

30 YEARS OF INTELLECTUAL PROPERTY LAW EDUCATION: A REFLECTION

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ABSTRACT

This personal reflection traces the growth of intellectual property (IP) education from 1988-2018. During that time IP has progressed from being taught only in law schools to a topic covered from primary to post-doctoral level, irrespective of discipline. Realising the importance of bringing IP law concepts to IP rights creators meant imagining a different approach to IP Education. That is happening, thanks to enlightened colleagues working with enlightened national and international institutions such as the UKIPO and WIPO and a gloriously diverse range of academics and students.

INTRODUCTION

I am encouraged by a research finding that 85–95% of students think IP will be relevant to their future careers¹. Throughout the thirty years of my reflection, I highlight the colleagues and partners that have been crucial to my IP education work, whether as a teacher, researcher, resource developer or programme designer. IP education is highly relevant to the work of the international IP institutions: the World Intellectual Property Organization (WIPO), the European Patent Office (EPO) and the Office of Harmonization of the Internal Market / European Intellectual Property Office (OHIM/EUIPO). I have been involved with each institution in their international projects developing IP educational resources, undertaking teaching programmes and conducting research. My commitment to IP education coincided with changes in higher education learning and teaching practice leading to recognition by the Leverhulme Trust and Higher Education Academy. Involvement with the Intellectual Property Awareness Network (IPAN)² and European Intellectual Property Teachers Network (EIPNTN)³ have given me a vibrant platform to set out the progress that has been made, and anticipate some of the inevitable developments that IP educators will have to take on board in the next 30 years.

PROLOGUE

In 2018, I will have been an intellectual property (IP) educator for 30 years – a generation. In that time study of ‘IP’ has developed from being focussed solely on IP law to an area that inspires academic research into the impact of IP in economics, philosophy, history, political science, sociology, gender studies, linguistics, art, anthropology, marketing, psychology.⁴ More recently, industrial and commercial aspects of IP, including

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¹ Soetendorp R, Patent Information in the Academic Context, pp 23–26, 1997 Elsevier Science Ltd.

² Details: IPAN website www.ipaware.org.

³ See www.eiptn.eu.

⁴ Estelle Derclaye, ‘Today’s Utopia is Tomorrow’s Reality’ [2017] 48(1) IIC- Int. Rev. Intell. P. <https://www.researchgate.net/publication/312181658_Today%27s_Utopia_Is_Tomorrow%27s_Reality> accessed 26 April 2018.

enterprise, entrepreneurship, competition, financial valuation, and strategic management mean IP is relevant both in the boardroom and in academe.

In 1981, I graduated from the Dorset Institute.⁵ I was also mother of two primary school children and the partner of a very busy congregational minister of religion. With a BSc Hons Law and Politics, I was anxious to find paid employment that would fit the routine of school run and term times (which ruled out taking up the offer of articles from friends who had expected me to train as a solicitor). The Institute canteen manager, who had become a friend over my three years study, mentioned that in the new academic year she would have a vacancy for a canteen assistant. I assessed that as a great opportunity 'to get my foot in the door of academe' should the need arise for a part time lecturer. After three weeks as a dinner lady, an established academic suddenly left, and I was invited to take my first class.

I was not completely new to teaching and learning. My first qualification was as a Youth and Community Worker⁶ (Westhill College, Selly Oak, Birmingham 1966–1968). Key elements of that programme were informal and social education. From which I had learnt to recognise in others a desire to learn that might be hard to discern in the face of formal expectations.

BECOMING AN IP LECTURER IN THE 1980s

Why did I choose to specialize in Intellectual Property education? It may be more accurate to say IP chose me. In 1987, I was a part time lecturer at Dorset Institute of Higher Education, which was already offering degrees demanding creativity and innovation. I quickly realised that in all these areas of study, IP could provide a common language making the link between disciplines as diverse as Law, Media, Design, Engineering and Computing. Whatever new ideas, processes, products or services students were creating they would need to be able to protect and exploit them, as well as needing to avoid the mistake of using someone else's IP without appropriate permission.

In my initial classroom encounters with product design engineers, I would introduce my topic as "Prophylactic Law" – the subject that will help you avoid making expensive mistakes.

From working to ensure that Bournemouth's budding engineers, media mavens, and lawyers could work together to protect and exploit their IP through an introduction to the legal language of ideas, I was inspired to take my own ideas out into the world.

The potential impact of IP law struck me first in 1987 whilst completing an LLM at Southampton University. A poster appeared on the Law faculty noticeboard. If I had had a smartphone, I would have photographed it. It invited applications to study the Intellectual Property Law Diploma at Queen Mary, University of London (QMUL). Bournemouth, like all UK HE institutions was enjoying a period of rapid change. The relevance of IP to students graduating into careers that would demand an awareness of intangibles and their value hit me hard. I thoroughly enjoyed the two years part time study at QMUL, due in no small measure to the calibre and personality of two teachers who have remained lifelong friends: Professor Alison Firth⁷ and Professor Jeremy Philips.⁸ The texts we used were Professor Bill Cornish's 'Cases and Materials on

⁵ The Dorset Institute became Bournemouth Polytechnic in 1990 and Bournemouth University in 1992.

⁶ Westhill College, Selly Oak, now part of Birmingham University 1966–1968.

⁷ Professor Alison Firth, Newcastle Law School, Newcastle University.

⁸ Professor Jeremy Phillips.

Intellectual Property'⁹ in the original pastel colour softcover 'samizdat' version. When I looked round the QMUL cohort, comprising about 100 lawyers in various stages of training, a thought, which was to nag at me during that course and beyond, was:

It is one thing to be training lawyers in IP law. But who is going to give the CREATORS of IP rights the opportunity to learn about the rights they will be creating? Who will teach IP beyond the law school?

Once I had signed up for the PGDip IP, Bournemouth appointed me to a fulltime lectureship, and paid my QMUL fees. I was itching to get IP law on to the new LLB, and to integrate IP into the new Engineering Product Design BSc and other appropriate programmes.

EXPANDING IP EDUCATION IN THE 1990s

I knew my IP experience was limited. I sought, and was fortunate to enjoy, three short-term placements in 1992/3 with leading intellectual property solicitors Nabarro Nathansons and Bird & Bird.¹⁰ They gave me an invaluable opportunity to gain an insight into IP law practice, and get to know some of IP's movers and shakers.

The Bournemouth LLB team welcomed the idea of an IP Law module. The module was championed on its progress through the various university quality committees by Paul Turner, a local patent attorney.¹¹ He was unreservedly enthusiastic that the local university should be offering IP law and encouraged us to forge links with the Patent Office (now the UKIPO). *Ab initio*, Bournemouth's IP students have had a good working relationship with the IP profession, and the support of the IPO. I knew it would take a charm offensive to get IP into the BSc Product Design degrees, and that Paul Turner would be key. Together we captured the hearts and minds of previously unknown colleagues in the Design, Engineering and Computing faculty. Once the DEC colleagues agreed to include IP in a Business Development module, I sensed the potential for 'Intellectual Property Education'. The Product Design students were required to develop an innovative project for their end of year final assessment. The IP module required them to present a 'simplified' patent specification for that innovation. Alongside my lectures and tutorials, Paul Turner saw to it that the young product designers were able to search the Portsmouth Patent library, under the Patent Librarians' guidance. He visited the university to review the students' specifications with them before submission for assessment.

An innovative learning experience was developed at Bournemouth, which continues today, at BU and at Aston. The 'IP adviser/client assignment project'¹² involves LLB IP law students acting as advisers to BSc Product Design student clients. It was met with enthusiasm from both faculties. Law and Design students would develop transferable skills that it is difficult to impart didactically: the lawyers would learn how to convey legal information in a way that clients could appreciate; the designers would learn how to convey what they were designing in a way that the lawyer could appreciate. In year

⁹ William Cornish, *Cases and Materials on Intellectual Property* (5th edn, Sweet & Maxwell 2006).

¹⁰ Now: Nabarro LLP and Bird & Bird LLP.

¹¹ 'Students Showcase Their Creativity at the 2012 Festival of Design and Innovation' (*Bournemouth University*, 5 July 2012) <http://assets.bournemouth.ac.uk/news-archive/newsandevents/News/2012/july/contentonly_1_7896_7896.html> accessed 25 April 2018.

¹² Humphries-Smith, T. and Adrian, A., 2012. Intellectual Property Education – Thinking outside the Box meets Coloring within the Lines. *International Journal of Learning & Intellectual Capital*, 9 (3), 337–350.

one of the project, the lawyers submitted academic, authoritative essays that would have been impenetrable to a designer. The designers prepared scrappy sheets describing their innovations. The lawyers were told “Presenting advice in that way will lose you clients”. The designers were told “Presenting your innovation in that way will cost you money – every time a lawyer has to ask ‘what did you mean by . . . ?’” In subsequent years, the assessment included a small element of peer assessment. The lawyers submitted engaging, layperson friendly letters supported by legally authoritative supporting appendix. The designers submitted beautifully presented CAD folders explaining their innovations. The advice letter assignment is invariably well received and enjoyed by participating students. But it will only work where there are enthusiastic academics,¹³ and supportive course administrators to champion it.

About this time I met Mandy Haberman,¹⁴ inventor of the AnywayUpCup® and campaigner for Intellectual Property education. Mandy’s story made a deep impression on the Bournemouth product designers, and her courageous story continues to impress students today. Bournemouth’s award of an Honorary Doctorate in 2002 gave Mandy the locus to campaign even more energetically for all students to be introduced to IP.

In 1996, the UK Patent Office invited me to share my IP education ideas at the Patent Librarian conference (PatLib) in Aberdeen, Scotland. Immediately after my presentation, the then Patent Office Comptroller, Paul Hartnack, asked to meet me, with words that I have never forgotten:

These are great ideas. What a pity that there is no IP in an idea. If you protect your ideas, you would become a very rich woman.

Speaking at the European Patent Office Patinnova Conference in 1990, Karl Heinrich Oppenlander, President of the Institute for Economic Research in

Munich, commented, “If a young engineer comes into contact with patent information at a very early stage, during his training if possible, he will use this source of information regularly since he will already be familiar with it.” The Patent Office took a lively interest in the IP education initiatives at Bournemouth. In 1997, they agreed to fund a small project that would enable me to offer one hour of intellectual property ‘introduction’ to all Bournemouth’s degrees. About 30 degree programmes took up the offer. Feedback was positive. Only the BSc Nursing students had begun reluctantly. They expressed irritation at having to ‘waste an hour’ when they could have been learning ‘how to make people better’. By the end of that class, though, half the students had shared an innovation or an improvement that they had introduced on to the ward. They were respectful of the potential for intellectual property to be used e.g. by a pharmaceutical company putting the trade mark symbol ® on a drug distribution chart, that could be distributed more widely to other NHS trusts.

Professor Paul Cole,¹⁵ a patent attorney who went on to play a crucial role in the development of postgraduate IP education at Bournemouth commented in 1999:

How good it is to meet young inventors who know what they are taking about when they arrange a first meeting with a patent attorney. Especially when they realize that their university experience reduces the time taken for an initial meeting, which makes it cheaper.

Interest in IP education was beginning to grow. I was invited to present papers to the Association of University Research Industrial Links (AURIL), to the EU’s Patinnova

¹³ Professors Dinusha Mendis and Tania Humphries at Bournemouth, Claire Howell at Aston.

¹⁴ ‘Mandy Haberman’ <www.mandyhaberman.com/> accessed 24 April 2018.

¹⁵ ‘Professor Paul Cole’ (Chartered Institute of Patent Attorneys) <<http://www.cipa.org.uk/about-us/people/council-members/paul-cole/>> accessed 25 April 2018.

97, and to L@wnet. The Society of Public Teachers of Law (SPTL) formed its first Education group. I was asked to join the IPAN¹⁶ at the invitation of its founder, patent attorney Dr. John Reid. One of our first tasks together was to visit the UK's Engineering Council to help them formulate their first reference to IP in the UKEC 'SPEC'.¹⁷ The IPAN is a unique, independent network of organisations and individuals committed to improving awareness and understanding of IP in the UK. It was first formed in 1993 on the initiative of Reid, then President of the Chartered Institute of Patent Attorneys. IPAN focuses its activities on the Finance and Economics, Parliamentary and Education sectors (about which more below).

A CENTURY TURNS – TOWARDS A PROFESSOR OF INTELLECTUAL PROPERTY MANAGEMENT

Having enjoyed the rigorous QMUL introduction to IP law, I was nervous that offering students anything less rigorous would be written off as 'dumbing down'. A chance encounter with Dr Theodore Zeldin's BBC Radio 4 talk based on his book 'Conversations'¹⁸ gave me confidence.

Zeldin asked an engineer how long it would take to teach him to be an engineer. 'Three months' was the reply. Not to be a real engineer, but to understand an engineer's language and their problems, to learn the essence of the way they think. He suggested that the term 'social exclusion' includes all those whose mind-set is confined to a single profession, and asks 'what new kind of education or training will not just slot students into pigeon hole careers?' Employers want flexible, multi-skilled graduates, open to learning, and equipped to respond to the rapidly changing nature of the workplace. The students don't have a problem with that.

His ideas on inter-disciplinarity at work helped me to address the concerns expressed by Intellectual Property lawyers that offering any IP Education to non-lawyers was in effect 'dumbing down' and inherently risky. The questions I have asked myself when planning IP education for non-lawyers are as follows:

1. What is the minimum level of IP law needed to take initial steps to protect potential IP (confidentiality)?
2. What is the minimum needed to understand when it is essential to bring in an IP expert (patent or trade mark attorney, IP lawyers)?
3. What should be included to enable student to understand IP law concepts in the context of their own academic discipline?

I could see Zeldin's prescience reflected in the explosion of interest in IP awareness that began around 2000, with the publication of Rembrandts in the Attic.¹⁹ United States business schools were ahead of UK equivalents in bringing IP education in to their post-graduate programmes²⁰, but undergraduate IP education internationally continued to be lacking.

The late 90's were exciting times for IP law, with public institutions (NHS, Defence Forces, HE Institutes) being tasked by government to introduce IP policies as an attempt

¹⁶ 'The Intellectual Property Awareness Network' <www.ipaware.org> accessed 24 April 2018.

¹⁷ 'UK Standard for Professional Engineering Compliance – Third Edition' (Engineering Council, January 2014) <<http://www.engc.org.uk/UKSPEC>> accessed 24 April 2018. (hereinafter UK-Spec).

¹⁸ Theodore Zeldin, *Conversations* (Harvill Press, 1988).

¹⁹ Rivette K and Klein D, *Rembrandts in the Attic* (Harvard Press 2000).

²⁰ See e.g. Hennessey W, Intellectual Property Program of the Franklin Pierce Law Centre: Past Developments, Current Situation, and Future Tasks, with particular emphasis on its education methodology to develop human resources meeting social needs. ICS Seminar, February 2004.

to ensure the maximum benefit from any IP they might generate. For a number of years B.U. course specification documents included my statement: "Bournemouth University undertakes to encourage the recognition, protection and exploitation of intellectual property rights generated by participants in this programme, to the benefit as appropriate of students, staff, industrial/other third parties/partners and the university." It was exciting, if at times frustrating, for me to be invited by other universities to help them with their IP policy drafting. On one occasion, the British Council invited me to meet a delegation from Russian universities, keen to learn how they too might manage their IP. The biggest frustration when discussing IP policies with universities was the blanket assumption that a 'one size fits all' policy would allow all IP rights created by students to be university-owned property. Hopefully, my chapter in the UKIPO's Intellectual Asset Management tool for universities²¹ has helped clarify matters.

Government policy to expand university student numbers by 50%²² reflected its aims to reach more underprivileged and pioneer innovations in teaching. Public and private sectors were equally aware this would make exceptional demands on academic staff. The challenge of incentivizing academics to radically change their teaching practice needed to be funded. A fruitful relationship with Linda Byles, Bournemouth's Learning & Teaching expert, opened my eyes to different approaches to facilitate learning. Together we presented and published on interdisciplinary learning.²³

I successfully applied for two of the schemes introduced to meet those challenges. The resulting funds, from the Leverhulme Trust and the government's Higher Education National Teaching fellowship scheme proved a turning point for Bournemouth's IP research and teaching, and my own ambitions to improve IP education for non-lawyers. The Leverhulme Trust²⁴ introduced an 'Innovative Teaching award' alongside its prestigious research awards. Bournemouth applied, and was put on a short list of seven. Then Leverhulme changed its mind, and cancelled the scheme. Extreme disappointment drove me to seek an audience with Bournemouth's Vice-Chancellor, Professor Gillian Slater. Together we drafted a letter that prompted Leverhulme to rethink, to reinstitute 3 awards and in 1998 to award one to Bournemouth. The award funded 50% of a senior lecturer salary for 5 years, on the understanding that the University would continue the post into the future. It made possible the appointment of Professor Martin Kretschmer.²⁵ In 2000, Martin and I formed Bournemouth's Centre for Intellectual Property Policy & Management (CIPPM).

CIPPM²⁶ is a unique combination of academics, practitioners and industry colleagues. They are committed to an interdisciplinary approach to policy making in respect of the governance and application of intellectual property rights applying to innovation and creativity. The recognition of intellectual property management as an enterprise skill, and regulatory impact analysis are at the heart of the Centre's mission. From 2000, CIPPM rapidly achieved national and international recognition. Research and consultancy projects were commissioned by the European Commission, UKIPO,

²¹ 'Intellectual Asset Management for Universities' (Intellectual Property Office, 26 June 2014) <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/308072/ipasset-management.pdf> accessed 22 April 2018.

²² 'Blair's University Targets Spelt Out' (*BBC News*, 30 January 2002) <<http://news.bbc.co.uk/1/hi/education/1789500.stm>> accessed 24 April 2018. (calling for a target of 50% of all young people to attend university).

²³ R Soetendorp & L Byles, 'Law for Non-Lawyers: Facilitating Inter-Professional Dialogue' (2nd HEA Annual Conference on Learning in Law Initiative, Warwick University, January 2000 <<http://www.ukcle.ac.uk/interact/lili/2000/soetendorp.html>> accessed April 5 2008; Improving Student Learning through the Disciplines, York [with Byles L., Sept] - *Communicating across the Interdisciplinary Divide 1999* (available from the author).

²⁴ Leverhulme Trust Innovative Teaching Post F801 1997–2002.

²⁵ Professor Martin Kretschmer is currently Professor of Intellectual Property Law and Director of CREATE Centre (School of Law) at University of Glasgow.

²⁶ 'Centre for Intellectual Property Policy & Management' <www.cippm.org.uk> accessed 26 July 2018.

European Patent Office, Arts Council, Social Science Research Council (New York), World Intellectual Property Organisation (WIPO), the Arts and Humanities Research Council (AHRC) and the Higher Education Academy (HEA). Professor Kretschmer led CIPPM to make great contributions to IP research and policymaking. He moved in 2012 to Glasgow University to lead CREATE,²⁷ an interdisciplinary research centre funded jointly by AHRC, EPSRC and ESRC. In addition to its other achievements, CREATE has become an inspired contributor to IP Education through the development of Copyrightuser.org²⁸ and other initiatives. CIPPM was committed to 'Knowledge Transfer' at Bournemouth. We were able to generate income through professional IPR management education to government departments, public and commercial institutions. Whenever a consultancy request was received, I would think back to my initial ideas of inter-disciplinarity and what I had learned from Theodore Zeldin. My first commercial consultancy was in 1999 for Gillette UK plc. Their UK Head of Patents wanted a self-managed learning resource that would sit on their intranet, available to all staff, to introduce themselves to basic IP concepts. He stated:

It is important that our salespeople travelling all over the globe understand the importance of our trade marks, and ensure that those trade marks are not 'out at risk' by the way local merchants display our products in their shop windows.

The 'Gillette' software was put to use (with permission) at Bournemouth as an introductory class for LLB IP students, and as a 'selftest' for non-law and other IP short course students.

When the context of a client's business was foreign to me, I would ask a colleague from another faculty for an introductory one-hour one-to-one tutorial. That would enable me to meet the client with enough background against which to set the IP they wanted to understand. It was an enriching time for me, in which I assimilated the very basics of tax, software development, automotive electronics etc. in order to have the appropriate context in which to place IP concepts and practice.

From our early encounters with Paul Turner, the Chartered Institute of Patent Attorneys (CIPA), and the Patent Office, we had built relationships that stood Bournemouth in good stead when we sought accreditation of the LLB IP law module as satisfying most of the foundation requirements for Patent attorney qualifications. Through CIPPM we worked with CIPA, the Chartered Institute of Trade Mark Attorneys (CITMA) and the IP Regulatory Board to accredit the Bournemouth Post Graduate IP qualifications for foundation level units of both Patent and Trade Mark attorney examinations.

THE 'NOUGHTIES' – HIGHER EDUCATION ACADEMY NATIONAL TEACHING FELLOW

The government's HEA National Teaching Fellowship scheme²⁹ began in 2000. In 2001, the second year of the scheme, £50,000 × 20 awards were available to academic teachers who could demonstrate excellent teaching practice and offer a proposal to enhance innovative teaching practice. I was selected for an award. My proposal was that as IP education was growing in importance, so was online delivery of learning and teaching,

²⁷ 'CREATE' <www.create.ac.uk> accessed 26 April 2018.

²⁸ 'Copyrightuser' <www.copyrightuser.org> accessed 26 July 2018. (Including contributions of Hayley Bosher, Ronan Deasley, Bartolomeo Meletti, Dinusha Mendis and others).

²⁹ 'National Teaching Fellowship' (Higher Education Authority) <<https://www.heacademy.ac.uk/individuals/national-teaching-fellowship-scheme/NTF>> accessed 26 April 2018. (The HEA introduced the NTF scheme 2000).

and there would be benefit in making IP education available for online delivery. At the time, one of the leading exporters of IP and IP education was Japan, and the leading exponent of online education was Australia. During a three-month secondment to University of Sydney I worked with Bill Childs as 'online facilitator' alongside a trade mark attorney, as we developed a trade mark module for the UTS online Patent & Trade Mark attorney postgraduate programme. It was a steep learning curve, working with a cohort of students who had no realistic expectation of ever meeting each other face-to-face. However, I sensed it was working when one student, having submitted his assignment on the student's online exchange commented: "That was a toughie. Why don't we all meet up this evening for an e-beer?" Several of his co-students responded "OK".

The academic visit to Japan offered opportunities to spend time in different HE institutions. At Tokyo Metropolitan University, the young students sat patiently through my lecture. Their professor had warned me that when I had concluded, they would all have a question or a comment for me. One was unforgettable, "Intellectual property is like food for engineers. They should have a little every day."³⁰

The NTF award funds enabled a small group of Bournemouth colleagues to enrol on Professor Gilly Salmon's 'Everything in Moderation' e-learning programme,³¹ which prepared us to offer Bournemouth's postgraduate IP modules as a blend of face-to-face and online learning on PGCert, PGDip and LLM. In 2001, World Patent Information³² recognizing that IP education was gaining ground, invited me to review my IP education work to date. Research for the first stage of the work at Bournemouth revealed that 85–95% of students from all disciplines thought intellectual property relevant to their future careers³³ and identified the need for Intellectual Property to be included in a range of courses across the University. The next stage of the work has been the development of a learning and teaching resource with a very specific aim, to enable the teacher who is an expert in their own discipline, but not an IP expert, to respond to the student demand for in introduction to IP. The format was devised in discussion between the author and Linda Byles, Learning Support Tutor at Bournemouth, to ensure it reflected the latest findings in learning and teaching. It highlights the need for all aspects of intellectual property, patents, trademarks, design rights, to be included on courses that traditionally have had no IP input. Significantly, these included a range of non-science based courses.

For example, Retail Management students were helped to see the benefit of protecting their ideas in relation to innovative shelf designs to combat store theft, which had patent potential. Catering students appreciated that their innovative dishes had patent and trade mark potential. Nurses understood that asserting copyright in a drug dispensing chart could generate commercial benefit as well as ensuring wider distribution. Satisfying demand by conventional measures of time and expertise would be prohibitively expensive.

The key objective of the original Patent Office/Bournemouth University contract, in 1996, was to create a resource that could be more flexibly used. From an early stage, the materials were called 'Micromodules' as an indication of their ability to be delivered in a short space of time. Further support was given in 1997 by the Leverhulme Trust, when it awarded Bournemouth University one of only three innovative teaching grants for its

³⁰ Japanese Engineering student, Tokyo Metropolitan University, 2002.

³¹ 'Five Stage Model' (Gilly Salmon) <<https://www.gillysalmon.com/five-stage-model.html>> accessed 25 April 2018.

³² Ruth Soetendorp, 'Innovators and Advisers Preparing for the Dialogue' (2001) 23(1) World Patent Information, 63–66.

³³ Soetendorp (n11), R Soetendorp & L Byles 'Report for the Patent Office' (Unpublished, 1996) R Soetendorp 'A Powerful Tool in an Innovative University' (PATLIB Conference, Aberdeen, May 1996).

work in raising IP awareness. Based on the work of Ramsden and Entwistle (1981)³⁴ and Gow and Kember (1993)³⁵ the philosophy underpinning the micromodules has been to foster a 'deep', or integrating, approach to learning. Similarly, the work of Gibbs, Habeshaw and Habeshaw (1989)³⁶ have provided the underpinning rationale for taking a student centred approach to delivery. The importance of relating to the students as adult learners (see Knowles cited in Soetendorp 1999)³⁷ has also informed the focus of the work. The micromodule materials include notes for facilitators, lesson plans, student activities, handouts and assessments. They are structured to be delivered in a one or two hour slot, and are designed to be used in a range of group learning environments: in a lecture theatre, with a seminar group, or in a workshop forum. The Micromodules take students through a series of activities, which address important IP concepts. An example of an exercise, and how the pages work is given in the accompanying slides. The hard copy and CD-ROM formats give facilitators maximum flexibility to customise the materials.

In Spring 1999, the micromodule materials were presented to the independent European Technology Assessment Network Expert Working Group for the European Commission. It was gratifying to note the micromodule ethos reflected in their published report on the Strategic Dimensions of IP Rights in the context of Science and Technology Policy, ETAN Working Group 1999 which stated:³⁸

The education of scientists, technologists and business managers in most of Europe does not usually include formal exposure to the field of intellectual property. This frequently results in a failure to appreciate the general IP environment . . . and even a failure to carry out research activities in an acceptable manner (e.g. maintaining laboratory notebooks and procedures in a manner acceptable to US courts). It continued 'Such training need not be a heavy burden. The necessary minimum would only require a few hours of instruction; practical exercises would also be an advantage.

Working with the Patent Office's Dave Morgan, the micromodule was devised as a multimedia resource for university teachers to introduce IP concepts as a small addition to existing modules. It was greeted warmly by 'IP enthusiasts',³⁹ including Hungary's Patent office and Russia's Open University and Patent Office. Take up amongst non-law academics was less enthusiastic. Like the AURIL Red Folder of IP advice for universities, the Micromodule resource was circulated to all universities. It was purchased by twenty-one. However, it is likely that those copies went no further than the office of the senior managers to whom they were addressed. Useful, if painful, lessons were learned. As a result, subsequent learning resources have been presented in formats that can be distributed and accessed more widely. The UKIPO's contribution to IP Education is successfully demonstrated by the Cracking Ideas Think Kit,⁴⁰ IP Tutor,⁴¹ IP Tutor+

³⁴ P Ramsden, & Entwistle, 'Effects of Academic Departments on Students' Approaches to Studying, (1981) 51 British Journal of Educational Psychology 368.

³⁵ L Gow, & D Kember, 'Conceptions of Teaching and Their Relationship to Student Learning' (1993) 63 British Journal of Educational Psychology 20.

³⁶ G Gibbs, S Habeshaw & T Habeshaw, *53 Interesting Things to do in Your Lectures* (3rd Edition, Technical & Educational Services 1989).

³⁷ R Soetendorp, *Law for Non-Lawyers*. (1999) Spring Edition, National Council for Legal Education Newsletter, 5.

³⁸ 'ETAN Working Paper Strategic Dimensions of Intellectual Property Rights in the context of Science and Technology Policy' (European Commission DG XII – Science, Research and Development, Directorate AP – Policy Co-ordination and Strategy, June 1999) 32 <<http://ec.europa.eu/research/era/pdf/ipr-expertgroupreport.pdf>> accessed 26 April 2018.

³⁹ 'IP enthusiast' – a term coined by Professor Jeremy Phillips to describe those involved with intellectual property practice law, whose passion to promote IP went beyond normal bounds . . .

⁴⁰ 'Think Kit' (*Cracking Ideas – Teaching and Learning Resources*) <http://crackingideas.com/third_party/Think+Kit> accessed 23 April 2018.

⁴¹ 'IP Tutor' (*Intellectual Property Office*) <<http://www.ipo.gov.uk/blogs/iptutor/>> accessed 23 April 2018.

and most recently animated videos for primary level school students.⁴² IP Education was now receiving endorsement as a subject that transcends disciplinary boundaries. YoTakagi, WIPO Executive Director, 2004 at Arab Regional conference on the Teaching of IP Dubai⁴³ stated, “In view of the expanded role of IP in knowledge-based economies and societies, it is increasingly important to teach IP to students who do not have a legal background.” The sentiment is echoed by Professor James Boyle, Eversheds Lecture, Royal Society of Arts, London 2003:

*We need to bring together the programmers and the web publishers, design artists and the film makers and the people who are computer scientists and the entrepreneurs and say ‘[intellectual property] is affecting you and you ought to be thinking about how it’s affecting you’. . . . This is something in which we have to educate people. There’s no single strategy, we should substantially change the way we look at intellectual property.*⁴⁴

Other bodies funding UK IP education at this time, through Bournemouth University, were the HE Academy Engineering & Law subject centres, the EU through its European Framework Programme 5 DIPS and LIIP projects, which included developing resources linking innovation and industrial property that brought e-learning opportunities to enterprises, completed in 2006, and the Patent Office.

Between 1999 and 2002, via the EU PHARE and EPO Regional IP Programme initiatives, the next wave of candidate States for accession to the European Union were offered IP learning programmes. I was delighted to be invited by the EPO’s Nigel Clarke⁴⁵ to teach and share IP concepts with members of the judiciary, industrialists, practitioners and academics in Bulgaria, Poland, Hungary, Slovakia, Latvia and Lithuania. It was a learning experience for me to accept, again, the challenge of distilling the great body of IP law to bare essentials. In 2002, the EU combined with the IP office of the Peoples Republic of China (SIPO) to run programmes to prepare for PRC accession to membership of the World Trade Organization. On that first visit to Beijing, I learnt an important lesson – my lecture was being simultaneously translated. My lecture style has always been to invite questions from the audience as I speak. In the first part of the lecture their questions were forthcoming. Then they began to dry up. I felt uneasy and stopped in my delivery. I asked the audience why they were no longer asking questions. “Madame” came the reply from a student “You have not ceased talking long enough for the translators to let us know what you are saying”.

The WIPO was also responding to interest in IP Education, and invited my contributions to colloquia in Vietnam, Bangladesh, Sri Lanka, and China. There were others, including World Bank and Karnataka State Ministry of Education, who through the TEQIP (Technical Education Quality Improvement Programme) facilitated a three day workshop for engineers and lawyers in Bangalore.

In 2003, I received my established chair at Bournemouth. My preferred title would have been Professor of Intellectual Property Education, but the university wanted Professor of Intellectual Property Management. I did not argue.

In May 2004, I was invited to attend the Japanese Institute of Invention and Innovation commemorative and ceremony and international symposium in Tokyo. At the dinner I

⁴² ‘Logo Mania (Nancy and the Meerkats: Nancy’s Musical Box)’ (*YouTube*, 16 Jan 2018) <<https://www.youtube.com/watch?v=ttpl2qu5nRc&feature=youtu.be>> accessed 23 April 2018.

⁴³ Quoted in R Soetendorp, “‘Food for Engineers’ Intellectual Property Education’ (2004) December, *Industry & Higher Education* 363.

⁴⁴ *Ibid.*

⁴⁵ Dr Nigel Clarke, Manager of Patent Information Promotion and Patent Information Research at the European Patent Office.

had the good fortune to be sat next to Yoshiyuki (Yo) Takagi,⁴⁶ then WIPO's Executive Director, Office of Strategic Planning and Policy Development. He had recently spoken at a WIPO Regional Conference in Dubai. We sustained an animated conversation throughout that dinner, based on a shared enthusiasm for intellectual property education. In 2008, WIPO published "Teaching of Intellectual Property: Principles and Methods",⁴⁷ edited by Yo Takagi, to which I contributed the chapter 'Teaching Intellectual Property for Non-Lawyers'.

In 2005, I was part of a small WIPO delegation to Foshan, China to see IP education underway to primary school students.⁴⁸ I was unaware of anything like it happening in UK. A SIPO⁴⁹ official said "China has only 20 years' experience of IPR issues and many Chinese people know little about the situation. Teaching children about IPR is an effective way of spreading knowledge about the issue and preparing the population for developments in the years ahead."⁵⁰ Notwithstanding the cultural differences between PRC and UK, that seemed a pedagogic idea to which we might aspire. In the same, year CIPPM received the World Leaders in IP European Award for Best Achievement in IP Education and Training. In 2006, I joined the Epigeum⁵¹ team (an Imperial College, University of London, spin out) to produce the IP module of their interactive learning resource 'In the Research Context' aimed at PhD students. The following is quoted directly from a PhD Student, Anglia Ruskin University the Epigeum website:

The IP in the Research Context course was really helpful and the structure and content was well put together. I enjoyed it immensely and feel I have gained considerable insight into this complex area.

Reflecting on the years leading to my retirement, it is encouraging to see the contribution that CIPPM was able to make to income generating knowledge transfer for Bournemouth University. We developed customized short course training for public and private organisations eager to learn about how to cope with the mysteries of IP. CIPPM's USP was that the client would be able to enjoy a training that was focused specifically on their IP needs, and was fully confidential. Confidentiality (together with Trade Secrets) is too often overlooked as a key element to IP education. However short the programme, time should be allocated to alerting students to the risks of ignoring confidentiality. I have often described a warning about confidentiality as the 'cheapest, simplest, most effective IP advice you will get.'

Students have often sought me out to discuss university projects for commercialization, unaware of the damage ignorance of IP has already done, for example:

A student recently called "Are you the lady who specializes in IP?" "Yes" "Can you give me some advice about patenting the project I'm entering in the university enterprise competition?" "Yes of course. When would you like to meet to tell me about it, in confidence?" "No need. You can read all about it on my website".

⁴⁶ Yo Takagi, WIPO's Assistant Director General Leading the Global Infrastructure Sector <http://www.wipo.int/about-wipo/en/activities_by_unit/index.jsp?contact_id=9> accessed 25 April 2018.

⁴⁷ Yo Takagi (ed.) *Teaching of Intellectual Property: Principles and Methods* (Cambridge University Press/WIPO 2008).

⁴⁸ Ruth Soetendorp & Lingling Wei, 'Intellectual Property Education in China' in J. Reuvid (ed), *Business Insights: China – Managing Risk* (Kogan Page 2011).

⁴⁹ The State Intellectual Property Office of the People's Republic of China.

⁵⁰ 'Seminar Highlights IPR Education' (*China Through a Lens*, 22 November 2005) <<http://www.china.org.cn/english/2005/Nov/149558.htm>> accessed 20 April 2018.

⁵¹ 'Research Skills Master Programme' (*Epigeum – Oxford University Press*). <<https://www.epigeum.com/courses/research/research-skills-master/courses/>> accessed 20 April 2018.

Following that exchange, I called the tutor responsible for the enterprise competition, and asked whether the participants received any IP education. “Yes, of course” he replied “at the end of the competition process”

When I retired in 2007 from my full time established post at Bournemouth, I made a distinction between ‘having a job’ and ‘work’. On retirement, I no longer want a proper job, but I do want to work. And I am always interested in IP education work.”⁵² Having been involved in refiguring the CIPPM Post Graduate IP programme modules offering CIPA and CITMA Attorney foundation qualifications to blended online and face2face learning, it was good to see the cohort grow six-fold, attracting students from all over UK and Europe. I enjoy a continuing contribution to CIPPM and to other IP education work opportunities that have arisen. Retirement made it possible to relocate back to London, though it meant leaving behind many good friends, and the sea.

PROFESSOR EMERITA – THE LONDON YEARS

I had benefited from work with two engineering academics who were also education and IP enthusiasts, Professor Jim Roach at Bournemouth University and Dr. Rob McLaughlan at University of Technology Sydney. As a result, we were able to undertake interdisciplinary research into IP education for non-lawyers.⁵³ An early project involved asking academic engineering conference delegates what they felt about IP education. Their overwhelming response used to be replicated whenever non-law academics were asked about IP education,⁵⁴ representing a clear barrier to widespread take up of IP education in non-law faculties:

1. No one taught me about IP rights;
2. If we had decent students, we wouldn’t need to teach about IP; and
3. The syllabus is already too crowded. We can’t take time from teaching the course essentials.⁵⁵

IP may be key for engineers (and other non-lawyers), but it will never be core to their discipline. As a result, the challenge of establishing IP as a named module choice in a non-law degree remains a daunting one.⁵⁶ Jim Roach and I understood this, and focused on introducing IP education concepts to Enterprise Educators, starting with a paper at the International Entrepreneurship Educators conference in 2007, and most recently at the 2017 Enterprise Education UK conference. It is good to see our ideas of creating opportunities for engineers to learn about IP being picked up, albeit sporadically, around the globe. Recently in Peoples Republic of China researchers, Tsing Hua University in 2016:

⁵² Alice O’Donkor, ‘Interview – Ruth Soetendorp, IP Educator and Outgoing Chair of IPAN’ (*Managing Intellectual Property*, 27 July 2016) <<http://www.managingip.com/Article/3573050/Interview-Ruth-Soetendorp-IP-educator-and-outgoing-chair-of-IPAN.html>> accessed 20 April 2018.

⁵³ R Soetendorp, R McLaughlan, J Roach, WG Childs, ‘Engineering Enterprise through Intellectual Property Education – Pedagogic Approaches’ (2005) 4(2) WSEAS Transactions in Engineering Education 359, <<https://core.ac.uk/download/pdf/76431.pdf>> accessed 21 April 2018.

⁵⁴ But see the IPAN/NUS findings, R Soetendorp, M Haberman & S Smith, ‘University IP Policy: Perception and Practice – How Students and Staff Understand Intellectual Property Policy at their HEI (*Intellectual Property Awareness Network*, July 2006) <http://ipaware.org/wp-content/uploads/2016/10/IPAN_NUS_University_IP_Policy_16aug16.pdf> accessed 21 April 2018.

⁵⁵ J Roach & R Soetendorp, *Intellectual Property in the Engineering Syllabus – A Model for Integrating Key but not Core Concepts Across the Disciplines* (Higher Education Academy Law and Engineering Subject Centres, 2008) <<https://www.heacademy.ac.uk/system/files/intellectual-property.pdf>> accessed 24 April 2018.

⁵⁶ See QAA benchmarks and professional business accreditations mentioned below, endnotes n 72, n 73, n 74.

Surveys and interviews have been conducted to analyse the perception and understanding of IPR in China. Results showed that students recognise the need and importance of IP in engineering and IP lessons will increase the level of this recognition. Students prefer to learn IP by case studies and conference. Therefore, an IP instruction module has been developed in the IE department of Tsinghua University and a second survey has been launched to examine the effects. At last a website has been developed to help IP learning.⁵⁷

I have enjoyed the benefit of belonging to two organisations that make significant contributions to furthering ‘the campaign’ for IP education in HEIs. The IPAN⁵⁸ (formerly Intellectual Property Awareness Group) was founded in 1993. The European Intellectual Property Teachers Network⁵⁹ (formerly the Intellectual Property Teachers Network) was established in 2007.

IPAN’s Education Group formed a successful relationship with the National Union of Students (NUS). NUS Services Research Group worked with IPAN to investigate two questions relevant to IP education in UK universities, using the extensive NUS student and staff database. The first survey (also involving UKIPO) examined the attitude of students to IP.⁶⁰ Never before, we believe, had students been given the opportunity to share their thoughts on the relevance of IP to their current courses and future careers. Findings were sufficiently positive, in respect of IP education, to influence UKIPO in the design of their current well-received online resource, IP Tutor,⁶¹ aimed at the HEI community. The second investigation sought to understand the current perception and practice of IP Policies⁶² in HEIs. Having experienced a general lack of awareness amongst students and staff of IP at several universities, the IPAN Education Group felt this question was long overdue to be asked. Students, and this time academics too, confirmed again their support for IP education on their programmes. At the same time, their ignorance that IP policies were in place at their institution was clear and difficult to ignore.

Over the past decade, the EIPTN has provided an annual opportunity for university teachers to meet and exchange ideas of bringing IP into university learning and teaching. Techniques, technology developments, and approaches are shared with an openness and enthusiasm rarely found at an academic conference. EIPTN’s work is supported by the European Patent Office and European Intellectual Property Organisation (formerly OHIM). However, for academics enthusiastic about IP education, a major disincentive to furthering academic research in the area has been that IP is not core to their discipline (unless they happen to be IP law academics). Research funding for IP education related projects is harder to obtain. IP education publications tend not to contribute to faculty Research Excellence Framework⁶³ scores. As I write, the government has announced a third funding framework for universities: Knowledge Exchange Framework

⁵⁷ V Raes, P Rau, J Xiang & C Cuiling ‘Promoting Intellectual Property Education for Engineers’ (2016) 8(1) International Journal of Technological Learning, Innovation and Development (China).

⁵⁸ ‘The Intellectual Property Awareness Network’ (IPAN) <www.ipaware.org> accessed 23 April 2018.

⁵⁹ ‘European Intellectual Property Teachers’ Network’ (EIPTN) <<http://eiptn.astonwordpress.co.uk/>> accessed 20 April 2018.

⁶⁰ ‘Student Attitudes Towards Intellectual Property’ (National Union of Students, 2012) <<https://www.nus.org.uk/PageFiles/12238/IP%20report.pdf>> accessed 23 April 2018.

⁶¹ ‘IP Tutor’ (Intellectual Property Office) <<http://www.ipo.gov.uk/blogs/iptutor/>> accessed 23 April 2018.

⁶² Soetendorp, Haberman & Smith (n 47).

⁶³ The guidance on the assessment framework for the last round of REF submissions is available at ‘Assessment Framework and Guidance on Submissions: Updated to Include Addendum Published in January 2012’ (Research Excellence Framework, 2014) <<http://www.ref.ac.uk/2014/media/ref/content/pub/assessmentframeworkandguidanceonsubmissions/GOS%20including%20addendum.pdf>> accessed 20 April 2018. (For example “intellectual property” is mentioned once, while “impact” is mentioned 219 times).

(KEF).⁶⁴ Perhaps KEF may provide better opportunities for IP educators to receive financial support and recognition for their initiatives.

The years immediately following my retirement in 2007, left me feeling a little like the “Nanny McPhee of IP”. I answered calls from law schools of Leicester, Reading and Aston Universities to cover short-term gaps in IP law school teaching. They were fascinating times, which gave me enjoyable opportunities to see other university cultures at first hand. There was work to be done, too, with the University of the Arts London, who have recently advertised for their first IP Law lecturer in the London College of Fashion.⁶⁵ That is something that would have been unimaginable 30 years ago. The Museum of Brands⁶⁶ brought me in to help devise their first visitor learning programme, a subsequent iteration of which was enjoyed in 2014 by 13,534 schoolchildren or students.⁶⁷ When City (now University of London) Cass Business School invited me to help out on their undergraduate module Introduction to Business Law for Business School, it was another chance to ‘get my foot in the door’.⁶⁸ Within a couple of years, I was invited to submit a proposal for teaching an IP module to business and management undergraduates. Designing that IP Management module challenged me to put into practice my ideas of how IP might be taught as a full module to non-lawyers. It is still astonishing how few UK Business Schools include IP education for either graduate or post graduate students. The City IPM module divides syllabus content 50:50 between IP Law and IP management. The majority of students choosing the module will not have studied any law, so how to present IP law took some thought. Bottom line, whilst the students would not need to know how to *solve* an IP legal problem, they should be able to *identify* IP issues and know when to call in an IP legal expert before an issue became a problem. This would be the same ‘Prophylactic law’ I had had in mind when first teaching engineers. It was important too that students would hear first-hand from IP managers, in conjunction with academic lectures and reading on IP management issues. Finding IP managers willing to contribute to the module has not been a problem. The students have had the benefit of hearing from IP experts in valuation, licensing, and small, large and global IP strategic management.⁶⁹ In recent years, student numbers choosing the module mushroomed (City students apparently eschewing traditional financial management choices for a module more in line with nearby Old Street EC’s Silicon Roundabout career opportunities). City allowed me to take on a practitioner as an assistant to help with tutorials and marking. Working with a young IP professional has brought the module ‘street cred’, which is much appreciated by the students. In 2018 I will be bringing these ideas to an IP module on Cass’s Masters in Innovation, Creativity and Leadership.

⁶⁴ Jo Johnson, ‘How Universities Can Drive Prosperity Through Deeper Engagement’ (Speech to HEFCE Conference, 12 October 2017) <<https://www.gov.uk/government/speeches/how-universities-can-drive-prosperity-through-deeper-engagement>> accessed 24 April 2018.

⁶⁵ See Job Advert: ‘IP Lecturer’ (University of Arts London, 2018) <<https://ual.tal.net/vx/lang-en-GB/mobile-0/appcentre-1/brand-1/xf-3f148d936616/candidate/so/pm/6/pl/1/opp/3784-IP-Lecturer/en-GB>> accessed April 2018, also posted on IPKAT at ‘Sunday Surprises’ (The IPKAT, 10 December 2017) <<http://ipkitten.blogspot.co.uk/2017/12/sunday-surprises.html>> accessed 23 April 2018.

⁶⁶ ‘Museum of Brands, Packaging and Advertising’ <<http://museumofbrands.com/>> accessed 21 April 2018.

⁶⁷ ‘Annual Report 2014’ (Museum of Brands, Packaging and Advertising, 2014) <http://www.museumofbrands.com/_assets/2014%20Signed%20and%20submitted%20to%20Charities%20commission.pdf> accessed 21 April 2018.

⁶⁸ My first Bournemouth University job, following graduation, had been as a dinner lady on the basis that if an elusive law teaching job were to become available, I’d be on hand to hear about it and respond swiftly. After 3 weeks, I left the canteen to begin my academic career as a part time, stand-in law and politics lecturer.

⁶⁹ Mandy Haberman, Jackie Maguire, Jim Asher, Donal O’Connell, Carol Daniels, Colin Hunsley, Charles Clark have all contributed to the City UoL IP Management Module.

In 2012, I was asked to be the IP education lead on a research project commissioned by OHIM/EUIPO into IP Education⁷⁰ in school curricula across the 28 EU member states. It was, for me, the beginning of a new chapter. In 2005, in Foshan, I had seen the advances being made by the Chinese in Primary School IP education, and was aware of having heard of nothing similar in UK. The OHIM/EUIPO research, which was published in 2015, was commissioned because 35%-50%⁷¹ of young Europeans display attitudes that favour counterfeiting or downloading. This was a legitimate basis on which to undertake the research. I considered it 'negative' grounds for IP education (i.e. getting young people to 'stop' negative behavior). I accepted the research role on the understanding that we also investigate 'positive' aspects of IP education (i.e. getting young people to understand how IP is a symbiotic partner of innovation and creativity) and that we define IP education to include Patents, Trade Marks, Design, Copyright and Confidentiality. Plagiarism was also covered.

The research revealed some inspiring collaborations between Governments' ministries (especially of Education and of Culture) and stakeholders from public and private institutions. IP is not a stand-alone subject, but appears, integrated, in the syllabuses for Arts, STEM, Citizenship, ICT and Entrepreneurship at levels from primary to upper secondary and vocational levels. However, there is no consistency of approach across the member states. The findings from member states were compared with three international states⁷² that ranked highest amongst the most innovative nations.⁷³

The UKIPO is well regarded for its IP education resource initiatives. But the UK's Department for Education (for England, Northern Ireland, Scotland and Wales)⁷⁴ returned poorer results in the EUIPO research than most other Member States. In the questions asked of Education Ministries, none of the UK's constituents mentioned any of the IP rights in the curriculum, nor in IP related learning objectives in the curriculum, nor in on going reform or debates. Nor were there any UK good practices of IP education noted, nor of IP education in the initial or in service training of teachers. Contemporaneous with the OHIM/EUIPO research was the UK government publication of *Enterprise for All: The Relevance of Enterprise in Education*.⁷⁵ An otherwise encouraging report by Lord Young, it made no mention of the significance of intellectual property in the commercialisation of enterprise.

The IPAN/NUS research had asked HEI students if they had heard of IP before coming to university. Of those that had, the greatest proportion came from non-UK countries.⁷⁶ Question 61 asked, "Was IP referred to during your student education?". Just under one third of all students surveyed claim that someone has referred to IP while

⁷⁰ 'Intellectual Property and Education in Europe: Study on IP Education in School Curricula in the EU Member States with Additional International Comparisons' (Office for the Harmonization in the Internal Market (Trade Marks and Designs), September 2015). <<https://euipo.europa.eu/ohimportal/documents/11370/80606/IP+and+Education+final+report+September+2015>> accessed 25 April 2018.

⁷¹ European Citizens and Intellectual Property: Perception, Awareness, and Behaviour – Executive Summary (European Union Intellectual Property Office, 2013) EU ip-perception study conducted in 2013, <https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPContributionStudy/25-11-2013/european_public_opinion_study_web.pdf> accessed 20 April 2018. (Updated in 2017).

⁷² Switzerland (French speaking and German Speaking), Hong Kong, Singapore, United States of America (California, Massachusetts and Washington).

⁷³ S Dutta, B Lanvin & S Wunch-Vincent (eds.), 'The Global Innovation Index 2014 – The Human Factor in Innovation' (WIPO, Cornell University & INSEAD, 2014) <<https://www.globalinnovationindex.org/userfiles/file/reportpdf/GII-2014-v5.pdf>> accessed 26 April 2018.

⁷⁴ Intellectual Property and Education in Europe (n63) at 109 for England; 166 for Scotland; 181 for Wales.

⁷⁵ Lord Young, 'Enterprise for All: The Relevance of Enterprise in Education' (Department for Business, Innovation & Skills, 2014) <<https://www.gov.uk/government/publications/enterprise-for-all-the-relevance-of-enterprise-in-education>> accessed 26 April 2018.

⁷⁶ Soetendorp, Haberman & Smith (n 47).

they have been at school, college or university. This is significantly more likely amongst international students (both those from within and outside the EU) than UK students.

Whilst preparing a recent IP Management exam paper for City, I consulted the EPO's Espacenet database to see what patents there were for cyclists' folding helmets. The first 25 hits included 7 from PRC educational institutions, of which 4 were schools.⁷⁷ The Chinese focus on IP education in schools is apparently getting results!

At the time of writing, the Government has launched HERA (Higher Education and Research Act 2017). In December 2017 I asked the then Minister for IP, Jo Johnson MP, about IP education "to ensure our students leave university able to compete with other countries' graduates". He agreed on its importance and its relevance to UKRI (United Kingdom Research and Innovation), the new body corporate comprising the research councils.⁷⁸ But the phrase 'intellectual property' is not to be found in the words of the HERA text. Hopefully, IP education initiatives will reflect the spirit of HERA. The Minister for IP is based in two departments: BEIS and DfE and is ideally placed to start the bridge-building needed if UK is to begin to match the IP education achievements of our global competitors.

When I became a reviewer for the UK academic Quality Assurance Agency⁷⁹ I saw the power that QAA's discipline benchmark statements hold over academic teams devising and delivering higher education programmes. I realized that IP education would have an entrée into higher education programmes if 'intellectual property' could be articulated into QAA discipline benchmarks. IPAN and the UKIPO both took up my suggestion to respond when QAA launched calls for submissions to the rewriting of subject benchmarks. When we responded, we were rewarded with positive results i.e. subject discipline benchmarks that specifically mention intellectual property, as these two extracts illustrate. The first statement is derived from the Landscape Architecture Benchmark Statement:

Students . . . will now be expected to have "Knowledge and understanding of xvi the role and impact of intellectual property (IP)" within creative design environments

The Agriculture, horticulture, Forestry, Food, Nutrition and Consumer Sciences Benchmark Statement says, "Students . . . will be expected to have abilities and skills that include the ability to understand the importance of IP rights. At the same time, led by Professor Andy Penaluna, QAA has rewritten its guidance for UK HE providers of Enterprise and Entrepreneurship education to include several mentions of IP.⁸⁰ The QAA process of updating benchmark statements is slow, and requires vigilance and determination on the part of any one seeking to influence the process. In the same way that QAA benchmarks will influence the design of HE programmes, so do the accreditation requirements of professional bodies. IPAN played its part in UK Engineering Council including four mentions of 'intellectual property' in its SPEC⁸¹ requirements for chartered and incorporated Engineer qualifications. ACCA has recognised the importance of IP education in the accreditation requirements for accountants. As more

⁷⁷ Search results for "Folding Helmet," 'Result List' (*EspaceNet Patent Search*) <https://worldwide.espacenet.com/searchResults?ST=singleline&locale=en_EP&submitted=true&DB=&query=%22folding+helmet%22> accessed 26 April 2018.

⁷⁸ Higher Education and Research Act 2017 s 92 & 93 (Outlining the constituents and role of United Kingdom Research and Innovation).

⁷⁹ 'Quality Assurance Agency' <<http://www.qaa.ac.uk/en>> accessed 25 April 2018.

⁸⁰ 'Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers' (Quality Assurances Agency, January 2018) <<http://www.qaa.ac.uk/en/Publications/Documents/Enterprise-and-entrepreneurship-education-2018.pdf>> accessed 24 April 2018.

⁸¹ UK-Spec (n 14).

professional bodies, and more QAA subject benchmarks, expect 'intellectual property' to be included as an accreditation or academic requirement, IP education will receive a welcome boost.

REFLECTIONS ON THE FUTURE OF IP EDUCATION – LOOKING FORWARD

IP education has progressed hugely in thirty years. Anyone with the curiosity to learn about IP for themselves will find a plethora of well-designed and easily accessible resources, freely available online. Anyone with the enthusiasm to introduce IP to school or HE students will be similarly well-served. This is a great achievement, and one for which all IP education campaigners are to be congratulated.

However, relying on curiosity and enthusiasm will not be enough to ensure that UK's school and HE students get an IP education experience equal to that which their counterparts in Europe, Asia and the United States are beginning to enjoy. The UKIPO does an amazing job, but someone needs to take responsibility for introducing initiatives that will foster and unite BEIS and DfE efforts in IP education. It is exciting to be part of the WIPO team, led by Altaye Tedla,⁸² developing WIPO Academy's Intellectual Property Impact Certificate course for Teachers.⁸³ It addresses two future facing aspects of IP education:

- (i) Appreciation that since all Nation States understand the importance for their rising populations to embrace creativity, innovation and enterprise, linking IP education to those areas of the curriculum makes sense; and
- (ii) Understanding that IP educators need to know how to make the business case to governments and policy makers for IP education to be introduced to schools. To develop that understanding, WIPO is introducing a concept new to IP education for schools – TRIZ.⁸⁴ It is 'a problem-solving, analysis and forecasting tool derived from the study of patterns of invention in the global patent literature'. It is being used as a means of supporting innovators to improve patent strategy by linking a design model to TRIZ tools and methods, and patent strategy data. As such, TRIZ has a part to play where young people are learning about innovation, entrepreneurship and the role of intellectual property.

At the same time, gamification of IP education will be a necessary prerequisite to keep IP education delivery styles ahead of the learning and teaching developments that rising generations of 'digital nomads' will be demanding. IP Education games already exist,⁸⁵ but their use needs to be more widely accepted

It is heartening to see IP Education gaining academic 'respectability' through the funding support given by the UKIPO, EPO, EUIPO and WIPO into researching the perception, practice and process of IP Education. During most of 'my' 30 years, the accent has been on IP education at University. More recently, the focus has turned to IP education in schools. This is understandable given the ubiquity of online materials in the classroom, and the need to educate young people about the ethics and risks of ignoring copyright. IP education should always emphasise the 'positive' i.e. the ways in which IP can be used to create value and esteem, as well as the 'negative' i.e. 'thou

⁸² Altaye Tedla, Head, WIPO Academy, Distance Learning Program.

⁸³ 'WIPO –KIPO-KIPA IP Impact Certificate Course for Teachers' workshop, Abu Dhabi, December 2017<http://www.wipo.int/meetings/en/details.jsp?meeting_id=46266> accessed 25 April 2018.

⁸⁴ 'Triz' (*Oxford Creativity*) <www.triz.co.uk> accessed 26 April 2018.

⁸⁵ 'Black Swan' (*Lancaster University Enterprise Centre*) <<https://www.lancaster.ac.uk/enterprisecentre/students/ip-game/>> accessed 26 April 2018.

shalt not . . . ' In the next few years young people commencing university studies should do so with some basic IP knowledge, on which they can build a deeper understanding of the risks and benefits presented by intellectual property rights. I would not presume to predict how IP education resources might develop in the future. The implications of massification in education⁸⁶ and the use of social media platforms including Instagram, Twitter⁸⁷ in the face-to-face or virtual classroom are trends that the rising generation of IP educators will be unable to ignore.

CONCLUDING REMARKS

I have enjoyed my 30 years in IP law education. I have had many great teachers, and made many good friends. I'm a true IP enthusiast. The reward for any educator is to see the success of their students, and I'm delighted at the number of my former students who have taken up the baton of IP education beyond the law school. Promoting IP education at a time when the importance of IP was beginning to be appreciated around the globe gave me the opportunity to share IP education concepts internationally. I am proud and delighted to have played a part in growing international awareness of IP education. It has been an enriching experience, from which I continue to learn a lot. My enthusiasm to champion IP education beyond the law school began in QMUL in 1987 when it dawned on me that no-one was teaching creators of rights about IP. It continued when my first research question 'How relevant do you think IP will be to your future career?' received 'relevant or very relevant' from 85–95% of responses. It has been buoyed up by the support, encouragement and achievements of so many. When UoAL's College of Fashion appoints its IP Law lecturer, it will signal the relevance of IP education to a sector that is predicted to contribute £32 billion to UK GDP by 2020,⁸⁸ and in turn to *every* sector in which a graduate expects to develop their career. I wish the appointee much success in the post.

Nevertheless, IP education successes over the past 30 years remind us that there is still much to do, and much to achieve.⁸⁹ Let students have the last word on why, given the chance, they chose IP education: 'to protect ideas for future business'; 'I think it will be relevant in the future'; 'It is knowledge that most people do not have' and 'I consider this course as very important and useful in terms of business environment and especially for entrepreneurs'.⁹⁰

⁸⁶ Haris Hasic 'Teaching IP to the Masses' (Speech to EIPTN Lund, 2017).

⁸⁷ Joe Sekhon 'Use of Facebook, Instagram and Twitter to educate student entrepreneurs about the importance of IP' (Speech to EIPTN Lund, 2017).

⁸⁸ £27 billion worth of womenswear (RTW) sales in the UK in 2015. This figure is predicted to grow 23% by 2020 to £32 billion (Mintel Reports, 2016).

⁸⁹ Post Script June 2018: I participated in a further WIPO International Seminar on IP and Education in Tbilisi. It was encouraging indeed to see the initiatives from IP Offices and universities representing a number of states. Attendance by Georgia's Deputy Education Minister was a welcome presence. It was good to read the Center for IP Understanding's report on The State of IP Education Worldwide which finds 'a link between the availability of IP education and the strength of a nation's IP system'.

⁹⁰ Cass Business School, City University of London, BSc Business and management 2nd year students: asked at the beginning of the module why they had chosen the Intellectual Property Management elective – 75% responded in this way.