

When engineers meet lawyers

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Why engineers need to meet IP lawyers?

- Shift in manufacturing and production to low cost areas.
- Change in emphasis in company structure.
- Companies increasingly aware of protecting their assets.
- UK Spec 2004 explicitly sets standards of IP competence and awareness.
- Vital for tomorrow's engineers and entrepreneurs

Curriculum and syllabus development

- several sources of pressure to keep the curriculum developing, many of which are external to the academic group, including
 - Need to compete in the market for home and overseas students
 - Government expectations
 - Regulation & Compliance
 - Emergence of new technologies
 - Employers, industry, professional bodies and accrediting institutions
- **Common strands for lawyers and engineers:**
 - Management and Strategy
 - National and International policy
 - Alternative regimes
 - Ethics

What do students need to know?

- Developing Designers require capability in business, legal, IPR and good engineering or design skills
- What are copyrights, patents, trademarks?
- Where do I find relevant information?
- When do I call in an expert?
- How to communicate with an expert
- How to carry out independent research and work across disciplines

The IPR content

- Within undergraduate programmes this is found in a variety of units such as:
 - Professional Design Issues Yr 2 Product Design
 - Engineering Management Yr 2 Design Engineering
- These units aim to provide students with a knowledge and understanding of the principles and application of the law and how it relates to intellectual property rights, product liability, contracts and product design.
- This is taken further in final year projects

Delivering law beyond the law school - questions?

- **Why** teach it?
- **What** constitutes the syllabus?
- **Who** should be teaching it?
- **When** should it be taught?
- **Which** resources should be available?
- **How** should it be taught?

Traditional encounters

- **New engineer:**
- how to describe IP needs?
- Mystique surrounding legal requirements
- Uncertain about costs, timing of advice
- **New IP Lawyer:**
- What questions to ask?
- How to find most appropriate advice
- How to present advice in the best way for client?



Can we help new lawyers and engineers prepare for the encounter?

Modern Encounters

- The encounter between the engineer and the lawyer would be much improved if each has had the opportunity during their studies to simulate the client and adviser experience
 - *How to 'teach' the client adviser experience?*
 - **Create the opportunity for the lawyers and engineers to manage the learning experience for themselves.**



Not taught – but self managed

- Course designers (mainly Engineers) recognised from the outset we needed to include IPR in an already crowded curriculum –and work with the experts!
- The approaches used are
 - Case study method
 - Problem solving using the students own designs
 - Actually going through the process of filing a patent for the students own project
 - The IP Advice letter
 - Master class with practising IP lawyers and Designers

The IP Advice Letter

- LLB IPP Level H students have an assignment that involves:
- Advising a DEC Level H student on the IP in their final year
- Producing a letter of advice which is useful to the DEC student client
- Producing an appendix of legal authority
- Their work is summatively assessed
- DEC BSc Product Design Level H engineers are paired with an IPP student and have to
- Send the IPP student details of their project
- Respond to the IPP student's questions
- Think of questions for their adviser
- Their work is formatively assessed

The Master Class

- Both law and engineering design students are invited to a master class
- Presentations from a practising IP lawyer and a professional product designer
- Also a presentation from a retailer with case studies of legal action and infringement
- An opportunity for the “client” and “advisor” to meet and make initial contact

Hiccups and wrinkles

- Doing the admin to match students from two different Schools
- Getting their contact details in place
- Doing the admin to get the project going in good time
- Encouraging both student groups to be in touch in a timely fashion
- Can't guarantee the quality of either adviser or client student
- Some clients and some advisers let their partner down by not making contact or appearing

But when it works well...

extracts from an email exchange

- **Natasha** (IPP Law)
- **Colin** (BSc Product Design)
- “I am designing a sensory table for wine bars, activated by the user” (colin)
- “I understand that have a joint Workshop and wondered whether you would be able to meet up afterwards” (natasha)
- “Client confirmed following:
 - i. His product will be controlled by sound levels... 4 electromagnets will control the rippling effect in the ferrofluid EFH1
 - ii. he is not aware of any similar or identical products on the market
 - iii. He is designing a logo for the product (natasha)
- “I’ve attached a logo for you to see. I’m going to call it ‘skimming stone’ (colin)

When it works well continued

- “I have been looking at your trade mark and on searching the Patent Office website it doesn’t appear that anyone else has registered “skimming stone” as a TM, nor as a domain name. In terms of your logo, I note that one of the squares contains a ripple effect. I wondered whether this is a drawing you have produced yourself, or whether you have copied it? (natasha)
- “With regard to the logo, I did use a copied picture which I manipulated a bit. However, I will be making my own version of a ripple for that square for my design show (colin)
- Natasha asks about|: software, hardware, ripple visual effect, and Colin’s relationship with the bar that is interested in ‘skimming stone’
- Colin responds to the questions, and explains that he has not been commissioned to make ‘skimming stone’ but is allowed to use the bar’s logo

A typical example of a student project



Grow your own light!

Pick a stem!



Phil Robinson with the “Post Pump”



Self managed learning opportunities from useful web resources

IP in the Research Context:

<http://ibal3.bmth.ac.uk/ip/start.html>

H.E.A. Engineering Subject Centre

<http://www.engsc.ac.uk/resources/ipminiproj/index.asp>

UK Intellectual Property Office: www.ipo.gov.uk

Espacenet: European Patent Office database

<http://gb.espacenet.com/>

World Intellectual Property Organisation case studies:

http://www.wipo.int/sme/en/case_studies/index.htm