

The Adoption and Future of legal technology

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Introduction

Technology has automated and standardized labour-intensive tasks such as e-discovery and contract management in law firms. Today the time needed for a legal professional to attend to all clients is limited since the demand for law practice is high. The nature of work in legal firms has changed due to technological advancement. However, there are various premonitions about the use of technology in a lawsuit that some people will be rendered jobless. Available legal software and websites enable individuals to connect and access to legal resources. The paper aims to illustrate the application of technology in law. The research revolves around the historical analysis, e-discovery, lawsuits on technology, constraints on the adoption of legal technology, and the future of legal technology.

Historical context of the legal technology

The invention of the red “UBIQ” terminal by Lexis in 1973 was a starting point for the use of computers in law (Paliwala, 2010). There was a shift in searching of the law cases to an online avenue. Initially, all the search was through books which were laborious. The revolutionary rapidly evolved to document creation from document searching in 1979. The first technology in document processing was the Wang machine. The American Lawyer was the first to publish the documents using the Wang machine. Adventurous lawyers utilized Personal Computers when IBM released the technology in 1981. The layers used the Excel spreadsheet to analyze securities trading trends, negotiate settlements, and calculate damages. There was a specific application tailored for lawyers in the 1980s. Introduction of database simplified retrieval and copying of the relevant document. The legal assistants can easily access a record in the database via the use of a search engine (Hadden, S. E., & Brophy, A. L, 2013).

There are two primary problems as a result of the inability of PCs to a network. The first concern was difficulty in sharing the files between, and the second was the limitation of the PCs to connect to the expensive printers. In 1985 the connection problem was solved through the use of the local area network. Also, it was possible for many PCs to connect to the printer. The e-mail was also a benefit that resulted during the intervention of LAN. In the 1990s, law firms utilized e-mail internally. Conversely, contemporary lawyers link the internet and e-mail.

The revolutionary of windows occurred in 1992 that substituted the DOS. However, it was more expensive compared to the DOS. Therefore, the migration of the legal market was minimal. Despite the extensive use of the Windows application, the legal vendors concentrated on the DOS advancements. It was easy to use Windows since “task switching” was possible, the printed document

is a replica of the one on the screen, and availability of the graphics interface (Hadden, S. E., & In Brophy, A. L, 2013). Nevertheless, it was hard to add specialized servers, upgrade software, configure personal PCs, and set up the networks. The law firms decided to employ trainers, desktop specialists, and network engineers (Hagelin, 2015).

Many lawyers agreed to use the PCs since it was a standard application for them. In 1995 legal applications such as docketing, case management, and a collection of specialized tools that are vital in intellectual property and real estate were available. The development of the Mosaic software in 1996 enabled individuals to search the “World Wide Web.” Microsoft eventually developed an internet explorer (Schwabach, A., & Dawsonera, 2006). The law firms in the United States were reluctant to use the Internet, but the demands of the clients forced them to change their stand. Immediately after the adoption of the internet, many law corporations began to create Web sites. The Websites highlighted the main activities of the firm.

The ubiquitous BlackBerry is a new technology in law corporations that was adopted in late 2001. It is possible for the lawyers to receive and send a message in any place via the use of the BlackBerry. Moreover, the law companies provide the notebooks to staff since they are comparatively cheap. Many advancements in software have taken place in the 2000s. For instance, the current browser-based interface has aggregate information. The extranet enables lawyers to share contacts, calendars, and documents with the counsels as well as the clients.

E-Discovery Law

E-discovery deals with the laws of the acquiring of information that is electronically stored and the usage of that information during a lawsuit in the proceedings’ investigative phase, known as discovery. Each side is permitted to obtain and request information from a witness or outside entities as well as from the other party during the discovery. The historical meaning of discovery refers to the exchange of tangible evidence and various documents, as well as an interview with the witness. E-discovery differs from traditional discovery because of the use of tangible electronic evidence, although some features are the same. The electronically stored information (ESI) refers to any website, video, accounting database, instant message transcript, e-mail, image or document that can be used in a lawsuit as relevant evidence.

Meta-Data

Meta-data refers to information showing who revised a file, who accessed it, when it occurred, and even copies of the file’s previous versions. The various data coded in files in the form of meta-data has increased the range of investigations in the e-discovery. Meta-data contained in the files increase the relevancy of electronically stored data hence making them more useful in lawsuits. Attorneys have found exciting new challenges as a result of meta-data. It can give the investigator a new insight

of the persons who have worked on the file, the changes they made and when it happened. As a result, it will be possible to determine the party that has engaged in evidence tampering and to solve cases where one party accuses the other of evidence spoilage (Wall, D. S., & Johnstone, J, 1997). Law firms can help businesses to establish policies for retaining or handling materials that may be used later for e-discovery especially for disclosure or creation of meta-data that is potentially harmful.

The federal rule of e-discovery

The e-discovery process should comply with the Rule of Evidence and the Federal Rules of Civil Procedure amendments. The FRE and FRCP apply to the process of producing and preparing ESI. Some of the FRCP provisions are illustrated as follows. The FRCP 26 protect from e-discovery requests that are expensive and excessive, except when the protection is not deserved. The FRCP 26(a)(1)(C) provides that the required days for initial disclosure is fourteen after Rule 26(f), which deals with meeting and conferring unless a court order or stipulation sets another time. Rule 26(f) is referred to as the meet and confers rule that requires all the parties involved to meet not later than 99 days after the filing of the lawsuit. The FRCP 33 gives the requesting party access to records of a business that are kept or created in electronic format by defining them as discoverable. The FRCP 45 protects a person who is a nonparty to e-discovery from costs that the parties are expected to endure (Wall, D. S., & Johnstone, J, 1997).

Constraints on the Adoption of the Legal Technology

Technical Constraints: The legal technology implementation is limited by some technical barriers, especially artificial intelligent (AI) technologies, according to Simon Chester. Constructing algorithms that properly capture all useful aspects of law is difficult due to the complexity of the law. For instance, the differences in jurisdictions make the answers to legal questions vary greatly. Only a small number of legal problems require no or yes answers. The complexity of legal reasoning provides a barrier to useful legal technology implementation (McKamey, 2017). Some critics argue that legal reasoning is a parallel process because the answer to a question may change the potential question to be asked subsequently. Therefore, the difficulty may disrupt the computer's ability to deliver the required answers to the legal questions.

Economic Constraints: Economic constraints have been identified as another barrier to the technology application in law. It is because of the small number of investors in legal technology. The legal service providers may find it challenging to acquire technologically innovative developers since they tend to concentrate on larger markets, such as financial services that have high potential profit. The fragmentation nature of the legal services market makes proper technology implementation difficult. Most of the big players in the legal services market are not willing to implement and develop new legal technologies. Therefore, the technology impact in legal practice is hindered by economic forces.

However, the economic barriers that have been identified may only have a short-term effect on the legal technology development. If the new legal technologies can lower the legal services cost, then the size of the legal market will increase and become more lucrative for technology developers (McKamey, 2017).

Technology Law Cases

Apple v. FBI: Apple had a technology that encrypts data in a smartphone by default. The technology led to a lawsuit. The federal government requested the magistrate a search warrant that would allow them to decrypt the iPhone 5s of the drug crime suspect. Conversely, the federal magistrate hesitated to issue a search warrant. A similar case on technology in California Court concerning the 14 people that were murdered in San Bernardino mandated the magistrate to give an ex parte order to Apple. The law compelled Apple to develop a custom firmware. The software aimed to decrypt security measures on the attackers' iPhones. The Apple Company objected to the order, which led to the intervention of the FBI. An undisclosed third party was contracted to decrypt the passcode. The All Writs Act was the basis of the FBI's claim.

Microsoft v. the United States: Microsoft refused to execute a government warrant that was issued under the Stored Communication Act. Nevertheless, Microsoft filed an appeal to a district court. Microsoft was supposed to produce all the email content and the same time, seize the account. The Federal government believed the e-mail was used as an avenue to facilitate narcotics trafficking. Later Microsoft finds out that it needs to import the data from Ireland since all the information is stored and maintained there. The lawyers of Microsoft argued that it is on contrary with the law to infringe personal privacy, especially on communications stored outside the United States. Congress has addressed the creation and storage of digital information; therefore, Congress needs to update the ancient laws on technology (Glenn, 2016).

Oracle v. Google: Two questions arise from the long-running lawsuit that Oracle filed against Google for Java code implementation in the Android OS. The first question is whether it is possible to copyright the application programming interfaces (APIs). The second question is whether a developer may repurpose portions of the APIs under the fair use doctrine without a license if they are copyrightable. The court ruled in the first trial in 2012 that the Java portion that Google had copied were ordinary APIs; hence the copyright law does not protect them. However, the decision was reversed by the Federal Circuit in 2014 on the basis that copyrights can be used to protect the organization, sequence, and structure of an API. The court ruled in the second trial that fair use protected the API used by Google and that unauthorized use is permissible since it serves the public interest hence making Google the winner of the lawsuit.

Future of legal technology

The legal profession has undergone numerous technological transformations in the recent past, from the courtroom and office layout and communication methods to the way lawyers present cases and prepare for trial. The present and future legal professionals must process and handle a large volume of information and, at the same time, communicate with geographically dispersed clients and colleagues (Susskind, 2010). Most Law firms are currently using platforms for online knowledge sharing, such as SharePoint, to make virtual interaction with clients and colleagues who are geographically dispersed easier. The Software as a Service (SaaS) has made it easier for legal professionals to access and share information. SaaS is a cloud-based service that the general public can access such as Google Docs. Law firms will use secure SaaS tools to store and backup documents electronically and in general accounting functions management (Juetten, 2016). The United States lawyers use SaaS applications to send encrypted messages, develop secure online portals for clients and remotely access case files from any device. Legal professionals will be able to access data and information all the time due to the growing use of tablet computers, smartphones, and cloud-based tools.

Personal opinion

I am convinced that the ability to identify a specific area where technology can work efficiently in legal services is a crucial aspect for the future success of the law firms. The law companies that will utilize artificial intelligence in some avenue during law practice will deliver high-quality services to clients. The technology should be expanded to provide an online portal where citizens can get legal forms and documents. Examples of the legal forms that should be available online include bankruptcy filings, business formation, wills, and contract documents. Artificial intelligence is the option when providing such services. Technology in law should be advanced further to reduce the paperwork and deliver efficient services. Today most of the cases such as fraud revolve around technology; thus, technology is an integral part of the law.

Conclusion

The change in the field of law has been enabled and driven by technological advances. The technologies used in information sharing have facilitated flexible, continuous and instantaneous modes of communication between lawyers and their clients. Technology has also made significant contributions in e-discovery although there are several challenges encountered. Even though the legal field is not at the forefront of technological advancement, it is catching up with other fields, such as financial and medical fields. The legal professionals will be motivated to adopt the innovations due to the benefits of the recent technological tools.

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