



Artificial Intelligence and the Future of Law Practice in Africa¹

Introduction

A revolution is coming.

And none of us can stop or resist it. Like a nuclear Armageddon, it will sweep the length and breadth of entire industries; it will change the way we live and work, alter the current course of our existence, and usher in a new era—the fourth industrial revolution.

After steam, electricity, and computing, the age of deep digital transformation—fuelled by incredible advances in technology—is now upon us; we stand on the threshold of vast changes. These changes will be, in scope and scale, unlike anything humankind has experienced before.² And of the technologies that will materially impact our lives, artificial intelligence (AI) is a prime candidate.³

Currently, about 6.4bn sensors are connected to the internet; and there are about 4.6bn mobile users, 3.4bn internet users, and 2.3bn social media users.⁴ It is this exploding volume of data and the ability to harness them that is primarily driving AI research and development.

By themselves, the four major cloud-service provider (CSP): Amazon, Microsoft, IBM and Google have more than \$1 billion in investments and has over 200,000 servers in over a million square feet of space. And it is estimated that global spending on AI will grow 50 percent compounded annually and will reach \$57.6 billion by 2021.

¹ I wish to specially appreciate **Professor Tanel Kerikmae, LL.M, LL.Lic, Ph.D**, Professor of European Law, TalTech University, **Celia Pienaar**, the Legal Services Improvement Manager at Bowmans (the Firm), and **Cathy Truter**, Of Counsel and Project Head of AI Implementation, Bowmans, for their brilliant contributions to this article. Thank you for your invaluable insights!

² Klaus Schwab, *The Fourth Industrial Revolution*, Available at <https://www.weforum.org/about/the/fourth-industrial-revolution-by-klaus-schwab/> Accessed 30 October 2018

³ Richard Kemp, *Legal Aspects of Artificial Intelligence* KEMP IT LAW, November 2016

⁴ see [http://www.datacenterknowledge.com/special-report-the-worlds-largest-data-centers/\(data-centres\)](http://www.datacenterknowledge.com/special-report-the-worlds-largest-data-centers/(data-centres))

What really is “artificial intelligence”?

First, let me tell you what artificial intelligence (AI) is not.

It is not all about robots. Machine control (robotics and autonomous machines) is just one aspect of AI research. Other areas include machine learning (deep, supervised, unsupervised, reinforcement and large scale machine learning) and machine perception (computer vision, speech recognition, natural language processing, Internet of Things)⁵

Also, it is not our final invention—*Terminator* is a good, futuristic movie but smart robots won't kill us all. Well, not probably.

Put simply, artificial intelligence is intelligence displayed by machines, in contrast to the natural intelligence displayed by humans and other animals.⁶ In the words of John McCarthy—the man who coined the term ‘artificial intelligence’—AI is the “science and engineering of making intelligent machines”. The term is also used to denote machines that could use cognitive computing capabilities to mine data, decipher trends and pattern, and machines with the “ability to reason, discover meaning, generalize, or learn from past experiences”⁷

In what was a giant step for computerkind and a depressing day for mankind, *Deep Blue*—a chess-playing AI that could scan 200 million positions per second and analyse 74 moves ahead—shocked the world when it made history by outmaneuvering Gary Kasparov, a chess world champion who, at 22, was eating other grandmasters for breakfast and who had never lost to a human opponent.

Fast forward two decades later and *Alpha Zero*—a machine that rediscovered thousands of years of human knowledge and highly strategic moves and then invented better moves of its own—was unveiled. By playing itself a million times over, the machine achieved a superhuman level in just hours. And what's really shocking was the fact that the machine did all of this without human expertise, data, or knowledge!

In another ‘Man vs Machine battle’, the *Case Cruncher Alpha* beat its human counterparts in a competition where the legal AI was pitted against 100 commercial lawyers given factual scenarios of hundreds of cases and asked to

⁵ See Richard Kemp, *supra*, note 3

⁶ https://en.m.wikipedia.org/wiki/Artificial_intelligence Accessed 1 November 2018

⁷ “Artificial Intelligence”, Encyclopedia Britannica”, <https://www.britannica.com/technology/artificial-intelligence>. Accessed 1 November 2018

predict the success of the claim. *Case Cruncher* achieved 86 percent accuracy and won by over 20 percent.

Right. There's such thing as legal AI.

The world's first AI lawyer, ROSS, reads through thousands of cases and delivers a ranked list of the most relevant ones, helps lawyers to analyze legal issues and make connections that would otherwise be invisible. It even writes legal memo like actual humans!

Clever software tools like Ravel Law and Lex Machina predict the attitude and workings of a judge, the usual moves of opposing counsel, and the possible outcomes of cases by using large volume of litigation information, court decisions, filing data, and legal processes.

Also, AI-powered platforms such as Kira Systems, helps analyze documents and uncover trends and patterns. A legal analytics firm, Premonition AI, provides information on the effectiveness of litigators before particular judges by mining what it claims is the biggest litigation database in the world. Seal Software can crawl through a network to discover, and then classify, all of a company's existing contracts and KM Standards can "identify common clauses, agreement structure, standard clause language, and common clause alternatives" in a set of contracts. Indeed, there are now AI-powered programs that help judges review criminal records, help evaluate the gravity and frequency of offences, and assist in sentencing.

For many reasons, interests in artificial intelligence have spiked, conversations are growing, and the impact of AI is being widely recognized, even in a heel-dragging, precedent-based profession like law.

Artificial Intelligence and Law: David and Goliath

Law is the only self-regulated profession on earth. It has not changed much since the industrial revolution.

It enjoys substantial immunity from outside challengers, particularly in comparison to other professions.⁸ This immunity is safeguarded by the enactment of protectionist professional rules and guidelines which govern civility, ethics, and

⁸ Laurel A. Rigertas, *The Legal Profession's Monopoly: Failing to Protect Consumers*, 82 *FORDHAM L. REV.* 2683, 2697 (2014).

protect lawyers from overthrow.⁹ But it appears very likely that law—though shielded by regulations and imbued in tradition—might not be able to withstand the sweeping influence of the digital revolution for long. “Carefully erected protections sheltering the legal profession from disruption is now being eroded”,¹⁰ and the foundation of the monopoly over legal work and the ‘practice of law’ is beginning to crumble.

Traditionally and historically, only lawyers can legally engage in the practice of law. But things are beginning to change. In the landmark case of *Lola v Skadden*¹¹, the Court held that “tasks that could otherwise be performed entirely by a machine cannot be said to engage in the practice of law,” meaning that once some task can be entirely performed by a machine, that task can no longer be considered to be ‘the practice of law’. According to the Yale Journal of Law and Technology, “[t]he broader implications of this decision are threefold:

- As machines evolve, they will encroach on and limit the tasks considered to be the “practice of law”;
- Mechanistic tasks removed from the ‘practice of law’ may no longer be regulated by professional rules governing the legal field; and
- To survive the rise of technology in the legal field, lawyers will need to adapt to a new ‘practice of law’ in which they will act as innovators, purveyors of judgment and wisdom, and guardians of fairness, impartiality, and accountability within the law.”¹²

Just as *Salomon v Salomon*¹³ revolutionized corporate law, the decision in *Lola v Skadden* may soon spark a global trend. Predictions already abound. According to Deloitte, over 100,000 thousand jobs will be automated in the legal sector in the UK alone by 2025, and companies that fail to adopt AI are fated to be left behind. Law is no longer safe from AI. And a single rock from the agile and fluid AI’s sling may knock down the highly regulated, heavily armored, and greatly encumbered legal profession.

Analogically speaking, David may take out Goliath again.

⁹ See Michael Simon, Alvin F. Lindsay, Loly Sosa & Paige Comparato, *supra*, note 3 at 257

¹⁰ Michael Simon, Alvin F. Lindsay, Loly Sosa & Paige Comparato, “Lola v. Skadden and the Automation of the Legal Profession”, *The Yale Journal of Law & Technology*, Vol. 20

¹¹ *Lola v. Skadden*, Arps, Slate, Meagher & Flom, No. 14-3845 (2d Cir. 2015)

¹² *ibid.* pg, 234

¹³ *Salomon v A Salomon Co Ltd* [1897] AC22, UKHL

The good news is: Some firms are already keeping up with the machines.

And why not? Machines work smarter, more efficiently, and more accurately than any human; they do ordinarily grueling and time-consuming tasks such as contract creation, management, and review in seconds; and they never get tired, never need caffeine to stay awake, and never ask for vacations!

Smart firms like Dentons are not simply trying to keep up, they are actually doing something. Apart from investing in legal technology startups, Dentons has also established an innovation and venture arm known as NextLaw Labs. According to the firm's Chief Innovation Officer, "[our] industry is being disrupted, and we should do some of that [disruption] ourselves, not just be a victim of it."¹⁴ Also, law firms like Ashurst in Australia, Baker McKenzie in the United Kingdom are already incorporating AI into their services.¹⁵

The Future of Law Practice in Africa

While 'AI' remains a relatively unknown, and possibly even scary, term to many lawyers and professionals in Africa, it is comforting to know that some African firms like Bowmans, Webber Wentzel, and KTA Advocates have adopted AI to improve their legal services delivery.

Bowmans lead the way by some miles. In one of our correspondence, Celia Pienaar, the Legal Services Improvement Manager at Bowmans and Cathy Truter, Of Counsel and Project Head of AI implementation revealed to me that "Bowmans was one of the first firms to have adopted and rolled out an AI product in Africa, across six offices and four jurisdictions (Kenya, South Africa, Tanzania, and Uganda)." Sidestepping the hype around future use cases of AI, Bowmans focuses on real cases that would create immediate and tangible benefits. Commenting further, Celia said, "By streamlining the mundane, time-consuming tasks through the use of AI systems, [Bowmans] is able to free up [their] lawyers' time to focus on high level tasks." This is some serious pacesetting.

We now have, also, companies dedicated to advancing legal technologies. In 2016, Nigeria's foremost legal technologies company, LawPavilion, launched

¹⁴ <http://www.nytimes.com/2017/03/19/technology/lawyers-artificial-intelligence.html> Accessed 28 November 2018

¹⁵ Kenneth Muhangi, "Artificial Intelligence and the future of lawyering", https://www.newvision.co.ug/new_vision/news/1480226/artificial-intelligence-future-lawyering Accessed 5 November 2018

LawPavilionPrime. The first of its kind in Africa, the AI “gives in-depth analysis of the strengths and weaknesses of legal positions and authorities by generating a never-before-seen statistical analysis, historical data, precedential value ratings, conflicting judgments, locus classicus, statutory or literary authorities and opinions.”¹⁶ And now, the company has unveiled TIMI, Nigeria’s first artificial intelligence legal assistant. Apart from assisting lawyers with legal research, litigation, and opinion drafting, TIMI also provides notes with legal authorities and gives a step-by-step guide on drafting and filing court processes.

“In the past, the legal field has had time to carefully consider its adoption of technological innovations. This is no longer the case.”¹⁷ “The time is rapidly approaching when many lawyers, professors, judges, managing partners, and other legal professionals will regret that they did not act before technology caught up, and surpassed, the legal profession”¹⁸

Are there limits to what these machines can do?

The world is getting more curious by the second. White- and blue-collar jobs are under threat. And perhaps the most prevailing question now is: are there any limits to what machines can do?

Well, the truth is no one knows for sure. Not even the experts can say.

As Niel Bohrs once said: “Prediction is difficult, especially about the future”, and making efforts to see into the future is a fool’s errand. However, it suffices to say that, for now, there are certain limits. The AI technology that currently exists are ‘narrow’ or ‘weak’, in that they are designed to perform narrow or specific tasks, such as legal outcome prediction, contract review, and language translation. We still haven’t developed a general-purpose machine—or General AI—which is a notional future AI system, expected to outperform humans at nearly every cognitive task.¹⁹

¹⁶ LawPavilion, ‘LawPavilion Launches the First Legal Analytics Software in Africa at the 56th Annual General Conference of the NBA In Port-Harcourt’, (2016). Available from: < <http://lawpavilion.com/blog/lawpavilion-launches-the-first-legal-analytics-software-in-africa-at-the-56th-annual-general-conference-of-the-nba-in-port-harcourt/> > Accessed 9 December 2018

¹⁷ *ibid.* pg, 309

¹⁸ *Supra*, note 11

¹⁹ “Benefits and Risks of Artificial Intelligence” <https://futureoflife.org/background/benefits-risks-of-artificial-intelligence>

“But it is impossible to deny that progress is being made, and rapidly too. First, it was said that the subtleties of chess would make it impossible for the then (human) champion to be beaten. Wrong. Then it was argued that the Chinese game of Go, far more complex than chess, would resist the rise of robots. Wrong again. And now artificial intelligence is creating debaters to take on modern-day Ciceros and give them a run for their money.”²⁰

Should I be scared? Will AI Take Lawyers’ Jobs?

On a recent episode of *The Daily Show*, a young lawyer played by comedian (and law school graduate) Ronny Chieng, half-jokingly threatens in a satirical skit to sue the robots that stole his job. In the skit, Chieng’s case against legal robots goes to trial, but the jurors are robots and the judge is Amazon’s Alexa. Chieng’s opening statement reflects the struggles that attorneys may soon meet:

Your honor, members of the jury, this is about the essence of humanity itself, because unlike that thing [pointing to the legal robot] I went to law school—taught by humans. I spent countless, sleepless, nights, reading, writing, pondering [things]..., all things artificial intelligence can’t do, and quite frankly I’m sensing a lot of bias in this court room.²¹

Right. With the rise of AI comes the fear of job loss.

Indeed, concerns about computers taking over lawyers’ jobs go back to the 1950s when AI technology began to rise. But predictions of structural change in the legal industry date back at least to the invention of the typewriter. Yet the introduction of new technologies: word processing, e-mail, photocopying electronic filing system, automated document processing—once seen as threats to the legal profession—have actually helped lawyers prosper.

But of course, AI is a different beast.

AI development is expected to continue its inspired, relentless march, leaving radical changes in its wake. The \$600 billion global legal services market is not immune, and lawyers and law firms are not spared from this revolution. But it is not all gloom and doom, for, “many of these technologies are only able to

²⁰ “Don’t panic—the debating robots aren’t coming for our jobs yet”,

<<https://www.theguardian.com/commentisfree/2018/jun/20/debating-robots-jobs-ibm-project-debater-artificial-intelligence>> Accessed 9 November 2018

²¹ Ronny Chieng, Disrupting the Legal System with Robots, DAILY SHOW (Mar. 7, 2018), <http://www.cc.com/video-clips/b27lei/the-daily-show-with-trevor-noah-disrupting-the-legal-system-with-robots> [<http://perma.cc/2L9S-NAM7>].

complete a discrete task or a discrete portion of a legal project. Attorneys still will be required to deliver the final product.”²² More so, while routine tasks like documents review and management are prime candidates for automation, complex situations involving uncertain laws, conflicting rights, and unique fact patterns will remain difficult to be automated for an extended period of time.²³

So even though intelligent software tools cut down the amount of time and money spent on certain tasks, and generally improves efficiency and accuracy, it is hard to imagine that machines will one day take over lawyers’ jobs. Au contraire, because legal services will become faster, cheaper and more consistent, demand for legal services might actually increase since more people will be able to afford legal representation.

Lawyers need not be afraid. “Despite advances in technology toward providing technical answers in some of these areas, clients still need lawyers to predict human reactions in ways that no computer can handle.”²⁴ And clients still need to engage with humans. As Celia succinctly puts it: the point is not to “create robot lawyers, but to take the robots out of the lawyer.” Even as data explodes and becomes easier to harness, and even as the rise of AI continues, lawyers need not tremble. After all, “data isn’t everything when it comes to decision-making [and lawyering]. Experience, intuition, hunches, imagination, and judgment all matter too.”²⁵ As Margaret Heffernan once observed, “artificial intelligence is unlikely to be the answer to genuine stupidity”.

What Can Lawyers Do To Survive The Rise of The Machines?

First off, lawyers need to stop seeing the rise of AI as a threat: instead, they should start to adapt. Adaptation in this case does not mean competing with AI—which would be a futile effort—but rather embracing its possibilities.²⁶ As I said at the beginning of this piece, although we cannot stop the revolution that is coming, we can adjust timely and reposition ourselves. Right. Lawyers and law firms should not wait for machines to take their jobs or their competitive edge. They should instead learn about how they can leverage AI, and see how they can turn a potential foe into a friend.

²² Brett M. Anders, Ana C. Shields, and Adi Elliot, “*The Future of Work: How Emerging Technologies, including Artificial Intelligence, are Transforming the Legal Profession*” Jackson Lewis PC.

²³ Frank Pasquale & Glyn Cashwell, “*Four Futures of Legal Automation*”, UCLA Law Review Discourse, University of California School of Law.

²⁴ See Michael Simon, Alvin F. Lindsay, Loly Sosa & Paige Comparato, *supra*, note 3 at 307

²⁵ *ibid.*

²⁶ See Kenneth Muhangi, *supra*, note 9

Again, lawyers must jettison their innate tendencies to resist change: they must innovate. In the face of imminent disruptions, lawyers and law firms should be willing to incorporate technological skills. It's good to know that many African firms are already deploying cutting-edge technology in providing legal services. Apart from the likes of Bowmans and Webber Wentzel in South Africa, Nigerian firms like Aelex, Olaniwun Ajayi, and Infusion Lawyers—the country's first fully virtual IP&IT law firm—have embraced the endless possibilities that technology has to offer.

“If other industries can successfully adopt AI, why not lawyers?”²⁷

Lawyers must adjust their perspectives. As AI allows tasks to become automated, lawyers must appreciate the encroachment and impact of AI on the legal profession and must strategically reposition themselves. Those who fail to do this may suffer. Brick-and-mortar lawyers who earn their fees from protracting cases and from low-level document review and drafting of common legal documents like Deeds and Wills—tasks that AI can complete in seconds—will watch their practice slowly die.

The American Bar Association has already extended the lawyers' 'duty of competence' beyond the knowledge of substantive law to a duty of technological competence. If America has done it, Africa will catch up soon.

Conclusion

The pace of technological advancement is unpredictable. Advances in artificial intelligence are overturning many assumptions—things once considered the stuff of science fiction are fast becoming a part of our reality.

Yet while jobs like legal research, case prediction, compliance, contract reviewing and drafting, precedent management and other routine and repetitive tasks, billing, secretarial and paralegal duties, etc., are under threat, “AI and legal tech cannot yet replicate the experience and creativity of a battle-hardened legal practitioner [and] legal jobs that require [the] ability to connect and work with other people are currently insulated from the onslaught of AI.”²⁸

But one is almost immediately prompted to ask: for how long can this last?

²⁷ See Michael Simon, Alvin F. Lindsay, Loly Sosa & Paige Comparato, *supra*, note 3 at 291

²⁸ “*Rage Against the Machines: Artificial Intelligence and the Future of Legal Practice*”, Alexander Ross Davis, “<http://insight.thomsonreuters.com.au/posts/artificial-intelligence-future-legal-practice> Accessed 2 December 2018

In the long term, “some see computers continuing to double in power every two years, reaching levels of computing power by the 2020s that rival the human brain and that by the 2050s rival, in a single desktop machine, the power of all human brains combined. Given such vast increases in computational power, they see computers as besting humans at what lawyers do, which is to provide reliable, expert answers to difficult questions.”²⁹

Steady increase in computing power, availability of large volume of data, the evolution of more effective algorithms, and access to capital, which has exploded in the last couple of years, with 200 AI startups raising \$1.5 billion in equity funding³⁰ is driving the resurgence. And as the legal industry becomes more and more aware, “[c]ompetition in legal AI will be fierce over the next few years. Traditional law firms will compete for startups, non-traditional legal service providers like Thomson Reuters, and legal outsiders such as Bloomberg and PwC [will compete] for tech- and law-qualified staff and market share.”³¹

Businesses—including law firms and lawyers—must develop clear long-term strategy that envision new ways to use AI; they must find ways to deal with changing client demands. Or they risk being left behind. The future is uncertain and in many ways, unpredictable. Coming to terms with that and developing strategies to take advantage is key to success.”³²

In many ways, AI “represents both the biggest opportunity and potentially the greatest threat to the legal profession since its formation.”³³

Ademola Adeyoju LL.B, B.L, ChMC

Lagos, Nigeria,

December, 2018.

Mail: adeyojuademola97@yahoo.com

²⁹ Ray Worthy Campbell, *The Digital Future of the Oldest Information Profession* 3 (Jan. 17, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2716972 [<https://perma.cc/VUV8-UTWH>].

³⁰ “*Transforming the Legal Profession: The Impact and Challenges of Artificial Intelligence*”, Siddharth Peter de Souza, <http://www.digitalpolicy.org/transforming-legal-profession-impact-challenges-artificial-intelligence>

Accessed 9 November 2018

³¹ *ibid.*

³² Simon Harper “*The Mindset of the Legal Profession*” Top of the Bots: the LexisNexis perspective.

³³ Joanna Goodman, “*Robots in Law: How Artificial Intelligence Is Transforming Legal Services*” 3 (2016).