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Impacting on the undergraduate experience through interdisciplinary industry collaborations – ICE

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Impacting on the UG experience
through interdisciplinary
collaborations

“ICE”

Innovation and Creative
Exchange



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“ICE”

The Innovation & Creative Exchange



**INNOVATION
CREATIVE
EXCHANGE**

- **VPI – Jonathan Sands OBE (Chairman of Elmwood)**
- **Embedding Enterprise Education**
 - through interdisciplinary industry collaborations
- **Dynamic and unique environment**
 - outside the traditional curriculum
 - UG (second years) engage in industry led challenges
 - challenges cross discipline boundaries (newness)
- **Disruptive parameters to impact on learning**
 - time controlled environments
 - challenging students both creatively and technically (competitive)
 - developing entrepreneurial skills

Bridging the gap between design & engineering through the creation of a network of exchange to develop a legacy of learning

Benefits



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- **Sustainable solutions to complex problems**
- **Refining current research problems at their interface**
- **Providing stimulus to discipline area**
- **Challenge current knowledge and understanding**
- **Develop new methodical approaches**

Challenges

- **Discipline silos**
- **Understanding epistemological perspectives**
- **Commercial sector (trust)**
- **Cross-fertilization across discipline boundaries**
- **Interdisciplinarity is largely a new concept on UK HE**
- **Skill set in HE underdeveloped**

Collaboration

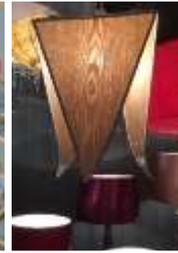


What do we mean by “collaboration”?

- **Cross disciplinary: viewing one discipline from another**
- **Multidisciplinary: same problem independent perspectives**
- **Interdisciplinary: integration of disciplines**
- **Transdisciplinary: problem specific integration**
joint problem solving, science & society

Interdisciplinarity: Involves the combining of two or more academic disciplines into one activity. It is creating something new by crossing boundaries, and thinking between them.

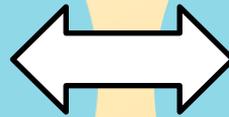
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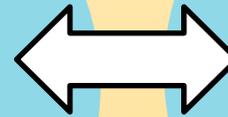
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>>>>INSPIRE>>>>INNOVATE>>>>IMPACT>>>>

Design
Challenges



Industry
Challenges

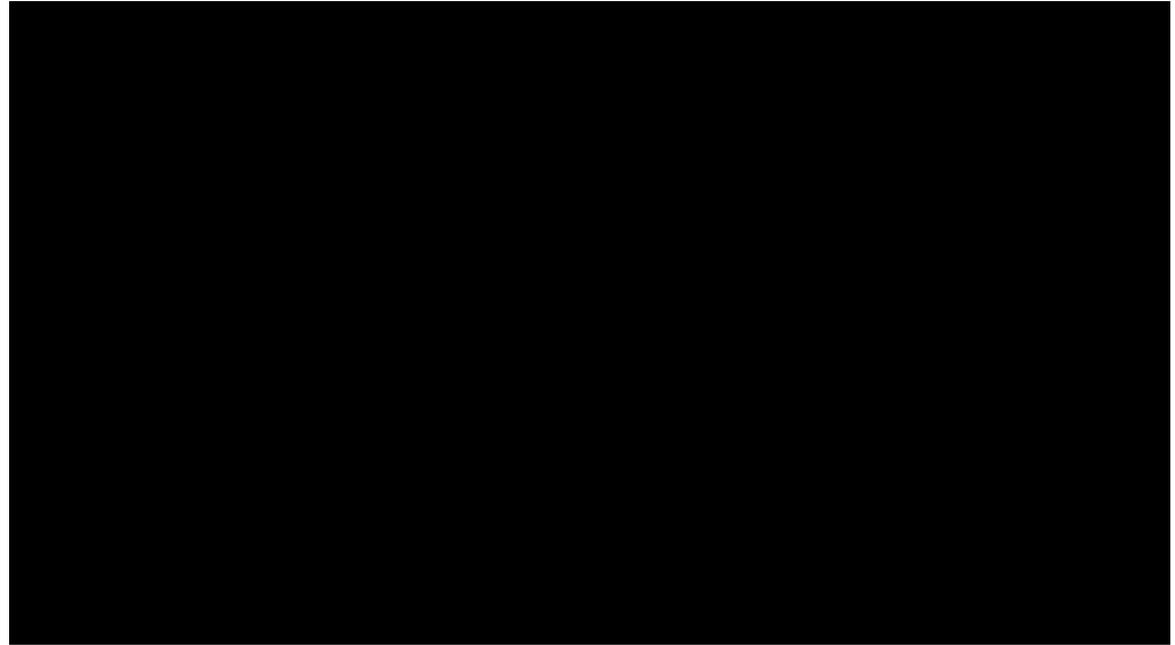


Discipline
hopping
interns

7 hour Industry Challenges

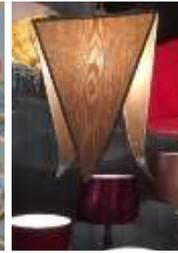


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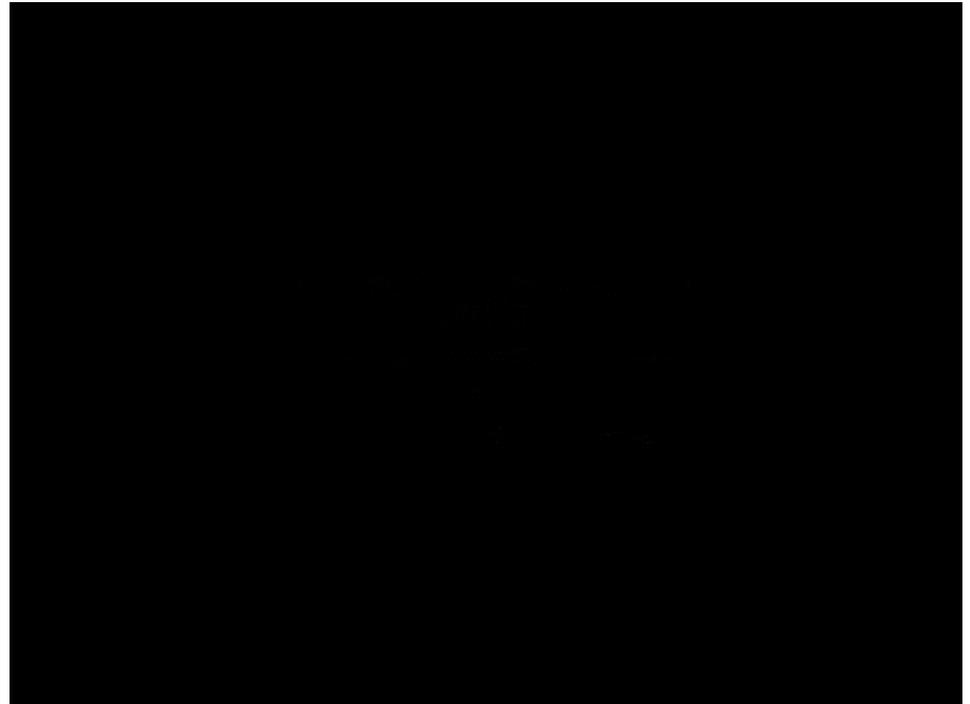


"It's a fun and creative event. I really enjoyed it. Very useful event, we should have more interdisciplinary activities to encourage the type of idea generation that has happened today."

24-hour Design Challenges



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“judging the 24-hour design challenge was a pleasure and revealed an impressive arsenal of talent the University of Huddersfield has amongst the students. When placed under pressure, right brain instinct coupled with pragmatic decision making, causes inventive and exciting concepts and solutions. Events like the 24hr Design Challenge are a great example of where you'll see this in action.”



Internships



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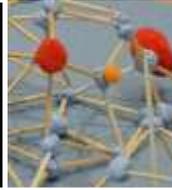
“This was our first year in dealing with The University of Huddersfield ... We were a little sceptical to begin with and were not sure how this could benefit an engineering company. How wrong we were, Eleanor has made a fantastic contribution to our business and upgraded many of our presentations, photographs, posters, brochures, etc. As our Quality Manager commented Eleanor has brought us into the 21st Century. It has been a joy working with Eleanor ...”

(Charles Stanley, Head of Commercial).

The internship allowed me to experience what it is like to work within a company, completing graphic design work for a variety of different people. I think my ability to work with people, and within a team has improved as a result of this. The placement brought new challenges and I had to be organised in order to complete work to deadlines. I was lucky enough to work on a number of different tasks in the three months I was there, which allowed me to learn many new skills. Overall I have really enjoyed my internship ...I would definitely recommend it!"

Eleanor Baines (Aug 2015).

Impact



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“It was really helpful to speak to the different tutors... and pick their brains about our ideas, as I would never normally come into contact with tutors from these courses”

“It has shown me what some of my lecture have been trying to tell us which is that collaboration and working with people from different specialisms is when design can really take off and become exciting”.

“It was a really great good experience, helped me understand the real working environment and to meet new people.”

“...in the 24 hours we were given I have been given a massive insight into how completely separate skill sets can come together to generate an idea” “It was an enjoyable challenge, bringing in different skills we have learnt throughout our time here so far. “

“...enjoyed every stress-inducing minute of it. I would definitely do something similar again”

“...I really enjoyed the challenge and it was good to start viewing things from different discipline angles”

“I will be applying for placements again after almost giving up!

“ I liked the techniques and one thing I really did enjoy was a good experience working in a team because I am used to working alone just based on my own ideas and experiencing other people’s ideas and focusing on them and trying to fuse them together was just a wonderful experience.”

“...today was thoroughly interesting and very relevant to my studies...I feel informed and [it] will leave me with a lot to think about, and a fresh boost of creativity”

“The challenge has made me even more interested in working with people I don’t know and also has inspired me to think about business ideas for my future career”

Discussion Points



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Table discussion 1

- **What are the challenges regarding embedding interdisciplinary into the undergraduate experience?**
- **Does intellectual property matter?**

Swap with team next to you

- **What are the mechanisms for overcoming these?**
- **What is best practice in terms of IP?**

Outputs



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Power, E. J. (2016) 24 hour interdisciplinary Challenge, Experiential Entrepreneurship Exercises Journal - Enabling More Active Entrepreneurial Classrooms Through Sharing, Learning & Doing ISSN: 2374-4200 (online) Volume 1, page 70-75. Issue SI-ETC (special issue is a collaboration with “ETCToolkit” www.etctoolkit.org.uk). <http://launchideas.org/wp-content/uploads/2016/05/EEEJ-Issue-ETC-Special-Issue.pdf>

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Power, E. J. (Dec 2014) The 24 hour challenge: creating a multidiscipline environment for, design and entrepreneurship in engineering and design. Enhancing Employability through Enterprise Education: example of Good Practice in Higher education HEA case study. P22, In Owens, J. and Tibby, M (2014) Enhancing employability through enterprise education: Examples of good practice in higher education. The Higher Education Academy UK

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