



## **Institute of Technology**

### **Ciência sem Fronteiras / Science Without Borders**

#### **Postgraduate Project Template**

<b>Institution:</b>	Dundalk Institute of Technology
<b>Title of Postgraduate Opportunity:</b> (include level of study)	Master of Arts by Research
<b>PI Name &amp; Contact Details:</b>	Dr Bride Mallon Creative Media Research Group, Creative Media Section, School of Informatics and Creative Arts, Dundalk Institute of Technology, Ireland. <a href="mailto:bride.mallon@dkit.ie">bride.mallon@dkit.ie</a> +353 (0)42 937 0200 Extension: 2926, Mobile: 0877835483
<b>Department/School:</b>	Creative Media Section School of Informatics and Creative Arts
<b>Research Centre /Group:</b>	Creative Media Research Group
<b>Research Centre/Group website:</b>	<a href="http://creativemediaresearch.com/">http://creativemediaresearch.com/</a>
<b>Brief Summary of PI research / research group /centre activity</b>  <p>Creative Media research at DKIT is characterized by a mix of pure and applied research. Applied research is made possible by a strong base of practical skills (in, for example, film production, drawing, graphic design, tangible interface design, media production, multimedia authoring, narrative writing or game design). To-date, the research group has created short films, fine-art productions, alternate-reality games, mobile technologies, tangible interfaces and multimedia applications. These artifacts are used to solve practical problems, and to test concepts and design principles.</p> <p>Our 13 group members research in the following areas: New-Media Narrative Forms, Creative Media Content Creation, Creative Pedagogies &amp; Transformative Work Practices, Creative Technologies, Future Communications, and finally Media – Culture, Community and Society.</p>	
<b>Brief Description of Masters or PhD Project</b>  <p><b>Project title: Towards a Taxonomy of Interaction in Narrative Games</b></p> <p><b>Project title: Linking Entertainment Elements with Pedagogical Goals to Support e-Learning</b></p>	

The aim of this project is to investigate educational game products to understand how pedagogical material may be connected to narrative employed either as a substantive element or skeletally. Research would be undertaken in linking non-narrative and narrative games with pedagogical goals, to develop a template for educational designers to quickly choose a multimedia game format to teach a particular skill.

Depending on their design, entertainment elements may promote or distract from learning goals. Such research would seek to ensure that entertainment and educational goals are aligned.

Investigating interconnections between game skills and learning goals in educational games, should provide a skills taxonomy illustrating how to use game elements to develop learner-skills, enhance motivation, maintain challenge and avoid boredom or anxiety.

#### **Key Attributes of Project for Brazilian Postgraduate Students**

Should outline why projects offer something that is not available in Brazil – specific equipment, multi-disciplinarity, aspects of structured programme, links with industry, placements, links with other research groups, etc. Good opportunity for IoTs to emphasise their close working relationships with industry and particularly SMEs and their pivotal role in regional economic development

#### **The following are special attributes offered by Dundalk Institute of Technology (DkIT) to potential students:**

- The research project will take place in a location where e-Learning, its main disciplinary area, is important and promoted – that is, within Dundalk Institute of Technology and within surrounding industry. The research student will have the opportunity to liaise with others working in this discipline. The industry context will firstly be discussed.
- e-Learning is a growing industry in Ireland in business and academic institutes. (See a selection of e-learning companies, and their locations in appendix 1 below. Note the international e-Learning company recently located in Dundalk. Not only do e-Learning development companies and organizations exist which are devoted solely to e-Learning production, but many organizations with very different purposes have e-Learning initiatives, strategies to develop e-Learning materials.)
- The academic context for an e-Learning research project is as follows. A number of DkIT staff members pursue higher degrees in this area. DkIT has an institution wide e-Learning initiative. Furthermore, e-Learning is taught as a module within existing under-graduate degree programmes (for example, the Bachelor of Arts in Communications in Creative Multimedia) and has recently been added as an elective stream within the Higher Diploma in Science in Computing.
- This project will investigate the inter-relationship between 2 disciplinary areas: e-Learning and Narrative (also known as Narratology). DkIT has a number of staff who specialize in this area. Research in narrative within the Creative Media group currently includes the study of a variety of interactive and emergent narratives and games, including interactive drama, documentary and film; non linear texts, computer games, physical games, alternate reality

games, pervasive games, mobile games and technologically enhanced live-action role-playing. This variety and the opportunities for synergies with existing work will enrich a project investigating narrative and learning. Furthermore, narrative is currently taught as a module to both Communications in Creative Multimedia and Computing in Games Development degree students. Thus, the research student would benefit from interdisciplinary perspectives on narratology.

- The post-graduate research student is expected to both promote and draw from natural academic-industry relationships within e-Learning, promoting the development of this industry in Dundalk and Ireland. Appendix 1 illustrates some of the e-Learning companies currently operating in Ireland. The e-Learning industry relies closely on educational theory, thus academic and industry linkages are natural. For example, E-Learning production requires people who understand how we learn, people who can determine which pedagogical approaches are most suited to e-Learning within a particular subject area, people who understand how to exploit media creatively and people who understand technology.

Academic-industry alliances could, furthermore, be extended back to Brazil, given that absence of geographic boundaries is a key benefit cited for e-learning products.

- The e-Learning industry uses games as learning tools. Post-graduate research students will have the opportunity to liaise with undergraduate Computing in Games Development students to develop small games for controlled experiment purposes.

**Name and contact details for project queries, if different from PI named above:**

**Please indicate graduate disciplines which are eligible for application:**

Arts, Creative Arts, Performance Arts, Social Sciences, Information and Communication Technologies, Games, Design-related disciplines

**Alignment with Science Without Borders Priority Areas:**

Please indicate the specific programme priority area under which the proposed postgraduate project fits – choose only one (tick box)

Engineering and other technological areas	
Pure and Natural Sciences (e.g. mathematics, physics, chemistry)	
Health and Biomedical Sciences	
Information and Communication Technologies (ICTs)	
Aerospace	
Pharmaceuticals	
Oil, Gas and Coal	
Renewable Energy	
Minerals	

Biotechnology	
Nanotechnology and New Materials	
Technology of prevention and remediation of natural disasters	
Biodiversity and Bioprospection	
Marine Sciences	
Creative Industry	X
New technologies in constructive engineering	

## Appendix 1

Sample of Irish-based e-Learning organizations from <http://www.learnpipe.ie/>

e-Learning Provider	Number of Courses / Jobs	Location
Prometric	100 jobs (recently announced)	Dundalk
ALISON	64	Galway
Learn Skills	49	Galway
FAS Training Centre	39	Baldoye
EazySafe	27	Dublin
EssentialSkillz	13	Galway
SEEK Academy	13	Dublin
I-CANDO Learning	7	Dublin
Pitman Training	10	Cork, Kilkenny
Kilroys College	64	Dublin