

UT Austin | Portugal INTERNATIONAL COLLABORATORY FOR EMERGING TECHNOLOGIES, CoLAB



futureplaces 2011 approaches

The fourth annual futureplaces festival will take place from October 18 to 22 in Porto.

The digital media festival will continue the tradition of public performances and interactive installations, but will be especially focused this year on the further development of local projects initiated in previous editions, as well as focusing on the perspectives and emerging work of UT Austin-Portugal Digital Media graduate students. It will feature an all-day doctoral symposium, two practical, technology-oriented workshops, and a panel of leading intellectual property scholars and activists from Portugal, Brazil, and the US.

Projects incubated within futureplaces that will see further expression and participation will include: **Type the Future**, which allows participants to express themselves in giant 3D lettering in public space, and **radiofutura**, futureplaces' own radio station, which is accepting proposals for programs until September 30. Radiofutura explores the potentials of new digital forms of radio and public engagement and will give participants the opportunity to contribute content while also showing them how to set up a mobile radio station.

Additionally, the **interactive project It's Raining Families** will continue exploring the endless web of relations between citizens of Porto, the **Stories of Chairs project** will invite participants to contribute with their personal reflections on one of Northern Portugal's most active industries (furniture), and **Portugal Portfolio** will invite citizens to rehearse new images for Portuguese identity. The **C.C.Stop musicians col-**

**FUTURE
LUGARES
PLACES
FUTUROS**



lective will again be present in various concerts, as well as in the **launch of futureplaces' second music record**, a reconstruction of sound sources from last year's Neighborhood Science workshop under the auspices of Blaine L.Reininger and MediaLab Prado.

On October 19 and 20, **Brett Caraway of UT Austin will lead an all-day workshop** at the U. Porto School of Arts on open source software 3D content production suite Blender. The workshop will familiarize participants with the 3D production environment and interface, basic 3D manipulation and transformation of objects, surface and texture modifi-

cation, lighting, and scene construction. The workshops will give participants the necessary background to begin experimenting with 3D animation. The festival will feature a **second workshop by innovative Austin animator Jeanne Stern**, who taught a very successful short summer course in Porto earlier this year. This experimental animation workshop will show participants how to create short animations using experimental techniques, using a variety of hand-made techniques including cut paper, light-based, and hand-drawn animation. Individual animated works will be combined together into a single virtual realm, to be screened at the final presentation on Saturday, October 22. Both workshops are open to experienced media producers as well as beginners. **Instructions for registration will be available soon at www.futureplaces.org.**

Free culture activist and scholar Elizabeth Stark will deliver a keynote address at Friday's doctoral symposium. Stark is a cofounder of the Open Video Alliance and a producer of the Open Video Conference, as well as a Lecturer in Law at Stanford Law School and Visiting Fellow at the Yale Information Society Project. She has collaborated with organizations around the world to promote free culture and the open web. The PhD program in Digital Media is also planning a **doctoral symposium during Friday with the participation of PhD students.**

Stark will be joined on Saturday in a panel featuring three other **copyright experts.** The panel, which will be moderated by Sharon Strover of UT Austin, will include **Gregory Pery**, an attorney with extensive media experience who serves as Assistant Professor of Digital Media Management at St. Edward's University in Austin; **Sérgio Branco**, Research Assistant Professor of Intellectual Property Law at Fundação Getulio Vargas Law School in Rio de



Type the Future



radiofutura

Janeiro and former General Attorney of the Brazilian Information Technology Institute; and **Teresa Nobre**, the Legal Project Lead of Creative Commons Portugal, who is responsible for the adaptation of all CC licenses and legal tools for Portugal. **Pery, Branco, and Nobre will also speak at the UTEN Copyright Workshop for the Creative Industries**, moderated by Fátima São Simão of **UPTEC PINC**, the Creative Business Incubator of the University of Porto, on October 21.

GANNA, the Portuguese collective behind the digitally animated character and cross-media phenomenon **Bruno Aleixo**, will also attend the festival, giving a local perspective on free culture, appropriation and cross-media on Saturday.

futureplaces 2011 is the fourth edition of the digital media festival curated in Porto by Heitor Alvelos and Karen Gustafson since 2008. **All information is continuously updated at futureplaces.org**

■ ZON sponsors a special meeting - Evaluating the ZON UT Austin Experiment. Two years of business-university cooperation in the development of script-writing and digital animation competencies

Held at Universidade Lusófona de Humanidades e Tecnologias, the conference will bring together participants from the ZON Intensive Script Development Lab at UT Austin (2010), the ZON Digital Animation Advanced Lab at UT Austin (2011), representatives from ZON, the University of Texas at Austin, and FCT.

The conference will explore aspects of business-university cooperative programs, particularly those in digital media domains.

20 October at 16h30. Universidade Lusófona de Humanidades e Tecnologias, Lisbon (Agostinho da Silva auditorium).

■ Scholars and Practitioners from around the World come to Gary Chapman International School on Digital Transformation

The International School on Digital Transformation took place in Porto from July 17-22, drawing more than 50 scholars, entrepreneurs, students, and activists from 11 countries, including Canada, the U.K., Brazil, Egypt, and India as well as the U.S. and Portugal. Now in its third year, the program has been re-named for its founder, renowned Internet policy scholar and University of Texas faculty member Gary Chapman, who passed away suddenly in December 2010.

The intensive residential program brought together a diverse collection of established and emerging scholars and other professionals from around the world, with the goal of fostering a sustainable network of scholars and activists committed to exploring ways digital media can strengthen civil society. Contributors to the 2011 session included returning faculty members Sunil Abraham of the Centre for Internet and



Faculty member Sunil Abraham

Society in Bangalore, India, Fiorella de Cindio of the University of Milan, Ademar Aguiar of INESC Porto, Laura Stein of UT Austin, Alison Powell of the London School of Economics, and Leslie Shade of Concordia University. They were joined by new faculty members Jillian York of the Electronic Frontier Foundation, Andy Carvin of U.S. National Public Radio, Derek Lackaff of Elon University, Sara de Freitas of the University of Coventry, Diego Gómez of Hiperbarrio Colombia, Cristina Costa of the University of Salford, Smári McCarthy of the International Modern Media Institute in Iceland, and Graham Attwell of Wales-based research organization Pontydysgu. Kay Firth Butterfield of St. Edward's University in Austin attended as associate faculty, as did widely published author Carol Flake Chapman, who gave an opening address on her late husband's vision for the School.

The School featured talks, discussions, and hands-on exercises focused on themes including: Information access and open civic discourse; digital tools for government transparency; evolving Internet content regulation and the public's right to information; digital media and the democratic process; and factors influencing the growth of online civic engagement. One of the most unique features of the School is its program of affinity sessions, colloquially known as "BarCamps." These optional, participant-programmed meetings combined formal presentations with unconference-style sessions, enabling participants to dig deeper into particular topics and network with participants with similar interests.



ISDT participants visit Guimarães



ISDT faculty members and students sightsee in Porto

Examples of affinity session topics include civic science, music and activism, youth and social media, and Internet surveillance. Participants took in the sights of Porto while discussing these issues, conducting meetings around town and at the beach. The School's social program gave attendees further opportunities to enjoy the Porto area, with a dinner in the Palace of the Dukes of Braganza in the renowned historic town of Guimarães and a farewell dinner at the Casa da Música concert hall of Porto.

■ Carlos Guedes Visits UT Austin as Fulbright Scholar

Carlos Guedes, an Invited Associate Professor at the University of Porto, working for the UT Austin | Portugal graduate programs in Digital Media, is at UT Austin this semester as a Fulbright Visiting Scholar. While visiting in the UT Austin Radio-TV-Film Department, he will carry out research on machine learning algorithms as applied to automatic music generation. This research relates to the project "Kinetic Controllers Driven Adaptive Music Composition Systems," funded by FCT through the UT Austin | Portugal program and led

by principal investigators Guedes, Bruce Pennycook of UT Austin, and Tomás Henriques of the New University of Lisbon. During this semester in Austin, Guedes will be finishing three commissions of work to be presented by Teatro de Ferro (September 18), Miso Music Festival (November 15), and Balletteatro (November 23), and preparing a major musical work to be presented in 2012 at the Guimarães European Capital of Culture.

■ UNL Students Make Exploratory Visit to Austin

Five Digital Media doctoral program students from UNL—Andreia Teles Vieira, Dora Santos Silva, Luís Fernandes, Bruno Nobre and André Correia—made an exploratory visit to the UT campus from August 31 to September 8. During their trip to Austin, they met with UT faculty members and graduate students and explored the campus and city. The students met with faculty in a wide variety of specializations including new media literacy expert Kathleen Tyner, international communication and digital inclusion scholar Joe Straubhaar, film scholar Tom Schatz, and international and online journalism scholar Rosental Alves of the School of Journalism, as well as user interface and information systems expert Luis Francisco-Revilla of the School of Information, Paul Resta, an authority on learning technology from the College of Education, and Graduate Advisor of Design Dan Olsen of the Department of Art and Art History. UT Austin-Portugal Digital Media Director Sharon Stover of the Radio-TV-Film Department also met



The five visitors on the UT campus

with the group multiple times during their stay.

Andreia Teles Vieira commented on the range of specializations among the students and faculty: "Although our research interests are heterogeneous: education, journalism, activism, usability and human-computer interaction, the meetings gave us different highlights and useful ideas for our doctoral research."

Reflecting on the visit, André Correia found it very productive, stating "It was indeed a fruitful trip that allowed me to get to know the campus and establish contacts with students and teachers. I think it was an opportunity to define my research and find a co-advisor for the thesis."

The UT Austin-Portugal Digital Media program in Austin looks forward to the students' return.

The project from UT Austin-Portugal Program LIFEisGAME: Learning of Facial Emotions using Serious GAMES featured on Público Portuguese newspaper

Verónica Orvalho from U.Porto and the principal investigator of the project said to Público that "before starting the project I realized that existed hundreds of games and other types of support for working with colors, language and other difficulties that the autistic children may have. However we've not found anything that works with the expression of emotions." Concerning the work team, Verónica stated that "We need to have more institutions working with these children that want to participate in this project, helping us to validate this tool and helping us to find the best options for them."

The complete article can be found in the link:

http://www.publico.pt/Tecnologia/um-jogo-que-leva-as-emocoes-aos-dedos-das-criancas-autistas_1508649



Summer time news: Advanced Computing intern students at University of Texas at Austin

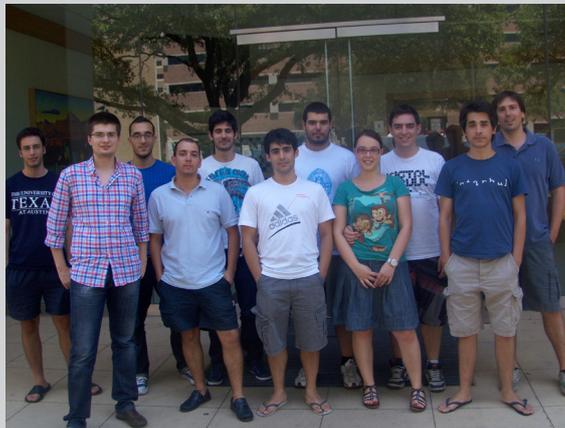
As it is becoming a tradition a group of Portuguese students from several universities around the country spent their summer working alongside with researchers at the University of Texas at Austin.

For six weeks, in July and August, eleven Portuguese students traveled to the capital of Texas, Austin, to spend their summer working with UT-Austin faculty and to integrate their research teams. As in previous years the spectrum of computer science fields that the students engaged in has wide ranging from irregular application mapping to heterogeneous system, distributed computing platforms, data visualization and simulation to social and network information mapping and flow analysis.

"This initiative contributes for the enrichment of those involved in a multitude of ways. Not only have I been learning and gaining a new perspective on several areas of Computer Science, I've also been applying what I was taught during the past few years in a real world scenario. This experience has been invaluable for me and, I'm sure, everyone involved..." stated David Neto from the University of Coimbra.

The advantages of the program and experience of working alongside top research team in several fields is one of the most common topic when talking with the students as referred by André Lourenço from the University of Coimbra: "The internship enables students to interact closely with research teams working in state of the art topics of Computer Science... and learn from them." Ricardo Alves from the University of Minho adds that the internships "provides a bridge between Portuguese and UT-Austin research teams and transforms the student into a valuable asset for both...", which is also a common filling among the students.

Nuno Silva and Ricardo Alves from the University of Minho, Ricardo Freitas and Tiago Henriques joined the High Performance Graphics and Parallels Systems group lead by Professor Donald Fussell. Nuno Silva focused is research on efficient



and physically based techniques to accurately represent the appearance of complex materials. "Accurate appearance of materials such as cloth or leader still represents a major challenge in computers graphics today, specially in real-time is taken into account", Nuno stated.

Ricardo Alves dedicated is internship to mapping Barns-Hut irregular applications to heterogeneous platforms using the GAMA framework, still in development.

Ricardo Freitas and Tiago Henriques attempted to develop a program that simulates "drip painting", a form

of abstract art in which paint is dropped onto a canvas, using Lattice Boltzmann Model (LBM) as the fluid simulation technique.

Mónica Sofia and Tiago Gomes, from the U. of Coimbra and U. of Oporto respectively, joined Professor Keshav Pingali Distributed System group and worked closely with Dimitris Proutzos. Their project for the summer involved exploring new approaches to parallelize Lee's algorithm using Galois System.

André Costa (U.Minho) and André Lourenço (U.Coimbra) joined Vijay Garg distributed system group. André Costa worked in two projects, one to define new agreement policies for Accurate Byzantine Agreement and the other developing an efficient algorithm to decompose a finite state machine into smaller machines, which can ultimately be used to reduce the number of backups needed to support faults in distributed systems. While André Lourenço dedicated is internship to Faults Handling in Distributed Systems, more specifically on Fused Data Structures. "I'm implementing two erasure correcting codes, raptor and turbo codes. Furthermore, I will be measuring the improvement they bring to the whole fusion fault handling system..."he stated.

Professor Lili Qiu group welcomed David Neto and Carlos Mota, from the University of Coimbra into the research group. Under her tutoring David and Carlos develop information-gathering tools directed towards social networks in order to find and map traffic flow patterns of their users. To achieve their goal they exploited distributed crawling

techniques to enable faster gathering of a large volumes of information.

"My project consist of exploit FPGAs devices and realize their capabilities. To achieve such goal I'm implementing both regular and irregular memory access algorithms to test on Gorilla architecture, a recent programming model tool." is how Artur from the University of Minho describes is project under the tutoring of Professors Derek Chiou and

professor Andreas Gerstlauer from ECE department on FPGA irregular application mapping.

"The UTA - Portugal interchange program provides a remarkable experience for the people involved and their institutions. This kind of collaboration provides vast insight and knowledge, often serving as a basis for greater projects", Nuno Silva stated and sums up the felling of all involved, students, professors and researchers.

Aubry-Mather theory and Optimal Transport Summer School and Nonlinear PDEs Workshop sponsored by the UT Austin-Portugal Program

The Aubry-Mather theory and Optimal Transport Summer School and Nonlinear PDEs Workshop were held at the Instituto Superior Técnico between June 13th and June 24st. This event consisted of a series of courses during the first week by Luigi Ambrosio (SNS Pisa), Patrick Bernard (CEREMADE - Université Paris-Dauphine), Yann Brenier (Université de Nice), and Alessio Figalli (UT Austin). This school has been followed, in the second week, by a workshop.

The event was sponsored by the UT Austin-Portugal Program in the Area of Mathematics (CoLab), and the Center for Mathematical Analysis, Geometry and Dynamical Systems (CAMGSD-LARSyS). This event was part of the program of the Portuguese International Center for Mathematics (CIM), and was organized by Alessio Figalli (UT Austin), and Diogo Gomes (Instituto Superior Técnico).

A total of about 32 PhD students from different countries and universities attended the courses. These included a number of students from Portugal, eight from UT Austin, several from France, Italy, England, Switzerland, and other European countries. The workshop included a list of about twenty internationally acclaimed researchers in the area of Nonlinear PDEs.

Moreover, several PhD students and post-docs, mostly from Europe, came to attend the workshop. In addition, also some local PhD students and faculty joined both the school and the workshop.



Optimal transportation and Aubry-Mather theory are both important areas of mathematics. While optimal transport had his origin as an engineering/economic problem (moving mass from one place to another in the cheapest way), Aubry-Mather theory is related to Lagrangian dynamics and Hamilton-Jacobi equations. However, these a-priori unrelated topics have in reality lots of connection, which appeared mainly in last years. Hence, this school was a great occasion for students to: (1) learn the basics of both theories; (2) discover several of the connections between them; (3) have an overview on the latest progresses and discoveries, to also have a better idea of the current directions of research.

More precisely, the focus of the courses has been on: Application of optimal transport to the calculus and heat flows in metric measure (Ambrosio), The Lax-Oleinik semi group and its relation to Hamilton-Jacobi equations (Bernard), the connections between optimal transport and fluid mechanics (Brenier), and the links between optimal transport, functional inequalities and Riemannian geometry (Figalli).

Then, the second week has been though as a "complement" to the school and more than half of the students in the Summer School also participated in the workshop. Indeed, most of the talks were strictly connected to what the students had learned the week before. In this way the workshop was not only a great occasion for experts to interact and exchange ideas, but also for the PhD students, who can have difficulties understanding research-level talks and who were able to learn recent and exciting developments in mathematics.

UTEN CORNER

**Workshop on Nanotechnology and Life Sciences
CENIMAT – FCT/ UNL. Taking place today, 26 September 2011**

"Nanotechnology and Life Sciences – Increasing Commercialization Outcomes for University Nanotechnology Laboratories" is the theme of the 4th UTEN Workshop for 2011. This training session will focus on the best practice models for showcasing how university nanotechnology facilities can improve commercialization outcomes through the leveraged use of industrial inputs, focusing on research and key staff.

Four renowned experts in Nanotechnology and Life Sciences will participate in this Workshop. They are Bruce E. Gnade, Vice-President for Research at the University of Texas at Dallas, Brian A. Korgel, Entrepreneur and Professor at the Department of Chemical Engineering, University of Texas at Austin, Servando Aguirre-Tostado, Director of the Nanotechnology Incubator of Nuevo Leon (NINL) and Research Profes-

sor at CIMAV- -Monterrey, Mexico, and Juan Morante, Professor and Director of the Department of Electronics, Barcelona University.

The Workshop will take place at CENIMAT- FCT, Universidade Nova de Lisboa (Caparica Campus) and will be an opportunity for discussion with leading institutions in the area, such as INL and INESC MN. Incubators (Biocant Incubator), large company investors in the area (Hovione, CUF) and new technologies and start-up companies (Paper-e – Green electronics for the future, NovaTissue – Redefining Tissue Regeneration, DPL-Screen – Early & painless diabetes diagnosis for a better life, Treat U – Targeted therapies for cancer treatment) will present and discuss current trends and future challenges in nanotechnology.



UTEN Initiation Brainstorm@Minho 09

Context: The ecosystems of innovation are undergoing a profound change both at regional and industry levels. Universities are becoming key sources of discovery and play an ever increasingly important role in the way industry innovates. Global competition, rising R&D costs and the need to get more products to the market faster are just some factors that are forcing companies to reach out to research universities for new ideas and capabilities. Licensing, corporate-sponsored research, consulting engagements,

venture capital investment, gifts and the recruitment of graduate students are just some examples that can be used to promote strategic relationships between industry and universities, and are becoming a regular part of the developing open innovation environment.

■ Luís Rodrigues - UTEN International Intern - Enhancing Research Collaboration and Commercialization in Marine Science

Luís Rodrigues, Project Manager, Division of Entrepreneurship and Technology Transfer - University of Algarve is in his third month of a Specialized Individual Internship in Technology Transfer and Commercialization at UT-Austin.

Marine Science is an especially important research area of the University of Algarve (UALG) as reflected in the recently created MARALGARVE (SEA PLATFORM) that brings together five companies, three municipalities (Faro, Olhão and Portimão) and the university to increase knowledge and boost the regional marine economy.

In September, Luis Rodrigues visited the Texas Gulf Region and met with Dr. Frank Pezold (Dean College of Science and Technology) and Dr. Lea-Der Chen (Associate Dean) of Texas A&M University, Corpus Christi (TAMUCC), and Dr. Lee Fuiman (Director) and Dr. Joan Holt (Associate Director, Fisheries and Mariculture), UT Marine Sciences Institute (UTMSI) at Port Aransas. Both Dr. Frank Pezold and Dr. Joan Holt are familiar with Algarve's University marine research activities as in summer 2010 they participated in a UTEN Workshop on Research Collaboration & Network Building for Commercialization: In Marine and Bio-Sciences held at the University of Algarve.

Developing commercialization opportunities for UALG technologies is an important objective of Luis' internship. Accordingly he has also interned at the Austin Technology Incubator (ATI). During his internship, working with Heath Naquin (UTEN Austin), he developed processes for matching Austin-based companies and Algarve companies. These efforts enabled emerging collaboration between OPENALGAE, an ATI clean-tech company that develops IP protected solutions for oil recovery, and ALGAFUEL a Portuguese company that dedicates to the development, delivery and operation of bioengineering projects for the industrial production of microalgae.

This year's winner in the Business Idea Competition at UALG (February 2011) was CAVIAR Portugal which farms in closed recirculation aquaculture systems (RAS) 4 species of Caspian sturgeon with the purpose of producing meat, caviar and value-added products for national and international markets. Thanks to Dr. Joan Holt (UT MSI) network, contacts are being initiated between Caviar Portugal founders and the MOTE MARINE LABORATORY in Florida that has been producing caviar since 2006 and who also developed a successful Sturgeon Commercial Demonstration Program.

■ Events

- **4th UTEN Workshop 2011 - "Nanotechnology and Life Sciences – Increasing Commercialization Outcomes for University Nanotechnology Laboratories"**
Taking place today, 26 September 2011, CENIMAT – FCT/ UNL

More information at: <http://utenportugal.org/events/nano-2011/program/>

- **Conference - Evaluating the ZON UT Austin Experiment. Two years of business-university cooperation in the development of script-writing and digital animation competencies**
20 October 2011, Universidade Lusófona de Humanidades e Tecnologias, Lisbon (Agostinho da Silva auditorium)

- **The fourth annual futureplaces festival**

October 18 to 22, Porto

More information at: <http://futureplaces.org/>

- **5th UTEN Workshop 2011 – UTEN Copyright Workshop for the Creative Industries**

21 October 2011, University of Porto

Hosted by **PINC**, the **Creative Industries Center** of the University of Porto Science and Technology Park. In conjunction with the **futureplaces** Digital Media Festival of the UT Austin | Portugal CoLab

More information at: <http://utenportugal.org/events/copyright-2011/>

- **Digital Media Doctoral Symposium (@ futureplaces 2011)**

21 October 2011, Porto

- **Digital Diversity – Final conference of the Digital Inclusion and Participation Project (FCT/UTAustin | Portugal/CD/0016/2008)**

4 November 2011, FCSH/ UNL

This conference will discuss the results of the Digital Inclusion and Participation Project concerning the conditions, motivations for the use and other factors involved in the digital experience, especially the Internet. The event highlights the diversity of digital experience among children and young people, adults and senior citizens taking into account variables such as gender, education and socio-economic conditions, among others. The communication opening will be made by Joseph Straubhaar from the University of Texas.

More information at: http://digital_inclusion.up.pt/index_files/Page1128.htm

- **4th Annual Conference of Video Games**

2-4 December 2011, Porto

The Conference of Video Games is the home of creativity and science that lies behind the promotion of video games and interactive experiences. The main objective of this event is to stimulate discussion in the field of video game development and to reduce the gap between academia and the entertainment industry. The event organization invites to submit high quality scientific research to help create the basis and set the trends of the future of the videogame industry in Portugal.

The deadline to submit articles and demos is approaching:

- Full papers: October 1st, 2011
- Work in progress: October 7th, 2011
- Short papers: October 7th, 2011
- Demos: October 7th, 2011

More information at: <http://www.dcc.fc.up.pt/~videojogos2011/>

■ Ongoing Opportunities

- **Prize “Ser Capaz – Investigação e Tecnologia”**

The Salvador Association intends to stimulate the development of projects that can make life easier for people with physical disabilities through the creation of this Prize. The project winner will receive 10.000€. This annually award provides funding for projects that contribute to the development of products, tools, technologies, methodologies, equipment or technical systems to prevent, counteract, mitigate or neutralize the inability of a person with physical disabilities.

Deadline for submissions – 14th October 2011.

More information at: <http://www.associacaosalvador.com/>

- **Applications for ZON Creativity in Multimedia Award 2011 open until 7th November 2011 at www.zon.pt/premio**

This is one of the largest monetary prizes awarded in multidisciplinary national competitions, reaching a total of 200.000€, divided into three categories: Contents and Multimedia Applications, Digital Animation and Short Films. The prize also includes fellowships at UT Austin.

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 carolina.enes@fct.unl.pt.

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