University Enterprise Network: Inspiring Enterprise in STEM

STEM UEN

Science · Technology · Engineering · Maths
University Enterprise Network

Contents

Introduction

STEM-UEN programme

The Science, Technology, Engineering and Mathematics University Enterprise Network (STEM-UEN) is a tripartite partnership model between industry, the universities and the public sector to encourage more effective business-university collaboration, support entrepreneurial development across the South East region and ensure all STEM students have access to quality enterprise and entrepreneurship education.

The Partnership

A partnership was created between representatives from industry, higher education and the public sector as follows:

- **Industry** – BAE Systems and Microsoft.
- **Higher Education Institutions (HEIs)** – Brunel, Kingston, Portsmouth, Royal Holloway and Surrey universities.
- **Public sector** – Department of Business, Innovation and Skills (BIS) and National Centre for Entrepreneurship in Education (NCEE).

The project begun in 2009 and was originally resourced by the South East England Development Agency (SEEDA) using singlepot funding and other partners' in-kind contributions. BIS took management of the programme after the closure of SEEDA to ensure the programme delivered its targets.

About NCEE

The National Centre for Entrepreneurship in Education (NCEE) stimulates the development of enterprise within the UK by working with leaders, academics and educators in the Higher and Further Education sector to develop their entrepreneurial capacity; www.ncee.org.uk.

Our Vision

The STEM-UEN aimed to achieve an open-innovation model where technological development flowed from universities to business, especially Small to Medium Enterprises (SMEs). The partnership would generate both technology and economic value, positioning universities as knowledge hubs within the local SME community and developing a culture of enterprise within STEM subjects' higher education. The goal was for the Network to become self-sustaining, creating a blueprint for successful technology partnerships of which all relevant business/HEI organisations would seek to become part.

Objectives

Priority Area 1 – Technology Development
To inspire the development of Advanced Technology amongst STEM students and its adoption by SMEs and identify new opportunities for Intellectual Property (IP) exploitation and encourage innovative HEI/SME partnership projects.

Priority Area 2 – Enterprise Development
To embed entrepreneurial learning across STEM subject education, encouraging the transfer of STEM skills into SMEs and the creation of enterprise skills across STEM graduates.

Management and Governance

Oversight of the STEM–UEN was undertaken by a Management Board which drew senior representatives from all partners and NCEE. NCEE chaired the Management Board which, in addition to agreeing the plans, was responsible for the budget, monitoring performance and reporting to the funding body.

NCEE acted as the accountable body for the STEM-UEN programme. The organisation ensured the successful financial and project management of the programme. The project administration was delivered by the Higher Education Entrepreneurship Group (HEEG).

The successes of this project are mainly attributable to the strong partnership developed. The willingness of employers to articulate and share the higher level skills needs of their industries and provide information on the future direction of their companies was of key importance.

Skills Assist

![Brunel University London logo]

Knowledge and Commercialisation Seminar

Brunel University

Background

By bringing academic researchers together, this course aims to help University staff to see the bigger picture and the impact surrounding his or her research from the perspective of knowledge exchange and commercialisation (KEC). Companies are increasingly realising the importance of 'external innovation' and Universities are at the forefront of providing society and industry with vital ideas and research. These interactions can allow companies to benefit from increased productivity and competitiveness. However, academics often have little exposure to industry, often underestimate the value of their intellectual assets and are often not aware of the benefits that KEC can provide to themselves, their institution, the economy, and society.

This introductory course aims to provide relevant hands-on knowledge of:

- The principles underlying BBSRC KEC policy.
- Brunel's Intellectual Property/Knowledge Transfer policies and strategy and the people responsible for implementation.
- What constitutes IP assets and how these can be used and protected to maximise impact.
- The role of IP in contracts, grants and Material Transfer Agreements (MTAs) and how IP matters can be safeguarded during interactions with third parties.
- How intellectual assets can be used to maximise impact and the benefits/pitfalls for the researcher and the University (i.e. publish or protect and spin out or licence).

- How impact can be measured and assessed.
- When to disclose or disseminate to achieve greater impact.
- Creating a best practice relationship with the technology transfer office to appropriately protect intellectual property assets.

The overall aim of these seminars is to highlight how knowledge exchange and commercialisation of bioscience research can deliver benefits to the economy, the public and the wider potential of its impact on society.

Skills Demand

Support to help deliver events to discuss, improve awareness and enable the sharing of best practice as to how knowledge exchange and commercialisation (KEC) can deliver benefits to the economy and society from the excellent research and capabilities funded by BBSRC.

Learning Outcomes

- The principles underlying BBSRC KEC policy.
- The University's policies and strategy with respect to intellectual property/knowledge exchange and the people responsible for implementing this.
- What constitutes IP assets and how these can be used and protected.
- The role and impact of IP in contracts, grants and MTAs and how intellectual property matters can be safeguarded during interactions with third parties.
- How intellectual assets can be used and the benefits/pitfalls for the researcher and the University of the different approaches that can be taken (i.e. publish or protect and spin out or licence).
- When to disclose or disseminate to achieve greater impact.
- Creating a best practice relationship with the technology transfer office to appropriately protect intellectual property assets – in order to maximize the value of the asset while minimising the effect on research activities.

Activity

Once all intellectual assets associated with research activity have been taken into account, it is essential to effectively take forward research outcomes in order to maximise their public benefit and impact. The seminar allowed staff to become familiar with the basics of what constitutes intellectual assets and what arrangements exist within Brunel for dealing with these assets.

Staff attending the programme will be sent a questionnaire 6 months later and then a follow up one year later to assess the impact of this seminar and other Brunel KEC support on their research engagement and commercialisation impact.

Target Audience

These are the Schools whose research activities in part relies on the invaluable grant funding and support provided by the research councils namely the BBSRC and EPSRC:

• School of Health Sciences and Social Care.
• School of Engineering and Design.
• School of Information Systems, Computing and Mathematics.

Our target audience comprised a mix of principle investigators, postdocs and PhD students:

• School of Arts: 1
• School of Engineering and Design: 3
• School of Health Sciences and Social Care: 1
• School of Information Systems, Computing and Mathematics: 1
• School of Sport and Education: 1
• Administration/Academic support: 1
• Brunel Centre for Advanced Solidification Technology: 2
• Brunel Institute for Bioengineering: 3
• Experimental Techniques Centre: 1
• Institute for the Environment: 2
• Wolfson Centre: 1

Impact

The specific objectives of the course were:

1. To improve the interaction of research staff with members of Brunel's Research Support and Development Office leading to a 25% increase in technology disclosures and collaborative support enquiries over the next 2 years.

2. To provide staff with the knowledge to better assess and measure impact from their research leading to more measurable and improved impact statements on research grants and funding applications.

3. To encourage staff to think more proactively about exploitation opportunities leading to improved deal flow over the next 2 years.

We believe we have achieved the SMART Objectives by enabling University staff to see the bigger picture and achieve/measure impact surrounding their research from the perspective of knowledge exchange and commercialisation (KEC). The feedback showed that 83% of attendees said that the course had been useful in increasing understanding of intellectual assets and impact issues.

Comments

Overall feedback: Overall almost all attendees rated the seminar as excellent or good (77%). The feedback was positive and almost all attendees enjoyed and benefited from the seminar.

Who can I contact for more information?

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Technical Entrepreneurship Module

University of Surrey

Background

This is a totally new module developed and delivered by the Department of Computing (Faculty of Engineering and Physical Sciences) at Surrey. It centres around developing a plan for new technology businesses, giving STEM students the opportunity to develop and test their entrepreneurial skills in a dynamic and interactive environment. The module could not have been designed or delivered without assistance from the STEM-UEN – in fact the Dean's approval was contingent on securing this funding. As a result of STEM-UEN assistance, 55 technology based students have had the chance to think differently and:

• Recognise a technical business opportunity and evaluate its potential target market.

• Devise and deliver a business plan for a new or early-stage business based on a technical opportunity.

• Understand the key elements required to start a technology business.

Skills Demand

Experience within Surrey and elsewhere has evidenced the fact that enterprise programmes and entrepreneurial ideas are often incubated in business schools rather than in the science and engineering disciplines. It is a generalisation of course, but nonetheless often the case, that student scientists and engineers are focused on their research and specific technologies whilst perhaps missing out on support or guidance in terms of commercial thinking and development. The Technical Entrepreneurship Module directly addresses this skills gap.

With specific reference to the Module content – computing has innovation at its core. New ideas for software, novel uses of existing devices, or ways of solving business problems with technology underpin successful, small to global technology companies. However, taking an invention or innovation and turning it into a successful business requires key business skills such as planning and marketing, management, commercial acumen, finance, and an understanding of the legal requirements of the business – together with a lot of hard work. The Module explores how to set up a new technology business and grow it, including understanding target markets, finding funding and establishing a brand, all summarised in a business plan.

Learning Outcomes

By the end of the Module, the students should be able to:

• Recognise a technical business opportunity and evaluate its potential target market.

• Understand the key elements required to start a technology business.

• Relate different types of business models and identify the strengths and weaknesses associated with each, with particular regard to technology start-up/early stage businesses.

• Understand the key role of IP to a technology business, and how to protect it.

• Distinguish between business strategies which may lead to success or failure of a new business.

• Devise and deliver a business plan for a new or early-stage business based upon a technical opportunity.

Activity

The teaching/learning style of the designed module is highly interactive, giving students the opportunity to put into practice a range of the concepts and practices taught. Timetabled sessions involve group work and role playing, such as "Dragons Den" style exercises, as well as lectures and tutorial time. The more formal aspects of presenting business cases as part of an assessment can be further practised as a follow-up activity in associated Module – COM3007 Managing Information Systems.

Innovative features

Examples of innovative content and delivery:

- Highly interactive.
- Practical application of concepts taught.
- "Dragons Den" style exercises.
- Real world focus, closely linking University teaching to business applications.

Target Audience

The target audience was STEM students. They benefited from the Module in terms of being encouraged and guided to apply entrepreneurial thinking and approaches to technology ideas. Participants were able to make the connection between doing a technology based undergraduate degree and potential opportunities in the business world.

Collaborative Activity

The University of Surrey has one of the highest graduate employment rates of any University in the country and has very robust links with industry. Its ownership of the Surrey Research Park and the business incubation facilities that are located there, provide ideal opportunities for the growth of ideas and of, in particular, technology businesses.

Impact

The Module successfully achieved all of its stated objectives. It's interactive teaching style in particular, fully engaged the participants and encouraged innovative thinking and entrepreneurial spirit.

55 STEM student benefited, and the legacy is 55 students who now see the potential of translating technology based degrees to real world businesses – perhaps as business owners and future employers.

Who can I contact for more information?

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Kingston University London

Bright Ideas – supporting STEM

The Bright Ideas competition, a regional competition involving 7 universities in London and the South-East, developed its science interest through the STEM-UEN.

Over the period, the number of STEM related ideas, including Apps, games, web-based businesses and social enterprise, increased. Nearly 200 ideas involving websites, Apps, or other technology-based businesses were proposed, many of them highly feasible.

The network contributed STEM targeted prizes, speakers, and a new focus to encourage engagement. The final prize-giving event was lifted to a gala, and students were able to network with speakers from Microsoft and other relevant companies.

The new focus enabled us to provide targeted support for students in these fields. For instance Kingston University is now appointing a Visiting Entrepreneur for STEM subjects to work closely with relevant students.
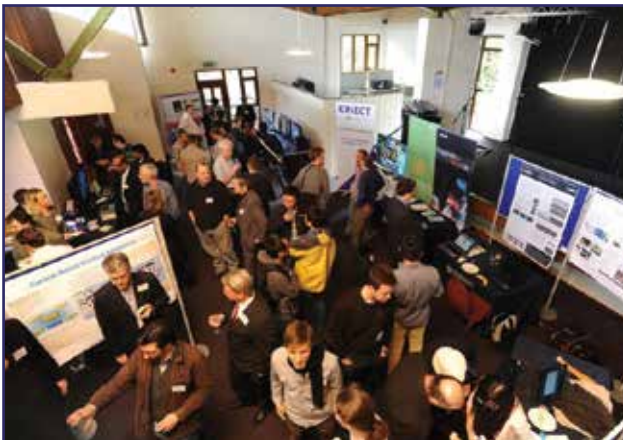
Bright Futures – an intensive programme for enterprise skills

Bright Futures is the 2 day programme run for the WestFocus group of universities. Through the STEM-UEN, the programme was enhanced with a stronger focus on technology-based businesses. Each event includes inspirational entrepreneurs, and recent events have included technology based entrepreneurs sharing their experiences. This in turn has attracted more students from science and technology-based subjects.

The programme revolves around a series of team-based games which enable students to mix together across disciplines and years. About 180 students have participated through the STEM-UEN. The programme is designed to enhance team-working, provide knowledge and experience about the start-up process, and also build new networks among students.

Who can I contact for more information?

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Business Support

University of Portsmouth

Background

Finding a solution to a business problem is best achieved by listening. We work with our clients to identify areas where we can make a difference and then engage on a programme of work that realises results.

The University has an excellent track record providing effective solutions to organisations that lead to efficiency and increased output or profitability. These solutions range from traditional manufacturing solutions – developing new materials or rapid prototyping a new product, through to more advanced techniques such as artificial intelligence – developing fault prediction technology and also incorporate more traditional challenges such as business analysis – developing fraud resilience or innovative business marketing plans.

The University works with organisations of all sizes, below are a number of the ways that we work and have worked with businesses and organisations to deliver solutions to challenges:

- The University undertakes research and development programmes for businesses of all sizes.

- Business consultancy is key. The University of Portsmouth can provide expert knowledge in a wide range of areas in order to help advise and support businesses.

- Where a company has a specific problem and the funds to engage the University's expertise directly, we can undertake contract research. Scope of work is agreed alongside a contract and the work is completed within a specific timeframe.

- The University can help pinpoint and direct organisations towards private and public funding which can be used to supplement or fund research and development activity undertaken by the University.

- Knowledge Transfer Partnerships (KTPs) are Government funded programmes, where graduates embedded in an organisation work under the supervision of an academic to deliver a strategic or business growth project.

One such example of the business support we provide to external companies can be seen below:

Mayer Brown specialise in civil engineering and transport planning consultancy. Mayer Brown and the University of Portsmouth have developed and validated Sustainable Urban Drainage Systems using reed-beds.

Sustainable Urban Drainage Systems which are informing housing stock designs and developing construction methodologies that will reduce the flooding and pollution associated with new housing developments. Mayer Brown is now established as a market leader in this strategically important area of housing design.

Dr John Williams from the School of Civil Engineering and Surveying brought a wealth of expertise in water quality management. This included extensive work examining the use of reed-beds in the UK and overseas, including research on SUDs (Sustainable Urban Drainage) systems treating runoff from the A34 Newbury Bypass.

Drawing from his experiences developing working systems in global locations, he was able to advise the company on best practice, develop a sampling regime and ensure the solutions were both efficient and environmentally friendly.

Opportunities

- Access to the in-depth knowledge and applied experience of our academic experts.

- State-of-the-art facilities to hire for research and development supported by academic and technical specialists.

- Opportunities to benefit from engaging our highly-motivated students & graduates.

Business consultancy is key.
The University of Portsmouth can provide expert knowledge in
a wide range of areas in order to help advise and support businesses.

Target Audience

Our business support is aimed at businesses no matter how large or small. We offer tailored services depending on the size and needs of the business we are working with.

Impact

Monitoring of water quality has confirmed the effectiveness of the innovative designs produced by Mayer Brown. A highly successful dissemination event was held where 80 key SUDs stakeholders attended a mini conference on the Newlands SUDs, underlining the project's achievements.

The project has increased Mayer Brown's profile and led to them being recognised as the technical leaders in this field.

Who can I contact for more information?

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New
Business
Start

University of Portsmouth

MediaBlaze Hosting Ltd

University of Portsmouth

Background

The University of Portsmouth is dedicated to helping students and recent graduates who are interested in starting/developing their own business.

The University of Portsmouth has been supporting enterprise activities since 2000 and recently went through a transitional period. During this time the Student + Graduate Enterprise Team wanted to introduce new methods of supporting business start-ups. Enterprise drop-in clinics were introduced to allow students and graduates to meet with an experienced member of the Enterprise Team. During these meetings a generic diagnostic tool is used to identify what the next course of action should be for the business start-up.

"We pride ourselves in the passion and hard work we put into all our services and in particular our first class customer support."

The drop-in clinics are open to all University of Portsmouth students and graduates (up to 5 years). The new approach of holding these clinics has been particularly popular with STEM students, arguably because they are easily accessible, jargon free, action orientated in a relaxed environment where ideas are turned in to reality.

To further support our business start-ups a range of services and resources are available. This includes e-mentoring, continued personal support, a variety of on-line resources and a Start-up Hub.

Recent start-up business, MediaBlaze Hosting Ltd is one such business using the services of the Student + Graduate Enterprise Team at the University of Portsmouth.

Incorporated in April 2013, MediaBlaze Hosts is a Portsmouth based co-operative business offering a range of services from basic web hosting to fully fledged Point of Sale systems with integrated database services.

The MediaBlaze Host team is made up of three highly motivated and enthusiastic individuals:

Managing Director – Liam MacLeod

A third year Computer Network Management and Design student at the University of Portsmouth, Liam's experience lies with Windows and Linux based systems, network management capabilities and designing and implementing networks. He also runs private servers and maintains current resold servers.

Marketing Director – Vicki Parker

A Journalism and Media Studies graduate from the University of Portsmouth, Vicki has five years experience and is keen to use her skills and knowledge to develop for the digital age.

Creative Director – Tim Shelton

An Entertainment Technology graduate from the University of Portsmouth, Tim has been working on a freelance basis for small businesses and consumer clients in brand creation and graphic design before joining the MediaBlaze Host Team.

MediaBlaze Host supply services nationally, providing clients with a dedicated sales and support manager as a point of contact within their registered area of trading.

As a student and graduate start-up, MediaBlaze Host are aware of the difficulties of starting up while still studying. They are keen to help support fellow student start-ups and offer specialised student packages.

Skills Demand

Many students and graduates visit the Enterprise Team with ideas but don't necessarily know how to develop these into a viable business. There may be an area of knowledge that they are missing and therefore come to us for information, advice and signposting on a specific topic. This skill/information gap is where the Student + Graduate Enterprise Team can help.

Learning Outcomes

The learning outcomes are:

- To help students and graduates develop their business idea and to move it to the next stage.

- Provide support throughout the start-up process.

- Develop a community of entrepreneurial University of Portsmouth students, graduates and alumni.
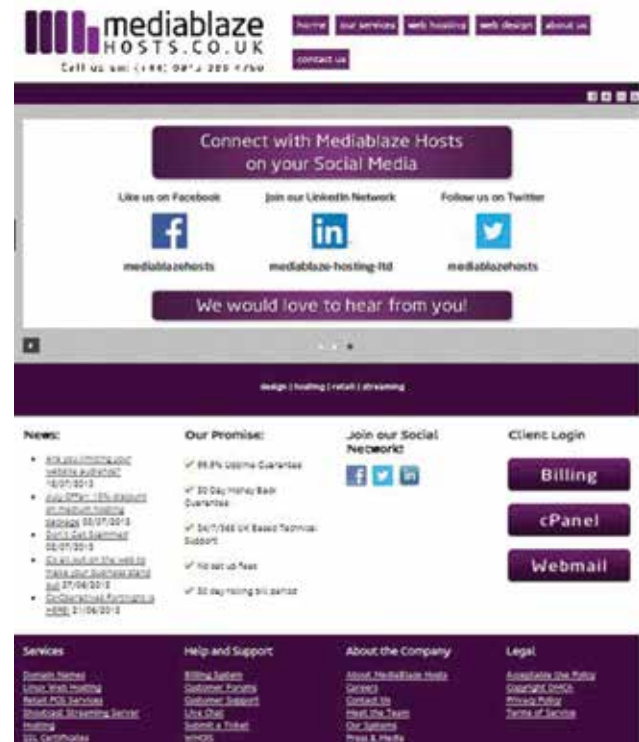
Impact

The overall impact of the services offered by the Student + Graduate Enterprise Team aimed at New Business Start-up is great. Not only do we aim to provide business and start-up advice but create and develop a confidence in the individual/ teams that we work with in developing their start-up.

Who can I contact for more information?

Main contact at MediaBlaze Hosting: Liam Macleod
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"The Student + Graduate Enterprise Team helped us to move our business forward by providing the support we needed in various aspects from funding and in particular cash flow forecast creation to budget planning and working out our expenses. Without their help we would not be in an office space or be able to focus on the areas of the business that needed care and attention in order to move us forward and grow."
Liam MacLeod, MediaBlaze Hosts.

Business Creation

University of Portsmouth

Activity

To help our entrepreneurial students who have a desire to start their own businesses, within a number of the University faculties we launched Entrepreneurial Placements, where students who were eligible to take a placement year in industry could apply to start their own business during this year.

> "The graduate market is tougher and more competitive than ever before meaning that students must work harder to develop the business skills needed to make them stand out from the crowd. A placement year is a great way to build this experience."
> The Telegraph, September 2012

Allowing students to start their own business with support from the University, allows them to gain a great range of skills and experience for when they graduate. This placement opportunity allows the student to establish if running their own business is for them. After the year, they may choose to continue running their own business and others may decide to find a job within a company upon graduation – the Entrepreneurial Placement provides students with a great foundation of experience for both options.

This process allowed us to support New Business Creations. The University of Portsmouth so far has helped 7 student businesses launch using this model.

Little Kraken are just one such example, here is their story:

Little Kraken Games Studio is a Games Development Company. The company was formed as a placement opportunity, for the team to learn the fundamentals of business and games development, and as a means to push themselves and achieve their full potential as developers and individuals. Little Kraken felt that a traditional placement opportunity could not offer the same rewards and possibilities.

Little Kraken started their journey through the Student Enterprise department at the University of Portsmouth, making a small mark in the Universities enterprise environment by entering various competitions aimed at supporting student startups. One of these in particular was the Microsoft developer phone camp. The Krakens travelled to London to demonstrate their dedication and skill, with this fortunately paying off and them leaving with a Nokia Lumia smart phone for testing and development.

The Krakens kept their ears to the ground, looking for other opportunities.

It paid off and the team was named runner-up in the University's Enterprise Challenge Competition. This provided the team with a bit more recognition and the confidence to push themselves forward into planning and development.

Additional support for the business came in the form of the University's PIPEline programme, an intensive course that covers the basics of starting your own business. All students who undertake an Entrepreneurial Placement are enrolled on the course alongside other students and graduates who are interested in starting their own businesses. PIPEline participants take part in a range of interactive workshops which cover subjects such as the fundamentals of starting a business, marketing on a budget, tax, intellectual property and much more. In addition to this they are paired with a mentor who is there to provide support in developing their business idea.

Additionally students have access to continual support from the Student Enterprise Team and the Faculty Placement Tutor throughout their placement year and thereafter.

Incredibly, during the cleaning out of the main in the building in which they were located, the team found a large cache of retro games in great condition, mostly new and sealed. With the advent of modern trading through sites such as Amazon and Ebay, the team had the potential to start selling these games, giving the essential capital that was needed to propel the company forward. Such was the beginning of Gaming Essentials, a global online retailer for games and gaming-related peripherals.

In addition to the steady income from Gaming Essentials, Little Kraken's main aim was to build and develop games and Apps mainly for Window devices, and this is just what they did.

Through several strokes of luck and much determination, the Kraken's obtained links and contacts to distributors, providing the Gaming Essentials store with current and new products. This inevitably helped Gaming Essentials to propel forward and sequentially expand, from small orders on Amazon to a constant stream of orders globally, from Amazon, Ebay and their own eStore.

8 months down the line and where are they now:

Little Kraken have been frantically busy with development on and in their business. So far they have:

• Won a contract to develop a Windows 8 Cooking application with some very unique USP's, taking a 33% share of their business and a development fee to.

• One of the team left to pursue his studies and own venture.

• Opened their first business bank account and are VAT registered.

• Developed relationships with wholesale suppliers in the games industry, gaining a great credit limit with their main supplier.

• Have developed links with a big Publishing Company after selling their products on Little Krakens online marketplace. The publishing company has offered to review their game at the testing stage and give Little Kraken feedback.

• The online retail department has been extremely busy over the Christmas period turning over a £100,000 in a period of 4 months. 71% of this turnover was produced in the month between the 10th November and the 10th December. This side of the company is to provide financial support for the development of Little Kraken's own games and products.

• The production work on Little Kraken's own title is now around 65% complete.

• Little Kraken have found a development niche in the form of Windows 8, and with the exposure they have gained through this they actively have enquiries from other developer and companies to explore how Little Kraken can help them launch on the Windows 8 Store.

Innovative features:

Examples of innovative content and delivery:

- Students are able to start their own businesses with access to continual support from the University and our network of experts.
- By exploring different business models through the support offered and by their own prototyping and testing, Little Kraken have exemplified the type of 'lean' approach necessary for new business creation.

The current model for games development and publishing demanded a different approach to wealth creation – resulting with a consumer-facing retail games operation supporting the more 'traditional' development studio.

Target Audience

University of Portsmouth students looking to undertake an industrial placement between their 2nd and 3rd year at University.

So far we have seen 7 student business creations through this method.

Who can I contact for more information?

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Knowledge Transfer Activities

App Development Event with Microsoft

University of Portsmouth

Background

The University of Portsmouth in partnership with Microsoft held a one-day App Development event in April 2013.

We have a lot of students at the University that have an interest and/or skills that allow them to work with the idea of being able to build Apps. With this growing interest we wanted to build on their existing knowledge and help develop it further.

Working in partnership with Microsoft allowed us the opportunity to develop our student's knowledge in an area that was relatively new to them – Apps on the Microsoft 8 platform.

Within the curriculum some of our courses cover App development, but at present with Microsoft 8 being a fairly new platform, we wanted to provide our students with specialist knowledge to be able to enter this market. There is huge potential in the App industry and we wanted to help our students to become strong competitors in this field.

A key element of the day was to encourage students with their own ideas through hands on demos and feedback from the Microsoft team.

"Very enlightening and aspirational."

"Learning about the tools, APIs, approval processes and generally the technical information given were all really useful aspects of the day".

Skills Demand

Some of our courses of the University cover the subject of App development; however, at present using the Windows 8 platform is not part of the curriculum. With App development being a competitive industry we wanted to help our students to compete in this emerging market.

Additionally we have students who study non-technical degree courses who have a keen interest in the subject – for instance those in the creative industries. With this in mind we wanted to provide these students with the opportunity to develop skills that would allow them to enter into the Windows 8 app development market.

The event was designed to teach anyone, regardless of their background knowledge of App development, how to build his or her own Windows 8 App.

The skills gap was identified mainly through feedback gathered from students, lecturers and also graduate employers.

Learning Outcomes

• Understand the basics behind App development, in particular on the Windows 8 platform.

• Provide students with the skills and knowledge to develop Apps (on the Windows 8 platform).

• Engage students in team collaboration & networking.

• Aid students with the tools and knowledge to be able to compete in this market.

Activity

The App Development Day was designed to engage local tech start-ups and final-year students in a 1-day long programme of talks and demonstrations from the leading experts in Windows 8 App Development. The key aim was to demonstrate how students could use the readily available toolkit provided by Microsoft to build quality Apps and to also make them aware that App development is a viable career path/business.

Speakers representing Microsoft, Nokia and Wapple/Didlr were invited to cover a wide range of subjects based around the topic. The event culminated in a 1.5 hour Hackathon which challenged delegates to create an App with the top three Apps – selected by industry judges – winning prizes and further support:

Speakers included:

• From Microsoft: Andrew McCartney, Lee Stott, Martin Beeby and Andy Wigley.

• From Nokia: Adam Giles.

• From Developer: Rich Holdsworth, Wapple.net

These 6 keynote speakers from Microsoft and Nokia respectively shared their experiences and know-how on the range of platform development opportunities (phone & tablet platforms such as Nokia, HTC and Samsung) for App-building enthusiasts. This was followed by detailed technical sessions on the specifics of building a Windows 8 App – covering aspects such as 'live tiles', 'snapped view' and 'sharing charms' concluding with details on how app developers could access over 200 markets in the Windows Store.

The twilight-session 'Hackathon' resulted in 26 teams developing their own App.

The winning App was called 'Knock' made by Ben Beagley, Matt Carron and Ian Cant. They are now looking at developing their App and release it on the Windows store in the next couple of months. They won two Nokia 710 Windows phones.

In second place was Peter Beckett; he designed an unofficial Formula 1 fan page App. In Third place was Vytas Dauksa; he designed a University of Portsmouth App.

Other App entries included; an AppleApp to help people find their closest Apple store, Costa and Starbucks App.

Soleiman Kodok tweeted
"It's always nice to have something explained to you by the creator himself. So I am definitely going to give it a try."

Jenny Shi, Senior Lecturer in Employability and Enterprise at the University of Central Lancaster said; "It was really really good; practical and instrumental. I will use it to enhance my own students extra curriculum. Presenters were knowledgeable and helpful."

Innovative Features:

- Real time demonstrations of use of technologies.
- 1.5 hour Hackathon asking students to develop a fully functioning, saleable app.
- Immediate feedback from experts of students Apps.

Target Audience

The activity was primarily aimed at start-up developers in the Portsmouth region, which included both local developers already in business and a significant number of University of Portsmouth students.

123 participants attended in all.

Collaborative Activity

The University of Portsmouth worked in partnership with Microsoft. The relationship was developed through the STEM-UEN partnership.

Impact

All participants were able to benefit from the day in different ways. More experienced delegates were able to build on their knowledge while 'new comers' were able to gain an insight into the platform and were encouraged to become more involved. Participants benefited from networking, having real-time demonstrations and feedback from experts on ideas all of which provided a strong positive impact for future developments.

Comments

We have had numerous requests for similar events next year.

The broadening of such events – held on a regular basis – to regional start-ups could be beneficial. So too, follow-up activities that build on the energy and enthusiasm for knowledge exchange.

Our event has been the catalyst for a small cluster of enthusiastic technology entrepreneurs to pursue their ambitions.
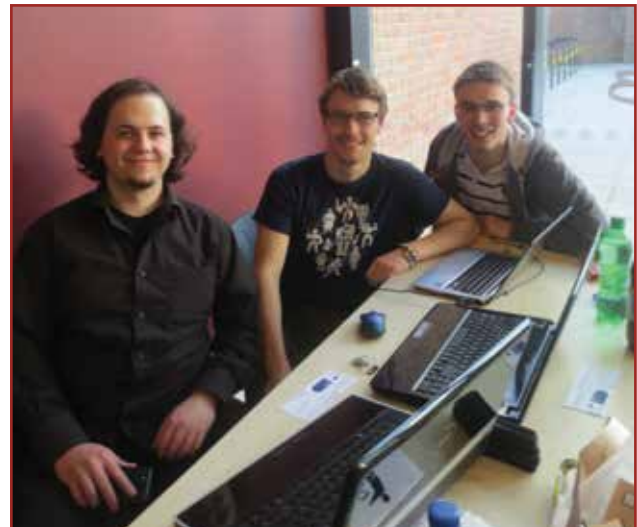
Who can I contact for more information?

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Kingston
University
London

Kingston University London

Background

Kingston University is committed to supporting business growth. As part of this commitment Kingston University held a total of 8 Knowledge Transfer events through which Kingston staff disseminated their research expertise and findings to a commercial audience. Academics were able to showcase their expertise and applied research. Thirty-nine academics participated, on topics ranging from near-field communications to smarter healthcare. Typical feedback was positive about the events and their content: "Terrific, focussed event which gave an exciting insight into emerging health technologies".

In turn commercial organisations shared their thoughts and expectations of future needs and technology. The events, supported by Microsoft and BAE, attracted 77 SMEs.

These knowledge exchange events were supplemented at Kingston by targeted events aiming to help academics develop the confidence and skills to communicate with enterprises. Networking skills, negotiation skills, and live cases of knowledge exchanged provided useful support.

List of events:

- Advanced Digital Media Technologies for Creative Industries.
- Enterprise and Employability for STEM.
- Cloud Computing: enabling Innovation.
- HEEG and STEM-UEN Entrepreneurship for STEM: Science, Technology, Engineering and Mathematics in an Entrepreneurial World.
- Kinect for Life.
- BAE Communications Technologies.

- Innovation in Enterprise Education: working with STEM and other disciplines.
- Smart Healthcare: technology revolutions in delivering healthcare.
- Developing an Enterprising mindset through Apps and games development.

Activity

Developing an Enterprising mindset through Apps and games development

A Kingston University objective was to engage with more students from the STEM disciplines. The STEM-UEN brought new resources into the university which helped to get both student and staff buy-in.

In particular, Microsoft sponsored 3 intense workshops on App and game development. They provided software for the Kingston University games lab, people to run the workshop, and prizes for students who developed promising Apps. This is the first time that events like these have run at the university, and over 150 students have attended.

While two of the events ran over half a day, one was a 24 hour game jam / hackathon. The 24 hour hackathon in particular helped create new thinking about possible ways of engaging students with the potential outputs of their skills.

Students were able to talk to Microsoft and Nokia representatives, learn about commercial aspects of selling Apps, develop their skills in a programming language they hadn't tried before, and develop an app or game prototype, some for the first time.

Lecturing staff who have become involved have found it relatively easy to engage, and have now built in activities like these to their module timetables. This is a substantial step towards making curriculum more open to business, creating new opportunities for students.

Quotes from delegates attending Kinect for Life:

"A very enjoyable and informative event!"

"Brilliant approach to gather researchers and hospital/board experience to further push the uses of this new technology and help networking in the field"

"Really useful day. Good mix of presentations and very useful opportunities for networking"

Who can I contact for more information?

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Innovative Features:

• The availability of the Microsoft software suite in Kingston University computer labs has enhanced the educational service we are able to provide to students, and made it possible to continue offering these workshops in the future

• 24 hour game jam/hackathon.

Collaborative Activity

Kingston University has successfully developed collaborations with Microsoft and BAE systems and ICT KTN. Kingston University in partnership with Microsoft delivered events such as 'Kinect for Life' and 'Developing an Enterprising mindset through Apps and games development'. Kingston delivered 'BAE Communications Technologies' knowledge transfer event with BAE Systems and 'Smart Healthcare: technology revolutions in delivering healthcare' in partnership with the ICT KTN.

Impact

The STEM-UEN programme has enabled the university to embed enterprise more deeply and widely into the staff culture. It provided excellent opportunities for enhancing existing practices and drawing together strands of activity, and supporting developing staff enterprise skills and engagement.

Quotes from delegates attending the Advanced Digital Media Technologies for Creative Industries:

"Very informative day. Great to have the opportunity to both learn from and engage with both industry and academia"

"Overall, the event was better than I expected, in particular, the demos"

Achievements

Between 2012/13 the STEM-UEN programme achieved the following outputs:

OUTPUTS	DESCRIPTION	1 Apr 2012 to 31 Mar 2013
Business Support	The number of businesses given a minimum of two hours coaching/mentoring/advice	95
Skills Assist	The number of residents given a minimum of six hours' development to improve their entrepreneurial skills	675
New Business Start	New businesses registered with HMRC	18
Business Creation	New businesses that have been successfully created and demonstrated growth into the second twelve months of trading	5
Knowledge Transfer Activities	Inter-organisation meetings between researchers, academics and industry leaders, developing cross-sector collaboration and sharing good practice	15

"As a founder STEM-UEN technology member, Microsoft has truly valued the University and student engagement catalysed by STEM-UEN to promote Science, Technology, Engineering & Maths in the UK".
Geoff Hughes – Business Development Director, Microsoft.

For general information about the STEM-UEN programme please contact:

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