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ABSTRACT

The increased use of technology in legal practice requires law schools to provide students with effective learning opportunities to prepare them for future practice. Clinical legal education (CLE) provides a suitable framework within which to introduce students to the increased demands of legal practice in the technology age. Skills such as familiarity with online systems and resources, as well as coding skills may prove desirable in future law graduates and could be incorporated successfully within a clinical framework. CLE also provides an opportunity for students to learn about digital disruption in the legal industry and new models of legal practice affecting access to justice. Advances in technology have increased opportunities to provide members of the community with solution centred access to justice initiatives. Awareness of these products and initiatives can add value to law clinics by incorporating technology-based tools to enhance access to justice. This article investigates the current focus on legal technology in Australian CLE programs and considers how legal technology may be incorporated into existing clinical structures at universities in order to: firstly, prepare law students for technology-based practice requirements after graduation; and secondly, to enhance access to justice for clients or partners of university law clinics.
I INTRODUCTION

‘Disruption to the practice of law naturally has ramifications for the education of current and future law students as well as an impact on the continuing education of the profession’.1

In the face of continuing technological advances, this observation by the Law Society of New South Wales is even more relevant today than in 2017. The question Australian law schools have to address is no longer “Should legal technology be incorporated into students’ skills development programs?” but rather “How do we effectively incorporate legal technology into our students’ skills development programs?”

It is now readily recognised that it is imperative for technological skills to be included in professional development programs and legal training for both practicing lawyers and law students.2 Furthermore, it is acknowledged that there is a growing necessity for lawyers to ‘be ready to use or learn how to use technology on day one’ once they start practicing law.3 Increasingly, a better understanding of software and online systems equips law graduates with a basis for their future roles as legal professionals, by enabling them to use these resources to provide quality advice and service to their clients.4

For the legal profession to keep pace with technological changes, law firms will need to gradually be ‘infused’ with new skills. In a 2017 public address, Bailes recognised that one way of doing this was to ensure that law graduates have been taught legal technological skills in law school and through their works experiences during law school.5 He noted that ‘[l]aw schools will play a part in preparing graduates to enter the legal profession’, but that law firms and clinics would also need to equally invest in the technological education of their staff.6

This article proposes that law schools, and CLE programs in particular, provide a suitable framework within which to introduce students to the increased demands of legal practice in the technology age. Not only does CLE provide an opportunity for students to learn about digital disruption in the legal industry and new models of legal practice, but an increased focus on technology in CLE programs could proactively provide members of the community with greater access to justice. In this context, this article examines the current use of legal technology in Australian CLE programs and considers how more legal technology may be incorporated into existing clinical structures at universities, based on examples from the USA. The focus here is thus two-fold: first, to consider ways to better prepare law students for technology-based practice requirements post-graduation; and second, to explore ways of enhancing access to justice for clients of university law clinics through technology.

II CURRENT USE OF TECHNOLOGY IN AUSTRALIAN CLE

A CLE in Australian Law Schools

There are presently thirty-eight law schools in Australia, all of which offer some type of experiential learning opportunities for students. These variously take the form of internal or external immersion in practice-based activities.7 CLE is generally defined as a student’s involvement with ‘real clients’ in a legal centre or in-house campus clinic; or through a placement

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3 Ibid.
4 Ibid.
6 Ibid.
7 Adrian Evans et al, Australian Clinical Legal Education: Designing and Operating A Best Practice Clinical Program in an Australian School (ANU Press, 2017) 41.
program or internship. In this context, the term refers to ‘any law school course or program in which law students participate in the representation of actual clients under the supervision of a lawyer/teacher’. Castles and Hewitt propose that legal graduates must be equipped with a broader practical skills base: ‘first-tier skills’ which they describe as ‘intellectual and social aptitude including critical thinking and problem solving, oral and written communication, and the capacity to work both independently and cooperatively.’ CLE allows students to engage in and develop several of these skills in the context of providing oral and written client advice.

The scope and objectives of CLE activities are diverse – covering various areas of the law such as immigration law, elder law, commercial law, human rights law and general clinical placements. Much has been written about the scope and objectives of CLE. Clinical objectives may range from providing access to justice to deserving applicants, providing students with practice-based skills development or usually a combination of both of these objectives.

Evans et al identified five models of CLE used in Australian law schools: in-house live client clinics; in-house live client clinics (with some external funding); external live client clinics (agency clinics); externships (including internships and placements); and clinical components in other courses. In addition to these models there are volunteer clinics with a pro bono focus which are not for academic credit but also focus on developing student’s employability skills and facilitating access to justice. It has been asserted that “there may be multiple social and pedagogical benefits attached to a pro bono faculty-run clinic, with professional supervision, which has a focus on both community service objectives and learning and teaching outcomes.”

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B The Importance of Technology

In addition to inculcating students with an understanding of foundational legal principles, theory, ethics and case law, there is a general expectation that law schools will keep pace with the demands of legal practice and actively prepare students for practice.\(^{20}\) One way in which Australian law schools are meeting these requirements is through practice-based opportunities provided by service learning in CLE. As described by Evans et al:\(^{21}\)

Service learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich learning experiences, teach civic responsibility and strengthen communities. CLE shares these objectives and might be considered a specific example of service learning.

It is possible that technology could be incorporated into traditional CLE programs and pro bono volunteer initiatives to further the objectives of service learning. It could also be argued that, by being exposed to the work environment in legal practice, knowledge of innovative technology may be transmitted to students undertaking clinical experiences at law firms. The latter proposition may be true to a certain extent, where law students are immersed in the use of legal technology during their placement at law firms. However, it is posited here that in many cases, and in most on-campus clinics, students do not have adequate access to the legal technology and systems increasingly used by lawyers in practice.

There has been a move towards requiring lawyers to undergo regular technology competency training.\(^{22}\) Knake has stated that:\(^{23}\)

Lawyers have special obligations to their clients and to the public to ensure that innovations – in other words, changes – in the practice of law are ethical...Lawyers should be educated about the ethical implications of technology in law practice during their law school education and on a continuing basis during practice.

As early as 2012, the American Bar Association expanded the duty of competence to include an affirmative obligation to “keep abreast of changes in the law and its practice, including the risks and benefits of relevant technology.”\(^ {24}\) It is evident that most, if not all of the Australian law clinics, internships and externships in their various forms offered by Australian universities have employability skills objectives as part of their scope,\(^ {25}\) and in future years this will necessarily include familiarity with legal technology. Unsurprisingly, most of the opportunities currently on offer for students are aimed at preparing students for legal practice. For example, the Griffith University Law Clinic aims to “assist students to develop their appreciation of the practical application of the law”;\(^ {26}\) at Swinburne University students undertake “practical law-related experience in a professional environment”;\(^ {27}\) and one of the University of Newcastle “Law in Practice” program's aim is providing “real problem based learning experiences to enhance the capacity to solve clients' legal problems.”\(^ {28}\)

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\(^{23}\) Ibid quoting Professor Knake.

\(^{24}\) Ibid.

\(^{25}\) Francina Cantatore, ‘Boosting law graduate employability: Using a pro bono teaching clinic to facilitate experiential learning in commercial law subjects’ (2015) 25(1) Legal Education Review 147, 147-172, 149.

\(^{26}\) ‘Legal Clinic (5022LAW), Griffith University’ (Webpage) <https://degrees.griffith.edu.au/Course/5022LAW>.


However, there is generally a lack of emphasis on equipping students with the skills they will need to address the increasing demands of the workplace to interact effectively with technology. There is also little evidence in CLE of ethical considerations raised by innovation and certain types of legal technology in the workplace.

**C Prevalence of Technology in Australian CLE**

A review of descriptions of CLE opportunities at Australian law school websites reveals an absence of the purposeful incorporation of legal technology in CLE. In reviewing the thirty-eight websites there is a broad consistency in the way universities describe practice-based learning opportunities for students; however, most fail to specifically offer technology rich experiences.

Some law schools offer non-clinical courses focused specifically on legal technology, for example: Bond University offers “Information Technology and the Law” and “The digital lawyer” courses; Central Queensland University offers the “Legal Professional Portfolio” course which allows students to develop legal Apps; Queensland University of Technology offers a “Law, technology and innovation” course; the University of Melbourne offers a “New Technology Law” course; and University of Southern Queensland offers courses such as “Emerging Legal Technologies and Practice” and “Privacy and Data Protection Law”.

There are only a handful of technology focused clinical opportunities available for students. For instance, the University of Technology Sydney offers a “Legal Futures and Technology” major, which involves a local internship placement, an “Applied Project in Law, Innovation and Technology” course; while La Trobe University specifies that through its “Law Internship” subject students will “have regular classes both face to face and online, in which they study communication skills, technology and the law and issues relating to the future of the legal profession, diversity in the profession and legal ethics.”

Some universities express an intention to incorporate technology in their law degrees. For example, Macquarie University asserts on its website that it wants their students to have “…a level of scientific and information technology literacy,” but does not indicate by which means this outcome will be achieved. In some university law clinics it may be possible for students to gain knowledge of legal practice software during their clinical experience in initiatives such as the “Legal Internship” program offered by Curtin University, the “Legal Internship” unit offered by Deakin University and “Professional Work Experience” offered by the University of Southern Queensland.

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Queensland. This could also apply to students in externship programs at the various institutions; however, none of these listings appear to have a specific focus on advancing students’ technology skills.

Other universities have compulsory practice-based (non-clinical) courses in fulfilment of degree requirements, such as the “Beyond Bond” program at Bond University. ‘Beyond Bond’ is a Bond University initiative that requires completion of a work experience component in satisfaction of the core subject by all undergraduate Bond students prior to graduation. However, although these initiatives fulfil an important purpose in preparing students for practice, there is no specific provision for technology-based exposure during the work experience.

Some universities are hosting legal hackathons, such as the Global Legal Hackathon hosted by Monash University in 2019. These events aim to develop ‘tech solutions to progress the legal industry and the function of law and justice’ and offer students the opportunity to engage with technology to solve legal problems. The focus of a hackathon is on creative disruption in the legal industry. In addition, start-ups like The Legal Forecast are initiating hackathon events in various States, following on the success of the “Disrupting Law” event held at QUT in 2018. Also in 2018, Murdoch University hosted a legal hackathon where students focused on finding technology solutions for issues such as access to justice, transparency and accountability, minimising administrative overheads and improving client experience. These periodic interdisciplinary initiatives promote the collaboration of students from different disciplines to find solutions to benefit lawyers, clients, courts and the community, by applying technology to legal problems.

The question then arises whether there should be a more purposeful incorporation of technology in CLE, given the rapid adoption of technological advances in legal practice. The following section examines the changing expectations of employability skills in law graduates.

III CHANGING EXPECTATIONS: EMPLOYABILITY SKILLS IN LAW GRADUATES

From a practice perspective, there has been a noticeable shift in expectations placed on law graduates when they enter the profession. Apart from the traditional skills associated with the legal profession, such as communication skills, problem solving and professionalism, the use of technology has raised a number of nascent areas not contemplated in previous skills development programs. Susskind et al identified four trends that are currently changing most professions, namely: the move from bespoke service, the bypassing of traditional gatekeepers, a shift from reactive to a proactive approach to professional work, and the more-for-less challenge. For example, legal services are increasingly being outsourced (such as using computerised systems

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39 See ‘Gain experience & get connected: Work Experience’, University of Southern Queensland (Webpage) <https://www.usq.edu.au/current-students/career-development/work-experience>. This program has a broad scope to include a range of work experience, including non-law.
41 Ibid.
43 Ibid.
44 See <https://www.thelegalforecast.com/>. See <https://www.thelegalforecast.com/disrupting-law-national>. It is described as ‘a unique 54-hour hackathon for tertiary students focused on finding new opportunities in the legal industry. Disrupting Law allows people to join forces in creating solutions through fast paced, creative and interdisciplinary problem solving.’
for repetitive tasks), and traditional law firms are having to rethink delivery strategies to compete with online legal services delivery.  

Lawyers have already been dealing with these trends and challenges; however, ‘few have settled on a strategy to meet these trends’. There is a need for ‘sufficient technical competence’ when interacting with Courts in practice, and law students should be presented with opportunities to hone these skills. Furthermore, clients are expecting their lawyers to use the latest and leading technology to keep up with clients’ increase in digital savviness. There is also an increased commoditisation of legal work, which threatens bespoke services, and a corresponding increase in demand for pre-packaged services.

Williams explains that the term ‘moneyball law’ refers to the application of statistical analysis to law, a traditionally more subjective practice, which is currently a growing international trend. This practice involves the mining of previously unavailable litigation data, otherwise known as “big data” to be used for predictive purposes. It seems evident that law graduates entering legal practice may benefit from awareness of and familiarity with these concepts and advances. Lawyers may also in the future use technology that includes virtual processes inside and outside of Court, which may include advanced data analytics, augmented reality displays, and virtual Court appearances.

Another emerging technology that could impact on legal practice is the development of smart contracts based on blockchain technology. This could include smart contracts used to trigger actions that are then verified, for example, securing financial settlements (such as property settlements) without an intermediary. These contracts can automate rules, check conditions and take actions with limited human involvement and cost. Currently, the Ethereum blockchain is used for most smart contracts. Although an in-depth knowledge of blockchain may not be essential for legal practitioners, an awareness of the applications of smart contracts, and the challenges posed by implementing these contracts in the current legal landscape will be imperative in the future.

It is noteworthy that all Australian Law Societies currently reference technology-related activities in their mandatory Continuing Professional Development (CPD) requirements, to some extent. For example, the Law Society of South Australia includes technology as an element of CPD program within its “Practice Management and Business Skills” and “Professional Skills”

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50 Ibid.
51 Ibid.
52 Ibid.
53 Ibid.
54 See Michael Williams, “Moneyball for lawyers”: How technology will change the practice of law’ (2016) 38(5) Bulletin (Law Society of South Australia) 14, 14 stating that “In the legal market, commoditisation means services being delivered and priced as if they were products – lower cost, smaller margins and fixed base pricing.”
56 Michael Williams, “Moneyball for lawyers”: How technology will change the practice of law’ (2016) 38(5) Bulletin (Law Society of South Australia) 14, 14. This term was named after the American film ‘Moneyball’ in which a baseball coach used historical player data to inform the player draft.
57 Michael Williams, “Moneyball for lawyers”: How technology will change the practice of law’ (2016) 38(5) Bulletin (Law Society of South Australia) 14, 15.
58 “A blockchain can be described as a database so secure that it can be made public, where altering a copy of the database has no effect and transactions can only be appended, never deleted or updated. Moreover, writing to the database is controlled by a peer-to-peer protocol that strictly enforces the validity of transactions before the transactions are appended.” See Alexandra Sims, ‘Blockchain Technology and Intellectual Property’ (2017) 8(77) New Zealand Intellectual Property Journal 77.
59 Michael Williams, “Moneyball for lawyers”: How technology will change the practice of law’ (2016) 38(5) Bulletin (Law Society of South Australia) 14, 15.
60 Ibid.
61 Ibid.
components, by listing “Use of practice management software/ IT/social media” and “Use of technology, e.g. e-filing, use of court portal” as proposed CPD activities. Similarly, the Queensland Law Society, Law Institute of Victoria, Australian Capital Territory Law Society, Law Society Northern Territory and Law Society of New South Wales all include “Effective use of technology” on their list of “Practice Management and Business Skills” activities. The Legal Practice Board of Western Australia lists “Applications of technology”, “eDiscovery” and “eConveyancing” under their proposed “Practice Management” activities. Like the five States and Territories mentioned above, the Law Society of Tasmania also includes “Effective use of technology” under its “Practice Management and Business Skills” category but additionally lists “Ethics within a technical legal context” under the “Ethics” core area.

Another important reason to incorporate technology skills into legal education and professional development programs is to ensure that lawyers are able to use legal technology and software to complete tasks such as transferring client files and filing documents in courts through legal software. This will result in a greater demand for lawyers who are proficient with using legal technology and software.

Broussard suggests that law librarians may be able to assist with teaching legal technological skills and assist law schools and firms by sharing information as well as design and deliver ‘technology training programs.’ Although such assistance will no doubt aid in student skills development, it is suggested that, in addition, the considerable potential for skills development in CLE programs should be harnessed to address this important skills growth area for law graduates.

In the 2017 Law Society of New South Wales, *Future of Law and Innovation in the Profession Report* it was recognised that clients are becoming more interested in getting value for money in respect of legal services and that there is an expectation for lawyers to use technology and be competent technology users. Furthermore, large in-house practices are also driving change through streamlining work processes by using workflow technology, seeking and using improved legal technology and rewarding client-centred services. In this context, they are driven by clients’ needs and expectations, which translate into higher skills requirements from law graduates entering the profession. In respect of technology, the Report further notes that in-house legal practices are using technology to provide a more efficient and cost-effective service in their

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66 See ibid 25.

67 Ibid.

68 Ibid.

70 Ibid.


72 See eg, file management systems such as Lawcadia, used by in-house counsel; ‘Transforming Legal: Lawcadia Homepage’, Lawcadia (Website) <https://www.lawcadia.com/>.
companies, including ‘sophisticated workflow systems...[and various] dedicated legal applications’. For example, the Hewlett Packard Enterprise legal team uses ‘around 30 bespoke legal apps supporting a wide variety of work, including mergers and acquisitions, contract negotiation, litigation, e-billing, and digital signatures’. 

Increasingly, large law firms are collaborating with start-ups; for example, Norton Rose Fulbright increased its financial investment in LawPath (Australia), a company which ‘supplies low-cost documents online and connects clients to lawyers for fixed-price work’. Similarly, the law firm Gilbert & Tobin also substantially increased its financial investment in LegalVision, a technology-enabled legal practice. Recognising the need for an online presence, Allens Linklater has created its own ‘suite of fully downloadable, free documents’ for the start-up market and reported about 3,000 downloads as of July 2016. These technology-based innovations and collaborations evidence the need for traditional law firms to embrace technological advances as part of their business model. It also means an increased need for law graduates well versed in the skills required to facilitate these initiatives. The 2017 Report also foresaw that due to increased investment and interest from law firms in new legal technology and software, legal operations roles may be imminent, which signals expanding employment opportunities for graduates with the necessary legal operations skills.

Significantly, it identified skills and knowledge in the following areas as likely to be of importance in the future:

- Technology;
- Practice-related skills (eg collaboration, advocacy, negotiation skills);
- Business skills/basic accounting and finance;
- Project management;
- International cross-border law;
- Interdisciplinary experience; and
- Resilience, flexibility and ability to adapt to change.

Whilst some of these skills already form part of the traditional CLE student experience (for example, practice-related skills such as collaboration, advocacy and negotiation skills), it could be argued that other skills (such as technology, business skills, project management and adaptability to change) have not yet been widely adopted into CLE programs, as evidenced by university websites, providing significant scope for development.

It would not only be beneficial to expose students to basic legal practice software such as LEAP or Lawcadia in CLE, which they may encounter in legal practice, but also to utilise more advanced platforms incorporating artificial intelligence (AI) based products. An example of AI used in legal practice is ROSS Intelligence, a legal research tool that gathers information from a database of legal documents, cases and legislation to provide lawyers answers to their legal questions. Another AI based innovation is IBM's Watson Debater, a computer that searches its database of knowledge for relevant information pertaining to a particular legal topic and selects

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74 Ibid.
75 Ibid 31.
76 Ibid.
77 Ibid.
78 Ibid.
79 Ibid 7.
82 See ‘Make today the last day you dread legal research: Ross Intelligence Homepage, Ross Intelligence (Website) <https://rossintelligence.com/>.
what it thinks to be the strongest points and arguments, for both sides of the argument. The Watson Debater can assist lawyers by suggesting the most persuasive precedent and arguments to make in a legal matter.35 Josef⁸⁶ is an Australian legal technology platform described as “easy to use legal automation,”⁸⁷ which can be used to build legal bots, answer questions, and generate personalised documents. Immersion in these types of platforms have the potential to develop basic technology skills in law students, which could prove invaluable for their future legal careers.

IV INCREASING ACCESS TO JUSTICE THROUGH TECHNOLOGY

Technology is playing an increasingly pivotal role in access to justice initiatives; however, to be effective it needs to be accessible. In an early article dealing with “Access to Justice for All: Towards an ‘Expansive Vision’ of Justice and Technology,”⁸⁸ Baily et al envisaged an ‘expansive vision’ of access to justice and technology which included and prioritised various deliverables. They also expressly recognised that whether one benefited from the deliverables or not depended on a person’s socioeconomic status and other structural differences⁹⁹ and emphasised the importance of considering technology in their ‘expansive vision’ approach to access to justice.⁹⁰ This approach took cognisance of the fact that members of the community have different levels of access to both legal services and technology, and that some access to justice initiatives may not benefit all citizens.⁹¹ Therefore, technology needs to be fit for the purpose of providing access to justice.

UK scholars have emphasised how important it is to consider the various needs and abilities of people in various socioeconomic circumstances to determine whether to increase support for legal representation (and have face-to-face access) or access to more information and services, like online resources and services.⁹² Thus, both the perceived need for and access to services form an integral part of access to justice considerations. In this sense, technology may only be of use if it can be efficiently and adequately accessed by the community. For example, one needs to consider whether technology would be helpful and increase access to justice in specific areas, or whether people of lower socioeconomic status will benefit from more face-to-face contact with lawyers.⁹³

To ensure equal access to justice for everyone, members of the community in remote and rural regions should have the same level of access to and quality of legal services as people in urban areas.⁹⁴ In this context, Baily et al note suggestions to implement a better strategy to retain lawyers in remote communities and use ‘distance-mediating technologies’ like videoconferencing to facilitate the face-to-face personal contact needed.⁹⁵ In this regard they consider three technologies noted to be facilitators of access to justice and mechanisms for institutional redesign,

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37 Ibid.
39 Ibid.
40 Ibid.
44 Ibid.
45 Ibid.
demystifying the law and accessing courts and lawyers, namely e-filing, web-based legal information services, and videoconferencing.96

They suggest that e-filing can be facilitated by smart forms made available online and supported by digital assistant technologies to assist in real-time while people complete the forms,97 thereby improving access to justice. Also, smart form platforms can allow completed digital copies of court forms to be transmitted through an e-filing system.98

Additionally, Baily et al propose that free web-based legal information can reach a wider range of people and enable those people to have access to legal information in a broader range of situations.99 Free web-based legal information can also promote transparency which increases public confidence in the legal system and can be included in social media (twitter tweets and blog posts) as well as media reports which will provide direct access to the primary source.100 Furthermore, free web-based legal information (such as case law and legislation) can also be used as tools for people to help inform them and resolve their legal dispute.101

It is reasonable to expect that properly applied legal technology could increase access to justice in rural, regional and remote communities. There is a lack of access to justice for people in these communities compared to those who live in cities.102 Bailes suggests that legal technology can promote access to justice in rural, regional and remote (RRR) areas by:

- Organising clients according to needs and eligibility as well as referring them to the most appropriate level of service;
- Helping to enable clients with sufficient capabilities and access to technology to resolve their legal issues independently, and provide them with relevant legal education platforms and information;
- Providing RRR legal practitioners with access to legal practitioners in other areas (including cities), training and pro bono help; and
- Using a ‘multi-pronged strategy’ to provide both face-to-face and ‘technological access points’ to contact clients.103

In Australia, community organisations such as Women’s Legal Services Queensland (WLSQ) have implemented innovative strategies to increase access to justice.104 For example, the “Rural, Regional and Remote Priority Advice Line” of WLSQ provides remote services to rural women in need.105 WLSQ has also developed “Penda”, a free app for women who are experiencing domestic and family violence and are thinking about separation and divorce. It contains financial tips, safety and legal information, and referrals for affected individuals.106 The free app was developed by WLSQ in collaboration with the Financial Rights Legal Centre, with funding from Financial Literacy Australia. It can be safely accessed by women at risk and provide them with support, information and assistance to address their needs.107

96 Ibid 194.
97 Ibid.
98 Ibid.
99 Ibid 195.
100 Ibid 195-196.
101 Ibid 196.
103 Ibid.
107 Ibid.
In addition to web-based information services as described above, it has been demonstrated that AI may provide access to legal services for those who cannot afford it. For example, by creating online contract analysis software capable of ‘machine learning’, it can effectively reduce the cost to end users who benefit from the reduced time lawyers need to spend on reviewing contracts. An example of such a system is Beagle, a Canadian contract analysis system which is an artificial intelligence engine for semantics that helps to understand what the user is reading and how it relates to a company. This technology system also highlights the most important clauses in a contract and uses feedback from users to learn and refine content and review contracts.

Implementation of legal technology in community legal centres and university law clinics has the potential to provide increased access to legal services in a way that serves disadvantaged sectors of the community.

V INSIGHTS FROM THE USA

In the face of a lack of technology focussed CLE programs in Australia, it may be instructive, in the context of this article, to briefly examine two instances of technology-based CLE models that have been implemented in the USA, and serve the dual purposes of providing learning opportunities for students whilst also promoting access to justice or public interest initiatives. The two examples discussed below illustrate the scope and types of activities that may be undertaken in technology focussed CLE initiatives:

A Lawyer in the Digital Age Clinic – Columbia University

A notable aspect of this CLE program is its longevity and early recognition of the future technological challenges facing the legal profession. Since its inception 20 years ago, the Clinic has served clients such as public interest legal organizations, prominent jurists and non-profit legal technology initiatives that have an interest in integrating technology to improve access to justice.

Through the Clinic, students learn to gather, manage and present information effectively. Students gain proficiency in both the traditional skills of lawyering that are enhanced by technology, such as interviewing, counselling and drafting, as well as the skills necessary to practice at a high level in the digital age, including online fact-investigation, searching, knowledge management and digital presentation.

Johnson describes the Clinic as focusing on the “intersection of technology with the practice of law,” an initiative which fills both a void in students’ education and organisational needs, such as those of the Legal Aid Society and other public interest organisations. The Clinic aims to

112 Coordinated by Professor Conrad Johnson, Faculty of Law, Columbia University, New York.
114 Ibid.
115 Interview with Professor Conrad Johnson, Clinical Professor at Colombia Law School (Francina Cantatore, Personal Interview, 8 August 2019).
provide students “with a combination of contemporary legal and technical skills that give them a considerable professional edge as they enter the practice of law.”

1 **Scope of the Clinic**

The Clinic coordinator identifies opportunities for engagement by approaching organisations in order to assist them with legal technology issues, such as:

- Finding ways in which they can increase services or promote best practices;
- Helping to implement technology;
- Making knowledge available to members of the community; and
- Assisting with training systems for volunteer lawyers.

2 **Projects**

The Clinic website lists examples of projects which Clinic students have completed to date. One example of such a project is the “Elder Artist Project”, an online platform designed to help artists protect their life’s work. The dedicated website also contains a “Free Step-by-Step Legal Guide to Estate Planning to Benefit Artists and Those Who Care for Their Estates.” The project, which is an example of a successful collaborative effort, has been described as follows:

The Clinic, in partnership with the Research Center for Arts and Culture at the National Center for Creative Aging, created the Elder Artists’ Legal Resource, a unique online resource that provides step-by-step instructions to encourage creators to ensure their work lives on beyond them. The online tool offers intuitive, easy-to-understand guidance for artists who want to inventory their work, document its value, and protect it posthumously. Written in plain language and providing simple templates for creating an inventory, the site offers information for visual artists who want to understand the estate-planning process, gain access to valuable resources, or prepare to engage legal services.

Other projects of the Clinic include “Project Fair”, a partnership with NYC’s Project FAIR (Fair Hearing Assistance, Information & Referral) to consolidate its online resources, and the “Non-profit Compliance Checklist”, where Clinic students created the Community Development Project webpage in collaboration with the Legal Aid Society. Involvement in these activities help to prepare students for using practice management and other software, as well as content

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117 Interview with Professor Conrad Johnson, Clinical Professor at Colombia Law School (Francina Cantatore, Personal Interview, 8 August 2019).  
management and advancing online research skills.\textsuperscript{124} “It helps them think like lawyers through the lens of technology in practice”, Johnson stated.\textsuperscript{125}

Other initiatives of the Clinic include providing assistance to victims of domestic violence, assisting with the drafting of wills online, and setting up web kiosks at a Community Legal Centre to access frequently asked legal questions.\textsuperscript{126} In all these activities students are involved in technology, often undertaken with the support of the university’s IT experts.\textsuperscript{127}

\section*{B Technology Law and Policy Clinic – New York University}

\subsection*{1 Scope of the Clinic}

The focus of this Clinic\textsuperscript{128} differs from the Columbia University Clinic in that it focuses on regulation and public policy in the technology space. This includes the impact of technology on issues such as privacy, consumer rights, free speech, and intellectual property.\textsuperscript{129} The Clinic represents individuals, non-profits and consumer groups who are engaged with these questions from a public interest point-of-view.\textsuperscript{130}

The course requires students to “have a passionate interest or curiosity about the impact of new technologies on law and public policy, as well as a desire to support and represent the public interest in these matters”. It involves a mixture of fieldwork and seminar discussion ranging from technology law and policy to the ethical challenges of representing public-interest organizations.\textsuperscript{131}

\subsection*{2 Projects}

The Clinic has partnered with Government organisations, public libraries and media organisations to assist them with various initiatives, such as creating briefing documents on data collection and privacy, writing submissions, and assisting small businesses and non-profits to understand artificial intelligence regulation.\textsuperscript{132} The Clinic facilitates student contact with Government and non-profit organisation representatives as well as research and drafting relating to the impact of technology in practice.

Past representative matters of the Clinic include:\textsuperscript{133}

- Advising the Open Source Hardware Association on its trademark certification program;
- Representing “appropriation” artists who comment or criticize the work of other creators;
- Researching the legal implications of artificial intelligence for NYU’s AI Now Institute;
- Advising the New York Public Library on the legal rules and risks associated with open source software production; and
- Filing amicus briefs in key copyright, patent, trademark, and other intellectual property cases.

\textsuperscript{124} Interview with Professor Conrad Johnson, Clinical Professor at Colombia Law School (Francina Cantatore, Personal Interview, 8 August 2019).
\textsuperscript{125} Ibid.
\textsuperscript{126} Ibid.
\textsuperscript{127} Ibid.
\textsuperscript{128} Coordinated by Professor Jason Schultz, Faculty of Law, New York University.
\textsuperscript{130} Ibid.
\textsuperscript{131} Ibid.
\textsuperscript{132} Interview with Professor Jason Schultz, Professor of Clinical Law at New York University Faculty of Law (Francina Cantatore, Personal Interview, 5 August 2019).
Whereas the first mentioned Clinic focuses on “legal technology”, the latter Clinic deals primarily with the legal implications of technology use and takes an advisory and policy perspective in respect of technology use, rather than implementing “legal technology” as such, although its approach is also based on pro bono/public interest objectives. Whilst the two Clinics undertake diverse activities and collaborations, these initiatives both provide students with insight into technological change and the challenges associated with advances in technology.

VI CHALLENGES AND OPPORTUNITIES

A Legal Practice and Law Schools

The 2017 *Future of Law and Innovation in the Profession Report* noted that there has been a shift of work for solicitors from transactional work to more contentious work mostly because of clients doing the transactional work themselves, for example obtaining trademark certificates themselves and only seeking legal services if issues arise. Clients are also seeking more sophisticated legal services. Richard Bootle (Solicitor and founder of lawlab and software company Rundl) noted that legislative protections for solicitors may disappear – like protections for licensed taxi drivers due to Uber. According to Dominic Woolrych (Head of Legal at LawPath) there is also a tendency for more clients (e.g. small-medium businesses) to engage legal services via online platforms.

All of these trends illustrate the ongoing need for the profession to change its skillset and business models, and for law schools to be similarly proactive in preparing law students for a changing employment landscape. There is significant scope for CLE programs to embrace and incorporate online systems and data management processes into the student experience; however, this will necessitate a willingness to expend time and resources on staff training, equipment and expertise.

The interest in technology is only likely to increase, being driven by increased computer power availability, cloud computing, devices, the internet and a decrease in the cost of services. Evidently, the reduced costs of technology are helping smaller firms run more efficiently. Whilst increased use of legal technology can lead to new areas and roles in the legal profession, it is not all plain sailing. At this point in time interest in and use of legal technology across the legal profession is uneven and some lawyers need more encouragement and support to use legal technology and AI. There may also be resistance from established “traditional” practitioners to embrace technological changes, which could be costly to implement in the short term.

Equally, many law schools will find it challenging to incorporate technology into CLE programs in a meaningful and cost-effective way, and some academics may resist the additional workload and challenge such changes require.

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136 See ‘Bringing real estate transactions online: Homepage’, Rundl (Website) <https://www.rundl.com/>. Rundl is a company facilitating online real estate transactions.
140 Ibid
141 Ibid 5.
B Access to Justice

Suggestions for greater access to justice proposed by Baily et al\textsuperscript{142} include the use of e-filing, web-based legal information services and videoconferencing. However, the authors recognise a potential issue with lay clients understanding the case law and legislation. There are similar issues with clients understanding and implementing e-filing, smart forms and web-based legal information. Furthermore, videoconferencing and other visual-based technologies used in a legal context may not be helpful for people who are blind or those in remote communities who do not have those technologies available to them.\textsuperscript{143} In addition, these technologies will not be helpful to those people in communities that have limited or no access to the internet.\textsuperscript{144}

Students in CLE programs who volunteer at community organisations such as Women’s Legal Services may have some exposure to innovative platforms like Penda;\textsuperscript{145} however, there appears to be a distinct absence of integration of technology in university law clinics which could benefit the community.

C Integrating Technology in Law Schools and CLE Programs

The “Lawyering in the Digital Age Clinic” at Columbia University demonstrates that the integration of technology in law clinics can benefit both the community as well as students in diverse ways. This is consistent with the views of Johnson, who expressed the view that there should be more interaction between law students, IT students and librarians who could be involved in law clinics’ collaborative efforts.\textsuperscript{146}

This holds true for Australian Universities too – law clinics could significantly benefit from a stronger interdisciplinary focus to harness the expertise of university experts in advancing technology-based learning opportunities for students and promoting increased access to justice. There are several ways in which technology may be of use; for example, access to justice could be improved for disadvantaged members of the Australian community through involving law students in the creation of informative websites, chat boxes, web conferencing facilities and document assembly software.\textsuperscript{147}

Stumbling blocks for law schools include the cost of implementing and accessing online practice management or AI type systems in community legal centres and university based pro bono initiatives. Many of the systems mandate an ongoing monthly cost which makes them more suitable for commercial rather than charitable use.\textsuperscript{148} Whilst it may be argued that most CLE programs have fees attached to their clinical courses and that the cost of technology could be factored into subject fees, the cost of running such programs may become prohibitive and unsustainable unless the technology is available at a reasonably low cost. Open access systems like the US site Docracy,\textsuperscript{149} which provides free legal documents, are few and far between. In addition, they are not necessarily compliant with Australian legislation, and reliability and accuracy could be an issue if used in a pedagogical setting.

\textsuperscript{143} Ibid.
\textsuperscript{144} Ibid 199.
\textsuperscript{146} Interview with Professor Conrad Johnson, Clinical Professor at Colombia Law School (Francina Cantatore, Personal Interview, 8 August 2019).
\textsuperscript{147} As demonstrated by the Lawyering in the Digital Age Clinic, Columbia University. See Projects’, Lawyering in the Digital Age: A Columbia Law School Clinic (Webpage) <http://blogs.law.columbia.edu/ladalclinic/projects/>.
\textsuperscript{148} For example, the LEAP practice management system is provided on a cost per user basis of approximately $250.00 per month per user, which makes it unfeasible for law school pro bono clinics which will require numerous licenses for students and volunteer lawyers to gain access to online client files. See ‘LEAP Legal Software Legal Practice Management Software Review’, Legal Practice Management Software (Webpage) <https://www.legalpracticemanagementsoftware.com.au/vendors/leap/>.
\textsuperscript{149} See ‘Open Legal Documents’, docracy (Webpage) <https://www.docracy.com/>.
Other issues that may affect the implementation of technology skills include the reliance of law schools on external collaborative relationships and the objectives of those partners, which may not always align with the objectives of law schools. It would be important that common objectives are identified and pursued which are beneficial to all concerned. For example, local law firms involved in CLE initiatives may benefit from enhanced technology skills of future graduate lawyers employed by their firms. Finally, the integration of new technologies into CLE programs will require the involvement of academics with the necessary technology skills. Where such skills are lacking in law faculties, collaborations with educators in other disciplines such as Information Technology, may prove useful in fostering legal technology skills in law graduates.

VII CONCLUSION

It has been suggested that law students should be trained in the skills needed to develop new ways to communicate legal information and provide legal services and that students should become familiar with using current and new legal technologies. These skills may include advanced skills such as “data analytics underlying predictive coding for discovery and online dispute resolution platforms,” but even more foundational skills such as online practice management skills, online research, content creation and AI facilitated document creation skills. Being technologically literate and possessing hands-on experience in aspects of technology are now recognised as desirable attributes for future law graduates, and these are likely to become imperative in the future.

There may still be a need to consider more closely the extent of technology training necessary for lawyers or to have a basic aptitude for technology, but the evidence supporting a need for future lawyers to at least have some technology skills is undeniable. Paperless law offices now mandate a knowledge of online practice management systems, and the incorporation of AI based document creation systems and online platforms are becoming more prevalent in law firms.

Issues that bear ongoing consideration from a CLE perspective are: the unpredictable nature of ongoing collaborative relationships, the inconsistent requirements that external partners may have, the cost of incorporating technology in clinical initiatives, and the availability of academics with the necessary technology skills.

For pedagogical purposes, it will also be important to ensure quality and consistency in the student learning experience and appropriate supervision and assessment. It will also be imperative for universities and law school Deans to recognise and support the importance of funding technology-based experiential learning for law students. However, if devised and managed properly, there is no reason why existing collaborative partnerships with law firms, community legal organisations and other non-profits cannot be expanded to include the incorporation of technology-based activities. Furthermore, law schools should proactively utilise existing CLE programs to equip students with the crucial technology skills needed to future-proof their law graduates.

151 Ibid.
152 Ibid.
154 See, eg, Ross Intelligence Homepage, Ross Intelligence (Website) <https://rossintelligence.com/>.