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1

Rage against the machine? Incorporating legal tech into legal education

Abstract

Technology is changing the way that legal services are delivered and impacting on the administration of justice. Law firms are increasingly adopting digital technologies to disrupt traditional ways of working. The emergence of new technologies test existing legal parameters, paradigms and concepts bringing about legal, ethical and societal challenges. Planned changes to the legal education and training for solicitors and barristers provide law schools with an opportunity to review their curriculum. Despite the rise of digital technologies, empirical data suggests that only a few institutions currently offer legal tech modules. This article explores the pedagogical challenges and opportunities afforded by engaging students in technologically enhanced learning.

Key words: legal tech, disruption, legal practice, legal education,

Introduction

Our lives are becoming increasingly dependent on technology. As Katsch et al argue, we are now at a point where it is difficult to operate outside the 'virtual' world (the internet) and in the near future the majority, if not, all of our activities will be online.[1] The border between the online/off-line world is rapidly disappearing resulting in an intersection between law and technology.[2] This is reflected in new solutions emerging for the adjudication of legal disputes. There has been a shift towards the delivery of legal services online through the growth of online dispute resolution (ODR) tools.[3] As

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[1] Ethan Katsch and Orna Rabinovich-Einy, *Digital Justice*, (2017) Oxford University Press p.12

[2] Ibid p.12

[3] European Commission, Online Dispute Resolution, service launched in 2016 https://ec.europa.eu/consumers/odr/main/index.cfm?event=main.home2.show&lng=EN accessed 17 April 2019

technology becomes more sophisticated it increases the scope and possibility of online dispute resolution.[4] Prior to the COVID- 19 crisis, the Government had authorised a £1billion reform programme to integrate technology into the justice system.[5] Although some parts of the court system have been able to use technology to deliver remote access courts the impact of the pandemic on access to justice has been significant.[6] The plans for reform of the justice system are ambitious, the pandemic may strengthen the case for change and lead to an acceleration of the digitalisation of the administration of justice. This may have profound implications for the future of our justice system.[7]

Digitization is already impacting on legal issues, McGinnis et al have argued that the disruption to the legal profession has begun, that technological acceleration will have significant implications for both legal practice and legal education.[8] COVID-19 potentially has further implications for the legal industry, some arguing that it will

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[4] Richard Susskind, *Tomorrow's Lawyers*, (2017) Oxford University Press p. 40

[5] UK Government ' 'HMTCS Reform Programme Projects Explained' (*Gov.UK*, 4 June 2019) https://www.gov.uk/guidance/hmcts-reform-programme-projects-explained accessed 1 July 2020

[6] Roger Smith, 'Richard Susskind in Conversation- remote courts need a Royal Commission level of investigation' (*Law Technology and Access to Justice*, 2 July 2020) https://law-tech-a2j.org/odr/richard-susskind-in-conversation-remote-courts-need-a-royal-commission-level-of-investigation/ accessed 3 July 2020

[7] See, Richard Susskind, *Online Courts and Future of Justice*, (2019), Oxford University Press at p.4, Susskind discusses the legal professions resistance to technological change but argues that the proposals for online courts will bring about radical reform.

[8] John O McGinnis and Russell G. Pearce, '*The Great Disruption: How Machine Intelligence Will Transform the Role of Lawyers in the Delivery of Legal Services*', (2014) Fordham Law Review, Volume 82, Issue 6, Article 16, p.3041-3066 at p. 3042.

3

accelerate technological change and the reimagination of legal services.[9] Skjolsvik and Breunig argue that from 2010 a shift has occurred towards the integration of technology into legal services with an increasing recognition of the value generated from technological solutions.[10] We are seeing the growth of alternative business structures exploiting technology to disrupt existing and traditional models.[11] Larger law firms are investing in emerging technologies such as artificial intelligence and blockchain and smaller firms are leveraging the benefits of technology, reflected in the growth of virtual law firms.[12] The Law Society suggests that artificial intelligence and machine learning will not only impact on the legal profession, but significantly influence a number of areas of legal activity.[13] Law firms have responded with the introduction of training contracts centred around law and tech.[14] Many utopian claims have been made

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[9] Mark. A. Cohen, 'COVID 19 Will Turbocharge Legal Industry Transformation', (*Forbes*, 24 March 2020), https://www.forbes.com/sites/markcohen1/2020/03/24/covid-19-will-turbocharge-legal-industry-transformation/#65e731311951 accessed 1 July 2020

[10] T. Skjolsvik & K.J. Breunig 'Virtual law firms: an exploration of the media coverage of an emerging archetype' (2017) *International Journal of Law and Technology,* 2018 pp.64-88 at p. 81.

[11] Supra n.8 p.10

[12] Supra n.10 p. 87

[13] The Law Society, Lawtech Adoption Research (2019) https://www.lawsociety.org.uk/support-services/research-trends/lawtech-adoption-report/ p.8 accessed 17 April 2019

[14] Cristiano Dalla Bona, 'Tech Pioneers: Meet Addleshaws' trainee innovators' (16 April 2019, *The Lawyer*) https://www.thelawyer.com/tech-pioneers-new-unicorns accessed 17 April 2019. Clifford Chance plans to take five trainees from 2021 in a scheme called Ignite, where the training contract resembles a traditional training contract, but all the seat rotations focus on law and tech. To be selected the applicants have to demonstrate how they have redefined

around the rate of adoption of technology within legal services, the legal profession is cautious and often resistant to change. However, the potential impact of emerging technologies to disrupt traditional ways of working is hard to ignore.[15] COVID 19 may force the adoption of technology in a way that was not envisaged prior to the pandemic bringing challenges for our legal system.

This article discusses the way in which UK law schools are responding to the impact of technology, by considering the current position in legal education, examining technology in the US and then comparing it with research undertaken here. This article aims to make a contribution to the developing literature by providing an evidence-based exploration of the pedagogical challenges and opportunities afforded by engaging students in technologically enhanced learning.

Current position in legal education

Much has been discussed about the new qualification changes.[16] Under plans by the Solicitors Regulation Authority (SRA), students seeking to qualify as a solicitor must now pass SQE Stages 1 and 2, have obtained a degree, or have an equivalent

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a process by thinking differently. Allen & Overy, Ashurst's and Addleshaw Goddard have similar schemes.

[15] Alan Cunningham, Andrew James and Bruce Tether, 'Disruptive Technologies and Legal Service Provision in the UK: A Preliminary Study '(2018) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3297074 accessed 12 February 2020 and Legal Technology: Looking Past the Hype, (*LexisNexis*, 4 October 2018)) https://www.lexisnexis.co.uk/blog/in-house/legal-technology-looking-past-the-hype accessed 12 February 2020

[16] G. Ferris 'The Solicitors Qualification Examination: something for all? Some challenges facing law schools in England and Wales' (2018), The *Law Teacher* Vol.52. No. 4 pp.519-527

qualification, or have equivalent experience and have completed two years qualifying work experience. For students seeking to qualify as a solicitor the requirement for a qualifying law degree disappears but remains for those wanting a career at the Bar. Law schools face some difficult choices as a result of these changes.[17] There is a debate within the academy on the purpose of a law degree and to what extent the impact of these changes will see a shift towards the 'professionalisation' of legal education.[18] This article does not seek to debate the arguments on liberalisation[19] versus vocationalism, there are many excellent academic discussions which can be found elsewhere.[20] However, the current situation does represent an opportunity to reflect on the development of the law degree. The way in which law schools respond to the changes proposed by the SRA will differ, some law schools will see this as an appropriate time to re-design their curriculum others will not take such radical approach. [21]. The value of a law degree goes beyond its connection to legal practice.

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[17] Ibid p.523

[18] M. Davies, 'Changes to the Training of English and Welsh Lawyers: Implications for the Future of University Law Schools' (2018), The *Law Teacher* Vol.52. No. 1 pp.100-125 p.125

[19] J. Guth and C. Ashford, 'The Legal Education Training Review: Regulating Socio-Legal and Liberal Legal Education', (2014) The *Law Teacher* Vol.48. No. 1 at p.6 the authors describe a liberal education as one that is "is not aimed at preparing students for a particular job or profession and is not concerned with notions such as employability."

[20] Anthony Bradney, '*Conversations, Choices and Chances*' (2003) Hart Publishing; H. Somerland, R. Young, S. Vaughan & S. Harris-Short, *The Futures of Legal Education and the Legal Profession* (2015) Hart Publishing

[21] C.J. McKinney, 'BPP students to be taught digital skills through new law-tech partnership', (*Legal Cheek*, 8 April 2019) https://www.legalcheek.com/2019/04/bpp-students-to-be-taught-legal-tech-skills-through-new-partnership/ accessed 30 April 2019. BPP has re-structured all of its courses to include technology within them.

The emergence of new technologies gives rise to new legal, ethical and societal issues, law schools could respond by exploring alternative pedagogies that reflect a growing interest in the critical discourse on the current and future technological landscape and how it relates to law.

Technology education in US law schools

Some US Law Schools have responded to the rising interest in legal tech[22] by incorporating it into their curriculums. [23] Jackson[24] writing in 2016 identified 18 US law schools that had a Centre for Law and Technology and a further 29 law schools that offered at least one course that related to technology.[25] Miami University

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[22] Legal Geek, 'The Legal Geek Start up Map' https://www.legalgeek.co/startup-map/ accessed

15 April 2019 reflects the growth of LawTech start-ups.

[23] See for example, Stanford's CodeX Center for Legal Informatics:

https://law.stanford.edu/codex-the-stanford-center-for-legal-informatics/ accessed 15 April

2019, Georgetown's Program in Legal Technologies

https://www.law.georgetown.edu/academics/centers-institutes/legal-profession/legal-

technologies.index.cfm accessed 15 April 2019, Chicago-Kent's Center for Access to Justice

& Technology: https://www.kentlaw.iit.edu/institutes-centers/center-for-access-to-justice-

and-technology accessed 15 April 2019 there are also innovative programmes being run at

University of Miami: https://www.law.miami.edu/academics/law-without-walls accessed 15

April 2019 , Suffolk Law School: https://lawpracticetechnology.blogs.law.suffolk.edu

accessed 15 April 2019, and NULaw Lab at Northeastern University: http://nulawlab.org

accessed 15 April 2010

[24] D. Jackson 'Human-centered legal tech: integrating design in legal education' (2016) The

Law Teacher Vol.50 no.1 82-97 at p.86

[25] There are 203 ABA approved law schools in the US:

https://www.americanbar.org/groups/legal_education/resources/aba_approved_law_schools/

in 2016, 23% had incorporated some form of legal tech into their curriculum.

LawWithoutWalls (LWOW)[26] has a programme, that brings together law and business students with academics, business, lawyers and entrepreneurs to identify legal problems and create technological solutions. Chicago-Kent College of Law offers an Access to Justice Technology Clinic.[27] Law students use document assembly and a specialised authoring tool to design legal templates to enable people on low incomes to gain access to justice.[28] In his research, Jackson identified courses that were not theoretical (doctrinal) discussions on law and technology but involved law practice technology (legal tech).[29] Jackson predicted that by 2020 most American law schools would have a technologically enhanced programme.[30] It is recognised that in the US, law is a postgraduate course and there is a stronger emphasis on developing practical skills to prepare students for legal practice. Furthermore, US law schools are often better resourced and that makes innovation development more sustainable. Notwithstanding the differing cultural context, UK law schools can benefit from learning about their approach to legal tech.

Current state of technology education in UK Law schools

Although technology is changing the delivery of legal services and the administration of justice, a complete or accurate picture of the state of technology education in UK law schools does not exist. To address this gap in our knowledge research was conducted to identify the number of legal tech courses offered by UK law schools. Using the 'The

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[26] Law Without Walls http://lawwithoutwalls.org accessed 15 April 2019

[27] Chicago-Kent's Center for Access to Justice & Technology

https://www.kentlaw.iit.edu/institutes-centers/center-for-access-to-justice-and-technology

accessed 15 April 2019:

[28] L. Lupica and T. Tobias, 'The Apps for Justice Project: Employing Design Thinking to

Narrow the Access to Justice Gap', (2017) *Fordham Urb. Law Review*, pp. 1364 -1392, there

is a discussion on the Apps for Justice Project at Maine Law but also a wider discussion of

similar projects across American Universities.

[29] Supra n.24 p.86

[30] Supra n.24 p.88

8

Complete University Guide' University Subject Tables 2019 and the list of university profiles, every university which offered an LLB (Hons) degree was identified. [31] Scottish universities offering a law degree recognised in England and Wales were included. The website for each law school was accessed, and data was obtained from 118 institutions.[32] Some universities offered information technology and law courses that focused on topics such as privacy, cyber-crime, data protection and the regulation of new technologies, but these types of courses fall outside the scope of discussion of this paper .[33]

Results could be grouped into two categories:

1. Law schools with a module related to law and technology which promoted student engagement with digital technologies (legal tech module). [34]
2. Law schools with no dedicated technology offering.

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[31] Complete University Guide (2018) 'Subject Table League Tables',

https://www.thecompleteuniversityguide.co.uk/league-tables/rankings?s=Law accessed 2 December 2018

[32] The websites were accessed in December 2018. This data reflects those Law Schools currently offering a module related to law and technology in 2018/2019.

[33] For example, the University of Bristol, offers 'Information Technology Law'

https://www.bris.ac.uk/unit-programme-catalogue/UnitDetails.jsa?ayrCode=19%2F20&unitCode=LAWD30003 accessed 2 December 2018) and East Anglia University 'Internet law' https://www2.uea.ac.uk/study/undergraduate/degree/detail/llb-law?_ga=2.54712610.84175286.1555422078-1608926542.1544799265 accessed 2 December 2018

[34] In these modules, students' design and create technological solutions for example a smart phone app, online game, or a document automation tool.

A small number of institutions (8%) offered a module with an application of digital technology to legal practice, thereby introducing students to software to harness the use of legal technology to create a resource.[35] The essential component is the design and development of a technological tool such as smartphone app or chatbot.

The majority of institutions (92%) were in category 2, with no legal tech module offered. This research shows at this juncture the majority of law schools do not include these types of modules into their curriculum.

However, there is a growing interest in law and technology with collaborative centres emerging. In 2007, Kings College London established a Centre for Technology, Ethics, Law and Society focused on policy research into the implications of new and emerging technologies. In 2016, the University of Ulster established the Legal Innovation Centre,[36] which is a collaboration between the law and computing schools bringing together innovation and research in legal technologies. The University of Oxford has a number of work packages that address the intersection between law and technology and convene the Law and Technology Education Network.[37]

There are limitations to this study, the data collected on the current state of technology education in UK Law schools can only provide a snapshot of what is currently being

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[35] See for example, London South Bank University 'Law and Technology' module where law students work with computer science students to create a piece of legal technology https://www.lsbu.ac.uk/courses/course-finder/law-llb-hons#course_tab_modules accessed 2 December 2018

[36] https://www.ulster.ac.uk/legalinnovation/about accessed 2 December 2018

[37] https://www.law.ox.ac.uk/research-and-subject-groups/ai-english-law-work-package-five accessed 1 July 2020

offered and does not consider plans for future development which may exist[38]. The data was intended to address a gap in our knowledge to understand what the provision of technology education currently is within law schools.

How should UK law schools be responding?

Cunningham et al identify the potential impact of technology on the practice of law.[39] It could be suggested that law graduates aiming to work in the legal profession will need to have an education that includes technological awareness to be able to respond to changes in legal practice.[40] Being interested in the practical application of legal tech should not compromise the academic content that must underpin the teaching of legal tech. There is value in all students having a technologically enhanced education because the rise of legal tech has wide reaching implications not only for the legal profession, but for wider civil society. Interaction with legal tech is an effective pedagogy to provide students with an understanding of the complexities arising from the adoption of technology on legal systems, ethics and the rule of law. [41]

Drawing on the experiences of US Universities, UK law schools could move towards the inclusion of legal tech courses into their curriculums deliberately integrating a design approach to foster an understanding of the intersection between law and technology.[42] This emerging teaching model facilitates students working on the process

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[38] Legal Cheek, (*Legal Cheek* 22 May 2019) 'Norton Rose Fulbright teams up with York University to launch law tech module' https://www.legalcheek.com/2019/05/norton-rose-fulbright-teams-up-with-york-university-to-launch-lawtech-module/ accessed 15 July 2019

[39] Supra n 15 p.56

[40] M. Pistone, 'Law Schools and Technology: Where We Are Now and Where We Are Heading '(2014) *Journal of Legal Education* 586,

[41] Margaret Hagan, Legal Design as a Thing: A Theory of Change and a Set of Methods to Craft a Human Centred Legal System, (2020), *Massachusetts Institute of Technology Design*, Vol.36, Number 3, pp.3- 15

[42] Supra n. 24 p.89

11

of creating technologically innovative solutions to legal issues, which also have the potential to address unmet legal need.[43] The impact of technology on models of teaching are wide-reaching.[44] In the US this has led to the creation of law labs a flexible model that adopts a variety of different approaches. Legal innovation labs use technology to create new approaches to legal education including experiential learning labs and research centres addressing policy issues relating to technology in legal practice.[45] The law labs often work in partnership with charities, legal aid groups, service users and courts to design and build technological solutions to support the delivery of legal services and information.[46] In addition to partnership working, law labs are interdisciplinary bringing together academics and students from a number of

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[43] T. Rostain, R. Skalbeck, K. Mulcahy, 'Thinking like a lawyer, Designing like an architect: Preparing students for the 21st Century Practice', (2013) *Chicago-Kent Law Review* Vol.88, pp.743-755 at p.746

[44] Y. Beldarrain, 'Distance Education Trends: Integrating new technologies to foster student interaction and collaboration', (2006) *Distance Education,* Vol.27, N0 2, pp. 139-153 at p.143

[45] M. Davis, 'Institutionalizing Legal Innovation: The (Re) Emergence of the Law Lab', (2015) *Journal of Legal Education* Vol.65, No.1 pp. 190-206 p.195: Davis at the time of writing identified 15 law labs (which excluded centres) at American Universities, all incorporate innovative use of technology that combines both legal theory and practice.

[46] Margaret Hagan, 'How law school labs and clinics are defining a new innovation track*'* (2018) Open Law Lab http://www.openlawlab.com/2018/03/07/how-do-we-plan-for-ethics-and-community-with-new-ai-in-courts/ accessed 25 April 2018. Hagan identifies Suffolk LIT Lab, Stanford Legal Design Lab, Northeastern, NU Lab, BYU Law X Lab and Chicago-Kent Law Lab as examples of Universities working in partnership with third sector organisations to facilitate innovation for students and partner organisations. Northeastern, NU Lab designed an online game to teach litigants in person how to represent themselves in court.

faculties, enriching the learning experience that derives from the engagement in the process.[47] The focus is not on the end result, i.e., the artefact such as the tool or product, but on the process of creation. [48] It is through that journey students can learn to innovate, think differently, and translate their legal knowledge into a technological solution that might be useful [49]

The challenges around legal tech modules

The creation of legal tech modules can advance the culture of innovation within law schools which is one of the mid-term drivers for higher education in the next 3 to 5 years.[50] However, the value of incorporating legal tech into the curriculum needs to go beyond simply preparing law graduates to work as legal professionals, it needs to be underpinned by a consideration of the philosophy of technology to facilitate an exploration of the moral and ethical questions raised by applications of technology.[51] Although integrating legal tech modules into the curriculum may be desirable the degree of success will depend on the extent to which the relationship between pedagogy and technology is explored. There has to be a consideration of how we assess the educational impact of legal tech modules. Increasing the widespread use of legal tech without considering how it will transform pedagogy risks detracting from rather than enhancing learning. Infusing legal tech into the curriculum without grounding it into

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[47] Supra n.24 p.92 at Northeastern, NU Lab, they bring together legal professionals, social practice artist and a multidisciplinary advisory board.

[48] For example, the development of a mobile app, chat bot or online game.

[49] Supra n.24 p.90

[50] EDUCAUSE Horizon Report (2019) Higher Education Edition, https://library.educause.edu/-/media/files/library/2019/4/2019horizonreport.pdf?la=en&hash=C8E8D444AF372E705FA1BF9D4FF0DD4CC6F0FDD1 accessed 29 April 2019 at p.5

[51] Kevin Williams, 'Beyond the needs of industry: the liberal dimension of a technological education', (2000) *Pedagogy, Culture & Society*, 8.1, 85-92 at p.86

13

sound educational practices will not improve learning.[52] We need to be mindful of the risks of being seduced by legal tech and think carefully about how it is designed and incorporated into learning. [53] There is broader interest within higher education in the use of technology in educational learning, although innovation is important, we need to be cautious in our approach.[54] It is essential to address the purpose of a legal tech module and explore in curriculum design what value it adds for all students. Legal tech modules have to go beyond acquiring skills for a vocational goal they have to incorporate critical and creative thinking . The discussions around legal tech have been predominately US focused and often the literature makes ambitious claims about the potential of technology to solve a myriad of complex problems. [55] The proliferation of technology is a huge challenge and brings significant risks to the rule of law. These issues can be explored by students through critically engaging with legal tech.

It is recognised there are challenges in creating legal tech modules. It is important to build capacity to support academics many law schools do not have the requisite staff to teach legal tech.[56] Legal tech involves interdisciplinary teaching and cooperation between faculties that can be difficult to achieve. Questions arise around what legal tech

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[52] Mabel Cpo Okojie, Anthony A Olinzock, & Tinukwa C Okojie-Boulder, 'The Pedagogy of Technology Integration', (2006) *Journal of Technology Studies*, Vol. 32 Issue 32, p66-71 at p. 67.

[53] Alan Bainbridge, 'Digital Technology, human world making and the avoidance of learning' (2014), *Journal of Learning Development in Higher Education,* p.12

[54] Martin Weller, '25 Years of ED Tech' (2020), AU Press, Athabasca University.

[55] Kristin Bergtora Sandvick, 'Is Legal Technology a "New Moment" in the Law and Development Trajectory?' (2019) https://antipodeonline.org/2019/12/04/legal-technology-law-and-development/ accessed 25 June 2020

[56] Ken Grady, 'What 'Teaching Legal Tech; Could Mean', (*Medium*, 1 May 2018) https://medium.com/the-algorithmic-society/what-teaching-legal-tech-could-mean-bf31cf0d4d10 accessed 14 February 2020.

to use and how to sustainably resource these types of projects.[57] Academics face multiple pressures, agendas and time constraints. It is acknowledged that some may view the broader adoption of these modules as unnecessary, or even threatening. Decisions about the use of legal tech would benefit from greater collaboration across universities. This research has identified law schools where there has been experimentation with legal tech, evaluation and research-based teaching is needed to critically assess the effectiveness of these modules.[58]

The benefits of legal tech modules

Notwithstanding the challenges, it is argued there are benefits in providing students with a learning environment that integrates an understanding of technology with the development of knowledge and skills. Critical engagement with legal tech may allow students to gain a deeper understanding of the relationship between the development of their knowledge and skills with the broader application of technology across legal fields. It is important to consider how we make learning practical and meaningful to students, giving them an opportunity to engage in an authentic learning environment that considers how law is being mediated by technology is a way to achieve that. A legal tech module offers opportunities for law schools to develop and experiment with novel pedagogical models.[59] The development of legal tech modules forms part of an evolutionary process that offers students the opportunity to consider how to navigate new technology, and ethical considerations. Cunningham et al argue that expectations around legal education are changing and that law schools will need to include

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[57] Chris Ireland & Ryan Hockley, 'A call for introducing LegalTech in the classroom' (2020) *Computer Law & Security Review*, Vol. 36 at p.38. Ireland & Hockley discusses some of the barriers to the inclusion of LegalTech within the curriculum.

[58] Hugh McFaul, Elizabeth Fitzgerald, Francine Ryan & David Byrne, 'A mobile app for public legal education: a case study of co-designing with students' (2020) *Research in Legal Technology*, Forthcoming

[59] Ibid

technological solutions and the consequences of their application in legal issues into their teaching. [60]

Creativity and innovation

The Law Society's future vision is lawyers working in teams with both an understanding of technology and creativity.[61] Student engagement in the creation, design and development of a technological tool may foster creativity and nurture a culture of innovation. The process of experimentation can challenge students to innovate and generate new ideas of how technology can change what has traditionally been done and come up with imaginative solutions to a problem. Rostain et al reflecting on the experience of US universities in designing legal tech courses argues students have a richer learning experience by gaining a deeper understanding of legal issues.[62] It encourages them to visualise problems and may provide insights into the benefits and risks that result from the intersection of technology and law. The value of this approach is to foster learning that is curiosity driven encouraging students to question and be creative. This could help them develop the attributes of the future imaginative legal professional.[63]

This approach recognises the importance of incorporating the teaching of higher order creative skills to foster 'imaginative' lawyers. As technology automates routine legal work a higher premium is placed on creativity and imaginative skills.[64] Deloitte predict

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[60] Supra n. 15 p.59

[61] The Law Society, 'Horizon Scanning, Digital Futures' (June 2020)

   https://www.lawsociety.org.uk/topics/research/digital-futures accessed 1 July 2020

[62] Supra n.24 p.746

[63] Supra n.61 p. 10- the Law Society identify, initiative, pro-activity, agility and adaptability,

   enterprise, communication, connectivity and collaboration, curiosity, resilience and life-long

   working as the attributes of the future law graduate.

[64] B. Simpson & M. Murphy, 'Technological challenges and opportunities: the future of law',

   Information & Communications Technology Law, 25:1, pp.1-3 at p. 2.

significant technological unemployment in the legal profession potentially 40% of jobs will be lost as a result of automation. At first it will apply to lower skilled workers but later on it will impact higher up the knowledge chain.[65] These changes bring significant challenges for law schools and signal that law students are going to require different skills to face increasingly sophisticated AI.[66]

Some might argue when we think of lawyers, we do not consider them to be creative professionals.[67] Lawyers, it is suggested, like rules. Much of the legal curricula places great emphasis on the importance of law students being analytical, objective, impartial and applying legal reasoning to justify legal decisions.[68] Those attributes which are highly prized and encouraged in law students may encourage an aversion to risk and a reluctance to change, which can stifle and strangle creativity.[69] However, creativity is

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[65] Deloitte, 'Developing legal talent: Stepping into the future law firm', (2016) at

https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/audit/deloitte-uk-developing-legal-talent-2016.pdf and Deloitte, 'From Brawn to Brains: the impact of

technology on jobs in the UK '(2016)

https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Growth/deloitte-uk-insights-from-brawns-to-brain.pdf accessed 25 April 2019

[66] The Law Society, 'Future Skills for Law' (2018) www.lawsociety.org.uk at p.3 accessed 25

April 2019

[67] K. Mangan, 'Why creativity is important to good lawyering' (2015)

https://lawyerist.com/creativity-101-lawyers/ accessed 29 April 2019

[68] L. Carter and T. Burke, *Reason in Law*, (2002) Addison Wesley Longman Sixth Edition

[69] Pioneer Profile: F-LEX, (*Spiranti*, n.d.)

https://www.spiranti.com/viewpoints/spiranti-pioneers-f-lex/ accessed 4 July 2019. Mary

Bonsor, CEO of F-LEX discusses the lack of agility within lawyers and how the need to

mitigate risk can impact on their abilities to develop legal tech start-ups. Supra, n.5, Richard

considered the most important leadership quality for managing the complexities of a global and technologically transformed world.[70] Insight into the dynamic role that legal tech can play in addressing unmet legal need, has the potential to nurture creativity and innovation.[71] The focus on providing students with opportunities to engage in legal tech modules can bridge the gap between the practical and theoretical aspects of legal education to develop a pedagogy which allows creativity and innovation to flourish.[72]

Collaboration and team working

Bugden et al argue law graduates need to have an understanding and willingness to use technology coupled with the ability to work and collaborate as part of a team.[73] As the workplace evolves more people are using technology to collaborate. COVID 19 has forced a shift to remote working, many organisations including law firms are exploring making greater use of technology post lockdown.[74] Students with strong collaboration

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Susskind argues lawyers are reluctant to change and adapt to the impact of technology on legal practice.

[70] IBM Corporation, 'Plotting the platform payoff' (2018) https://www.ibm.com/downloads/cas/NJYY0ZVG accessed 29 April 2019- the report was based on research carried out with Chief Executive Officers and it identified that creativity was the most crucial factor for future success. Also, supra n.52, Deloitte's also identified creativity as one of the critical skills required in the business context going forward.

[71] T. Kelley and D. Kelley, *Creative Confidence*, (2015) Williams Collins at p.1.

[72] Hugh McFaul and Francine Ryan, 'Innovative Technologies' in Emma Jones and Fiona Cownie (2019) *Key Directions in Legal Education: National and International Perspectives*, (2019) Routledge

[73] L. Bugden, P. Redmond and J. Greaney, 'Online collaboration as a pedagogical approach to learning and teaching undergraduate legal education' (2018) *The Law Teacher* Vol.55 No 1. 85-99 p.86

[74] Jemma Slingo, 'Dentons Shut two offices in home-working drive' (Law Society Gazette, 10

skills and a familiarisation with technology may gain competitive advantage as those skills become increasingly more valuable.[75] There are benefits of giving students opportunities to practise teamwork and collaboration where they can learn from each other and navigate the complexities of working as part of a team. The engagement with technology provides a focus to achieve this and facilitates the development of highly transferable skills.[76] The opportunity to engage in legal tech provides students with an authentic experience that replicates aspects of the workplace they will enter.[77] As Staudt et al argue, it allows students to "gain an insight into emerging technologies at the center of modern law practice and develop core competencies across a range of new and traditional lawyering skills."[78] It reflects the new requirements of legal practice where law graduates will be expected to use technology to develop new applications and engage in new ways of working.

July 2020) https://www.lawgazette.co.uk/news/dentons-shuts-two-offices-in-home-working-drive-/5104974.article accessed 13 July 2020

[75] Marcus Smith, 'Integrating technology into contemporary legal education' (2019) *The Law Teacher* Vol.54 No 2. 209-221 at p.216, Smith discusses how law firms are increasingly adopting collaboration technology to support the needs of modern legal practice and the importance of being able to collaborate with technology.

[76] Greg Satell, 'Don't Teach Your Kid to Code. Teach Them to Communicate', (*Medium*, 16 December 2018) Education, https://medium.com/s/story/these-are-the-skills-your-kids-will-need-for-the-future-hint-its-not-coding-9b5d47f372f1 accessed 30 April 2019.

[77] L. Long and P. Meglich, 'Preparing students to collaborate in the virtual work world', H*igher Education, Skills and Work-Based Learning*, Vol.3 Issue 1, pp.6-16 at p.10.

[78] R. Staudt and M. Lauristen, 'Introduction: Justice, Lawyering and Legal Education in the Digital Age', (2013) *Chicago-Kent Law Review*, Vol. 88 at p.687

19

Creating modules that incorporate legal tech should bring additional benefits beyond just learning about technology.[79] By encouraging interaction with different forms of technology, students can learn to innovate, and problem solve to create 'their own' solutions to address legal issues. Furthermore, as students are working as part of a team to design and develop a tool they are engaging in collaborative problem solving through the process of sharing with others.[80] The value of active participation in both the design and development of a technological solution may foster a deeper understanding of both technology and law. Designing modules that incorporate legal tech may facilitate the explicit teaching of skills that are relevant to new models of legal practice and provide students with opportunities to develop skills and strategies that resonate beyond their legal education.[81] The potential of these courses is to move students beyond using technology to designing and building technology solutions. Furthermore, these skills are transferable and apply across professional boundaries reflecting the types of skills all future workers will require to navigate the unpredictable nature of the changing workplace.[82] Therefore, providing all students with these opportunities is important.

Critical thinking

Critical thinking is an integral part of any law degree. Critical thinking is an important aspect of a technologically enhanced programme, students have to be challenged to consider the implications of disruptive technologies on law and society. However, students will only gain a critical understanding of using technology if the focus goes

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[79] S. Krantz and M. Millemann, 'Legal Education in Transition: Trends and Their Implications' (2015) *Nebraska Law Review*, Vol 94:1, pp. 1-57: "these tasks are client-centred and engage students in research, legal analysis, learning and applying doctrine, writing, interviewing and counselling" at p.28

[80] M. Swe Khine and I.M. Saleh, 'New Science of Learning: Cognition, Computers and Collaboration in Education' (2010) Springer: collaborative problem solving at p. 505 is described as de-composition, selection, evaluation of information in teams.

[81] Supra n. 57 p. 92

[82] Supra n.61 p.9

20

beyond a superficial engagement with it. There is value in experiencing the process to understand it, if it is an immersive experience that engages with real world problems. Through the process of designing and developing a technological tool, students are trying to solve a problem and that process require critical thinking about the nature of the problem and how to solve it.[83] Legal issues are complex, designing a technological tool needs to go beyond the acquisition of technical knowledge, students need to consider the multi-dimensional aspects of using technology, raise questions about its application, and critically examine the values the law seeks to protect. [84]

The introduction of legal tech brings about new challenges and potential for harm. The emerging legal tech literature makes claims about the capacity of technology to effortlessly solve legal problems, but legal tech is not risk or problem free.[85] A legal tech module is a vehicle for students to critically think about the arguments made around the positive impact of technological advancement and to explore the risks of disempowering communities through the digital divide.[86] A critical consideration of the relationship between law and technology raises new ethical challenges. It is recognised that other law modules can explore these issues, however engagement with legal tech provides a platform to incorporate both a theoretical and practical understanding of the risks and opportunities posed by technology. The incorporation of legal tech into the curriculum has to go beyond eliciting a theoretical understanding of the ethical issues relating to the proliferation of technology, it has to challenge students to think about what values should be incorporated into legal tech when designing technological

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[83] R. Paul, *Critical Thinking: What every person needs to survive in a rapidly changing world*, (2012) Foundation for Critical Thinking at p.9.

[84] Ibid p.169

[85] Supra n.55 p. 4

[86] Supra n.55 p.5

solutions, and how to evaluate the impact they have on communities, individual users and justice. [87]

Legal education should encourage students to question the proliferation of technological applications to ensure they are developed for the public good.[88] Margaret Hagan argues there is a need for rules for ethical automated decision making, which include transparency, accountability, design and reliability. It is important for students to consider how to engage users in the iterations of the tools they develop to ensure they meet users' interests, values, and ethics. [89] Research in the US suggests that most tools are 'provider driven' as opposed to 'user driven', they do not reflect the needs of users and fail to address the justice problem. [90] Legal tech has the potential to address some of the most complex problems facing our justice system, however, the system will not be improved if tech tools are not designed to meet the needs of users. Legal tech modules can explore these issues by incorporating legal design methodologies to encourage students to think about design, due process, and ethical transparency. [91]

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[87] Margaret Hagan, 'The User Experience of the Internet as a Legal Help Service', (2016)
Virginia Journal of Law & Technology, Vol. 20, pp. 394 to 465

[88] Supra n.79 p.26

[89] Margaret. Hagan, 'How do we plan for ethics and community in new AI in courts', (2018) Open Law Lab http://www.openlawlab.com/2018/03/07/how-do-we-plan-for-ethics-and-community-with-new-ai-in-courts/ accessed 25 April 2019

[90] R. Sanderfur, 'Legal Tech for Non-Lawyers: Report of the Survey of US Legal Technologies' (2019)

http://www.americanbarfoundation.org/uploads/cms/documents/report_us_digital_legal_tech_for_nonlawyers.pdf accessed 4 July 2019 at P.15

[91] Supra n.78. The nature of work is changing, legal tech courses give students an understanding of how technology works, which may allow them to work more effectively with technologists, designers and others in the creation of new technology solutions.

22

Perhaps more broadly legal tech courses can encourage a critical examination of the relationship between law and technology and consider as Cockfield postulates, "how does the complex and nonlinear relationship between law and technology affect interests that the law seeks to protect?" [92] Legal tech modules need to encourage students to consider how developments in technology have the potential to undermine the interests and values the law seeks to protect. The challenge in developing these modules is to consider how engaging with legal tech acts as a catalyst to allow students to take a wider perspective or multi-faceted view on the intersection between law and technology.

Conclusion

The research findings confirm that currently most universities do not offer modules that explore legal technologies. The practice of law is being shaped in part by technology, therefore there are benefits for students in incorporating pedagogies that provide both an understanding of technology and its implications for our legal system.[93] Furthermore providing students with the opportunity to engage in collaborative learning has the potential to facilitate the development of a range of skills, but beyond that it is a stimulating way to engage in dialogue about technology and how it is shaping the world that we live in. The potential transformation of the legal profession is inextricably linked to legal education. Those law graduates seeking to enter the profession face an uncertain future and fundamentally different to those of previous generations.[94]

Law schools are in an extended period of change and face multiple pressures. Decisions about incorporating legal tech into the curriculum must be underpinned by a critical understanding of pedagogy. It is acknowledged that many legal academics do not have

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[92] A. Cockfield, 'Towards a Law and Technology Theory', (2003) *Manitoba Law Journal*, Vol. 30, pp. 383 to 416 at p.415

[93] Supra n.62 p.59

[94] H. Somerland, R. Young, S. Vaughan & S. Harris-Short, *The Futures of Legal Education and the Legal Profession* (2015) Hart Publishing p.13

the required knowledge and skills to teach students legal tech courses.[95] It is also important to recognise that incorporating legal tech within legal education cannot be seen in isolation from the changing context of legal education. The proposed changes to the legal education and training of solicitors and barristers offer an opportunity to have a renewed discussion on the knowledge, skills and competencies that law schools need to teach.[96] There are also questions around how we encourage more interdisciplinary research into innovation in legal education to support the design and delivery of technologically enhanced learning.

Perhaps there is another question about whether law schools have a responsibility to engage in the discourse surrounding technology. Policy makers are struggling to understand the implications of technology. There are serious questions that need to be addressed about the role of AI and machine learning in the provision of legal services and the automation of justice. It may enhance the curriculum if students have a learning experience that includes the engagement with technological solutions. However, it is recognised those decisions must be underpinned by a critical understanding of pedagogy. Further research and experimentation are required. A particular focus of this research should be the advancement of pedagogy within technologically enhanced learning.

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[95] Supra n.4 p.697

[96] Supra n.61 p.727