The role of education in technology commercialisation

Experience, expertise and the latest know-how are the keys to success in turning R&D investments into commercially viable products and services

By **Jeffrey S Whittle**

Education plays a crucial role in technology commercialisation — not only at different levels of individual experience and leadership, but also at different levels of management within companies, universities and government organisations. Education can equip, empower and assist individuals and entities striving for excellence at all stages of competing in national and global IP markets. We have consulted with several leading experts in this area — Hector Chagoya, partner at Becerril, Coca & Becerril; Gauri Prakash-Canjels, managing director at GreatBridge Consulting; and Scott Williams, director at Stout Risius Ross — to learn their views as to the importance of technology commercialisation education.

What is your current involvement in technology commercialisation education?

Hector Chagoya (HC): I am involved mainly in courses run by the Licensing Executives Society (LES) Mexico and LES International, but also in related programmes upon invitation by universities and R&D centres. I also encourage chemical engineering students at La Salle University in Mexico City to incorporate technology commercialisation into their project evaluation, subject and assessments, as well as some fundamentals for valuation.

Gauri Prakash-Canjels (GPC): I am an active member of the LES and teach its professional development series courses. I am also a member of the American Bar Association (ABA), the International Trademark Association (INTA) and the National Association of Certified Valuation Analysts, among others, and regularly attend/present at their meetings. I have also taught certified licensing professional (CLP) courses and patent valuation for damages at many forums. The courses I have presented include basic and advanced valuation techniques, valuation and negotiation, advanced topics in licensing, valuation of early-stage technology and valuation and damage estimation for patents and other intellectual property.

Scott Williams (SW): I am an instructor for several courses, including the CLP Review Course and other educational courses offered by the LES. I have also developed internal training for my firm and have given lectures for licensing courses held at Johns Hopkins University and the Temple University Beasley School of Law.

What has been your best technology commercialisation educational experience and how did that affect you and your career?

HC: I have attended at least one LES International meeting a year since 1999. The experience and knowledge I gained through these conferences have made it possible for me to obtain CLP certification and to be considered a leading professional in technology commercialisation in Mexico.

GPC: Several examples come to mind. Every time I teach intellectual asset management classes or a class on valuation

and licensing of patented technology, I find some very talented people sitting in my class. They frequently share their unique perspectives in discussions which enrich the learning experience for everyone. The insights gleaned from my classes help me to approach my technology commercialisation projects with a more seasoned perspective.

SW: Most people learn best through a combination of instruction and experience. I was fortunate early in my IP career to work for a company that had a strong internal education programme. I also attended several external courses, including some offered by LES. This — along with my real-world licensing experience — was the foundation for my understanding of technology commercialisation. Developing proficiency in technology commercialisation early on gave me the confidence to drive and support bigger, more complex deals. My education was a real career accelerator.

How have you seen technology commercialisation education spread internationally over your career?

HC: As international awareness of the importance of intellectual assets for business has increased, so too have the options for education. However, international transactions and the complexity of the IP environment in transactions that affect different territories are not always covered by educational programmes related to technology commercialisation. Instead, most options that have been developed in different jurisdictions relate only to local law. The international aspects of negotiation and commercialisation are difficult to capture in an educational programme and there is definitely a gap in formal programmes related to the international part of IP transactions and technology commercialisation.

Hector Chagoya, partner, Becerril, Coca & Becerril

"The real challenge is to find true professionals with front-line experience, who can share and teach their experiences to new generations"

Introducing the participants

The panellists joining Jeffrey Whittle in this issue's roundtable discussion are as follows:

- Hector Chagoya is a partner and director of patents and technology for Becerril, Coca & Becerril, SC, where he is in charge of consulting services aimed at leveraging value from IP assets, as well as leading the patent practice and guiding working teams through technology intelligence studies, IP asset valuation, IP negotiations, technology evaluation and the analysis of substantive issues of patent litigation. A certified licensing professional (the first in Mexico) with 17 years' experience in intellectual property, Mr Chagoya is recognised as an expert in engineering economy by the National College of Chemical Engineers and Chemists and teaches in the chemical engineering programme at *Universidad La Salle*. During his career, he has acted as expert witness in several patent litigation cases, published articles on intellectual property and licensing, and co-authored chapters in several books related to licensing, trade secrets and pharmaceutical law and practice. He is past president of LES Mexico and has served as vice president of LES International for two terms. He is also a past president of the Mexican Institute of Chemical Engineers (Mexico City Chapter) and a member of the International Association for the Protection of Intellectual Property and INTA, among other professional associations in Mexico and abroad.

- Gauri Prakash-Canjels is managing director for GreatBridge Consulting, Inc, a national consulting firm specialising in litigation, surveys and valuation services for intellectual property, antitrust, commerc ial damages, valuation and business consulting matters. Dr Prakash-Canjels has 18 years' of economic consulting experience and has conducted litigation consulting for IP infringement damage estimation, surveys, antitrust analysis, business appraisal and IP valuation, breach of contract damage estimation and bankruptcy action matters in numerous industries. She is past chair of the Valuation and Taxation Committee for the LES (United States and Canada), a certified licensing professional and a certified valuation analyst. Dr Prakash-Canjels has taught courses at graduate and undergraduate levels and has been a visiting professor at the Milano Graduate School of Management and Urban Policy, New School University, where she taught courses in quantitative methods – statistics, survey and econometrics for MBAs. In addition, Dr Prakash-Canjels has been a lecturer at Northwestern University and taught courses in econometrics and on the principles of economics. She has also been assistant professor at Delhi University, India. She teaches courses on intellectual asset management, including valuation of patents for LES and Certified Licensing Professionals, Inc.

- Scott Williams is a director with Stout Risius Ross, Inc, with responsibility for managing the sale and licensing of clients' IP assets, as well as providing consulting services related to both litigation and the valuation of IP and technology businesses. Mr Williams has more than 20 years' experience in licensing and business development, as well as in consulting to technology businesses. Over the past 12 years he has specialised in IP assets. Prior to joining Stout Risius Ross, Mr Williams was director of Invotex, where he led the transaction services practice area. He has also served as vice president in the strategic business development and technology commercialisation business units of BTG plc, a British technology investment and development company. Mr Williams also served as director of sales and marketing for a start-up manufacturer of industrial computers and plant-floor workstations, where he was responsible for building a national distribution network and developing strategic partnerships with private label resellers and original equipment manufacturers. Mr Williams is a certified licensing professional and a certified valuation analyst. He has authored several articles and frequently speaks on licensing and IP valuation topics.

Gauri Prakash-Canjels, managing director, GreatBridge Consulting
"Insights gleaned from my classes help me to approach my technology commercialisation projects with a more seasoned perspective"

GPC: Technology commercialisation education has certainly become more global. IP organisations such as the World Intellectual Property Organisation (WIPO), LES International, the American Intellectual Property Law Association (AIPLA) and others are working to standardise techniques for the valuation and commercialisation of technology. Licensing accreditations have become more widely recognised and support for technology professionals has increased worldwide.

SW: I began my IP career with a London-based technology development and licensing company. Much of the commercialisation work we were doing was focused on Europe and the United States. Now, with more technology commercialisation activity occurring in other areas of the world, the need for education is increasing. I currently have clients in Asia and Central America which are developing licensing programmes and trying to get up to speed as quickly as possible. Part of my role in helping them to achieve their commercialisation objectives is developing an education programme for their executives and employees.

Do you see educational products for technology commercialisation as being more widespread today than five to 10 years ago, and if so, how?

HC: Yes. Some universities have started programmes, mainly driven by their own technology transfer offices. A number of new organisations engaged in commercialising technology have also been created which offer content related to this area. However, with such growing demand for IP management in business and for IP education among professionals engaged in these activities, it is becoming increasingly important that we find a way to assess not only the quality of such programmes, but also the organisations in the technology commercialisation field. The real challenge is to find true professionals with front-line experience, who can share and teach their experiences to new generations with a level of commitment and ethics that will positively affect the business environment.

GPC: There is a much wider range of educational products for licensing available and a more diverse set of professionals engaged in technology commercialisation. Just looking at webinars and other resources available on the Internet, there has been a rapid growth in education programmes on technology commercialisation offered by organisations such as the ABA, LES, AIPLA, INTA, the Business Valuation Resource (BVR), the Business Development Academy and Stafford Education. I have been approached by multiple organisations about teaching technology commercialisation courses in the past few years. In addition, the availability of databases containing comparable licences, royalty rates and other licensing resources has multiplied.

SW: There certainly appear to be many more educational products available today. Numerous organisations offer everything from multi-day courses to one-hour online webinars. My inbox is full of invitations.

What types of organisation influence the competitive environment in technology commercialisation education?

HC: Universities and professional or business organisations such as LES, the Association of University Technology Managers and the Biotechnology Industry Organisation, as well as some government entities that promote programmes related to technology commercialisation. The certification of professionals in this field — such as CLP and ongoing initiatives in Europe and other jurisdictions — is also a very important driver of technology commercialisation education.

GPC: A number of organisations and institutions are competing to provide technology commercialisation education. These include both traditional educational institutions, such as universities, as well as professional organisations with a focus on intellectual property. The Franklin Pierce Centre, LES University, AIPLA, BVR, WIPO, ABA and the National Association of Certified Valuation Analysts are among these providers. Companies offering webinars on specialised topics are another good source.

SW: The types of organisation are quite broad, ranging from altruistic to profit-driven entities, including industry trade organisations, law firms, consulting firms and business training companies.

How can organisations better address international issues with respect to technology commercialisation education?

HC: First, by educating professionals who are in charge of transactions about the fundamentals of intellectual property and the differences and challenges of prosecuting

and enforcing intellectual property worldwide. Networking is also essential because the culture and legal framework in different countries affect the way that technology is commercialised, valued and negotiated worldwide. Reliable contacts and a primary understanding of intellectual property and best practices in technology transfer (eg, negotiation, valuation and strategy) are the best tools that an organisation can provide through education.

GPC: Organisations offering technology commercialisation education need to focus on the global nature of our economy. A greater emphasis on cross-border commerce is imperative because any technology commercialisation should consider the full extent of the available market (regardless of whether it is within national borders) to realise the full potential of the technology.

SW: Much of the educational material coming from US organisations is very US-centric. This is in contrast to programmes developed outside the United States, which have a more global perspective. Country-to-country differences in the law, accounting principles, taxes, business practices and culture affect international licensing activity. Good educational programmes with an international focus can help licensing professionals to handle these differences with aplomb, resulting in potentially better deals and a more efficient process. However, more work needs to be done in the United States to expand the view of technology commercialisation educational programmes.

Should there be more international licensing standardisations for different technical spaces in terms of agreements or standard terms and conditions, and how would education affect that?

HC: Standardisation of agreements would first require standardisation of the legal framework for enforcing and managing such agreements, which is a far bigger challenge. Accordingly, a common understanding of industry norms and best practices in technology commercialisation by sector can be taught, as can the impact of an agreement's provisions under more than one legal system. Education, therefore, can have a great impact and does facilitate negotiations. Experience shows that a common understanding of the fundamentals of intellectual property and of the practices related to the common provisions in technology transfer agreements facilitates reaching an agreement. Likewise, a lack of fundamental knowledge and understanding of intellectual property and licensing by a counterpart during negotiations is often a deal breaker.

GPC: Standardisation would certainly make technology commercialisation education more uniform. However, while I understand the appeal of standardising licensing practices across different technology areas in a global economy, I fear that the value of doing so may be limited. Every country and industry has its own nuances and common practices. Imposing a uniform standard on licensing terms and conditions may compromise those prevailing practices and understandings, especially if the standards are too rigid.

SW: Standardisation can deliver efficiencies to the technology commercialisation process. We have already seen accepted behaviours and expectations emerge from certain industries. There may be challenges in getting all stakeholders to come together and develop formal standards in licensing. However, there are still many benefits to streamlining the process, regardless of whether it occurs through a formal standard or accepted best practices. In either case, education can get us there faster by elevating all stakeholders to the same level.

Where do you see technology commercialisation education going in the future?

HC: Mostly online, but networking will not disappear. Social networks on the Internet and other tools might change the landscape, but the need to connect and understand people during negotiations will remain a key issue.

GPC: I think the market for technology commercialisation education will continue to grow and, as it expands, will allow for more customised experiences so that professionals who are seeking to expand their knowledge can find a combination of offerings tailored to their specific interests and specialties. We will also see more cutting-edge education tools being employed to improve the overall educational experience.

SW: Technology commercialisation education will grow in importance. As the number of deals continues to increase and as more professionals move into licensing roles, it will be critical to have good education programmes in place.

Scott Williams, director, Stout Risius Ross
"As the number of deals continues to increase… it will be critical to have good education programmes in place"

Action plan

The importance, movement and transition of education should spur us to action as IP management leaders:

- We all should be involved in education by either starting or continuing to take various levels of educational courses on a regular basis and to give back to others and the profession in a more concerted and regular basis. This helps each of us to strive and push for excellence by demanding best practices in skills, asset management, deals and relationships.
- As societies and organisations that advocate and promote technology commercialisation education, from the outset we should continue to evaluate our educational platforms and make sure these programmes are not only leading edge, but also bleeding edge – especially in terms of the approaches to educational content and delivery platforms. This will enhance our abilities to reach national and global audiences with this important knowledge and to have the greatest impact in educating individuals in this field.

Do you believe that education empowers technology executives and, if so, how?

HC: Yes. Executives are more likely to succeed in a negotiation when they are knowledgeable about the principles of intellectual property and technology transfer.

GPC: Technology executives are empowered through education, which arms them with the tools to negotiate and implement technology commercialisation plans successfully. It follows that education in technology commercialisation should become more comprehensive, with technology and business executives demanding that educational tools offer more complexity and convey a deeper level of analysis.

SW: I mentioned earlier how my own technology commercialisation education affected me — it gave me the confidence to do bigger things. I am not unique in this regard. Education is important in empowering technology executives. It allows them to grow in their current roles and advance to take on greater responsibilities. This has a positive impact on executives and the organisation as a whole.

How does education encourage excellence and raise the level of professionalism in the industry?

HC: By keeping educated in any field, including technology commercialisation, any professional can keep innovating, looking at the changes in the practice and principles of professional work and proposing changes that enhance professions. Therefore, education always encourages excellence by empowering people with knowledge and skills that keep them continuously innovating and progressing.

GPC: Education provides greater rigour to the commercialisation efforts of technology and business executives. It allows parties to approach their commercialisation efforts in an objective, informed and professional manner, leading to more successful technology commercialisation activities.

SW: Knowledge begets knowledge and education is the catalyst. It provides a foundation from which licensing professionals can advance the industry. The educational process creates a uniform, elevated starting point from which licensing professionals can develop their individual and collective talents.

Delivery time

As can be surmised, education remains critical in the field of technology commercialisation, and we must be prepared to adapt to changes in technology in terms of how education is delivered. With effective educational core curriculums, individuals, institutions and companies can more effectively manage intellectual assets throughout their lifetime, as well as adapting to movement of assets into and out of portfolios at different stages of intellectual asset management. By implementing educational approaches with strong foundations and strategic viewpoints, individuals, institutions and companies are empowered to strive for excellence from early analytical investigation, to and through deal completions and throughout various stages of post-deal assessments and actions. *iam*

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