ Agriculture / Aquaculture / Agricultural Biotechnology
- ☐ Biomedicine
- ☐ Biotechnology
- ☐ Chemical compounds
- ☐ Computer and Information Engineering / Electrical Engineering
- ☐ Energy
- ☐ Environmental Science and Engineering/Recycling/Water Resources
- ☐ Marine Technology
- ☐ Materials Technology
- ☐ Medical Equipment/Diagnostics
- ☐ Microelectronics
- ☐ Nanotechnology
- ☐ Software
- ☐ Telecommunications
- ☐ Wireless
- ☐ Other:

What were the dates of your visit?

Whom did you visit? Please list the major places, organizations (for example the Austin Technology Incubator at the University of Texas at Austin, Company X, and so forth).

What were the primary purposes of your visit? Please choose as many items as are appropriate from among the following and add other reasons if necessary. For each item you choose, please indicate the item's importance on a scale of 1 to 10, with 10 being the most important and 1 being the least important.

- Assess market opportunities for my company ☐
- Investigate financing options for my company ☐
- Discuss possible collaboration with U.S. company ☐
- Network with companies and UT faculty or staff ☐
- Inform others about my company's technology ☐
- Learn about intellectual property issues related to my company ☐
- Live temporarily in the U.S. to learn about business activities ☐
- Other

What were the benefits, if any, of your visit for your company?

What was the most useful result from your visit?

How would you evaluate your visit? Please choose one box.

- ☐ Far exceeded my expectations
- ☐ Exceeded my expectations
- ☐ Met my expectations
- ☐ Did not meet my expectations
- ☐ Was very disappointing
- ☐ Other (please describe)

What would have made this visit more useful for you?

Do you expect to make additional visits?

☐ Yes ☐ No ☐ Do not know

If you do expect to make further visits, how will your future visit be different, if at all?

On a scale of 1 to 10, with 10 being the highest/best score, how do you rate your visit for each of the following? Please put N/A for items which do not apply to your visit.

A. Immediate professional value to you
B. Long-term professional value to you
C. Immediate value to your department/university
D. Long-term value to your department/university
E. Immediate value to your company
F. Long-term value to your company
G. Immediate educational or economic value to Portugal
H. Long-term educational or economic value to Portugal
I. Other

Please provide any other comments about your visit.

Thank you for providing this information.

1-9. Annex D| CoLab Websites

Individuals and groups within CoLab have produced a number of websites to serve specific purposes:

- The central http://www.utaustinportugal.org site
  Developed by NewGen under contract with the FCT, the site has proven difficult to expand to meet CoLab's growing needs. Only certain portions of the site can be edited by CoLab staff. Discussion is underway about replacing it with a new and more flexible site.

- A Digital Media blog hosted at UT Austin to provide timely information about program activities. http://colab.ic2.utexas.edu/dm/

- A Digital Media wiki for planning and project management at https://webapp.utexas.edu/wikis/ut-portugal/doku.php
  (Requires a "UT EID," which is freely available to all collaborators on request.)

- Several sites associated with Digital Media courses:
  - Course sites using Moodle, an open-source courseware application commonly used in Portuguese universities and at UT Austin.
  - An archive of student work from Karen Kocher's summer short course in Interactive Documentary at http://colab.ic2.utexas.edu/idporto2007/

- A website and blog for the Future Places digital media festival: http://futureplaces.org

- A Mathematics site hosted at IST and maintained by Diogo Gomes: http://www.math.ist.utl.pt/~dgomes/austin/

- A UTEN website developed by Cliff Zintgraff for networking with potential industry and university collaborators: http://techportugal.com/

- A Flickr photo pool at http://www.flickr.com/groups/utportugal/

- A feed for daily updates from CoLab on the popular microbblogging site Twitter: http://twitter.com/UTPortugal

- A Facebook group, Friends of UT-Portugal Digital Media Collaboration: http://www.new.facebook.com/group.php?gid=15985346877

Section 2 | Digital Media

2-1. Introduction and Executive Summary

During its second year, the Digital Media program undertook work building new doctoral and master's level programs, introducing various curriculum subjects via courses offered throughout the year, laying the groundwork for successful research collaborations, and growing academic and professional networks among participants in the US and Portugal. The highlights of the past year include a diverse and rich, month-long Summer Institute in Lisbon (June, 2008) and a week-long digital media festival called Future Places in Porto in October, 2008. Some quieter but necessary work in designing curriculum and working through program needs also occurred throughout the year, resulting in formal applications for new degree programs for the New University of Lisbon and the University of Porto, the primary university collaborators in Portugal. We admitted a first group of doctoral students for the new digital program in fall of 2007 and are admitting an additional group in fall of 2008. Finally, In July 2008 the Foundation for Science and Technology issued a call for research projects specific to this partnership, resulting in 17 collaborative research proposals. That competition closed on October 15, and the handful of the best proposals will be chosen for funding by an international panel of reviewers.

Our core goals[4] for the program include the following:

- to further nurture digital media expertise in University programs and in related professions;
- to expand the reach of our academic programs by discovering and engaging industrial and entrepreneurial partners;
- to cultivate research and creative activity through fellowships and research projects;
- to create awareness of the program at national and international levels and among civil society;
- to develop models for deeper linkages between business and academia, particularly by developing robust networks using digital tools.

These are the guideposts for the program activities for the future, and they map well over our activities for the past year. In terms of our objectives, we specifically intend to get roughly 1000 people into seminars and workshops, and to enroll 300 M.A. and 30 Ph.D.s during the course of the program's five-year duration. We also hope that by its close there will be a program in which at least one million euros a year will be contributed to digital media academic programs, with matching funds from government for a total of two million euros per year.

In Year 2 the Digital Media program pursued a series of new and ongoing initiatives with partners in Portugal. The objectives during the second year were:

- to develop MA and Ph.D. programs and associated curriculum (§2.2)
- to offer short courses and workshops in various areas (§2.2)
- to continue developing working relationships with partners at other institutions (academic and professional) through a series of faculty and staff visits between Portugal and Austin (§2.3)
- to craft a research agenda for the program and to encourage individual and group research projects (§2.3)
- to create a digital media presence in Portugal, especially through a DM festival; (§2.4)
- to pilot an internship program (§2.4)
- to work with and develop relationships with industrial partners in digital media. (§2.4)

[4] These goals were discussed and agreed upon in a strategy meeting in June, 2008.

The core Digital Media program and personnel are listed below.

Digital Media Participating Institutions

- The New University of Lisbon (UNL)
    - Faculty of Science and Technology (FCT/UNL)
    - Faculty of Social Sciences and Humanities (FCSH/UNL)
    - Faculty of Economics (FE/UNL)
- The University of Porto (UP)
    - Faculty of Engineering
    - Faculty of Fine Arts
    - Faculty of Humanities
    - Licenciatura in Journalism and Sciences of Communication
    - Faculty of Economics
- INESC Porto
- The University of Texas at Austin (UT Austin)
    - College of Communication
        - Department of Radio, Television and Film (RTF)
        - School of Journalism
        - Department of Advertising
    - LBJ School of Public Affairs
    - College of Fine Arts
    - School of Information
    - Department of Computer Sciences

Key Personnel

- Portugal
- António Câmara, Director; Professor, Faculty of Science and Technology, New University of Lisbon
    - Artur Pimenta Alves, Co-Director; Professor, Department of Electrical and Computer Engineering, University of Porto
    - Nuno Correia, Co-Director; Assistant Professor of Computer Science, Faculty of Science and Technology, New University of Lisbon
    - João Mário Grilo, Faculty of Social Sciences and Humanities, New University of Lisbon
- UT Austin
    - Sharon Strover, Director; Professor and Chair, Department of Radio-Television-Film
    - Karen Gustafson, Research Associate
    - Carly Kocurek, Research Assistant
    - Chris McConnell, Research Assistant
    - Suzanne Schulz, Research Assistant
    - Joe Straubhaar, Professor, Radio-TV-Film
    - Gary Chapman, LBJ School of Public Affairs
    - Rosental Alves, Professor, Journalism

This remainder of this Report is organized by the following sections:

2-2. Educational Initiatives
2-3. Building Research Communities
2-4. Digital Media Presence in Portugal and Industry Outreach
2-5. Year 3 Plans and beyond
2-6. Conclusions and Further Thoughts

We have chosen to use this review to offer the program highlights, leaving many details to the material in the Annexes:

2-7. Annex A | Ph.D. and M.A. Curriculum Outlines
2-8. Annex B | 2008 Course Descriptions and Evaluations

2-9. Annex C | Public Talks by UT Austin Faculty
2-10. Annex D | Materials from Digital Media Leadership [Internship] Program
2-11. Annex E | Future Places Festival
2-12. Annex F | Industry Outreach
2-13. Annex G | Summer School in Porto: Vision Document

2-2. Educational Initiatives

A. Graduate Programs

Based on the conversations that took place in Year 1, steps were taken toward establishing multiple graduate programs in digital media. Project partners met several times during 2007-2008 in order to plan new MA programs and a shared doctoral program in digital media. At a final meeting in the spring of 2008, the group decided on a curriculum for the doctoral program and on four separate masters degree programs. In addition, a certificate program in digital media for industry professionals is under development. More detailed curriculum plans appear in the appendices. At this writing, the programs are in the process of obtaining all of the formal approvals in Portugal and should be launched in January, 2009.

In fall, 2007, a first class of doctoral students was selected for the upcoming doctoral program. To date, these students are in other doctoral programs awaiting the formal creation of the Digital Media Ph.D., the plan being that they will transfer into that program once it is fully established. A new group of doctoral students is currently under consideration in fall of 2008. In both 2007 and 2008 the doctoral selection committee was composed of faculty members from UNL, the U of Porto, and the University of Texas at Austin.

Ph.D. Curriculum

The Ph.D. program, whose first formal courses will begin in 2009, will be a research program requiring a minimum of four years of study. Several students already admitted to other doctoral programs will be able to transfer into it. The program is intended to train scholars and industry professionals in advanced research and practice in the digital media industry, and it will be shared between UNL and U Porto. The core areas of study include:

- History and Trends in Digital Media
- Communication Theory
- Research Methods
- Digital Media Laboratory Research
- Media Technologies
- Web Technologies.

In addition to this core curriculum, students will be expected to choose two areas of specialization or develop a cooperative working arrangement with a digital media business. To complete the Ph.D., students will be required to write and defend a dissertation. Students will also be able to apply to a parallel doctoral program at UT-Austin and complete a dual program in communication.

M.A. Curriculum

The plan for MA degrees is twofold. At FCSH, the MA emphases in Online Journalism and Film, Television and New Media will first be housed in the existing MA programs at that institution. After two years they will be separated into their own degree plans. At the University of Porto, two new MA degrees in Interactive Sound and Music Design and Partiripatory Media for Education and Culture will be launched. MA students will also have the opportunity to apply to UT for joint MA programs.

Professional Masters in Interactive Music and Sound Design

This professional masters program is designed for experienced industry professionals who wish to expand their knowledge and expertise in electronic music production and digital sound design. Target media include electronic games, digital video and animation, and future interactive media. It is a three –semester program with two semesters of coursework, with a third semester devoted to either an internship or major creative project. Below are the core areas of study:

- History and Trends in Digital Media
- Media Laboratory
- Methodologies and Project Management
- Digital Interactive Systems
- Sound Design for Digital Media

Elective courses may include Advanced Sound Synthesis, Introduction to C and C++ Programming, Automatic Music Generation, Digital Signal Processing, and Kinetic Controllers.

MA in Participatory Media for Education and Culture

This MA degree will include training in both theory and digital media skills. It will include laboratory courses, research methods and project management courses, and allow students options in terms of emphasis areas (including distance learning, scriptwriting, multimedia communications technology). It is expected that students complete an internship or a creative/scientific project.

Certificate program in Media Design

The Certificate Program in Media Design is a program designed for working digital media professionals to expand their knowledge of industry practices and concepts. It consists of an intensive nine-week series of workshops, with each week focusing on a particular facet of digital media. A faculty member leads the instruction each week, with special industry speakers coming to class. Below is the instructional sequence for the certificate program.

- Web design and programming
- Multimedia Design
- Design for Mobile Devices
- Invisible Computing
- Project Management
- Entrepreneurship
- Communication
- Research Frontiers
- Project Presentations

Potential guest speakers include Sir Tim Berners-Lee, MIT; Bill Buxton, Microsoft Research; Sergio Estêvão, YDreams; Clay Shirky, NYU; and Laura Richardson, M3 Design and Gizmodo.

Industry partners will contribute to the financial support of this program and contribute approximately $50,000 per sponsorship. The certificate program will begin in January 2009.

B. Courses and Workshops

The courses and workshops held in Portugal during Year 2 represent the largest elements of the work undertaken by the Digital Media Program. The Summer Institute in Lisbon presented six courses, four public lectures, and a curated film series that included nightly introductions from Professor Tom Schatz from UT Austin. In addition, the Digital Media Program coordinated three workshops in Porto through the year, as well as a full-semester class in the Spring semester. Workshop and course evaluations are in the appendix.

Summer Institute in Lisbon

Workshops at the Summer Institute at the New University of Lisbon, FCSH and FCT. These intensive workshops include courses taught by UT faculty who worked with several faculty from

UNL. A special room was created at the FCSH campus for the courses, and each class was fully enrolled. Course support via course management system moodle (from UT-Austin) was provided for each instructor.

- Online Journalism Workshop – Rosental Alves (June 16 – June 26)
- Digital Documentary Workshop – Karen Kocher (June 2 – June 13)
- Collaborative Scriptwriting Workshop – Richard Lewis (May 26 - June 6)
- Creating Music and Audio for Film, Video and Games Workshop – Bruce Pennycook (June 16 – June 27)
- Digital Hollywood Workshop – Bryan Sebok (June 9 – June 13)
- Photorealistic 3D Graphics Rendering & Simulation Workshop – Arie Stavchansky (June 16 – June 27, FCT campus)

A team of students from the Digital Documentary Workshop received special recognition in November 2008. The documentary "Lisboa de Pessoa", a collaborative project out of the workshop led by Professor Karen Kocher won the Youth Prize in Inatel Amateur Video Contest this year.

A curated film series was seen as a useful way to bridge some of the students' interest in film with the focus on technology and new media. Professor Grilo from FCSH met with the Cinemateca and proposed a film series focused on innovation and film. He invited Professor Tom Schatz, an internationally renowned film scholar, to curate the series. The selections screened as part of the Cinemateca's Technology and Film series are listed below. Professor Schatz's selected key technical experiments, as well as points of transition in American cinema. Every evening he introduced the screening and offered commentary on the film's significance. As well, he gave two public lectures at the university addressing specifically the theme of the series. The Cinemateca recorded about 1000 people attending the films.

- ***The Matrix*** – May 29
- ***King Kong (1939)*** – May 30
- ***Citizen Kane*** – June 2
- ***Rope –*** June 3
- ***Singing in the Rain*** – June 4
- ***Bad Day at Black Rock*** – June 5
- ***2001, a Space Odyssey*** – June 6

Workshops and Courses in Porto

Dr. Straubhaar conducted a short course in research methodologies in Porto in early December, 2007 since research methodologies had been identified as one area in which UT Austin faculty could contribute. Two short courses were offered during summer of 2008, one on screenwriting and one addressing how new technologies can be alter business-as-usual within organizations, especially government organizations.

- Short course on Research Methodologies – Dr. Joe Straubhaar, Nov. 29 – Dec. 5
- Screenwriting for New (and Old) Media – Stuart Kelban, July 2008
- Digital Transformation of Organizations – Dr. Gary Chapman, July 2008

Dr. Arie Stavchansky taught a full semester course, Rich Media Website Design, to graduate students at the University of Porto during the spring of 2008. The course was a hybrid of online learning and traditional classroom instruction. Dr. Stavchansky started and ended the semester in-person in Porto, while lectures and one-on-one instruction for the remainder of the semester were conducted using a variety of internet tools including Moodle, Skype, and streaming audio and video. Based on the course evaluations, student response to the course was positive.

Assessment of Courses and Workshops

On the whole, students in these workshops and courses rated the instructors and programs highly. Most quantitative evaluations ranged from 4 (good) to 5 (excellent). Below is a table that

shows the mean ratings from students from students based on the questions with a key to the questions posed to students.

Course	Students	Respondents	1 Organization	2 Communication	3a Materials	3b Progress	4 Discussion	5 Vlaue	6 Course Quality	7 Instructor rating	8 Workload
FALL '07											
Straubhaar	37	7	4	4.4	3.7	n/a	4.7	4.1	3.9	4.3	3.9
SPRING '08											
Stavchansky	36	8	4	4	n/a	4	4.5	4.6	3.6	4.9	3.9
SUMMER '08											
Alves	11	8	4.8	5	n/a	5	5	4.8	4.5	5	3.8
Kelban	17	12	4.9	5	4.9	5	4.8	4.8	4.8	5	3.4
Kocher	18	8	4.6	4.8	n/a	5	5	4.5	4.3	4.6	3.5
Lewis	12	11	4.8	4.9	4.9	5	4.9	4.8	4.6	4.8	4.1
Pennycook	16	7	4.6	4.3	3.9	4	4.3	4.4	3.7	4.1	3.1
Sebok	19	10	4.5	4.7	4.4	n/a	4.8	4.4	4.1	4.4	3.3
Stavchansky	11	7	3.9	4.9	4.6	5	5	4.9	4.9	4.9	3.6

The assessment items included:

1. *The workshop was well organized*
2. *The workshop leader communicated effectively.*
3. *a) The workshop materials were well-organized.*
   b) The workshop leader demonstrated an interest in the progress of my work.
4. *The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.*
5. *I feel that this workshop will be (or has already been) of value to me*
6. *Overall this workshop was (Rating from 1 to 5)*
7. *Overall this instructor was (Rating from 1 to 5)*
8. *In my opinion, the workload of this course was (Rating from 1 to 5)*

Below are some sample responses from the qualitative portion of the course surveys.

A) What do you consider the most important thing you learned from this workshop?

Research workshop – "I believe that the most important thing I learned was that intercultural research can be very fulfilling and rewarding."

Screenwriting – "I learned how to look at things from a different point of view, to ask pertinent questions and be able to answer them. I've learn how to work with final draft, how to read a script and how to elaborate a script considering all the details to watch out for and the problems to be solved and how to solve them. It opened a path that I hadn't tried it before and I enjoyed it very much."

Digital Documentary – "The most important thing I've learned was the work in progress challenge. It was a very productive experience for me, the continuous discussion in class about the projects. It keeps your creativity in a high level, and it was always important the motivation and the interest of the workshop leader (Karen). These kind of work approach keeps you focused and concentrated which is very important for the success of the work."

3d Rendering – "Everything was important, but probably the most useful is all the theory that the instructor taught us as he was teaching the techniques, because that I will be able to apply in the future even if I work with other software..."

B) What information from the workshop been most useful in your current work?

Screenwriting **–** "With this workshop my critical spirit became richer. When I see a film I understand better its structure and how it is organized. When I need to design a script will be cognitively more mature and informed to do so."

Digital Hollywood **–** "I have to say that they were the discussions we had during the whole week. My research focus mainly in the topics we have discussed, so it was very important for me to have the opportunity to discuss it. It was also important that we were not always agreeing but everybody was doing their readings and so had the chance to sustain his/her point of view, which give place to very interesting discussions that have really push forward my work…"

Digital Music **–** "The feedback from someone in the field made me feel more consistent on my theoretical background…"

D) Do you have any additional comments or suggestions?

"I just like to reinforce the fact that it was a very nice experience, Karen was very persistent and always a source of motivation and inspiration. I really would like to repeat the experience, maybe in Austin? Who knows! "

Please see §2.9 Annex C for full summaries and evaluations for each of these courses and workshops.

2-3. Building Research Communities

A. Overview

One of the most important aspects of the collaboration between UT Austin and Portuguese institutions is the opportunity for collaborative research between Portuguese and UT professors. Year 2 emphasized laying the groundwork for future projects between these two groups, and the Digital Media program facilitated a series of talks and visits so faculty could become acquainted with each others' work. Faculty were encouraged to seek out researchers on the other side of the Atlantic doing similar or complementary work with an eye toward joint projects and funded collaborative research.

The Portugal Foundation for Science and Technology issued a call for research projects associated with the Digital Media program (as well as other program areas) in July 2008. The basic structure of the proposals requires partners across at least two Portuguese institutions as well as at least one partner at UT Austin; the involvement of industrial affiliates in the research is also encouraged. The proposals were due in October 15 and will be evaluated by the review panel appointed by the FCT. One public session held in Lisbon and one in Porto in September 2008 brought together potential principal investigators so that the CoLab staff could talk with them about their proposals and submissions procedures. There was a similar private session held at FCT/UNL for industry affiliates and invited companies to clarify the Project's call strategy and present the Eureka program. As well, potential faculty collaborators at UT Austin have been alerted to the research call, provided with an English translation, and invited to meet or communicate with potential partners in Portugal. Background information on various UT faculty involved in the partnership to date is available on our project blog in an effort to facilitate partnering.

Lectures by UT faculty

To introduce Portuguese scholars to research projects at UT, several faculty visited Lisbon and Porto to present recent work:

- ***"Da deconstrução do jornalismo da Era Industrial à construção do jornalismo da Era Digital",*** a public talk by Professor Rosental Alves, Feb. 26, Lisbon
- ***"Making Search Better",*** a seminar hosted by Dr. Don Turnbull, Feb. 21, Lisbon and Feb. 26, Porto
- ***"The Wiki State: Transforming Government With New Internet Tools"***, a public talk by Dr. Gary Chapman, March 11, Lisbon and March 14, Porto

The following public talks were part of the June Institute in Lisbon:

- ***"Digital Film",*** talk by Professor Tom Schatz, June 6th

- ***"Youth and New Media",*** talk by Associate Professor Craig Watkins, June 17th
- ***"Remapping the Digital Divide",*** talk by Professor Sharon Strover, June 20th
- ***"Love & Death in 3 Minutes or Less: the Screenwriter's Role in New Media",*** talk by Assistant Professor Stuart Kelban ,June 24th

B. South By Southwest Interactive 2008

Austin is home to the South By Southwest festival each March, and the Digital Media Program leveraged its proximity by hosting visitors from Portugal at the Interactive conference and festival. Journalists Isabel Leiria of Público) and João Ramos of Expresso, accompanied by Sofia Santos from the CoLab staff, attended the conference. In addition, Digital Media Project faculty and staff participated on three panels.

- Ana Boa-Ventura (CoLab@Austin) chaired a panel on ***Collaboration in International Communities,*** on which Prentiss Riddle (CoLab@Austin) was one of the speakers.
- Heitor Alvelos (UPorto) chaired a panel called ***Virtual Scandals and Sacrilege: Who´s Griefing Now?***
- Marta Vieira (YDreams) was a speaker on a panel discussing ***Location Based Entertainment.***

C. Campus Visits

In addition to the public research talks there were several campus visits by UT Austin faculty to Portugal and visits to Austin by Portuguese faculty and industry professionals. As well, all of the UT faculty teaching in both Porto and Lisbon had extensive interactions with the faculty at their respective campuses. Some of the non-course related visits are listed below.

Visitors to Portugal

October 2007

- Dr. Sharon Strover spoke at the Lisbon EU Workshop.
- Dr. Strover also met with the multimedia company Brandia while in Lisbon, which led to a collaborative media proposal to a private company in Portugal.

December 2007

- Dr. Joe Straubhaar met with Jose Azevedo, which led to two potential research grant proposals.
- Dr. Straubhaar also met with Antonio Alves and Antonio Gaspar.

February 2008

- Dr. Sharon Strover met with the faculty involved in the partnership for an update on the Digital Media Program.
- Dr. Strover also met with some Industrial Affiliates to discuss the Program's activities and the affiliates' expectations and projects.
- Dr. Strover met with some of the program's students.
- Dr. Strover met with the Secretary of State to discuss the Program's future planned activities and projects for Digital Media.
- Dr. Rosental Alves held a workshop in Lisbon and met with Portuguese faculty.
- Dr. Don Turnbull lectured in Porto and Lisbon and also met with media industries.

March 2008

- Professor Gary Chapman lectured in both Porto and Lisbon

June 2008

- Dr. Sharon Strover participated in the launch of the Summer Institute in Lisbon.
- Dr. Strover gave a public talk in the Summer Institute, and also organized the project leadership's strategic planning session.
- Summer workshop teaching and talks at FCSH, UNL Lisbon
    - Professor Richard Lewis
    - Professor Karen Kocher
    - Dr. Tom Schatz
    - Dr. Bruce Pennycook
    - Dr. Bryan Sebok

- Professor Stuart Kelban
- Professor Rosental Alves
- Dr. Arie Stavchansky
- Professor Stuart Kelban
- Dr. Tom Schatz

Dr. Craig Watkins

- Dr. Craig Watkins lectured at the U of Porto.
- Professor Stuart Kelban taught at the U of Porto.

July 2008

- Gary Chapman taught at the U of Porto.

August 2008

- Dr. Joseph Straubhaar met with Cristina Ponte, Jose Azevedo, Artur Alves to develop plans for a research proposal.
- Dr. Straubhaar also met with Antonio Gaspar and Rui Cadima. Projects discussed include a project on digital inclusion and another on science education through virtual worlds.

September 2008

- Dr. Strover visited Lisbon, had meetings with project staff, visited several companies and academicians interested in collaborating on research proposals, and met with Drs. Nuno Correia, Antonio Camara, Artur Pimenta Alves, João Mário Grilo.

Visitors to Austin

November 2007

- Dr. Aurora Teixeira, INESC spoke with several UT faculty, the City of Austin, IC2 personnel

January 2008

- Graduate student (FCSH) Lidia Maropa spent spring 2008 semester at UT.
- Dr. João Sàágua, Dr. João Mário Grilo and Dr. Rui Cádima (FCSH/UNL - School of Social and Human Sciences/ New University of Lisbon) visited Austin for a substantial series of meetings. Below is a list of some of the organizations they visited.
    - Digital Media faculty including Dr. Strover, Department Radio-TV-Film; Dr. Alves, School of Journalism; Dr. Chapman, LBJ School of Public Affairs; and Dr. Turnbull of the School of Information.
    - Toured key centers and organizations at UT including UT Film Institute, The Knight Center for Journalism in the Americas, and the UT Doc Center, as well as the College of Communication's production facilities.
    - Met with local representatives of the media industry including the Austin Film Society Executive Director Rebecca Campbell; the City of Austin – Creative Industries Development representative Jim Butler; and Texas Film Commission representative Bob Hudgins.
    - Toured IC2 Institute with Dr. Dave Gibson and Prentiss Riddle.

March 2008

- Sofia Santos, CoLab PT; Isabel Leiria, journalist at Público (education section); and João Ramos, a journalist at Expresso (technology section); visited Austin in March 2008. They attended sessions of the Interactive Festival of SXSW and met with UT faculty.
- Three journalists – Fernando Zamith, Agência Lusa and University of Porto; Antonio Granado, Público; João Canavilhas, Universidade da Beira Interior – attended the International Symposium in Online Journalism at UT Austin and all presented papers to the conference.
- Dr. Sharon Strover also attended and moderated a session at the International Symposium in Online Journalism on the Potential of Games in Online Journalism.
- Dr. Antonio Camara and Pedro Madeira CoLab visited Austin, March 2008 for numerous meetings on campus.

April 2008

- Antonio Camara and Pedro Madeira met with members of CoLab project teams.
- Dr, Artur Pimenta Alves visited UT Austin and had several meetings in the College of Communication and IC2.

- Dr. Paulo Monteiro, UNL, spoke in two UT classes and met with several UT faculty during his visit.

May 2008

- Dr. Artur Pimenta Alves visited UT Austin and met with several faculty members.

August 2008

- Two journalists Jose Milheiro of radio broadcaster TSF Online and Vanda Lopes, writing for Noticias Magazine, plus Irene Luis, the communications director from Portuguese multimedia company ZON visited Austin. They met with the City of Austin, several UT faculty including faculty members Joe Straubhaar, Rosental Alves, and Geoff Marslett. They also visited one video game company and one multimedia company.
- Marco Bravo visited the campus for several weeks in August and visited with project staff.
- Dr. Antonio Camara visited Austin and spent one day with the project team.

September 2008

- Prof. Jorge Gonçalves, Vice Rector, University of Porto and Fátima Ramalho, TTO UPIN (U Porto) visited the College of Communications, spoke with several faculty members, toured facilities, and viewed student media work.

October 2008

- Dr. Carlos Guedes, INESC at U of Porto, visited Austin for a week, giving several talks and having numerous meetings, primarily in the College of Communication and the School of Music.

C. Collaboration and Communication

The project has several different internal and external communication and collaboration sites and vehicles. We have a monthly newsletter that Sofia Santos assembles. This newsletter goes to over 300 students, faculty, and industry leaders.

There is an official website for the broader CoLab endeavors at http://utaustinportugal.org. The Digital Media Program maintains a blog at http://colab.ic2.utexas.edu/dm/ and also began an internal newsletter called Digital Bits (sample in appendix). We also maintain a wiki for capturing ongoing project information, located at https://webapp.utexas.edu/wikis/ut-portugal/doku.php.

In terms of collaboration, we have recently established a Basecamp account in order to explore its utility for various collaborative ventures. We also have used Skype and Google documents to assemble various projects (such as the schedule and related paperwork for the Summer Institute in Lisbon).

2-4. Digital Media Presence in Portugal and Industry Outreach

A. Introduction

Another goal of the collaboration between UT Austin and Portuguese universities is to establish a digital media presence in the nation. One hope is that Portugal will be recognized as a hub of digital media and technological innovation. Unlike some other facets of the collaboration, which target students and faculty, these projects engage the general public to raise their awareness of digital media and promote Portugal as being on the cutting edge. This work took two forms in Year 2. One was the establishment of a digital media festival, and the other was in the form of industrial outreach to establish stronger links between academic media programs and digital media industries.

A major component of the work done to establish a digital media presence in Portugal is the Future Places Festival, the digital media festival that occurred in October 2008. The Digital Media program has encouraged a greater presence in other ways, including sending digital media experts to speak in Portugal, encouraging UT students to participate in Portuguese

festivals and conferences, and helping with a film series in conjunction with the University of Porto by publicizing its call for entries and sponsoring UT-Austin participation.. Industrial outreach projects included an internship program engaging UT and Portuguese students in digital media workplaces, a series of workshops for industry partners in information retrieval and journalism, and the sharing of instructional assets from UT with the broader digital media industry.

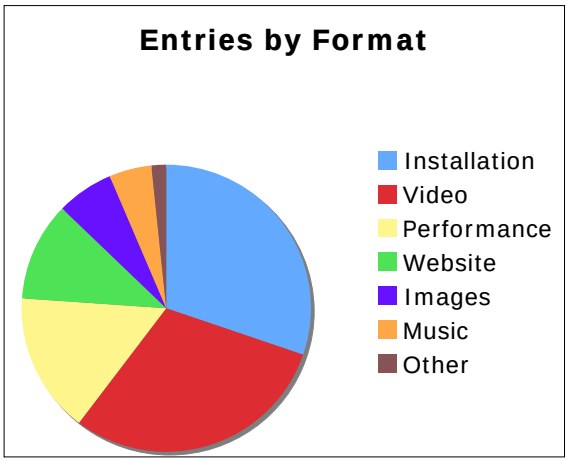
B. Future Places Festival

Overview

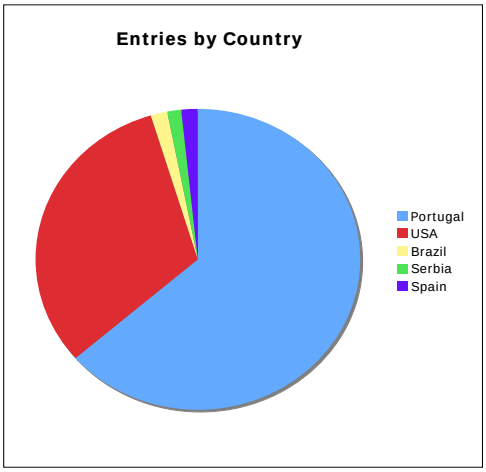
The Future Places digital media festival was held from October 7 to October 19 in Porto. The festival is intended to highlight Portugal's commitment to technological innovation in artistic, academic, and commercial settings, and to promote Portugal as a presence on the international digital media scene. The 2008 festival built upon the success of the previous year's MAPA competition, and was larger, with a more international scope. In addition to showcasing examples of digital media from around the world, the festival will hosted a series of specialized workshops, lectures, events, and performances. The festival blog remains at www.futureplaces.org and offers a partial record of some of its events. Dr. Heitor Alvelos (U of Porto) and Dr. Karen Gustafson (UT-Austin) were the driving forces behind the Festival.

Entries

The call for festival entries (included in the appendix of this report) generated an international response, with statements of interest coming from respondents in Brazil, the United States, Spain, Canada, Nigeria, Serbia, and Portugal. Artists, advanced media production students, and technology and design professionals have submitted work to the festival in a variety of formats, including proposals of live performances, experimental digital videos, prototypes of new social networking platforms and media distribution software, and artistic installations. Sixty-three complete entries were received, and a breakdown of entry types is shown in this table:



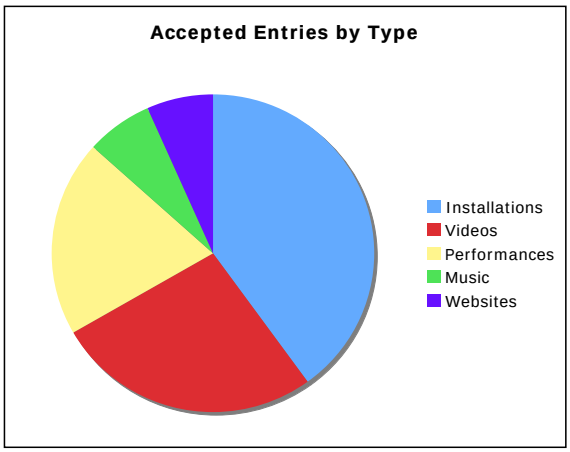
While most completed submissions came from Portugal, a considerable number of entries have also come from the United States. The chart below reflects the proportion of entries by country.



Festival organizers selected 28 entries to compete at the festival. These entries were chosen by an international review panel composed of distinguished members from a variety of backgrounds. Review panelists included:

- Marta Vieira, director of business development and operations at the Austin location of Lisbon-based company YDreams;
- Álvaro Barbosa, General Coordinator of the Sound and Image Department at the Universidade Católica Portuguesa School of the Arts;
- João Cruz - Universidade do Porto, Departamento de Design;
- Carlos Guedes - Escola Superior de Música e Artes do Espcetáculo;
- Luís Sarmento - Universidade do Porto, Faculdade de Engenharia;
- Hugh Forrest, a principal coordinator of the South by Southwest international media festival;
- Kathleen Tyner, a faculty member at the University of Texas who specializes in media literacy issues;
- Mark Allen, a professor of digital art at Pomona College in California and founder of Machine Project, an internationally recognized arts organization based in Los Angeles.

Among the accepted entries, there were 12 installations, 8 videos, 6 live proposed performances, 2 music-based entries, and 2 websites. Approximately two-thirds were from Portugal, with the remainder mostly from the United States.



Most accepted participants come from educational institutions, including the University of Porto, New University of Lisbon, University of Minho, New York University, and the University of California. Additionally, the design and technology firm YDreams is represented, as is the East West Institute, an international policy group primarily based in Brussels, New York, and Moscow. A list of accepted participants' institutions is available in the appendix.

Jury and Selection of Winners

The final jury consisted of three outstanding digital media producers and scholars: Philip Dean, professor of New Media Management at the University of Art and Design in Helsinki, Finland; Andre Rangel, Invited Professor in the High Degree course of Arts and Multimedia at the Faculty of Fine Arts of the University of Porto; and Geoff Marslett, award-winning animator and instructor at the University of Texas at Austin, where he leads a Master Class in Digital Media.

Three top entries were chosen by the jury:

1. ***Filipe Pais of Portugal*** won first prize with his interactive video installation "Living Room Plankton," a project featuring an artificial organism than responds to environmental stimuli.
2. ***Shlomit Lehavi, an artist based in New York,*** won second prize for her installation "Time Sifter" a viewer-controlled environment that plays upon the concept of a time machine.
3. ***Rudolfo Quintas of the Universidade da Beira Interior*** also won second prize for his audio-visual performance "Burning the Sound."

The jury also awarded honorable mentions to several festival entries for work showing potential in particular areas of digital media:

- ***Marta Calejo*** was recognized for her installation "Time Anchorage," which explores intervention in public spaces.
- ***Rui Penha's*** presentation of "Digitopia" was recognized for its involvement of the local digital music community.
- A team of participants led by ***Mónica Mendes*** were honored for their work on "Loev," a social networking technology.
- Filmmaker ***Rui Coelho*** was recognized for use of different digital technologies in short films.
- ***Muge Belek and Frederico Fialho's*** interactive installation "Biophotonic Avatar" was honored for its innovative exploration of materials.

Workshops

To foster collaboration and innovation in the digital media field, the Future Places festival hosted three workshops addressing different topics in digital media theory, design, and production. The workshops are free and prospective participants may enroll on a first-come, first-served basis. The announcement of these workshops in August 2008 generated an enthusiastic response—one workshop was completely filled within two days, while the other two attracted participants almost as quickly. Workshop participants include academics, professionals working within the Portuguese digital media industry, and advanced university students. A list of workshop participants' institutions is available in the appendix.

Workshop I introduced Arduino, the open-source electronics prototyping platform used by artists and designers. The two-day workshop began with a general overview of physical computing, and also gave participants hands-on experience, allowing people to work on their own personal projects. This workshop was led by members of Tinker.it, a technology-consulting firm based in London and Milan that specializes in Arduino training.

Workshop II, Interface Design for Mobile Devices, was led by Mónica Mendes lecturer at the Faculty of Fine Arts of the University of Lisbon; Nuno Correia, Professor at the New University of Lisbon, assisted. The two and a half day workshop was intended for experienced designers, illustrators and programmers and will be held at the Serralves Foundation in Porto, taking advantage of the Foundation's spectacular grounds.

Workshop III, titled Active Media 2.0, examined the dynamic nature of digital media, and the promises and challenges of creating media in an interactive environment. Steven Devleminck, co-founder and director of the Transmedia Program in Arts, Media and Design at the

Hogeschool Sint-Lukas in Brussels led the workshop, assisted by Boris Debackere, an Antwerp artist and teacher of sound design in the film department of the Hogeschool Sint-Lukas.

Reviews of the Future Places workshops have been very favorable, as participants from a variety of backgrounds described how the short classes gave them the opportunity to explore new design ideas, network, and learn from experts. Participants of the Arduino workshop included secondary school and college instructors, programmers, multimedia designers, and graduate students. All were very positive in their feedback, and several specifically cited the unique opportunity the workshop offered in allowing them to experiment with the hardware under the guidance of experts. About half of the Arduino surveys also praised the workshop as a great occasion to make contacts with other people in related fields and share ideas.

Participants in the Interface Design for Mobile Devices workshop came from professional backgrounds including programming and marketing, and also included graduate students in multimedia. They reported that they enjoyed the practical and hands-on nature of the meetings, and also valued the opportunity to meet others in this emerging communications field.

Reviews of the Active Media 2.0 workshop are currently being collected for review. A longer description of each of the workshops is included in the Annex section.

Speakers, Events, and Performances

The Future Places Festival was created as a venue for digital media artists, designers, and engineers to compete and display their work, through film screenings and live performances, as well as interactive installations. Additionally, the Festival featured a variety of speakers addressing issues of preserving local culture, creating repositories of personal and collective social memory, and artistic work processes, all through the lens of digital media. Speakers included:

- ***Caroline Frick,*** founder of the Texas Archive of the Moving Image and assistant professor at the School of Information and Department of Radio-Television-Film at the University of Texas at Austin
- ***Mike Harding,*** the U.K. Ambassador to the Kingdoms of Elgaland-Vargaland (http://www.elgaland-vargaland.org), an international online art project, and co-publisher of Touch, an audio-visual publishing house based in the U.K.
- ***Ana Nassar of the Museu da Pessoa*** (Museum of the Person), Brazil (appearing in videoconference)
- ***Stephan Baumann,*** of the German Research Center for Artificial Intelligence
- ***Pedro Custodio,*** a principal organizer of SHiFT, a well-known digital media festival based in Lisbon
- Additionally, internationally acclaimed digital sound and recording artist ***BJNilsen*** performed at the Future Places Festival welcome party on October 9.

A full schedule of the festival is included in the Annex section.

C. Engagement with Industry and Community

Because of the nature of digital media work, nearly every aspect of the Digital Media Program engages with industry in some way. The Digital Media Certificate program is designed for industry professionals who want to expand on their knowledge of digital media practices and business approaches. The internship program directly engages with industry by giving students on-site training to become the next generation of new-media professionals. Moreover, many of the workshops offered in Portugal, such as the one on screenwriting, are as relevant to working professionals as students.

In addition, the Digital Media Program has sponsored activities that interface with industry in more direct ways. Some, like the seminars on search and retrieval, engage industry professionals by sharing best practices, while others bring Portuguese professionals to Austin to interact and network with peers on the other side of the Atlantic. These direct-engagement

activities complement the overall raft of digital media programs by solidifying the academic-industrial connection.

UT presence at other conferences and festivals, SHiFT, U.Frame

The Digital Media Program has encouraged students and faculty in Austin to participate in film and digital media festivals hosted in Portugal. UT film production professor Andrew Shea served as a juror at the U.Frame festival in Porto, and eleven undergraduate and MFA students had work accepted at the festival and several attended their screenings. Professor Shea also offered a Master Class at the Festival. UT animation lecturer Geoff Marslett spoke at the SHiFT interactive media conference in Lisbon. The Digital Media Program plans to continue to encourage UT students to present work in Portugal.

Creative Residency Program

This program was available to entrants from Portugal and was designed to provide the successful applicants with access to equipment and lab space at the University of Porto and the New University of Lisbon. Unfortunately, no one applied to the residency as of the deadline date in June. We believe this may be because of the perceived lack of funding.

Innovation and Technology in the Film

As noted above, UT film professor Tom Schatz hosted a film series at Cinemateca Portuguesa in Lisbon that highlighted how technological change has inspired formal innovation in cinema. Approximately 1000 people turned out for this series.

D. Student Internship Program Overview

In Spring 2008, Carly Kocurek with the Digital Media Program launched an internship program partnering students with digital media organizations in the Austin area. This program, branded as the Digital Media Leadership Program, combines on-site work experience with leadership training. Our idea was to get this program up and running so that our formal relationships with companies and practical arrangements would be prepared for the arrival Portuguese students who wanted internships.

The Spring semester saw eight students placed in internships, and five other students were placed over the summer. These students were drawn from two different groups at UT Austin, majors in Radio-TV-Film and participants in the interdisciplinary Digital Arts and Media Bridging Disciplines Program.

For the DMLP program's pilot year, all of the students were from UT Austin. Starting in Fall 2008, the program will begin placing students from Portugal in internships in the Austin area. Portuguese students will intern with UT Austin undergraduate students in the Radio-TV-Film and Computer Science majors or the Digital Arts and Media Bridging Disciplines Program. To date, one intern from Portugal has entered the program.

Representatives from DMLP held an internship meeting in Lisbon on June 4 to introduce the program to Portuguese students. Approximately 30 students attended the meeting, and, out of that group, several students expressed a strong interest in interning in Austin.

A variety of Austin organizations participated in the internship program ranging from an animation studio to mobile software developer. The participating organizations are listed below.

Participating Organizations

Spring Internship Placements

- Enspire (elearning)
- Fusion Learning Systems (elearning)
- Powerhouse Animation Studios (animation studio)
- Pulse Interactive (mobile software)
- Spacetime Studios (gaming)

- Tattooed Under Fire (web publishing for documentary film)

Summer Internship Placements

- Action Figure (post production studio)
- The Digital Media Collaboratory
- GirlStart (non-profit organization focused on girls in math, science, and technology)
- KUT (web publishing for public radio station)
- The UT Film Institute

Summary of Feedback from Employers and Interns

To evaluate the Digital Media Leadership Program, the program solicited feedback from both employing organizations and students placed into internships. Responses are summarized below.

Spring Semester (eight interns)

- All were recommended by their employers to receive a passing grade for the course and successfully completed the program.
- All interns had their work rated as very satisfactory.
- All interns were rated as exceptionally reliable and professional, and employers said in every case they would recommend their interns for employment.
- All companies agreed or strongly agreed that the DMLP had helped to locate interns who might not have otherwise known about their company.
- All companies strongly agreed that the interns placed by the DMLP had made valuable contributions to their company.
- All interns stated that their internship had provided them with substantial, valuable work opportunities.
- Four interns were offered a position as a result of their internship, and of these, three accepted.

Summer Semester (five interns)

- All were recommended by their employers to receive a passing grade for the course and successfully complete the program.
- All companies agreed that the interns placed by the DMLP had made valuable contributions to their company.
- All interns agreed that their internship had provided them with substantial, valuable work opportunities.
- Two interns were offered the opportunity to continue to work at their company as a result of their internship; both accepted.

Please see *Annex section* for examples of the program description, program application, and evaluation forms.

E. Industrial Affiliates Workshops

The Digital Media Program has helped launch the Industrial Affiliates Program, which invites businesses to partner with the CoLab initiative to ensure that future education meets the needs of industry. In January 2008, workshops were held at FCT/UNL's Monte d Caparica Campus, lead by Pedro Madeira, to collect feedback from the affiliates and selected consultants about the desired framework and content of the Professional Masters in Media Design. These workshops included roundtable discussions to assess affiliates' needs in terms of specialized skills for future professionals and the development of future collaborative projects. There was also an open debate about the design of a new Professional Masters program.

Dates of Workshops

- January 16, 2008
- January 23, 2008
- January 30, 2008

Industry engagement - Journalism

Each year, the UT School of Journalism hosts the Symposium on Online Journalism in Austin. In 2008, A new half-day section was added to the conference specifically for Spanish and Portuguese speakers. The Digital Media Program invited Portuguese news professionals to apply for roundtables at this prestigious event. Three Portuguese journalists attended: António Granado, Público; Fernando Zamith, Agência Lusa and University of Porto; João Canavilhas, Universidade da Beira Interior.

Industry Seminars

Another facet of Digital Media's effort to engage with industry was a series of talks by UT School of Information professor Don Turnbull. Turnbull, who has worked for IBM, Outride – a search startup acquired by Google, and continues a consulting practice to this day, shared his knowledge of search best practices with Portuguese industry professionals and computer scientists at two sessions in February.

- Seminar on "Making Search Better" - Dr. Don Turnbull (Feb. 21) Lisbon
- Seminar on "Making Search Better" - Dr. Don Turnbull (Feb. 26) Porto

VideoGame Instruction Assets

During the fall semester 2007, Warren Spector, a founding figure in the videogame industry, offered a Master Class at UT Austin. Spector invited many of the most established "pioneers" in the field to give lectures about their work and their histories, and we have recorded those lectures with the intention that they will figure into the program assets in a future class. These recordings are unique oral histories that could be useful in a video game or cyberculture course, as well as a resource for industry professionals in Austin, Portugal, and beyond.

2.5 Year 3 Plans (August 2008-September 2009)

The Digital Media Program plans to build on the work done in Year 2 in the following year. Several major events are planned for the program this year, and we will continue to develop the educational programs.

First, research proposals for UT-Portugal collaborative research will be reviewed and projects initiated in January 2009.

Secondly, this year should see the first wave of students from Portugal arrive in Austin for internships and long-term study. One student is in the U.S. now, working in a postproduction shop; two others are scheduled for January and February. We hope that additional students will apply for the MA or doctoral programs at UT-Austin.

We plan to have a Summer Institute in Porto in 2009. This will be similar to the Summer Institute that occurred in Lisbon in 2008, and will include approximately six courses taught by UT faculty. Course may include screenwriting, interactive documentary, rich web design, music and sound design, among others. As well, approximately three courses will be offered in Lisbon during the summer of 2009. Dr. Grilo suggested classes in writing, in technology and culture, and in interactive documentary.

We are investigating the possibility of an "International Summer School" in Porto focused on exploring the applications of the Internet to social activism and e-Government. Professor Gary Chapman from the LBJ School of Public Affairs will lead this endeavor. While a more descriptive proposal is included in the appendices, the basic goal of this international workshop is to recruit talented students from Portugal and other countries and to convene a ten-day school with leading thinkers and "do-ers" from among the cadre of people currently applying digital tools to social and government problems. The school would be a residential experience with a wide variety of guest lecturers who are known innovators.

In addition to these core projects of the Digital Media Program, some of the events planned (or already executed) for this year include the following.

October 2008

- UT participation in UFrame film festival in Porto: Dr. Andrew Shea was a juror and gave a Master Class at this film festival. Eleven undergraduate and MFA students had work accepted at the festival and some attended their screenings. UT publicized UFrame in various national and international venues.
- FUTURE PLACES Festival in Porto: Dr. Caroline Frick (RTF Department and School of Information) spoke at the Festival. Geoff Marslett (RTF) served as a juror for the final prize. Winning entries from the UFrame festival screened at the DM Festival.
- Geoff Marslett (RTF) spoke at the SHiFT Conference in Lisbon.
- UT doctoral student Matt Payne visited Porto and Lisbon to talk about his video game research. He was in Europe to attend and speak at the Association of Internet Research in Copenhagen.

November 2008

- Carlos Guedes of Porto visited the UT campus in November, 2008 to participate in at three courses and to give one public talk in the Digital Master Class series. He presented and discussed his latest musical new media projects.

January 2009

- We anticipate that Tomas Henriques (UNL, FCSH) will visit Austin to speak in several music-related classes and to give one public talk sometime during the spring semester.
- We hope to host several post docs from Portugal during the spring term.
- Interns from Portugal are scheduled for January and February. They plan to stay approximately eight weeks and will work with various media companies in the Austin area.

Summer 2009

- Plans are underway for the aforementioned Summer School in Porto.
- A Summer Institute similar to the 2008 institute in Lisbon will be assembled in Porto. It will include six classes in the areas of documentary, screenwriting, rich web design, sound design, among other topics.
- Three workshops associated with the new Masters degrees will be offered in Lisbon (FCSH).
- Planning for the next Digital Media Festival.

2.6 Conclusions and Further Thoughts

We believe we have made a very good start toward achieving our goals, and have laid a foundation for future interactions on many fronts. We anxiously await the results of the research calls and are prepared to work in order to insure that the research activities succeed. The delay in issuing the call and the uncertainties regarding its schedule (the deadline was pushed back twice) and requirements (especially with respect to UT Austin involvement in terms of budget and in terms of actual collaboration) should be addressed in the next round.

While the graduate programs did not launch as quickly as we had hoped, they are in process and should be “on the books” in 2009. Our course offerings to date have been successful, and we have formed solid relationships among students and faculty involved with the program in order to constitute a growing network of relationships for the future. The Executive Program in Media Design will be a bold experiment linking corporate sponsorship to a professional masters degree. That said, there are additional faculty are UNL and the University of Porto who could add to the mix, and we should work on incorporating their activities, energies, and interest into the program activities. As well, scheduling courses during the fall and spring terms has been difficult because the course planning schedule at UT-Austin does not mesh well with those in Portugal; for example, we had discussed trying to schedule a once per week proseminar that

could occur in the morning in Austin and the afternoon in Portugal; while everyone was enthusiastic, the logistics of getting that proseminar in place for fall 2008 never materialized.

Future Places was a diverse and creative media festival that brought together many talented people. We have learned a great deal from executing it and will bring even better ideas and improved expertise to the next festival that we organized.

Our communication and coordination generally occur via email, and some group conferencing has utilized skype. We have not found alternative acceptable modes for day-to-day problem solving and planning even though several collaborative tools (wikis, blogs, basecamp) are available. We will doubtless continue to work on this. The website for the overall CoLab program, with its separate sections for each program area, has not met our expectations in terms of its ability to be updated on a timely basis and in terms of including some of the features we have requested. This was discussed in September 2008, and it appears that a new website with the features we desire will be imminent.

As was pointed out in our Board of Directors meeting in September 2008, the program would have been improved if some of the promised funding had made its way to the collaborating universities. While there has been support for the three CoLab program support people in Lisbon, the funding for the individual university efforts still had not materialized as of the end of that month, fully a year and a half into the program. This means that many faculty in Porto and Lisbon were volunteering huge amounts of time and paying for various endeavors with no compensation or reward (such as with leave time).

2-7. Annex A | Ph.D. and MA Curriculum Outlines

A. Doctoral Program

Excerpt from official documentation for the program.

FORMULÁRIO

1. **Estabelecimento de ensino:**

   Universidade Nova de Lisboa, Universidade do Porto

2. **Unidade orgânica (faculdade, escola, instituto, etc.):**

   FCT/UNL, FCSH/UNL, FEUP, FBAUP, FEP, FLUP, FCUP

3. **Curso:** Doutoramento em Media Digitais

4. **Grau ou diploma:** Doutoramento

5. **Área científica predominante do curso:** Ciências da Comunicação

6. **Número de créditos, segundo o sistema europeu de transferência de créditos, necessário à obtenção do grau ou diploma:** 240

7. **Duração normal do curso:** 4 anos

8. **Opções, ramos, ou outras formas de organização de percursos alternativos em que o curso se estruture (se aplicável):** Não Aplicável

9. **Áreas científicas e créditos que devem ser reunidos para a obtenção do grau ou diploma:**

QUADRO N.º 1

ÁREA CIENTÍFICA	SIGLA	CRÉDITOS	
		OBRIGATÓRIOS	OPTATIVOS
Ciências da Comunicação	CC	22.5	
Tecnologias da Comunicação	TC	15	7.5
Opção Livre			15
TOTAL		**37.5**	**22.5**

10. Observações:

a) Os créditos na Opção podem ser realizados em qualquer área científica, desde que afim aos Media Digitais;
b) Uma descrição mais detalhada é apresentada no Anexo A.

11. Plano de Estudos:

Universidade Nova de Lisboa, Universidade do Porto
FCT/UNL, FCSH/UNL, FEUP, FBAUP, FEP, FLUP
Programa de Doutoramento
Media Digitais
1º ano

QUADRO N.º 1

UNIDADES CURRICULARES	ÁREA CIENTÍFICA	TIPO	TEMPO DE TRABALHO (HORAS)		CRÉDITOS	OBSERVAÇÕES
			TOTAL	CONTACTO		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
História e Tendências dos Media Digitais	CC	Semestral	210	T: 28, O:14	7,5	
Laboratório dos Media	TC	Semestral	210	T: 28, O:14	7,5	
Estudo independente ou opção I		Semestral	210	OT: 42	7,5	opção
Tecnologia dos Media	TC	Semestral	210	T: 28, O:14	7,5	
Teoria da Comunicação	CC	Semestral	210	T:28, O:14	7,5	
Métodos de Investigação	CC	Semestral	210	T: 28, O:14	7,5	
Estudo independente ou opção II		Semestral	210	OT:42	7,5	opção
Tecnologias Web	TC	Semestral	210	T: 28, O:14	7,5	opção

QUADRO N.º 2

UNIDADES CURRICULARES	ÁREA CIENTÍFICA	TIPO	TEMPO DE TRABALHO (HORAS)		CRÉDITOS	OBSERVAÇÕES
			TOTAL	CONTACTO		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
História e Tendências dos Media Digitais	CC	Semestral	210	T: 28, O:14	7,5	
Laboratório dos Media	TC	Semestral	210	T: 28, O:14	7,5	
Estudo independente ou opção I		Semestral	210	OT: 42	7,5	opção
Tecnologia dos Media	TC	Semestral	210	T: 28, O:14	7,5	
Teoria da Comunicação	CC	Semestral	210	T:28, O:14	7,5	
Métodos de Investigação	CC	Semestral	210	T: 28, O:14	7,5	
Estudo independente ou opção II		Semestral	210	OT:42	7,5	opção
Tecnologias Web	TC	Semestral	210	T: 28, O:14	7,5	opção

Notas:
1. Designação
2. Indicando a sigla constante do **item 9** do formulário.
3. De acordo com a alínea *c*) do n.º 3.4 das normas.
4. Número Total de horas de trabalho do estudante
5. Número de horas totais [usando a codificação constante na alínea e) do n.º 3.4 das normas].
6. Número de Créditos ECTS atribuídos à unidade curricular.
7. Assinalar sempre que a unidade curricular for optativa.

Universidade Nova de Lisboa, Universidade do Porto
FCT/UNL, FCSH/UNL, FEUP, FBAUP, FEP, FLUP

Programa de Doutoramento
Media Digitais
2º, 3º e 4º anos

QUADRO N.º 3

UNIDADES CURRICULARES	ÁREA CIENTÍFICA	TIPO	TEMPO DE TRABALHO (HORAS)		CRÉDITOS	OBSERVAÇÕES
			TOTAL	CONTACTO		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Investigação e Escrita de Dissertação	CC	Tri-Anual	5040	O:252	180	(8)

8. Esta unidade curicular corresponde à investigação, e a correspondente escrita e defesa de uma dissertação.

B. MA Certificate Program

Curriculum for Executive Course in Media Design and Management

The Executive Course in Media Design and Management will start in the last week of January 2008. It will be based on intensive courses with one week duration during nine weeks.

Professionals from the digital media industry from Portuguese speaking countries and Spain are the intended audience. Twenty students are expected for the whole program. They will have to complete small projects for every Course week and a final project. Ten other slots may be opened for students only interested in pursuing specific topics.

The Course will blend a "how to make almost anything" approach, market applications and a glimpse of the research frontier. The lecturers will come from UT Austin, Portuguese Universities, Austin and Portugal based companies. Each week will feature a prominent speaker. The Course will be sponsored by the UT Austin-Portugal Program, student fees and industrial affiliates.

Proposed Program

1. Web Design and Programming

- Web design concepts
- Web programming
- Web marketing applications
- Web 2.0 strategies in industry
- The Widget economy

Leader: António Granado, FCSH-UNL and Publico
Proposed keynote speakers: Tim Berners Lee, MIT or Luke W, Yahoo
Proposed sponsor: Sapo

2. Multimedia

- Video
- Sound
- Digital television applications
- Advertising

Leader: Artur Pimenta Alves, INESC-Porto
Proposed keynote speaker: Bill Buxton, Microsoft Research
Proposed sponsor: Zon Multimedia

3. Mobile applications

- Typology of mobile applications
- Development tools
- User interface design
- Location based services
- Advertising
- Entertainment

Leader: Sérgio Estêvão, YDreams
Proposed Keynote Speaker: Brent Gaskamp, Yahoo
Proposed sponsor: Vodafone

4. Invisible computing

- Typology of applications
- Interfaces
- Advertising
- Culture

Leader: Nuno Correia, FCT-UNL
Proposed: Keynote Speaker: Pattie Maes, MIT Media Lab
Proposed sponsor: YDreams

5. Project management

- Project management issues for the different platforms
- Project management tools

Leaders: Celso Martinho, Sapo and Tiago Fonseca, YDreams
Proposed Keynote Speaker: Scott Berkun
Proposed sponsor: Microsoft

6. Entrepreneurship and digital media

- Digital media market opportunities
- Developing and executing Business Plans

Leader: David Gibson, UT Austin
Proposed Keynote Speaker: Alan Luecke, Dell
Proposed sponsor: INOV Capital

7. Communication

- Traditional media
- Web based communication
- Life after the browser
- Communicating a country

Leader: Sharon Strover, UT Austin
Proposed Keynote Speaker: Clay Shirky, NYU
Proposed sponsor: Instituto de Turismo

8. Research Frontiers

Presentations by researchers involved in the UT Austin-Portugal Program
Leaders: Antonio Camara, FCT-UNL and Sharon Strover, UT Austin
Proposed Keynote Speakers: Research leaders from MIT, CMU, Fraunhofer programs with Portugal
Proposed sponsor: Impresa Group

9. Projects

All the program leaders
Proposed keynote speaker: Laura Richardson, M3 Design and Gizmodo
Proposed sponsor: Media Capital

2-8. Annex B | 2008 Course Descriptions and Evaluations

A. Online Journalism Workshop – Rosental Alves – June Institute 2008

Abstract: Through practical assignments, analysis of successful cases and specialized literature, this workshop will examine the transformations journalism currently faces in order to meet the Digital Revolution, particularly in what concerns the search for a multimedia language.

Course Evaluation (8 out of 11 responded, 72% response rate)

June 2008 Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3**	**4**	**5**
SA	6	8	7	8	6
A	2		1		2
N					
D					
SD					
I don't know					
TOTAL	8	8	8	8	8

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***
Strongly Agree – **75%** (6)
Agree – **25%** (2)

2) ***The workshop leader communicated effectively.***
Strongly agree – **100%** (8)

3) ***The workshop leader demonstrated an interest in the progress of my work.***
Strongly agree – **87.5%** (7)
Agree – **12.5%** (1)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***
Strongly Agree – **100%** (8)

5) ***I feel that this workshop will be (or has already been) of value to me***
Strongly Agree – **75%** (6)
Agree – 2**5%** (2)

General Course Evaluation overview – 3 question overview

	Q6	**7**
Excellent	4	8
Very Good	4	
Satisfactory		
TOTAL	8	8

6) ***Overall this workshop was***
Excellent – **50%** (4)
Very Good – **50%** (4)

7) ***Overall this instructor was***
Excellent – – **100%** (8)

8) ***In my opinion, the workload of this course was***
High - 7**5%** (6)
Average – **25%** (2)

Free-form Questions and Responses:

A) What do you consider the most important thing you learned from this workshop?

1) Almost everything
2) I was able to have a better perspective about what might happen to journals and journalism in future years.
3) The power to improve ideas to valuable projects
4) The instructor was very open-minded and gives a wider perspective on different subjects to students.
5) To know new websites.
6) The state of online journalism in Europe and USA; tendencies; concepts.
7) It was how to reach the public/audience interest.

B) What information from the workshop been most useful in your current creative work?

1) Almost everything.
2) Bibliographical references were extremely valuable.
3) Not an information, but the all creative brainstorming on improving ideas
4) Information about web 2.0 and his uses worldwide in different journalistic projects.
5) Power to the people, web 2.0
6) The capability to connect news and social networks.
7) The one about distribution model and social network creating.

C) ***What topics would you like to see covered in future creative workshops?***

1) More technical aspects.

2) Maybe Writing for new media.
3) Maybe some technical / software use during the classes
4) I'd like to have more for practical exercises, in different platforms.
5) New tools for multimedia journalists.
6) Advertising for digital media.
7) Maybe more technical skills, like html, flash, video and audio editing.

D) Do you have any additional comments or suggestions?

1) It has been a very intensive and exciting experience.
2) My deep congratulations!
3) I think the class members were very well prepared and I love the leader interactivity.

Moodle Evaluation Subsection

1) ***Were you able to access the Moodle environment?***

Yes – **100%** (8)

2) ***If not, please summarize your difficulties in using Moodle*** [NO RESPONSES]

3) ***Did you access the environment primarily at home or in class?***

At home – **37.5%** (3)
In class – **62.5%** (5)

4) ***Do you believe that using this system has contributed to improving your learning in this course?***

Yes – **75%** (6)
Somewhat – **25%** (2)

B. Digital Documentary Workshop – Karen Kocher – June Institute 2008

Instructor Overview and Evaluation

The digital documentary workshop was held from June 2-June 13 in Lisbon from 9 a.m. to noon, Monday through Friday. This was a hands-on workshop where each student or group of students was expected to conceive, pitch, shoot and edit to a short (2-5 minutes), video documentary using the theme, “hidden Lisbon,” to guide their work.

The workshop offered the student the use of an Everio HD camcorder and an on-board microphone for production and a computer workstation with Final Cut Pro software installed for postproduction. There were 2 technical assistants, Catarina Mota and Mariana Escudeiro, who were instrumental in developing a workflow for video capture and who assisted the students with less experience with the Final Cut Pro software.

The course began with a discussion of project ideas and documentary styles. We discussed how visual and audio can be designed to communicate a particular message. The students spent 2 days shooting and then they returned with their footage to capture and organize. We discussed proper organizational procedure for editing and the instructor viewed dailies and recommended additional shooting where necessary. Some students kept the camera over the weekend for additional shooting. On the Tuesday and Wednesday of the second week, students screened project selects for comments and feedback. Students then edited their project to completion under supervision of the instructor and assistants. A screening of the projects will be scheduled by Sofia Santos since there was no time within the class to do this. In fact, we were editing right up to 3:00, when the Digital Hollywood class needed the room.

12 students enrolled in the course. Of the 12, 11 completed the course. The project yielded 7 finished projects, and one incomplete project.

The completed projects ranged from an observational-style piece about a man who delivers bread by bike to a highly formalist montage about commuters in the urban core. A dvd from the workshop is currently being prepared. A website featuring the videos will be prepared with the assistance of Catarina Mota later this summer.

Overall, this was a successful workshop. Several students commented to me that they had learned a lot in a short time. The fact that the students managed to pitch, produce and edit a piece in 30 hours is no small feat. That said, if offered again, I make the following recommendations.

1. I think it would be more productive to have 3 hours of class time and an additional 3-5 hours of lab time, so that more documentary work could be shown and so that there was more time for group screenings and discussions. Lab time would be reserved for individual editing and/or shooting. I think that this would lead to a better group dynamic and allow for more time to view and critique work in a group setting. Also, I would recommend that the ideas be pitched on a Friday. This way students would have an additional weekend to research, location scout and possibly shoot.

2. Charge a fee for participation. Since this was a free workshop, participants came and went as they pleased. Many arrived late, left early or e-mailed at the last minute that they would not be attending on a particular day due to work or other obligations. This lead to a somewhat loose group dynamic that was not beneficial.

3. Provide cameras where the sound can be monitored via headphones. Provide directional or lavaliere microphones for situations like interviews where the camera mounted microphones do not allow for good sound capture.

4. I would like to see the projects that are well done distributed more widely. If there are plans for future workshops, I think it would be interesting to explore the possibility of having the video screened in the Lisbon metro stations on existing monitors or perhaps the Portuguese public television might consider airing the pieces as interstitials between other programming. I am sure that there are legal and other issues involved with this, but it would be a good incentive for the students if they knew that their work had the possibility of distribution. It would also be good publicity for the CoLab.

Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3**	**4**	**5**
SA	1	16	16	15	7
A	11		1	2	10
N					
D	1	1			
SD					
I don't know	4				
TOTAL	17	17	17	17	17

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***
Strongly Agree - **5.9%** (1)
Agree – **64.7%** (11)
Disagree - **5.9%** (1)
I don't know - **23.5%** (4)

2) ***The workshop leader communicated effectively.***
Strongly agree - **94.1%** (16)
I don't know - **5.9%** (1)

3) ***The workshop leader demonstrated an interest in the progress of my work***.
Strongly Agree – **94.1%** (16)
Agree – **5.9 %** (1)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***

Strongly Agree – **88.3%** (15)
Agree – **11.7% (**2)

5) ***I feel that this workshop will be (or has already been) of value to me***
Strongly Agree – **41.2%** (7)
Agree – **58.8%** (10)

General Course Evaluation overview – 3 question overview

	Q6	**7**
Excellent	3	14
Very Good	9	2
Satisfactory	5	1
TOTAL	17	17

6) ***Overall this workshop was***
Excellent - **58.8%** (3)
Very Good – **53.0% (**9)
Satisfactory – **29.4%** (5)

7) ***Overall this instructor was***
Excellent – **82.3%** (14)
Very Good – **11.8%** (2)
Satisfactory – **5.9%** (1)

8) ***In my opinion, the workload of this course was***
Excessive – **5.9%** (1)
High - **64.7%** (11)
Average – **23.5%** (4)
Light – **5.9%** (1)

Comments

1) In general terms the course was great! But we needed two weeks instead of one to achieve even better results.

2) Before starting I was expecting a higher push in interactive issue. to construct a more interactive documentary, base on the conceptual issue (whatever it is!?), not to put all interactivity in the DVD building process. Pedro Formosinho

3) I think the workshop was generally good. But the emphasis shouldn't be about the software. It should be about the theory... the scripts... the construction of the documentary... the structuralization of the subject. People need references and structuralization of ideas. The using of the software is something that the people in the workshop could do before the class starts or at the end. The time spent in class using the software should be less. A positive aspect of the workshop was the team work and the exchange of ideas between the different groups.

4) I was expecting more from the course contents, in relation to editing principles and theory. If the workshop could go for one more week, the final results would be improved.

5) I feel that the workload of the course would be lighter if it was done in two weeks instead of one. I know that many students said that were almost impossible to them because two weeks was vacations time, but is an effort that anyone really interested would make to assist the course. Note that when I say lighter I want to say: with more time to think, prepare, structure and develop the project, since Iíve noticed that some of the solutions would be better done if we could have some extra time. I can remember Karen and all the people responsible for the course structure to investigate what the Gulbenkian Foundation is doing in hat territory and how they are doing it. On that aspect, I can advance that the Gulbenkian courses (this year made in partnership with the Deutsche Film School) are making great success and the work done is there to prove it. If two weeks are beyond the possible time to give the course, I've already suggested Karen to think about e-learning. In the first week, the students receive the suggested readings to think their project (as done). The main difference is that the students had that first week to develop their projects. The participants had to contact the workshop leader everyday sending ideas that lead to the project structure, make location scoutings and some first shootings that can be compressed to send to the instructor by web. All this is to be discussed by Internet with the instructor leading the students path

for what would become the central idea to develop when the instructor arrives. Hope that my concerns can help to make a better course. I really have liked the experience and look forward to ear from another initiative from you soon. Kind regards, Nelson Tondela

6) Karen was a dedicated leader for this workshop

7) I think that workshop should have more time to develop some practice with the software applications.

8) The time was the big problem of this workshop. The organization of the maters have been modified, and that had compromised the rhythm of the work.

9) The time was the major problem. In fact, I must admit that exposure was rather interesting, although the subjects were not very well organized in the workshop's schedule. The films that were shown, the discussion around the city symphony, the camera shots and the interaction with the software could be more well structured.

10) In spite of the interactivity had not been developed in the context of the documentary, I am very satisfied with the apprenticeship and the works carried out in the workshop. I loved the environment experienced in the workshop, the pledge and the collaboration between teacher and pupils.

11) The quantity and complexity of tasks to carry out seemed to me disproportioned with the short time that we had to resolve them. Maybe the DVD Studio Pro possibilities of interactivity are not powerful enough so one can name this workshop as "Interactive documentary".

12) The course content and instruction were best in reaching the goals and getting effective and good results after such a short time for all that had to be accomplished, especially when considering that the students had different backgrounds and expertise. The instructor could improve her teaching only if the duration of the workshop would have been longer so that she could have had more time for instruction in specific issues related to the interactive interfaces and correspondent tools, and also for group discussion during and after final completion of the projects; for this workshop, I can't think of a more balanced skills/time/resources management that the one that's been done by the instructor. The content of the course might be improved by increasing the time dedicated for the interactive contents and interface design and distributing the time in a different way so that students can mature and develop work beyond workshop hours ñ for example, having less hours per day distributed in more days, considering a pause of 2 or 3 days during the workshop and getting 2 more days dedicated to interactivity issues.

13) Course: Too ambitious for an heterogeneous class and so short time. We should have more time to study the examples shown, explore the story board and learn interactive concepts besides program's features. Workshop Leader: Karen has a contagious energy and was always very helpful.

14) I think this introductory workshop brought many ideas into reality. Most of us are not professionals and the course was very well adapted to our rhythm. It was made in a rush and that was great to let simple ideas prevail over careful, and often over-worried, conceptual thinking. We had to relate to objects, let's put it this way. The city symphony concept brought the needed poetic sense to our sense of that. I believe some got carried away by an ambition of aesthetic and conceptual depth rather than a straightforward audiovisual language. Subject matter was sometimes below the line of understanding. In my opinion, the city symphony base should have been more transparent to keep minds on track of their ideas. The DVD could have been more planned since the beginning. The interactive interface idea was below the main movie's planning and editing effort. Maybe the groups should have divided functions between the members from start. I found it great to have Eva dedicated to it with complete trust and understanding. She was great. That said, I believe everybody did they're best, and kept on pushing until the end without any confusion. The common characters exist in every work group, some are quiet, others have ideas, one or two argues without knowledge of patience, etc. We had some of that also, that's a great experience. Until the next one...

C. Collaborative Scriptwriting Workshop – Richard Lewis – June Institute 2008

Report on Portuguese Collaborative Screenwriting Seminar – Summer '08

The collaborative screenwriting workshop was held from May 26-June 6 in Lisbon from 3 p.m. to 6 p.m., Monday through Friday. There were 12 students enrolled and all 12 successfully completed the course. This course combined lecture and collaborative writing exercises to explore writing for the screen in a different way than is typically taught.

The course featured lectures and discussions of feature scripts (that the students had read the night before) as follows:

Monday 5/26 – Overview, script coverage, formatting (***Silence of the Lambs*** and ***Bullets for My Baby***)
Tuesday 5/27 – Structure (***American Beauty*** and ***Thelma & Louise***)
Wednesday 5/28 – Character (***Do The Right Thing***)
Thursday 5/29 – Exposition and Scene Description (***The Fugitive***)
Tuesday 6/3 – Dialogue (***True Romance***)
Thursday 6/5 – Outlines and treatments, Rewriting (no reading)

Additionally, students were assigned a short adaptation exercise before the class commenced where they had the choice of four (very) short stories to adapt into short scripts. This assignment was done individually by each student with half of the class having their scripts workshopped on Tuesday 5/27 and the other half on Weds 5/28. This exercise was designed for students to "get their feet wet" on a short exercise where they could focus on screenplay form and visual storytelling rather than on having to come up with a workable story. Moreover, because these initial stories were not their own, it allowed them to separate from story content and be more receptive to feedback. Lastly, the exercise allowed the instructor to gauge the relative skill levels of the students in order to tweak the remainder of the two week seminar to better meet their needs and talents.

Students were next assigned to draft four character sketches each, which were due on Thursday 5/29. Starting on that Thursday and continuing through Friday 5/30, we used those character sketches and other student-generated story "ingredients" to brainstorm bare-bones outlines for six feature screenplay projects. On Friday, each of the projects had a writing team of two students assigned to it. On Monday of week two, the work that the students had done over the weekend was workshopped, honed, and improved upon. Students were then assigned a new partner and to a different one of the six projects where the new writing team, utilizing the workshop notes, picked up where the previous team left off and continued progressing. The process was repeated on Wednesday of week two, and again on Friday.

Because the students chose to pursue feature projects rather than shorter forms, the two week seminar concluded with six feature script works-in-progress where outlines had been completed and rewritten and the first 15 – 20 pages of the actual screenplays had been written. Feature films are usually written over the course of months, so I considered this to be an excellent start by the students, particularly in light of… 1) they didn't start until Thursday of week one, 2) they were all relative novices to the craft of screenwriting, and 3) they were being forced to collaborate and negotiate creatively, which can produce a better product but also slows down the process when the writers aren't accustomed to working with each other.

My evaluation of the course is as follows: I would consider the course to have been quite successful given the work produced by the students, the positive feedback I received from them (which was backed up by their anonymous course evaluations, which I have attached to the end of this report), and the fun and supportive creative atmosphere I observed. I was extremely pleased with the quality of the students who were selected for this course. Each was very positive in attitude, dedicated and willing to work outside of class, and sincerely interested in the course's content.

Possible ways to improve the course:

- The classroom was outfitted with cutting edge technology, but our class didn't require it. We would have benefited from a room where students could more easily face each other (i.e., a conference room set-up where students and instructor are around a central table.)

- A couple of the students remarked in their course evaluations that we would have benefited from a longer course. In light of the fact that we were working on feature

screenplays, this is understandable, and in my RTF classes students working on features typically have nine weeks minimum, 15 weeks maximum. With this in mind, it might be worth investigating whether the seminar could run longer, or whether it could be broken up – e.g., meet for two weeks, then the instructor leaves (while the students continue working) and returns X number of weeks later for an additional round of workshopping projects that are much closer to being completed.

Course Evaluation (11 out of 12 responded, 91.67% response rate)

June 2008 Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3a**	**3b**	**4**	**5**
SA	9	10	10	9	10	9
A	2	1	1	2	1	2
N						
D						
SD						
I don't know						
TOTAL	11	11	11	11	11	11

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***
Strongly Agree – **81.8%** (9)
Agree – **18.2%** (2)

2) ***The workshop leader communicated effectively.***
Strongly agree – **90.9%** (10)
Agree – **9.1%** (1)

3a) ***The workshop materials were well-organized.***
Strongly agree – **90.9%** (10)
Agree – **9.1%** (1)

3b) ***The workshop leader demonstrated an interest in the progress of my work.***
Strongly Agree – **81.8%** (9)
Agree – **18.2%** (2)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***
Strongly agree – **90.9%** (10)
Agree – **9.1%** (1)

5) ***I feel that this workshop will be (or has already been) of value to me***
Strongly Agree – **81.8%** (9)
Agree – **18.2%** (2)

General Course Evaluation overview – 3 question overview

	Q6	**7**
Excellent	7	9
Very Good	4	2
Satisfactory		
TOTAL	11	11

6) ***Overall this workshop was***
Excellent – **63.6 %** (7)
Very Good – **36.4%** (4)

7) ***Overall this instructor was***
Excellent – – **81.8%** (9)
Very Good – – **19.2%** (2)

8) ***In my opinion, the workload of this course was***

Excessive – **9.1%** (1)
High - **90.9%** (10)

Free-form Questions and Responses

A) What do you consider the most important thing you learned from this workshop?

1) It's really tough to write a good script. But now, I think it's also possible.
2) I would point out the US formatting system and being able to think in a more commercial driven way.
3) I learned how to look at things from a different point of view, to ask pertinent questions and be able to answer them. I've learn how to work with final draft, how to read a script and how to elaborate a script considering all the details to watch out for and the problems to be solved and how to solve them. It opened a path that I hadn't tried it before and I enjoyed it very much.
4) Rethink everything you already know
5) I learned to let the creative side of my brain flow. I learned to write with other people and not to become excessively in love with my own work - because we know how love blinds us and helps to demolish our critical sense.
6) how to work collaboratively with peers in scriptwriting
7) A way and structure to write, and begin writing/ a story. and to apply that structure for existing stories/films
8) The importance of a rewrite rather than a perfect first draft.
9) When writing for screen, things can't just be said, or told. They must be shown through words.
10) Structure, exposition, character's construction and dialogues

B) What information from the workshop been most useful in your current creative work?

1) I'd say about every bit of information.
2) There wasn't any in particular but the all of it turns out to be very helpful.
3) how to write and present a script. how to make things work in the creative writing process. How to overcome the story telling issue. What do we need an film script and what's superfluous.
4) Having other people read my work and comment it is really useful for spotting my weakest points in writing, and work on improving them.
5) the very straight forward way of analyzing things in a script
6) Everything, overall.
7) that's hard... there are many things...
8) A (different) more objective way of looking whether a story/ script/ film works well or not
9) The importance of the rewrite.
10) Creativity is mostly a collaborative task
11) Above everything else it was the experience of being working with other people with different perspectives and points of view. All the technical information is useful for my writing

C) What topics would you like to see covered in future creative workshops?

1) Maybe this is asking too much but I'd love to participate in genre script workshops. And also in a disruptive scriptwriting workshop (a kind of break all the rules in scriptwriting). And finally in a how to write an amazing story for a low budget film kind of workshop.
2) Weapons of mass destruction! Ahah! Just kidding... Well you could bring over a directing workshop as well.
3) i like the idea of working in a project from the beginning to end. and to get to know how things really work in practice - a studio, the cameras, the light and the sound, the actors and the editing process.
4) differences between cinema and TV
5) How Portuguese screenwriters may have a chance on the world of entertainment.
6) a workshop about scriptwriting for documentary and factual
7) editing
8) Playwriting.
9) Directing; Scriptwriting for New Media
10) It's not a question of topics. I think these are the most important topics in scriptwriting. Maybe we needed a little more time to write more and having more experience working in it

D) Do you have any additional comments or suggestions?

1) We've written lots of good stories in this workshop. Is there any chance for Richard (or other teachers in the future, although I'd stick with Richard) to receive a full script from us, gives us real professional feedback and if he believes in the story send it to someone he knows in the industry? This is way over-the-top but I had to ask.
2) Perhaps next time you could extend time and make it a 4 weeks workshop. This way we would have more time to work on the projects.
3) to continue doing this. creating an exchange of experiences. i don't think anyone in Portugal would do it so well. richard knew how to lead things in the perspective of what to write a selling script, in the sense that we can write scripts for ourselves but how to write it for others and how to overcome that.
4) Thank you very much for the knowledge and the good spirit. Come back soon!
5) The workshop could have been longer. Also, instead of a one-time deal, this should be something that has a follow-up in the whole UT Austin/Portugal program.

D. Creating Music & Audio for Film, Video & Games Workshop – B. Pennycook – June Institute 2008

Course Description

This course will explore current technologies and techniques for the creation of music, audio and sound effects for film, video and games. It will be based primarily on the widely used Apple Logic Studio 8. Students will need to be comfortable with the Mac OS-X platform. However, no prior knowledge of Logic is required. The course will cover basic musical forms, looping and mixing, soft instrument plugins, synchronizing musical materials to video, acquiring and modifying audio effects files, advanced sound treatment using Logic plugins, game audio design, track layering, and surround mixing. Students will complete five short assignments and one longer project using video clips provided for the class or materials that the students may have.

The production facilities will include a suite of Intel iMac computers with Garage Band 4 and Logic Studio 8. Students will need to bring their own stereo headphones (1/8” stereo) for these workstations. The final project will be mixed on the teaching station using 5.1 surround audio.

Instructor Evaluation

The objective of the workshop was to explore the role of sound and music in film and games. The class first made some short music projects to get comfortable with the audio software, Logic Studio 8. Toward the end of the first week the class worked on a short clip - "car chase" in which they had to do the sound design - that is, create all the sounds associated with the actions in the clip and then create an accompanying music track. The next project accompanied discussions about animated film, which by definition are "sound less". For this project we used a segment of animation by the celebrated Japanese director, Hayao Miyazaki that included dialog and some sound effects. The objective was to create an appropriate music track and to augment the sound design. For the final project, the class worked on a segment from the sci-fi thriller, Predator 2. This clip required very detailed Foley sounds, convincing overall sound design (large echoic spaces) and of course, dramatic music.

It is important to note that acquiring film clips with dialog tracks and no music or effects is nearly impossible as these only exist in pre-production state and are never released. Through my contacts at other institutions I have acquired some excellent working clips but it must be understood that these cannot be circulated in any form or there may be serious issues regarding copyright and intellectual property. In summary, there was a clear progression from the preliminary music projects to the rather long and complicated final project. It was evident to me that the quality of work improved for each student over the two-week course. Overall, the students in the course were well suited to undertake the creative work. The room of iMacs and file sharing worked out quite well (though better air conditioning would have helped). Audio in

the room was excellent; the school had provided a high-quality 5.1 system that allowed me to demonstrate surround audio. Unfortunately, there was not really enough time for each student to work on that platform to try their own surround mixes but that was a minor issue compared to the other tasks. I truly enjoyed the course and the students and would welcome another opportunity to offer this again in Porto as was discussed when I was there.

Workshop evaluation survey | Porto, November 2007 | UTA - Portugal
Descriptive statistics

Q1: Please respond to the following set of statements:

Q1A	The workshop was well paced.
Q1B	Sufficient time was allotted for the participants' work.
Q1C	The workshop allowed for student teacher dialogue.
Q1D	The teaching methods or approach used were appropriate for this type of workshop.
Q1E	The workshop strengthened my conceptual skills.
Q1F	The workshop strengthened my technical skills.
Q1G	The workshop strengthened my critical skills.
Q1H	The professor's overall teaching effectiveness is

Scale:

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

Music Interactivity

Variable	N	Mean	Std Dev	Minimum	Maximum
Q1A	9	3.89	0.6	3	5
Q1B	10	2.9	1.2	1	4
Q1C	10	3.7	0.67	2	4
Q1D	10	3.2	1.23	1	4
Q1E	10	2.8	1.48	1	5
Q1F	10	2	1.05	1	4
Q1G	10	3.3	1.34	1	5
Q1H	8	2.63	1.41	1	4

Music and for Film, Video and Games

Variable	N	Mean	Std Dev	Minimum	Maximum
Q1A	6	3	1.26	2	5
Q1B	6	3	0.89	2	4
Q1C	6	3.5	1.05	2	5
Q1D	6	3.5	1.05	2	5
Q1E	6	3.33	0.82	2	4
Q1F	6	2.67	0.82	2	4
Q1G	6	3.5	1.05	2	5
Q1H	5	4.2	0.45	4	5

Both Music workshops

Variable	N	Mean	Std Dev	Minimum	Maximum
Q1A	17	3.53	0.94	2	5
Q1B	18	2.89	1.13	1	4

Q1C	18	3.67	0.77	2	5
Q1D	18	3.33	1.08	1	5
Q1E	18	3.11	1.23	1	5
Q1F	18	2.33	1.03	1	4
Q1G	18	3.33	1.14	1	5
Q1H	15	3.27	1.28	1	5

GPS - Drawing with Satellites

Variable	N	Mean	Std Dev	Minimum	Maximum
Q1A	16	4.31	0.79	3	5
Q1B	16	3.75	1.06	2	5
Q1C	15	4.47	0.52	4	5
Q1D	16	4.31	0.48	4	5
Q1E	16	3.94	0.57	3	5
Q1F	16	4.13	0.62	3	5
Q1G	15	3.8	0.94	2	5
Q1H	15	4.33	0.49	4	5

GPS - The City as a Canvas

Variable	N	Mean	Std Dev	Minimum	Maximum
Q1A	9	4.44	0.53	4	5
Q1B	9	3.78	1.09	2	5
Q1C	9	4.22	0.67	3	5
Q1D	9	4.56	0.53	4	5
Q1E	9	4	0.71	3	5
Q1F	9	3.89	0.93	2	5
Q1G	9	4	0.71	3	5
Q1H	9	4.44	0.53	4	5

Both GPS Drawing Workshops

Variable	N	Mean	Std	Dev	Minimum
Q1A	25	4.36	0.7	3	5
Q1B	25	3.76	1.05	2	5
Q1C	24	4.38	0.58	3	5
Q1D	25	4.4	0.5	4	5
Q1E	25	3.96	0.61	3	5
Q1F	25	4.04	0.73	2	5
Q1G	24	3.88	0.85	2	5
Q1H	24	4.38	0.49	4	5

Q2. Please indicate how much you agree or disagree with the following statements:

Q2A	The instructor was prepared for the workshop.
Q2B	The instructor adequately answered participants' questions during the workshop.
Q2C	The workshop improved my understanding of the subject matter.

Scale:

1. ***Strongly disagree***
2. ***Disagree***
3. ***Neutral***
4. ***Agree***
5. ***Strongly agree***

Music Interactivity

Variable	N	Mean	Std Dev	Minimum	Maximum

Q2A	10	3.5	1.27	1	5
Q2B	10	3.2	1.32	1	5
Q2C	10	3	1.25	1	4

Music and for Film, Video and Games

Variable	N	Mean	Std Dev	Minimum	Maximum
Q2A	6	4	0.63	3	5
Q2B	6	4.33	0.52	4	5
Q2C	6	3.67	0.52	3	4

Both Music workshops

Variable	N	Mean	Std Dev	Minimum	Maximum
Q2A	18	3.72	1.07	1	5
Q2B	18	3.67	1.19	1	5
Q2C	18	3.33	1.03	1	4

GPS - Drawing with Satellites

Variable	N	Mean	Std Dev	Minimum	Maximum
Q2A	16	4.81	0.4	4	5
Q2B	16	4.75	0.45	4	5
Q2C	16	4.19	0.75	2	5

GPS - The City as a Canvas

Variable	N	Mean	Std Dev	Minimum	Maximum
Q2A	9	4.44	0.53	4	5
Q2B	9	4.44	0.73	3	5
Q2C	9	4.33	0.71	3	5

Both GPS Drawing Workshops

Variable	N	Mean	Std Dev	Minimum	Maximum
Q2A	25	4.68	0.48	4	5
Q2B	25	4.6	0.57	3	5
Q2C	25	4.24	0.72	2	5

Q3. My overall opinion about the workshop is:

Scale:

1. ***Very negative***
2. ***Negative***
3. ***Neutral***
4. ***Positive***
5. ***Very positive***

Music Interactivity

N	Mean	Std Dev	Minimum	Maximum
10	3.3	1.25	1	5

Music and Sound for Film, Video and Games

N	Mean	Std Dev	Minimum	Maximum
6	3.5	0.55	3	4

Both Music Workshops

N	Mean	Std Dev	Minimum	Maximum
18	3.44	0.98	1	5

Drawing with Satellites

N	Mean	Std Dev	Minimum	Maximum
16	4.44	0.51	4	5

The City as a Canvas

N	Mean	Std Dev	Minimum	Maximum
16	4.44	0.51	4	5

Both GPS Drawing Workshops

N	Mean	Std Dev	Minimum	Maximum
25	4.48	0.51	4	5

Workshop evaluation survey | Porto, November 2007 | UTA - Portugal
Comparative analysis

Summary of overall opinion

My overall opinion about the workshop is:

Scale:

1. Very negative
2. Negative
3. Neutral
4. Positive
5. Very positive

Both Music Workshops

N	Mean	Std Dev	Minimum	Maximum
18	3.44	0.98	1	5

Both GPS Drawing Workshops

N	Mean	Std Dev	Minimum	Maximum
25	4.48	0.51	4	5

F-Test for equality of variance:

Variable	Method	Num DF	Den DF	F Value	Pr > F
Q3	Folded F	17	24	3.72	0.0034

p of F = 0.0034 which is significant at p < 0.05,
therefore variances are not equal,
therefore use a t-test for unequal variance

T-Tests

Variable	Method	Variances	DF	t Value	Pr > |t|
Q3	Satterthwaite	Unequal	23.6	-4.09	0.0004

Conclusion: the GPS workshops were rated higher overall than the Music workshops

Important note for questions 5 and 6: Mistakes were not corrected – as they may provide important information on the participants' level of English.

5. Please use the space below to comment on the aspects of the workshop that you enjoyed and have helped you learn.

Music interactivity

- The topics aproach, and the concepts that were mencioned.

- The instructor preparation about the subject
- The overall sensation of the seminar was desapointment. The presentation did not bring anything new, and was badly prepared.

Music and Sound for Film, Video and Games

- The professor had a lot of experience and knowledge.
- The teacher talked about some of the myths about music for film and showed some interesting clips, examples of good and bad film scores.
- it was important to us see the teacher's studio and he's instruments.
- experience of the instructor, adequate practical examples, good overview of the area
- The organization should had provided certificates to all registered participants.. That is not done yet!

GPS- Drawing with Satellites

- Understanding the process of drawing in different scales; use of new tools and media gave me a greater perspective of the variety of art disciplines.
- the experience of using a gps device to draw pictures; for fun...
- drawing with satelites, drawing with anything!
- i found the worshop very interesting and made me experience a different way of drawing and perceiving the place and the city
- I really enjoyed the field work, on the beach, and I think that the insctructors were quite effective in sharing their enthusiasm for GPS Drawing with us. They were also quite available for any question and doubt we had.
- the understand about a new concept to draw in space.
- I was pleased for the chance to experiment a new way of thinking space.
- Using the GPS to draw, under Hugh's and Jeremy's supervision, was very educative as we not only had fun doing it but also became aware of all the possibilities and constrains of this technology.
- The time dedicated to draw with gps was very important to understand and discover the possibilities of this tecnnique. The structure of the workshop was very good
- I enjoyed to interact with the other participants and teachers.

GPS – The city as a canvas

- it was too sort
- new concepts, new approaches of new technologies usage. open minded. new tools for new ideas
- The ws helped my curiosity in understanding the gps technology and how we can use it for artistic purposes.

6. Please use the space below for recommendations or suggestions for improving any aspect of the workshop.

Music interactivity:

- Maybe do workshops with more a practical component.
- More time for the workshop; possible with a practical session.
- In my opinion, organizers should pay a little more attention to the audience and to the audience's academic background. Not everyone had the technical skills to understand what was said.
- some hands-on part.
- workshops should allow you aquire some skills you haven't before. to achieve that the 'teacher' should provide *more* than his experience and previous work.

Music and Sound for Film, Video and Games

- Time was too short. One afternoom is just not enough time. It could have been more practical.
- The second part of the workshop was a bit boring because there were some technical problems and the teacher was not very well prepared to talk about Logic
- Continue the great work.
- The workshop should be longer

GPS- Drawing with Satellites

- increase the duration of the workshop
- increase the duration of the workshop
- this possibility is a special oportunity, the aspect of stay and drawing with space and do things with pure air... is a good choise!!
- no need of imrpovement, it was a quite nice workshop, very complete and understanding
- I think that it would be very interesting to discuss the broader sense of GPS Drawing and develop its aesthetic, political and social dimensions.
- the time was not sufficient to developed a project
- I think the workshop would be much more interesting if there has been time and place for the post-drawing. I think it is of great importance to have time to debate conceptual questions when working on an artistic aproach.
- I wished we had had the opportunity to talk about Hugh's and Jeremy's work from a more conceptual perspective (background, implications, future directions, etc.). It would also have been interesting to look at, and discuss, the work done by all the workshop participants.
- More days for this kind of workshop;
- Aquiring and manipulating the GPS data in real time using wireless technologies.

GPS – The city as a canvas

- more time and more tecnical details
- none. well done|
- Continue the great work.
- It's dificult because it depends on the location the ws will be given.

Remarks: Overall, the feedback is positive. The participants suggest longer workshops and a more hands-on approach.

2-9. Annex C | Course Descriptions and Evaluations

A. Digital Hollywood Workshop – Bryan Sebok – June Institute 2008

Description and Instructor Evaluation

The "Digital Hollywood" workshop took place between June 9 and June 13, 2008 in Lisbon, Portugal. The class met for three hours each day, from 3pm until 6pm. The course was designed to introduce students to the macro-industrial and economic impacts of digital technologies on Hollywood studio business practices. Students were asked to read assigned articles and to respond to lectures and readings through daily blog entries through the course website.

The course offered students a variety of perspectives on digital technology development and diffusion into the conglomerate studio system. Students were encouraged to raise issues and questions throughout the workshop and to request additional materials that would contribute to their understanding of the topics under discussion. Technologies covered included motion control cameras, digital non-linear editing systems, computer-based animation and rendering technologies, digital exhibition and projection technologies, digital distribution technologies (including the internet and DVD) and computer generated imaging technology. Each technology was considered in the context of its particular development process and impacts on the businesses of filmmaking, film distribution, and film exhibition.

The course began with an overview of the state of "Convergent/Digital Hollywood" today. We discussed the convergence of the computing, video game, consumer electronics, and filmed entertainment industries and the extent to which interaction between these industries has been accelerated by digital technologies such as the DVD. We then discussed the processes surrounding DVD technological innovation, including the mutually impacting contexts of industry, technology, regulation, and culture. The second day focused on student interests and issues relating to the first day's material. We discussed the past, present, and future of digital

innovation in the entertainment industries and differences between filmmaking industries in the United States and Portugal. The third day of the workshop focused on the industrial structure of the U.S. film industry and the relationships between digital effects companies, unions, production companies, distribution companies, exhibition companies, and entertainment conglomerates. The fourth day covered digital aesthetics and the various impacts on product output in global filmmaking stimulated by digital technologies. The final day of the workshop focused on piracy, digital copyright, regulation, and digital culture relating to home entertainment technologies such as the DVD.

19 students enrolled in the course. Of the 19, all successfully completed the course. All students were in attendance during all class periods, including on two holidays and one day of a Portugal football match. All students were completely engaged in the course material and blogged throughout the workshop with questions, comments, and essays based on the course material.

This was a highly successful course. Students repeatedly showed initiative and insight relating to course materials. After the conclusion of each class, students remained in the classroom and moved into the courtyard and café areas to continue discussions initiated over the course of the three hours previous. Several students asked for additional materials that would guide them in their research, which I subsequently posted to the course website. I was also asked repeatedly to offer a "sequel" to the course for students in Portugal.

If offered again, I'd make the following recommendations:

1. I think the course should be at least two weeks of daily courses in order to facilitate more time to cover material. Students also suggested that more time with the course would be beneficial.
2. It would also be productive to have more time per class, from three hours to four or five hours to allow for screening clips or feature films.

Course Evaluation (10 out of 19 responded, 53% response rate)

June 2008 Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3**	**4**	**5**
SA	5	8	7	9	6
A	5	1	2		3
N					
D					1
SD			1		
I don't know		1		1	
TOTAL	10	10	10	10	10

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized.***
Strongly Agree – **50%** (5)
Agree – **50%** (5)

2) ***The workshop leader communicated effectively.***
Strongly agree – **80%** (8)
Agree - **10%** (1)
I don't know – **10%** (1)

3) ***The materials were well-organized***.
Strongly agree – **70%** (7)
Agree – **20%** (2)
Strongly Disagree – **10 %** (1)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***
Strongly Agree – **90%** (9)
I don't know – **10%** (1)

5) ***I feel that this workshop will be (or has already been) of value to me***

Strongly Agree – **60%** (6)
Agree – **30%** (3)
Disagree – **10 %** (1)

General Course Evaluation overview – 3 question overview

	Q6	**7**
Excellent	4	6
Very Good	4	2
Satisfactory	1	2
Dissatisfactory	1	
TOTAL	10	10

6) ***Overall this workshop was***

Excellent - **40 %** (4)
Very Good – **40%** (4)
Satisfactory – **10%** (1)
Unsatisfactory – **10%** (1)

7) ***Overall this instructor was***

Excellent – **60%** (6)
Very Good – **20%** (2)
Satisfactory – **20%** (2)

8) ***In my opinion, the workload of this course was***

High - **50%** (5)
Average – **40%** (4)
Insufficient – **10%** (1)

Free-form Questions and Responses

A) What do you consider the most important thing you learned from this workshop?

1) Talking about the other side of Hollywood and the changes that have happened with the industries that are changing Hollywood's business landscape.
2) Hard to say, it was all very interesting. It was very useful to get access to all the articles.
3) It was the know how of the American standards in the digital media world leading. It is always a good starting point to learn from those who are in front of the industry and, either in business as well as creative.
4) The most important thing I learned was understanding the way digital media is evolving, and how the mechanisms of the industry are adapting the producing forces to also evolve their techniques.
5) How the Hollywood industry works
6) The most important thing was the inside of the Hollywood market. The classes arose the conscience of the structure and problematics, which concern the digital era and de American industry.
7) I would say that it was how we were able to get to understand, in spite of being in a very general way, the basic lines that are at play in digital Hollywood, not focusing only in one approach. Coming from a background in media theory focused on philosophy, it was important to open my views to other important approaches.

B) What information from the workshop been most useful in your current research?

1) CGI, Convergence, Conglomerate and Digitization of Content. These topics were excellent.
2) The DVD issue and the hierarchy in the film industry.
3) How you can use the media platforms to promote our own work.
4) The state of the art about Hollywood technology
5) The knowledge of the operational system of the American industry.
6) I have to say that they were the discussions we had during the whole week. My research focus mainly in the topics we have discussed, so it was very important for me to have the opportunity to discuss it. It was also important that we were not always agreeing but everybody was doing their readings and so had the chance to sustain his/her point of view, which give place to very interesting discussions that have really push forward my work. It was also important to notice that the professor was trying to focus the lectures that were prepared on the topics that we were trying to discuss at class.

C) What topics would you like to see covered in future research workshops?

1) In the future I'd like to talk about immersive media and liquid media. Mobile and Web TV would be also topics that I would like to study.
2) Technical issues - maybe a kind of historical perspective on the development of the digital techniques in the history of film (although there was some coverage on the subject, I'd like to know more about it)
3) Maybe some practical examples with visual information, because mostly people will not know things that for you are granted.
4) More innovative filmmaking techniques.
5) I think due to the length of the workshop the amount of information and discussion where proportional.
6) Theory and philosophy of film and digital media.

D) Do you have any additional comments or suggestions?

1) No. I thought the workshop was great. It would be interesting to include us in on-line discussion groups this would be a great help.
2) The time was short - the workshop should be extended for 2 weeks
3) Just to continue to give that great possibility to others.
4) The second day should not be only for discussion. The discussion should be made at the last of each day of the workshop.
5) I believe that the duration of the workshop was too short. We had class 3 hours a day during one week, but I believe that with more time per day we could have developed better the questions that we were focusing on.

Moodle Evaluation Subsection

1) ***Were you able to access the Moodle environment?***
Yes – – **100%** (10)

2) ***If not, please summarize your difficulties in using Moodle*** [NO RESPONSES]

3) ***Did you access the environment primarily at home or in class?***
At home – – **60%** (6)
In class – – **40%** (4)

4) ***Do you believe that using this system has contributed to improving your learning in this course?***
Yes – – **90%** (9)
Somewhat – – **10%** (1)

F. Photorealistic 3D Graphics Rendering & Simulation Workshop – Arie Stavchansky – June Institute 2008

Instructor Description and Evaluation

Between June 16 and June 27, from 9:00AM to 6:00PM, this workshop brought together students with varying backgrounds and interests. Discussion topics ranged from image perception, vision, simulation, realism, and credibility to computer graphics language, development, and creation workflow. Students learned advanced rendering and animation techniques with the instruction of the mental ray rendering engine and the Havok physics simulation engine within Autodesk's 3DstudioMax. The techniques and tools were taught using conceptual models so that students could adapt what they learned to any 3D rendering application.

Overall the students were intelligent, creative, and eager to learn and do. They listened attentively and asked pertinent questions to discussion topics and the demonstrated techniques. Each student was asked to conceptualize, design, and realize two high resolution, photo-realistic images, and a short animation that presented a physics simulation. We took a few hours at the end of the first week to discuss the works-in-progress and had a class discussion about the strengths and weaknesses of the produced work. As I led these discussions, students contributed many useful comments and critiques toward the work. This created a good

atmosphere for everybody to learn from each other. They also had an excellent work ethic while they were at the lab. Very rarely did I see a student browsing the web, or sending and reading email when they had the opportunity to work on their projects.

One of the main problems of the workshop was attendance. Students felt that they could come and go freely because of the "workshop" nature of the education, and because they didn't make an investment that would motivate them to learn as much as possible from the workshop. I would find myself teaching the same concepts and techniques many times because of this problem. This workshop overlapped with their end-of-semester final exams which made them place other obligations over the workshop. It may prove useful to schedule future workshops a few weeks before the end of their normal summer holidays.

The technical facility was nice, and the support was in place. Nuno Correira introduced me to my technical support team, and they fixed the problems as they came up. The lab could have benefited by having a shared disk space for student and teacher files to be stored. Many students lost some of their work because of issues related to saving directly to USB pen drives. Overall, though, the systems performed nicely and were appropriate for this workshop. If I were to teach this workshop again I would want the workstations that students use during the workshop to become render nodes after class ends so that students could render over night more effectively. Simulation, and photo realistic rendering takes a huge amount of processing time.

The time for the workshop—approximately 6.5 full work hours— was appropriate. I felt that with fewer work hours, students would be denied to opportunity to extrapolate what they learned from the workshop into their new, creative, projects. The day was split in half. Morning to noon included conceptual theory and lecture, while noon to early afternoon included technical instruction, and afternoon to evening included time for the students to work on projects. While it was very time intensive, I felt that the students learned a great deal.

Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3a**	**3b**	**4**	**5**
SA	1	6	4	7	7	6
A	5	1	3			1
N						
D	1					
SD						
I don't know						
TOTAL	7	7	7	7	7	7

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***
Strongly Agree – **14.3%** (1)
Agree – **71.4%** (5)
Disagree – **14.3%** (1)

2) ***The workshop leader communicated effectively.***
Strongly agree – **85.7%** (6)
Agree – **14.3%** (1)

3a) ***The workshop materials were well-organized.***
Strongly agree – **57.1%** (4)
Agree – **42.9%** (3)

3b) ***The workshop leader demonstrated an interest in the progress of my work.***
Strongly Agree – **100%** (7)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***
Strongly agree – **100%** (7)

5) ***I feel that this workshop will be (or has already been) of value to me***
Strongly agree – **85.7%** (6)
Agree – **14.3%** (1)

General Course Evaluation overview – 3 question overview

	Q6	**7**
Excellent	6	6
Very Good	1	1
Satisfactory		
TOTAL	7	7

6) ***Overall this workshop was***
Excellent – **85.7%** (6)
Very Good – **14.3%** (1)

7) ***Overall this instructor was***
Excellent – **85.7%** (6)
Very Good – **14.3%** (1)

8) ***In my opinion, the workload of this course was***
High - **57.1%** (4)
Average – **42.9%** (3)

Free-form Questions and Responses:

A) What do you consider the most important thing you learned from this workshop?

1) I consider that all the contents were valuable and I feel I learned the basis that can serve as support for future work.
2) Everything was important, but probably the most useful is all the theory that the instructor taught us as he was teaching the techniques, because that I will be able to apply in the future even if I work with other software. Also, it helps to understand how things really work.
3) To learn about all the rendering process, lights and materials setups, and the all theory behind all those processes. Also enjoyed learning a new interface like 3Dmax.
4) I learned how to act as a team and accept and give comments regarding the creative work. In terms of technology, I learned how to take advantage of 3ds max's lighting effects to try and make photorealistic designs and, since that was also the aim of the course, I got to really enjoy the learning process.
5) Photorealistic imagery is a complex process but thankfully Arie Stavchansky gave an overall sight, including the foundations of this fascinating discipline. So, this workshop provided me a good introduction to photorealism rendering and to 3D simulations.
6) It gave me the chance to improve a lot my knowledge on 3D tools.
7) Everything, especially physics simulation and lighting

B) What information from the workshop been most useful in your current creative work?

1) All the theory I learned about lighting, materials and rendering techniques.
2) All the workshop will be useful, since it taught us how to make our images/models appear more real, (or completely unreal, which may also be useful =))
3) How to setup materials and lights for a good rendering, and how to work with max and mental ray.
4) Learning to think in 3d was a very important step in the creative process, also I think I will never look at car paint quite the same way. The way a 3d artist sees a design is very different from that of a 2d artist and that is a lesson to keep and try and apply in the work I develop from now on. In terms of technology, the way that 3ds max can export animations as flash movies will be very important in my webdesigner work.
5) The how to work with 3dsmax and mentalray for obtaining realistic images for architectural, design and other artistic scenarios. I also started to explore the possibilities of 3dsmax+mentalray for medical animation, which seem quite promising.
6) As a graphic designer I've already been able to create some 3D images that where used on a poster.
7) I'm not currently working with 3D

C) What topics would you like to see covered in future creative workshops?

1) I think it would be interesting learning more about animation.
2) I think any 3d workshop would be interesting, but if I must specify maybe a second part of this workshop, more special effects or even motion capturing.
3) Maybe learn a little bit more about the compositing process.
4) I would like to see a workshop on 3d modelling and probably some kind of 3d creativity workshop for advertising. Also, I would like to see more workshops for webdesigners...
5) A workshop on 3D medical animation and molecule visualization would be appropriate.
6) Beside other 3D tools like Blender, also interaction tools like MAX/MSP(+ Jitter) and others.
7) Human-computer interaction and interfaces. Probably some basic electronics (sensors, actuators) and simple interaction software (Flash?)

D) Do you have any additional comments or suggestions?

1) I feel the workshop was great in most of the aspects and I suggest more initiatives like that in other multimedia areas.
2) I would like to attend more workshops, and it would be better if they weren't in our exams weeks.. =) anyway, it was great!
3) I guess not, it was a really good investment.
4) Regarding the Teacher, I believe that the way of teaching is quite different from that we practice in Portugal, but not necessarily worse. In my opinion, Arie Stavchansky is a great teacher and knows how to let our creativity influence our will to participate and, in this case, to become better designers. I really learned a lot... As a suggestion, 6 daily hours of work is a lot for a workshop. I would prefer to see the daily schedule reduced and the workshop extended for a few more days. That way, the students would have more time to work on their individual projects without being overwhelmed by the workshop.
5) Keep on the good work.
6) More people should be allowed to participate and take advantage of the fact that it was for free (if we had to pay for this kind of workshop most of us wouldn't have had the chance to participate). Thank you to everyone involved in the workshops program.
7) I know the time was short to learn so many things, but still this was the biggest workshop. I felt there could be more emphasis on modelling (but as I said, the time was short) Maybe separate workshops next time? (modelling, animation, lighting, physics)

G. Joe Straubhaar – Research Methods Workshop – November 2007, Porto

Course Evaluation Long-Term Followup Results

(7 out of 37 [est] responded, 19% response rate)

November 2007 (Data Collected March 2008 and Compiled June 2008)

Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3**	**4**	**5**
SA	1	3		6	3
A	5	4	6		3
N					
D			1		1
SD					
I don't know	1			1	
TOTAL	7	7	7	7	7

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***
   Strongly Agree – **14.3%** (1)
   Agree – **71.4%** (5)
   I don't know – **14.3%** (1)

2) ***The workshop leader communicated effectively.***
   Strongly agree – **42.9%** (3)
   Agree - **57.1%** (4)

3) ***The materials were well-organized***.
   Agree – **85.7 %** (6)

Disagree – **14.3 %** (1)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***
Strongly Agree – **85.7%** (6)
I don't know – **14.3% (**1)

5) ***I feel that this workshop will be (or has already been) of value to me***
Strongly Agree – **42.9%** (3)
Agree – **42.9%** (3)
Disagree – **14.2 %** (1)

General Course Evaluation overview – 3 question overview

	Q6	**7**
Excellent	1	3
Very Good	4	3
Satisfactory	2	1
TOTAL	7	7

6) ***Overall this workshop was***
Excellent - **14.2 %** (1)
Very Good – **57.1%** (4)
Satisfactory – **28.7%** (2)

7) ***Overall this instructor was***
Excellent – – **42.9%** (3)
Very Good – – **42.9%** (3)
Satisfactory – **14.2 %** (1)

8) ***In my opinion, the workload of this course was***
High - **85.7%** (6)
Average – **14.3%** (1)

Free-form Questions and Responses:

A) What do you consider the most important thing you learned from this workshop?
1) the importance of making interviews during the survey...
2) the value of the data for a[n] efficient response to a problem.
3) I believe that the most important thing I learned was that intercultural research can be very fulfilling and rewarding. Very important, as well, was to get to know new research methods.

B) What information from the workshop been most useful in your current research?
1) The importance of inquiries.

C) What topics would you like to see covered in future research workshops?
1) more skillfuls for making [questionnaires]
2) How to compile information, perhaps...

D) Do you have any additional comments or suggestions?
1) I'm still waiting for the certified
2) No.

Moodle Evaluation Subsection

1) ***Were you able to access the Moodle environment?***
Yes – – **85.8%** (6)
No – – **14.2%** (1)

2) ***If not, please summarize your difficulties in using Moodle*** [NO RESPONSES]

3) ***Did you access the environment primarily at home or in class?***

At home – – **57.1%** (4)
In class – – **42.9%** (3)

4) ***Do you believe that using this system has contributed to improving your learning in this course?***

Yes – – **71.4%** (5)
Somewhat – – **14.2%** (1)
No – – **14.2%** (1)

H. Stavchansky – "Rich Media Website Design" Spring Semester 2008

Course Description

This course examines what makes a web site "rich" in media, and to what extent such web sites are useful in communicating messages to audiences. Interfaces for rich media web sites can be considered as actual content rather than simply a conduit to retrieving information, and the course uses this notion as a foundation for creating engaging products for the web. After studying how novel interactions are designed, students will implement crafted interactions in the context of web site development. Programming experience is required to learn advanced Flash Actionscript. Students will complete mini assignments that culminate in the production of a final project. The ultimate goals for the course are for students to learn the design process for building web sites that make use of novel interactions, and to understand how to implement them.

Course Evaluation (8 out of 36 responded, 22% response rate)

Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3**	**4**	**5**
SA	2	2	4	4	6
A	5	5	3	4	1
N					
D	1	1	1		
SD					
I don't know					1
TOTAL	8	8	8	8	8

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***

Strongly Agree – **25%** (2)
Agree – **62.5%** (5)
Disagree – **12.5%** (1)

2) ***The workshop leader communicated effectively.***

Strongly Agree – **25%** (2)
Agree – **62.5%** (5)
Disagree – **12.5%** (1)

3) ***The workshop leader demonstrated an interest in the progress of my work.***

Strongly agree – **50%** (4)
Agree – **37.5%** (3)
Disagree – **12.5%** (1)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***

Strongly Agree – **50%** (4)
Agree – **50%** (4)

5) ***I feel that this workshop will be (or has already been) of value to me***

Strongly Agree – **75%** (6)
Agree – **12.5%** (1)
I don't know – **12.5%** (1)

General Course Evaluation overview – 3 question overview

	Q6	7
Excellent		7
Very Good	5	1
Satisfactory	3	
TOTAL	8	8

6) ***Overall this workshop was***
Very Good – **62.5%** (5)
Satisfactory – **37.5%** (3)

7) ***Overall this instructor was***
Excellent – **87.5%** (7)
Very Good – **12.5%** (1)

8) ***In my opinion, the workload of this course was***
Excessive – **12.5%** (1)
High – **62.5%** (5)
Average – **25%** (2)

Free-form Questions and Responses

A) What do you consider the most important thing you learned from this workshop?

1) The most important thing I learned, was the basic structure of the events and functions. Then, I could understand the class, properties, events...the hierarchy of different objects and how different is Actionscript 3.0 to actionscript 2.0
2) In my opinion the most important thing I learned is the Actionscript 3.0 it's really the first time I used that script. The diagram to pre-build the homepage or applications it's useful too.
3) The most important thing I learned in this workshop was the Action Script 3.0, because I have never worked with it.
4) How to work in Action Script 3!
5) The plan in actionscript 3 and the pleas of flash
6) I started using Actionscript 3. I was delaying the move from AS2 to AS3 and this workshop forced me to do it, which was a very good thing.
7) I have now the basis to use flash for a site development
8) I learned the changes from actionscript 2.0 to 3.0.

B) What information from the workshop been most useful in your current creative work?

1) The integration of 3D effects and video on my flash documents.
2) The most useful maybe the design and activities like pre-loading bar and the navigation in the timeline of actionscript 3.0, it's really different from the others previous versions.
3) Action Script 3.0, activities worked during the classes, websites showed by the teacher.
4) How to work in Action Script 3!
5) I think how to structure a website, the distribution of content on the website to your organization. The way to organize in view of the recipients was very important.
6) Some knowledge of AS3
7) Flash and AS3
8) I believe that the information from the workshop which was most useful for my creative work was thinking about the design for to build and develop the *.fla document.

C) What topics would you like to see covered in future creative workshops?

1) More detailed functions. Animation and effects created on script. Preloaders. 3D functions and math equations to script. Functions related with mouse movements.
2) In the future I want to learn more animations. Flash Lite for mobile phones, it's a most wanted script in our days.
3) I think that in future workshops one should learn to make more kind of animations. It's important to learn Flash Lite too.
4) 3D in flash, connection to other platforms, best practices in the workflow.
5) I think the workshop was well organized and covered the most important points. However I believe that creativity should be further explored and the way of putting it into practice.
6) Basic programming notions for people who never saw a programming language and have no

idea what that is (probably 90% of the class). An introduction to algorithms before structures and conditions. A definition of variables, functions, classes, objects, instances, inheritance, encapsulation.

7) I think we need some more time and a better communication quality.
8) For this workshop? Well, it would be great to send some tutorials (1 to 5) and the respective solution to the students, each week.

D) To what extent do you think the web-cast nature of the workshop affected your learning?

1) Unfortunately, yes.... Because of low quality of sound, it's was complicated to hear the instructor, understand what he was saying and then translate and follow the explanation.
2) It's different than usual but I enjoy it, but sometimes the network fails and we lost some minutes, and some delay in connection and sometimes occur desynchronization. I prefer more personal contact, it's easier to resolve doubts.
3) This kind of workshop is a little difficult because there's no personal contact between student and the teacher and, sometimes, the delay of the video transmission handicaps the full perception of the some exercises.
4) Unfortunately some times the video connection wasn't so great. The sound and the image wasn't clear, so the communication wasn't the best...
5) I have been with a more comprehensive idea of how to be organized a creative work.
6) I have been using flash and acstionscript 2 for some years now, so I did not have many problems (apart from the workload, which may have been a bit too much, but that is because this module was taken as an extra module. Under normal circumstances I don't think the workload would have been too much). What I can say - from what I heard from my colleagues and from what I saw - is that the subjects covered where a bit too advanced for most people. The fact that the tutor was on the other side of the world and that we had a two hour session every other week may have contributed to the difficulty I saw in really learning.
7) The channel quality was in most cases very bad
8) This workshop was interesting for to learn a new language - actionscript 3.0 - done by Adobe.

E) Do you have any additional comments or suggestions?

1) Maybe it was better if we always had the exercise made, for each class. Then we could analise it as long as the explanation.
2) The class it's really cool to have a class with an American teacher, and it's a new experience to have a class by webcam system.
3) It was a new and a good experience to have classes with an American teacher and by web.
4) I hope the next time the video connection is improved!
5) Start slower. Either remove actionscript except from an eventual stop or gotoAndPlay or talk about programming before trying to teach people to program. The audience was very diversified, from different background. One session every two weeks is not enough.
6) I liked the formal approach to Web Design. To stress the need for planning and designing before starting implementation. This is particularly important for big projects and team projects.
7) I have too much difficulties with actionscript 3.0 - the language is complicated and if there is just one error...well, the *.swf or *.html document doesn't work... For that reason, I guess that the best choice in the future is to give the students also a guide with the contents which the professor want to see well done in the application. This guide has some tutorials which the student(s) can learn with. In my class, we've done a search too extensive for to learn how to do some steps - here we've lost too much time...and probably with the help of this guide, done by the professor, we wouldn't be so confused.

Moodle Evaluation Subsection

1) ***Were you able to access the Moodle environment?***

Yes – **100%** (8)

2) ***If not, please summarize your difficulties in using Moodle***

1) Moodle don't accept contents over 2MB. This is a problem in Assignment Due's, because we can't deliver the work as we want. Besides, we have to send to professor's e-mail and trying not to fill up the mail box.

3) ***Did you access the environment primarily at home or in class?***

At home – **62.5%** (5)

In class – **37.5%** (3)

4) ***Do you believe that using this system has contributed to improving your learning in this course?***

Yes – – **100%** (8)

I. Screenwriting for New (and Old) Media – Stuart Kelban, Porto, July 2008

Course Description

Whether writing a feature-length screenplay or a 3-minute webisode, a screenwriter's sole obligation is to tell a good story. In this intensive seminar, students will explore the dramatic principles which inform all forms of narrative writing for visual media, both old and new. Through a combination of lecture and workshopping, we will examine the basic theory and formal aspects of story, character, conflict and structure. In lecture, we will carefully break-down each step of the screenwriting process, through reading scripts and viewing films & internet shorts. In workshop, we will apply those steps to the development of your own creative work, with students collaborating on scripts for both a short film and webisode. Students will discuss and evaluate each other's work on a daily basis, developing their critical skills as screenwriters and evaluators of film. By the end of the seminar, students will leave with a greater appreciation and understanding of writing for both traditional and new media.

Instructor Evaluation

The Screenwriting for New (and Old) Media workshop was held from June 16 - June 27 in Porto from 4 p.m. to 7:30 p.m. Monday through Friday. This was a writing workshop where students worked collaboratively to develop and write several original webseries. Students divided into small writing teams, which met each class. Each team created an original premise for a webseries, developed the characters and storylines as a group, then assigned members to write individual webisodes. In addition to the creative work, the course critically examined several produced webseries and screenplays, exploring how traditional dramatic principles of character, story and structure have changed – and have not changed – when applied to new media.

The course began with an over-view of the basic principles of dramatic writing. We discussed issues of character, story and structure, using screenplays for "The Godfather" and "Schindler's List" as our models. We then applied these traditional dramatic principles in examining current internet web-series, including "The Office", "The Devil's Trade", "Lonelygirl", "Quarterlife" and "The Guild".

Concurrent to our critical examination, students applied these dramatic principles to the creation of their own web-series. Students each pitched 2 – 4 premises for original web-series. After workshopping these premises as a class, students broke into 4 writing teams of 4 members each, and each team chose a premise to develop. The first week of the course was spent in the creative development of their web-series: creating short outlines for the series; "interviewing" the main characters; breaking-down the series into four distinct webisodes. Individual members of each team were then assigned a specific webisode to write.

The second week of the course was devoted to writing the first draft of each webisode. Upon completion of the individual scripts, each webseries was then workshopped by the class as a whole. We then discussed the process of revision in screenwriting, and students were asked to write a 2nd draft of their scripts. The completed webseries were:

- ***"Lucky Numbers":*** three estranged brothers band together, after discovering each brother has the ability to correctly choose specific numbers in the national lottery.
- "***Made In":*** an Afghan seamstress of traditional burkas faces temptation when asked to make a Western-style dress by a charismatic foreigner.
- ***"Fool Your Destiny":*** a lonely professor starts receiving prophetic letters which correctly predict his future – including his own death.
- ***"H.T.M.L. – How To Meet Lara":*** a college techno-geek transforms into a digital Cyrano de Bergerac to win over a beautiful coed.

Overall, this was a very successful workshop. Students entered the course from various backgrounds in digital media, but without any experience in screenwriting. By the end of two weeks, they demonstrated an advanced critical ability to analyze screenplays from a writer's perspective. Most impressively, students were able to apply what they'd learned to their own creative work, writing several very entertaining and dramatically-successful webseries. If this workshop is offered again, I would make the following recommendations for improvement:

- ***Scheduling.*** This intensive two-week workshop was scheduled during the students' final exam period. Understandably, students were pressed for time, and were under extreme stress; consequently, I was forced to make several changes to the curriculum on-the-fly, to accommodate the students' exam schedule. In the future, every attempt must be made to avoid this conflict in scheduling.
- ***Language issues.*** Students' English-language ability spread across a wide-spectrum. Some students were nearly fluent in spoken English, while others were at a beginners level. Their written English, however, was not as proficient as their spoken-skills. Since this course is a writing workshop (with an English speaking instructor) this posed some obvious obstacles to the quality of their finished scripts. In the future, students should write an initial draft in English for the instructor, but would then write a Portuguese version for themselves. Students could then use the Portuguese scripts for future productions – or as writing samples -- in Portugal.
- ***Filming & Distribution.*** At the end of the course, students had scripts for 4 polished webseries ready for production. In the future, there could be a second component to the workshop, in which students digitally film their webseries. Afterwards, these series could be shown on a specifically-designed course website, or distributed via local television. This was an idea strongly endorsed by all the students.

Finally, I'd like to mention how talented, intelligent and helpful my Porto students were; in nearly 20 years of teaching, this was one of my most enjoyable classes. This was largely due to the generosity and invaluable help of my host, Jose Azevedo. Many thanks to him.

Course Evaluation (12 out of 17 responded, 71% response rate)
June 2008 Specific workshop Evaluation – 5 question overview

	Q1	**2**	**3a**	**3b**	**4**	**5**
SA	11	12	11	11	10	10
A	1		1	1	2	2
N						
D						
SD						
I don't know						
TOTAL	12	12	12	12	12	12

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***
Strongly Agree – **91.7%** (11)
Agree – **8.3%** (1)

2) ***The workshop leader communicated effectively.***
Strongly agree – **100%** (12)

3a) ***The workshop materials were well-organized.***
Strongly agree – **91.7%** (11)
Agree – **8.3%** (1)

3b) ***The workshop leader demonstrated an interest in the progress of my work.***
Strongly agree – **91.7%** (11)
Agree – **8.3%** (1)

4) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***
Strongly agree – **83.3%** (10)
Agree – **16.7%** (2)

5) ***I feel that this workshop will be (or has already been) of value to me***
Strongly agree – **83.3%** (10)
Agree – **16.7%** (2)

General Course Evaluation overview – 3 question overview

	Q6	**7**
Excellent	10	12
Very Good	2	
Satisfactory		
TOTAL	12	12

6) ***Overall this workshop was***
Excellent – **83.3%** (10)
Very Good – **16.7%** (2)

7) ***Overall this instructor was***
Excellent – – **100%** (12)

8) ***In my opinion, the workload of this course was***
Very High - **41.7%** (5)
Average – **58.3%** (7)

Free-form Questions and Responses

A) What do you consider the most important thing you learned from this workshop?

1) I learned the entire journey that I must do to write a script.
2) The professor taught quite well the principles behind the production of screenplay, and the most important points were discussed with practical examples.
3) The most important thing for me was to learn about the subject from a professional point of view. I learned to appreciate a movie and/or a series from a completely different point of view. Oh, I also learned never to kill the dog! :)
4) The method of making a script. The steps you have to take and understand to start your work.
5) How to make a good Screenwriting.
6) Something about screenwriting
7) I learned a lot of important things. That's hard to say what was the most important. But maybe the most important thing that I learned was how since it will teach during 4 hours maintaining the totally attentive and very interested pupils. The workshop leader communicated effectively. I liked very also of understand the difference between writing an screenplay and a novel.
8) The methodology used to write a script
9) How to make a GOOD script!
10) The whole process of Screenwriting and create a good and logical story.
11) It was all-important because it was an entirely new subject for me and every step was an anchor to the next.

B) What information from the workshop been most useful in your current creative work?

1) With this workshop my critical spirit became richer. When I see a film I understand better its structure and how it is organized. When I need to design a script will be cognitively more mature and informed to do so.
2) I consider the structuration of the screenplay was the most useful task because it allows all creative work to be done without losing most important goals of the work.
3) Everything was important! Specially to think of a beginning, a middle and an end to what I do!
4) The work process. Before start something we must see another works and make some research about the theme.
5) Making tables as method systematic for to organize better my ideas and built a good story: deconstruction by it's acts > episodes > scenes. It was also good to understand the importance of structure over all the story and comprehend how is so important the arc and the character.

6) How to structure a history and the steps to begin to develop screenplay.
7) The story and acts structure.
8) It was important to understand that in screenwriting, as in graphic design, there is a need for process and initial concept, something that will guide the rest of the work.

C) What topics would you like to see covered in future creative workshops?

1) Learn how to shoot a movie (techniques of filming) in the studio and external environment and also directing actors.
2) Perhaps the analysis of the screenplays done in the beginning of Hollywood and confrontation with the ones produced today.
3) Now that wee know the beginning, we should be able to learned what's in the middle and in the end, i.e, editing, production, direction, and so on...
4) With some more time, try to make a script for a short film.
5) I don't have nothing to suggest at this moment, because I think that the professor and our class did a great job. In two weeks we learned well and we extend our knowledge in this area.
6) I would love to be able to attend more workshops like this one and if I ever get there, an advanced screenwriting workshop
7) Instead of being learning how to write a webseries to be a movie, and learn about important rhythms and ideal moments in the movie
8) To cover other film worlds, besides American
9) Script for interactive applications
10) Multimedia and interactive projects Screenwriting and storyboards.
11) I would like to see an advanced class of screenwriting... or a more extended one with time to explore revision, for example.

D) Do you have any additional comments or suggestions?

1) In the near future do a workshop where we will hold a film with a script done in the same workshop.
2) The workshop should have last longer! I'm sad it's over!
3) It was great. The teacher gave one classroom with much energy, very creative and much passion for the matter. Besides it demonstrated to be a perfect expert of all these themes and to be very well prepared scientifically
4) This course should have more than 10 classes... instead of only 2 weeks, the duration should be in 3 or 4 weeks.
5) I would like this workshop lasts more days...
6) Yes, I do. I suggest an annual class in Portugal.

Moodle Evaluation Subsection

1) ***Were you able to access the Moodle environment?***
   Yes – **100%** (12)

2) ***If not, please summarize your difficulties in using Moodle*** [NO RESPONSES]

3) ***Did you access the environment primarily at home or in class?***
   At home – **91.7%** (11)
   In class – **8.3%** (1)

4) ***Do you believe that using this system has contributed to improving your learning in this course?***
   Yes – – **66.7%** (8)
   Somewhat – – **25%** (3)
   No – – **8.3%** (1)

J. Digital Transformation of Organizations – Gary Chapman July 2008

Course Description

This course, which should last from July 14 to July 19, 2008, will be an abbreviated and condensed version of the course of the same name that I have been teaching at the LBJ School for the past few years. Its chief aim is to explore how the Internet and new online tools are changing the character of organizations, covering phenomena such as the flattening of hierarchies, new models of collaboration, the “blurring” of institutional boundaries, and new

styles of leadership within organizations. The course should be delivered for three-and-a-half hours in the morning for each of the six days in the proposed week, i.e., from 8:30 in the morning until noon, with a half-hour break in each session. (A schedule of 9 a.m. to 12:30 p.m. is also possible.)

The course will begin with a very quick overview of the technologies that are forming the core services of digital transformation: the Internet, relational databases, “middleware,” Open Source software, open data standards (particularly XML), public application programming interfaces, and collaborative platforms such as content management systems, wikis, blogs, and other applications (file sharing, calendars, image galleries, etc.) The class will be asked to explore the availability of these resources in Portuguese, and to investigate the state of their use in Portuguese-speaking countries.

The focus of the course will then move on to organizational changes, particularly in nonprofits and government, that are made possible by new digital technologies. We will explore how some of these technologies are transforming activities like political campaigns, e-government, nonprofit fundraising, and political activism in the United States. We will look at some models of citizens becoming resources for government, resulting in a blurring of the lines between citizens and government officials. We will look at new models of collaborative leadership and authority, as described in recent books such as The Starfish and the Spider (2006) or The Power of Organizing Without Organizations (2008). We will look at the “generation gap” between young, tech-savvy “millennials” versus their older counterparts from the “baby boomer” generation, and discuss what this means for managers of organizations.

Instructor Evaluation

A week-long course called “Digital Transformation of Organizations” was conducted at the Instituto de Engenharia de Sistemas e Computadores do Porto, or INESC Porto, on the campus of the School of Engineering of the University of Porto in Porto, Portugal, the last week of July 2008. The course was led by Gary Chapman, senior lecturer at the LBJ School of Public Affairs at the University of Texas at Austin. The course was part of the UT Austin-Portugal Project, an ongoing research and teaching collaboration between the University of Texas at Austin and Portuguese universities. The short course offered in July at INESC Porto enrolled 18 students who had diverse backgrounds and experiences, and an age range that spanned graduate students and senior professors and researchers.

The purpose of the course was to review some large-scale trends in organizational and social transformation brought about by the widespread use of Internet-based technologies. A principle theme of the course was that dramatically falling “transaction costs” within and between organizations are changing the ways that things get done, the ways people work together, and how organizations behave. The transaction costs for either starting or maintaining an organization are falling because of new online tools, particularly collaboration tools that allow groups to quickly form online, and just as quickly evolve into significant, transformative activity. The “platform” model of “Web 2.0” phenomena such as YouTube, SalesForce.com, Facebook, Digg, etc., provided the basis for discussions about how all organizations are being transformed by online collaboration.

The course material presented by Chapman included discussions about the concepts of “wikinomics,” “mashups,” open data standards, Web 2.0, Open Source software, a transition from “e-government” to “i-government,” or “information government,” and ideas surrounding new organizational forms and leadership qualities. Students were asked to read the book “Wikinomics: How Mass Collaboration Changes Everything,” by Dan Tapscott and Anthony Williams, and students were referred to recent and related books such as “Here Comes Everybody: The Power of Organizing Without Organizations” by Clay Shirky; “The Starfish and the Spider: The Unstoppable Power of Leaderless Organizations,” by Ori Brafman and Rod A. Beckstrom; and “Groundswell: Winning in a World Transformed by Social Technologies,” by Charlene Li and Josh Bernoff.

In addition to lectures and class discussions, the students developed a course wiki, using the free, Open Source wiki software platform TikiWiki. The students in the course were divided into three teams, and each team had at least one person who had some experience using a wiki. The purpose of the wiki was for the students to self-organize their own interpretation of the course information, and also to provide students an experience of online collaboration that would illustrate the themes of the course. The information on the wiki was entered in Portuguese. A goal of using the wiki is to create a place for Portuguese-speaking Internet users to share ideas about the transformation of society and organizations, and to link these ideas with exemplary Web resources, projects and organizations in the Lusophone world.

This short course was extremely well received by the students. Every enrolled student showed up every evening, and reports from people outside the course reflected the students' satisfaction with the course. Several students paid for their own hotel rooms to attend this course in Porto and one student took a 90-minute train ride each way, every evening. There was a strong feeling of commitment and optimism among the students, and they all pledged to continue working on the wiki they started. The wiki will need to be relocated to a different server and more permanent home, but it has promise as a valuable resource in the future.

Gary Chapman wishes to express his deep thanks to the UT Austin-Portugal Project for the opportunity to teach this course, with particular thanks owed to Drs. Sharon Strover and Artur Pimente Alves.

Preliminary Course Evaluation (7 responses as of 9/11/2008)

Specific workshop Evaluation – 8 question overview

	Q1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
SA	1	5	1	4	6	5	2	2
A	6	2	6	3	1	2	5	5
N								
D								
SD								
I don't know								
TOTAL	7	7	7	7	7	7	7	7

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

1) ***The workshop was well organized***
Strongly Agree – **14.3%** (1)
Agree – **85.7%** (6)

2) ***The workshop leader communicated effectively.***
Strongly Agree – **71.4%** (5)
Agree – **28.6%** (2)

3) ***The workshop materials were well-organized.***
Strongly Agree – **14.3%** (1)
Agree – **85.7%** (6)

4) ***The workshop leader demonstrated an interest in the progress of my work.***
Strongly agree – **57.1%** (4)
Agree – **42.9%** (3)

5) ***The workshop leader encouraged discussion and I felt free to ask questions, disagree and express my ideas.***
Strongly Agree – **85.7%** (6)
Agree –**14.3%** (1)

6) ***I feel that this workshop will be (or has already been) of value to me***
Strongly Agree – **71.4%** (5)
Agree – **28.6%** (2)

7) ***The resources for this course were appropriate.***

Strongly Agree – **28.6%** (2)
Agree –**71.4%** (5)

8) ***The resources for this course were adequate.***
Strongly Agree – **28.6%** (2)
Agree –**71.4%** (5)

General Course Evaluation overview – 4 question overview

	Q9	**10**	**11**
Excellent	1	3	5
Very Good	5	3	2
Satisfactory	1	1	
TOTAL	7	7	

9) ***The classroom and resources were:***
Excellent – **14.3%** (1)
Very Good –
Satisfactory - **14.3%** (1)

10) ***Overall this workshop was***
Excellent – **42.9%** (3)
Very Good - **42.9%** (3)
Satisfactory - **14.2%** (1)

11) ***Overall this instructor was***
Excellent – **71.4%** (5)
Very Good – **28.6%** (2)

12) ***In my opinion, the workload of this course was***
Average – **42.9%** (5)
Light – **14.2%** (1)
Insufficient – **14.2%** (1)

Free-form Questions and Responses

13) What do you consider the most important thing you learned from this workshop?

A) Knowledge about the new available organizational toolbox and the changes to the Economy, society and organizations structures and practices brought by new web practices and the new information and communications technologies that support those practices.
B) The importance of the new economy based on the web.
C) Became more aware of the important and deep changes and transformations into the organizations - and all around the world in every and each aspect, in fact - as a result of the great developement of technologies
D) The practical side of it. How to know were important things are and how to handle them.
E) The impact of information technologies in organizations and the consequence transformations and future of the society.

14) What information from the workshop been most useful in your current creative work?

A) The Knowledge about the new available organizational toolbox and the changes to the Economy, society and organizations structures and practices brought by new web practices and the new information and communications technologies that support those practices.
B) Some examples and case studies.
C) I didn't get the chance to start working in matters concerning the use of the information I got from the workshop yet. I hope I will be able to dedicate myself to it soon!
D) How to work with wikis and the importance they can have in research and teaching (how to interest people and how to be efficient in applied research)
E) My research is in the same focus of the workshop so the main matter was very useful and particularly the conclusions and perspectives to the future.

15) What topics would you like to see covered in future creative workshops?

A) 1 - Participatory Cultures and the new information and communications technologies;
2 - Personal and Community empowering technologies;
3 - Personal Fabrication;
4 - Creative communities and Industries;
5 - Collective Intelligence; 6 - Networks and Self-Organization.

B) New Information Technologies on Professional Trainning and Education

C) Again, how to do things in group and how to make them simple and immediate for research and teaching

D) Each one of the topics covered could be developed and lead to several workshops. I'm particularly interested in the interface design topics.

16) Do you have any additional comments or suggestions?

A) These kind of workshops must happen more often.

B) It was very rewarding to attend to this workshop. The contents were very interesting and the workshop leader has a strong and deep knowledge and is also a great communicator. Just keep up the good work!

C) The workshop was very interesting and important for me. I would like to be enlisted in more. Thanks.

D) Don't stop!

2-10. Annex D | Public Talks by UT Austin faculty

A. Public Talk: Professor Rosental Alves (Feb. 26) Lisbon

"Da deconstrução do jornalismo da Era Industrial à construção do jornalismo da Era Digital"

Abstract: The new millennium started amidst the intensification of the effects of the Digital Revolution, which is producing transformations all over the world only comparable to those registered as a consequence of the radical historical processes, such as the invention of the mobile type, by Johannes Gutenberg, by the end of the XV century, or the Industrial Revolution, by the end of the XVIII century. We have inherited a journalism which is a result of the of the unidirectional mass communication environment created during the last century and that is becoming an anachronism when faced with the appearance of the Information Society, where everyone can "create, research, use and share the information and knowledge" based on the new communicational paradigms, different from those of the Industrial Era.

Journalism has already entered a deconstructive process that will allow it to evolve and change so that it can adapt itself and survive the new conditions imposed by the proliferation of the new digital technologies and by the political, social, economic and cultural changes. By losing power and control to the audience, that transforms itself from passive to active audience, journalism becomes less vertical and more horizontal, less based on a monologue and more and more based on a dialogue or a conversation, less closed and more open.

B. Public Talks (2): Dr. Gary Chapman (March 11) Lisbon, (March 14) Porto

"The Wiki State: Transforming Government With New Internet Tools"

Abstract: The appearance and success of new "Web 2.0" tools on the Internet -- such as blogs, wikis, maps, image and video galleries and social networking sites -- offer some interesting and potentially historic opportunities for transforming government. Citizens using new online tools and government information in open data formats are creating new experiments in government transparency, accountability, and knowledge creation, and thus blurring the lines between citizen volunteers and government officials. This talk will describe some of these innovations, with a particular focus on "disaster informatics," fiscal transparency, and this year's election in the United States. For Gary Chapman's Presentation slides go to http://21stcenturyproject.org/chapman_portugal.pdf.

C. Innovation and Technology in Film, Tom Schatz (May 30th)

D. Digital Film, Tom Schatz (June 6th)

Abstract: The focus of this lecture will be on the making of *The Matrix*, on the film's highly complex (and contradictory) depiction of technology in the postmodern world, and also on the film's massive influence on subsequent movie franchises. The Matrix (both the initial film and the ever-expanding narrative system that it generated), took computer-generated (CG) digital effects to a new level and ushered in a new mode of "transmedia storytelling" – thus creating a template for the Hollywood blockbuster in the new millennium.

E. Youth and New Media, Craig Watkins (June 17th) Lisbon

Abstract: From the moment new communication technologies began to infiltrate American homes, young people have been among the early explorers and early adopters of computers and the Internet. Today, teens and young adults are credited for the ascent of social media platforms like MySpace, Facebook, and YouTube. The social web has been variously characterized as empowering, participatory, and communal. Drawing from original research including survey data and in-depth interviews this paper considers the consequences of "being digital." Designed more as a public discussion about the steadily evolving role of digital media technologies in young people's lives the paper considers three themes. The first theme offers a present day portrait of young people's new media behaviors. To what extent has the web and mobile technologies, especially cell phones, emerged as the preferred communication platforms in daily American life? Moreover, what is the impact of the new media's rise on the more than fifty-year hegemony of television in daily American life? Next, the paper explores what it means to be a citizen in the digital age. Focusing primarily on issues like cyberbullying, constant connectivity, and virtual community the paper offers some insights on the social consequences of digital media. Finally, the paper explores how issues of social inequality matter in any conversation about youth and today's technological environment. What do young people's use of social network sites like MySpace and Facebook tell us about the racial and class aspects of social media?

F. Remapping the Digital Divide, Sharon Strover (June 20th) Lisbon

***Abstract*:** This talk will review some of the claims regarding digital technologies, and examine aspects of digital space- and time-compressing technologies embedded in contemporary societies as they may contribute to digital divides. The idea of "digital divides" dates back roughly fifteen years, and it has been used in many different contexts and to mean several different things. We will review some of these meanings and then examine what the divide means in the contemporary context, for the U.S. and other countries. Divides between populations or regions can have important policy implications, even as they reflect on other processes of globalization and innovation and diffusion.

G. Stuart Kelban (June 24th), Lisbon

Love & Death in 3 Minutes or Less: the Screenwriter's Role in New Media,

Recently, the Writers Guild of America went on strike, largely over financial issues related to writing for new media. Screenwriters in the United States were willing to shut down Hollywood for four long months, at great risk to both the industry and their own careers. And yet, no one – not the film studios, the television networks, nor the writers themselves -- truly knows what shape "writing for new media" is going to take.

During this new form's long, drawn-out birth, there have been some notable successes ("Lonelygirl") and some very public failures ("Quarterlife"). Using clips from recent web-series, we'll explore the directions that writing for new media may take in the near future, along with the implications for traditional cinematic story-telling. Will the same classic Aristotelian dramatic principles apply to both a two-hour feature and a three-minute webisode? What happens to characterization, story and structure when you write films that will be shown on cellphones? And most importantly, will the next "Citizen Kane" premiere on YouTube?

2-11 Annex E | Materials from Digital Media Leadership [Internship] Program

A. Digital Media Leadership Program Overview

We launched our internship program as a pilot program in the spring semester of 2008, branded as the Digital Media Leadership Program. The description of the program distributed to students is included in the application following. To date, we have placed a total of 13 interns; 8 in the spring semester and 5 over the summer term. Thus far, the program has been quite successful, with both interns and employers expressing a very positive response to the experience.

Evaluations completed by both interns and employers/mentors revealed that of the 8 interns placed during the spring semester:

- All were recommended by their employers to receive a passing grade for the course and successfully completed the program.
- All interns had their work rated as very satisfactory.
- All interns were rated as exceptionally reliable and professional, and employers said in every case they would recommend their interns for employment.
- All companies agreed or strongly agreed that the DMLP had helped to locate interns who might not have otherwise known about their company.
- All companies strongly agreed that the interns placed by the DMLP had made valuable contributions to their company.
- All interns stated that their internship had provided them with substantial, valuable work opportunities.
- Four interns were offered a position as a result of their internship, and of these, 3 accepted.

We are hoping to place a minimum of 10 interns for the fall semester, with a mix of interns from UT and Portuguese universities. We have continued to cultivate existing relationships with companies in Austin, and have also worked to develop new ones. We will be hosting a luncheon for professionals working in the digital media industry next month. A sample of the letter that was distributed to publicize the program and the upcoming lunch is included following.

B. Internship Placements through Digital Media Leadership Program

Spring 2008 Internship Placements

Enspire (elearning)
Fusion Learning Systems (elearning)
Powerhouse Animation Studios (animation studio)
Pulse Interactive (mobile applications)
Spacetime Studios (gaming)
Tattooed Under Fire/the UT Documentary Center (web development for documentary film)

Summer 2008 Internship Placements

Action Figure (post production)
The Digital Media Collaboratory
GirlStart (non-profit organization focused on girls in math, science, and technology)
KUT (web department of public radio station)
The UT Film Institute

C. Internship Application Distributed to Students 1

Digital Media Leadership Program, Fall 2008

The Digital Media Leadership Program is a structured internship program administered through the Department of Radio-Television-Film.

Selected students will be placed in one-semester or summer internships with digital media (e.g., video gaming, web design) companies in Austin or the region. The program aims to place students at companies that can provide close mentoring relationships with people who are interested in working with students and who are able to provide substantive work projects for the duration fo the internship. By completing the program, students will not only gain work experience, but also professional confidence, abilities, leadership skills, and connections that will serve them well as they transition into their professional careers.

Course Requirements

Students will work in their assigned internship for a minimum of 120 hours over the course of the semesters.

Students working in Austin must attend regular meetings held every other week (approximately 7 times during the semester). These meetings will be on Tuesday evenings.

Application Procedure

Students should submit applications, including a resume and essay answers to Carly Kocurek at carlykocurek@mail.utexas.edu as soon as possible. Applications must be submitted before August 15 at the latest. Interviews will be scheduled immediately.

Fall 2008 Digital Media Leadership Application Form

Contact Information
Name:_____EID:_____
E-mail:_____
Phone Number:_____
Address:
(street)_____(apt.#)_____
(city)_____(state)_____(zip/postal code)_____

Academic Information
Degree(s) completed:_____
Degree in progress (if relevant): _____
Hours Completed:_____GPA:_____
Scholarships/Honors/Awards:_____

Work Information
In addition to attaching a resume, please list any relevant skills here. Include any programs, programming languages, or other skills you believe may be relevant to your internship work.

References
Reference 1
(name)_____
(title/affiliation)_____
(e-mail)_____(phone number)_____
Reference 2
(name)_____
(title/affiliation)_____
(e-mail)_____(phone number)_____
Reference 3
(name)_____
(title/affiliation)_____
(e-mail)_____(phone number)_____

Essay
Please attach your typed answers to the following questions. Maximum length for answering all 3 questions is 2 pages, double-spaced.

1. What specific skills do you hope to gain by participating in this program?
2. Describe your ideal internship experience.
3. Why do you want to participate in the Digital Media Leadership Program, and how do you

believe it will contribute to your academic and professional goals?

Submit this completed application with your resume and essay answers attached to Carly Kocurek at carlykocurek@mail.utexas.edu by 5 p.m. U.S. Central on July 21, 2008.

D. Internship Letter Distributed to Potential Employers/Industrial Contacts

July 31, 2008

Name
Company
Address

Dear Name,

I am writing with regard to the Digital Media Leadership Program, an internship program offered through the Department of Radio-Television-Film at the University of Texas, with which I hope you are already familiar. This program has been developed in response to conversations we have had with students and faculty and area businesses - some members of the video game industry contributed ideas at the industry lunch we hosted last September.

This spring was the first time we offered the DMLP, and we were able to place a handful of top students with digital media companies here in Austin. Through this program, which is more structured than the typical internship program, we hope to foster stronger ties to local industry and improve the internship experience for both students and employers.

We are currently setting up internships for this coming fall. The students participating will be upper-division RTF majors or students enrolled in the Digital Arts and Media Bridging Disciplines Program. They will be expected to work at least 120 hours and participate in leadership development (through a campus course) to supplement their experience. Companies should be willing to have students do substantive work and provide students with a mentor. If your company would like an intern for the fall, please let our internship coordinator, Carly Kocurek, know as soon as possible. You can reach her at carlykocurek@mail.utexas.edu or call her at (940) 224-2235.

The program description that was sent to students can be viewed at http://rtf.utexas.edu/undergraduate/courses/2008/PROD75_010594.html
Please do not hesitate to contact us with any questions. This internship program will be a permanent part of our curriculum, and we hope to place interns each semester (fall, spring and summer), so if you do not need interns at this time but may want to work with interns in the spring, we would love to work with you. I hope to host another luncheon with members of the regional digital media industries in September, and hope to see you there.

Regards,
Sharon Strover
Philip G. Warner Professor and Chair of Radio-TV-Film

E. Sample Final DMLP Evaluation (Intern)

Basic Information
Name
Employer
Major
Expected Graduation Date

Employer Information
Name of Company
Name of Superviser
Brief description of type(s) of work performed as part of internship
Hours worked per week at internship: (0-5) (5-10) (10-15) (15-20) (20+)
Did you work at least 120 hours at internship? (yes) (no)
How satisfied are you with your internship? (very satisfied) (satisfied) (neutral) (dissatisfied) (very dissatisfied)

How accessible is your mentor? (very accessible) (accessible) (neutral) (inaccessible) (very inaccessible)

Please explain your reasons for your answers to questions 7 and 8: _____

Has your internship provided you with substantial, valuable work experiences? (yes, absolutely) (yes) (neutral) (not really) (definitely not)

Were you offered a position as a result of your internship? (yes) (no)

If you were offered a position, did you accept it? (yes) (no)

DMLP Feedback

I have benefited from participating in the Digital Media Leadership Program. (yes, absolutely) (yes, some) (neutral) (not much) (not at all)

I would recommend the program to a friend or classmate. (definitely) (maybe) (unsure) (probably not) (definitely not)

I have found the meetings and workshops helpful. (always) (most of the time) (some of the time) (none of the time)

Which meetings/workshop was your favorite and why?

Which meetings/workshops were most helpful to you and why?

Do you have any suggestions for improving the DMLP for future semesters?

Feel free to add any further thoughts about the DMLP and anything you think should/should not be changed.

F. Internship Sample Final DMLP Evaluation (Mentor)

Intern Evaluation

This section of the evaluation is intended to offer feedback on the performance of each intern. Please complete this survey once for each intern you are working with so that we have separate data on each of our students.

Name of Company

Name of Intern

Name of Mentor

Please provide a brief description of the type(s) of work the intern has provided as part of his/her internship.

Hours per week that intern has worked for internship: (0-5) (5-10) (10-15) (15-20) (20+)

Has this intern worked a minimum of 120 hours at your organization? (yes) (no)

Would you recommend that this intern receive a passing grade for his/her internship experience? (yes) (no)

How satisfactory has the work completed by this intern been?
(very satisfactory) (satisfactory) (neutral) (unsatisfactory) (very unsatisfactory)

How would you rate the reliability and professionalism of this intern? (exceptional) (above average) (average) (below average) (poor)

Based on his or her performance, would you recommend this intern for employment?
(definitely) (probably) (perhaps) (probably not) (definitely not)

Please explain your reasons for your answers to the previous two questions.

This section of the evaluation is intended to offer feedback on the performance of each intern. Please complete this survey once for each intern you are working with so that we have separate data on each of our students.

DMLP Feedback

The DMLP helped my company locate interns who might have otherwise not known about my company.
(strongly agree) (agree) (neutral) (disagree) (strongly disagree) (not applicable)

The interns placed by the DMLP were reliable and professional.
(strongly agree) (agree) (neutral) (disagree) (strongly disagree) (not applicable)

The interns placed by the DMLP have made valuable contributions to my company.
(strongly agree) (agree) (neutral) (disagree) (strongly disagree) (not applicable)

The paperwork related to the DMLP was manageable.
(strongly agree) (agree) (neutral) (disagree) (strongly disagree) (not applicable)

The amount of time required to complete paperwork and evaluations related to the DMLP has been reasonable.
(strongly agree) (agree) (neutral) (disagree) (strongly disagree) (not applicable)

My company would consider employing students via the DMLP in the future.
(strongly agree) (agree) (neutral) (disagree) (strongly disagree) (not applicable)

My company has benefited from participating in the DMLP.
(strongly agree) (agree) (neutral) (disagree) (strongly disagree) (not applicable)

Please use this space to detail any suggestions you have for improving the Digital Media Leadership Program. We are looking to expand and improve this program over coming semesters.

2-12. Annex F | Future Places Festival

A. Participant Institutions

Future Places Festival finalists come from a variety of institutions around the world:

- Istanbul Technical University
- University of California at Santa Barbara
- Universidade do Minho
- Faculdade de Belas Artes, Universidade do Porto
- Centro de Investigação em Ciências e Tecnologia das Artes
- Escola das Artes, Universidade Católica Portuguesa
- Faculdade de Ciências Sociais e Humanas Universidade Nova de Lisboa
- Universidade da Beira Interior
- Ydreams
- Columbia University (Artist-in-Residence)
- New York University
- Universidade Lusófona
- Instituto Superior Técnico
- The East West Institute
- Faculdade de Engenharia da Universidade do Porto
- University of Texas at Austin

Future Places Festival workshops have attracted people from many different career tracks and institutions. These include:

- MINIMARK Consultores de Marketing
- Innovagency
- Portugal Telecom Inovação, SA
- Escola Superior de Artes Aplicadas
- Portuguese Naval Academy
- Maccoutinho Communication Design
- Goisdesign
- Masters programs in Multimedia at the Faculdade de Engenharia da Universidade do Porto and the Faculdade de Belas Artes, Universidade do Porto
- Professors and teachers from secondary schools and universities including the Universidade da Beira Interior; the Escola Secundária Artística de Soares dos Reis, Porto; the Universidade de Aveiro; Escola Superior de Tecnologia e Gestão de Portalegre; and the Faculdade de Belas Arts da Universidade de Lisboa.
- Antena 1 (public radio broadcasting)
- Agência para a Modernização Administrativa
- Optimus (media and telecommunications)
- Centro de Artes Digitais Atmosferas

B. Schedule for Future Places

Tuesday 7 OCT

10:30am-6:00pm: Arduino workshop, day one (School of Fine Arts)
10:00am-6:00pm: Interface Design workshop, day one (Serralves)

Wednesday 8 OCT

10:30am-6:00pm: Arduino workshop, day two (School of Fine Arts)
10:00am-6:00pm: Interface Design workshop, day two (Serralves)

Thursday 9 OCT

10:00am-1pm: Interface Design workshop, work in progress discussion (Serralves)
2:00pm to 4:30: Official opening ceremony of FUTURE PLACES (Reitoria)
- Keynote addresses by UT Austin-Portugal representatives
- Caroline Frick speaks on Texas Archive of the Moving Image
- The Museum of the Person: video conference by Ana Nassar
- Joana Miranda speaks on the recent U.Frame festival

6:00pm: Welcome reception with concert by BJNilsen (Casa da Música)
10:30pm: U.Frame and Black&White film retrospectives followed by party. DJing by PhDj Cruz (Passos Manuel)

Friday 10 OCT

11:00am - 5:00pm: Future Places Conference: Viewpoints on Digital Media and Local Cultures - Session 1 (School of Fine Arts)
- BJNilsen, MSC Harding and Heitor Alvelos discuss work processes in field recording and digital music composition
- Stephan Baumann Head of Competence Center Computational Culture, German Research Center for Artificial Intelligence, speaks on his recent research on gathering of urban signals for well-being
- Nuno Correia speaks on the work developed at the UTAustin-Portugal Summer Institute 2008
- Pedro Leão speaks on CCRE, online platform for urban reinvention
- Presentation of Interface Design workshop outcomes
- Steven Devleminck speaks on Transmedia program (Sint-Lukas Academy, Brussels)
- António Câmara speaks on YDreams and national strategies for the development of Digital Media
- Heitor Alvelos and MSC Harding speak on social network project The Kingdoms of Elgaland-Vargaland

6:00pm: Stop NonStop: Elgaland-Vargaland anthem event (STOP Shopping Center)
10:00pm onwards: Screening of competing films and presentation of competing performance pieces followed by party (Passos Manuel and Maus Hábitos)

Saturday 11 OCT

10:00am - 5:30pm: Active Media 2.0 workshop (School of Fine Arts)
2:00pm - 5:00pm Future Places Conference: Viewpoints on Digital Media and Local Cultures - Session 2 (Reitoria)
- Philip Dean talks about MediaLab Helsinki program and projects
- Pedro Custodio speaks on how SHIFT conference addresses local cultures
- MAPA event: how Portuguese Education is handling digital media (Open forum led by representatives of Portuguese Universities)

7:00pm: Exhibition Opening and Award ceremony (Reitoria)
11:00pm: Closing party with the Future Places Impromptu All-Stars Orchestra (Casa da Música).
Exhibition remains open until October 19.

2-13. Annex G | Digital Media Research Call

A. 2008 Call for UT Austin|Portugal Program Projects Grants Announcement

In the Framework of the UT Austin|Portugal Program, the FCT (Foundation for Science and Technology) opens a call for the funding of **Joint Research &Development Projects** according to the subjects specified by the Program and announced in the website www.utaustinportugal.org, including the following areas:

- ***Digital Media, in the following subjects:***
  - Participative Media for Education and Culture;
  - Interactive Media Design;
  - Interactive Music and Sound Design;
  - Online Journalism;
  - Film and Television.

- ***Advanced Computing, as described below:***
  - Methodologies and techniques in HPC, distributed/grid computing and large scale data analysis & management, to solve computational engineering and science problems.
  - The list of available research domains and associated team leaders and institutions are at the Program's official website.
- ***Mathematics, in the following subjects:***
  - Algebra and Number Theory;
  - Applied and Numerical Analysis;
  - Analysis and Partial Differential Equations;
  - Geometry and Topology;
  - Optimization;
  - Stochastic Processes and Mathematical Finance;
  - Dynamical Systems.

Application Requirements

Application should be made by an association of two or more research teams from public or private Portuguese institutions, together with an industrial affiliate of the UT Austin|Portugal Program (or any other entity complying with the FCT Projects Regulation) with one or more research teams at UT Austin. The applicants should have a strong scientific Resume in relevant domains for the project's execution.

Funding

FCT's public funding will cover human resources, funding for missions, general spending and equipment expenditures. Special notice will be given in projects that are privately co-funded.
The projects are funded by the Ministry of Science, Technology and Higher Education (MCTES).

For Digital Media: There will be a maximum of 5 projects funded; each project should have a maximum duration of 2 years. The maximum funding is €200.000 (euro) per project.

For Advanced Computing: There will be a maximum of 6 projects funded; each project should have a maximum duration of 2 years. The maximum funding is €150.000 (euro) per project, but some funding on the UT Austin side might also be available.

For Mathematics: There will be a maximum of 3 projects funded; each Project should have the maximum duration of 4 years. The maximum funding is €150.000 (euro) per Project.

Call Duration

The call will be open from July 1st 2008 until September 15th 2008 (5:00 pm, GMT+0).

Applications

Applications should be submitted electronically (in English) at the website http://concursos.fct.mctes.pt/projectos, starting on July 1st 2008. ***No other forms of submission will be accepted.***

Evaluation and Selection

All teams will have their proposals screened by the UT Austin team coordinators with help of external referees appointed by them (only if necessary).

- A particular relevance and preference will be given to projects that have a goal to stimulate or be associated with networks and ID&T Programs in the European space (mainly the Eureka Program or the 7th Quadro Program of the European Commission, among others);

The evaluation and selection process is based on the following criterion:

- The project's relevance with the subjects defined for each area;
- Scientific merit, relevance, originality and expected results of the proposed Project;

- Scientific merit and productivity of the research teams and their qualifications to execute the Project;
- Ability to execute the work plan and within a reasonable budget.
- Ability to integrate in the Portuguese research centers and/or involved companies:
  - PhD Researchers;
  - PhD Students involved in the UT AustinPortugal Program;
  - 1st Cycle students in higher education, to involve them in research activities.

Special consideration will be given to the following aspects:

- Involvement of undergraduate and graduate researchers in training;
- Consortia spanning two or more Portuguese universities or R&D institutions;
- Funding and participation from industrial partners.

No applications will be accepted from coordinators that are in a situation of unjustified unfulfillment of the requirements with the FCT, regarding the presentation of the Report for the Project's execution and the return of unspent money.

Forms and Regulations

The application forms and call regulations (in Portuguese) are available online, during the period of the call in http://www.fct.mctes.pt/projectos/concursos. For more information on this call, please visit the Program's official website (www.utaustinportugal.org) or send your questions to the directors of your interest areas: dm.colab@fct.mctes.pt (for Digital Media), ac.colab@fct.mctes.pt (for Advanced Computing) e math.colab@fct.mctes.pt (for Mathematics).

2-14. Annex H | Industry Outreach

A. Seminar on "Making Search Better" - Dr. D. Turnbull (Feb. 21) Lisbon, (Feb. 26) Porto

Abstract: The goal of improving information seeking and retrieval is currently at its zenith both in industry and academia. However, there are still many challenges to be met towards the goal of innovating to improve search for everyone, in every applicable context. This talk will review a set of developing ideas and some ongoing research including personalization, filtering, user-defined metadata and information architecture that provide both research and development opportunities with potential impact to advance search utility.

2-15. Annex I | Summer School in Porto Vision Document

A. Proposal for an International School on Digital Transformation

Gary Chapman, LBJ School of Public Affairs

Summary: A proposal and budget for a new International School on Digital Transformation, a residential program, to be conducted in English, of approximately one week in length, consisting of about 50-75 advanced-level or graduate students and 18 faculty lecturers representing international diversity, to be held in Porto, Portugal in the summer of 2009.

B. Vision

People around the world have already experienced profound social, economic and political change because of the global extension of the Internet. But the pace of change of the past decade is likely to increase over the next decade, and technological transformation is expected to deepen and alter human relations even more profoundly. The Internet now reaches about 20% of the world's population, but in many places around the world the changes brought by digital technologies are in their earliest stages. In particular, we expect the Internet and related digital technologies to continue to transform government, public participation, economic opportunities, education, and simply the way things are done, around the world. We are now at the leading edge of a new generation entering the workforce, a generation that has grown up with the Internet and digital technologies as part of their entire educational experience. These are the so-called "digital natives," young people who take these technologies for granted and who are constantly creating new and innovative ways to use them. It is startling to recall, for example, that YouTube—now a ubiquitous and influential phenomenon—is only three years old.

MySpace, which has over 100 million registered users, is only 5 years old. Google is only 10 years old but it is worth nearly $200 billion.

A challenge facing young people around the world is that the overwhelming majority of new technology companies that are influencing the development of the Internet and thus of institutions worldwide are based in the United States. Indeed, most of these young companies are located in a single geographic zone, Silicon Valley in northern California. There are intelligent young people in many countries who wonder why there is such a concentration of innovation, economic opportunity, and creativity in one place. There are young people who are doing interesting things that could transform their societies or their governments, but who typically do not have the opportunities to share their experiences with others in similar circumstances. Expensive and far-away technology conferences are beyond their means; the domination of American entrepreneurs has overshadowed many young innovators in other countries; in some cases, innovative solutions are developed for economic circumstances very different from the post-industrial economies of the West. The rule today is to try and catch someone's attention in Silicon Valley, move there and get rich. This tends to perpetuate and intensify the concentration of innovation.

This proposal for an International School on Digital Transformation is meant to be an effort to bring together experienced innovators in the field of digital technology and communications with young but advanced students from around the world, in a focused, collaborative and educational experience for one week in a residential setting in Porto, Portugal. The themes of the school can be summarized as:

- ***Innovation that helps transform and improve societies and governments:*** digital technologies for greater public participation, transparency and democratic reform; new e-government strategies for low-income regions; extending the benefits of the Internet to new users; models of entrepreneurship and social entrepreneurship; harnessing the intelligence of young people throughout the world.
- ***Cultural enrichment:*** how digital technologies can be used to enrich local or regional cultures, and help these cultures be "seen" in an online environment now dominated by English-language commerce; how cultural innovation can be more equitably distributed and supported around the world; bringing the tools of media to more places, and exploring ways to provide culturally relevant economic opportunities to more people.
- ***Managing and promoting institutional transformation in the Internet era:*** what are the new forms of getting things done, making money, communicating, and living that are emerging because of the Internet revolution, and how can young leaders help their communities and their countries adapt to these changes and succeed in the future?

The School will emphasize learning and experiences using the main features of the current Internet: low-cost tools, highly interactive social networking and sharing, new forms of mobile information, and ways to process nearly unlimited sources of information. The School will combine lectures about innovations, social transformations and new ideas with some practical experiences using cutting-edge but low-cost tools, such as cheap digital video cameras, RSS, Open Source software and new techniques on mobile devices.

The School will aim to be innovative in instruction as well as subject matter, and it will not be a conventional, "short course" model that looks like an academic program. The residential character of the School is meant to provide sustained interaction between students and faculty as partners and peers, and to help develop bonds of friendship that can be sustained once the School is over and everyone has returned home.

If the International School on Digital Transformation is successful, over many years, it can serve as a catalyst of an international network of "transformation agents," or people with the spark to help change their societies in a rapidly evolving, technologically turbulent era.

C. Why An International School in Portugal?

Porto, Portugal has many assets and is an ideal location for an International School. Porto is a city of about 200,000 people but it is surrounded by a metropolitan area that has a total population of about 1.5 million. It is the “capital” of northern Portugal, the most industrialized area of the country. The city is of course famous for its native product, port wine. As the site of the proposed International School, Porto has several distinct advantages.

First, Porto is a beautiful, charming and attractive city with a sophisticated cultural life. It is not an overcrowded and expensive European tourist destination, but it is a place that is very pleasant, with good weather and beautiful sights, which means that it should not be difficult to persuade faculty members or students to consider spending a week there. In terms of Continental or Atlantic geography, Porto is centrally located and easy to reach—it has an international airport and is served by a world-class train system.

Portugal has an underdeveloped economy in comparison with other European countries, and this means that prices in Portugal are considerably lower than in other European destinations such as Spain, France or Italy. This would make the International School much more economical than would be possible in any of these other countries. At the same time, the facilities and amenities in Porto are comparable to any large city elsewhere in Europe.

Porto is the home of a very large university, the University of Porto, a co-sponsor of the International School, which can provide logistical support and various other benefits. Because of the university and because Portugal is a small country, many people speak English and it is common for English to be used in university courses, lectures or other venues.

Portugal is in the early stages of what appears to be a long-term commitment to digital technologies as the core of national economic revitalization. Because of this, Portugal is home to some extraordinary—and not well known—experiments in innovation using digital technologies. Portugal is sponsoring some very advanced projects in e-government, for example—projects well ahead of what is happening in the U.S.—and the new digital media and marketing company YDreams, a spinoff of the New University of Lisbon, is attracting international attention. A current partnership between universities in Portugal and the University of Texas at Austin has clearly revealed that in terms of expertise and experience, learning is happening in both directions.

Finally, the Lusophone world—the global population of people who speak Portuguese—is enormous. It covers 230 million people, representing the fifth most spoken language in the world. It ranges over rising economic giants like Brazil to emerging market countries such as Angola and Mozambique, to desperately poor countries such as Guinea-Bissau or Equatorial Guinea. Portuguese-speaking partners have the ability to reach a huge population, and especially important is the potential for participation by students and faculty from Brazil, which is already one of the most important nations in the western hemisphere in the 21st century.

D. The Plan of the School

The proposed International School on Digital Transformation has a model: the International School on Disarmament and Resolution of Conflicts, or ISODARCO. This is a program that was founded in Italy in 1967 by Professor Carlo Schaerf of the Department of Physics at the University of Rome Tor Vergata. ISODARCO has held annual courses, in some years more than one course, for 41 years. ISODARCO assembles an international group of students, typically about 90 to 100 advanced undergraduate or graduate students, and 20-25 faculty lecturers, for a residential program of about 10 days, where lectures and discussions are offered on the topics of peace, science, technology and international security. The ISODARCO winter courses are held in a small town in the Dolomiti mountains of northern Italy called Andaló. When funding has been available, summer courses have been held in cities such as Trento and Rovereto. ISODARCO has also organized courses in both Taipei and Beijing.

Faculty lecturers at ISODARCO are among the most respected and diverse in their fields, and have included Nobel prizewinners, members of national ministries and legislatures and senior academicians. The ISODARCO program is an opportunity for young leaders at the beginnings of their careers to interact with senior leaders and experts in a setting that allows for small group or individual interaction, typically in the form of memorable dinner conversations. Over the years, ISODARCO participants and alumni have developed a noteworthy and important global network of friendships and professional relations. And ISODARCO is “discovered” by new students every year.

There are two key elements that make ISODARCO successful and which the digital school would attempt to duplicate: the first is that the residential program, over several days, allows for much deeper interactions and the development of more sustainable relations than a typical conference. This is the experience that most ISODARCO participants value the most.

The second element of success is to secure enough funding that the cost to the students is low enough that the School is affordable for almost anyone who can get to it (travel is not supported). A typical ISODARCO course costs about 250 Euros, per student, for ten days, which includes hotel, food and entertainment events, in addition to the lectures and other educational activities. Students live in shared rooms and eat at institutional facilities—capped by a restaurant dinner, typically—in order to keep expenses low. ISODARCO also includes plenty of free time in its schedule so that students can explore the area where they are staying, and arrange for conversations with lecturers.

Thus a typical day at the International School on Digital Transformation would include three to four 90-minute lecture sessions, each a presentation or a panel discussion of 45 minutes followed by 45 minutes of discussion. The day would feature either a long lunch period or a long intermission in the afternoon before an evening meal. One afternoon and evening of the week might be left unscheduled, or else an entertainment event might be offered, such as a local music group or a tour to a museum.

Beginning with a proposed pilot school of seven days, with days 1 and 7 set aside for travel arrangements, the school would try to recruit between 15 and 20 lecturers, to speak to and interact with about 50-75 students. The “sweet spot” numbers would probably be in the middle of these ranges, or 18 lecturers for about 60 students. This would allow four lectures or panels per day with one day limited to two sessions.

The International School for Digital Transformation will develop an international program committee that can invite lecturers representing a diverse array of countries and regions. But as an example of possible lecturers and their topics, here are some people that might be participants:

- Chris Messina, San Francisco, on Open Source software for civic participation
- Tara Hunt, San Francisco, on building Web 2.0 communities
- Tapan Parikh, University of California at Berkeley, on digital tools for people at the bottom of the economic strata
- Nicholas Reville, Worcester, Massachusetts, executive director of the Participatory Culture
- Foundation, on open media platforms and social change
- Ellen Miller, Washington, D.C., co-founder and executive director of the Sunlight Foundation, on the Internet and government accountability and transparency
- Erik Bucy, Indiana University, on citizenship and new media
- Rui Barros, University of Porto, on small-scale, low-cost e-government for small communities
- Christian Sandvig, University of Illinois, on wifi potentials for broadband connectivity
- Francois Bar, University of Southern California, on web 2.0 tools and economic development

- Martha Fuentes, University of Massachusetts Amherst, on digital government and community organizations
- Kristin Peterson, Inveneo, San Francisco, on bringing the Internet to rural communities in the developing world
- Scott Robinson, Universidad de Metropolitana, Mexico City, on the social role of cybercafés
- Amir Alexander Hasson, CEO, FirstMileSolutions.com, Cambridge, Massachusetts, on the next billion Internet users
- Leslie Regan Shade, Concordia University, Montreal, Canada on participatory media and remote communities
- Andrew Chadwick, University of London, on the Internet and modern politics
- Doug Schuler, Seattle, on the Internet and citizen engagement
- Zack Exley, president and co-founder of the New Organizing Institute, Washington, D.C., on new media and political organizing.

Section 3 | Mathematics

3-1. Overview

The core goal of the Mathematics program is to develop advanced research and education programs, namely:

1. Reinforce the scientific and learning capabilities in Portugal, as well as to promote the internationalization of research and graduate programs in leading Portuguese universities;
2. Stimulate mobility and scientific interaction of graduate students, researchers and post-docs among institutions;
3. Attract to the involved Universities strongly motivated students who are able to integrate advanced research programs in Mathematics and applications;
4. Optimize resources, by promoting a PhD program that involves the major Universities in Lisbon.

A. Participating Institutions

- The Technical University of Lisbon
  - Department of Mathematics, Instituto Superior Técnico (IST/UTL)
- The University of Lisbon
  - Department of Mathematics, School of Sciences (FCUL)
- The New University of Lisbon
  - Department of Mathematics, Faculty of Science and Technology (FCT/UNL)
- The University of Coimbra
  - Department of Mathematics, School of Sciences and Technology UC (FCTUC)
- The University of Texas at Austin
  - Department of Mathematics
  - Institute for Computational Engineering and Sciences (ICES)
  -

UT Austin's Institute for Computational Engineering and Sciences (ICES) provides the infrastructure and intellectual leadership for developing outstanding interdisciplinary programs in research and graduate study in computational sciences and engineering and in information technology. ICES reports to the Vice President for Research, and draws faculty from seventeen participating academic departments and four schools and colleges (http://www.ices.utexas.edu). ICES is being used as a model advocating transdisciplinary research and education for Portuguese universities.

B. Mathematics Program Directors

Portugal

- Diogo Gomes, Director and Center for Mathematics Research, Instituto Superior Técnico (IST/UTL)
- Luis Nunes Vicente, Co-Director and Department of Mathematics, School of Sciences and Technology UC (FCT/UC)

UT Austin

- Luis Caffarelli, Director and Department of Mathematics/ICES
- Irene M. Gamba, Co-Director and Department of Mathematics/ICES

3-2. Year Two Activities (September 2007 - August 2008)

A. October 200

The MAMOS Workshop

(Mathematics: Analysis, Modeling, Optimization and Simulation) was held at UT Austin in ICES from October 15-26, 2007. The objective was to bring together senior and junior scientists and prospective graduate students on important cutting edge research topics as well as to learn about and become involved in the CoLab Mathematics Program. The workshop was organized into two parts:

Part I: "Numerical Simulation and Optimization" organized by Prof. Luis Nunes Vicente, FCTUC and Prof. Omar Ghattas, ICES.

Part II: "Dynamics, Patterns and Structures" organized by Prof. Rafael de la Llave, UT Department of Mathematics and Diogo Gomes, Instituto Superior Técnico (IST/UTL).

Speakers, Part I: Numerical Simulation and Optimization

- Matthias Heinkenschloss, Rice University, "Inexact Sequential Quadratic Programming Methods for the Solution of Nonlinear Optimal Control Problems"
- Wolfgang Bangerth, Texas A&M University, "Numerical methods for inverse problems"
- J. Tinsley Oden, Director, Inst. for Computational Engineering & Sciences (ICES), University of Texas at Austin, "Multiscale modeling of complex systems"
- Isabel N. Figueiredo, Universidade de Coimbra, "Optimization models in piezoelectricity"
- Luís Nunes Vicente, Universidade de Coimbra, "Derivative-free optimization of expensive functions"
- Hector Klie/Mary Wheeler, University of Texas at Austin, "Stochastic Optimization and Metamodels for Oil Reservoir Parameter Estimation"
- Leszek Demkowicz, University of Texas at Austin, "Application of hp-Adaptivity to Coupled Wave Propagation Problems"
- Ronald Hoppe, University of Houston/University of Augsburg, "Adaptive Multilevel Path-Following Primal-Dual Interior-Point Methods in PDE Constrained Optimization"
- William Symes, Rice University, "Model extensions and seismic inverse scattering"
- Clint Dawson, University of Texas at Austin, "Inverse modeling and parameter estimation"
- Omar Ghattas, University of Texas at Austin, "Toward Bayesian estimation for large-scale inverse problems"

Speakers, Part II: Dynamics, Patterns and Structures

- Helder Rodrigues, Instituto Superior Técnico, "A hierarchical model for topology optimization of structure and material"
- Margarida Baía, Instituto Superior Técnico, "Characterization of two-scale Young-measures and applications"
- Anca-Maria Toader, Universidade de Lisboa, "Shape and topology optimization in structural mechanics"
- José Francisco Rodrigues, Universidade de Lisboa, "Constrained reaction-diffusion systems and related multiphase problems"
- Jim Meiss, University of Colorado at Boulder, "Dynamics and Bifurcations of Volume-Preserving Maps"
- Robert Pego, CMU/Takis Souganidis, University of Texas at Austin, "Random homogenization: theory and applications"
- Xiaoping Yuan, Fudan University, "KAM theory and quasi-periodic solutions of nonlinear partial differential equations"

- Fabio Chalub, Universidade Nova de Lisboa "Models for genetic evolution in large populations"
- Juan Luis Vazquez, Universidad Autonoma de Madrid "Large time asymptotics for fast diffusion equations: the role of critical exponents"
- Irene Gamba, University of Texas at Austin "Analytical issues on particle interactions models of Boltzmann type"
- Chongchun Zeng, Georgia Institute of Technology "Approximately invariant manifolds and dynamic spike solutions of singular parabolic equation"
- Misha Vishik, University of Texas at Austin "Existence, uniqueness and stability for incompressible flows of an ideal fluid"
- José Miguel Urbano, Universidade de Coimbra "A systematic approach to regularity for nonlinear pdes arising in the modeling of chemotaxis, immiscible fluids and phase transitions"
- David Kinderleher, Carnegie Mellon University
- Irene Fonseca, Carnegie Mellon University "Variational Methods in Materials and Imaging"

Portuguese Participants included:

- University of Coimbra (FCT/UC)
  - Luis Nunes Vicente lnv@mat.fct.uc.pt
  - Jose Miguel Urbano jmurb@mat.uc.pt
  - Isabel Narra de Figueiredo isabelf@mat.uc.pt
  - Jose Augusto Ferreira ferreira@mat.uc.pt
  - Silvia Barbeiro silvia@mat.uc.pt
- Instituto Superior Técnico of Lisbon (IST/UTL)
  - Diogo Gomes dgomes@math.ist.utl.pt
  - Juha Videman videman@math.ist.utl.pt
  - Margarida Baia mbaia@math.ist.utl.pt
  - Mahendra Panthee mpanthee@math.ist.utl.pt
  - Helder Rodrigues hcr@ist.utl.pt
- University of Lisbon (FCUL)
  - Jose Francisco Rodrigues rodrigue@ptmat.fc.ul.pt
  - Manuel Marques mmarques@ptmat.fc.ul.pt
  - Anca-Maria Toader amtan@ptmat.fc.ul.pt
  - Cristian Barbarosie barbaros@ptmat.fc.ul.pt
- New University of Lisbon (FCT/UNL)
  - Fabio Chalub fabio.chalub@univie.ac.at
  - Filipe Oliveira fso@fct.unl.pt
  - Ana Luísa Custódio alcustodio@fct.unl.pt
- University of Aveiro
  - Eugenio Rocha eugenio@ua.pt

B. Spring 2008

Visiting Research Fellows

Three Visiting Research Fellows from Portugal visited the Department of Mathematics and the Institute for Computational Engineering and Sciences for the Spring semester. They were supported by Research Fellowships from the UT Austin Mathematics CoLab funding.

1. Dr. Eugenio Rocha

eugenio@ua.pt

University of Aveiro, Portugal

Professor Rocha has been in Austin collaborating with Professor Luis Caffarelli (UT Austin) to study the theoretical issues concerning subelliptic operators and (fractional) Laplacians evolving in Carnot groups (a subclass of nilpotent Lie groups). This research direction is relevant not only in mathematics by itself, as the growing number of publications in the literature shows, but also for other sciences and real applications as Finances (through its connection with Levy processes), Quantum Mechanics (any quantum mechanical model gives a representation of the Heisenberg group, i.e., the simplest non-abelian Carnot group), Signal Theory[5] and for solving problems in Robotics and Image Analysis (by using extensions of harmonic analysis to functions on groups,[6] and through the relation of these groups with Clifford Algebras). As a computer science engineer, Rocha's interests extend to Advanced Computing, in particular, to the theoretical aspects related with the promising connection of Grid Computing and Web Services, and its practical use as tools to build Grid Portals that effectively deal with resource intensive mathematical challenging problems.

2. Dr. Sílvia Barbeiro

silvia@mat.uc.pt

CMUC, Department of Mathematics, University of Coimbra www.mat.uc.pt

UT collaborators:

Professor Mary F. Wheeler

The Center for Subsurface Modeling, ICES, www.ices.utexas.edu/csm

Research interests within this collaboration include the numerical solution of partial differential systems applied to coupled geomechanics and reservoir flow models. We give special attention to stress-sensitive reservoir problems. This work will focus on deriving superconvergence results for mean stress to be used in the computation of permeability for poro-elasticity. Here we are combining a mixed finite element for Darcy flow and Galerkin finite element for elasticity. The grids for the two discrete approximations need not be the same. Applications of interest include well productivity and subsidence in petroleum reservoir engineering and carbon sesquestration in geological formations.

Research papers by Dr Sílvia Barbeiro in Colaboration with UT Austin Faculty:

Sílvia Barbeiro and Mary F. Wheeler: A-priori error estimates for the numerical solution of a coupled geomechanics and reservoir flow model with stress-dependent permeability.

3. Professor Juha Videman

Department of Mathematics, Instituto Superior Técnico

Professor Videman recently turned his attention to partial differential equations in Geophysical Fluid Dynamics. Presently, he and his collaborators are working on modeling and computational simulation of island wakes, in particular of barotropic and baroclinic instabilities, cf. http://wakes.uma.pt, as well as stochastic and numerical analysis of turbulent equations in climate modeling. At UT Austin, he is looking forward to collaborating with researchers developing numerical methods for oceanic flows in the

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5 W. Schempp, Harmonic Analysis on the Heisenberg Nilpotent Lie Group, with Applications to Signal Theory, Longman Scientific & Technical (1986).

6 Gregory S. Chirikjian and Alexander B. Kyatkin, Engineering Applications of Noncommutative Harmonic Analysis: With Emphasis on Rotation and Motion Groups, CRC, pp.674 (2000).

ICES (Prof. Clint Dawson) and with the oceanographers at the UT Institute for Geophysics working on geostrophic turbulence and oceanic eddies (Dr. Brian Arbic).

UT Austin Mathematics also hosted ***Prof. Isabel M.N. Figueiredo.*** She received travel support from her home institution, but the UT Mathematics CoLab funding provided local living expenses. Professor Figueiredo's research project "Aberrant Crypt Foci: mathematical analysis and endoscopic image processing" began in January 2007 at the Department of Mathematics of the University of Coimbra, http://www.mat.uc.pt/~cmuc/lcm/endoscopic.html. It involves the collaboration of doctors from the Faculty of Medicine of the University of Coimbra, and the Hospital of the University of Coimbra. This research focuses in modeling and medical imaging, and the goal is to assist doctors in terms of the diagnosis, the prevention and the treatment of colorectal cancer. The following is Professor Figueiredo's research statement:

> *Colorectal cancer is one of the most frequent malignant tumors in the world. In Portugal, in 2003, it was ranked first in terms of mortality among the five major cancer types (lung, breast, colon, stomach and prostate). Unlike most other malignancies, it is possible to prevent colorectal cancer. This is due to the long period of time elapsed between the appearance of an adenoma (a benign epithelial tumor) and the eclosion of the carcinoma, which allows the detection and removal of the benign lesion. In this context, Aberrant Crypt Foci (ACF) may have a crucial and determinant role. These are clusters of aberrant (deviant from normal) crypts (small pits, which are compartments of cells, in the colon epithelium) that are thought to be the precursors of colorectal cancer. In fact, according to endoscopic studies and animals' experiments, ACF precede the eclosion of adenomas. Thus, if this claim is proved, it means that the ACF must be considered part of the adenoma-carcinoma sequence, and consequently, they should be used not only for diagnosis purposes and the stratification of the risk, but for chemopreventive studies together with pharmacology agents.*

In October 2007, she started a collaboration with the University of Texas in Austin, involving Omar Ghattas (ICES) and Georg Stadler (ICES) (for optimization), Chandrajit Bajaj (ICES) (for visualization and computation), Bjorn Engquist (ICES) and Richard Tsai (ICES) (for multiscale methods and level set methods).

Research papers by Professor Isabel Figueiredo in Colaboration with UT Austin Faculty:

1- I. N. Figueiredo, P. N. Figueiredo, G. Stadler, O. Ghattas and A. Araújo: Variational image segmentation for endoscopic human colonic aberrant crypt foci, Preprint 08-35 of the Department of Mathematics, University of Coimbra, (2008) submitted.

2- I.N. Figueiredo, P.N. Figueiredo, N. Almeida, M.C. Leitão, O. Ghattas, G. Stadler: "Endoscopic Detection of Human Colonic Aberrant Crypt Foci using Mathematical Methods", Endoscopy 2008; 40 (Suppl 1) A 189.

Graduate Student Visit

In Spring 2008, Hugo Tavares, a Portuguese PhD student, Universities of Lisboa and Milano Bicocca currently working with Susanna Terracini susanna.terracini@unimib.it in Italy, visited the Department of Mathematics for six weeks to conduct research with Prof. Caffarelli.

C. Yearly CoLab Summer School in Lisbon, launched June 2008

The CoLab Mathematics Summer School will be a yearly event bringing together Ph.D. students and junior faculty with well known experts in the several areas of mathematics. In 2008 the Summer School took place during June 16-20 at Instituto Superior Técnico (Civil Engineering Building). The program was organized by Prof. Diogo Aguiar Gomes (IST/UTL) and Prof. Rafael de la Llave (UT Austin) on the topic of Dynamical Systems with particular emphasis on pure and applied Hamiltonian dynamics.

The faculty included Bjorn Engquist (UT Austin), Albert Fathi (École Normale Supérieure de Lyon, Unité de Mathématiques Pures et Appliquées), Rafael de la Llave (UT Austin) and Konstantin Khanin (University of Toronto); each internationally known experts. We believe that these courses were extremely useful for Ph.D. students, postdocs and established researchers seeking to broaden their knowledge in this very active area of research. The courses were independent, but related to each other since they considered the same problems from different points of view. Prof. Engquist presented numerical methods, Prof. Fathi presented variational and viscosity solution methods (including a new and streamlined proof of the Weak KAM theorem). Prof. de la Llave presented the classical KAM theorem with a proof that leads to algorithms to compute quasi-periodic orbits and Prof. Khanin presented renormalization theory.

The workshop was attended by about 30 students who came from Lisbon and other Portuguese Universities as well as students from France, Italy, Spain and the Czech Republic. UT Mathematics CoLab provided funding for four graduate students from UT Austin to attend the workshop: Jason James, Renato Calleja, Timothy Blass and Daniel Blazevski. The UT Austin students took advantage of the opportunity to collaborate with Portuguese scientists. For example, Renato Calleja spent a week before the conference collaborating with Prof. J. Lopes-Dias (Lisbon) and Prof S. Kocic. The discussions were fruitful and the professors suggested several interesting problems for Mr. Calleja to look at and which will become chapters in a paper. (It is to be remarked that Prof. Kocic is a Post Doc in Lisbon and was a graduate student in Austin. Prof. Lopes-Dias has visited Austin several times and has written papers with Prof. H. Koch.)

Jason James visited Porto to collaborate with Pawel Pilarcyck (currently a Post Doc in Braga) on problems of computational homology over which they had corresponded extensively before. The visit was the beginning of a successful and ongoing collaboration which will likely lead to published results.

The Austin students also had meaningful interactions with several the Portuguese students. In particular, they had a fruitful interaction with V. Quitalo (who is now in Austin) and S. Pequito (he gave a seminar in Austin). Prof. de la Llave also took the opportunity to maintain several scientific discussions with Profs. Duarte, Gomes and Lopes-Dias, which we hope will lead to more collaborations.

D. NSF RTG Summer School: Annual for 5-years Undergraduate Component

The "Multiscale Modeling and Analysis" Summer Program, July 21, 2008 to August 8, 2008, was sponsored by the Department of Mathematics at the University of Texas under the National Science Foundation (NSF) Research and Training Grant (RTG) in Applied and Computational Analysis. Eight competitively selected undergraduate Portuguese students were invited to participate. Travel and local living expenses were funded by the Research and Education Collaboration Agreement between the Portuguese Science and Technology Foundation (FCT) and the University of Texas at Austin (CoLab). The students were housed at the San Jacinto Residence Hall on campus. The first two weeks of classes were held in the Department of Mathematics. The last week included a range of speakers from ICES and was held in the ACES Building. For more information about this Summer Program visit: http://math.utexas.edu/rtg/school/index.html

Portuguese Students who attended (6 of 8 invitees):

- Rui Barbosa, rui.b.3044@gmail.com, Universidade de Minho
- João Miguel Gama Batista, joaomgb@gmail.com, Instituto Superior Técnico
- Telmo Peixe, telmopeixe@gmail.com, Universidade de Lisboa
- Sérgio Pequito, sergio.pequito@gmail.com, Instituto Superior Técnico
- Lia Rodrigues, lia.travanca@netcabo.pt, Universidade de Lisboa

- Maria Cristina Gonçalves Silveira de Serpa, serpa@hotmail.com, Universidade de Lisboa

3-3. Proposed Year Three Activities (September 2008 - August 2009)

A. Fall 2008

Four mathematics research proposals are currently being evaluated by FCT and the CoLab review Panel. These projects involve Portuguese Universities that were not originally in the CoLab program namely The Universidade de Aveiro and Universidade do Minho.

Project 1 - Aberrant Crypt Foci and Human Colorectal Polyps : mathematical modelling and endoscopic image processing.

Faculty from UT Austin

- Omar Ghattas omar@ices.utexas.edu
- Georg Stadler georgst@ices.utexas.edu
- Chandrajit Bajaj bajaj@cs.utexas.edu
- Bjorn Engquist engquist@math.utexas.edu
- Yen-Hsi Richard Tsai ytsai@math.utexas.edu

Faculty from Portugal

- Members from FCTUC
  - Isabel Maria Narra de Figueiredo (Coordinator)
  - Carlos Manuel Franco Leal (Mathematician, PhD)
  - Giuseppe Romanazzi (Mathematician, PhD, Research Fellow CMUC)
- Members From Faculty of Medicine, University of Coimbra
  - Pedro Manuel Narra de Figueiredo (MD, PhD)
  - Maria Manuel Rodes de Sousa Romão Donato (PhD, Biochemistry)
  - Sandra Maria Fernandes Lopes (MD)
  - Nuno Miguel Peres de Almeida (MD)
- Members from FEUP (Porto)
  - João Manuel Ribeiro da Silva Tavares (Mechanical Engineer,PhD)
  - Zhen Ma (PhD student, Mechanical Engineer)
  - Ilda Marisa de Sá Reis (PhD student, Mechanical Engineer)
- Members from IST (Instituto de Telecomunicações)
  - Mário Alexandre Teles de Figueiredo (Electrical Engineer)
  - José Manuel Bioucas Dias (Electrical Engineer)

External consultant also included: Given Imaging Co. http://www.givenimaging.com, with experience in endoscopy, medical technologies and imaging).

Project 2 - Analysis of Nonlinear Partial Differential Equations

Faculty from UT Austin

- Clint Dawson clint@ices.utexas.edu
- Alexis Vasseur vasseur@math.utexas.edu
- Luis Caffarelli caffarel@math.utexas.edu
- Irene Gamba gamba@math.utexas.edu,

Faculty from Portugal (main leaders, mathematicians):

- José Miguel Urbano (PI) jmurb@mat.uc.pt (FCT/UC, Coimbra)
- Fábio Chalub chalub@fct.unl.pt (FCT/UNL, Lisbon)
- Juha Videman videman@math.ist.utl.pt (IST, Lisbon)
- Lisa Santos lisa@math.uminho.pt (UM, Braga)
- Miguel Ramos mramos@ptmat.fc.ul.pt (FC/UL, Lisbon)
- Pedro Girão pgirao@math.ist.utl.pt (IST, Lisbon)

Project 3 - Reaction-Diffusion in Porous Media

Faculty from UT Austin

- Mojdeh Delshad delshad@mail.utexas.edu
- Gergina Pencheva gergina@ices.utexas.edu
- Mary F. Wheeler mfw@ices.utexas.edu

Faculty from Portugal (main leaders, mathematicians):

- José Augusto Ferreira ferreira@mat.uc.pt (UC, Coimbra)
- Adérito Araújo alma@mat.uc.pt (UC, Coimbra)
- Marc Baboulin marc.baboulin@gmail.com (UC, Coimbra)
- Silvia Barbeiro silvia@mat.uc.pt (UC, Coimbra)
- Fernando Lucas Carapauc flc@uevora.pt (UE, Évora)
- Cidália Alves das Neves cneves@iscac.pt (ISCAC, Coimbra)
- Goncalo Pena gpena@mat.uc.pt(UC, Coimbra)
- Luís Pinto luisp@mat.uc.pt (UC, Coimbra)
- Giuseppe Romanazzi roman@mat.uc.pt (UC, Coimbra)
- Ercilia Costa Sousa ecs@mat.uc.pt (UC, Coimbra)

Other Faculty

- Vivette Girault girault@ann.jussieu.fr (University Paris VI, Paris)

Project 4: Applied Mathematics: from dynamical systems to cryptography

Faculty from UT Austin

- Rafael del la Llave llave@math.utexas.edu
- Panagiotis Souganidis souganid@math.utexas.edu
- Thaleia Zariphopoulou zariphop@math.utexas.edu
- Bill Beckner beckner@math.utexas.edu
- Irene Gamba gamba@math.utexas.edu
- Luis Caffarelli caffarel@math.utexas.edu
- Felipe Voloch felipe@math.utexas.edu

Faculty from Portugal (main leaders, mathematicians)

- Diogo Aguiar Gomes dgomes@math.ist.utl.pt (PI) (IST, Lisbon)
- Amílcar Sernadas acs@math.ist.utl.pt (IST, Lisbon)
- Cláudia Nunes Philipart cnunes@math.ist.utl.pt (IST, Lisbon)
- Alberto Pinto aapinto1@gmail.com (UM, Braga)
- João Lopes Dias jldias@iseg.utl.pt (ISEG/UTL, Lisbon)

Graduate students

The first Portuguese graduate student, Veronica Quitalo, under UT Austin CoLab sponsorship has arrived in Austin. Her participation is considered a "Pilot Program". In Portugal, the first two students, Rafayel Teymurazyan and Hassan Najafi, have already started their studies. The first one at the Universidade de Lisboa, last May, and the former at Instituto Superior Técnico, this October.

Post-Doctoral Studies

Post-doctoral student, Gabrielle Terrone, has started his one year position at Instituto Superior Técnico this September. He will be working with Prof. Diogo Gomes on Hamilton-Jacobi equations and Viscosity Solutions. Another postdoctoral student, Olena Domanska, is expected to start her position soon.

Visiting Researchers

1. In Fall 2008, Portuguese research scholar, Silvia Barbeiro will return to UT Austin to continue ongoing collaborations with Prof. Mary Wheeler of ICES. In addition, two other Portuguese researchers are planning short visits to Austin.
2. Prof. Isabel N. Figueiredo will return to continue ongoing collaborations with Prof. Omar

Ghattas, Prof. Goerg Stadler, and other colleagues in the Institute for Computational Engineering and Sciences. They are preparing a joint paper on medical imaging. Prof. Figueiredo will also assist Prof. Chandrajit Bajaj, ICES, with the organization of the workshop in Spring 2009.

Note: The previously proposed October 2008 Workshop UT Austin: Geometry, Topology and Mathematical Physics will not be held. Instead *Mathematical Aspects of Imaging, Modelling and Visualization in Multiscale Biology* workshop is planned in ICES for Spring 2009.

B. Workshop, Spring 2009

The Workshop *Mathematical Aspects of Imaging, Modeling and Visualization in Multiscale Biology* will be held under CoLab auspices. It will take place in ICES (Institute for Computational Engineering and Sciences), The University of Texas at Austin, March 31 to April 04, 2009. The Workshop will consist of sixteen forty-five minute plenary sessions (eight from Portugal and eight from USA). Contributed papers by PhD Students and Postdoctoral researchers will be selected to be on display in poster sessions. The workshop focuses on a select range of interdisciplinary topics handled from both a mathematical and an engineering applications point of view, and are certain to prompt interesting dialogue among the conveners. The target audience is mathematicians and engineers and graduate and PhD students interested in doing research on problems related to Mathematics, Medical Imaging, Biomechanics, Biology, and Bioengineering.

Organizers: Luis Caffarelli (UT Austin, caffarel@math.utexas.edu), Chandrajit Bajaj (UT Austin, bajaj@cs.utexas.edu), Isabel Narra Figueiredo (University of Coimbra, isabelf@mat.uc.pt), Hélder Rodrigues (Instituto Superior Técnico, Lisboa, hcr@ist.utl.pt).

The following Portuguese speakers have confirmed their participation:

- Mário Figueiredo (Electrical and Computer Engineer, IST, Lisbon) mtf@lx.it.pt, http://www.lx.it.pt/~mtf/
- Paulo Fernandes (Mechanical Engineer, IST, Lisbon) prfernan@dem.ist.utl.pt, http://lemac12.dem.ist.utl.pt/~prfernan/
- Adélia Sequeira (Mathematician, IST, Lisbon) adelia.sequeira@math.ist.utl.pt, http://www.math.ist.utl.pt/~asequeir/
- José Augusto Ferreira (Mathematician, Univ. Coimbra) ferreira@mat.uc.pt, http://www.mat.uc.pt/~ferreira/
- João P. Barreto (Electrical and Computer Engineer, Univ. Coimbra) jpbar@deec.uc.pt, http://www.isr.uc.pt/~jpbar/
- João Manuel R.S. Tavares (Mechanical Engineer, Univ. Porto) tavares@fe.up.pt, http://paginas.fe.up.pt/~tavares/index_uk.html
- Irene Fonseca (Mathematician, Carnegie Mellon University) fonseca@andrew.cmu.edu, http://www.math.cmu.edu/people/fac/fonseca.html

In addition, sixteen speakers have been invited from the University of Texas and other U.S. universities.

C. Summer 2009

Lisbon Summer School: Kinetics and statistical methods for complex particle systems.

The audience is mainly graduate students and junior researchers. For the first time this year, we will follow the school with a one week conference featuring talks at a more advanced level,

which will hopefully be accessible then to the beginners who followed the summer school course. The basic structure at this stage is as follows:

Summer school

One week (July 13, 2009, Monday through Friday or Saturday) of courses consisting of four-hour lectures by 5 speakers, with each day featuring 2 hours of lectures in the morning and two in the afternoon.

Possible lecturers:

- Eric Carlen (Rutgers University, USA)
- Pierre Degond (U. P. Sabatier, Toulouse, France)
- Irene M. Gamba (The University of Texas at Austin)
- Markos Katsoulakis (University of Massachusetts at Amherst)
- Robert Pego (Carnegie Mellon University)

Our plan includes two hours daily of extra activities involving the junior participants (discussion sessions, short presentations by the attendants, etc.)

Conference

The following week July 20-24, 2009, with about 25 lectures by leading researchers in the area. The conference has four organizers: I. Gamba, R. Pego, E. Carlen, and MC Carvalho. The conference is to take place with the Summer School at the University of Lisbon. A tentative list of possible invited speakers (depending on the available budget) is:

1- Eli Ben Naim, (Los Alamos, New Mexico, USA)
2- Jean Bertoin (University of Paris VI, France)
3- Marzia Bisi (Parma, Italy),
4- Adrien Blanchet (Dauphine, Paris)
5- Francois Bolley (Dauphine, Paris)
6- Maria C. Carvalho (Lisbon, Portugal)
7- Fabio Chalub (Lisbon, Portugal)
8- Anabela Cruzeiro (GFM and Instituto Superior Técnico)
9- Jean Dolbeaut (Dauphine, Paris)
10- Maria J. Esteban (Dauphine, Paris)
11- Miguel Escobedo (Universidad del Pais Vasco, Spain)
12- Nicolas Fournier (Paris)
13- Ester Gabetta (Universita di Pavia)
14- Wilfrid Gangbo (Gatech)
15- Yan Guo (Brown University)
16- Jean-Francois Le Gall, (Paris Sud-Orsay, France).
17- Michael Loss (Gatech)
18- Phillipe Laurençot (U.P Sabatier, Toulouse)
19- Robert McCann (University of Toronto)
20- Sylvie Meleard (Ecole Polytechnique)
21- Govin Menon, (Brown University)
22- Stephane Mischler (Dauphine, Paris)
23- Clement Mouhot (Dauphine, Paris)
24- Anne Nouri (U. Marseille)
25- Vlad Panferov (CSU, Northridge CA)
26- Jim Pittman (Berkeley)
27- Maria Joao Oliveira (CMAF and Universidade Aberta)
28- Lorenzo Pareschi (Ferrara, Italy)

29- Benoit Perthame (University of Paris VI)
30- Fraydoun Rezakhanlou (Berkeley)
31- Christian Ringhofer, (Arizona State University)
33- Giuseppe Savare (Universita di Pavia)
34- Dejan Slepcev (Carnegie Mellon University)
35- Giuseppe Toscani (Universita di Pavia)
36- Rui Vilela Mendes (CMAF and Universidade de Lisboa)
37- Cedric Villani (ENS, Lyon)
38- Maria Westdickenberg (Gatech)
39- Michael Westdickenberg (Gatech)

NSF RTG Summer School: Undergraduate Component
Since this program was very successful in Summer 2008, UT Austin Mathematics plan to again open the RTG Summer School to eight Portuguese undergraduates. The students will be selected for participation by the CoLab Portugal directors. Their travel and local expenses will be supported by UT CoLab Mathematics. The summer program in 2009 will be organized by G. Zitkovic in collaboration with T. Zariphopoulou and will focus on financial mathematics.

3-4. Proposed Year Four Activities (September 2009 - August 2010)

A. Graduate Students

We expect to welcome in Austin the two graduate students who have already started their studies in Portugal, Rafayel Teymurazyan and Hassan Najafi.

B. Postdoctoral program

We plan to continue our postdoctoral program hiring one or two post-docs a year to work with Portuguese faculty under the research topics of the UT Austin partnerships.

C. Faculty Visits

Junior and senior faculty visits will continue in order to promote or continue research projects. Prof. Delfim Torres, from Aveiro University is planning to spend a month at Austin.

D. Summer 2010

Summer School at U. Lisbon. Stochastic Optimal Control, Geometry/MP and/or a Workshop on Numerical Linear Algebra Computations

NSF RTG Summer School: Undergraduate Component : The Summer Undergraduate Program at UT will be organized by A. Vasseur and I. Gamba.

3-5. Self Evaluation

By way of "self-evaluation" we recognize that one of the main objectives of the program is to "jumpstart" collaborations in Analysis, Modeling, Optimization and Simulation with our Portuguese colleagues. We feel that significant progress has been made in this regard. Collaborations began with the Fall 2008 workshop and since that time researchers have built on those beginnings and continue to return to Austin and are making plans for long term collaborations. The Applied Mathematics areas are beginning to identify industry partners

However, we also recognize that the overarching goal of the program is to launch Portugal's scientific community to a place of prominence for recognition of technological sophistication and

commercialization. In this regard, it must be said that these transformations can be a very long process. By looking to other countries such as Brazil and Spain, where huge amounts of resources have been dedicated to similar goals over the past decade, we can witness how difficult it is to manifest significant progress.

We are encouraged by the success of the newly added Undergraduate Component of participation. The addition of the Portuguese students to the Research and Training Grant Summer Program for Undergraduates here at UT was of great mutual benefit. We look forward to continuing and possibly expanding this area.

The suggestion has been made that it would be beneficial to have UT Faculty members visit Portuguese universities for a semester to collaborate and teach. This poses some difficulties; however, it may be possible to set up short term intensive courses conducted by UT Faculty for perhaps a three-week period along the lines of the courses given here at UT Mathematics and ICES by the French mathematician, Pierre-Louis Lions, CEREMADE.

Section 4 | Advanced Computing

4-1. Overview

The CoLab Advanced Computing (AC) Program is currently managed by a five directors and co-directors: Three in Portugal and two in Austin.

A. Portuguese BoD members

- Alberto Proenca, Director AC Program (since November 2007) and Professor in Computing Engineering, Department of Computer Science, School of Engineering, University of Minho
- Pedro Medeiros, Co-Director AC Program and Associate Professor, Department of Informatics Engineering, Faculty of Science and Technology, New University of Lisbon.
- Luis Silva, Co-Director AC Program and Associate Professor, Department of Informatics Engineering, Faculty of Science and Technology, University of Coimbra.

B. UT Austin BoD members

- Keshav Pingali, Director AC Program and Professor, Chair of Advanced and Distributed Computing, Department of Computer Science
- John (Jay) Boisseau, Co-Director AC Program and Director of TACC

C. Participating institutions

- The New University of Lisbon **(**UNL)
  - Department of Computer Science, Faculty of Science and Technology
- The Technical University of Lisbon (UTL)
  - Instituto Superior Técnico (IST)
- The University of Aveiro (did not participate in Year 2 activities)
- The University of Coimbra (UC)
  - Dependable Systems Group of the Department of Computer Science (DSG-CS), Faculty of Science and Technology
  - Centre for Computational Physics (CFC), Faculty of Science and Technology
- The University of Minho (UM)
  - Department of Computer Science (CS), School of Engineering
- The University of Porto (UP)
  - Department of Computer Science (CS), Faculty of Science
- Associate laboratories
  - Laboratory for Energy, Transports and Aeronautics (LAETA)
  - Laboratory for Particle Physics in Lisbon (LIP)
- The University of Texas at Austin (UT Austin)
  - Department of Computer Sciences (CS)
  - Department of Electric and Computer Engineering (ECE)
  - Institute for Computational Engineering and Sciences (ICES)
  - Texas Advanced Computing Center (TACC), Distributed & Advanced Computing Group

D. Key UT Austin Partners

- The Texas Advanced Computing Center (TACC) offers a number of unique resources for researchers in advanced computing, including the 500-teraflop Sun HPC system known as "Ranger," scheduled to go online in December, 2007. TACC is especially interested providing research opportunities for visiting Portuguese faculty and graduate students interested in high-performance computing, grid computing, and visualization and data analysis (http://www.tacc.utexas.edu).
- The Institute for Computational Engineering and Sciences (ICES) provides the infrastructure and intellectual leadership for developing outstanding interdisciplinary programs in research and graduate study in computational sciences and engineering and in information technology. ICES reports to the Vice President for Research, and draws faculty from seventeen participating academic departments and four schools and colleges (http://www.ices.utexas.edu).

4-2. Planning a Coherent Strategy for the AC Program

This section presents an executive summary of the resulting activities of the AC BoD during Nov'07-Jan'08, which had a consensual agreement from all AC BoD members and from both CoLab Directors (@UTAustin and @Portugal).

The contents of this section considered the recommendations from **(i)** the ERC Year 1 meeting and report, **(ii)** the CoLab BoD meetings in Year 1, **(iii)** and the promoters (represented by the Secretary of State of Higher Education, Manuel Heitor; namely the changes introduced during Year 2, in Dec'07 and Jan'08).

A. Context from Year 1 (*Mar'07-Aug'07*)

Year 1 of aimed to clearly define the goals of Advanced Computing (AC) and begin activities between the Portuguese and the U. Texas Austin (UTA) partners.

Namely, the AC program should have a research agenda centered on both Computer Science and Computational Sciences, include relevant application fields that take advantage of cluster and grid computing environments, support the deployment of these infrastructures and focus on education, training, outreach and technology transfer.

During Year 1 issues were clarified and indications were given by the promoters and CoLab BoD to better focus the overall AC Program. These included:

- to shift from research-oriented activities towards graduate research education, where research would primarily be considered a means to educate (research projects would not be funded);
- to be more precise with AC goals and to install in Portugal an advanced computing infrastructure, which should include not just the physical resources, but also the support human resources and the training and education of users and administrators

The reported activities from Year 1 indicate that 4 universities had AC Program activity (mainly staff visits to establish research contacts), but had difficulty in producing a detailed plan of activities for Year 2.

Additionally, during the transition from Year 1 to Year 2:

- The AC Program issued a call for PhD and Post-Doc scholarships in Year 1 (from Jul'07 to Sep'07), which resulted in 7 PhD candidates and 1 Post-Doc
- The Univ. of Aveiro (UA) did not report any activity or plans for Year 2, while Univ. Porto (UP) did not report any activity during Year 1, but planned to start in Year 2
- The AC director resigned in October 2007, due to health problems, and a new director, Professor Alberto Proenca began in the same month. A new Co-Director (Dr. Jay Boisseau) also joint the AC Team.
- The Portuguese partners' contracts had yet to be signed with FCT (they were signed in June/July 2008).

B. New planning in Year 2, part 1 (*Sep '07-Jan' 08*)

The meeting with the External Review Committee was in Oct '07. The new AC director in Portugal started his duties in Nov '07, keeping the previous co-directors. During their first meetings (Nov '07 and Dec '07), the new AC BoD with 4 members (3 in Portugal and 1 at UTA) decided to:

- appoint the evaluation team for the PhD and Post-Doc scholarships; by mid December 2 PhD candidates were selected and no Post-Doc were selected;
- re-define a coherent strategy for Year 2 and beyond for the AC program, based on a critical review of planned activities for Years 1 and 2;
- clearly define goals for the AC Program, and from these to revise the plans accordingly and to suggest an adequate budget re-allocation;
- re-plan the activities for Year 2 according to four main strategic actions:
    - Graduate Research Education
    - Short Courses and Training Seminars
    - Support for an Advanced Computing Infrastructure
    - Outreach
- re-allocate the institutional budgets based on (i) approved strategic areas and actions, and on (ii) the reported/planned activities of each institution;
- produce a document with this data to share among partners and to discuss with each institution its set of duties, activities and associated budget for Year 2;
- define of Advanced Computing for the UTA program that was agreed upon at the AC BoD meeting in Austin, Mar'08 as follows:

  "*Methodologies and techniques in HPC, distributed/grid computing and large scale data analysis & management, to solve computational engineering and science problems.*"

In Dec'07 Portugal-UTA promoters changed program guidelines, research projects would now be supported and planned activities for Year 2 were modified accordingly.

In Jan'08 the Portugal-UTA promoters decided to modify the rules for budget allocation, as a result of MIT and CMU evaluations, namely:

- contracts will be signed only between FCT and the institutions with the program directors/co-directors, with a management budget;
- all other Portuguese expenditures would be based on Open Calls (both for scholarships as before, and for research projects), and any Portuguese academic researcher would be able to apply (calls are not restrict to existing partners).

The AC BoD met again to adjust the planned activities (and its structure) under a coherent strategy to follow the new guidelines.

C. Revised planning for Year 2 and beyond (*Feb'08-Dec'11*)

The remaining of this section presents **(i)** the revised plans for the AC activities under strategic headings (a document produced in Feb'08), and **(ii)** the suggested methodology to implement the defined strategy for Year 2 and beyond.

4-3. Revised plans

A. Research & Education

Joint collaborative research projects and graduate research education (PhD) are the main goals of the AC program to:

- Award grants for joint collaborative research projects through open calls in 2008 and 2009; these projects should aim to foster excellence in research, mobility and graduate training; target areas in Advanced Computing may be specified (in both Computer

Science and Computational Engineering & Sciences), and preference factors may include (i) the promotion of synergies with the CoLab adjacent areas of digital media and mathematics, (ii) the establishment of close and strong links with Portuguese institutions/companies for long term commitment and sustainability in advanced computing and (iii) the inclusion of undergraduate research activities.

- Promote the creation of joint national doctoral programs in Advanced Computing: some Portuguese universities have already approved joint national doctoral programs (e.g., the MAP-i program in Computer Science, run by UMinho, UAveiro and UPorto), while others are planning to have them running in next academic year (e.g, a program on Computational Engineering and Sciences, run by UTL/IST and UPorto); however, the promoters did not consider this activity as a national priority, and the AC BoD later decided to drop it.
- Promote integration of undergraduate students in joint research projects (at both 1st and 2nd cycle of studies): 1st cycle scholarships are BII in FCT terminology (http://alfa.fct.mctes.pt/apoios/bolsas/regulamento2007.phtml.en), and a 1-month stay at UTA is recommended; 2nd cycle scholarships should be BM in FCT terminology, with a 3-month stay at UTA.
- Award PhD scholarships: publicize the program among potential candidates, launch a call in 2008 for 8 scholarships (3 left from Year 1 + 5), and additional 6 in 2009; each grant is up to 4 years of study, 1 at UTA; eligible candidates should apply for admission at a partner Portuguese university, and their research work should fit into a pre-defined and approved joint research program/project in AC (not necessarily funded by CoLab), lead by a Portuguese researcher (at a partner institution) and a UTA researcher; dual admission and dual degree will be negotiated in 2008.

Some previous planned activities were removed since they did not have an associated budget (except those that were already running). These included:

- faculty visits and short stays to UTA for awareness and project definition;
- short stays of graduate students at UTA to promote exchange of current students in joint research programs;
- advanced research training with MSc dissertations: to select the best MSc students at active partners and include their dissertation thesis in approved joint research programs;
- exchange between Portuguese and UTA groups to promote better integration of current researchers in joint research programs.

B. Advanced Courses, Training Seminars and Outreach

Besides formal education, the AC program should also (i) promote extra curricular training at advanced level, (ii) promote cross-fertilization among researchers within gathering events, and (iii) prepare system administrators at "large" computing clusters and/or grid nodes.

To open a call to organize these types of events seemed odd to the BoD members, but since it was requested by the promoters, some thought should be dedicated to it. In such call, proposals should include either type of events:

- Short advanced research courses: to organize short advanced research seminar/courses, for computer scientists and/or community of scientists/engineers who use clusters/grids; these should last 3 to 5 days, typically with UTA/ICES and/or TACC lecturers;
- Training seminars: to organize training seminars, typically lasting 3 days, oriented to either computational engineers and scientists, or cluster/grid system administrators; these seminars will take advantage of expertise and training materials from UTA/ICES and TACC;
- International Workshop/Conference in Advanced Computing: at least 2 large Workshops/ Conferences should be organized during the program lifetime; each event should aim (i)

to bring together researchers from 2 distinct worlds (computer scientists and computational engineers and scientists), (ii) to exchange research experiences among the academic and the industrial fields, and (iii) to attract top experts in multi-disciplinary areas as keynote speakers, promoting excellence in advanced computing.

Since such "open calls" would be hard to realize in Year 2, it was later decided that:

- these activities would receive funding from UTA to send their faculty and staff to Portugal to give the courses/talks;
- these activities should attract other sources of national funding (such as sponsorships or registration fees);
- the AC BoD would help to evenly plan and distribute the events in Portugal;
- the central facilities at CoLab would help to support expenses related with the promotion of the events, and eventual extra expenses.

C. Support for an Advanced Computing infrastructure

This collaboration program with UTA can contribute to promote a sustainable development in Portugal of the different scientific areas that do research on/based on advanced computing platforms and services. This contribution should aim to install a basis for an advanced computing infrastructure (human and physical resources), as recommended by the CoLab BoD and the External Reviewers.

The AC BoD suggests the following activity, where funding should be made through a specific open call (as required by the promoters):

- Reinforcement of current physical and human infrastructures to provide HPC/Grid services, aiming to support collaborative joint research projects and connectivity to TeraGrid through UTA/TACC, and including training of Portuguese cluster/grid system administrators at TACC (1 month stay at UTA to get hands-on experience in cluster/grid administration).

However, the available funds in the AC budget for this action (less than €300K) was not considered enough, and the BoD decided instead to recommend the promoters to define and implement a national strategy to boost the leverage of HPC computing in Portugal (attached document).

D. Suggested Implementation Methodology

The following objectives were focused on in Year 2:

- to publicize the Advanced Computing program and strategic plans among institutional partners in Portugal, promoting open discussions and improvements (February)
- to discuss and formalize a proposal to award dual degree PhD (February)
- to prepare, publicize and submit to CoLab and FCT the announcements for scholarships and collaborative research projects calls (February)
- to open calls for scholarships & projects and propose evaluation teams; for scholarships they should include members from both countries, for projects the UTA team should recommend its members (February/March)
- to establish formal contacts with potential industrial partners (March onwards)
- to evaluate candidates/proposals and publicize results (May)
- to send contracts to winning candidates/proposals (June and later)
- to start research projects (June/July)
- to evaluate Year 2 actions and plan Year 3 (July-September).

4-4. Year 2 Accomplishments (Sep'07 – Aug'08)

A main challenge for the AC Program in Year 1 and Year 2 was that the institutional contracts with FCT were signed in June and July 2008, and ***at the beginning of Year 3 no funds were yet transferred from FCT to any Portuguese institution*** except UNL, where CoLab central services and human resources are located.

An honest presentation of Year 2 accomplishments requires a mapping between what was planned (in Year 1 and later revised) and what was performed, followed by a critical analysis. We present now the relevant accomplishments, structured in two steps: the successful ones, and the less successful.

A. Successful accomplishments

Besides the planned activities presented below, it is worth mentioning that:

- the 3 members of the BoD in Portugal had the opportunity to go to Austin in Mar'08 and join for the 1st time the other 2 members at UTA, which, together with the CoLab Director@Austin David Gibson, were able to produce a coherent strategic document with a critical analysis of the overall program and with clear ideas on how to run the AC program;
- the CoLab Director@UTAustin, David Gibson visited UMinho in Jul'08 and discuss the AC program with faculty members doing research in the area, and together with Vice-Rector Manuel Mota visited UMinho facilities relevant to the overall program (including UTEN).

In Research & Education

- ***planned:*** "to publicize the AC program and strategic plans among institutions";
  accomplished: a set of slides was produced after the BoD meeting in Austin in Mar'08 and distributed among BoD members in Portugal; public presentations were made in Mar'08 and Apr'08 at IST/UNL, UMinho and UPorto;
- ***planned:*** "to prepare, publicize and submit to CoLab and FCT the announcements for scholarships and collaborative research projects calls" and to open calls for scholarships & projects";
  accomplished _1: the candidates from Year 1 calls were evaluated and 2 were selected in Dec'07 by the evaluation team for PhD scholarship;
  accomplished_2: the limited budget for each 2-year joint research project (€150K) can now be reinforced with funds from UTA ($100K), improving competitiveness of these calls;
  accomplished_3: the announcements for the 2008 calls were delivered to the FCT in Mar'08 and calls were open (only in Jul'08);
- ***planned:*** "faculty visits and short stays to UTA for awareness and project definition";
  accomplished: the faculty trips from IST/UTL and UP that were planned in Year 1 for awareness goals, and a sabbatical visit at ICES for Jan'08-Apr'08 by a UMinho faculty.

In Advanced Courses, Training Seminars and Outreach

- ***planned:*** "workshops on selected topics";
  accomplished_1: "*Portugal-UT Austin CFD 2008 1st Workshop on Computational Engineering: Fluid Dynamics*", held at IST/UTL, 10-11 Jul'08, with invited speakers from UTA; more than 20 participants; received no funds from CoLab@Portugal; more details below and at http://www.utaustinportugal.org/Events.aspx?event=154;
  accomplished_2: "*TACC Summer Supercomputing Institute*", held at UCoimbra, 14-18 Jul'08, with lectures from TACC staff; more than 20 participants; received no funds from CoLab@Portugal; more details below and at http://www.utaustinportugal.org/Events.aspx?event=201;
  accomplished_3: "International Intellectual Property Protection: Thinking Globally from the Very Beginning", open lecture at UMinho in Braga, 29th Jul'08, by William N. Hulsey III, Esq. (IC2 Institute, UTA) (http://www.utaustinportugal.org/Events.aspx?event=217).

B. Less successful accomplishments

In Research & Education

- ***planned***: "graduate students submit applications to the UT Austin Graduate School and the Department of Computer Sciences" (Dec'07);
  accomplished: no PhD scholarship evaluation was possible before Dec'07, since FCT only gave to the evaluation team access to the submitted forms in Dec'07 and only approved the Dec'07 evaluation results in Jan'08; two PhD candidates were selected, but their scholarship contract with FCT for academic year 2007/08 was only signed at the end of Jun'08;
- ***planned***: "visiting faculty and students;
  accomplished: no faculty exchange visits for research goals were allowed, except those mentioned above; no budget could be allocated for student visits;
- ***planned***: "to award PhD scholarships"; a request was made to FCT to open the calls in Apr'08, to close in May'08, to be able to evaluate in Jun'08, to publicize the results in Jul'08 and to award the scholarships in Sep'08;
  accomplished: calls opened in Jul'08 and ended on the 8th Sep'08; the evaluation team had no access to the forms during Year 2 nor before Oct'08; the UTA program will not be able to attract the best students, since results from other FCT calls for PhD scholarships were publicized in mid-September;
- ***planned:*** "to award grants for joint collaborative research projects" and "to start research projects"; a request was made to FCT to open the calls in Apr'08, to close in May'08, to be able to evaluate in Jun'08 and to present the results in Jul'08;
  accomplished: calls opened in Jul'08 and ended on the 15th Oct'08; no grant could be awarded during Year 2.

In Advanced Courses, Training Seminars and Outreach

- ***planned***: "January 2008 Workshop on Multicore Processor Programming", with a specific budget reserved to UMinho;
  accomplished: with no institutional contracts, no budget allocated to any institution, no institution took the risk; contracts were only submitted to institutions to be signed in Jun'08 and Jul'08; no institution received yet any payment from FCT.
- ***planned***: "to establish formal contacts with potential industrial partners";
  accomplished: very few replies from Portuguese companies; more details below.

In the Support for an Advanced Computing infrastructure

- ***planned***: "reinforcement of current physical and human infrastructures to provide HPC/Grid services";
  accomplished: no success so far to persuade the national authorities of this ***URGENT*** requirement for the success of the AC program in Portugal; last call that was open in Portugal for all Infra-structural equipment & instrumentation for science & technology was in 2002; the 2006 Portuguese Grid Initiative granted funds for 11 projects in 2007 but no calls or funds were made available yet for their equipment needs.

C. Details of two AC Workshops delivered in Portugal

The CFD 2008 1st Workshop on Computational Engineering: Fluid Dynamics (UTL/IST)

- Location / Dates / # Participants:
  - Lisbon, 10-11 July, 2008
  - average of 60 participants per session
- Main Topics:
  - *Biological, biomedical and clinical flows*
  - *Image processing and visualization of biomedical phenomena*
  - *Non-Newtonian flows*
  - *Environment and geophysical flows*
  - *Noise generation, flow control and fluid-structure interactions*

- *Modeling and simulation of turbulent flows*
- *Transition and chaos in fluid flows*
- *Turbulence in reacting and multiphase flows*

- Organizing Committee:
  - Adélia Sequeira (Chair), Dept. Mathematics/IST and CEMAT/IST
  - José Carlos Pereira, Dept. Mechanical Engineering/IST and IDMEC/IST
  - Carlos Silva, IDMEC/IST
  - Alexandra Moura, CEMAT/IST
  - João Janela, Dept. Mathematics/ISEG and CEMAT/IST
- Plenary Speakers from UT Austin:
  - Thomas J. R. Hughes, ICES/UT Austin
  - Chandrajit Bajaj, ICES/UT Austin
  - Robert D. Moser, ICES/UT Austin
  - Venkat Raman, Dept. Aerospace Eng. UT Austin
- Keynote Speakers from Portugal:
  - Rita Carvalho, UCoimbra
  - José Laginha Palma, UPorto
  - Domingos Viegas, UCoimbra
  - Luís Eça, UTL/IST
  - José Carlos Pereira, UTL/IST
  - Adélia Sequeira, UTL/IST
  - Carlos Silva, UTL/IST
  - Alexandra Moura, UTL/IST
  - Alberto Gambaruto, UTL/IST

The TACC Summer Supercomputing Institute (University of Coimbra)

- Location / Dates / # Participants:
  - Coimbra, 14-18 July, 2008
  - average of 31 participants
- Main Topics:
  - *HPC systems and Parallel Computing*
  - *Programming with MPI*
  - *Programming with OpenMP*
  - *High Throughput Computing*
  - *Performance Optimization*
  - *Scalability Optimization and Parallel Libraries*
  - *Scientific Visualization and Visualization Techniques*
  - *Debugging Parallel Applications*
- Organizing Committee (from several Dep. at UCoimbra):
  - Pedro Alberto
  - Manuel Fiolhais
  - Luís Silva
  - Fernando Nogueira
  - Orlando Oliveira
  - Miguel Oliveira
  - Pedro Almeida
  - Luís Pinto
- Lecturers / Instructors from UT Austin / TACC:
  - John Boisseau
  - Karl Schulz
  - Kelly Gaither

    - Dan Stanzion
- Keynote Speakers from Portugal:
    - António Pina, UMinho
    - Fernando Silva, UPorto/FC
    - Pedro Medeiros, UNL/CITI
    - Jorge Gomes, LIP
    - Luis O Silva, UTL/IST
    - Miguel Avillez, UÉvora
    - Rui Brito, UCoimbra/CNC
    - Orlando Oliveira, UCoimbra/CFC

- Feedback from attendees/instructors:

  "It was a great pleasure to be with all of you for this supercomputing workshop. I really learned a lot more than only reading papers, books or teaching :-) The workshop was very well organized and the tutors put a lot of effort on adapting the material to the needs of the audience. I really appreciated it! Thank you! Thanks to Pedro et al, that made this event a success! Best regards and hope to see you again." Inês Dutra, UPorto

  "On behalf of the folks from TACC and ASU, we also wanted to reiterate our thanks for hosting the institute. The hospitality extended to U.S. during our stay was very kind and the technical breadth and interest of the audience was really top notch. We hope you find benefit in the training material and lectures within your own research and look forward to more collaboration through the Portugal/UT Austin partnership. Thanks again" Karl Shultz, Assistant Director, TACC

D. Formal contact with private companies for Industry Affiliates

The AC BoD team in Portugal started to develop a database of potential companies that would be interested in being affiliated with the Advanced Computing Program. A formal e-letter was sent in early April to the following list of selected companies, with a request to identify their needs in Advanced Computing:

- Accenture Technology Solutions
- AEIOU
- Alert
- Altitute Software
- BIAL
- Blaupunkt Auto Rádio Portugal
- CPC HS
- Critical Software
- CTT
- Deimos
- Deloitte
- EDP
- Efacec
- Empordef
- Enabler
- Hydra IT
- Inova Ria/PT Inovação
- Modelo Continente
- Multicert
- Novabase
- OPT

- Portugal Telecom
- Qimonda
- Siemens IT Solutions and Services
- Skysoft
- SONAE Distribuição
- Spin.Works
- Wedo Consulting

On the following weeks CoLab support staff made follow-up calls to make sure the companies had received this letter. So far they CoLab received 11 replies from these 28 companies (less than 40%), and only 2 were positive: those from Efacec and Novabase.

More personal approaches may have to be used, which will require a much longer involvement from BoD members. Alternatively, the calls for research projects that stress company participation may also contribute to improve this apparent lack of interest from companies.

4-5. Planned Year 3 Activities (Sep'08 – Aug'09)

Section 4.2 presented the revised AC planning for Year 2 activities and beyond, as designed at the beginning of Year 2. The planned Year 3 activities include not only those, but aim to go slightly beyond:

A. In Research and Education:

- open & evaluate calls and award PhD scholarships; by the beginning of Year 4 all AC program PhD scholarships (15) should be awarded and running;
- open & evaluate calls, award grants and start running joint collaborative research projects; by the beginning of Year 4 all AC budget for this action should have been allocated; if adequate project selection from 2008 call is successful, then undergraduate students (from both 1st and 2nd cycle of studies) will be integrated in research activities, also fulfilling planned expectations;
- stimulate again student and faculty exchange within the context of running collaborative projects; these actions were removed from previous planned activities due to lack of available funds (open calls were required), but there seems to be now a window of opportunity through "seed funding";

B. In Advanced Courses, Training Seminars and Outreach

- to explore further audience targets in Portugal to increase diversity in cooperation fields, bringing new faculty members; as an example, Jim Chelikowsky (Dep. Physics, UTA) was invited for a plenary talk at the Workshop on Functionally Graded Materials (UMinho, October 9-10, 2008);
- to continue past positive experiences, such as Summer courses on advanced topics and re-issue TACC training courses for research students in computational sciences, using "seed funding" to lower registration costs and to help student travel and accommodation in Portugal;
- to promote advanced courses in Austin for Portuguese MSc and PhD students, taking advantage of top researchers in companies settled in Austin (IBM, Sun, HP, Intel, AMD, Oracle, Dell, Microsoft, …), and using "seed funding";
- to organize a Workshop on a relevant topic, e.g., Multicore Programming as already planned.

A generic CoLab goal also needs to be tackled and concrete actions should start as soon as possible: to increase synergies among all programs in CoLab through a leading Project/Action.

The AC BoD already issued a challenge to the other program BoD (both in Portugal and in Austin) to organize brainstorm meetings during Year 3 to define such initiative.

4-6. Challenges and Open Issues

The revised strategy in AC for the remaining years was contextualized and presented in section 4.2, with the Year 2 accomplished results presented in section 4.3. Section 4.4 basically resumed the planned activities for Year 3, based on the contents of previous sections.

A critical review and a synthesis of all comments introduced throughout these sections closes now the whole section 4 on Advanced Computing. This is complemented with material from AC BoD preparatory discussions on coherent strategies, which identified some challenges and open issues that deserve to be written down:

- attract highly-qualified Portuguese students,
  suggestions: better advertising, greater control on the call announcement contents and timing, and better web site communication and interactivity, including for both MSc and PhD students; However, this goal is hardly compatible with current FCT response and current website managers;
- attract highly-qualified joint research proposals;
  suggestions: better advertising of the calls and goals, promoting more student and faculty interchange, getting ways to get to the companies and have them involved in R&D (not just sponsoring), find reputable and fast evaluation teams;
- promote dual PhD degrees with UTA;
  problem**:** these PhD degrees in AC depend on the specific department where the research is pursued, since it could be on Computer Science, on Physics, on Chemistry, on Civil, Mechanics or Chemistry Engineering, …;
  suggestion**:** analyze case by case, on an individual basis;
- create working conditions in AC during and after the program;
  problem**:** current HPC infrastructures and services for AC in Portugal are either inexistent or inadequate, preventing a balanced partnership between Portugal and ICES/TACC, and pushing away our best AC professionals;
  suggestions**:** provide seamless access to TACC clusters, lobby close to politicians and decision makers to really fund HPC infrastructures and services on an open call basis;
- explore synergies within all Pt-USA programs;
  suggestions**:** cross-fertilization among research fields and companies/industry and improve synergies with Digital Media & Maths (requires brainstorm meetings), promoting this approach in all public presentations and on the open calls;
- define metrics to evaluate success of the UTA program;
  suggestions**:** # funded PG thesis, # co-authored papers; # of spinoffs; €€ from companies into the program.

The Board of Directors of the Advanced Computing program, October 2008

4-7. Advanced Computing: An Analysis on the Program Impact, Mar'08

A. Can UTexas boost Hi-Tech in Portugal?

During past decade, Austin in Texas became one of the most active regions in U.S. in the Hi-Tech arena. UTexas made a significant contribution to this boost, together with the strategic vision of the City and State decision makers. Key factors in UTexas included its top rated researchers, its successful know-how transfer from University to companies, and its active support to create and develop new innovative companies. Altogether, these gave a new perspective to Texas as an active State in Hi-Tech.

Portugal has a cooperation program with UTexas in Austin, which may take advantage of UTexas expertise in the Hi-Tech development with societal impact. Current running programs under this agreement between Portugal and UTexas include digital media, advanced computing and participation into a University Technology Enterprise Network (UTEN), which will shortly be followed by nanotechnologies.

Portugal can also aim for success in Hi-Tech, similar to what happened in Texas. To fully explore this collaborative opportunity, a similar strategic view is required from Portuguese decision makers, together with the will and power to make it happen.

A current Science & Technology development focus at UTexas relies on high graded advanced computing infrastructures and services, closely connected to research: "*Advanced computing facilities are currently as much or even more important than library facilities*", as recently stated by the UTexas Vice-President.

The Texas Advanced Computing Center (TACC), at UTexas in Austin, is a success story of this path into competitive Hi-Tech. Seven years ago TACC was just a standard university computer center, and since then it moved into an advanced computing facility. Currently it also provides training, education and research services. Performance and hardware resources in TACC grew 10,000 times in just seven years, and it is now running the fastest open computer system in the world, for the science and technology community.

This UTexas success is mainly due to both (i) the NSF strategic view to open a nationwide competitive call for such computing facilities, and to (ii) the commitment of the team leading TACC. The team had the opportunity and the competence to submit a successful proposal and to later deploy the computing cluster, without neglecting the required and adequate human resources to run the system and to give support to the users.

UTexas has fostered research in advanced computing at its recently created Institute of Computational Engineering and Sciences (ICES). ICES and TACC had also benefited the UTexas strategy to hire top world experts. Both have contributed to attract to Austin the research laboratories at top computing related companies (Intel, AMD, Microsoft, IBM, Dell, just to name a few), establishing close and strong links with these companies. These links and overall experience at ICES & TACC are a valuable asset that should be adequately explored under this cooperation program.

B. Contribution of the Advanced Computing program

"Advanced Computing" (AC) in this program is related to "*methodologies and techniques in HPC, distributed/grid computing and large scale data analysis & management, to solve computational engineering and science problems.*"

The AC academic community in Portugal is spread on 6 different universities (2 in Lisbon, 2 in Center of Portugal, and 2 in Great Porto) and across several departments inside each institution. It aggregates experts in computer science, in computational engineering and in computational sciences (including bio, nano). Computing resources for the Portuguese AC academic community rely exclusively on department-type clusters (no more than 6 clusters in Portugal with 100-512 cores each). These clusters are autonomously operated and there are no National Grid services yet. No significant industrial community was yet identified in AC.

Current guidelines for this AC program with UTexas have stressed joint research projects and graduate research education. These are being implemented through national open calls; funds have been allocated to support 15 PhD scholarships, where a 1-year stay at UTexas is required, and up to 10 2-year research projects.

Relevant outreach actions in the AC program include the organization of training seminars, advanced research courses (both take advantage of UTexas faculty traveling to Portugal) and workshops/conferences (no specific funds from Portugal can be allocated).

The overall impact of all these actions on the Portuguese wealth could be greatly enhanced if:

- they explicitly contributed to promote a sustained development of the AC community in Portugal; e.g., if closer connections were established between the AC program and other Portuguese actions in AC, namely a coherent strategy and a competitive call to deploy a National Advanced Computing Center (infrastructures and services), with short deadlines (a relevant action to transfer knowledge and competences to companies and to reduce talent drain);
- they fully explore the above mentioned UTexas assets in this cooperation program - at ICES/TACC and at UTEN program and partners - to explicitly contribute to create wealth in companies and to promote their globalization;
- they explore synergies with other Hi-Tech domains that UTexas leads and that Portugal also aims to lead (e.g., nanomaterials & nanotechnologies).

The Advanced Computing Board of Directors believes that adequate measures can still be taken to make the best use of this protocol between the Portuguese Government and UTexas. The March'08 Board meetings in Austin confirmed that UTexas has the power and is willing to contribute to the Hi-Tech sustained development in Portugal.

The Board of Directors of the Advanced Computing program, March 2008

Section 5 | University Technology Entrepreneurship Network (UTEN)

A main objective of the *University Technology Enterprise Network* (UTEN) is to build Portugal's competence in S&T commercialization with emphasis on training technology transfer officers (TTOs) and staff in order to establish a sustainable Portuguese technology transfer community with access to U.S. and international markets. This section presents a brief overview of UTEN with two important and recent program changes; a brief review of Year 1; a detailed summary of Year 2 (September 2007-August 2008); and plans for Year 3 (September 2008-August 2009) and beyond.

5-1. Overview

A. Key UTEN Personnel

Portugal

- Dr. José Mendonça, UTEN Director; Professor of Electrical and Computer Engineering, U. Porto, and Director, INESC Porto
- Dr. Teresa Mendes, UTEN Co-Director; Professor of Informatics Engineering, University of Coimbra and Director, IPN (Instituto Pedro Nunes)

UT Austin

- Dr. David Gibson, UTEN Director; Associate Director, IC² Institute
- Isaac Barchas, UTEN Co-Director; Director, Austin Technology Incubator
- Dr. James Jarrett, Research and Metrics
- Cliff Zintgraff, UTEN Program Manager; President Innology, San Antonio, Texas IC2
- Eli Mercer, UTEN Training/Internship Manager, IC² Institute
- Prentiss Riddle, CoLab Liaison, IC² Institute
- Erin Daley, Graduate Research Assistant, IC² Institute

UTEN Texas Partners

UTEN Austin is located and managed out of the IC² Institute, The University of Texas at Austin with support staff at The Austin Technology Incubator (www.ic2.utexas.edu). However, over the past 20 months UTEN has formed a network of affiliated partners, to support UTEN Internships, training, and commercialization, including the following institutions:

- University of Texas Health Science Center at San Antonio
- UT San Antonio (UTSA) Center for Innovation and Technology Entrepreneurship (CITE)
- UTSA Management of Technology program
- Texas Research Park

- InCell and TEKSA Innovations, San Antonio
- The Institute for Innovation & Entrepreneurship, UT Dallas
- International partners through IC² Institute S&T commercialization programs primarily with Mexico, Norway, and Poland.

UTEN's main objective is to promote the development of globally competitive and sustainable Portuguese technology commercialization infrastructure. To do this UTEN continues to work with and build upon existing Portuguese TT institutions and networks of TT managers and staff. UTEN Portugal and UTEN Austin have provided TT training opportunities in Portugal and Texas; initial TT Internships in Texas; and real life commercialization activities in the U.S. These UTEN programs and activities have focused on:

1. Portuguese TT managers and staff with a key emerging objective of having select regions in Portugal be sustainable and globally competitive regarding TT and commercialization
2. Training and mentoring Portuguese science and technology (S&T) researchers and entrepreneurs in science and technology commercialization
3. Using competitively selected Portuguese technology-based companies as "think and do" learning opportunities and role models for success

First Major UTEN Organizational Change

UTEN Portugal institutions include 13 universities, 4 technology parks, and select research organizations (Annex A). As noted in the first ERC Meeting of November 30, 2007 and Year 1 ERC Report, with such a large network of potential participants, UTEN management and coordination should expect to be challenged especially given the geographical dispersion and other institutional differences including unique histories regarding S&T commercialization. Accordingly, in June 2008, to facilitate the implementation and coordination of U
TEN programs and activities, a Portuguese UTEN Executive Board was formed of select Portuguese institutions and personnel that have been most active in working with UTEN during the prior 1.5 years. The Board is composed of:

1. ***INESC Porto,*** Associated Laboratory: Main Contacts: Dr. José Mendonça, UTEN Director and Chair, UTEN Executive Board; Professor of Electrical and Computer Engineering, U. Porto, and Director, INESC Porto
2. ***TECMINHO,*** Associação Universidade Empresa para o Desenvolvimento: Main Contacts: Manuel Mota, Vice Rector, University of Minho; Jamie Ferreira da Silva and Marta Catarino, TecMinho, University of Minho
3. ***University of Porto,*** through UPIN, Universidade do Porto Inovação: Main Contacts: Prof. Jorge Gonçalves, Vice Rector and Maria Oliveira, UPIN
4. ***Instituto Pedro Nunes (IPN),*** Associação para a Inovação e o Desenvolvimento em Ciência e Tecnologia, IPN: Main Contact: Dr. Teresa Mendes, UTEN Co-Director; Professor of Informatics Engineering, U. Coimbra and Director IPN
5. ***Instituto Superior Técnico, IST:*** Main Contacts: Carlos Matos Ferreira, Professor Rui Baptista and Maria José Francisco

The goal of the Executive Board is to build sustainable participation across the entire UTEN network. INESC Porto will provide initial management support and coordination for the UTEN Executive Board, but over time, the Board will utilize a "rotating coordination scheme" among its partner institutions.

Second Major UTEN Organizational Change

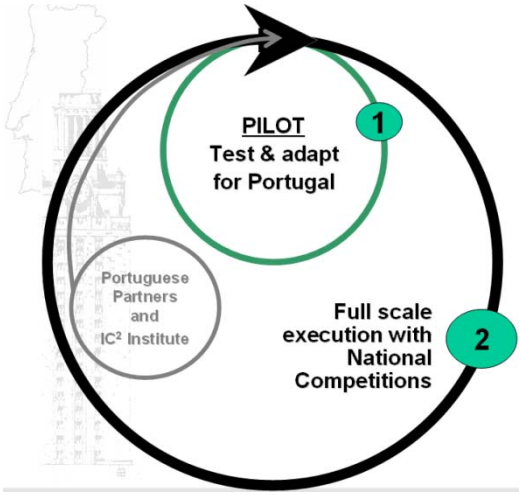
At the CoLab Board Meeting, October 3, 2008, it was decided that the FCT through Vasco Varela, Executive Director, International Partnerships would assist UTEN's national directors to bootstrap the UTEN Network and associated activities including the establishment of a Portuguese UTEN management team, the allocation of management time for UTEN's Director and Co-Director, and the issuing national calls for UTEN's main objectives of TTO training, entrepreneur mentoring, and U.S. business development. Despite these considerable challenges, significant Pilot Programs were initiated by UTEN Austin, implemented on a competitive basis, and managed with considerable volunteer effort of key Portuguese champions with financial contributions from their institutional budgets.

5-2. UTEN Year 1 Overview (March 2007 – August 2007)

In Year 1 (six months) UTEN objectives and activities focused on:

1. Building awareness of the UTEN program in Portugal and in Austin and in identifying key UTEN assets, challenges, and opportunities
2. Building a UTEN network in Portugal by leveraging existing talent and technology commercialization and training institutions
3. Establishing "pilot programs" to assess, learn, and adapt initial UTEN activities concerning internships, training, and U.S. market access for Portuguese science and technology (S&T) companies and small and medium enterprises (SMEs)
4. Using Year 1 "learning-by-doing" to plan Year 2 activities and objectives

Year 1 succeeded in building awareness, establishing pilot programs and processes, and identifying initial metrics. These activities were used as a basis for design and delivery of Year 2 programs and activities.



5-3. UTEN Year 2 Report (September 2007 – August 2008)

Since Year 2 budgets were not released for UTEN Portugal, it was decided that Year 2 UTEN should continue and expand key Year 1 Pilot Phase Programs in:

- Training of Technology Transfer Officers
- Training of Entrepreneurs
- Developing experiential U.S. Business Development and Commercialization Cases

In summary, UTEN Year 2 metrics include:

- Eight significant visits: Three to Portugal and five to Texas
- Two hundred key Portuguese involved during meetings and assessments by UTEN Austin (Annex B).
- Forty new Portuguese technologies identified making a total of 95 in UTEN's Portfolio (Annex C).
- Sixty "learning by doing" contacts made between Portuguese entrepreneurs and U.S. experts
- As a result of extensive "Market Look" analyses two Portuguese companies have been selected as prime candidates to receive UTEN mentoring to enter the U.S. market:
    - Fluidinova to open an office in the Austin Technology Incubator
    - Bioalvo is in discussions with INCELL, San Antonio to launch start-up production operations

In carrying out is mission of technology transfer training, entrepreneur training, and development of commercialization cases, in Year 2, UTEN organized 3 visits to Portugal and 5 visits of Portuguese to Texas.

Days of Innovation, Lisbon	Nov 6-10, 2007
UTEN Leadership Meeting, Austin	April 5-11
Tomorrow Options	March 11-13
MedTech Conference and visits Lisbon, Coimbra, Porto, Maia, Guimaraes	June 16-20
Voxgene (Nuno Osorio)	Sep 2-12
UPTEC and UPIN	Sep 15-19
Fluidinova	Sep 21-24
Technology Transfer Office meetings	Sep 30-Oct 3

Shaded = Visit in Portugal

A. Training Technology Transfer Officers

In Year 2, UTEN conducted Pilot Phase programs and activities to train technology transfer officers. These Pilot experiences are being used to plan for scaled up training and Internship activities in Year 3 . In Year 2, the following four major visits were made in support of technology transfer officer training:

Days of Innovation, Lisbon, November 6-10, 2007

Jose Mendonca, UTEN Director Portugal and David Gibson, Director of UTEN Austin, and Cliff Zintgraff, UTEN Austin Program Manager, made presentations, to Days of Innovation participants, about UTEN and about entrepreneurial business development in Texas. The objective was to promote UTEN programs and activities to several hundred Portuguese entrepreneurs who attended the event. In addition, during the same visit, Cliff Zintgraff presented *Culture Shift for Active Commercialization* at an associated GAPI/OTIC (Intellectual Property and Technology Transfer) conference in Lisbon.

UTEN Leadership Meeting, Austin, April 5-11

In early April, Portuguese UTEN and TT Managers, from several key Portuguese locations, visited technology transfer, incubator, marketing, IP, VC, and other experts and mentors in Austin, San Antonio, and Dallas. The main purpose of the trip was to assess potential Texas-based talent and resources available for UTEN Portugal and to plan for expanded initiatives.

Visitors From Portugal:

- José Manuel Mendonça, INESC Porto and UTEN Portugal Director
- Marco Bravo, Ministry of Science, Technology and Higher Education
- Maria José Francisco, Instituto Superior Tecnico
- Maria Oliveira, UPIN and U Porto
- Ana Paula Amorin, U Minho

UTEN Austin Main Hosts:

- Dr. David Gibson, IC² Institute
- Isaac Barchus, Director, Austin Technology Incubator
- Cliff Zintgraff, UTEN Program Manager
- Prentiss Riddle, UTEN CoLab Liaison

Personnel and Sites visited include: (See Annex D for complete schedule)

- UT-Austin Faculty: Marketing; Technology Transfer and Commercialzation; Technology Management, etc.
- Luis Medina, Director, Mexican Technology Business Accelerator (TechBA) at ATI
- Adriana Cruz, VP Global Corporate recruitment, Greater Austin Chamber of Commerce
- Dr. Cory Hallum, Center for Innovation and Technology Entrepreneurship (CITE), UT San Antonio
- Dr. Bill Flannery, Management of Technology Program, UT San Antonio
- Dr. Mo Jamshidi, Faculty entrepreneur, UTSA
- Dr. Mary Pat Moyer, CEO, InCell Corporation
- Jim Janowiak, President, TEKSA Innovations
- Dr. Renee White, Medical-Bio Sector Expert, Houston
- Joseph Picken, Executive Director - Institute for Innovation and Entrepreneurship, UT-Dallas

MedTech Conference, Coimbra and Bio-Medical visits Lisbon, Coimbra, Porto, and Maia, Guimarães, June 16-20, 2008.

UTEN Austin sent a team of Bio-Medical sector experts to the MedTech Conference in Coimbra, June 16-17 and for follow-up visits. The MedTech UTEN@Austin team visits

were hosted by UPIN (Maria Oliveira), U of Minho (Marta Catarino), Ana Paula Amorin (formerly U Minho), and Maria José Francisco (IST).

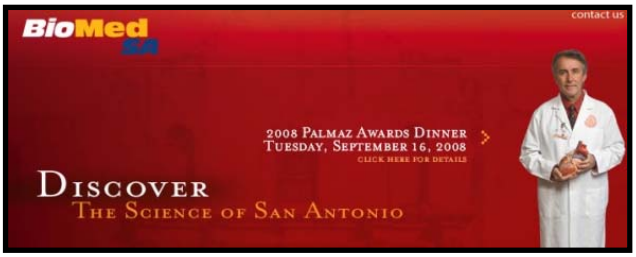
One Key Result: Prof. Jorge Gonçalves, Vice-Rector, University of Porto met Dr. Mary Pat Moyer and Jim Janowiak, InCell Corporation and TEKSA Bio Incubator. Prof Gonçalves made a commitment to visit InCell and TEKSA in San Antonio.

4. UPTEC and UPIN, Texas Visit, September 15-19, 2008

Prof. Jorge Gonçalves, Vice Rector, University of Porto and Fátima Ramalho, TTO UPIN (U Porto) visited Austin and San Antonio specifically to learn more about the operation of Life Science Incubators and technology transfer processes for the University of Porto. However, their visit was expanded to include additional learning opportunities. Visits included:

- Dr. Bob Peterson, Asst. VP Research, UT Austin
- Digital Media Collaboratory, IC² Instiute
- Richard Friedman, Associate Director – Licensing, Office of Technology Commercialization, The University of Texas at Austin
- Dr. Mary Pat Moyer, CEO, InCell Corporation
- Isaac Barchas, Director, Austin Technology Incubator
- Bill Hulsey, Lead Partner, HulseyIPLaw and Global Fellow, IC² Institute.
- Jim Poage, Executive Director, San Antonio Technology Accelerator Initiative (SATAI)
- Dr. Bill Hermann, VP Research, UT Health Science Center San Antonio
- Ken Porter, UT Health Science Center San Antonio
- Dr. Robert Gracy, VP Research, UT San Antonio
- Dr. Cory Hallum, Director, Center for Innovation and Technology Entrepreneurship, UT San Antonio
- Susan Porter, Southwest Research Institute

In addition, Prof. Gonçalves and Fátima attended the BioMedSA Annual Dinner in San Antonio as a good example of how a region (San Antonio) organizes to promote its biomedical industry cluster.



Visit results include:

- Useful insights for the University of Porto and UPIN from visits with ATI and UT Austin's Office of Technology Commercialization
- Potential collaborations with Digital Media Collaboratory, SATAI, UT Health Science Center, and UT San Antonio for research collaborations and entrepreneurial training, especially "entrepreneurial attitudes" surveys for Portuguese universities.
- Numerous insights on approaches to technology transfer in the United States, causing Prof. Gonçalves to "rethink"" the University of Porto's technology transfer strategy.

Vice Rector Goncalves made this observation of his September visit:

> My visit to Austin was to know better UTEN's Texas partners that I only knew by the reports my colleagues have been making. People from Porto are very excited with this cooperation with Austin and are deeply involved

to strengthen our ties. We have found the colleagues in Texas of an outstanding quality and with a strong will to develop a real cooperation.

B. Training Entrepreneurs

In Year 2, UTEN trained Portuguese entrepreneurs as part of assessment team and entrepreneur visits to the U.S. Entrepreneur training activities include:

Days of Innovation, Lisbon, November 6-10, 2007

At the Days of Innovation Conference, Cliff Zintgraff and David Gibson interviewed over 50 entrepreneurs in the "startup and research" section of the conference and developed an email outreach list based on these visits.

An entrepreneur practices his elevator speech for a UTEN team at University of Porto.

MedTech Conference and Visits, June 16-20, 2008

A UTEN Texas biomedical team attended the MedTech Conference at the University of Coimbra, and conducted additional visits in Lisbon, Porto, Maia and Guimarães to mentor entrepreneurs. Members of the team were:

- Dr. Mary Pat Moyer, CEO, InCell Corporation
- Jim Janowiak, President, TEKSA Innovations
- Renee White, President, Caduceus Technology Partners
- Cliff Zintgraff, UTEN Program Manager

The team met with entrepreneurs during panel reviews, interactive discussions, and assessments. Following is a list of the ventures and primary contact:

Venture Name	*Primary contact*	*Met through*
1. Biosckin	Santos, Marta	MedTech Conference
2. Centro de Genetica Clinica	Ferreira, Manuel	
3. Critical Software – RetMarker	Ramos, João	MedTech Conference
4. Critical Software – Glautech	Ramos, João	MedTech Conference
5. We Adapt	Angelo Fernandes Carvalho, Miguel	TecMinho
6. VoxGene	Osório , Nuno Miguel	University of Porto
7. Biotecnol	Moreira, Jose	Instituto Superior Tecnico
8. Bluemater – algae growth	Gomes, Nuno	UPTEC
9. Bioteca	Cabrita, Goncalo	Instituto Superior Tecnico
10. Ubisign	Machado, Pedro	TecMinho
11. Bluemater – water treatment	Gomes, Nuno	UPTEC
12. IST Technology	Norberta de Pinho, Maria	Instituto Superior Tecnico

13.	Link	Mesquita, Carlos	Met at IST
14.	Blueworks	Barbeiro, Paulo	MedTech Conference
15.	EXVA	Ferreira, Frederico	TecMinho
16.	Take the Wind	Pinto, Pedro	MedTech Conference
17.	SpectralBlue	Carvalhal, Paulo	TecMinho
18.	Plux	Gamboa, Hugo	MedTech Conference
19.	AuditMark	Ribeiro, Rui	UPTEC
20.	BioSpine	Gomes, Eusebio	MedTech Conference
21.	Bioepi	Benito-Garcia, Vasco	Instituto Superior Tecnico
22.	Ewen	Ribeiro, Luis	UPTEC
23.	Neoscopio	Andrade, Miguel	UPTEC
24.	Molecular Technology Consulting	Ramos, Maria	Met at IST
25.	Critical Software -- Radial Distortion Fixer	Ramos, João	
26.	BioTeknics	Silva, Rui	TecMinho
27.	BioTempo	Faria, Nuno	TecMinho
28.	Castro, Pinto, & Costa	Costa, Miguel	TecMinho
29.	DNAMimics	Azevedo, Nuno	TecMinho
30.	Oleotest	Costa, Miguel	TecMinho
31.	TIMEBI / Wizi -- mobile software for finding friends and the time to get to them	Sousa, Maria	ADI

VoxGene – Nuno Osório, Pilot Case for Entrepreneurial Training, visited Texas, September 2 -12

Nuno Osório is CEO of VoxGene, a university-based startup pursuing applications in personal genetics. Nuno visited Austin and San Antonio learning about U.S. commercialization practices, venture development, and markets. Nuno benefitted from the following during his visit:

- Staff at IC² Institute
- Director of the Austin Technology Incubator
- Tom Gardner, student in IC² Institute MSTC Degree Program and former bio-Medical Manager
- Eli Mercer, student in IC² Institute MSTC Degree Program and former Manager of an entrepreneurial program at Thunderbird School
- Visited Masters of Technology Commercialization classes at IC² Institute
- Dr. Mary Pat Moyer (InCell Corporation),
- Dr. Randy Glickman, UT Health Science Center San Antonio
- Dr. Randy Sponsel, Private Practice Opthalmologist, San Antonio
- Cliff Zintgraff, UTEN Program Manager

As a result, Nuno changed his research/business development strategy, made decisions about new target markets, and has continuing relationships with mentors in Austin and San Antonio. UTEN will use the visit of Nuno to help structure future, larger scale entrepreneur visits to Texas. Mr. Osório summed up his visit as follows:

The UTEN Austin team is composed of professionals of excellence that are highly motivated by the dream of making Portugal a real "land of opportunities." I strongly believe that this program will, in the long run, have a strikingly positive effect in the Portuguese economy. I strongly recommend other entrepreneurs to visit Texas. I take back to Portugal different forms of thinking, increased business confidence and a huge challenge.

Master of Science in Technology Commercialization

In Year 1 two Portuguese students were admitted, into UT Austin's MS Program in Technology Commercialization, as Internet Certificate Students. In Year 2, one student was admitted as a MS degree candidate. These MSTC students are typically mid-career and have extensive business experience in a range of technology sectors. Two exceptionally experienced and motivated MSTC students are assisting with entrepreneurial mentoring, Rapid Screens and Market Look analyses on Portuguese technologies, and with U.S. business development.

Continuation of Year 1 Efforts

During Year 2, UTEN continued to mentor entrepreneurs worked with during Year 1 as follows:

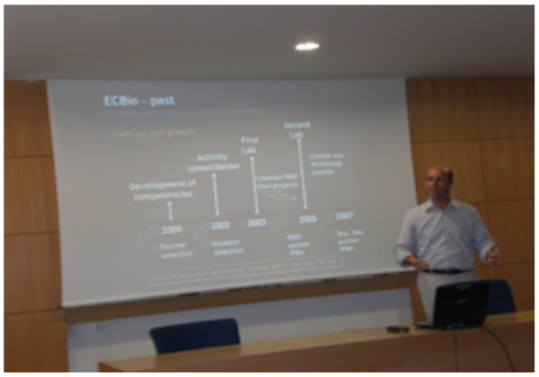
- Bioalvo – which is looking to open an office in San Antonio at InCell
- Fluidinova – which is panning to open an office in Austin at ATI
- HIV-2
- edgeBox
- Tomorrow Options (Walkin' Sense) (hosted for visit, March 11-13, 2007

Overall Entrepreneurial Mentoring Results

1. Mentored and trained Portuguese entrepreneurs concerning their venture with particular emphasis on business development in the U.S.
2. Established new connections with Portuguese entrepreneurs in the Medical-Bio Sector
3. Conducted a pilot entrepreneur visit/internship to the U.S.; analyzed visit results for future and expanded visits
4. Provided feedback and coaching to Portuguese entrepreneurs through real cases of technology and market assessments and business development

C. Commercialization and Business Development

Commercialization cases provide the subject matter that makes training efforts real for Portuguese technology transfer officers and entrepreneurs as well as for UTEN Austin. It is also intended that some cases will provide real-life role models for successful internationalization.



ECBio presents to the UTEN@Austin Life Science team at IST/Taguspark

UTEN made progress on commercialization cases and business development through the following seven visits:

2007 Entrepreneur Visits	July 12-13, '07
Critical Software	July 25, '07
Days of Innovation, Lisbon	Nov 6-10, '07
Tomorrow Options	March 11-13
MedTech Conference and visits Lisbon, Coimbra, Porto, Maia, Guimaraes	June 16-20
Fluidinova	Sep 21-24
(Scheduled) Bioalvo	December

1. UTEN Austin Visits in Portugal, July 12-13, 2007

Key visits included:

- Jorge Liz and Maria Santos, AdI Lisbon
- Bioalvo and HIV-2, at AdI Lisbon
- Nuno Almeida, Critical Software, at AdI Lisbon
- Avelino Pinto, SPIN Park, Braga
- Joaquim Mendes, BioFilms; with Fátima Ramalho of UPIN
- Deolinda Silva, AdI Porto
- Prof. José Manuel Mendonça, INESC Porto and UTEN Director

UTEN Austin continued to work with BioFilms on U.S. market potential; Avelino Pinto is a candidate for upcoming technology transfer officer trips to the U.S.; BioFilms is examining a U.S. presence and partnership; Jorge Liz is organizing Days of Innovation 2009, a key conference in the UTEN 2009 strategy.

2. Critical Software, Texas Visit, July 25, 2007

Nuno Almeida of Critical Software visited Texas in July 2007. Specific visits included:

- IC² Institute, Austin
- Texas Research Park Director York Duncan, San Antonio
- Cliff Zintgraff, UTEN Program Manager

During the visit, UTEN specifically reviewed Critical's RetMarker, PREMFIRE, and edgeBOX technologies: RetMarker and two other Critical technologies currently undergoing formal assessment.

3. Days of Innovation Conference, Lisbon, November 6-10, 2007

In addition to the presentations and outreach performed at the conference, Dr. Gibson and Cliff Zintgraff continued U.S. business development with the following Portuguese:

- José Carlos Lopes, Fluidinova
- João Carreira, edgeBOX
- Helena Vieira, Bioalvo

- António Câmara, YDreams (regarding potential Alamo project)

4. Tomorrow Options (Walkin' Sense), March 11-13, 2008

UTEN hosted Paulo Dimas and Catarina Monteiro of Tomorrow Options for visits in Austin and San Antonio in March 2008. Specific visits included:

- IC² Institute
- Diabetica Corporation; San Antonio, followed up the next day with meetings at a conference in California.
- InCell Corporation, Dr. Mary Pat Moyer
- Conference call with Renee White, Caduceus Technology

As a result of these meetings, business development connections were established for Tomorrow Options, and a RapidScreen was started for Walkin' Sense.

5. MedTech Conference and Visits, June 16-20, 2008

The visit of the UTEN biomedical team to the MedTech conference contributed significantly to the development of commercialization cases in the Bio-Medical Sector:

- Added 38 technologies to the case portfolio (now performing 18 screens)
- Coached and gave feedback to nine ventures at UPTEC
- Coached and gave feedback to seven ventures at TecMinho
- Reviewed twelve ventures at IST

6. Fluidinova, September 22 to 25, 2008-10-23

José Carlos Lopes, CTO and Founder of Fluidinova, and Daniela Correia, nanoXIM Marketing Manager, visited Austin September 22 to 25. UTEN hosted four days of meetings that included potential supporters, incubators, partners, IP counsel and corporate counsel for a corporate presence for Fluidinova in the U.S. Cliff Zintgraff, UTEN Program Manager, met with a Fluidinova Board Member on the next week's trip to Lisbon.

Fluidinova has a patented static mixing / reaction system, and uses the technology to make hydroxyapatite, a bioactive material used as bone substitute and for controlled drug delivery.

Result: Fluidinova plans to open a 3-person office at ATI in January 2009. Initial staff will include a business manager, technical advisor, and from Portugal a U.S. Liaison. Initial activities will focus on establishing connections with potential product buyers and developing a manufacturing site as well as to continue Texas and U.S. market research.

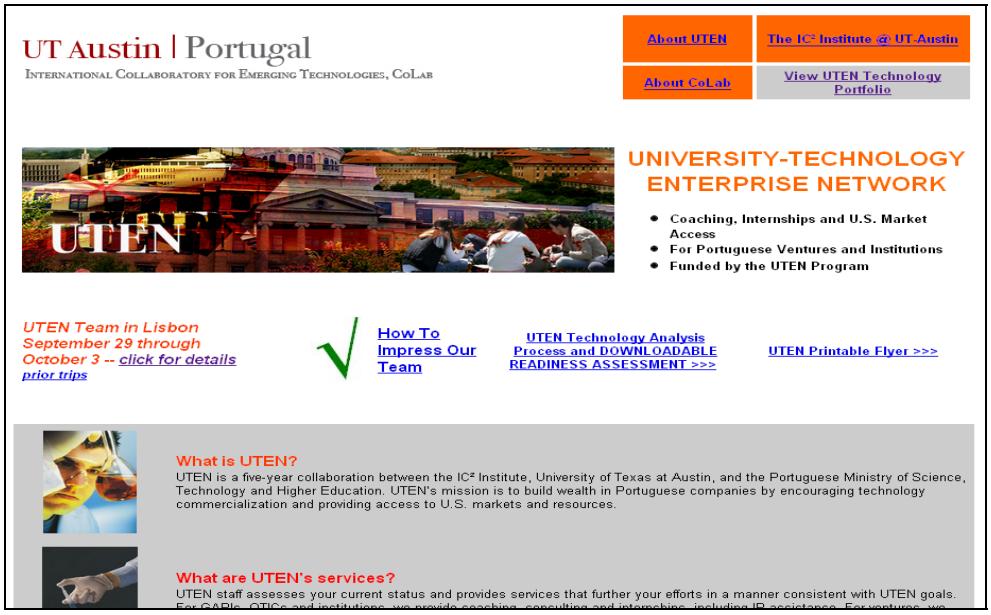
7. Bioalvo, tentative visit December 2008

UTEN has continued to work with Helena Vieira, CEO, and Luis Amado, Chief Business Development Officer, to explore a U.S. presence. In particular, an NDA has been signed with a Texas company for consideration of joint development efforts. Bioalvo has developed humanized yeast cells that are used to speed the drug discovery process. UTEN has tentatively set December 2008 for a Texas visit by Bioalvo.

D. UTEN Promotion

To promote UTEN specifically with entrepreneurs and technology transfer officers, UTEN developed Web site TechPortugal.com. The site answers basic questions about the program and publicizes upcoming trips. A case portfolio is under development to

assist entrepreneurs and their university supporters in promoting technologies and receiving feedback from U.S. and other markets.



5-4. Overall Results

The primary result of commercialization case development has been to build trusted relationships with Portuguese UTEN staff and entrepreneurs, and to build a rich set of cases which can be subject matter for the training of technology transfer officers and entrepreneurs. This effort is consistent with the IC² Institute's think-and-do approach in the development of S&T-based economies.

Specifically, during Year 2 UTEN has:

- Developed relationships with numerous administrators, institutions, staff members and entrepreneurs in Portugal
- Expanded the case portfolio from 42 cases to 86 cases
- Continued to coach and assist ventures from Year 1
- Begun coaching and assessment for ventures discovered in Year 2
- Developed a web site to promote commercialization cases and venture development
- Developed generally useful information for U.S. corporate formation.
- Brought two companies close to establishing a presence in the U.S.

Overview of Assessment Process

Thirty Portuguese technologies have undergone either "Rapid Screen" or "Market Look" assessments by UTEN Austin. Two of these companies seriously considering establishing a presence in the U.S. The UTEN assessment methodology begins with a self-assessment of readiness, followed by a RapidScreen assessment and if warranted followed by a market assessment, as noted

in the diagram.

Project Rapid Screen Summary: We Adapt

Major findings:

- This technology has met with broad-based acclaim throughout the disabled community in Portugal and in the EU. So far the same has been true for the U.S.
- We Adapt has been featured on TV, radio, and other major media in Portugal and we have used these clips to promote them with key U.S. contacts.
- We Adapt recently won first place as well as a considerable amount of prize money and in-kind services in a major contest (START) in Portugal. They have since decided to dedicate these funds to facilitating a market launch into the U.S. in conjunction with their work with UTEN.
- It was clear that there is interest in the U.S. market for these products. The demand for these sorts of specialized clothing solutions for the disabled is rapidly expanding. Consumers and community organizations alike are hungry for better products and are anxious to see what We Adapt has to offer.

Useful U.S. connections: The AAPD and Cisco are both interested in working together to bring these products to market. Each of these organizations has the resources to make a major difference for We Adapt through networking, market relationships, and (potentially) in-kind and other forms of sponsorship.

- American Association of People with Disabilities has agreed to consider "We Adapt" for their technology program and offered to introduce them to key players in the U.S. market to help them launch.
- Cisco Systems has agreed to support We Adapt through there organization for people with disabilities including promotion on their website, inclusion on their vendor list, and possibly more. They have asked for a presentation to explain the plans, needs, and goals of the business to them in greater detail.

Y Dreams: An Early Success

As a first Pilot Test for U.S. Business Development and for "Lessons Learned," UTEN Austin was fortunate to help catalyze the decision of YDreams to locate its first U.S. office in Austin in 2007 at the IC² Institute. Following is a brief overview of YDreams accomplishments in the U.S. over the past 18 months:

- YDreams created a support ecosystem in Austin that it did not have in Portugal including connections with major companies such as Dell, IBM and AMD; a relationship with UT research teams; a partnership with M3 Design in the development of new interactive surfaces; a relationship with experienced patent lawyers from Fitch & Richardson; and a presence in conferences that placed YDreams in the radar of several companies and investors
- YDreams is developing projects for US-Based Portuguese clients Petrobrás and Horizon Wind Energy (both located in Houston) as well as building major prospects with companies such as Coca-Cola, Yahoo and Panasonic. In the cultural area, YDreams has a strong partnership with the promoters of the Alamo project in San Antonio.
- YDreams is in the final stages of establishing a joint venture with Brand Experience Lab, New York City to create a marketing and sales arm. Brand Experience Lab has major global clients including Volvo, NBA, Yahoo, PEPSI, and ToysRUs.
- YDreams is now negotiating venture capital investment with U.S. entities such as Sequoia and Summitt Partners.
- In October 2008, YDreams moved out of IC² Institute into its new office located in downtown Austin and is in the process of hiring additional staff.

5-5. UTEN Strategy – Year 3

Based on "Learning by Doing" with YDreams, Fluidinova, and Bioalvo UTEN continues to work on a Support Document for Portuguese Companies intending to open an office in Texas. This document covers such issues as Visa requirements, Texas and U.S. tax and employment policies, and living and labor costs, Annex D. UTEN Portugal working with the FCT and UTEN Austin continue to work on planning the following programs and activities for November and December 2008 and into 2009:

November 24-28, 2008: Laura Kilcrease, CEO of Venture Capital Company, Triton Ventures http://www.tritonventures.com and Founding Director of the Austin Technology Incubator http://www.ati.utexas.edu/ will visit Portugal with Eli Mercer, UTEN Training Manager. Laura will meet with Portuguese VC and Angel and to conduct workshops and Q&A for entrepreneurs, TTOs, and Incubator Directors/Staff at IST or Tagus Park in Lisbon; IPN in Coimbra; UPIN in Porto; and TechMinho.

November 24 to December 6. 2008: TechMinho IP lawyer Marco Sousa will have a two-week internship at William Hulsey IP law offices in Austin, Texas.

December 7-20, 2008: Five TT Managers will visit Austin for two weeks of training.

	Name	Email	Institution	City	Objectives
1	Telmo Machado Vilela	tvilela@inpi.pt	Board of Advisor of INPI	Porto	I am very interested in learning about your experience with Knowledge Transfer in general, but I have a special interest on the following topics: - Evaluation and financing of early stage technologies; - negotiation of tech transfer agreements - royalties definition; - strategies and tools for technology marketing.
2	Pedro Coelho	pcoelho@fe.up.pt	Univ of Porto	Porto	(1) obtain information about market-opportunities and commercialization for our technologies (2) Learn more about IPR negotiation issues (NDA; License agreements; IPR basis for applied research) (3) establish network contacts in the TT area (4) Get to know the work done at UT Austin to promote Tech Transfer and bring some ideas and good practices to improve our own services at FEUP's Cooperation Office.
3	Carlos Freire	cfreire@taguspark.pt	Tagus Park Incubator (Director)	Lisbon	See and experience how incubators perform their function and how they assess technologies and move them to market. Therefore I am expecting during the internship to have a close contact with incubators and university technology transfer offices in order to learn how in fact is this support to entrepreneurs and researchers done in the U.S.
4	José Paulo Jesus Rainho	rainho@ua.pt	Universidade de Aveiro	Aveiro	One of the main objectives of my visit is to see the workflow and interact with people and structures from technology transfer offices, incubators and technological parks.
5	Filipe Neves	filipe@ipn.pt; fneves@ipn-incubadora.pt	Instituto Pedro Nunes	Coimbra	

A. Winter 2009

January 26-27, 2009: UTEN is planning a major 2-day UTEN Training/Mentoring Workshop in Porto with follow-on activities at select locations.

February and on in 2009: Additional TTO, GAPIS, and other Portuguese training visits and Internships in Texas

February 2009: Portugal visit of Bryan Sebok – College of communications; Don Turnbull – iSchool; Mark Hall – Austin Film Society visit Lisbon and Porto for UTEN & Digital Media links

- Special visit to RTP in Lisbon and to the developing RTP TV-Film Studios in Porto
- This will be the 3rd Technology Sector assessed by UTEN: (#1) Technology Companies recommended by ADI, UPIN, TechMinho, etc.; (#2) Bio-Medical Sector; (#3) Digital Media Sector

EUREKA: In 2009 UTEN plans to explore business development connections with EUREKA the pan-European research and development funding and coordination organization. Portugal currently holds the Presidency of EUREKA and Marco Bravo, Portuguese Ministry of Science, Technology and Higher Education, is Portugal's EUREKA Program Coordinator. UTEN would like to form EUREKA connections and introduce U.S. collaborators into research commercialization projects. It is intended that these connections might assist UTEN sustainability.

B. Summer 2009

Days of Innovation

The "4as Jornadas de Inovação," planned for June 2009 in Lisbon and organized by the Portuguese Innovation Agency (AdI), will be a large showcase of R&D projects and organizations from throughout Portugal. In 2007 this event attracted 13,000 attendees and showcased 556 projects involving 700 R&D entities. UTEN is currently planning for increased participation for June 2009 including a venue to deliver of training and mentoring services to the large number of TTOs and entrepreneurs in attendance. The event will also provide an opportunity to promote awareness of UTEN and EUREKA connections.

International Conference on Technology Policy and Innovation

The International Conference on Technology Policy and Innovation (ICTPI, http://in3.dem.ist.utl.pt/confpolicy/) is planned to be held in Portu, July 2009. Leading representatives of academic, business, and government sectors worldwide present and discuss issues of critical importance for using science and technology to foster regional economic development and shared prosperity at home and abroad. UTEN plans to have a significant presence at this conference.

5-6. Annex A | UTEN-Portugal Participating Institutions

Institution	Main centers involved
Universidade da Beira Interior	UBIACTIVA (Oficina de Transf. de Tecnologia e de Conhecimento da UBI)[1]
Universidade da Madeira	TECMU (Transf. de Tecnologia e Conhecimento Madeira/Universidade)[1]
	GAPI at Madeira Tecnopolo[2]
Universidade de Aveiro	Uatec (Unidade de Transf. de Tec. da Universidade de Aveiro)[1]
	GAPI at grupUNAVE[2]
Universidade de Coimbra	IPN (Instituto Pedro Nunes), including GAPI
	OTIC UC (Oficina de Transferência de Tecnologia e de Conhecimento)[1]
Universidade de Évora	OTIC-UNE (Oficina de Transf. de Tecnologia e de Conhecimento da Universidade de Évora)[1]
	GAPI at Universidade de Évora (Fundação Luís de Molina)[2]
Universidade de Lisboa	TTC@UL (Oficina de Transf. de Tecnologia e de Conhecimento da Universidade de Lisboa)[1]
	ICAT (Instituto de Ciência Aplicada e Tecnologia)
	IMM (Instituto de Medicina Molecular)*
Universidade de Trás-os-montes e Alto Douro	OTIC-UTAD (Oficina de Transf. de Inovação e Conhecimento da UTAD)[1]
Universidade do Algarve	Algarve TransferTECH (Oficina de Transf. de Tecnologia e de Conhecimento da Universidade do Algarve)[1]
	GAPI at Universidade do Algarve[2]
Universidade do Minho	TecMinho (includes OTIC-Minho[1] and GAPI[2])
	Spin-Valor (Consultoria em Gestão Empresarial e Desenv. Científico)
Universidade do Porto	INESC Porto (Instituto de Eng. de Sistemas e Computadores do Porto)*
	OTIC@UP (Oficina de Transf. de Tecnologia e de Conhecimento da Universidade do Porto)[1]
	GAPI at UP (Fundação Gomes Teixeira)[2]
Universidade dos Açores	INOVA (Instituto de Inovação Tecnológica dos Açores)
	GAPI Universidade dos Açores[2]
Universidade Nova de Lisboa	GAPI at MadanParque[2]
	OTIC UNL (Oficina de Transferência de Tecnologia e de Conhecimento da UNL - Centro de Inovação e Criação de Valor)[1]
Universidade Técnica de Lisboa	INOVISA (Assoc. para Inov. e Desenv. Empresarial – Inst. Sup.Agronomia)
	IN+ (Centro de Estudos em Inovação, Tecnologia e Pol. de Desenvolv.)*
	GALTEC (GAPI at Instituto Superior Técnico)[2]
	CPIN-BIC (Centro Promotor de Inovação e Negócios)
	OTIC UTL (Oficina de Transf. de Tecnologia e de Conhecimento da UTL)[1]

ISCTE (Instituto Superior de Ciências do Trabalho e da Empresa)	INDEG/Audax (Empreendedorismo e Empresas Familiares)
Universidade Católica Portuguesa (Escola Superior de Biotecnologia)	TRANSMED (Valorização de Tecnologias e Conhecimentos Biomédicos)[1]
Avepark	Avepark (Parque de Ciência e Tecnologia, SA)
	Spinpark (Incubadora de Base Tecnológica)
Madan Parque	Parque de Ciência e Tecnologia Almada/Setúbal
Taguspark	Taguspark (Parque de Ciência e Tecnologia), including GAPI[2]
AdI, Innovation agency (national secretariat)	

1 OTIC (Oficina de Transferência de Tecnologia e de Conhecimento)
2 GAPI (Gabinete de Apoio à Promoção da Propriedade Industrial)
* Laboratório Associado (Associated Lab)

5-7. Annex B | Cumulative Year 1 & 2 list of Portuguese educators and entrepreneurs who met with representatives of UTEN@Austin

1.	Abreu	Filipe	Seegnal
2.	Almeida	Pedro	IBEB Instituto de Biofisica e Engenharia Biomedica
3.	Almeida	Nuno	Critical Software, S.A.
4.	Alves	Hugo	Vesam Engenharia
5.	Alves	Pedro	Fibersensing, SA
6.	Amado	Luis	Bioalvo
7.	Andrade	Miguel	Neoscopio
8.	Angelo	Pedro	Double MV
9.	Angelo Fernandes Carvalho	Miguel	Universidade do Minho -Dept of Engineering
10.	Armstrong	Irwin	CIGA Healthcare
11.	Azevedo	Nuno	DNAMimics
12.	Baltus	Tanja	Europe Unlimited
13.	Barbeiro	Paulo	BlueWorks
14.	Barbeiro	Paulo	BlueWorks
15.	Barbosa	Jose Novais	UPTEC
16.	Barbosa	Jorge	
17.	Barron	Wayne	Consolidated Container Company
18.	Benito-Garcia	Vasco	BioEpi
19.	Bento	Decio	Albratroz Engineering
20.	Borges	Antonio	Champalimaud Foundation
21.	Borges	Fernanda	University of Porto, UPIN
22.	Botto	J M Donas	CGC - Centro de Genetica Clinica
23.	Bravo	Sofia	ADI
24.	Bravo	Marco	
25.	Cabrita	Goncalo	BioTeca
26.	Cameira dos Santos	Paulo	VINOV
27.	Carreira	Joao	Critical Links, SA
28.	Carvalhal	Paulo	SpectraBlue
29.	Carvalho	Ricardo	CarCrash

30.	Carvalho	Joao	Palco Principal
31.	Carvalho	Felix	
32.	Castro	Felipe	UPIN
33.	Catarino	Marta	TecMinho
34.	Claro	Joao	University of Porto
35.	Cordeiro da Silva	Anabela	University of Porto
36.	Correia	Daniela	Fluidinova, Engenharia de Fluidos, S.A.
37.	Costa	Miguel	
38.	Costa	Miguel	Castro, Pinto & Costa, Lda.
39.	Costa	Miguel	Neoscopio
40.	Costa	Diamantino	Critical Software, S.A.
41.	Cruz	Pedro	Ecbio
42.	Cruz	Jose	University of Alto Douro
43.	Cunha	Joaquim	CASO
44.	Cunha	Nuno	Critical Software, S.A.
45.	de Oliveira	Antonio M	IBE - Industria de Bens de Equipamento, LDA
46.	Dilly	Suzanne	Magic Tag
47.	Dimas	Paulo	TIMEBI, Lda
48.	Dimas Almeida	Paulo	TIMEBI, Lda
49.	Duarte	Vanessa	PEC Plus - Pecuaria de Precisao
50.	Ducoff	Nick	Andrews Kurth
51.	Duque	Duarte	Exva
52.	Encarnacao	Phillip	INOVISA
53.	Espada	Ana	MoveVolumes - Embalagens Lda (FLATPACK)
54.	Faria	Nuno	Biotempo
55.	Feen	Sturart	Plastic Bottle Corporation
56.	Ferreira	Paulo	University of Texas at Austin
57.	Ferreira	Edgar	BlueWorks
58.	Ferreira	Federico	Catolica Nova
59.	Ferreira	Manuel	CGC - Centro de Genetica Clinica
60.	Ferreira	Frederico	Exva
61.	Ferreira	Elga	Near Interaction
62.	Ferreira da Silva	Paula	Instituto de Biologia Molecular Celular
63.	Ferreira Vieira Peres	Ivone Margarida N.	Encapsulation of Active Principles
64.	Fevereiro	Pedro	University of Lisbon, ICAT
65.	Fonseca	Hugo	maeilconsultores
66.	Fonseca	João Pedro	WeAdapt
67.	Fontes	Carlos	Technical University of Lisbon
68.	Francisco	Maria Jose	Instituto Superior Tecnico
69.	Freire	Carlos	Tagus Park
70.	Gamboa	Hugo	Plux
71.	Glickman	Randolph	UT Health Science Center of San Antonio
72.	Gomes	Nuno	BlueMatter
73.	Gomes	Eusebio	Bio Spine
74.	Gomes	Nuno	PlanetaVivo
75.	Goncalves	Jorge	University of Porto

76.	Goncalves	Clara	UPTEC
77.	Goncalves	Dina	ap bio Associacao Portuguesa de Bioindustrias
78.	Gordian	Carmelo	Andrews Kurth
79.	Guimaraes	Ricardo	BLB Engenharia Lda
80.	Heemskerk	Frank	RIMS - Research & Innovation Management Services
81.	Henriques	Bernardo	Acacia
82.	Holladay	Dan	SVTC Technologies
83.	Jammy	Raj	Sematech
84.	Jorge	Ruben	Wedotech
85.	Llopis	Jose Daniel	Threellop
86.	Lopes	Rui	Change Partners
87.	Lopes	Jose	Fluidinova, Engenharia de Fluidos, S.A.
88.	Lopes	Ricardo	Micoplant
89.	Loureiro	Tiago	Vectrlab
90.	Macedo	Silvio	Xarevision
91.	Machado	Pedro	Ubisign
92.	Machado	Jorge	University of Alto Douro
93.	Magalhaes Mendez	Joaquim	University of Porto
94.	Maia	Alberto	Fibersensing, SA
95.	Martins d'Almeida	Rui	maeilconsultores
96.	Mata	Teresa	University of Porto, UPIN
97.	Meica	Mihaela	Marques Mendes & Associados LDA
98.	Meireles	Luis	Bio Devices
99.	Melo	Luis	University of Porto
100.	Mendonca	Jose	INESC Porto
101.	Mesquita	Carlos	Link Consulting
102.	Mira	Luis	INOVISA
103.	Mira da Silva	Luis	80G
104.	Mocio	David	
105.	Monteiro	Catarina	Tomorrow Options
106.	Moreira	Jose	Biotecnol
107.	Moreira	Luis	Bullet Solutions
108.	Moreira	Joana	University of Lisbon, ICAT
109.	Moreira	Rui	WIT Software, Consultoria e Software para a Internet Móvel, Lda
110.	Mota	Joao Gomes	Albratroz Engineering
111.	Moura	Daniel	Bio Spine
112.	Moura	Daniel	Neurónios
113.	Neves	Miguel	ClusterMedia Labs
114.	Noeme	Joao	UA Vision
115.	Norberta de Pinho	Maria	Instituto Superior Tecnico
116.	Novo	Eduardo	Inventive
117.	Nunes	Marco	Solwise Wise Solutions, Lda
118.	Oliveira	Maria	
119.	Oliveira	J. Miguel	University of Minho, Polymer Engineering
120.	Oliveira	Rui	WIT Software, Consultoria e Software para a Internet Móvel, Lda
121.	Oliveira	Helena	Bioalvo

122. Oliveira	Maria	University of Porto, UPIN
123. Osório	Nuno Miguel	
124. Pais	Salome	University of Lisbon, ICAT
125. Pato	Teresa	ISA Intelligence Sensing Anywhere
126. Patricio	Ricardo	ActiveSpace
127. Peixe	Luisa	University of Porto
128. Pelizzari	Andrea	Critical Software, S.A.
129. Pendland	Mel	Georgetown Chamber of Commerce
130. Pereira	Ana	
131. Peterman	K Russell	Texas Life Sciences Collaboration Center
132. Pinho	Monberia	Catolica Nova
133. Pinto	Pedro	Take the Wind
134. Pinto	Hugo	Inovaworks
135. Pinto	Avelino	SPIN VALOR
136. Pinto	Joao	
137. Pires	Marisa	Nonius Software
138. Ramalho	Fátima	University of Porto, UPIN
139. Ramos	Maria	
140. Ramos	João	Critical Software, S.A.
141. Rastaldi	Maria Pia	Fondazione D'Amico per la Ricerca sulle Malattie renali
142. Rebelo	Irene	University of Porto
143. Reis	Ana Mafalda	Bio Spine
144. Reis	Paulo	Digital-Minds
145. Reis	Arsenio	University of Alto Douro
146. Rendeiro	Paula	CGC - Centro de Genetica Clinica
147. Restivo	Teresa	University of Porto
148. Ribeiro	Rui	AuditMark
149. Ribeiro	Luis	Ewen
150. Rodrigues	Cecilia	
151. Rodrigues	Jose	SRE - Soluções Racionais de Energia, S.A.
152. Rodrigues	Joao	INESC Porto
153. Rosado	Leonardo	Technical University of Lisbon
154. Ruivo	R	
155. Sampaio	Luis Miguel	MOG Solutions
156. Sampaio	Joana Lucena	Neuroeye
157. Santos	Ana Maria	WeAdapt
158. Santos	Frederico	Catolica Nova
159. Santos	Marta	Biosckin Molecular and Cell Therapies, S.A.
160. Santos	Andre	NetWork Concept
161. Santos	Andre	NetWork Concept
162. Santos	Ricardo	
163. Santos	Paulo	Tomorrow Options
164. Santos	Maria	ADI
165. Santos	José	Biosckin Molecular and Cell Therapies, S.A.
166. Serra	Joao	
167. Sheedy	Mark	Sematech

168. Silva	Rui	CarCrash
169. Silva	Rui	BioTeknics
170. Silva	Hugo	Plux
171. Silva	Eduardo	ISEP - Instituto Superior de Engenharia do Porto
172. Silva	Luis	WIT Software, Consultoria e Software para a Internet Móvel, Lda
173. Silva	Deolinda	ADI
174. Simoes	Nuno	INOVISA
175. Smit	Steve	Graves Dougherty Hearon & Moody
176. Soares	Vitor	ClusterMedia Labs
177. Sorasio	Gianfranco	WS-ENERGIA
178. Sousa	Rui	Stemmatters
179. Sousa	Jose Pedro	ReD - Research + Design LDA
180. Sousa	Rui	University of Minho, Polymer Engineering
181. Sousa	Maria	TIMEBI, Lda
182. Souto	Maria Joao	MOG Solutions
183. Steininger	Birgit	FFG
184. Tavares	Purificacao	CGC - Centro de Genetica Clinica
185. Tavares Gomes	Delfina	
186. Taveira	Nuno	ADI
187. Teixeira	Andre	Fluidinova, Engenharia de Fluidos, S.A.
188. Teodora	Paulo	BioTeca
189. Texeira	Vitor	MOG Solutions
190. Thomas	Mark	Texas Life Sciences Collaboration Center
191. Tiago	Gomez	Azevedos Industria
192. Tyndale	Peter	Critical Links, SA
193. Valente	Antonio	Ply
194. Valente	Joao	PEC Plus - Pecuaria de Precisao
195. Valle	Francisco	University of Lisbon, ICAT
196. Varela	João	PETSYS - Medical Pet Imaging Services, S.A.
197. Varela	Vasco	FCT
198. Vargas	Luis	ISR - Instituto de Sistemas e Robótica
199. Vieira	Helena	Bioalvo
200. Wemans	Joao	WS-ENERGIA

5-8. Annex C | Complete List of Portuguese Technologies Identified During the Year 1 and Year 2 Pilot Program

Name	Lead Inventor or CEO	Facilitating or Sponsoring Organization
1. Acacia Semiconductor -- ADC conversion for communications, consumer and sensors products	Henriques, Bernardo	ADI
2. ActiveSpace	Patricio, Ricardo	Instituto Pedro Nunes
3. Albatroz		
4. Alfama		
5. AuditMark	Ribeiro, Rui	UPTEC
6. BaseTec		Instituto Superior Tecnico

7.	Bilobyte		UPTEC
8.	BIOALVO SA -- Robotics technology for drug testing	Vieira, Helena	Bioalvo
9.	Biodevices	Meireles, Luis	ADI
10.	Bioepi	Benito-Garcia, Vasco	Instituto Superior Tecnico
11.	BioFilms -- Measure/ID biofilms & deposits using vibrations	Magalhaes Mendez, Joaquim	University of Porto
12.	Biosckin	Santos, Marta	MedTech Conference
13.	BioSpine	Gomes, Eusebio	MedTech Conference
14.	Bioteca	Cabrita, Goncalo	Instituto Superior Tecnico
15.	Biotecnol	Moreira, Jose	Instituto Superior Tecnico
16.	BioTeknics	Silva, Rui	TecMinho
17.	BioTempo	Faria, Nuno	TecMinho
18.	Bluemater – algae growth	Gomes, Nuno	UPTEC
19.	Bluemater – water treatment	Gomes, Nuno	UPTEC
20.	Blueworks	Barbeiro, Paulo	MedTech Conference
21.	CarCrash	Carvalho, Ricardo	
22.	Castro, Pinto, & Costa	Costa, Miguel	TecMinho
23.	Centro de Genetica Clinica	Ferreira, Manuel	
24.	Cluster Media	Soares, Vitor	ADI
25.	Continuous Pelletizer and Spheronizer	Pinto, Joao	University of Lisbon
26.	Critical Software – Glautech	Ramos, João	MedTech Conference
27.	Critical Software -- Radial Distortion Fixer	Ramos, João	
28.	Critical Software – RetMarker	Ramos, João	MedTech Conference
29.	Cromones Derivatives - Probiotics for animals		University of Porto
30.	Delphine		MedTech Conference
31.	Displacement transducer	Magalhaes Mendez, Joaquim	University of Porto
32.	DK2C		Avepark
33.	DNAMimics	Azevedo, Nuno	TecMinho
34.	DoubleSun -- WS-ENERGIA	Sorasio, Gianfranco	Tagus Park
35.	Ecbio	Cruz, Pedro	Instituto Superior Tecnico
36.	EdgeBox -- Multi-function Business Gateway	Carreira, Joao	Critical Links, SA
37.	ELISA-HIV2 -- Kit for HIV-2 Diagnosis and monitorization of Disease Progression.	Taveira, Nuno	Instituto de Medicina Molecular, Faculdade de Medicina de Lisboa
38.	Enzyme for dairy market	Pais, Salome	University of Lisbon
39.	Enzymes for Biofuels and more	Fontes, Carlos	INOVISA
40.	Ewen	Ribeiro, Luis	UPTEC
41.	EXAMPLE -- PET Mammography	Varela, João	PETSYS - Medical Pet Imaging Services, S.A.
42.	EXVA	Ferreira, Frederico	TecMinho
43.	FiberSensing -- assessment of signals generated by a sensing network	Alves, Pedro	ADI
44.	Flatpak	Vargas, Luis	ADI

45.	Fluidinova -- NETmix	Lopes, Jose	ADI
46.	Fluidinova -- RIMcop -- Reaction Injection Molding control, operation and pulsation	Lopes, Jose	ADI
47.	Forest fire command and control system		Critical Software, S.A.
48.	HIS		MedTech Conference
49.	Ideia.M		
50.	Independent Software Verification and Validation		Critical Software, S.A.
51.	Instrument for pipe flow pulsation	Santos, Ricardo	University of Porto
52.	Iron Capture		Instituto Superior Tecnico
53.	ISA Intelligence Sensing Anywhere		
54.	Isotope Consulting		MedTech Conference
55.	IST Technology	Norberta de Pinho, Maria	Instituto Superior Tecnico
56.	Link	Mesquita, Carlos	
57.	Linux platform for onboard software development		Critical Software, S.A.
58.	Maeil Consulting		
59.	MedSonic		MedTech Conference
60.	MicoPlant	Lopes, Ricardo	University of Alto Douro
61.	Microdevice to determine body mass	Restivo, Teresa	University of Porto
62.	MOG Solutions	Texeira, Vitor	ADI
63.	Molecular Technology Consulting	Ramos, Maria	
64.	Neoscopio	Andrade, Miguel	UPTEC
65.	New derivatives of the bisnafta limidopropil	Cordeiro da Silva, Anabela	University of Porto
66.	New drug for therapy of neurodegenerative diseases	Rodrigues, Cecilia	
67.	Oleotest	Costa, Miguel	TecMinho
68.	OpenCell	Valente, Antonio	
69.	PET Mammography	Varela, João	PETSYS - Medical Pet Imaging Services, S.A.
70.	Phospholipids detection method	Rebelo, Irene	University of Porto
71.	Photovoltaics from Tagus Park -- need information		Tagus Park
72.	Platform for producing recombinant proteins in plants	Fevereiro, Pedro	University of Lisbon
73.	Plux	Gamboa, Hugo	MedTech Conference
74.	Protozoan strains of attenuated virulence	Cordeiro da Silva, Anabela	University of Porto
75.	Retina imaging analysis		Critical Software, S.A.
76.	Salycilate antidote for paraquat	Carvalho, Felix	University of Porto
77.	Silicon ribbons to lower cost of solar cells	Serra, Joao	University of Lisbon
78.	Smart Implants		University of Porto
79.	SpectralBlue	Carvalhal, Paulo	TecMinho
80.	SRE Fuel Cells -- Small Power Fuel Cell	Rodrigues, Jose	ADI
81.	Take the Wind	Pinto, Pedro	MedTech Conference

82.	Temperature Monitoring -- Record/Monitor Temp. of Food During Distribution	Barbosa, Jorge	University of Porto
83.	Ten new compounds for antioxidants and preservatives	Borges, Fernanda	University of Porto
84.	Thelial		Instituto Superior Tecnico
85.	TIMEBI / Wizi -- mobile software for finding friends and the time to get to them	Sousa, Maria	ADI
86.	Tomorrow options -- foot disease prevention for diabetes	Santos, Paulo	UPIN
87.	UAV technology for agriculture	Simoes, Nuno	INOVISA
88.	Ubisign	Machado, Pedro	TecMinho
89.	Vaccine against dental virulence	Tavares Gomes, Delfina	University of Porto
90.	vectrlab		
91.	VoxGene	Osório , Nuno Miguel	University of Porto
92.	We Adapt	Angelo Fernandes Carvalho, Miguel	TecMinho
93.	WIT Software	Silva, Luis	Instituto Pedro Nunes
94.	Wood Particles	Claro, Joao	University of Alto Douro
95.	Xarevision -- digital signage		INESC Porto

5-9. Annex D | Visitors Agenda, April 4-14, 2008

A. Agenda for University Technology Enterprise Network (UTEN) Visitors from Portugal April 4-14, 2008

Important phone numbers

David Gibson mobile	512-947-4450	CoLab "grey" mobile	512-363-7020
Prentiss Riddle mobile	512-484-0610	CoLab "red" mobile	512-363-8073
Margaret Cotrofeld at IC^2	512-475-8921		

Visitors

José Mendonça
UTEN Director@Portugal
Professor, U.Porto; President, INESC Porto
jmendonca@inescporto.pt

Marco Bravo
Ministry of Science, Technology and Higher Education
marco.bravo@mctes.gov.pt

University Technology Commercialization Managers

Maria Oliveira
University of Porto
mariaoliveira@reit.up.pt

Maria José Francisco
Instituto Superior Técnico, Lisbon
maria.francisco@dem.ist.utl.pt

Ana Paula Amorim
TecMinho / University of Minho
anamorim@tecminho.uminho.pt

Hotel

Radisson Hotel - Austin Town Lake
111 East Cesar Chavez St., Austin, TX 78701
tel: +1 512-478-9611
web: http://www.radisson.com/hotels/txaustdt
map: http://maps.google.com/maps?q=111+E+Cesar+Chavez+St,+Austin,+TX+78701

General Topics for discussion during visits and Q&A Sessions:

1. Brief presentations by Portuguese visitors of Portugal's S&T commercialization challenges, needs, issues, etc. – especially with regards to the U.S. market
2. A brief overview of UT-Austin, UT-Dallas, and UT-San Antonio models of S&T education/training programs and commercialization opportunities
3. A brief overview of San Antonio, Austin, and Dallas technology/entrepreneurial assets and industry sectors
4. Internship possibilities for Portuguese in select Texas universities and industry
5. How specific educational programs might be delivered in Portugal or in Texas for Senior Portuguese Tech Transfer Managers and their Staff from universities, research parks, etc.
6. Cooperative research opportunities associated with UTEN
7. Wrap-up discussion and planning for Next Steps

Agenda for Visit

Friday, April 4

- José and Marco arrive 10:55 PM [CO 0806 from Newark) – met by Dave
- Check into Hyatt at the Arboretum - not the Radisson - for only one night

Saturday, April 5

- Meet at Hyatt – we need to discuss the time.
- At IC² Institute work on UTEN Year 2 Agenda and Technology Projects Selection: José, Marco, Prentiss, Dave
- Logistics for Marco's living in Austin – Prentiss
- Cliff will arrive at 5:00 PM at Radisson
- Tech Transfer Managers arrive 7:55 PM (CO 0317 from Newark) – met by Dave
- Check into Radisson
- Dinner – Go over Agenda with Dave, Prentiss, Cliff

Sunday, April 6

- Meet at Radisson - time to be determined
- At IC2 Institute work on UTEN Year 2 Agenda and Technology Projects Selection: José, Marco, Ana, Maria, Maria Jose, Darius, Prentiss, Cliff, Dave
- Darius at IC2 - Cell 512-422-8739
- Renee White from Houston to visit with José
- Cliff is available until 4:30PM when he departs for Austin airport
- Dinner: Dave, Darius

Monday, April 7 – Austin

- 8:00 – 8:30 AM Breakfast at Radisson Hotel: Prentiss Riddle, Darius Mahdjoubi, others?
- 8:45 AM Institute – Global Classroom
    - 9:00 – 9:45 AM Kate Mackie, MSSTC faculty, technology marketing, global perspective
- 10:00 – 10:45 Bill Hulsey, IP Lawyer, 919 Congress Ave. Suite 919
- 11:00 – 11:45 AM – Adriana Cruz, VP Global Corporate recruitment, Greater Austin Chamber of Commerce – Possibly include YDreams

- 12:15 – 1:30 PM Lunch at UT-Club: Antonio Camara, CoLab Director@Portugal, Pedro Madeira, CoLab Executive Director, YDreams guests, and CoLab Program Directors: Sharon, Keshav, Jay, Irene, Bill, and others
- IC² Institute – Trustees Room
    - 1:45 – 2:30 PM Keith E. Moe, former Group VP of 3M
    - 2:30 – 3:30 Meg Wilson, MSSTC Faculty, university commercialization, government policy (SBIR, NSF), global perspective -
- 3:45-4:30PM Jamie Rhodes, CEO Perceptive Sciences Corp. and founder of Central Texas Angel Network and member of Cen Tex RCIC [Mopac and Far West, in the Plaza 7000 building, Suite 150].
- 5:00 – 5:45 PM David Smith at IC2 Institute, Technology Forecasting
- Dinner: Dave Smith, Meg Wilson, Jennifer Potter-Andreu, Coordinator, UT-Austin's Brazil Center, and others

Tuesday, April 8 – Austin

- 8:00 – 9:00 AM Breakfast at Radisson Hotel
- 9:30 – 1030 AM - ATI Overview, Isaac Barchas, Director
- 11:00 – 11:45 AM – Laura Kilcrease, Founding Director ATI and currently CEO, Triton Ventures
- 12:00 – 1:30PM Lunch NXNW near ATI – Laura Kilcrease, Renee White and guest,
- 2:00 to 3:00 Rick Friedman, Associate Director and Max Green, Licensing Specialist, UT-Austin Office of Technology Commercialization (OTC)
- 3:15 – 4:15 PM Luis Medina, Director, TechBA and Sara Van Zee, International Business Development, TechBA Program - http://www.techbasv.com/joomlamain/
- 4:15 – 5:15 PM Debra Dzwonczyk, Donna Kidwell, and Donna Wilcox - IC2 Institute's Global Commercialization Group - http://www.ic2.utexas.edu/global/
- 5:30 PM IC^2 Institute
    - Visit with IC^2 researchers on regional benchmarking
- 7:30PM Dinner: Jim Butler, City of Austin (?); Donna Kidwell and Donna Wilcox, Global Commercialization Group; 2 guests from Vienna, Austria (Michael Rauhofer and Paul Frentz); Sharon Strover and others

Wednesday, April 9 - UT-Dallas

- 8:00-8:30 AM breakfast at Radisson Hotel – about 3 hour drive to Dallas
- 12:00 -12:45 PM lunch at Cappuccinos' Restaurant, UT-Dallas (Hosted by UTEN)
- 1:00 – 3:30 Working Sessions at Institute for Innovation and Entrepreneurship, UTD
    1. Brief presentations of Portugal's S&T commercialization needs, issues, etc.
    2. Joseph Picken, Executive Director - Institute for Innovation and Entrepreneurship (iie) training programs like "Leveraging the Power of Ideas and Technology," "The Entrepreneurial Development series," and "Commercialization Entrepreneurship Boot Camp," etc. – and how select material might be delivered in Portugal as well as at UT-Dallas for Senior Portuguese Tech Transfer Managers and their Staff from universities, research parks, etc.
    3. Robert Robb - Overview of the new commercialization plan being developed by UT-Dallas - http://www.utdallas.edu/research/tt/
    4. Don Hicks - Overview of Dallas Region's technology/entrepreneurial assets
    5. Internship possibilities at UT-Dallas and in Dallas-based industry
    6. Cooperative research opportunities associated with UTEN

Notes: Dave Deeds needs to leave by 3:30PM - Joe needs to leave by 4:30PM

- 3:30 to 5:00 PM Wrap-up discussion and planning Next Steps
- Visit: ATEC http://iiae.utdallas.edu/people/tlinehan.html & http://www.utdallas.edu/news/archive/2007/0430001.html

Thursday, April 10 – UT-San Antonio

- 8:30AM Meet for Breakfast at Radisson Hotel [Marco attends MSSTC Students Breakfast at 7:30 AM and all day events including dinner]
- 9:30AM depart for San Antonio
- 11:00AM Meetings at UTSA
    - Center for Innovation and Technology Entrepreneurship, http://business.utsa.edu/entrepreneur/ - Cory Hallam, Director
    - Dr. Jan Clark, Information Systems Faculty, former Fulbright Scholat to Portugal
- Lunch – hosted by UTEN
- Topics for discussion:
    - Brief presentations of Portugal's S&T commercialization needs, issues, etc.
    - UTSA's educational programs and the Center for Innovation and Technology Entrepreneurship and how specific programs might be delivered in Portugal as well as at UTSA for Senior Portuguese Tech Transfer Managers and their Staff at universities, research parks, etc.
    - A brief overview of the UTSA model of S&T commercialization
    - A brief overview of San Antonio's technology/entrepreneurial assets
    - Internship possibilities at UTSA and in San Antonio-based industry
    - Cooperative research opportunities associated with UTEN
    - Wrap-up discussion and planning Next Steps
- Afternoon: Mary Pat Moyer CEO and Chief Science Officer, INCELL Corporation, LLC www.incell.com
- Drive back to Austin for MSSTC Dinner at 6:00PM

Friday, April 11

- Marco attends MSSTC breakfast and orientation all day
- 8:00 AM Morning wrap up at Radisson Hotel with José, Ana, Maria Olivera, Maria José
- José and Ana depart – at 10:30AM for a 11:55 AM flight
- Afternoon meetings with Maria José and Maria Oliveira
- Darius and others discussion and tours
- Dinner: Dave, Darius, Maria Jose and Maria Oliveira

Saturday, April 12

- Marco MSSTC breakfast and orientation all day
- Maria Oliveira and Maria José Depart for airport by 10:30AM for a 12:00 noon flight
- Marco attends MSSTC orientation

Sunday, April 13

- Marco MSSTC breakfast and orientation all day

Monday, April 14

- Final discussions with Marco at Radisson Hotel – Dave Gibson
- Marco departs for airport at 10:30AM for a 12:00 noon departure

5-10. Annex E | Useful Know-How for Portuguese Businesses Establishing Operations in Texas

Based on YDreams' experiences and interest from Portuguese entrepreneurs and companies, UTEN staff are preparing documents on administrative, legal, financial, and logistical issues Portuguese businesses will encounter when they establish sites in Texas. These issues include immigration and travel laws, employment regulations, federal and state taxation requirements, as well as banking, insurance, real estate, and

utility matters. The document and website link, when it becomes available in late 2008, will address such practical questions as:

1. What types of legal structures are permissible in Texas and what forms need to be filed to conduct business in Texas?
2. What types of taxes are small businesses subject to, when must the taxes be paid to state and federal governments, and what records need to be maintained?
3. What are employment laws and practices regarding hiring and firing, and what forms need to be filed, by what dates?
4. What is required of small international businesses to set up bank accounts?
5. What are the options for obtaining car insurance and health insurance for Portuguese nationals living temporarily in Texas?

UTEN Austin staff will identify resources (for example lawyers, real estate firms) that could assist Portuguese businesses with specialized needs. While businesses will have different capacities and different needs, UTEN's overall goal is to assist businesses in minimizing the time and resources they devote to administration and compliance, while ensuring that businesses meet legal and regulatory requirements. One example, involving short-term travel of Portuguese nationals to the U.S., is given below.

> ***New Travel Requirement***—Most Portuguese citizens traveling for UTEN and Co-Lab activities do not need a visa if they are here fewer than 90 days. A new requirement will affect Portuguese participants, however, beginning January 12, 2009. Unless there is a change, Portuguese visitors will need to provide basic biographical data and travel plans before their departure from Portugal. This information will need to be provided electronically, and visitors will need to obtain authorization from the Electronic System for Travel Authorization (ESTA).
>
> Travelers are not required to have specific plans before they apply for an ESTA authorization. While the U.S. government is strongly encouraging travelers to obtain their electronic travel authorization three days before their departure, requests can be processed to accommodate last minute and emergency travelers. (Requests can be initiated now at the following website: https://esta.cbp.dhs.gov/esta/esta.html?_flowExecutionKey=_c6BCD0427-B7DD-B399-718F-C8E4DC331A3B_kA6AD007B-BBA6-0A92-ACB4-56C7492E57E7 .) Once obtained, an electronic authorization will be valid for up to two years, and for multiple entries. Travelers who have not received ESTA approval after January 12, 2009, may be denied boarding, experience delayed processing, or be denied admission at a U.S. port of entry, according to the Homeland Security Department.

A list of the key issues and items being compiled is shown in Annex A. Another part of our strategy is providing technical assistance to specific company requests. Annex B shows materials developed for one company seeking data about taxes, living costs, and labor costs in Austin.

A. Administrative Issues

High Priority Items

- ***Visas***
    1. Short-term and longer-term visa categories
    2. Data required for visa applications
    3. Processing by American Embassy in Lisbon

4. Electronic System Travel Authorization

- ***Questions by Immigration officials***
- ***Choice of Business Structure (Forms and Filing Process)***
- ***Employer Identification Number—US Internal Revenue Service***
- ***Taxes***

State of Texas

Sales tax permit
Sales tax collection (What is taxable? Sales tax rates)
Reporting and paying taxes
Exemptions (resale certificates, Shipping out of Texas)
Franchise tax
Texas Nexus questionnaire
Business records

Federal

Employment
New hire reporting requirement
Unemployment insurance//obtaining a business account number/registering online/paying unemployment taxes/necessary forms and payment procedures/new employer record-keeping/procedures for companies with no employees/
Workers compensation—Texas options
Hiring and terminating employees
Health insurance options
Opening a business bank account
Leasing of real estate
Utility services--business
Intellectual property legal counsel
Commercial business legal assistance

Employee Personal Issues

Finding housing
Utility services--personal
Buying a car
Securing car insurance

Medium Priority

- ***Economic development information and marketing of Texas and its sub-regions***
- ***Sales process in Portugal and US***
- ***Training programs***

Low Priority

- ***Equal Employment and Disabled Employees***
- ***Contractual/payment Issues***
- ***Occupational health and safety***
- ***Foreign trade zones***
- ***Incentives***
- ***Grant programs***
- ***Product liability insurance***

Whenever possible, information will be accompanied by links to necessary forms.
Supplementary material will be provided such as frequently-asked questions (developed by government agencies/third-party sources) and educational and resource materials (IRS small business tax workshops; centralized source of federal, state, and local permits, licenses, and registrations for a business).

B. Texas Franchise Tax & State Sales Tax

Franchise Tax

While there is no corporate income tax per se in Texas, the State does have a Franchise Tax. Below is information about the tax provided by the state agency which receives payments from Texas companies.

Entities Subject to Tax

The franchise tax is imposed on corporations and limited liability companies that are organized in Texas or that do business in Texas. For reports originally due on or after January 1, 2008, the tax will also be imposed on partnerships (general, limited and limited liability), business trusts, professional associations, business associations, joint ventures and other legal entities that are organized in Texas or that do business in Texas.

Margin

The revised tax base is the taxable entity's margin. Margin equals the less of three calculations:

- total revenue minus cost of goods sold;
- total revenue minus compensation; or
- total revenue times 70 percent.

Total Revenue

Total revenue is determined based on revenue amounts reported for federal income tax minus statutory exclusions. Exclusions from revenue include:

- dividends and interest from federal obligations, Schedule C dividends, foreign royalties and dividends under Section 78 and Sections 951-964;
- certain flow-through funds;

Cost of Goods Sold

Cost of goods sold, as defined by the new law, generally includes costs related to the acquisition and production of tangible personal property. There are other cost of goods sold allowances for certain industries. In all cases, officer compensation and payments made to undocumented workers are specifically excluded from cost of goods sold.
Taxable entities that only sell services will generally not have a cost of goods sold deduction. Compensation and Benefits Include:

- W-2 wages and cash compensation paid to officers, directors, owners, partners and employees (including net distributive income to natural persons), limited to $300,000 per person; and
- benefits provided to all personnel to the extent deductible for federal income tax purposes, including workers' compensation, health care and retirement benefits.

Compensation does not include 1099 labor, payroll taxes paid by the employer or payments to undocumented workers.

Apportionment
Margin is apportioned to Texas in essentially the same manner under the revised law.

Tax Rate
The tax rate is 1 percent for most taxable entities. For entities meeting the following criteria, the tax rate is 0.5 percent:

- the entity is primarily engaged in the retail or wholesale trade under division F or G of the 1987 Standard Industrial Classification Manual;
- the total revenue from activities in retail and wholesale trade is greater than the total revenue from activities in trades other than the retail and wholesale trade;
- less than 50% of the total revenue from activities in retail or wholesale trade comes from the sale of products it produces or products produced by an entity that is part of an affiliated group to which the taxable entity also belongs, except for those businesses under Major Group 58 (eating and drinking establishments).

E-Z Computation
A taxable entity with total revenue of $10 million or less may elect to pay the franchise tax by multiplying total revenue times the apportionment factor times 0.575% (.00575).

Discounts
A taxable entity is entitled to a discount of the tax imposed as follows:

- if total revenue is greater than $300,000 and less than $400,000, the discount is 80 percent of tax due.
- if total revenue is greater than or equal to $400,000 and less than $500,000, the discount is 60 percent of tax due.
- if total revenue is greater than or equal to $500,000 and less than $700,000, the discount is 40 percent of tax due.
- if total revenue is greater than or equal to $700,000 and less than $900,000, the discount is 20 percent of tax due.

Detailed questions can be answered by contacting the staff of the Comptroller of Public Accounts at tax.help@cpa.state.tx.us.

Sales and Use Tax
In general, small businesses in Austin need to collect state and local taxes of 8.25% on the products sold. (Two percent of the total is for local sales tax and transit tax while the remainder is for state operations.) While IC² Institute does not provide detailed tax advice, there are two possible provisions which may reduce your company's sales taxes. (This information was provided by a state employee with the tax division of the State Comptroller's Office.) The first is a provision that applies to many companies that ship products to other states. In many cases, sales taxes are not required to be collected on such goods. A second provision applies to Rule §3.284 of The Texas Tax Code (§151.313) pertaining to Drugs, Medicines, Medical Equipment, and Devices. Should your company qualify under one of the provisions of that Rule, it would not need to collect any sales and use taxes. For further information about this possibility, see http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=34&pt=1&ch=3&rl=284.

C. Austin, Texas—Living Costs

Texas consistently ranks as one of the nation's most favorable business climates. The State has a high quality workforce while its wage, energy, and real estate cost and taxes are lower than most states. A comparison of the cost of living in Austin with a sample of other U.S. cities shows that Austin is far below large cities on the East Coast and West Coast and below most other cities as well. (Please see Table I.)

Table I. Cost of Living Index '07, (U.S.=100)

	Composite	Grocery (13%)	Housing (28%)	Utilties (10%)	Trans-portation (10%)	Health care (4%)	Misc. (35%)
Dallas	91.2	99.0	71.5	98.6	103.4	101.6	97.4
Austin	**94.5**	**89.8**	**80.8**	**94.7**	**99.2**	**98.1**	**105.3**
Atlanta	96.1	98.7	91.8	84.9	103.5	103.4	98.7
Raleigh	99.3	102.1	96.7	91.3	95.6	103.7	103.1
Phoenix	100.6	100.5	100.9	93.6	100.7	101.0	102.4
Salt Lake City	100.7	102.3	98.0	87.4	103.5	99.3	105.4
Denver	103.4	102.9	109.3	102.4	95.4	108.5	100.8
Chicago	110.3	108.3	125.0	107.8	113.1	104.3	99.9
Boston	134.7	120.0	164.0	129.2	104.7	136.0	126.8
Los Angeles	144.6	111.8	251.2	78.6	113.5	103.8	103.8
San Francisco	168.5	139.5	275.2	87.8	123.1	123.5	135.0
NY (Manhattan)	212.8	158.1	396.1	152.0	122.5	128.4	139.4

Source: The Council for Community & Economic Research, ACCRA Cost of Living Index, http://www.coli.org/.

As shown in the column on housing, Austin is much more affordable than other major areas. One national real estate firm examined the cost of housing for a typical corporate middle-manager who is transferred to another area. The home is a single-family dwelling model with approximately 2,200 sq.ft., (200 square meters) 4 bedrooms, 2 1/2 baths, family room (or equivalent) and 2-car garage. The cost for that house in Austin was estimated at $243,250 in 2007. Costs for other areas are shown in Table II.

Table II. Average Home Price, Middle Management Housing

	2007
Raleigh	$238,000
Austin	**243,250**
Dallas	253,171
Atlanta	324,000
Phoenix	367,711
Denver	383,750
Chicago	395,058
Salt Lake City	408,125
United States	422,343
New York	762,971
San Francisco	1,264,758
Boston	1,287,500
Los Angeles	1,323,007

Source: Coldwell Banker, http://www.coldwellbanker.com/

Taxes are generally lower in Texas than elsewhere in the United States. Table III shows a comparison of states as of 2006. Texas has no personal income tax.

Table III. State & Local Taxes Per capita

	2006
Utah	$3,211
Arizona	3,234
Texas	**3,235**
Georgia	3,321
North Carolina	3,384
Colorado	3,614
Washington	3,948
United States	4,001
Illinois	4,081
California	4,517
Massachusetts	4,761
New York	6,413

Source: U.S. Bureau of the Census, State & Local Government Finances, http://www.census.gov/govs/www/estimate.html

Cost of Living in Austin, Texas Compared to Portugal

While it is difficult to be precise about comparative costs, some information suggests that Austin may be less costly than Portugal. We could not locate any studies which included both Porto and Austin. However one international comparison of living costs (Mercer Human Resources Consulting Cost of Living Survey) in 2006 ranked both Lisbon and Boston among 144 cities worldwide. Boston was ranked as the 84th most expensive city in the world and Lisbon was ranked as the 88th most expensive city. Therefore those two cities were about the same in terms of costs as of two years ago.

Between 2006 and today, the Euro (€) has appreciated approximately 15%. And from Table I, it was found that Boston is approximately 40% more expensive than Austin. Therefore, because Boston and Lisbon are roughly equal, we can assume that living costs in Austin today are probably 40%-55% less than in Lisbon. With Porto being less costly than Lisbon, the actual difference between Austin and Porto would be less than this amount but no doubt, still substantial.

D. Austin Labor Costs for Selected Positions

Secretary & Administrative Assistant/Administrative Associate

Administrative Assistant (High School education and 3 years of experience OR Bachelor's degree and no experience) -- $27,000/year or $13/hour.

Administrative Associate (Bachelor's degree and 5 years of experience) – $29,160/year or $14/hour to $33,996/year or $16.34/hour

Composite estimate of $30,000/year or $15/hour for administrative associate with bachelor's degree and 3-5 years of experience.

Technicians and Laboratory Personnel

Technical Staff Assistant--

Operate mechanical, electrical, electronic and chemical test equipment. Prefer College-level or vocational school courses in the particular field involved and one or more years of experience in related field. $22,900/year or $11/hour to $25,900 or $12.45/hour.

Research Scientist Assistant--

Help supervise lab personnel including hiring, training, and evaluation. Help train graduate and undergraduate students in the lab. Bachelor's degree in Biochemistry, Chemistry, or related discipline. Knowledge of standard biochemistry equipment and techniques. One to two or more years in a biochemistry or related laboratory-- $24,000/year or $12/hour to $30,000/year or $15/hour

Laboratory Research Assistant I—

Perform technical laboratory duties under the direction of a supervisor or faculty member. High school graduation or students-in-research, freshman or sophomore standing. $22,900/year or $11/hour

Laboratory Research Assistant IV—

Perform a variety of technical laboratory duties duties in the operation of an experimental or analytical laboratory or specific research project in the physical, engineering or life sciences. High school graduation and three years of prior laboratory experience or graduate students. $29,640/year or $14.25/hour to $38,532/year or $18.53/hour

Technical Staff Associate—

Participate in the design and development of highly specialized and experimental equipment, with particular emphasis on the design, field engineering, and field operations phase of the research work. Travels to sponsors' sites as a technical representative of a research program or project, and conducts field tests, interprets and evaluates field data, and serves as a liaison with industrial, governmental, and other research sponsors. Prepares reports for research projects, describing the results of field experiments and/or inspections. Collaborates with research scientists and engineers, who may have overall responsibility for the research projects, in the design and functional application of research equipment.

High school graduation supplemented by technical training in areas related to the specific research activity, college-level courses in physics, electrical engineering, and related disciplines, or completion of associate degree in electronics and 8 years of experience. $42,204/year or $20.29 hour to $80,052/year or $38.49/hour.

Other Compensation Issues

Fringe benefits for employees in the U.S. vary greatly. The University of Texas at Austin and other larger employers typically estimate fringe benefit costs at 25% to 40% of

salary costs for full-time employees. The best point estimate for UT-Austin employees is 28%. Smaller companies typically provide fewer benefits although the fringe benefit rate may not be less because of economies of scale.

Vacations and sick leave are determined in the U.S. primarily by the amount of time an employee has been with his/her employer. Generally employees with less time with an employer receive less annual leave. For instance the University of Texas at Austin provides the following:

Total Years of State Service	Vacation Hours Accrued Each Month
Less than 2 years	8
At least 2 years but less than 5	9
At least 5 years but less than 10	10
At least 10 years but less than 15	11

In addition to annual leave, which is only 12 days a year for beginning employees, Texas employers generally provide seven or eight holidays such as: Labor Day, Thanksgiving Day, the day after Thanksgiving, Christmas Day, the day after Christmas, New Year's day, Memorial Day, Independence Day, and possibly Martin Luther King, Jr. Day. There is no general holiday period for all employees and businesses in August.