

eye on ITB

Lin Newsletter, October 2009



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ITB – Celebrating 10 years!

The Institute of Technology Blanchardstown (ITB) is 10 years old this year, and we decided to celebrate this with families in the local area by hosting a Community Day on the campus on Sunday 13th September.

The event kicked off at 1pm, with crowds arriving from all over Dublin 15 in the glorious weather. There was something at the ITB community day for everyone; music aficionados, sports fans or foodies alike. The Fingal Youth Orchestra and a local gospel choir entertained the bulk of the crowd while others went for the Try a Dive in the Sub Aqua Pool, meanwhile filling themselves up with tasty produce from the farmers market. A wide range of community groups from all over Dublin 15 were represented at the event including the scouts, the ICA, MABS and the Dunsink observatory.

Over 4,000 people attended the event and according to Emer Melvin, a staff member at ITB who helped organise the event 'it was a marvellous day of celebration and it was wonderful to see so many families here enjoying our wonderful facilities in the sunshine'.



Face-Painting at the ITB Community Day

Teaching and Learning Initiatives at ITB

Continue IT - Learner Supports

The ITB online Language Learner Support was created in 2007 and is currently accessible to all students and staff in ITB. Using the well known and well used Moodle virtual learning environment as interface, ensured the ease of use for our students.

The idea was to develop a multimedia interactive and individualised language learner centre online. The rationale behind the project was that using CALL (computer assisted language learning) would help to develop a student-centred strategy, which would promote language learning but also self-paced and autonomous learning. It was envisaged that this centre could be used as reinforcement of what had been learned in class as well as bringing additional remedial material to help struggling learners with limited (and limiting) language proficiency.

At one level, the language Learner Support is meant to supplement face-to-face interaction during class time and reinforce language use in a concrete and authentic manner in addition to the language seen in class settings. Advantages are many fold: a learner-centred approach with individual attention, the development of language awareness and autonomy resulting on the increase of motivation. Additional advantages are the freedom and ease of use without any time or space constraints, as the environment can be accessed from anywhere and at any time. It can also be used by anybody wanting to brush up their language skills outside formal class time.

Regarding language learning, one of the key positive outcomes of using a virtual learning environment is the creation of a community through synchronous and asynchronous communication (mainly chats and forums but also the possibility of posting advertisements to the community). This vision came from existing websites and online communities such as www.wordreference.com which give students a chance to experience language in the community (the emphasis being on using the language) and take ownership of their learning through the participation in forums of users.

In its third year of use, the language learner support remains an additional open resource and tool for anybody on campus wishing to improve their language skills. Contact: Nathalie.cazaux@itb.ie.

Other learner support activities include Programming and Mathematics Drop-In Clinics for 1st year and 2nd year students across all disciplines, which have significant impacts on retention and engagement with academic programmes.

There are significant activities in support of Students with Vision Loss through research, practical Implementation and course-board strategies, including the 'Irish Guide Dogs Project', run with Students on our Creative Digital Media programme, to increase awareness of vision loss. Contact Margaret.kinsella@itb.ie for more information.

Continue IT - Learner Styles

ITB's Learning Styles team launched its Online Learning Styles profiling tool this month, offering immediate feedback on individual learning preferences to all students, and class group reports to academic staff on the range of learning preferences in each class group. Learning styles profiling, along with an assessment of learning strengths and weaknesses, has been phased in to 1st year induction over the past few years, in collaboration with educational physiologists at the National Learning Network on campus at ITB. To support learning styles profiling, a series of 10 workshops on learning and teaching methodologies have been recorded, and are available to staff via moodle. A number of academic staff have worked with the learning styles project in adapting module delivery to include more inclusive teaching methodologies catering for the spectrum of learning preferences present in a class group. Contact: geraldine.gray@itb.ie.

Continue IT - Problem Based Learning

For the last three years ITB has been leading the Problem Based Learning (PBL) strand of ContinueIT, an initiative funded under SIF cycle 1. Our main focus has been the integration of PBL methods into the delivery of our Engineering programmes. PBL is an approach to structuring a module, course or curriculum which exposes students to problems from practice, as a stimulus for learning. Typically the students work in groups to solve problems and carry out projects that are designed to support the learning outcomes of the subject they are studying. It seeks to move away from the traditional educational model where the role of the lecturer is to disseminate information to the students, to one where the role of the lecturer is to act as a facilitator to the students' own learning and development.

We see many advantages to this approach: students become accustomed to working in groups; students are required to take responsibility for their own learning; key skills such as problem solving, communication and research are nurtured; students get to work on real-world practical problems specifically designed to stimulate their learning; and students are exposed to a more varied and engaging educational experience. It is particularly effective at developing team-working skills, at nurturing the ability to carry out self-directed learning, and at familiarising the students with the issues involved in working in multi-disciplinary environments. At present eight modules within Engineering are delivered in this fashion with more coming on stream each year.

The SIF project has also allowed us to carry out research on best practice in delivery, problem design, assessment, and many other areas related to PBL. We have also built a network of PBL practitioners around the sector and host regular workshops by educational experts in this area. As mentioned already, a full postgraduate certificate in Enquiry Based Learning commences at ITB in October 2009 and twelve of our staff members have now signed up for this. In 2010, ITB will host a symposium on Problem Based Learning to disseminate and share our experiences with the wider academic community.

All enquiries related to the SIF ContinueIT Problem Based Learning project should be directed to Hugh McCabe at hugh.mccabe@itb.ie.

Certificate in Enquiry Based Learning

This October, ITB are starting a new Certificate in Enquiry Based Learning (EBL). This is aimed at lecturing staff, from ITB and other third level institutions, who wish to gain the skills, knowledge and competencies needed to incorporate this exciting technique into their teaching practice. EBL encompasses a range of pedagogical approaches, including Project and Problem Based Learning (PBL), whose common characteristic is that learning is driven by a process of enquiry on the part of the learner. A typical approach is that the learners are divided into groups and asked to collaborate on projects or problems. The facilitator helps them to address their learning needs, identify suitable lines of enquiry, and collaborate effectively to reach a conclusion.

The course will be delivered by means of blended learning, and will consist of a mixture of face-to-face workshops, online activities and independent study. A range of acknowledged experts from around the Irish third-level system have been engaged to facilitate the workshops and the course is due to commence on October 23rd. It has been developed under the auspices of the LIN Accredited Professional Development (APD) initiative and forms part of a suite of modules on teaching and learning that are being rolled out around the sector. All enquiries related to the course can be directed to Hugh McCabe at hugh.mccabe@itb.ie.

The DRHEA

The Dublin Regional Higher Education Alliance is a consortium of the eight major state third level institutes in the greater Dublin area, University College Dublin, Trinity College Dublin, Dublin City University, NUI Maynooth, Dublin Institute of Technology, IT Tallaght, IT Blanchardstown and IADT Dun Laoghaire. The DRHEA was established in 2007/8, and a formal launch took place in May 2009. The Alliance was initially established with funding under SIF Cycle 2, and its current activity consists of four strands, each populated by a number of activities. We are active participants in two, discussed here. For a wider view, see the website www.DRHEA.ie.

Enhancement of Learning

The institute's main involvement with this strand of the DRHEA enterprise is in the area of Learning technology, in particular adapting appropriate technology to facilitate blended learning. This project is complementary to the IoTI sectoral project on blended learning, where the emphasis is on pedagogy. The various online delivery activities in the partner institutions have been identified and streamlined. Lecturers taking on such delivery methods are referring to previous experience within the eight Institutions, and documenting their own experience. This will provide data to analyse the efficacy of various methods of on-line delivery. Academic programmes have been identified where significant numbers of modules, and if possible an entire programme, will be delivered online. In essence, this activity of the DRHEA puts the distance learning activity of ITB, outlined below, and that of our partner intuitions, in a wider context where activities can be analysed for successes and difficulties alike.

Widening Participation

As part of this activity, ITB has led a research project on models of Higher Learning Networks (HLN) in Britain and Europe, to see if such models can be applied to the establishment of Dublin as a 'Learning City.' It is hoped that, funding permitting, progression routes among the 8 institutes and partners such as FAS, the VEC and other providers can be clearly outlined.

More details can be had from Mary.Kennedy@itb.ie. In a second activity led by ITB, the issues of Literacy and Second Language Acquisition as a barrier to participation in third level education are being researched, and supports and academic structures needed to address this are being identified. The contact in ITB is Ruth.Harris@itb.ie.

ACE – Accelerating Campus Entrepreneurship

The Tánaiste, Mary Coughlan, will be officially launching Accelerating Campus Entrepreneurship (ACE) on November 26th in Farmleigh House. ACE is a collaboration of several Institutes of Technology and NUI Galway, funded by SIF cycle II, to embed entrepreneurship into science and engineering education and create the 'entrepreneurial graduate.' This is done through four strands of work based around (i) Pedagogies, Teaching and Curriculum Development (ii) Cross-Faculty Multi-disciplinary approaches (iii) Embedding Technology Entrepreneurship into Engineering and (iv) Education Organisational and Cultural Change.

It will have a profound shift in how entrepreneurship education is delivered, requiring a re-orientation of traditional models and the development of new skills and competencies among educators. The involvement of enterprise experts and entrepreneurs will assist in embedding innovative experiential pedagogies, allowing students to "feel like" what it is to be an entrepreneur, thereby making themselves more attractive to SME's and promoting self-employment as an attractive career option. The project's research has benchmarked entrepreneurship education at Ireland's seven universities and fourteen institutes of technology and a report on the research findings will be published at the launch. A Graduate Technology Enterprise Accelerator at ITB is also being launched, accredited as an MSc in Technology Entrepreneurship, which draws together the key strengths of our School of Engineering & Informatics, the LINC (ITB's innovation centre) and the School of Business & Humanities. Other initiatives include the development of an entrepreneurship educator's programme, the development of a Bachelor of Engineering Innovation degree and the deployment of a student entrepreneurship intern in each college to promote entrepreneurship amongst their peers. The ITB contact is Cormac.mcmahon@itb.ie.

Repositioning Assessment for Learning

Four active research projects are underway at ITB investigating a range of techniques to reposition the processes and practices of assessment to enhance student engagement through creative and inclusive modes of assessment. Projects include service learning, developing skills in video assessment, use of weblogs in language teaching and best practice guidelines for academics utilizing electronic assessment tools. This collaborative project, led by Carlow IT and funded under SIF Cycle 2, aims to develop a portfolio of case studies based on the results of over twenty projects across four institutes of technology including Blanchardstown, Carlow, Dundalk and Tallaght IT. Contact: geraldine.gray@itb.ie.

Collaboration with the Centre for Deaf Studies (CDS) in TCD

The Department of Informatics in ITB is working with the Centre for Deaf Studies, part of the School of Languages in TCD, on a significant research project addressing the literacy levels within the Hearing Impaired Community. Rich digital Learning objects will be developed to teach Irish Sign Language (ISL) to educators via online learning, and also to teach written English for the hearing impaired. This project will extent into a network of community groups and support organisations for the hearing-impaired. The programme is reaching out to a previously undervalued sector of society with an unusually low average reading standard, and increasing the number of teachers qualified to address that community. For further details, contact Brian.Nolan@itb.ie.

Technologies to Enhance Teaching and Learning

The Institute of Technology Blanchardstown is now offering a range of online courses for part time students in engineering and computing. Delivered in a blended mode, students log in for weekly online lectures delivered using the Adobe Connect platform. As well as attending online lectures, students can engage in online discussions, share desktops and collaborate on shard whiteboards, files and projects. The courses have been running for just under a year and all students and staff have reacted very positively to the delivery methods used. A key element of this success is ensuring that the three fundamental interactions, learner-content interaction, learner-instructor interaction, and learner-learner interaction, widely identified as crucial for blended learning, are facilitated by the structure of the programme. Some of the ground-level activity in the Institute is listed here.

Virtual Learning Environment (VLE) Supported Teaching

Over the past few years ITB has seen a marked increase in the levels of technology assisted teaching and learning. From humble beginnings, the Moodle powered VLE has grown from four modules in 2005 to over 350 supported modules in September 2009. VLE support is provided to academics by the e-learning coordinator, Daniel McSweeney. Both face-to-face and online training sessions are provided to staff wishing to learn about all aspects of VLE usage.

Screen Capturing Podcasting

Thanks in part to our NDLR funding, all academic staff machines have been installed with screen capturing and presentation recording software. This has enabled academics to create a range of useful resources for student across the institute. Places on a recent podcasting workshop delivered by NUIG's Paul Gormley were snapped up and we are delighted to report that the level of podcasting and video casting by staff has increased since.

Academic Honesty & Standards

Thanks to SIF II funding, ITB has now implemented TurnItIn and integrated it with its online VLE. This provides all ITB staff with the facility to create assignments that when submitted by students, are automatically checked for academic honesty and correct referencing.

Moodle Content Filter

ITB's Course page Content Filter for Moodle is being piloted this semester with computer science students. The aim of the filter is to facilitate searching through the linear list of learning objects typically associated with a module page using a range of filtering criteria such as file type; content adapted to a particular learning style; overview versus detailed objects; learning objects not yet viewed, mandatory objects versus additional reading, and searches based on keywords. Contact: markus.hoffmann@itb.ie, geraldine.gray@itb.ie.

Online Bachelor of Engineering in Mechatronics

This programme was launched for 13 students, mainly in the Dublin region, but including students further afield, with a variety of qualifications. This means that while some modules are common to all students, most students will be taking a selection of modules. The delivery format is a one hour Breeze broadcast of a lecture per week, delivered twice. The Practical Work is done Online through Moodle, with 4 Saturday sessions per semester. Lecture slides are also available on Moodle, with assignments and worksheets. In this programme, forms of interaction included email, phone calls, online discussion Forums and Tutorials, the Text Box facility and opening up micro-phones to the class.

There is also considerable interaction during the Saturday sessions. Contrary to intuition, current web-based online programme are not an alienating, mass-produced product, but are a labour-intensive, highly text-based, intellectually challenging forum which elicits deeper thinking on the part of the students and which presents, for better or worse, more equality between instructor and student. Initial feelings of anonymity notwithstanding, over the course of the semester, one-to-one relationships may be emphasized more in online classes than in more traditional face-to-face settings. Further information may be had from niall.campbell@itb.ie.

Tablet PC Initiatives

Again thanks to our NDLR funding, ITB has purchased a number of Tablet PC's for the development of learning objects. By combining screen capturing technology and tablet PC screen writing, the project has allowed a team of academics to create a number of learning objects based on topics ranging from maths to technical design.

Learning Objects for Data Mining

Following a successful request for funding to the NDLR Community of Practice (CoP) Fund in June 2009, ITB is currently developing a suit of 60 learning objects to support the delivery of business intelligence and data mining related modules at levels 7, 8 and 9. This is a collaborative venture with the open-source, data mining specialists Rapid-I. Contact: markus.hoffmann@itb.ie, geraldine.gray@itb.ie.

SECASE – Software Engineering Case Studies

SECASE – Software Engineering Case Studies
ITB has been a partner on the SECASE project, a Leonardo funded initiative to improve the effectiveness of third level computer science and software development education by giving teaching staff access to up-to-date and business-relevant case study material provided by the software industry. Partners included Association of Northern Ireland Colleges (ANIC) (lead partner) (UK), Institute of Technology Blanchardstown (Ireland), Fredrick Institute of Technology (FIT Cyprus), Momentum (UK), Irish Software Association (Ireland), Cyprus Computer Society (Cyprus), and Aries Formazione (Italy).

ITB developed a case study in the field of mobile gaming, using a legacy game made available by Eirplay Games, a leading web and wireless games publisher, and in addition developed and hosted the project website (www.secase.eu). Further case studies were in the areas of software for Human Resource Management (FIT), Software Testing (ANIC), and Software Development Life Cycle (ANIC). Multimedia educational material designed around the case studies, in the form of videos, assignments, lecture notes and software, is available through the project website for use by educators.

The LinC at ITB

The role of the Learning and Innovation Centre at ITB is to support economic growth in our catchment area, thereby creating employment and wealth. It has been given a separate brand identity, The LinC, to allow it to be a visible and active link between the Institute, the wider business community, and semi-state organisations concerned with trade and industry. By providing Enterprise support, Research and Development links and Education and Training programmes, we enable the creation or expansion of business ventures in Fingal and the Greater Dublin area, in particular in the high technology 'knowledge economy' for which Blanchardstown is well known.

Enterprise Support

The LINC supports start-up companies through the provision of incubation spaces; the provision of Enterprise Support Programs such as the M50 Enterprise Platform programme and the Enterprise Start program; Virtual Offices; Mentoring and Coaching and access to ITB facilities, research communities, graduates and students for placements and recruitment.

During the summer of 2009 the LINC significantly expanded its incubation space and together with an enhancement of its networking space, the capacity to foster new businesses will increase dramatically in early 2010. This expansion has been funded through Enterprise Ireland under the National Development Plan 2007-2013.

Research and Development

The LinC acts as the liaison between the research community in ITB and local industry, supporting the development of partnerships through funds such as Enterprise Ireland's Innovation Voucher and Innovation Partnership programs, the Department of Education Strand 1 programme, HEA programmes, the Leonardo programme, the Marie Curie Fellowship fund, IRCSET and IRCHSS. ITB has research groups in the areas of Graphics and Gaming; Elearning; Computer Forensics and Networking; Clinical and Bio-engineering; Intelligent Transport Infrastructure and Systems; Computer Linguistics, Computer Vision, Computational Intelligence and Data-mining; Language Education and Entrepreneurship.

Enterprise Ireland's Innovation Voucher scheme links local SMEs with third level researchers to work on innovative projects to develop their business.. Since the scheme opened ITB has completed eighteen projects with small companies and is currently working on an additional six.

Education and Training Programmes

The LinC and the have been heavily involved in the development of bespoke training programmes and special purpose awards, from the School of Informatics and Engineering and the School of Business and Humanities, to meet specific industry needs such as Ericsson Ireland, Damovo Ireland, CMAE Ireland, Intel, IBM and the HSE. As an example, ninety students from Damovo Ireland and Ericsson Ireland received dual accreditation from ITB and either CompTIA or CISCO.

The LINC has also hosted seminars for SMEs, agencies such as Fingal County Council, the Fingal County Enterprise Board and Enterprise Ireland and other Institutes including "Diversity in the Workplace", " SMEs and the local community" and "Technology Transfer and Licensing". For further details of any these programs or initiatives at the LINC please contact Assumpta Harvey 018851186 or linc@itb.ie



And Finally...

Developments within the domain of teaching and learning have progressed at ITB as the college environment has matured. The early initiatives in educational technology were captured in an Irish Scientist article published in 2001: <http://www.irishscientist.ie/2001/contents.asp?contentxml=01p98.xml&contentxsl=IS01pages.xsl>.

Although the underlying tools and technologies have changed the overall vision and challenge of making our education programmes accessible and flexible remains.

On behalf of the editorial team of Niamh O'Hora, Daniel McSweeney, Damian Cox and Larry McNutt a special thanks to all our contributors.