■ STUDENT HIGHLIGHT

Diogo Cabral – **"Pen Based Multimedia Interfaces"** (Digital Media)

Diogo Cabral has a B.Sc. and a M.Sc. in Computer Science Engineering degrees, both from FCT/UNL. During his B.Sc. studies, he participated also in the Erasmus/Socrates Exchange Program, at the Facoltà SMFN, Università di Pisa, Italy. In his Ph.D. work, Diogo Cabral proposes the usage of pen-based technology for the manipulation of digital multimedia, particularly digital video. Video can be considered one of the more complete and complex media. Besides the pictorial and verbal (written text or speech) attributes, video includes motion and time characteristics. The recent increase of popularity of digital video makes the video manipulation and editing a crucial task. Video annotations are also an important feature for video analysis, fostering a process that combines watching and critical thinking, called active watching. This issue combined with the video dynamic properties, generates an

additional level of complexity. In this Diogo's research, it is proposed the use of pen-based technology, which can be considered a natural input interface for humans, to improve video manipulation. Pen-based technology or pen computing can be used directly on video manipulation and editing, through pen gestures and pressure, or indirectly, through digital ink. Pen-based video annotations can take different forms, like sketches, words or symbols, and can also be used to link different media data, including video segments, implementing the concept of hypermedia. The Tablet PCs, due to its recent developments, which make them very similar, in size and computational power to regular laptops, would be used as a pen-based platform.

Main Research Interests
- Human-Computer Interaction
- Pen-based Technology
- Video Processing and Interfaces
- Electronic and Interactive Paper

■ COLAB News Center

CoLab activities inspire cooperation actions between Portugal and Spain

In 2006, the Ministers of Science of Portugal and Spain signed an agreement for bi-lateral cooperation on Nanosciences and Nanomaterials, also stressing the need for stronger cooperation in grid computing under the designation IBERGRID. Since then the area of cooperation has grown to include supercomputing and e-Science, specifically HPC activities in computational engineering and science, which also require adequate funded activities to go beyond the current organization of an annual conference.

The **IBERGRID'2010** Conference, held this year in Braga (http://www.ibergrid.eu/2010/), had a stronger connection to CoLab: (i) one of the Conference Chairs was one of the Directors of the Advanced Computing Program at CoLab in Portugal, Alberto Proença, and (ii) one of the Tutorial activities had the support of TACC, with a talk and a hands-on session by Paul Navrátil, on the world's largest GPU cluster for data analysis and scientific visualization, the **Longhorn cluster.**

The Portuguese Minister of Science, Technology and Higher Education, José Mariano Gago, opened the event, together with the representative of the Spanish Ministry of Science and Innovation (José Manuel de Labastida), the Scientific Coordinators of the e-Science programs in Portugal (Luís Magalhães) and Spain (Vicente Hernandez), the Director of the Emerging Technologies and Infrastructures, DG-INFSO/F, at the European Commission (Mário Campolargo), and the Rector of University of Minho (António Cunha). The Conference Chair during his intervention challenged this political panel to be more active at IBERGRID by funding concrete actions in a fashion similar to the ones already running on CoLab: on researcher mobility and on joint projects.

In less than two days, the decision to open a Call for e-Science researcher mobility was signed by both Ministers - the call will be simultaneously open in Portugal and Spain from July 1 till July 23 - and the Ministers also agreed to open another call for collaborative projects later this year, for projects to start early 2011.

IBERGRID
4rd IBERIAN GRID INFRASTRUCTURE CONFERENCE
Braga (Portugal) May 24-27, 2010

■ ADVANCED DIGITAL MEDIA CREATES MOBILITY AWARDS FOR FACULTY AND STUDENTS

The UT Austin|Portugal Digital Media Program is pleased to offer three categories of mobility grants to allow faculty and students at our Portuguese partner institutions to spend time at the University of Texas at Austin.

1. Sabbatical fellowships for Digital Media faculty

These awards support one semester of teaching and research at the University of Texas at Austin for Digital Media faculty based in Portugal. Eligibility is open to personnel at our Portuguese partner institutions who have the rank of assistant professor or higher, as well as to researchers participating in our FCT-funded R&D projects. Support includes travel, housing expenses and a living stipend. Fellowships are available for the fall 2010, spring 2011 and fall 2011 semesters.

2. Semester fellowships for Digital Media PhD students

These awards support one semester of study and research at UT Austin for students in the UT Austin|Portugal-associated doctoral programs in Digital Media at the New University of Lisbon and the University of Porto. Support includes travel, living expenses, and UT Austin course fees. **Students must be available to attend a full semester (equivalent to three classes) of courses at UT Austin** (typically mid-August through mid-December for the fall semester and early January through mid-May for the spring semester). Fellowships are available for the fall 2010, spring 2011 and fall 2011 semesters.

3. Exploratory visits by Digital Media PhD students

These awards support short visits at UT Austin for students in the UT Austin|Portugal-associated doctoral programs in Digital Media at the New University of Lisbon and the University of Porto. Students will spend their time meeting with faculty advisors, visiting classes, exploring research opportunities and planning for possible long-term enrollment at UT Austin. Support includes travel and living expenses for up to ten days. Exploratory visits will typically last one week. Students should visit during the fall or spring long semesters, i.e., from mid-August through the middle of May.

To inquire about these opportunities please contact: - Karen Gustafson – kegustafson@mail.utexas.edu. Please check how to apply in http://utaustinportugal.org/calls/dm-travel.

■ ZON LAB STARTS IN AUSTIN

The first ZON Intensive Script Development Lab commenced at UT Austin on June 3. The eleven winning participants, who come from universities across Portugal, arrived in Austin a few days beforehand and moved into a campus residence hall. On their first day in Austin, students met with UT Austin-Portugal Digital Media program director Sharon Strover, program manager Karen Gustafson, and coordinating staff and doctoral student Christopher McConnell. After a Mexican lunch, the students boarded an amphibious vehicle known as a

"duck" and toured central Austin on the roads and around Lady Bird Lake.

After a day of orientations and meetings with instructors Richard Lewis, Stuart Kelban, and Steve Mims, the students began classes on June 3. The program's schedule is packed, with twenty hours of course meetings per week, in addition to assigned reading, writing assignments, and production exercises. The courses cover several primary areas of filmmaking including scriptwriting, producing, and filming. Students have been enthusiastic, despite the heavy workload. Ana Raquel Martins of the Escola Superior de Comunicação Social said she was "absolutely delighted by the (huge) amount of readings and hands-on exercises we've been assigned. It's like diving into a bowl of cinema for 2 months." Another participant, Danilo Nascimento of Universidade de Aveiro, plans to record his experiences on a blog and is also enthusiastic, calling the program "outstanding."

■ DAVID KIRK, EX-CHIEF SCIENTIST AT NVIDIA, VISITS PORTUGAL FOR THE FIRST TIME FOR ADVANCED COMPUTING SUMMER SCHOOL

The University of Minho together with the University of Texas at Austin organized, in the week of June 14th, a Summer School in e-Science with Many-Core CPU/GPU Processors, having had David Kirk, who was a Chief Scientist at NVidia from 1997 to 1999, as one of the instructors.

David Kirk was part of several talks during the event, namely the following: "Introduction to Many-Core Processors" (June 14th), "CUDA Threading Model & CUDA Memory Model" (June 15th), "New Fermi and CUDA 3.0 features" (June 17th) and "The Power of Heterogeneous Computing in Future Generations of Computer Graphics Systems" (June 18th). This Summer School provided participants with knowledge and hands-on experience in developing applications software for many-core processors with massively parallel computing resources.

By end of the Summer School, participants had an understanding of algorithm styles that are suitable for accelerators, of the most important architectural performance considerations to developing applications, were exposed to computational thinking skills for accelerating applications in science and engineering and gained ability to engage computing accelerators on science and engineering breakthroughs.

More details on the Summer School can be found at http://advcomp.di.uminho.pt/uta/mcss2010/.

■ JOÃO MÁRIO GRILO visits Austin to present a screening of "O Tapete Voador"

Film director and author João Mário Grilo visited Austin in April to present a screening of his 2008 documentary "O Tapete Voador," known in English as "The Flying Carpet." Shot in sfahan, Iran, the film examines the cultural traditions of Persian carpet making. Grilo, who is also an associate professor at the Communication Sciences Department, Social and Human Sciences Faculty of the New University of Lisbon, led a discussion with the audience at the conclusion of the film, answering questions and describing his experiences filming in Iran.

Chale Nafus, director of programming for the Austin Film Society (AFS), attended the screening with many other members of the Austin filmmaking and academic communities. Earlier in April, AFS had presented a series of contemporary Portuguese films in its Essential Cinema series. Nafus praised the film, stating, "Grilo takes us into a world we still know so little about -- present-day Iran. I was particularly impressed with his ability to get us into the lives of the women weavers... [he] is a perfect example of a global filmmaker, who goes outside his own country to discover connections between ancient cultures and his own."

■ UT AUSTIN|PORTUGAL Program students participate in Ciência 2010

CoLab's students in the areas of Digital Media, Mathematics and Advanced Computing will participate in Ciência 2010, an event that aims to be the point of encounter and exchange of knowledge among the Portuguese scientific community.

Ciência 2010 will take place at Centro de Congressos de Lisboa, from July 4th to 7th and It will be a prime opportunity to get to know the work being done by Portuguese scientists in the most relevant areas of activity. CoLab's students will have present scientific posters related to their PhD thesis and the work they are developing in the program. The posters will be displayed during the entire conference.

The students will also be available for questions regarding their posters on July 6th, between 1pm and 2:30pm, at the venue of the event.

■ RTF DEPARTMENT at UT Austin hosts Symposium on Comparing Media Trajectories in US and Portugal

On May 10 and May 11, 2010, the Department of Radio, TV & Film at the University of Texas at Austin hosted the Comparing Media Trajectories in U.S. and Portugal Symposium bringing together researchers from UT-Austin, Nova University of Lisbon, University of Porto, University of Coimbra and the University of Texas at San Antonio to discuss the on-going digital divide and media trajectories project.

Joseph Straubhaar, Cristina Ponte and Jose Azevedo gave summaries of the last year's activities at their respective universities. Isabel Cunha (Coimbra), Jose Alberto (Nova), Jeremiah Spence (UT), Stuart Davis (UT), Ikram Toumi (UT), Stuart Davis (UT), Nadie Machado-Spence (UT), Jacqueline Vickery (UT), Viviana Rojas (UTSA), Esme Ramirez (UT), Laura Dixon (UT) all gave talks on their research related to the project. Discussions were held to plan for the next round of quantitative comparative research between the research partners.

■ UT AUSTIN|PORTUGAL organizes first Annual Conference in September 2010

CoLab is organizing its first annual UT Austin|Portugal Program Conference. The conference will take place on September 21st and 22nd at the Gulbenkian Foundation, in Lisbon. Mark your calendars!

The conference will show the program's students and R&D projects developments, as well as other activities it is currently involved in. It will be open to the public and everyone is invited to attend. The event will have the participation of the program's Portuguese and American directors, industrial affiliates and researchers, as well as some important figures in the scientific and society areas, in Portugal and the U.S.

The preliminary agenda is now available online at http://utaustinportugal.org/news/colab_annual_conference_2010 and more updates will follow soon. Please check the website for more news.

■ CALL OPENS FOR SXSW INTERACTIVE 2011 – Proposals till July 9th

South By Southwest Interactive, Music and Film is a nine-day conference and festival that takes place every March in Austin. The next edition of SXSW will take place from March 11-20, 2011. Researchers from the UT Austin|Portugal Program have had a presence at SXSW Interactive since 2008, organizing panels on topics ranging from transgressive behavior in online communities to new digital interfaces for performance. In addition to panels, CoLab participants have provided programming at SXSW parties and side events, including an interactive sound+video installation by Carlos Guedes in 2009 and a 2010 remix performance by a team from the Futureplaces Digital Media Festival.

Programming at SXSW Interactive covers a full range of digital media topics from the online, mobile, gaming and design industries. In contrast to other conferences it is highly interdisciplinary, with presenters and audience members drawn from engineers, designers, entrepreneurs, academics and journalists.

How to apply

Conference programming is done through a two-step process consisting of an open call for panel ideas followed by an online discussion and vote by conference attendees. The first phase is now open and proposals are being accepted via the **SXSW 2011 Panel Picker** through July 9. For more information consult the **Panel Picker FAQ.**

If you are thinking of making a proposal, we would like to hear from you. The application process is very simple but because of the popular vote, writing a successful SXSW proposal is rather different from other conferences. To discuss your ideas please contact Prentiss Riddle (priddle@ic2.utexas.edu, +1 512-475-8970, Skype pzriddle).

■ THE UTEN CORNER
S&T COMMERCIALISATION

UTEN Conducts One Week in-Situation Training at FCT/UNL

UTEN Portugal
University Technology Enterprise Network

From May 17 to 21, UTEN@Austin Program Manager Cliff Zintgraff visited FCT/UNL for a one-week "In-Situation" training visit. Cliff was hosted by Dina Chaves, TT Coordinator for the FCT/UNL Office for Entrepreneurship Promotion and Technology Transfer. The purpose of UTEN In-Situation Training is to transfer the lessons learned in the UTEN program into operational practice in Portuguese Technology Transfer offices. This is accomplished by assessing the needs of the office, reviewing the UTEN training received by TT office staff, and developing a custom plan within the overall framework of the training. The training is led by a UTEN@Austin staff metmber and supported either on-site or remotely by additional subject matter experts and technology transfer practitioners. Ultimately, the goal of In-Situation training is produce a long-term impact for the office by permanently benefiting its practices and detailed procedures. During In-Situation training at FCT/UNL, Cliff and Dina developed a specification for the FCT/UNL TTO web site that also helped cast vision for how the office interfaces with its main customers: industry, researchers, students, and entrepreneurs. They developed an overall procedural flowchart, with a focus on "disclosure to patent decision" and defined how UTEN assessment tools would be incorporated in the process, and the function they would serve. They also developed a disclosure form appropriate to FCT/UNL, striking a balance between information disclosure

Dina Chaves, Coordinator, FCT/UNL Office for Entrepreneurship Promotion and Technology Transfer; Susana Barreiros, Subdirector, FCT/UNL; and Cliff Zintgraff, Program Manager, UTEN@Austin, during Cliff's visit to FCT/UNL for In-Situation training.

and simplicity of use for inventors. During the week, they advanced U.S. connections for selected FCT/UNL technologies, and brought online an initial public portfolio offering for the office.

"Cliff provided the expertise needed to develop TTO's procedures in order to optimize technology commercialization in collaboration with OTC (Office of Technology Commercialization) at UT Austin," according to Dina Chaves. 'The outcome of UTEN support allows the development of best practices in technology scanning and screening activities, improving the effective interaction between the TTO and the Stakeholders. Cliff and UTEN@Austin's collaboration is crucial to achieve the mission of the FCT-UNL TTO "Turning ideas into assets, through the commercialization of technologies".
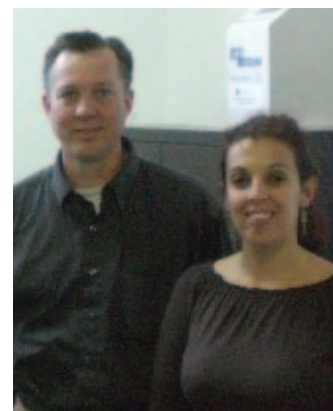
Accoding to Prof. Susana Barreiros, Subdirector, FCT/UNL: "The partnership with UTAustin provides many opportunities to improve the knowledge transfer process at FCT/UNL. One recent example is the design of the FCT/UNL TTO web site, which will help clarify IP policy and procedures and will undoubtedly foster a culture of innovation and entrepreneurship among the FCT/UNL community."

UTEN will publish a case study of the effort, including a procedure flowchart and disclosure form. You can find this and other case studies at www.utenportugal.org/case-studies.

■UNIVERSITY OF ALGARVE (CRIA) Intern Completes
Tech Assessments during U.S. Internship

Alexandra Marques of the University of Algarve's TTO (CRIA) recently completed a two-month U.S.-based internship with Christine Burke at South Texas Technology Management (www.utsttm.org). Also during her two-month internship, Alexandra performed a technology and market assessment of Additive for Solefish Food working with Cliff Zintgraff, Program Manager from UTEN@Austin. Two steps were performed. In the first, a 4-8 hour RapidScreen was performed to assess categories of readiness related to the technology, technology team, institution, and market. The RapidScreen identifies issues in the readiness of the technology, institution, or team to move forward with the technology, evaluating both the technology, and also the infrastructure required to advance commercialization. The second step, the MarketLook, was a 40 to 60 hour assessment of the market size and opportunity, with a focus on the U.S. market. The goal of this step is to uncover the "voice of the market" with respect to the technology, so that the TTO can work with the inventor to negotiate a license, form a spin-off, create research, development and sales collaborations, and/or address shortcomings that are barriers to market acceptance. The MarketLook process uses as its main research method primary interviews (phone calls, in-person interviews, and email exchanges) with potential customers, end users, partners and other expert validators in the technology's target market/s.

Cliff Zintgraff, UTEN@Austin, and Alexandra Marques, CRIA, University of Algarve

The assessment process yielded a number of useful lessons:

RapidScreen

1.A good technology description and good Internet research can lead to strong initial primary interviews. Our first interview was two degrees ("hops") from a deep expert in the field.

2.Corollary to #1 – university researchers make good first interviewees. They are willing to talk and share and can inform you about industry possibilities.

3.Complex ownership arrangements involving multiple institutions should be documented in writing and readily accessible.

MarketLook

4.Good interviews can help you know rapidly if a market exists or not. We knew within three calls that there is no solefish industry in the U.S. However, we did learn of several producers of flounder, which the inventor told us could be affected positively by the additive.

5.Opinions can change radically with just one hop in the value chain. Aquaculture managers and fish behavior researchers immediately saw the potential value in the technology. Fish nutritionists saw the potential challenges!

6.The MarketLook process created two opportunities for collaboration, a confirmation that an assessment-oriented (as opposed to sales-oriented) process can lead to collaboration opportunities.

Impact on TTO Practices

As a result of this UTEN training, CRIA is implementing these procedures in their operations:

1.Technology ranking and stages: CRIA is implementing a process to rank technologies and identify their stage of development. This process will be used to set priorities and identify appropriate next steps for priority technologies.

2.Central collection of analysis data: Processes will be defined such that technology analysis results in the central collection of analysis data, for efficient execution of processes.

3.Clarify needs of research and industrial markets around UAlg technologies: UAlg will apply processes that rapidly expose the interest of markets in UAlg technologies, working to see the technology from the market's perspective. The goal of the process is to see all options for a technology and develop alternatives that may go beyond initial researcher expectations and intent.

4. Identify specific potential collaborations: Beyond overall market understanding, processes will be defined to identify and pursue specific licensing and other opportunities for UAlg technologies.

■ UTEN Portugal and Carnegie Mellon Portugal
promoted Workshop on Technology Transfer

The workshop «Corporate Partnering to Facilitate University Commercialization Activities», organized by the UTEN Portugal Network, together with the Carnegie Mellon Portugal Program, took place on 15 and 16 June, at the Faculty of Economics and Management of the Catholic University of Portugal, in Lisbon. Several experts of the Carnegie Mellon University (CMU) participated in this initiative. The main objective of this workshop were to enable the discussion of good practices and the most effective ways to establish partnerships between the universities and companies, aiming to attract new business partners, and thus promote the commercialization of innovation and technology. The strategic partnership between the universities and companies; the promotion of a continuous bond between the university and its alumni; the intellectual property rights and the consequent advantages that may come from a partnership between the parties involved in the process, are some of the themes that were discussed at this event. José Mendonça, scientific director of UTEN Portugal, considers that "the development and the improvement of competences in technology transfer and commercialization are nowadays crucial for the entities within the national scientific and technological system, namely for the scientific and/or higher education institutions, technology-based business incubators and science and technology parks. In this context, the relationship with companies (Industrial Liaison Office) play an increasingly important and relevant role, and this is why UTEN Portugal is paying special attention, in 2010, to the development and improvement of competences in these areas, so as to promote more effective partnerships between the universities and the companies that will lead to an economic valorization of investments in research and technological development." João Barros, national director of the Carnegie Mellon Portugal program, stated that "the strategic partnership with Carnegie Mellon offers the opportunity to get in touch with the best practices of the top North-American universities, and, this way, thus making it possible to speed up innovation processes within the Portuguese academic and business contexts". The experts of Carnegie Mellon University presented this university's technology transfer model, which is considered one of the best in this area, with a particular emphasis on the establishment of these strategic partnerships. Some of those experts were Bill Swisher, Acting Senior Director, Corporate and Foundation Relations, Tara Branstad, Associate Director of the Center for Technology Transfer and Enterprise Creation (CTTEC), Gene Hambrick, Corporate Relations Director at Cylab (Cyber Security Training and Research Centre established at CMU, which works together with several organisms and companies in the United States), and Aamir Anwar, Director of International Alumni Relations at CMU. The keynote speech was delivered by Hyong Kim, professor of Electrical and Computer Engineering at CMU, who talked about the upcoming challenges in the area of Information and Telecommunication Technologies, not only at the level of markets, but also at the level of the main research topics in the universities.

Over the two-day workshop, there were debate sessions and hands-on analysis of real case studies. Here, it was possible to discuss several relevant questions for the Portuguese universities and for the research and technology sector, as well as models, solutions and proposals successfully implemented in the US, namely at the Carnegie Mellon University.

■ ONGOING OPPORTUNITIES

INTERNSHIP OPPORTUNITIES IN AUSTIN COMPANIES (DIGITAL MEDIA)

We have recently updated our internship program and encourage graduate students and early-career professionals interested in gaining hands-on experience working at Austin-based companies to apply. The program includes airfare to Austin, housing for up to 3 months, health insurance, and visa fees. We also list interns as "visiting researchers" at the University of Texas, which grants them access to the university library system, gyms, and other campus amenities as well as the city bus system. Those interested in applying can find more information about the program, including application procedures at http://colab.ic2.utexas.edu/dm/internships/

Applications may be submitted at any time, but the minimum time for processing and placement is 4 months, so those interested must plan ahead.

Internships will last a minimum of 6 weeks, and interns will be placed at digital media companies in Austin. During their time in Austin, interns will not only have the opportunity to learn about the digital media industry through their internship assignment, but will also be able to participate in professionalization and leadership training with University of Texas students enrolled in the Digital Media Leadership Program.

Useful links

www.utaustinportugal.org	www.fct.mctes.pt	www.utexas.edu	www.ic2.org
www.ati.utexas.edu	www.austin-chamber.org	http://colab.ic2.utexas.edu/dm/	www.utenportugal.org

We want to hear from you! Want to share your doubts and concerns about something you read? Want to see other topics featured in next month's newsletter? Want to contribute with articles or art? Please send all your feedback to sofia.santos@fct.mctes.pt.