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The Role of Technology in the Advancement of Legal Education and Practice in Nigeria

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Abstract

Technology has revolutionized the way, ease, speed and time with which we conduct our activities. Business transactions are conducted faster, learning and teaching are richer, and generally the legal profession is better positioned. The legal profession is known for its conservatism and traditionalism which many believe must be preserved in order to maintain the prestige of the profession. However, technological advancement may have put a strain on this ideology. The wave of technological advancement and globalization which has swept through various aspects of the society has not left the profession in its path. Technology including Information and Communication Technology (ICT) now plays a quintessential role in legal practice and education. It is becoming increasingly clear in Nigeria as well as a reality that technology is a prerequisite for effective and efficient legal education and practice. This paper examines the important role technology plays in legal education and practice in the 21st century. Focus is placed on how much technology has impacted legal education and practice in Nigeria. The challenges faced in the application of technology in these areas are quite colossal. Despite this, it is important for the legal profession to forge ahead in overcoming these challenges as the application of technology is not only the global trend but also the way forward.

Keywords: Technology, Legal Education, Legal Practice, ICT.

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1. Introduction

The impacts of technology have been felt in all the legal profession, from legal education to government to the practice of law. Within courts, federal agencies and other executive bodies, the government has made technology an essential part of creating efficiency, promoting access to justice and easing monitoring, reporting, communicating and processing requirements. Law firms have quickly learned the competitive advantage of adding technically based services to their practices and meeting the expectations of their technology savvy clients.²

As the above quote indicates, it is no gain saying that technology has transformed almost every sphere of our lives. There is virtually no aspect of human activity that is not affected either positively or negatively by technology. From the use of computers; to the use of telephones and also the internet, it is all about technology and its revolutionary way of changing the way humans conduct their activities. With technology, our activities are conducted faster and there can also be overdependence on technology. Technology plays vital roles in our daily routines and it also has significant impact on legal education and legal practice. Its impact on these key areas cannot be overemphasized. Technology will continue to be a major instrument which influences legal education and legal practice in Nigeria and all over the world.

With the above in mind, it is important at this juncture to clarify certain key terms: Technology, Legal Education, Legal Practice and Information and Communication Technology (ICT). Technology covers ‘electronic or digital products and systems considered as a group’.³In this context, technology therefore covers the electronic and digital products that give us access to information. Legal Education is ‘...the process which equips the future lawyer, judge administrator, counsellor and legal scientists to know how legislative, executive, judicial organs of the government are designed and how they operate’.⁴Thus, it is a process which entails the

²Jeanne Eicks, ‘Educating Superior Legal Professionals: Successful Modern Curricula Join Law and Technology’ <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2465977>accessed 30 April, 2015.

³Webopedia, ‘Technology’ <<http://www.webopedia.com/TERM/T/technology.html>>accessed 30 April, 2015.

⁴M.R. Burra and V. N. Madasu, ‘Importance of Internet Facility in Support of Legal Education and Legal Research’ <<http://www.abhinavjournal.com/images/Arts & Education/May13/4.pdf>>accessed 30 April, 2015.

training of students for the legal profession. Legal Practice may be broadly seen as ‘the professional work of a duly licensed lawyer encompassing a broad range of services...’.⁵Essentially legal practice is the application of the law in all its attendant dimensions and ramifications. It is apposite to state at this juncture that legal practice in this context should not be understood from the very narrow prism of litigation alone. It should rather be viewed as a multidimensional and sometimes multidisciplinary vocation that has the law as its hub.ICT however, encompasses ‘technologies that provide access to information through telecommunications’.⁶ICT thus covers those technologies that help us to gain more access to information. These technologies include the computer and the internet.

Technology has made significant changes to legal education and practice in various jurisdictions. While its impact in Nigeria may not be as elaborate as other jurisdictions, the fact is that the legal profession in the country has been impacted by technology and this is bound to continue. The earlier we realize this and embrace it, the better for the profession and the more equipped we can be in maximizing its use while overcoming the attendant challenges.

This paper thus seeks to discuss the roles of technology in advancing legal education and practice in Nigeria. Section two examines the history of the application of technology in legal education and practice with specific focus on the American jurisdiction. Section three reviews the impact of technology on legal education and practice in Nigeria while section four discusses the different challenges to the impact of technology in Nigerian legal education and practice and makes recommendations to address them. The paper concludes in section five on the note that Nigerian lawyers need to embrace the application of technology in the profession and maximize its potentials.

2. A Peep into Other Jurisdictions

Legal practice and education is generally based on lots of books and materials which could be in form of laws, judicial decisions, treatises, agreements and letters. Basically books and papers were all in all for lawyers. To suggest to lawyers in the pre-computer age that things could be otherwise would have been absurd at the time. The situation has however changed courtesy of

⁵Bryan A. Garner(ed), *Black’s Law Dictionary* (8th edn West, USA 2004).

⁶Techterms, ‘Technology’<<http://techterms.com/definition/ict>>accessed 30 April, 2015.

technology particularly ICT and the internet which have not left the legal profession in its sweeping change of various facets of the society.

In the United States, the possibility of computers assisting in legal education and research was noted since the 1960s even though it was not until the 1980s that it began to have a major impact.⁷ The internet has also been embraced by most law faculties and legal firms all over the world since its inception in 1993.⁸ The most common use of technology is probably the use of certain devices such as computers, scanners, telephones, photocopy and fax machines etc. Computers particularly word processor software like Microsoft word has played a significant role in legal practice and education. Gone are the days of typewriters and stenographs. Inputting data, checking for correctness, storing data and accessing previously filed data with the aid of computers seem to be the norm but this was not so previously. In addition to these two technological landmarks that have greatly impacted law are computer assisted legal research and computer assisted legal instructions.

Computer Assisted Legal Research (CALR) is a quintessential development in the profession. This has produced the famous research sites/services- Westlaw and Lexis.⁹ They consist of a plethora of cases, statutes, judicial decisions and academic articles that are useful to both the lawyer and law student. They have become a must-have for every law faculty and firm as they enable enormous amount of relevant information to be accessed within seconds and easily. Such information in the past would have been available to the large firms and law faculties with the financial resources to have a huge library. Even where the right books are available, it takes a lot of time and many more people to conduct research. More disadvantageously, with such a large number of materials to consult, it may be that the important information is not gotten to or looked over in the process of being pressed for time.

CALR can be traced to Professor John Harty, director of the University of Pittsburgh Law Center. He used punching machines to code all Pennsylvania public health laws and transferred same to a computer tape wherein users could search statutes by keywords which system was first

⁷Michael A. Geist, 'Where Can You Go Today?: The Computerization of Legal Education From Workbooks to the Web' (1997) Vol 1, Harvard Journal of Law and Technology 141, 143. See generally Paul F. Teich, 'How Effective is Computer-Assisted Instruction? An Evaluation for Legal Educators' 41 J. Legal Educ. 489 (1991)

⁸Geist (n.7) 142. The first web browser was created by Marc Andreessen called NCSA Mosaic at the University of Illinois, Urbana-Champaign. Andreessen later co-founded Netscape Communication (see Geist, note 4).

⁹Lexis is now LexisNexis <<http://www.lexisnexis.com/en-us/about-us/about-us.page>> accessed 02 May 2015

demonstrated at the American Bar Association's Meeting 1960.¹⁰ Around the same time, the Ohio State Bar Association embarked on a project of creating CALR for Ohio lawyers which was later named the Ohio Bar Automated Research (OBAR).¹¹ The aim was to create 'a non-indexed, full-text, on-line, interactive, computer-assisted legal research service' which still serves as the crux of Lexis and Westlaw till date.¹² Data Corporation, which had developed a similar system for the Air Force, agreed with OBAR to modify its software to suit legal research and convert Ohio's statutes and case law into electronic form.¹³ With the expansion of and investment in the CALR project, it was subsequently turned into a subsidiary named Mead Data Central and renamed Lexis in 1972.¹⁴ Westlaw which originally comprised of headnotes when it went online in 1975 became a full-text database a year later.¹⁵

Computer Assisted Legal Instruction (CAI) was developed in the 1960s by various professors notable among which is Professor Charles D. Kelso of the Indiana School of Law.¹⁶ It covered various legal topics and enabled the students answer one question before proceeding to the next.¹⁷ It was designed to be an individual tutorial to ensure active learning and encourage adequate understanding of the topic by the user. This workbook system of legal education has since been developed. Things took a more formal shape when the University of Minnesota Law School and Harvard Law School established the Center for Computer-Assisted Legal Instruction (CCALI) now known as CALI.¹⁸ The organization now consists of most US law schools. CALI now provides different types of exercises such as memory drills, tutorials, simulations which try to recreate real life scenarios and games. All of these are used to facilitate better understanding by students and supplement the class materials and discussions.

CAI is not limited to the United States as other developed countries have also employed it in their legal education. For instance, British and Irish Law schools established the British and Irish

¹⁰Bernard J. Hibbitts, 'Last Writes? Re-assessing the Law Review in the Age of Cyberspace' (1996)71 N.Y.U.L. REv. 615, 656. Prof Horty later included public health laws from all the 50 states of the United States and began conducting searches on behalf of other lawyers.

¹¹Geist (n7) 147

¹²Ibid,147-8

¹³Ibid

¹⁴See generally William G. Harrington, 'A Brief History of Computer-Assisted Legal Research' (1985) 37 L. LmR. J. 543, 550-552.

¹⁵Ibid, 553-4

¹⁶Geist (n7) 149; Roger Park & Russell Burris, 'Computer-Aided Instruction in Law: Theories, Techniques, and Trepidations' [1978] AM.B. FOUND. RES. J. 1, 3

¹⁷Ibid

¹⁸See www.cali.org; Geist (n7) 151

Legal Educational Technology Association (BILETA).¹⁹ CAI is found in other jurisdictions like Canada and Australia.²⁰ CAI has advantages in that it makes learning more interesting and enjoyable for the students. It individualizes training hence enabling students learn at their own pace with self confidence in the fact that the answers are private and they are free from classroom pressures.²¹ The success of CAI has been attributed to the active learning process requiring students to enter responses and engage in a Socratic dialogue with the computer. Students can also repeat exercises to get a mastery of it before proceeding to the next level.

Electronic casebooks have also improved legal practice and education. They contain the contents of a hard copy casebook on a CD-ROM. The benefit of hypertext and electronic casebook (which by extension applies to all other technological advancements in legal education and practice) has been summarized as follows:

Hypertext electronic materials and casebooks can change the way students use core legal education material. Hypertext provides more than fast access to traditional legal materials; it permits students to associate related text tangibly by linking one idea to another across an entire casebook. Students can link material within one substantive course or across multiple substantive courses. This allows students to electronically build their own conceptual models of the law. . . . More importantly, each student's model of the law can be easily updated, changed, and rearranged after each classIn the end, students have the core text of the casebook and an outline of the law with their own annotations of important discussions merged into an easily accessible, reusable, and searchable format.²²

Furthermore, the Internet has transformed and improved CALR, CAI and electronic casebook in great ways. Legal research can be more thorough and detailed with many more materials available and links to other relevant documents through the use of hypertext. Case laws are available online and lots of information accessed at the click of a mouse. The tools of trade of a

¹⁹Thomas Allen & William Robinson, 'The Future of Computer Assisted Learning in Law' (1987) 3 J.L. & INFO. SCI. 274, 277

²⁰Geist (n.7) 152

²¹Ibid

²²Richexd A. Matasar & Rosemary Shiels, 'Electronic Law Students: Repercussions on Legal Education' (1995) 29 VAL.U.L. REV. 909, 922

lawyer are no longer books in the traditional sense; the lawyer's instrument is now migrating to electronic formats and the internet.²³

While technology is growing at an exponential rate, technology relating to lawyering or the provision of legal services is slow.²⁴ This is not surprising as lawyers have an obligation to their clients to act in a professional manner and ensure that the services they offer achieve the desired outcome. Hence most lawyers prefer to stick to what they know to work and are averse to taking the risks involved in the recent technology involved in the provision of legal services with the aid of Artificial Intelligence (AI). Artificial Intelligence has been defined by Mariam Webster as an area of computer science that deals with giving machines the ability to seem like they have human intelligence' and 'the power of a machine to copy intelligent human behavior'.²⁵ Increasingly, there are tasks which were previously done exclusively by lawyers which are now being done by a machine. One of such is e-discovery which uses intelligent algorithms to find information based on the keywords and concepts agreed upon by the litigating parties.²⁶ E-discovery increases the lawyer's productivity as much more documents or information can be accessed within a shorter period of time and with much less manpower.

Law firms also use websites and blogs to improve their practice and expand the scope of their clientele.²⁷ Through this media, they are able to contribute to legal education by writing commentaries and articles on judicial decisions and various legal concepts. It also makes it easy for clients to contact lawyers with the right specialization and skills that meet their requirement. Client portal technology has also influenced legal practice. This refers to a situation where clients have a secure web space (client portal) accessed through password on the firm's website.²⁸ With the aid of this platform, they are able to communicate with their lawyers, share documents and information and also track the progress of their matter. A lot of software are also developing to suit the needs of the lawyer in his practice thus increasing his productivity such as

²³C.O Omekwu, 'Information Technology Fundamentals for Lawyers'(Paper presented at staff seminar of Nigerian Institute of Advanced Legal Studies {NIALS} Oct. 2004) 1-28; Owoeye, J.E, 'Information Communication Technology (ICT) Use as a Predictor of Lawyers' Productivity' (2011) Library Philosophy and Practice, Paper 662 <<http://digitalcommons.unl.edu/libphilprac/662>> accessed 22 April 2015

²⁴Blair Janis, 'How Technology Is Changing the Practice of Law' Vol. 31 No. 3 <http://www.americanbar.org/publications/gp_solo/2014/may_june/how_technology_changing_practice_lawhtml> accessed 22 April 2015

²⁵Ibid

²⁶Ibid

²⁷Richard S. Granat and Stephanie Kimbro, 'The Teaching of Law Practice Management in Law Schools: a New Paradigm' (2013) vol 88 no.3 Chicago-Kent Law Review 757, 778

²⁸Ibid, 770

accounting and financial management software, legal calendar software, billing software, case management and conflict management software that track any conflict of interests between the clients of a law firm and potential clients.²⁹ Patent and trademarks filing are also made easier with the aid of computer software that generates templates with the use of information input into it.

Document assembly tools such as HotDocs and DealBuilder are becoming more common in law firms as well. These prompt the lawyer to enter information on the facts and issues involved in a matter and uses document templates to prepare legal documents that can be edited by lawyers.³⁰ These documents could include complex legal contracts, wills and codicils. Some governments such as the Flemish and Dutch governments have employed similar software in legislative drafting for statutes.³¹ Video conferencing also bridges the physical distance that could have hindered communication. It is useful in setting up meetings, making negotiations and giving lectures. Lawyers can now join online legal communities through which they can network, exchange ideas and get advice from other colleagues. The internet has made this benefit available to all not just those in large firms. Social media and other platforms such as Facebook, Twitter, LinkedIn, Instagram, Google+, and YouTube are essential to lawyers in networking and communication.

Managed learning environment or systems (MLE or MLS) have also had a huge impact on education and many law faculties/schools have employed it in teaching.³² These include Blackboard and WebCT. They provide a great platform for educating law students by improving teaching and learning. Through MLS communication between law teachers and the students is improved and effective. Assignments can be given and submitted, group discussions conducted and group or individual mails sent to registered students or tutor. Announcements can be made to students with a guarantee that everyone is notified immediately. Lecturers can also share lecture materials including audios, videos and presentations. Unlike the use of the traditional blackboard, students can have access to these materials at all times and also view their assignments or group works from time to time. The wide use of course management systems and

²⁹Jonathan Jenkins, 'What Can Information Technology Do for Law?' (2008) 21 No. 2Harvard Journal of Law & Technology 589 ,594

³⁰Ibid 596

³¹Ibid; Marie-Francine Moens, 'Improving Access o Legal Information: How Drafting Systems Help' in Arno R. Lodder & Anja Oskamp (eds) , *Information Technology and Lawyers* (2006) 119, 122-24

³²Camille Broussard, 'Teaching with Technology: Is the Pedagogical Fulcrum Shifting?' (2008/9) 53 New York Law School Law Review 903, 907

CALI programs indicate that legal education has crossed a threshold in the use of electronic technology in the classroom.³³

In addition, there are coaching programs that help students to understand various branches and key principles of law better as well as train them to solve legal problems. Coaching systems are computer programs that not only enable students acquire skills in applying knowledge in a domain but also assess them and correct the student's performance.³⁴ Most CAIs are coaching systems. They require the user to perform a task which is compared to the required outcome and where there is any deviation from this, it corrects the errors of the user. An example is Prosa used at the faculty of Law, University of Amsterdam through which students learn to solve administrative law problems by applying statutes.³⁵ An evaluation carried out revealed that Prosa-trained students had improved case-solving skills compared to other students.³⁶ Another instance is the virtual/simulated practice environment used to train lawyers at the Glasgow Graduate School of Law, University of Strathclyde.³⁷ It consists of a fictional town, Ardcalloch, and a number of virtual legal firms, within which students practise in groups of four. Each firm completed a number of projects in PI, Conveyancing and Private Client (wills, trusts, executries). The projects were assessed as part of the teaching and learning environment within the course.

Technology has made it possible for law faculties to have an online repository of their thesis. This makes previous research work available to students and serves as a guideline as well as launch pad in their research. An online repository ensures that previous research works are not just allowed to gather dust in libraries but that they are put into effective use. It also reduces the possibility of students carrying out shallow research and overreliance on antiquated published works in their research.³⁸

Despite the conservatism of the legal profession, it is finally being impacted by the ICT. The change is here and we all have to adapt to it.

³³Ibid

³⁴Paul Maharg & Antoinette J. Muntjewerff, 'Through a Screen, Darkly: Electronic Legal Education in Europe' (2002) 36 Electronic Legal Education in Europe 307, 315

³⁵Ibid; 316-17

³⁶Ibid; A. Muntjewerff, 'An Instructional Environment for Learning to Solve Legal Cases: PROSA' CIP-DATA Koninklijke Bibliotheek, Den Haag, 2001, p.270, 272

³⁷Paul Maharg & Antoinette J. Muntjewerff, 'Through a Screen, Darkly: Electronic Legal Education in Europe', 318-321

³⁸Miano Maina and Maurice Oduor, Digitalizing Legal Education in Kenya, Jurist (13 November 2013)

<<http://jurist.org/forum/2013/11/maina-odour-digitizing-kenya.php>> accessed 22 April 2015

3. The Situation in Nigeria

Just as technology has revolutionized the way law is practiced, it increasingly has found its way into legal education in a variety of ways. This digital revolution in the way law is taught has engendered a large body of scholarship.³⁹ Technology has revolutionized the way law is practiced and thus, by necessity, the way it is taught and learned. Increasingly, legal educators have determined that proficiency in information and communication technologies is one of the essential lawyering skills required to prepare students for law practice.⁴⁰

A noteworthy impact of globalization and changing landscape of legal practice is the seeming conversion of the legal profession from a profession to business, with profit rather than principle as the basis for legal practice.⁴¹ In consequence, everywhere in the new set up, professions are striving to define their mission, their role and secure a place in this dynamic society.⁴² Technological advancement is known to impact fast rate of economic development in the modern society.⁴³

In Nigeria, policy on adoption of ICT was initiated in 1999, when the civilian government came to power.⁴⁴ The hard truth is that technology in legal practice has come to stay. It makes legal practice so much more convenient. There is no doubt that in terms of human capital, the Nigerian legal profession scores high, it is in the non-human aspect that our legal profession falls far short of what obtains in the United Kingdom. For instance, our legal profession is still “paper based,” few of our lawyers are computer-literate. Very few offices are connected to the internet and research is done manually.⁴⁵ The introduction of ICT has revolutionized legal profession in Nigeria. In effect, the professional lives of lawyers have been fundamentally and forever altered

³⁹G Pearl, ‘Legal Education and Technology: An Annotated Bibliography’ (2001) Vol 93 No 3 Law Library Journal 1

⁴⁰R.S Shelley, ‘One Professor’s Approach to Increasing Technology Use in Legal Education’, 6 RICH . J.L. & TECH 21 (no. 4, 1999–2000) <www.richmond.edu/jolt/v6i4/article4.html>. (accessed on 25th April 2015)

⁴¹ Kim, ‘Economics’, (edited Keynote Address to the Dutch and Flemish Law and Society Association) <<http://111.ru.cn/usr>> (Dec) 2005 Pgs. 8-9

⁴²Tahir Mamman, ‘The Globalization of Legal Practice: The Challenges for Legal Education in Nigeria’, A paper presented at the 2nd Annual Business Luncheon of S.P.A. Ajibade&Co –Legal Practitioners, on Thursday 19th November, 2009

⁴³Martins Library, ‘The Role of I.C.T in Legal Profession in Nigeria’ <martinslibrary.blogspot.com/the-role-of-ict-in-nigeria-legal.html> (accessed on 26th April 2015)

⁴⁴P.M Heathcoth, ‘A Level I.C.T’ (2nd Ed.2000) 44

⁴⁵M. Ozekhome, Modernizing Legal Practice in Nigeria. Law and You, Punch, August 26, 2013.

by the introduction of a new medium- the internet. For many, it is difficult to imagine practicing law for even one day without using the internet in some form.⁴⁶

Indeed, ICT has far reaching effect in the learning and practice of law. It entails useful tools, allowing the use of massive legal information retrieval systems, and of increasing benefit to lawyers in the context of the preparation of documents, administration, accounting and conveyancing and in terms of decision support.⁴⁷ Law students, lawyers and judges now use internet and its multi- media component to access materials from all over the world.⁴⁸

With ICT, global classroom could be created for law students from several institutions to participate in the same course, through bilateral and multilateral arrangements by the use of video conferencing.⁴⁹ ICT makes it possible to assemble cases into different parts of the law like criminal procedure, torts and land law. Expectedly, if one has a case on hand, one could just look for what will help one's case through software.⁵⁰ The electronic publication of all primary and subsidiary legislation is possible with the use of ICT. ICT can be used to create a national network. Video conferencing and telecommunications might enable the conduct of certain court hearings and other legally oriented meetings without all the parties assembling in one physical location. A virtual hearing is one where people do not meet face to face but information technology reproduces many of the features of such meetings.⁵¹

Globalization driven by ICT is having a phenomenal impact on acquisition of legal, and other relevant learning, teaching and research materials in law libraries across the country. Through ICT, lawyers and students can have access to current court proceedings, cases and law reports anywhere, any time and in any form in the country.⁵² There is no doubt that the integration of ICT into the practice of law is of much benefit to the profession in Nigeria in the 21st century. ICT is a remarkable tool for providing comprehensive, current and timely legal services to the

⁴⁶Wipo Case No D 2003-0821 of 18th December 2003

<<http://www.arbiter.wipo.int/dormain/decisions/html/2003/d2003-0821.html>> accessed 30 April 2015

⁴⁷A. Kanyisola, 'Information Technology and Legal Practice.' Continuing Legal Education Workshop series 2003/2004. A Journal of Nigerian Bar Association.p.12

⁴⁸G. Bamodu, 'Information Communication Technology and E-commerce: Challenges and Opportunities for the Nigeria Legal System and Judiciary' (JILT) <<http://www.l.warwick.ac.uk/fac/law/elj/jilt>> accessed 29 April 2015

⁴⁹Martins Library, 'The Role of I.C.T in Legal Profession in Nigeria'. <Martinslibrary.blogspot.com/the-role-of-ict-in-nigeria-legal.html> accessed 26 April 2015

⁵⁰Ibid

⁵¹G. Bamodu, 'Information Communication Technology and E-commerce: Challenges and Opportunities for the Nigeria Legal System and Judiciary' (JILT) <<http://www.l.warwick.ac.uk/fac/law/elj/jilt>> accessed 29 April 2015

⁵²E.A Okon and A.B Bassey, 'Availability and Utilization of Information and Communication Technology in Nigerian Law Libraries for Sustainable Development'(2008) H-Jolis 2(1-2)141-152

citizens. The relevance of ICT adoption and utilization in Nigerian legal system for effective and efficient service delivery is a contributory factor to sustainable development in Nigeria.⁵³ It makes electronic transaction possible. Judges and lawyers can access legal information world over. Law students can look up judicial and statutory authorities in the internet. Law firms now have desktops, laptops and other technology devices for speedy legal service delivery.⁵⁴

One of the ways technology has affected legal education is the use of the e-handbook by the Nigerian Law School. The e-handbook consists of brief summaries on each course to be taken by students, statutes and case law encrypted on a CD-ROM. With this, students can have access to the entire course content for the duration of the program with easy reference to other relevant materials through the hyperlink feature.

LawPavilion is another landmark in the application of technology to legal research.⁵⁵ It was developed by Grace InfoTech Ltd (GIT) and focuses on providing technology related to legal services in Nigeria. The focus is essentially to automate legal services in the country. Other CALR such as LexisNexis and Westlaw are based on statutes, case law and journals of foreign jurisdictions. LawPavilion is however developed to be suitable for the needs of the Nigerian lawyer, law teacher and student. It is a Nigerian electronic law report and research software for use by judges, magistrates and lawyers. LawPavilion makes conducting legal research easier than ever before. It helps legal practitioners search for authorities on any subject and get result in seconds, rather than the traditional days (even weeks) of manual search. This puts at your fingertips, an e-library of over 9,000 e-books of Law Reports (both Supreme Court and Court of Appeal from 1970 till date), a 43-years consolidated index and law-digest of over 70,000 issues covering all areas of law, selected Laws of the Federation, 48-hour law reporting system with automatic updates, amongst other features.⁵⁶ Other services offered by Law Pavilion include a case management system for law firms and court management system.

Social media is having a huge impact on legal practice within the country. It is a means of networking with other colleagues, clients and potential clients. Worthy of note is the Nigerian

⁵³See A.U Nwabueze. A.U and R.E Orioko, 'Information and Communication Technology for Sustainable Development in Nigeria' (2011) *Library Philosophy and Practice*.

<<http://www.webpages.uidaho.edu/~mbolin/nwabueze-orioko.htm>> accessed 30 April 2015

⁵⁴Martins Library, The Role of I.C.T in Legal Profession in Nigeria. <martinslibrary.blogspot.com/the-role-of-ict-in-nigeria-legal.html> accessed 26 April 2015

⁵⁵<lawpavilion.com> accessed 03 May 2014

⁵⁶<<https://play.google.com/store/apps/details?id=com.lawpavilion.plus&hl=en>> accessed 03 May 2014

Bar Association (NBA) Facebook group. This is a public group where members could connect and interact with each other. Amongst other uses, the group has become a platform where lawyers ask their colleagues for opinions on legal matters and receive well researched responses from experienced colleagues.

Video conferencing is a medium which holds a lot of promise in teaching and research, especially for the injection of international and comparative flavor in the curricula as it will enable guest speakers from long distances share resources. It could create a global classroom for students from several institutions to participate in the same course, through bilateral and multilateral arrangements. This medium holds even more promise for students and academics in Nigeria to share resources with their colleagues in other jurisdictions without having to travel and facilitate better understanding of the various legal models and standards which exist elsewhere.

4. Challenges to the Effective Utilization of Technology in Legal Education and Practice in Nigeria

Despite the huge benefits conferred by the use of technology in legal education and practice, there are some challenges that make the effective utilization of technology in the legal profession in Nigeria seem impossible. The first challenge is the lack of internet or technology culture among law teachers and their students on the one hand and lawyers and their clients on the other hand. While many advanced jurisdictions have been able to inculcate the technology/internet culture, Nigeria lags behind a great deal in this respect. Many law teachers, students and lawyers are still in the analogue and paper world; unwilling to change or adapt to the sweeping technology culture. This could be due to sheer conservatism or a general distrust for the internet and technology.⁵⁷ The situation has however changed and no one can stop the wave of technology sweeping over the world at the moment. The current law students were introduced to computers and the internet at a much younger age (probably primary school) than their teachers.⁵⁸ An internet/web culture therefore needs to be cultivated by lawyers, law teachers and students. Without such, the profession in Nigeria cannot effectively harness the benefits of ICT.

⁵⁷Jonathan Jenkins, 'What Can Information Technology Do for Law?' (2008) 21 No. 2Harvard Journal of Law & Technology 589, 606

⁵⁸A one-year old child in Nigeria already handles a phone even if it is to the limited extent of putting it to his or her ear to receive a call; see generally Camille Broussard, 'Teaching with Technology: Is the Pedagogical Fulcrum Shifting?' (2008/9) 53 New York Law School Law Review 903

The high cost of technology may also be responsible for the low response to it in Nigeria. A high amount of capital needs to be invested if a law firm or faculty is to be technology compliant. Not only do computers and other ICT devices or hardware need to be purchased but a constant upgrade and maintenance will also be required from time to time. Majority of the law firms are however sole proprietorships which cannot afford such capital intensive investment.⁵⁹ The same problem also applies to law faculties since there are no sufficient funds allocated by the government for the education sector.⁶⁰ Most law faculties within the country do not have adequate computers, projectors or internet connectivity within the classroom.

In addition, quality online legal research is not usually free. Money is required to subscribe to CIAL sites such as Westlaw, LexisNexis and Nigeria's LawPavilion. Academic journals also require subscription fees whether individual or institutional which many law faculties and firms cannot afford.

The non-availability of fast high speed internet also adversely affects the use of ICT in legal education, research and practice. A large proportion of the Nigerian populace has access to internet through the four major telecommunication companies (MTN, Globacom, Airtel and Etisalat). While this has allowed a larger number of people to have internet access, it is unarguable that the internet services provided are unreliable and slow. This discourages the end user as well as makes it sometimes impossible to perform some tasks which require high speed internet. Some mobile networks are also unavailable or not good in certain locations. The high cost of internet service must also be taken into consideration. All these impede the influence technology has in the Nigerian legal profession.

Furthermore, almost all technological devices require electricity to work effectively. However, a fundamental problem in the Nigerian society is inadequate or a crippled power supply. The situation is worse in some areas where there is no power supply for weeks or months or none at all. Where there is no constant and uninterrupted power supply to law firms and faculties,

⁵⁹ Clara Ademilola Coker, 'The Use of Information and Communication Technologies (ICTs) among Legal Practitioners in Ibadan Metropolis', 6 <<http://pubs.sciepub.com/jcsa/2/1/1/>> accessed 22 April 2015. The study revealed that '... the major factor limiting ICT in most firms is the poor economic situation of the country with frequency of 85 or 81.0%. 77% reported that excessive cost and complexity of the technology contributed to the limit of ICT growth in their firm. 41.9% reported that constant breakdown of equipment; lack of good software for legal work limited the ICT growth in their firm.' The high cost of computers and software is a great impediment to application of IT in Africa generally.

⁶⁰ J.E. Owoeye, 'Information Communication Technology (ICT) Use as a Predictor of Lawyers' Productivity' (Library Philosophy and Practice, Paper 662) <<http://digitalcommons.unl.edu/libphilprac/662>> accessed 22 April 2015.

maximizing technology cannot be achievable. The use of other alternative sources of power such as generators, inverters and solar panels add a huge amount to the already expensive cost of using technology.

A major challenge law teachers contend with in the use of internet by law students is that of plagiarism. The internet and technology makes it easy for students to plagiarize the works of others by simply copying and pasting information found on the internet as theirs. The situation could be worse where students collect the soft copies of someone's thesis and merely effect a change of personal information and institution while presenting same as their own research work. The fact that technology and internet makes plagiarism easier is uncontestable.

One of the consequences of the impact of the technology/internet is the availability of many legal templates online at little or no costs to potential or actual clients. Machine is fast replacing human efforts in the provision of certain legal services particularly with the employment of Artificial Intelligence (AI) technology. The implication of this is that lawyers will be getting lesser jobs, especially when it comes to agreements and procedures such as e-discovery. This portends a major problem for legal practice in Nigeria since the profession is already battling with ambulance-chasing and charge-and-bail lawyers. Worst still are the making of legal documents with a 'red seal' by certain road-side typists at ridiculously low prices. A lot of young lawyers are already out of gainful employment. To have machines replace lawyer's work would make the situation worse. Therefore, it is apparent that it is time for lawyers to begin to carve a niche for themselves in order not to lose out. Lawyers must begin to focus on areas of 'lawyering' where they are indispensable and are irreplaceable by machines. A successful legal practice in the nearest future will be that which adjusted itself to changes in technological advances including AI as well as delivers the parts of legal services machines cannot provide.⁶¹ Machines and quacks can definitely not replace lawyer's service because even in drafting legal documents, the client does not only get a valid document but also some level of guarantee that such a document will be able to achieve the desired result due to the lawyer's competence and experience.⁶²

⁶¹Blair Janis, 'How Technology Is Changing the Practice of Law' (Vol. 31 No. 3), http://www.americanbar.org/publications/gp_solo/2014/may_june/how_technology_changing_practice_law.html> accessed 22 April 2015

⁶²Ibid.

Furthermore, most courts in Nigeria lack the necessary courtroom technology. While it is a good development that electronic evidence such as videos are now acceptable in courts, more needs to be done.⁶³ The courts need to be technology savvy and judges as well as other judicial support staff should be trained in this regard. Until this is achieved, we cannot enjoy advanced roles of technology such as e-discovery.

The lack of CALR that is designed for Nigeria is also a major challenge impeding legal research in the country.⁶⁴ The famous CALR providers such as Westlaw and LexisNexis contain case law and academic journals that are designed for jurisdictions such as the United States and United Kingdom. Nigeria needs to have a CALR designed for its jurisdiction that can contain case law and academic journals or articles written on the jurisdiction. The only CALR service focused on the jurisdiction at the moment is LawPavilion which is designed to provide Nigerian case law and precedents. More is needed in this area to encourage more e-journals and online case reporting in order to enrich legal research.

5. Recommendations

Given the significant challenges preventing the enormous benefits of technology to be felt in the legal profession in Nigeria, some important steps must be taken to avert this situation. First, users of technology in the legal profession must be made aware of the benefits of technology to them. This is a solution to the challenge of lack of internet or technology culture among law teachers, law students, lawyers and their clients. Law faculties and colleges should organize educational seminars/sessions on the benefits of technology to law students and law teachers. Experts in the use of internet to access law related content can be brought to educate law students and their teachers on how to access those contents and how best to make use of them. Lawyers must go on conferences and seminars regularly. These outings will expose them to the latest developments in the legal profession through the use of technology. Lawyers can then organize some sessions for their clients especially on how best their clients can make use of technology to access their facilities.

⁶³Evidence Act 2011, Sections 84, 86(3)(d) & 258(1)(d)

⁶⁴Clara Ademilola Coker, 'The Use of Information and Communication Technologies (ICTs) among Legal Practitioners in Ibadan Metropolis', 6 <<http://pubs.sciepub.com/jcsa/2/1/1/>> accessed 22 April 2015. Lawyers responded in this research that most available legal software do not take Nigerian jurisdiction into consideration hence the difficulty in using or applying them.

High cost of technology is a major impediment to the use of technology. This impediment can be dealt with if the Nigerian government invests more in education. The government can invest in education particularly by creating a special fund for the use of technology in education. This could be funded via public-private partnerships. To address the difficulty of law firms obtaining credit facilities from banks, the Nigerian Bar Association can assist, particularly the small firms, in gaining access to funds to help undertake the cost of using the internet/technology in their firms. This can be achieved by negotiating a favourable agreement on behalf of such firms.

Legal databases are important in the legal profession. In order to deal with the cost of gaining access to it by law faculties and colleges, universities can ask corporate organizations or philanthropists to sponsor legal database projects in their respective law faculties and colleges. This will reduce the burden of the law faculties and colleges paying heavily for subscriptions to access these databases. Likewise, law firms can resort to loans from banks to finance their database projects.

Government must ensure that internet service providers provide quality services to the populace generally. Once this is done, the legal profession can also benefit from improved services from internet service providers. The Federal Government on behalf of the populace must also hold internet service providers accountable for services they provide. Licenses must be issued to the providers who can provide the best services and where such providers default, the necessary sanctions should be meted out to those providers. The Nigerian government must also find a lasting solution to the issue of electricity supply to the nation especially universities and small businesses (law firms included). An emergency summit of stakeholders in the power industry is hereby recommended. This summit will look into the challenges and solutions to the issue of electricity supply to the nation. It must go a step further in effectively implementing the recommendations made from such a summit.

The issue of plagiarism in our law colleges and faculties must also be tackled. The use of plagiarism detection software can be introduced into the university system. This software would detect cases of plagiarism in research work submitted by students for grading. A good example of this kind of software is ‘Turnitin’⁶⁵ Plagiarismchecker⁶⁶ or ‘Copyscape’.⁶⁷ The use of these

⁶⁵<<http://turnitin.com/>> accessed 30 April 2015

⁶⁶<www.plagiarismchecker.net> accessed 30 April 2015

⁶⁷<www.copyscape.com> accessed 30 April 2015

software is not a new development as many academic journals also check for plagiarism in any paper submitted to them for publication. The challenge of plagiarism can also be addressed by law teachers engaging in activities that will indicate that a student indeed carried out a research work. One of such is conducting an oral defence/viva. It is also suggested that legal research as a compulsory course should be introduced into the law curriculum. This will ensure that law students are taught how to undertake quality legal research. It is also not out of place for law teachers and lawyers (new wigs especially) to go on professional training on legal research. This move will help them to update their knowledge and enhance their legal research skills.

Moreover, the government must equip our courts with the necessary courtroom technology. Inadequate funding should not be a problem for the courts. Thus, it is recommended that a separate fund be created by the government for the judiciary which will take care of the technology needs of the judiciary. The funds will be used towards equipping the courts with necessary modern technology which will help the courts in providing better services especially when it comes to administration of cases. The fund can also be used to train judges and judiciary staff on how to utilize the courtroom gadgets effectively.

Lastly, as regards CALR development, it is recommended that universities and law schools collaborate with software developers and businesses along this line in order to create software, e-books and other technology that will be adapted and suited to the Nigerian legal environment and meet the required needs.

6. Conclusion

Since the 1980s technology has been having significant impacts on legal education and practice especially in more advanced jurisdictions. The use of CALR and CAI testify to this fact. E-discovery is undertaken in some jurisdictions and AI is employed in achieving this. There are also many legal software adapted to help lawyers in delivering more effectively their legal services to clients. Nigeria's entry into the application of technology in the legal profession may be quite recent yet technology has since then been essential to legal education and practice. Nigerian lawyers and teachers are making the most of the internet and computers. More recently, law faculties are using LMS and LawPavilion, a CALR site is helping lawyers to undertake research at a much faster pace and effectively.

Although there are challenges to the implementation of technology in the Nigerian legal profession, the benefits outweigh these. The current set of law students and young lawyers are more comfortable with technology and make use of it in their day to day dealings. The future generation of lawyers and law students will be even more at home with technology and be able to achieve greater things with same. Therefore technology has come to stay and will continually advance with each passing day. It is therefore essential that Nigerian lawyers and law teachers embrace same and consider how to maximize technology to advance both legal education and practice as suggested in the recommendations.