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Insight into the future of law

The Legal Technologist

Europe

The current state of Legal Tech in Central and Eastern Europe

Roman Koch

Looking at the legal landscape around the world, one could get the impression that the market for legal tech solutions is mainly limited to the USA, UK and Australia. While the legal tech market in these countries has reached a later stage of maturity, the Central and Eastern Europe (CEE) region is a huge area for development and has an emerging scene of disruptive and scalable startups. The main driver for change in the legal industry in the CEE region is a new generation of young lawyers who recognize that better application of technology is a way to achieve an advantage in a highly competitive legal market.

One of the incubators of new ideas and legal tech startups in CEE is the annual Global Legal Hackathon (GLH). The 2019 incarnation of this contest was a significant success for CEE, with two startups from the region becoming global winners. One of them is Intelilex from Poland, which developed an MS Word add-in drafting assistant which uses AI to suggest clauses while drafting contracts. The second winner of GLH 2019 was Romanian startup Legal Shapers, who presented their Lawreai tool — a Facebook Messenger chatbot which aims to provide legal travel advice. Lawreai deals with common legal situations which might occur during a trip. Thanks to the global success of CEE-based teams in 2019, hopes and expectations are also high for the final round of the 2020 Global Legal Hackathon. SlothEye from Poland (with an interesting tool to track IPR, GDPR, and NDA compliance in IT projects), Legal Surfers and Identive from Romania, and Food Fighters from Hungary (with a legal compliance tool for food products advertising) are the semi-finalists in this year's challenge.

The legal tech landscape in CEE is not only composed of startups, however. The best example of a company and an idea that has grown into a global solution is Legito. This document automation platform, founded in Czechia in 2014, has become a world-renowned legal tech provider with clients in 27 countries (including PwC, Schoenherr, and Skoda) and over 100,000 users in

approximately 50 countries. Currently the company is incorporated in the USA and has a European office in Germany. Another excellent example of a startup from CEE, which is on its way to becoming a global company, is Avokaado. In 2016 this Estonian company launched a digital platform for contract automation for lawyers and companies. Since then it has become a solution of choice for large companies and law firms from the Baltic and Nordic regions (including Tele2 and Sorainen, the leading law firm in Baltics).

Although talented lawyers and developers are the greatest assets of the legal tech industry in CEE, there are also significant challenges ahead. One of them is gaining the interest of investors at venture capital funds, which is essential to scale up in the global legal market. The scale of VC investment in CEE legal tech startups has been insignificant so far, especially when compared to the UK or the US market. Legal markets in most countries in Central and Eastern Europe are relatively small. This means that going global is essential to growing a sustainable company, which is challenging without external financing.

The second barrier to developing and implementing legal tech solutions in the CEE region is the conservative mindset of old-school lawyers in these countries. New technology is still deemed to be a risk or an issue of professional ethics by some legal professionals. There are, however, some signs of change. In Poland, the Warsaw Bar Association of Legal Counsels has established a committee for legal tech, and the intersection of law and technology has become a topic of debate. Most contract analytics tools which make use of machine learning or natural language processing are not yet trained in local languages. To fully unlock the benefits of new technology in legal work, more AI solution providers will need to establish presences in Central Eastern Europe.

The best way to convince people to adopt technology is to show them real use cases, possible efficiency gains, and potential return on investment. Education of lawyers will be key to taking legal tech in CEE to the next stage of maturity.

Roman Koch

Photo by Andrea Piacquadio

Will Legal Tech Incubators survive the pandemic?

By Jeantelle Churchward

What are legal tech incubators?

Law firms at the forefront of the legal tech revolution are searching for solutions which use artificial intelligence and automation to increase their competitiveness while improving outcomes for clients. In an effort to become leaders rather than followers in this space, many firms are experimenting with legal tech incubators. These provide a physical space, often within a law firm's office, where tech start-ups can collaborate and co-develop legal tech solutions with the legal experts on-site. This interaction between lawyers and participants results in solutions which can address a firm's unique specific technology or process problems. Firms of all types and sizes are getting involved, from Magic Circle law firms (Allen & Overy's 'Fuse' and Clifford Chance's 'Create+65') and the Big Four accounting firms ('Deloitte Legal Ventures') to smaller regional firms pooling their resources.

What are legal tech incubators for?

The future of legal tech incubators will depend largely on whether they can still fulfil the objectives of the parties involved. The overall aim of incubators and accelerators is for participants to gain a better understanding of how legal services are provided and for firms and lawyers to get to grips with new technologies. Participants are able to take their product, test it and refine it within their target market in a law firm setting. They also gain access to the necessary legal and business networks to attract investment and begin generating revenue. Firms in turn are able to see the art of the possible in legal technology, and produce bespoke solutions to address their needs and demonstrate innovation to clients.

The legal tech industry in the pandemic

A generational shift in working practices increased by the COVID-19-induced lockdown has had widespread implications for the legal industry. In some ways it has proven a catalyst for significant change. Prior to the pandemic, some elements of the traditionally risk-averse legal profession remained reluctant to adopt technology. Since lawyers can no longer go into the office, even the most conservative firms now have no choice but to adopt technology which enables fee-earners to work from home efficiently. In other ways the pandemic threatens technology adoption. In particular, investment in legal tech is forecast to decline. Where does this leave start-ups which have experienced a boom in interest and investment until now? How are they getting in front of investors and potential clients? How has access to funding changed?

How does COVID-19 threaten Legal Tech Incubators?

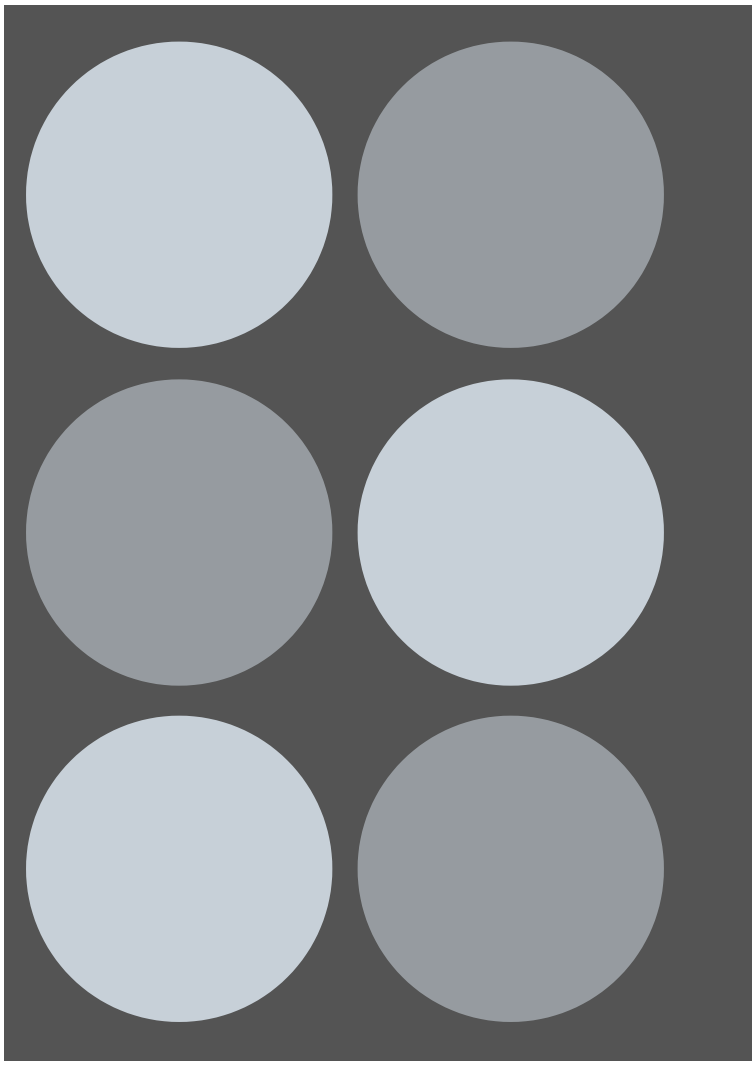
For law firms, COVID-19 makes it riskier to take on start-ups and run incubators in terms of funding and investment. Law firms have less spare cash to invest and it is harder to tell whether start-ups are still worth investing in. Firstly, all sectors have had to make cuts to their businesses, leaving little cash to invest in unproven technology. That said, Norton Rose Fulbright, Osborne Clarke, and Herbert Smith Freehills have all recently announced that they will pay back the support grants given to them through the Coronavirus Job Retention Scheme by October 31st, so perhaps law firms have not been as badly hit as previously thought. Secondly, it will be more challenging to scope out the new set of start-up cohorts coming in as a lot of early-stage assessment of legal tech is about leadership, contribution, and development — all things which cannot be measured solely online.

For participants, COVID-19 has taken a toll on the delivery of incubators and the development of their products. For now, most legal tech incubators are still going ahead 'as normal', albeit virtually, including Slaughter and May's 'Collaborate' and PwC's 'Scale LawTech'. While a virtual incubator can still foster camaraderie between the firms, participants, and clients, there is a risk that the key collaborative purpose of incubators and accelerators will be weakened. There are two sides to this argument. On the one hand, participants may feel that video conferences cannot fully replicate all the social interactions needed for building a network, as noted by Dentons NextLaw Labs CEO Dan Jansen. On the other hand, being online brings with it broader exposure and better efficiency, as Fuse participant and StructureFlow founder and CEO Tim Follett argues.

What does the future hold?

If anything, lawyers and clients need the help of incubators now more than ever. In a time of uncertainty, incubators will allow firms to pick out the best technology to enable remote working while ensuring confidentiality and productivity are not compromised. Given that a return to 100% office working seems unlikely in the medium term, it is likely that in the near future we will see a hybrid approach to legal tech incubators: virtual in the main but with in-person pitching sessions and reviews to assess performance.

Jeantelle Churchward



Banks and LIBOR:

An opportunity for Legal Tech

Leo Hutchings

The transition away from the London Inter-Bank Offered Rate ('LIBOR') is one of the most important shifts that the financial services industry will undergo. It will be laborious and will highlight deficiencies in many banks' legacy systems that have been chronically neglected through years of underinvestment in technology. For banks, the key to achieving a smooth transition is having a fundamental grasp over their LIBOR exposure data. This presents an opportune moment for legal tech to demonstrate its utility on a large scale.

What is the LIBOR transition and why is it so important?

LIBOR is the interest rate underpinning around £182 trillion ($240 trillion) worth of financial contracts worldwide. In 2012 the UK's Financial Conduct Authority found that major international banks had colluded in order to profit from fixing advantageous LIBOR rates, and so decided in 2017 that LIBOR was to be phased out by the end of 2021. Come end-2021, banks holding LIBOR linked contracts will find they no longer have a representative interest rate, leaving them financially worse (or better) off. It is this gargantuan monetary value, and intertwined financial risk, that makes this transition so important.

Most banks struggle with technical debt

After years of layering up systems, banks are left with a complex amalgamation of legacy technologies and platforms. The archaic code and software used in them may only be understood by a few or none of the remaining staff, making it difficult to upgrade swiftly and safely. Banks' important roles in providing the financial plumbing for the economy demands near 100% uptime. Pausing operations for six to twelve months to upgrade core systems for the sake of future efficiency is not a viable option.

Why is data needed in LIBOR transition?

For a bank to successfully transition away from LIBOR, it must first understand the granular data behind its LIBOR exposure. For loans this could include the loan amount, currency, maturity date, and counterparty just to name a few data points. This data is not neatly archived in a single centralised repository, but is distributed between various legacy systems. Thus, banks need to create a repository of data that is the 'golden source'. This is important, as if chunks of data and LIBOR products are missed, this opens up potential legal liability for the bank when LIBOR ceases to exist.

How can legal tech help?

This presents in-house legal teams with a daunting discovery task. Legal tech solutions could play an important role in addressing it. As time ticks closer to the 2021 cut-off date, the ability for in-house teams to manually sift through swathes of unorganised and dispersed data diminishes. Contract analytics solutions are able to use machine learning ('ML') and natural language processing ('NLP') to create algorithmic models ('AMs') becomes increasingly valuable. Volumes of financial contracts can be scanned, processed and analysed in a matter of days rather than months, producing a statistical and granular overview of multiple product types.

This first step to achieving this is the ingestion of a bank's contracts into the platform and conducting a pre-review analysis of the desired fields (clauses and information) on a sample of documents. Devising a playbook as to the nuances of the clauses sought and their location within the document is often a neglected consideration – an extra word or unnecessary 'noise' can throw off the AMs' accuracy. This is crucial as without consistent and accurate data inputs the AM's outputs will be unreliable.

The second step, and probably the most advantageous, is customising and training the AMs that are adapted to banks' more complex and bespoke contracts. AMs will not only take account the wording of clauses but also the surrounding context and location of the desired output within the document. For example, in a law firm's standardised loan documentation certain drafting styles will be repeated, allowing the algorithm to recognise clauses in familiar locations. The resulting precise data is key, because it will inform the bank's strategy and playbook for repapering and negotiating LIBOR-linked products.

However, this process is not without its difficulties. Contract analytics solutions derive their ML and NLP abilities from essentially learning and re-learning off pre-programmed examples of contractual clauses that have been verified by a human reviewer. An exercise like this requires an in-house user to be familiar with the technology platform, to have the legal expertise to understand the complex finance-related clauses, and the time to spend reviewing – altogether a rare set of circumstances. Those wishing to extract maximum utility from these platforms need to be aware of the initial time resource and skillset that is required.

The alternative is to outsource to a law firm or alternative legal services provider. But, this requires setting up secure data rooms for the service provider to access, planning with and briefing the external project management team, and carving out expenditure in budgets that are already stretched at a time of crisis.

Banks' digital transformation in the wider picture?

The past has shown that regulatory shifts are cumbersome and painful, particularly for large financial services companies – think MiFiD II and the General Data Protection Regulation. With banks climatising to the shift to working from home, and with a wave of potential Brexit-related financial regulatory change on the horizon, the case is now stronger than ever for banks to revamp their internal legacy systems and adopt in-house legal tech solutions.

Leo Hutchings

Are you based in Latin America, Africa or the Middle East?

As part of our global perspectives offering we are keen to get insights on legal tech from around the globe. Latin America, Africa and the Middle East have been underrepresented in the magazine so far, so we're keen to gather more content to show how legal tech is impacting legal practice in those areas.

If you're in one of these areas and are keen to write content about legal tech where you are then please do get in touch with Marc May at marc@legaltechnologist.co.uk.

The Overlap:
Data Privacy for Competition's Sake

Max Schneider and Phillip McEntee

Back in 1890, Samuel Warren Louis Brandeis defined the protection of privacy in his work *The Right to Privacy*. Many in the legal field consider this the starting point for consumer privacy laws. Today, the collection and use of personal data has become a fundamental part of the way that digital platforms do business. In many ways, including the quality and cost of online services, consumers have significantly benefitted from this. This has led some to argue that privacy matters should be for individuals to deal with and left outside the realm of competition law. Other commentators argue that privacy protection does not fall within the economic objectives of competition law. Who is right? To answer this we must analyse the intersection between EU data protection and EU competition law, and more importantly consider whether competition law can be used to defend consumers' digital identity.

Privacy Laws

The EU General Data Protection Regulation (GDPR) is intended to provide legal certainty to individuals and organisations processing data. It also provides greater protection to individuals.

In an effort to allow consumers to take ownership of their personal data, GDPR requires service providers to let data subjects obtain, move and transfer their personal data across different services. This data portability mechanism has the potential to facilitate competition among digital platforms by reducing the lock-in effect that consumers face. Data portability could reduce the costs of switching platforms (both in time and money) and therefore mitigate lock-in and facilitate competition in the winner-takes-all world of digital platforms. However, we are yet to see whether in practice consumers are able to benefit from data portability in such a way as to increase competition among platforms.

Although GDPR is considered by many to be the most ambitious privacy law to date, interpretation of areas such as transparency and data transfer is still vague. Moreover, GDPR does not contain precise rules on privacy of electronic communications, which represent a substantial part of digital platforms' businesses.

Competition Law and Privacy Protection

Considering the mass surveillance conducted by various digital platforms for commercial purposes, understanding the relationship between competition law and privacy protection online is crucial for both the general public and legislators. Worryingly, it has been largely overlooked to date. In many of the landmark EU Court of Justice cases, it has been established and accepted that digital platforms' handling of sensitive personal information does not engage competition law. That said, there are provisions of EU law in place to address this sort of misconduct — specifically, Article 8 paragraph 2 of the European Convention on Human Rights. This provision relates to the fair use of people's private information after consent has been obtained for that use. Despite this provision in the Convention, public concern over data protection has steadily grown. Consumers are becoming increasingly concerned as to the nature and extent of the use of their personal information and digital identity by digital platforms.

Paramount to people's suspicions and concern are the often vague and deliberately convoluted terms and conditions which constitute the agreement between user and company. This, coupled with the fact that consumers have little bargaining power to choose alternative platforms which offer similar services, provides perfect conditions for platforms to collect huge amounts of data from a massive user base.

Two anti-competitive aspects of data collection

But what are the anti-competitive threats posed by the unhindered collection of personal data on data platforms? And is there a real threat to consumer welfare? The answers fall under two broad categories: *Exploitative* and *Exclusionary* conduct.

In the EU, Article 102 TFEU is concerned with exploitative and exclusionary conduct by economic players. Exploitative abuses are scenarios whereby a monopolist reduces output and increases the price of its products above the competitive level, thereby exploiting consumers. What is so profoundly different about data platforms and the exploitative nature of their data gathering is a complete absence of a monetary price for the use of service. This fundamental difference has proved to be stifling of attempts to categorize data collection as exploitative under Article 102 using a traditional economic analysis. The ongoing Bundeskartellamt case with Facebook has marked something of a turnaround in judicial opinion, however. In this case the German Federal Cartel Office (FCO) scrutinized Facebook's terms of service and concluded that consumers do not have the choice of withholding their consent to the collection of data from third party sources. Despite this, the Higher Regional Court of Düsseldorf (OLG) did not accept the FCO's line of argument, questioning the lack of causality between Facebook's dominant position and the collection of user data. According to the OLG, the FCO failed to conduct an 'as if competition' test. However, the German Federal Court used a novel interpretation of competition law — not using causation to rule against the General Court and Facebook, but stating that the data platform violated competition law by combining Facebook data with data from other platforms and third-party apps.

Matters are not much simpler at the exclusionary end of Article 102. Here, data platforms have been lowering data protection standards to enables the collection of more data, fuelling network effects. The related economies of scale ultimately allow data platforms to consolidate their ever-growing market dominance. This conduct is quite clearly far removed from competition by merit. It also amplifies the bases that many of these digital platforms have established and reinforces positions of dominance. It gives platforms an increasing incentive to collect broad and varying data on every consumer who uses their services.

Overall, competition law should throw its hat into this proverbial ring because of its two fundamental objectives: banning abusive behaviour by a firm which dominates a market, and preventing anti-competitive practices which lead to such a position.

Max Schneider and Phillip McEntee

International data transfer, national business transition, and good old-fashioned trust(worthiness)

Gabriele Recke

Some perspectives on the impact of the Schrems II Ruling on Danish start-ups and SMEs.

Deeply embedded in the DNA of start-ups lies entrepreneurship and innovation. By its very nature, start-ups are all about disrupting and reaching beyond established business patterns. This transition-as-a-culture approach traverses national borders and industry boundaries in massive and vast data flows in an ardent quest for successful partnerships and efficient market penetration.

Business transformation

The ability for start-ups to pursue new directions is fundamental to the development of start-ups. The change rate at every organisational level of an average start-up is impressively high. In start-ups, nothing is set in stone, and everything eventually and gradually moulds into a more permanent shape and form. Thus, it does not come as a surprise that start-ups wear the garments of SMEs so to speak.

The Small Business Act for Europe (SBA), the EU flagship policy initiative to support small and medium-sized enterprises (SMEs), comprises a set of key policy measures organised around 10 basic principles, two of which are entrepreneurship and internationalisation. The SBA is systematically monitored by EU authorities, and findings are presented in an annual fact sheet to assess the extent by which the implementation has been successful. It also detects what remains to be done and provides data for improvements. An aggregation of different functional tools nested in the SBA is meant to support the overall incentive.

According to the 2019 SBA Fact Sheet and Scoreboard, SMEs accounted for two thirds of overall employment and 56.4% of overall value added in the 'non-financial business economy'. SMEs are a big contributor to the economy, and the consistent ability of SMEs to perform and pursue their business objectives is therefore immensely important.

Data transfer

For start-ups, safety nets are few and far between, so risks need to be mitigated whenever this is possible. Friend is to be distinguished from foe across the end to end data flow, especially if the flow is of an international and cross-border kind. This is the case where a data recipient may not be well-known to the EU exporter and thus poses a greater potential risk to the cooperation and the commercial brand of the exporter. It is all about knowing who you can trust and assessing the trustworthiness of potential business partners. Data flows and data processes are difficult to handle in a due diligence exercise conducted by a SME with little resources and little in-house knowledge of these matters. Yet, data breaches are catastrophic to the business and brand of SMEs as they tend to be more sensitive to financial loss.

As a way to further promote SMEs and secure their economic foundation, EU member states have applied the SBA 'Think Small First' principle to both legislation and additional administration which directly affects SMEs and their growth potential. One might add that the starting point is 'small thinks big' when it comes to SMEs, as this specific segment excels at reaching beyond the common structures and challenging what is already there and making things grow and transform. As the start-up grows and simultaneously adapts to business with clients across multiple markets, data becomes vital to predict developments in volatile surroundings.

There is no doubt that the principle 'Think Small First', if applied with great caution and sensitivity, massively fuels the SMEs by supporting their agenda and removing a great many bureaucratic and legislative obstacles that would otherwise drain small businesses.

The bottom-up approach is highly essential as the SBA is all about assessing the status quo and considering innovative and actionable initiatives within the framework of the existing principles as a means of promoting SMEs in the long run.

One key point in the 2019 SBA Fact Sheet and Scoreboard states that European SMEs still require crucial support to re-skill and upskill their employees if they are to perform in the data-driven, digital economy. Many SMEs are born digital and inhabit a global infrastructure with endless data flows as part of their business and even as part of their core product. There is a discrepancy between the obstacles facing SMEs when it comes to data handling and security, and the basic need for SMEs to enter into a data blue ocean in order to find a niche and build a sustainable business. SMEs are destined to be data-driven when it comes to products and processes. Yet, at the same time they often lack the resources needed to develop a thorough understanding of the fundamentals of data processing and data protection.

The new world order is digital by nature, and the business models of SMEs therefore need to take this into consideration, by transforming with sustainable business strategies and making sustainability their main objective. The realm of digital is expanding, and SMEs need to position themselves and identify data protection as a possibility to build a brand and develop products, as well as building trust with other companies. Data protection end to end demands a common ground that transcends the legal setting. Harvesting, analysing and utilising data to build a business, while cooperating across borders with businesses of a similar size but in a different country, demands in-depth knowledge about the legal basis of secure data transfer and best possible set-up of contracts and agreements. Quite a heavy burden for a small SME.

In a Danish setting, SMEs are characterised by a high degree of receptivity to change. A major change to the digital setting of SMEs is constituted by the Schrems II Ruling, which invalidated the Privacy Shield mechanism formerly used as solid legal grounds for data transfer from the EEA to the US. This is of paramount importance to all companies who transfer data across borders.

Trust(worthiness) in the age of data

The Schrems II Ruling is of particular importance to SMEs as their predominantly agile set-up embraces a

more data-driven approach to business development. To SMEs data is business. The Standard Contractual Clauses (SCC) of which there are three kinds, remain binding post-Schrems II, yet they should be furnished with additional precautions and safeguards. Binding Corporate Rules (BCR) is another form of legal transfer mechanism but is unfortunately not relevant to small-scale SMEs. All in all, SMEs will need to be resourceful and develop strategies and embark on complex partnerships that fit the current demands. Establishing relationships and building trust becomes an even more important piece of the SME everyday business life as a consequence of Schrems II.

Even more, investing in a business relationship across borders will be something that needs to be considered with even greater care post-Schrems II, as the risk is higher. Dialogue and due diligence must be handled with discretion. A lot of resources and an endless number of man hours go into skilfully uncovering the policies and regulatory requirements that apply to the data harvested and handled by a specific SME.

Also, there needs to be some planning ahead, and a strategy developed, for an SME to manage the legal assessment of a data importer in a non-secure third country. Schrems II states companies are required to investigate the data importer and conditions surrounding the data import, and the data protection laws of the country in which his business resides. It also includes the technical and organisational structures of the data importer. All are additional measures relating to the legal transfer mechanism which are applied alongside the actual security measures.

A data controller is always under the obligation to carefully select and scrutinise parties to whom he exports his data. Large matrix organisations can draw on substantial in-house expertise, whereas SMEs need to rely on external sources of expertise or try to somehow develop their own procedures and policies in order to meet the legal requirements. This poses quite a challenge to SMEs that battle benchmarking and competition and need to focus their energy to find a foothold in new markets.

However, the Schrems II Ruling should not be seen as a massive constraint, but as an opportunity to further innovate and develop business models already agile and flexible in a SME context.

That means that Schrems II can spark off innovation and be the incentive of finding fruitful and trustful partnerships across borders, while raising the bar for data protection.

Gabriele Recke

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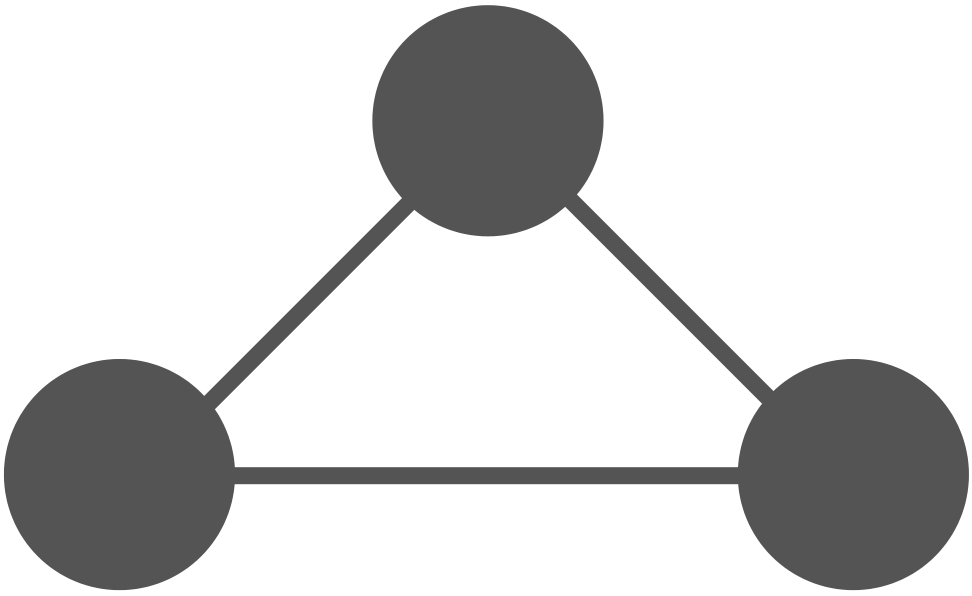


Africa and Middle East

Interview with Feras El Hajjar, CEO of App4Legal

by Stephenie Ong

Feras El Hajjar – founder, CEO, chairman, speaker and innovator – is nothing short of impressive. An entrepreneur in his own right, Feras has more than 18 years of international experience under his belt in understanding information systems, successfully developing and managing CRMs and ERPs before starting his own companies. He is now the proud founder of two highly successful disruptors: Infosysta and App4Legal. I had the delight of speaking with him about his start in the industry, and importantly, how App4Legal began.

I would really love to know about how you got your start in digital transformation, and importantly, how that led to your start in legaltech.

I come from a software engineering background, having completed my studies in Paris. This was followed by an MBA in management focussing on the impact on information systems on the management of enterprises.

After my studies I launched my first startup in Paris itself. That failed, unfortunately. But this was my first step in entrepreneurship. So, I decided to gain a couple of years' of corporate and enterprise experience before launching my second venture. I spent about 12 to 14 years working mainly in implementing enterprise ERPs (enterprise resource planning) and CRMs (customer relationship management), managing teams in different cities across Asia and Europe (7 cities altogether) focussing on enterprise digital transformation.

In 2012, I moved back to Beirut and launched my first company, Infosysta, an expert consultancy company in digital transformation. I jumped on the opportunity that was the big digital transformation wave churning in the GCC and Middle East countries at the time, especially in the government sector; I had heard of Saudi Arabia's roadmaps, similar to Dubai's and Qatar's 2020 roadmaps. So my first company was specialised in digital transformation. Very quickly, I went from Beirut, where I anchored the company, to representative offices in Riyadh in Saudi Arabia, Dubai in UAE and Cairo in Egypt: offices with a main focus in the Middle East. And things moved fast because we were partnered with Australian-American company Atlassian, a leader and in the Gartner Magic Quadrant of digital transformation – the type of products we were commercialising. We took this products and services catalogue and started developing this in the emerging Middle Eastern market. It worked very well, far better than I ever expected. Here I was thinking to have a small team of consultant experts, boutique, with

3 or 4 people working on very niche projects, and instead having this exponential growth. We were growing 2x, 3x year-on-year which, for a services company, was something really amazing. This was my first ED (enterprise development).

In 2015, we had an idea for a consultancy for legal teams in larger groups. That was where I started to build the mockup for what is now App4Legal. Borne out of a non-availability of what the legal market really needed, it gave rise to a new product and business line in Infosysta that very quickly started to show demand. We were able to take the same product, present it to a bank in Dubai and showed that there was a demand for it. That was the birth of my second company: App4Legal – a company specialising in legaltech.

In April 2019, having had Infosysta become a mature, profitable, established company and a main player in digital transformation, I restructured it and hired a strong CEO with 4 country managers. This enabled me to, in a way, spin myself off to App4Legal and dedicate myself to the new company. (I do however, still act as a non-executive director for Infosysta and am its sole owner). App4Legal began as a startup but has since become, by the midpoint of 2020, the largest disruptor of legaltech in the Middle East and Africa with banks, government bodies, telcos, companies and hundreds of law firms in the region working on the system where I'm currently a executive with a small but brilliant team really pushing progress in this area.

What struck me most is how you've been able to scale up App4Legal so quickly, especially given the times we live in. What do you think were the most important factors that contributed to that?

There are 2 main factors. I would say. There's always the opportunity with good timing, right?

You have two types of startups: there are the startups that come along and solve a certain problem people face and the startups that jump on an opportunity. I believe, while at the end of the day there is a problem to be solved, it's ultimately about the opportunity. If you don't make that leap soon enough, that opportunity will be gone.

With App4Legal, it was an opportunity from a need. The first factor: opportunity. The region was showing a big wave of digital transformation, with the legal sector being highly fragmented. If you look at the current market, there are hundreds of tools out there for legaltech. But, if you go to a law firm in London, for example, it works in a very different way to a law firm in Dubai, which is again very different to a law firm in Hong Kong. London could be interested in a time billing system. Hong Kong could be interested in a legal document management system and in Dubai, a matter management system and a better way to connect with clients. The second: timing where we jumped on the opportunity, took it and delivered on time.

So App4Legal came with a different concept and innovation of said concept. App4Legal is modular, easy to use with the agility of small tools and comes with an enterprising spirit. We wanted to build a platform a lawyer could live in. He/she could come in in the morning and open his/her Outlook and App4Legal. Now it's not a matter of options – if he wanted to log time, he wouldn't have to open another piece of software, and another to record expenses, etc. We wanted to build a platform to simulate all the tools needed by a legal practitioner.

And you will see in law firms – not just the sole practitioners, or the small law firms, but mid to large law firms as well – dozens of tools (one for time tracking, another for time billing, expenses management, record management, contracts, board management, and so on.) You will end up having many isolated tools that, when grouped together, become a pain for daily business processes inside a law firm or in-house legal team. Further, without your assistants, paralegals, associates, CFOs and CEOs on the same platform, it will be a pain whatever the solution is. So, it's no longer about the tools, it's about the business process solutions that help law firms do more with less to collaborate. Especially with the current pandemic, companies paid a large bill when COVID started to have their employees work from home, distributed without any visibility, oversight or control. It was the massive burden of this which enabled us to accelerate our growth; we had 4x growth during the CoVid-period alone due to this need for law firms and in-house legal teams to have collaboration solutions.

In our next issue, we continue to chat about the many lessons Feras has learnt, his plans for the future and his advice for budding entrepreneurs.

Interview by Stephenie Ong

North America

Interview with Jon Khan: Why We Need Deliberate Legal Design

By Tiffany Sillanpää

Jon Khan is out to change the way we make and analyze common law judicial decisions -- and he's using Legal Tech and data to do it!

Tiffany: In a few words, tell me about yourself / your background.

Jon: Before my research, I worked as a judicial law clerk in a trial court and then as a public interest litigator. These experiences exposed me to Canada's access to justice crisis and the many areas of Canada's legal system desperately require reform. So I left full-time practice and completed my LL.M. at the University of Toronto. My thesis focussed on Canadian judicial decisions and decision-making. I'm now continuing that research during my Ph.D. at Osgoode Hall Law School.

Tiffany: What problem you are trying to solve and what inspired your research project on Deliberate Legal Design?

Jon: I'm trying to solve the problem of inconsistent and slow judicial decision-making and lengthy, inconsistent judicial decisions. I have two goals: (i) find ways to make judicial decision-making more consistent, predictable, timely, and less prone to cognitive bias and heuristics; (ii) improve judicial decisions' structure, accessibility, content, timeliness, length and data-richness.

The time I spent in court as a law clerk and lawyer inspired this research. Canadian judges work very hard. Yet I consistently saw them struggle. They lack resources and clear and data-driven guidance for improving their decision-making and decisions. This lack leads to litigants experiencing delay, inconsistency, and unpredictable litigation.

Tiffany: What you mean by "deliberate legal design" and why is it important to access to justice?

Jon: I think we can deliberately design solutions for these problems. For clarity, I'm using the phrase "deliberate design" like designers and engineers do. Software designers couldn't build the software upon which I rely to write this text without a deliberate, tested design. That design likely relied on interdisciplinary methods, ideation, prototypes, iteration, and user-consultation. Designers likely sought

to understand software users and endeavoured to provide them the best possible user experience, a key principle of human-centered design—my primary research method.

In contrast, no evidence demonstrates that Canada's federal legal system is based on any deliberate design. It's largely based on an evolutionary combination of colonialism, rebellion, precedent, tradition, feeling, and inertia. This history likely explains part of Canada's access to justice crisis: no one would sit down to design the legal system to operate like it does.

This lack of deliberate design is quite apparent in judicial decisions and decision-making. We can't say we truly understand judicial decisions' users. We know little about how judges write decisions and almost nothing about other users' experiences with decisions. Providing the best user experience to the legal systems' users is really quite illusory. This combined lack of knowledge and deliberate design impacts more than user experience. It may actually compromise the administration of justice; access to justice; and judicial independence.

Tiffany: The kind of consistency in judgments you talk about is something that the Civil Law system touts. It's also something the common law system rejects in favour of more "tailored" fact and context-specific judgments. It sounds like your project is trying to marry the best of both Legal systems together, what principles or fail-safes do you think are important to ensuring that we don't turn people into numbers or lose the person in each case in favour of consistency?

Judges should absolutely tailor decisions to the individuals before them. I'm looking to improve that ability. In some ways, I suppose I am trying to marry the best of the civil and the common law. For example, I'm examining the upsides and downsides of using standardized structures and content and whether it could help judges issue more responsive decisions.

Let me tell you a bit more. Canadian judges spend loads of time reciting the law and facts. But the judiciary's primary responsibility is not reciting the law or facts. Their primary responsibility is identifying controlling issues; using applicable law to guide the facts they must find; applying that law to found facts; analyzing that application; and issuing a decision. Standardized material could promote focus on those tasks. Imagine if both the judge and litigant were on the same page at the outset about the applicable legal test and the facts that must be presented. They'd be more focused on what matters. Judges would have more time and cognitive power to neutrally consider and analyze issues.

The analysis section of a judicial decision is really the important part. This section is where judges demonstrate their impartiality and where decision-making's true goals operate; it is where the thinking and deciding happens. My research suggests that standardization could get judges to this section quicker and with more consistency, predictability, and impartiality. Instead of individuals becoming a number, individuals could actually have a better and more fair experience. Standardization would also radically improve research, and we'd be better able to design solutions for systemic and individual problems.

Tiffany: On your website, you talk about other jurisdictions like the UK and New Zealand using human-centred design to solve some of these same problems. Can you elaborate on this and what specifically Canada can learn from these jurisdictions? What do they do well?

Jon: Canada could learn a lot from the U.K. and New Zealand. The U.K. is undertaking an incredible effort to reform its court system. Human-centered design principles are foundational to its £1 billion reform program. Instead of relying on intuition or tradition, user engagement and data are paramount. The U.K. is seeking to comprehensively understand the legal systems' users and to design user-focused reforms that are amendable to measurement.

In contrast, Canada's legal system has no comprehensive data strategy. In fact, it suffers from a legal data deficit. We know very little about how Canadian courts work, and how they don't. Reforms are rarely user-focused or amendable to measurement.

New Zealand incorporated its reliance on human-centered design in legislation aimed at modernizing its courts. One aspect of the modernization especially relevant to my research is New Zealand's transparent, user-focused practice of providing decision delivery statistics for its courts on a publicly available webpage; publishing lists of decisions under reserve; and expecting speedy delivery times for decisions (three months or less in most circumstances).

In contrast, most Canadian courts aren't this transparent or speedy. The Canadian Judicial Council expects courts to issue decisions within six months. Some courts have internal expectations or statutory deadlines that fall below this threshold. But most don't. The Supreme Court of Canada is the only Canadian court that provides delivery time statistics on a publicly accessible webpage. Only one other Canadian court—the British Columbia Court of Appeal—releases delivery time statistics without prompting. And no Canadian court publicizes its reserve list.

Tiffany: According to our website, you are currently in the process of surveying judges, decision readers, and parties to decisions to gather data and understand the current problems. What technology are you employing to help with this process and/or what technology do you think would make this whole process easier for both yourself and the end users to access your insights?

Jon: A big part of my research addresses Canada's legal data deficit. You can't deliberately design solutions if you don't understand the problem you're trying to solve. So I'm using both survey data and data derived from judicial decisions to fill some of the deficit. This data will enable me to provide novel, fundamental insights about judicial decision-making and judicial decisions.

I'm using Qualtrics, an online platform, for my survey research. After my data is gathered, I'll use classical and machine learning methods to analyze the quantitative and qualitative survey data—e.g., make predictions about what users actually want from decisions. I'll then pair survey data with quantitative data from judicial decisions. I'm using automated data scraping tools to create a novel dataset will include all publicly available superior, appellate, and federal courts' common law decisions from 2018. I'll then design machine learning models to analyze what features contribute to slow, lengthy, complicated, inconsistent decisions.

Tiffany: Finally, where are you now in your research project? What are the next steps? And what support do you require from the legal community to move forward?

Jon: I'm currently spending my time on two things. I'm completing my survey design, and I'm continuing to develop my scraping tool. Once I finish, I'll gather my data and start analyzing it. In terms of support from the legal community, I'm deeply interested in what they actually require from decisions—e.g., what do they like and what would they change if they could. When my survey launches, sharing it and broad participation would be a great help.

The ABCs of Legal Natural Language Processing Tools

By Andrew J. Throckmorton

Have you ever wished you had more time? Lawyers are under constant pressure to work more efficiently without making mistakes. Legal research is a great example. There is always one more court case or database to check out, if only there were time. Natural language processing (NLP) is an important building block for legal technology innovation that is making lawyers more efficient and productive in core areas of legal work like legal research. NLP is a powerful artificial intelligence (AI) tool that analyzes the syntax and semantics of human language to extract meaning. NLP is not new; however, continual advancement in computer processing and AI software capabilities makes it possible to apply NLP to larger sets of data and more complex language uses. NLP's ability to extract meaning from human language makes it an exciting tool that lawyers need to know about and use.

Legal Applications for NLP

Lawyers must be familiar with the type of legal problems NLP is solving to fully appreciate its exciting applications for the legal industry. Lawyers equipped with knowledge of NLP powered legal solutions can identify legal technology tools that are relevant to their unique areas of practice. Language intensive legal work like research, electronic discovery, and legal writing are areas where NLP shows promise as a powerful tool to augment the work of lawyers.

The capabilities of NLP as a legal research tool are clear. Nicole Black's 2019 ABA Journal article, Lawyers have a bevy of advanced and AI-enhanced legal research tools at their fingertips, calls AI the technology at the heart of 21st-century legal research tools. She highlights the use of NLP by companies like LexisNexis or Westlaw in legal research tools. These tools combine NLP and AI algorithms to provide legal research results which are highly responsive as a direct result of an NLP analysis of the text in search queries. Also highlighted in the article are legal pleading analysis tools. These tools use NLP to analyze the text of legal pleadings and suggest court cases which are not cited but may be relevant to issues discussed in the pleading.

Another interesting discussion with in-depth explanations of legal applications for NLP is given in Brian S. Haney's aptly titled article, Applied Natural Language Processing for Law Practice. He focuses on applications for NLP in automated question answering, document review, and legal writing. He notes that NLP makes it possible to create question-answering systems that find phrases or sentences in a large text collection which accurately answer user questions. Similarly, he notes that NLP can automate document review through predictive coding (the extrapolation of human coding to new documents) while maintaining accuracy in identifying relevant documents for production in discovery. He also illustrates potential ways that NLP may be used in the future for legal writing while identifying limitations with the current state of NLP as a creative legal writer that is still learning to consistently compose useful text.

A great resource for information on companies innovating with legal technology like NLP is Stanford University's Legal tech index . As of the writing of this article, Stanford lists 1,389 companies innovating in legal tech. There is a veritable buffet of legal technology solutions powered by NLP and AI, which are enhancing the efficiency and productivity of lawyers. Lawyers will inevitably face disruptive pressure from this innovation. However, exciting solutions for the efficiency problems that plague lawyers are the ultimate result of this disruptive but manageable innovation.

How NLP systems work

Ongoing legal technology innovation makes it possible for lawyers to take advantage of the capabilities of NLP without also being computer scientists. However, a basic knowledge of the process that NLP systems use to analyze the syntax and semantics of human language is useful.

An approachable resource to tackle NLP is Tom Taulli's book, Artificial Intelligence Basics: A Non-Technical Introduction. Mr. Taulli provides an overview of NLP with concrete examples of steps that NLP systems follow to extract meaning from language.

As Mr. Taulli explains, NLP systems analyze human language to extract useful meaning through two stages where language is "cleaned" and "preprocessed" into a uniform structure. This ensures the NLP system recognizes and analyzes text consistently. Preprocessing breaks language text into parts like nouns, verbs, punctuation, or numbers. Punctuation may also be removed or the case of words changed to increase the uniformity of the text. The text is also cleaned through steps like reducing words to their roots by removing prefixes or suffixes or by identifying root words similar to the language in the text.

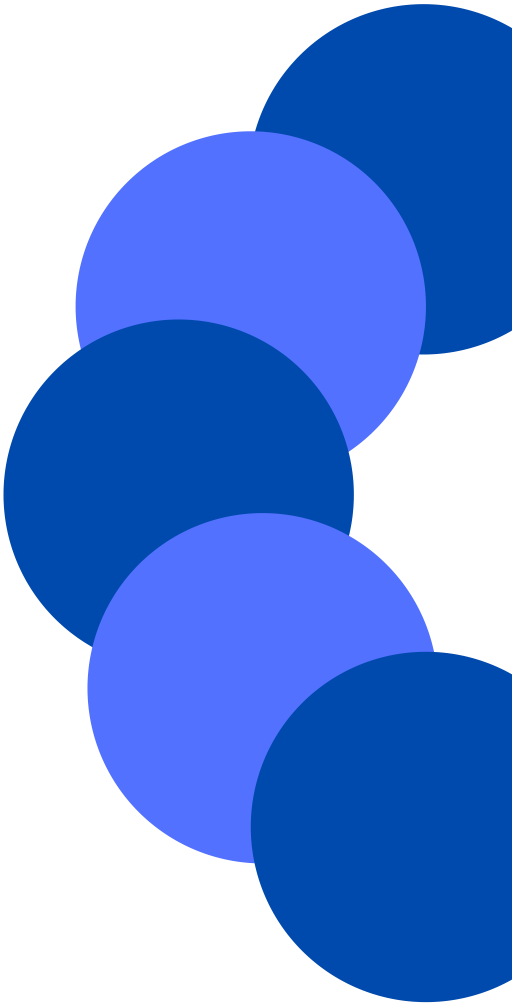
The goal of these steps is to turn complex human language into uniform text that NLP systems can understand more readily. However, complex and unique human language structures can cause issues for NLP systems despite cleaning and preprocessing. For example, scientific terms, grammatical errors, and usage ambiguities that humans readily take into account can reduce the accuracy of an NLP system. Thankfully, increasingly powerful computers and complex AI algorithms are making it possible to reduce the instances where NLP systems run into such issues while extracting useful meaning from human language.

Navigating Exciting Times

This is an exciting time for lawyers looking for ways to innovate in the way work is getting done. Knowing the technology that is increasingly appearing in our offices and the courtroom is an essential way to stay ahead of the curve in a competitive industry. The capability of NLP systems to perform work traditionally seen as too complex for machines is a key reason why it is important for lawyers to have knowledge of NLP specific legal tools. Core work like legal research, document review, or legal writing are just a few areas where NLP shows promise.

Lawyers that delve into NLP and other legal technologies will receive the reward of knowledge, and that knowledge will serve as a valuable compass. Using this compass, we can better understand the NLP tools we already use and can select new technology tools that are best suited for our unique legal practices. Additionally, NLP is a core building block for many legal technology systems under development. Having an understanding of legal uses for NLP also enables lawyers to anticipate changes in the legal industry driven by technological innovation. With NLP powered legal tools as a foundation and a compass we can confidently navigate the exciting innovation driven challenges facing our profession now and in the future.

Andrew J. Throckmorton is an attorney based in Philadelphia, Pennsylvania. He is a graduate of Villanova University School of Law and is licensed in Pennsylvania and New Jersey.



Lessons not learnt

Coronavirus Hasn't Changed Every Attorney's Work World

By Peter Colin

We're nearing the end of quite a year. 2020 has thrown challenges at all of us both personally and professionally. Much has been written about how lawyers, law firms, and others working in the legal industry have adapted to the moment and its challenges, with many technology trends accelerated by the transition to remote work and subsequent technology reliance. But this was not ubiquitous across the industry as many in the law clung to pre-pandemic workflows despite the realities around them. For those interested in technology solutions for lawyers, it's worth highlighting these examples.

For starters, not every lawyer went remote—either for personal preference reasons or dint of circumstance. From the personal conversations I've had over the past few months, some attorneys couldn't adjust to remote technology or the office displacement; some cited age-old security concerns, which are valid as more and more attorneys worked on home wifi networks and personal devices left relatively unprotected. More structurally, however, certain corners of the US government still required snail mail filings with hand-signed wet signatures. This precluded attorneys from using electronic signatures or emailing PDF documents. Whatever the reason, attorneys and paralegals in firms in major US cities and in rural communities still worked from their office, sometimes in contravention of state and municipal mandates. AmLaw 200 firms on the coasts and small firms in the middle of the country alike, hushed reports trickled of attorneys unwilling or unable to convert to working from home.

One such attorney, a baby boomer litigation partner at a small firm in a major US city, commented that he struggled with adapting to a cloud-based DMS and case management technology. Another, name partner at a litigation boutique in a suburban area, still tracked time by hand on paper sheets and then gave them to his paralegal to enter. Both cited familiar justifications: "It saves me time. I don't have to learn new technology" or "The inflexibility of tech limits my ability to practice" or "The budget doesn't allow for new efficiency tools, the cost/benefit analysis doesn't tip in tech's favor." These attorneys are not alone, but regardless the reason, it's no secret that after the transformative instance of the pandemic, attorneys will cling to their old and entrenched workflows to their detriment.

To be fair, many firms have adapted and pivoted. Attorneys who had been tech averse are tracking time on their iPhones, collaborating on tasks in cloud-based platforms, and automating documents. Many jurisdictions saw their courts go virtual. New York Chief Judge Janet DiFiore said, "Technology has played an important and integral role for us, allowing us to move our cases forward while at the same time limiting courthouse traffic and mitigating the spread of COVID … as we creatively explore the many ways in which technology and virtual operations can appropriately become a permanent part of our operation, we are equally excited about the prospect of a new and even more productive normal." Many firms pivoted to a virtual world with ease, and it's likely the events of 2020 beckon a new normal in law firm work. Offices will downsize and transform to agile working. More tasks will be automated. Ultimately, this can save law firms money even as they invest more capital expenses into technology.

But there will be many in the industry who will not accept this. For one, it can mean reduction of human workforce. If attorneys use Clio or ADP for their time entry, the number of paralegals or assistants will be reduced. It's already happened in some sectors. But for others, the money a firm saves is not pertinent to their day to day operations. There will be a lag before clients and attorneys perceive the chasm between firms who learned the efficiency and technology lessons of the pandemic and those who didn't.

Furthermore, a lack of government digitization in the US—which isn't likely to accelerate any time soon—perpetuates this lag. Some firms and partners may have another decade of practicing the law the same way they did in 2005, albeit with a better version of Westlaw. But it's not a long-term solution, and proactive lawyers should learn this before their competition does. But that's easier said than done.

Peter Colin is a legal technologist at Thomson Reuters, where he offers technology consulting and services to large and midsize US law firms and corporations. Peter serves the top law firms in the country, consulting on legal trends and customising Thomson Reuters legal technology solutions for enhanced workflows, custom research solutions, and increased efficiencies pertaining to both the practice of law and the business of law.

Diverse Legal Tech Companies: Join Our Initiative

By Tiffany Sillanpää & Henal Patel

The future is bright, but not without diversity! The Legal Technologist — in partnership with DocJuris' CEO, Henal Patel — is currently exploring diversity in Legal Tech. A full article on this topic will feature in our January 2021 issue, but in the meantime, we are compiling a list of diverse Legal Tech companies to inform and accompany the piece.

If you or someone you know represents a legal tech company that is either woman or minority owned, please take a moment to submit the company to the list by clicking here.

The final list of companies will feature in our January 2021 issue and may be shared with the Corporate Legal Operations Consortium (CLOC), Association of Corporate Counsel (ACC), World Commerce & Contracting (WCC), and International Legal Technology Association (ILTA) to supplement their existing diversity initiatives and encourage Legal Tech buyers to consider diversity when making purchasing decisions. Our goal is celebrate diversity and boost awareness for firms and legal departments seeking to support diversity when choosing their Legal Tech partners.

Tiffany Sillanpää is the North American Editor for The Legal Technologist and a recent LL.M graduate from NYU Law. She is passionate about the potential for technology in legal practice to deliver greater efficiency for lawyers and better outcomes for clients.

Henal Patel is a native Houstonian and the CEO of DocJuris. Prior to his current role, Henal worked as a senior in-house lawyer and legal ops specialist for over fifteen years. At DocJuris, Henal's team empowers legal, procurement, and sales with contract redlining and negotiation software that closes deals faster and with greater accuracy. The objective is to lead clients into successfully reaching their ultimate goals by bringing out the best in their legal departments through the use of actionable metrics and useful software.

Latin America

A brief introduction to Visual Law

By Amelin Jabbur

To make a revolution, it is generally beneficial to go back to basics. Therefore, to understand what visual laws are and why we need them, we must first go back and ask ourselves, what is a law?

If we look in a dictionary for the definition of law, we may find that a law is defined as "*a rule, usually made by a government, that is used to order the way in which a society behaves*" or "*a rule made by a government that states how people may and may not behave in society and in business, and that often orders particular punishments if they do not obey*" (according to the Cambridge Dictionary).

To put the last touches on this definition, it is important to note that many legal systems uphold the legal principle *ignorantia juris non excusat*. According to said principle, a person who is unaware of a law may not avoid liability for breaching that law merely because one was unaware of its content.

Therefore, we can conclude that a law is a rule made by a government directed at the people of a society to determine how they may and may not behave, the violation of which may involve a punishment from which people cannot escape just because they are unaware of the content of the breached law.

At this point, we should ask ourselves whether, as legal actors, we are doing our best when designing and communicating laws, given that, if someone is going to be bound by any rule, it is simply fair that one knows and understands the content of that rule.

From the brief analysis we have done so far, we can conclude that, in general, we are doing something wrong in the law-making process.

The laws, intended for and binding on citizens, are designed by and for lawyers, written in legalese and poorly communicated. Basically, little effort is put into making sure people understand the legal system that binds them.

Despite this, in the event of non-compliance, the full force of the State falls on the noncompliant citizen, without empathy or mercy, nor self-criticism about the role of the State in the fact that people might not understand the same law that they are breaching.

For all these reasons, it is necessary to begin a process of change in the drafting and publication of laws, in order to make them more accessible and understandable for the people who will see their lives affected by them.

To such extent, and in the first place, it is essential to understand that the main users of the laws are citizens, not lawyers, judges, nor the public administration. Taking this idea as a starting point, we need to think of the law-making process as a human-centric design process. Better said, a citizen-centric design process.

Since people not only need to have access to the laws, but also to understand them, we must be sure that they are designed in a way that improves their understanding by the average citizen. To achieve this

goal, we can learn a thing or two from plain language and information design techniques.

As we may already know, graphic design is the visual representation and organisation of ideas for a specific purpose using typography, photography, iconography, and illustration. Information design is a specific area of graphic design related to displaying information in a logical way rather than just aesthetically, so that everyone can understand it efficiently and effectively.

Plain language is writing designed to try to get the reader to understand a text as quickly, easily, and completely as possible. It is key to highlight that plain language is a legal requirement in many countries when it comes to public administration.

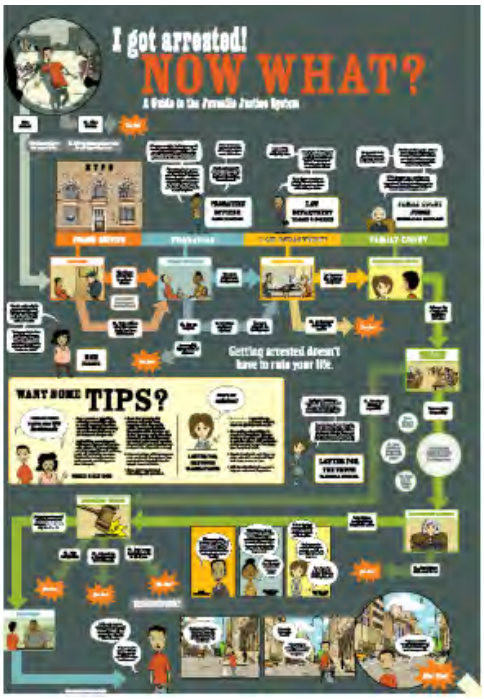
From these practice areas we can learn various techniques that, although they may seem natural or intuitive, are not usually considered when drafting or communicating laws.

Starting from organising the information in a logical way, grouping related topics and following a logical cognitive order, and continuing with using a table of contents and descriptive headings, we can even think of employing different typographies and colours to emphasize certain parts of the text and order the same.

Opting for a bolder choice, we could even consider including charts, graphics, diagrams, and images, to make the content of the law more understandable and relatable for the user.

Going back to the beginning, the design of visual laws shall be a citizen-centred process. Therefore, the tools to be used must match the specific user of the law. We should not have the same approach when dealing with children's rights as when it comes to corporate law, because the users of these laws may be totally different.

To put this theory into an example, we can refer to the excellent work being done by the Center for Urban Pedagogy (the "CUP") in New York. The CUP is conducting a project called Making Policy Public, which comprises a series of posters aimed at making information on policy truly public: accessible, meaningful, and shared. In the example we present below, the CUP collaborated with graphic novelist Danica Novgorodoff to create an accessible outreach tool to help youth navigate the maze of New York's juvenile justice system.



"I got arrested! Now what?" a poster created by the Center for Urban Pedagogy of New York and Danica Novgorodoff, as part of the Center for Urban Pedagogy project Making Policy Public.

In conclusion, laws shall be designed interdisciplinarily in a process that shall have as its centre the citizen who is bound and benefited by said laws.

Taking on the challenge of making the law more understandable and accessible to society will result in an overall benefit: people will be more attracted to knowing the law, understanding of the law will increase, the government will save time and money spent on law explanation and in the fight against non-compliance with the law and, above all, we will make a valuable contribution to social inclusion.

Written by Amelin Jabbur. Corporate and Tech Lawyer. Expert in M&A by ISDE Madrid. Student of the Postgraduate Degree in Artificial Intelligence and Law at the University of Buenos Aires. Co-Founder of ALIL (LATAM Legal Innovation Alliance) and ALTA (Argentinian Legaltech Association). Currently, in-house lawyer of Huawei in Buenos Aires, Argentina.

The Market Fit Legal Professional

By Diego Flores

Diego Flores is a lawyer, coder and founder of legal tech startup Cactus Legal Tech based in Mexico. Before diving into the coding and legal tech world, Diego´s legal practice focused on corporate and real estate matters.

Technology has had a huge impact on the legal profession and it wasn't too long ago that some legal professionals may have thought the sector was immune to disruption seen in other sectors like finance or accountancy. They may also have thought that innovation wasn't something they would need to worry about or put their hands on. The room in the market for legal professionals that still think that way shrinks as I write.

But who will these innovators of the future be? And what skills will set these evolved legal professionals apart from the traditional one-to-one, bespoke, face-to-face, adviser who charges by the hour?

Let's quickly rewind a couple of decades, when a legal professional needed not much more than traditional "black letter law" knowledge, legal analysis, legal research and legal writing skills to be considered a good lawyer. This was represented by the "I-Shaped Lawyer" model. As you may have imagined, this model has been replaced by a newer one that involves tech related skills. This newer model, the "T-Shaped Lawyer", was coined by Amani Smathers in 2014. It takes into account the modernisation of the legal sector and corresponding demand for legal professionals with a knowledge and appreciation of other disciplines such as technology, business, analytics, and data security. This allows them to collaborate better with professionals with expertise in those areas.

However, this model has also been updated, this time by a model that adds up a third key competency for legal professionals. This model is often referred to as "Delta" and is formed by three important aspects. The first of them is the legal knowledge and legal skills competency is associated with the "I-Shaped lawyer". A steadily growing number of information and knowledge related tasks are handled by computer systems. However, in order for these systems to properly function, they must be designed, supervised, fed, tested and/or used by subject matter experts.

Second in the list we´ve got the competencies that gave birth to the T-Shaped model. Here we find competencies such as design thinking, data analytics, technology, project management, and business fundamentals. Unfortunately many law schools around the world have not yet kept pace with the marketplace. Legal professionals need to speak the language of the IT department, the boardroom or their clients' industry. However, speaking the language of the IT department does not necessarily mean learning to code. Learning to use no code or low code platforms should be enough for any legal professional to use or develop useful legal tech solutions.

The "T-Shaped Lawyer" skills and knowledge are not enough for legal professionals to deliver what clients want these days, which are humans that can collaboratively problem find and solve. This brings us to the third set of competencies which is made up of skills often referred to as "soft skills" or "personal effectiveness skills". Given that law is a "people business", their importance is increasing as we see the rise of AI. AI still has a long way to go to substitute human emotional intelligence. Clients as well as productivity and mental health research are asking for legal professionals with an empathetic, creative, resilient, and growth mindset which are the ingredients for successful human centered design, innovation, problems solving, and collaboration.

As we are going through a digital revolution, our landscape will remain dynamic, which is why flexibility and adaptability are a couple of skills becoming more valuable. Finally in our "soft skill" compilation we make some room to highlight the value of empathy. Empathy is not only the fuel for collaboration and leadership, but for design thinking as well since putting yourself in the shoes of the user is what makes the designer able to experience the problem just as the target user does.

A description of a legal professional with the skills and mindset described throughout this article, would be someone that puts her ego aside, opening herself to collaborate and problem solve with people of different backgrounds and levels of expertise, and is not always thinking she is the smartest in the room. In order to develop this mindset that turns a great legal professional into a great leader, she must try to reach levels of self-awareness, social awareness, self-reflection, and self examination. These are some of the hardest practices to adopt by anyone, as Benjamin Franklin once said "There are three things extremely hard, steel, a diamond and to know one's self." Legal professionals that cultivate the collection of skills mentioned in this article, will be the ones that thrive in the evolving marketplace.

Diego Flores
CEO / Founder
Cactus Legal Tech

Asia and Pacific

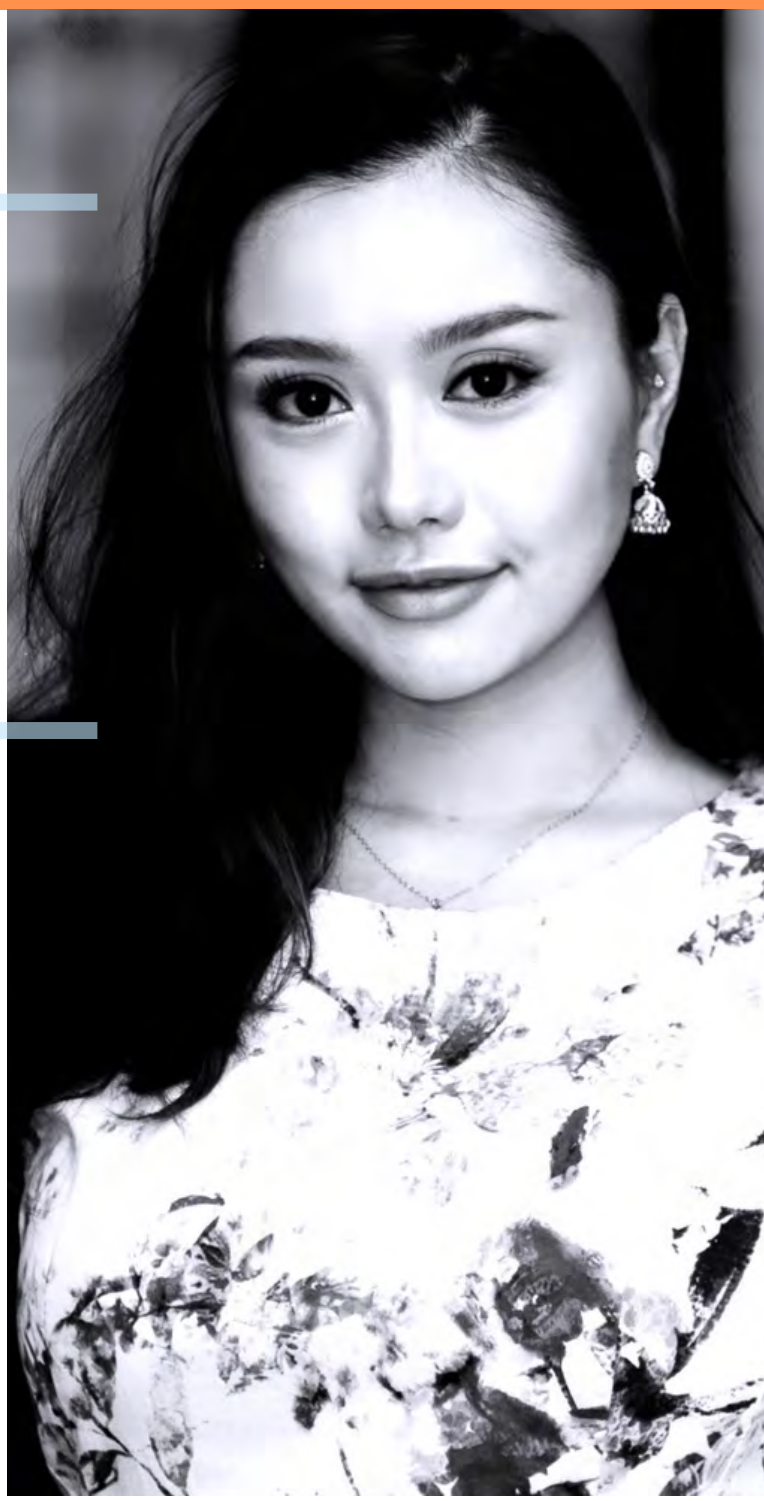
Interview with Christy Ng:

The intersection of AI and Machine Learning in Legal Data

By Roslyn Lai

Christy CL Ng is a legal technologist who has advised on a range of documentation and innovation initiatives within the derivatives industry and fintech space. She is a consultant with D2 Legal Technology LLP in its Hong Kong subsidiary and has a particular focus on data-driven processes and vertical AI applications in the legal profession and financial services. She is an author in the LegalTech Book, published by Wiley & The Fintech Circle.

In this month's Asia and Pacific column of the Legal Technologist, Christy C L Ng speaks to Roslyn Lai, Asia Pacific Editor, about her journey into a career in legal tech in Hong Kong and beyond, as well as her thoughts on the state of AI, machine learning and legal data innovations in the APAC region.



Roslyn: Walk me through your career so far. How did your passion for legal technology come about?

Christy: After I completed law school in the UK, I accepted a business development role in the Hong Kong office of Watson Farley & Williams ("WFW"), an international law firm. I spent approximately a year pitching for a wide range of financing deals and power projects and involving myself with strategic client targeting initiatives. Crucially, I was developing the skill of cross-leveraging different fields of expertise to make connections with new deals.

I spent another year in traditional legal practice but felt stifled by the lack of creativity, innovation and deal-making opportunities in the litigation practice I was, which reduced legal services to the same repetitive work for the small roster of clients. I saw the standard law firm hierarchy as antiquated, inefficient and lacking in sustainability. And it is through my varied roles in the legal industry that I absorbed the processes and systems that each organisation used and how these could be improved. Also, having worked with banks, investment firms, asset managers, the government, and law firms both externally and in an in-house capacity, I was fortunate to have additionally gained a unique insight into the upcoming trends in the financial industry from a documentation and legal-tech perspective.

Armed with this knowledge and insight, I made the leap to D2 Legal Technology ("D2LT") which is an award-winning legal data consulting firm advising on process, data and the use of technology for change management where I have had many opportunities to work in on-site roles and working groups with our clients and internal consulting projects.

From my career story so far, you can see how the legal technologist path developed organically for me as a result of my exposure to different areas of the industry and my natural interest in making connections with a broad array of stakeholders, and working with more structured data to achieve better commercial outcomes. Technology is simply a tool to aid in the process.

RL: That's great to hear! Could you tell us what you do in your role at D2 Legal?

CN: Currently, my external onsite role is with one of our investment bank clients. This involves working with stakeholders and trading counterparties to resolve negotiation impasses and an array of issues that impact the documentation to trade products which could relate to operations, IT, products desk, legal, regulatory risk, and XVA (collateral valuation). I also test out new platform solutions, end-to-end user products, and participate in industry working group calls.

Internally, I was involved in projects on data extraction and data structuring as part of managing the legal change process chain for our clients. Right now, I continue to partake in other legal innovation projects such as logical English drafting rules to be more machine-readable.

Overall, the fast pace of developments in capital markets and the financial services industry means that it is our responsibility as D2LT consultants and legal technologists to- always be agile and look ahead into the future to prepare all our clients to stay ahead of change.

RL: Why do you think it is important for future lawyers to grasp the importance of machine learning in AI and the digitalisation of financial services?

CN: Simply put, machine learning is a type of intelligence that we can train algorithms to develop to mimic cognitive processes commonly found in white-collar job functions. Computers with artificial intelligence use sets of rules and processes to achieve outcomes they are programmed to solve and this capacity improves over time as the algorithms are fed better data to run their simulations.

Lawyers should care about machine-learning because machines will eventually be able to do bread and butter legal tasks with higher computing power than we have. There are already indications of that in Europe and North America.

Both of these areas (machine learning and digitalisation of financial services) are part of the long-term trend in the larger AI revolution that I see which will create new opportunities for enterprising lawyers.

RL: What are your thoughts on the state of adoption of AI in legal data within the APAC market? What are the challenges here?

CN: Ultimately the challenges come down to attitude and infrastructure. Firstly, it is important to remember that the global headquarters usually lead major business decisions for the international organisations in APAC. Strategic locations/regions such as Hong Kong and SE Asia are for "business as usual" operations and wealth creation. Secondly, it isn't easy for people to want to change or prepare for change until change is right in

front of their eyes and is impacting their bottom-line.

To get people actively participating in better ways to produce outcomes requires business incentives. Those business incentives have to be weighed against the costs on time, infrastructure and resources and not many of the decision-makers in APAC sitting in their compartmentalised roles are prepared to make that call.

RL: On the bigger picture, what do you believe are the up and coming trends in innovation from a (bank) documentation and legal tech perspective?

CN: From the documentation perspective, there will be continual automation and streamlining of contract assembly and record-keeping processes. There will be ongoing initiatives for platform solutions to make negotiations more efficient and for faster resolution of day-to-day trading documentation queries.

In the bigger picture, banks are huge repertoires and consumers of unstructured data ripe for reform leading to exponential wealth creation. Different departments process billions in gigabytes of information everyday but the consumption of that data for further proprietary use after the initial use-case is weak and treated as an afterthought.

There are not many legal data specialists looking into the datasets to find cross-departmental opportunities for further production, enhanced decision-making or identification of inefficiencies. The deeper opportunity below that would be looking at how this type of big data analysis can be leveraged for other AI and machine learning functions to help with legal and regulatory functions including monitoring data, processing sensitive data and automation. This is an area I am very interested in and D2LT is uniquely placed to explore given its pioneering role in Legaltech.

RL: You've previously authored a chapter in the LegalTech Book earlier in 2020. What are the next steps in terms of writing about legal tech?

CN: Great question. In brief, I previously wrote about utilising decision-tree analysis in bots to create value for in-house legal teams. My next work will be about the different ways AI technologies will fundamentally change the role of the human lawyer and the opportunities available to human lawyers 2.0 as managers of the emerging robo-lawyer technologies that which will take over traditional legal tasks.

I will discuss the implications for legal advice on business in this new data-driven approach. The publication details are to be confirmed closer to January 2021. Please feel free to keep up with me and my work via Linkedin or email.

Roslyn Lai was talking to Christy CL Ng. If you have any comments or questions, please contact Roslyn at roslyn@legaltechnologist.co.uk or Christy at Christy.ng@d2legaltech.com.

The unexpected impact of COVID-19 on legal practice in India

By Namit Oberoy

When COVID-19 tightened its grip on the world in early 2020, the impacts were felt in India just as they were felt elsewhere. Jobs were lost, businesses were closed, and the fundamentals of everyday commerce were altered beyond recognition. In the legal services industry, these impacts have undoubtedly made their mark. Courts closed their doors, lawyers were sent to work from home, contracts were renegotiated, substantial pay cuts were put in place, and litigants were left in limbo.

But outside of these more obvious impacts are several that are fundamentally changing how lawyers in India conduct business. The Indian experience is a special one, for sure. Yet the lessons to be learned could apply to legal professionals anywhere.

From the "diary" to digital note-taking

Because the Courts have had to go virtual, the first change among legal professionals is how they use hardware (not software). For instance, more lawyers are looking towards buying tablets with pencils, deploying multiple screens, and integrating their devices via cloud. This, among other factors, has led to a reduced reliance on physical files, leading to increased digitisation of paperwork.

The impact of this change is, above everything else, cultural. In India, a majority of litigation lawyers swear by their physical court "diary", which they use to record hearing dates, briefings, meetings, and appointments. Since lawyers have been forced to work from home, suddenly the value of this cultural symbol has reduced since a diary which simply sits on a desk, away from your digital work environment, is not all that useful anymore. Accordingly it's value in increasing the lawyer's productivity gets diminished, and the pulls of convenience and efficiency with digital tools grow ever stronger.

As more and more lawyers are adopting digital tools to facilitate their work, so too are they - perhaps even unconsciously - drifting towards digitisation across their entire workflow. Entry-level use cases like PDF editing, annotation, OCR and cloud storage are becoming a gateway for more advanced legal tech tools to enter the Indian lawyer's (digital) office. If you have practice management software that automatically schedules meetings in a digital calendar on your smartphone, for example, you are much more likely to use that than its paper alternative.

If COVID-19 can topple the paper diary, it stands to reason that it can readily cause a fundamental shift in the ways lawyers create, process, and store their information. What this opens up is a world of possibility for budding legal tech entrepreneurs who can innovate to make this transition easier and, ultimately, more rewarding.

The psychological impact of name-calling

Before courts went digital, it would be rare for a junior lawyer to ever hear their name called by a judge in court. Senior lawyers would be addressed by name, a subtle form of laudation that ordinarily juniors would have to wait years to enjoy. But with hearings being broadcast digitally, usually via video conferencing software, junior lawyers have their names displayed on screens and are, accordingly, more often called upon by judges.

The psychological impact of this is profound. Junior lawyers in India come from a world of near invisibility in the eyes of senior legal and judicial personnel. Having your name registered in the mind of the judge and senior lawyers is something we have never seen in Indian legal practice before. This has a direct psychological impact on the typical junior lawyer in

India, who though highly oriented towards developing a professional reputation for himself, now starts to get a real taste of what recognition might look like. If nothing else, this boosts the morale of juniors, which not only increases their job satisfaction, but also leads to better experiences and outcomes for clients.

The levelling of the playing field

In times of great catastrophe, like a global pandemic, one of two things usually happens: either the playing field is levelled, or it is shot out of balance entirely (the latter resulting in "the rich getting richer and the poor getting poorer" and other extreme group divisions). In the legal industry, thankfully, the former appears to be happening.

Prior to COVID-19, lawyers from tier 2 and 3 cities could rarely appear in proceedings in the metros like Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Mumbai, and Pune (where much of the high value litigation occurs) because the costs of traveling to such locations meant an unacceptable increase in fees that clients were simply unwilling to assume. The result was that metro lawyers were almost automatically selected over others regardless of their merit. Now, lawyers from smaller towns and cities can appear before the country's most important courts and institutions without prejudice.

And this is not just about opportunity for lawyers. This also impacts clients. Clients now have greater choice in who represents them, and an ability to better bargain on fees (more supply means less demand and, accordingly, lower fees).

COVID-19 is cultural for Indian legal practice

If we peel back the layers of what we are seeing in India today, the core is cultural change. The digitisation of practice, increased motivation of juniors, and enhanced merit-based mobility are deep developments that will continue to shape legal service delivery and consumption in India for years to come. This, in and of itself, presents a wealth of opportunities not just for India's lawyers, but for the legal tech companies that exist to serve them.

Namit Oberoy

Disrupting how lawyers deliver:

An interview with Jacky Liu, co-founder of LegalClarus

By Roslyn Lai

Jacky Liu is a co-founder of LegalClarus, a Hong Kong startup that aims to connect and match lawyers to clients on its machine-learning powered platform. LegalClarus aims to bring further clarity, transparency and digitalization to the legal industry by making legal services more accessible and affordable, whilst creating more business opportunities for all legal professionals.

In this interview, Jacky spoke to Roslyn Lai, our Asia Pacific Editor, on his journey from private practice to entrepreneurship and his thoughts on the future of the local legal tech scene, as benchmarked against competing jurisdictions.

Roslyn: Could you tell us how LegalClarus was founded? What are its main objectives in this market?

Jacky: Two of the LegalClarus co-founders are qualified solicitors who have private practice experiences at both boutique and large firms dealing with a wide variety of issues ranging from setting up of a small business, civil litigation, conveyancing to corporate finance and cross-border commercial transactions. When we were still in these firms, we found that we were often approached by friends, relatives, previous clients or even foreign lawyers seeking advice on Hong Kong law matters. Since our firms did not take up small or medium cap transactions or general litigation cases, we had to refer them to another lawyer to handle the work.

Over time, we found this method of referral was quite time-consuming and inefficient and so it occurred to us that Hong Kong lacks a platform where the public could quickly find and hire lawyers. At the same time, we observed a growing desire in the legal market for lawyers to market their services in light of a saturating market.

That is how we came up with the idea of building LegalClarus to cater for the inadequacy and inefficiency of word-of-mouth referral, enabling users to get advice and lawyers to grow business anytime and anywhere.

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RL: What sort of tech does LegalClarus use to achieve these objectives?

JL: Currently, as LegalClarus is still at its beta stage, it is running as a responsive web platform to match our current capabilities and resources available. One of our developing key features to support our platform is the Smart Match, a technology that is powered by machine learning recommender algorithms based on user's on-site search behavioral insights.

Further down the road, our long-term goal is to develop an all-in-one legal marketplace platform for a comprehensive user journey, covering all customer needs and touch points.

RL: Given that LegalClarus creates law-focussed digital marketing solutions, what have you found to be the main challenges in this space?

JL: It definitely takes time and effort to persuade experienced lawyers to adopt digital marketing as they can be quite conservative! However, the outbreak of Covid-19 has urged lawyers that were reliant on traditional means of client acquisition to re-think the necessity and importance of digital exposure and presence to attract potential clients since many people are now working from home.

I would say the main challenge is to make the law personable as the general perception of legal topics can be seen as technical and even boring. It is hard for laymen to find resonance on the get go until they encounter any real-life legal problems. Some core challenges that we faced include: (i) creating engaging content and visuals for legal topics on a regular basis, and (ii) real-time user interaction and audience growth and retention.

RL: How have you found the transition from legal role and into an entrepreneurial one? Any advice for forward-facing lawyers looking to make that jump?

JL: The transition was definitely not an easy one.

The key challenge was learning to take my lawyer hat off to move from certainty to uncertainty and to be ready to roll up my sleeves to tackle the more commercial, marketing and administrative side of the business.

Second, as lawyers are often risk-averse, and the need to adopt calculated risk inherently contradicts the nature of being a lawyer, forward-facing lawyers should be prepared to break into areas where they have no prior experience. They must also be prepared to learn those areas quickly and find partners who share the same vision, embrace similar values and speak the same language. Most importantly, learning to trust in their expertise to help the growth of the business.

A final piece of advice from me: being willing to embrace uncertainty and to step out of your comfort zone are of utmost importance.

RL: Where do you think the local legal tech and innovation market is headed in Hong Kong, benchmarked against other competing hubs like Singapore?

JL: As far as attitudes to the legal tech market is concerned, the Law Society of Singapore supports or endorses LegalTech startups. The Law Society of Singapore has been actively working with the Ministry of Law to promote LegalTech and devote resources to foster its growth. As compared to Singapore, where the

legal tech market is more mature, active and diverse in terms of solutions offered, it will still take some time for the legal tech market in Hong Kong to develop.

In recent years, The Law Society of Hong Kong ("*LawSo*") has realized the urgent need to embrace legal technology as the legal market becomes more competitive. LawSo has set up an InnoTech Committee to develop the technology roadmap for Hong Kong's legal industry, and initiated a series of events such as Access to Justice Innotech Law Hackathon and Law Society x HKSTP Accelerator "Future of Law" programme. These events, to some extent, have raised awareness in Hong Kong's legal profession and the wider community about the role of technology in legal services. However, we believe much more can be done from both the industry and government to foster the growth of legaltech start-ups, such as creating funding opportunities that specifically target legaltech, providing business coaching support and connecting legal industry with technology experts for cross-disciplinary collaboration etc... Currently in Hong Kong, product knowledge around legal tech probably only extends to the popular cloud-based legal document template platform like Zegal but that's about it.

To think positively, we have noticed that the outbreak of Covid-19 has expedited the need for the legal industry to be more receptive to digital solutions and transformation on means like remote hearings, case management systems, consultation and client engagement.

With these macro trends in mind, we believe we still retain the first-mover's advantage. Therefore, our next move is to scale up to the the Guangdong-Hong Kong-Macau Greater Bay Area ("Greater Bay Area"), particularly in view of the new pilot scheme that allows Hong Kong solicitors to engage in limited practice in nine cities of the Greater Bay Area, provided they pass a designated bar exam.

Interview by Roslyn Lai

Career Story

Jack Shepherd, Legal Tech Associate at Freshfields

I am not one of those people who has wanted to be in law from the day I was born. Unlike my barrister brother, I never received birthday cards with the letters "QC" appended after my name. I did, however, have an interest in technology from a very early age. I developed my first website when I was 12, and started my own website design agency a few years later.

I knew I wanted to go to university, and computer science was the natural choice for me. However, after researching the course I realised it was more of a mathematics course than a website development course. I didn't think it was the right choice for me after all.

With a-levels in an eclectic bunch of subjects, I eventually settled on studying law at university. It was not really because I was passionate about law; more because there was nothing else I wanted to study or could study. Similarly, I did not especially want to have a career in law.

I was considering my career options in my second year and got on really well with some people I had met from Freshfields. I attended some open days and felt that it was a place I could work and flourish. After a vacation scheme, I secured a training contract.

On day one of my training contract, I remember collaborating with my supervisor on an advice memo. Our method of collaboration was one familiar to most lawyers. It worked by me producing a first draft, printing that first draft, and for my supervisor to mark it up with a red pen. I would then type those changes into the document. This cycle repeated itself a number of times for each draft, before it was submitted to the partner. The partner changed nearly all of the document. So from day one, I had an interest in how legal processes could be optimised.

I qualified into the restructuring and insolvency team after my training contract. The people in that team are some of the most talented people I have (and probably will) ever work with. They are extremely dedicated to the work - but perhaps more importantly, are thoroughly pleasant people.

Nonetheless, as interested as I was in complex restructurings, I always knew it was not my life's mission. I still had a very strong interest in technology, and my restructuring role was not making the most of this (except for sharing wisdom when it came to tips in PowerPoint and Word).

The opportunity to act as a product manager at Freshfields arose a few years after I qualified. I jumped at the opportunity.

Taking this role was the steepest learning curve of my life. It was made even steeper by the fact that I had a technology background. While I was able to understand technical concepts well, this was a distraction to where I could add the most value to the team in my role.

Instead of focusing on business outcomes, user experience and strategy, I was more interested in diving into technical matters. I was also very skeptical of anybody who tried to tell me that I would have more success following design sprint methodologies involving whiteboards and post-it notes. For me, these were time wasting distractions from an important delivery objective.

Thankfully, I performed a complete u-turn from this position. I am now usually the first person in the room to try to take the conversation away from technical matters and divert them to business outcomes of a given initiative. I have an obsession for process mapping, identifying personas and spotting problems before jumping to solutions.

My work at Freshfields has taken me from law to product development right through to how to instil change within a large organisation. It has helped me realise that most lawyers are not really interested in using new technology. They are interested in how their working lives could be improved - whether that be by increasing profits, reducing wasted time or improving culture. Technology is only relevant insofar as it achieves these goals. Often, people prefer it if you can achieve these goals without technology at all.

I am extremely fortunate to be forging a career path that combines technology with my passion for driving change in law. I will shortly move from law firm to technology company, when I start in a new role with iManage RAVN at the end of the year.

Jack Shepherd
Legal Tech Associate, Freshfields

Interviews

Interview with..

Marc May, the Managing Editor and Founder of The Legal Technologist

Over the next 12 months Jeremy Small, CEO of Jameson Legal, will be carrying out interviews with professionals from around the world discussing law and technology. In his first interview, Jeremy talks with Marc May, Managing Editor and Founder of the Legal Technologist magazine, about his journey into legal tech, current trends and what lawyers can do to get to grips with legal tech.

Jameson Legal is a multi award winning international consultancy specialising in the recruitment of lawyers and legal personnel. Their clients include many of the leading international law firms as well as the in-house legal departments of major private companies and publicly listed multi-nationals.

Jameson Legal Tech is an innovative new service, with the company working with pioneering legal tech and venture capital companies to expand into new markets. Their initial partnership with App4Legal - a fast growing Legal Practice Management Software company - is a ground-breaking development for Jameson Legal, giving their clients and candidates the opportunity to employ a "best in breed" legal technology.

Jeremy: How did you find yourself becoming involved with Legal Tech?

Marc: I think I was really at the right place at the right time. Back in 2015 I was working at RPC as a Paralegal I was given the opportunity to get involved with internal document automation trials and I found that I really enjoyed it. It wasn't until I'd qualified as a Solicitor though did I have a chance to properly action that enthusiasm. At the point of qualification I had the opportunity to head up the roll out of document automation across the firm.

It was a brand new role and a bit of a career gamble given I was diverging from the traditional legal career path. However, I learnt a lot in the role, not just about the piece of software I was using to carry out the automation, but also about the business of law, process design and change management. This continual learning was one of the things I most enjoyed about the role, and about legal tech more

> "Legal technology should be perceived as an opportunity to provide a better level of service to clients, rather than as something to be feared or resisted."

generally. Legal technology is constantly evolving and I've enjoyed tracking its progress and learning about how others are using it in practice.

I've since moved on from that role to a consultant role at SYKE where I now co-lead the delivery of all Icertis contract lifecycle management (CLM) implementation projects for corporate clients. On top of that I'm also the Managing Editor/Founder of the Legal Technologist magazine and the Co-Founder of Bristol Legal Hackers.

JS: How did the Legal Technologist come about?

MM: One of the things I noticed quite quickly when I took on the automation role at RPC was how little lawyers knew about the technology that was available and how it could positively impact their working lives. It made me think that really there should be information on this at an earlier stage in legal careers so junior lawyers could see which tools were available and how they could be used both internally (to improve processes) or externally (to create new products/services).

It started out as a newsletter with about four or five of my own articles, as well as a few from others who had kindly contributed. I usually tell people that had people not read the first one and liked it enough to want to contribute I don't think I personally would have had enough content to fill a second one!

It has only been around for just under three years but in that time the magazine's following has grown from a handful to just over 15,000, and we now have an editor or contributor in nearly every corner of the world. Legal tech is usually a topic that sits at the fringe of other legal publications so I'm glad we are able to really put a spotlight on it. However, the success of the magazine is really down to the people involved and I wouldn't be able to do it without the great team of eight around me (who are equally as passionate about legal tech!).

JS: What effect has the Covid-19 crisis had on the progression and take up of legal tech amongst law firms and in-house legal teams?

MM: There has been a boom in corporate uptake of legal tech as a result of covid-19. Businesses have been keen to make their contracting processes more efficient, as well as digitising their signed documents so they are easier to track. This is usually done with CLM tools. They ultimately give in-house legal teams significantly more control over their contracts and processes – as well as empowering other business functions to draft/execute simple contracts and freeing up legal team capacity.

That said, there are also a number of corporates that are keen to make best use of what they already have, just in a more innovative way. For example, by using O365 and chat bots to create an internal legal review triage so that only the requests or queries that the legal team need to answer are answered and the remaining queries are signposted elsewhere (e.g. a knowledge base or more appropriate department).

For law firms there has been a big uptick in communication and collaboration tools, but beyond that I'd say that take up of legal tech in law firms has been largely subdued. That said, this might be down to strategic work done as a result of the 2008 recession where law firms reviewed their processes and adopted legal tech in the ensuing years. They are more likely to have built up their internal resource accordingly with a number of firms now who have teams devoted to legal automation – who focus on internal efficiency as well as using technology to build stronger relationships with clients.

JS: Should lawyers be concerned by the rise of AI and the concept of the "robot lawyer"?

MM: I don't think lawyers should be concerned about that. We are a little way off AI making significant inroads into lawyer's work. If anything it should be making lawyer's lives easier at the moment. I think the best use cases for AI relate to documents – either the ability to quickly search for relevant material in a huge dataset or the ability to extract data from signed documents and tabularise them. The former being used in litigation disclosure exercises and the latter in contract reviews. It should be a godsend that lawyers are able to use technology to get the information quicker and in turn able to provide their client's with better advice and service.

Legal technology should be perceived as an opportunity to provide a better level of service to clients, rather than as something to be feared or resisted. It isn't so much the technology itself lawyers should be concerned about but the ability of competitors to harness that technology.

JS: Do you have any advice for lawyers seeking to get to grips with legal tech?

MM: I think legal tech is a broad term but for me personally it isn't so much about the technology itself but how it is used. Software is never really used to its full potential. I'd say as a bare minimum lawyers should look to learn something new every week in the applications they use on a day to day basis. I'd say form

closer ties with IT so that they can provide you with ways of doing your work more efficiently and they can better understand what you do and how to support you.

I'd say it was important to keep up to date with what is happening with legal technology. Reading publications like the Legal Technologist will give an idea of what is happening in the world and some discussion around it. With that you will get an understanding of which tools are out there and how they are used. If you're at the junior end of your career you may want to use this information to make your working life easier by putting forward a business case. If you're a senior you want to use this information to consider if your matters are being run in the most efficient way possible.

Whatever your career level I would always have in mind that legal technology has the ability to provide a better service to clients/customers if used effectively. I led a client automation project a little while back where the firm provided their client with the ability to create some of their less complex documents internally using a document automation tool. The law firm was unlikely to be instructed to create these documents but nevertheless the firm could (a) provide a better service where these documents were escalated because they knew how it had been created, (b) review the documents periodically for a fee, and (c) could build on the relationship for the length of the software license (which allowed cross-selling to other areas). So if there are opportunities to do legal tech projects with clients I'd go for it.

Emerging Technologies

Digitisation promises to revolutionise legal agreements process – but will it stand up in court?

DocuSign discuss modernising legal agreements with International law firm Bird & Bird

By: Doug Luftman, Vice President & Deputy General Counsel, DocuSign

Agreements – between customers, partners and employees – are the foundation upon which organisations and industries are built. And legal professionals are central to supporting them, providing the resources, processes, drafting, analysis and advice for agreements of all shapes and sizes.

However, despite the critical role they play, many legal departments and organisations continue to rely on manual processes that can result in inefficiencies relating to speed, effective use of valuable and expensive resources, and contributing to potentially putting deals at risk.

Addressing these challenges depend on digital transformation of the agreements process via technologies like DocuSign eSignature and DocuSign CLM (Contract Lifecycle Management). But with so much at stake, choosing a solution that aligns with your needs and deploying it properly is of the utmost importance.

In this article, two industry experts provide their thoughts on how the legal sector can further modernise agreements process, effectively and efficiently.

Traditional processes and its impact on operations: Doug Luftman, Vice President & Deputy General Counsel, DocuSign

Earlier this year, new research from Forrester revealed that most organisations' agreement processes are still largely manual and hampered by inefficiency. While there are some differences in digital maturity across business departments, industry sectors and geographies, nine out of 10 companies still manually input and edit information when they create agreements. And they also tend to create these agreements from scratch each time a new one is required.

These manual processes impact business performance in a number of ways. First, they are labour intensive, taking up large amounts of staff time as they are processed. But more concerning are the issues caused by errors and missing information. Indeed, a significant number of organisations experience problems relating to incorrect or missing information at almost every stage of the agreements process – 61% during preparation, 48% when signing, and 51% when acting on agreements.

So, why does legal persevere with manual agreements when almost every other sector is embracing digital transformation? Given the critical role it plays in society and the economy, the sector is naturally conservative, often unfamiliar with new technologies and somewhat hesitant to change. Built on long-standing precedents, central to ensuring the legality of any course of action, it makes sense for the profession to take this approach in certain situations.

However, when it comes to everyday agreements, the majority processed by legal professionals are often similar in nature and include repeatable workflow steps. There are opportunities to automate many aspects of this process. This doesn't just apply to initial agreement generation either – solutions like CLM can help expedite the process through negotiation, signing via electronic signature, and the management of agreements post-signature too.

Just the use of electronic signatures has been shown to reduce the time it takes to complete document approvals and the signing of agreements, from days to hours, even minutes in some cases. The addition of CLM drives efficiency savings even further on either side of the signature process with greater agreement generation, redlining and workflow automation. Legal professionals are able to spend more time focused on creating bespoke, nuanced or complex agreements, while the digital audit trail generated by these technologies help ensure commitments are observed post-signature. Moreover, it reduces the possibility of errors being made or important information being left out.

It is important to recognise that legacy agreement processes aren't just inefficient, they are insecure too. Again, Forrester's research revealed that organisations are experiencing problems maintaining security and confidentiality at almost every stage, including preparation (50%), acting on agreements (45%) and managing them post-signature (42%). In general, 29% believe one of the main consequences of an inefficient, manual agreement process is the legal and compliance risk it carries.

Organisations can address these issues by selecting technology solutions that help automate processes, increase the accuracy and speed of generating and managing agreements and improve the overall quality and value of the legal services provided.

Ensuring the legality of electronic signature: Graham Smith, Of Counsel, Bird & Bird LLP

"While the financial case for digitisation may be clear, from a legal perspective there are many other factors to consider. As legal professionals, the first thing our clients will ask us when changing any process involving contracts is: will this hold up?"

Fortunately, English law takes a generally liberal approach to electronic signatures. Often, there is no legal requirement to use a signature at all, but we sign the document to show that we associate ourselves with its contents or agree to the terms of a contract. For that purpose, we can choose whatever kind of electronic signature we think is appropriate for the transaction.

In the event a signature is mandatory, then unless the law stipulates a particular type (uncommon in England), in principle any kind of electronic signature can be used. That said, care should always be taken to check whether some specific formality requirement (whether contained in the general law, or stipulated in an instrument such as a company constitution or a contract) may affect the mode of signature.

One example of a formality is where the law requires a signature to be witnessed. Even where this can be complied with using electronic signatures, the witness must still be physically present at the time.

It will also be important to consider the risk of someone disputing that the signatory really intended to sign the document or disputing the identity of the signatory or the contents of the signed document. So, with electronic signatures, a significant aspect of using a signing platform compared with more informal electronic signatures will be its ability to provide robust evidence of how the document was signed.

For tax purposes, the geographic location where the signature is can also be significant. And if a transaction is international, and likely to involve the laws of multiple countries, they may impose specific requirements regarding what signatures can be used.

When it comes to these kinds of cross-border agreements, in Europe the EU's electronic identification and trust services (eIDAS) Regulation may come into play. It defines three levels of electronic signature. A Qualified Electronic Signature (QES) provides the highest level of signatory identity assurance. A QES is underpinned by certified Trusted Service Providers (TSPs) recognised throughout the EU. This means that if the law of one EU Member State requires a QES to be used, even a QES certified in another Member State is considered valid and can be used to legally sign electronic documentation.

At present, this mutual recognition regime applies between the UK and EU Member States until the end of the Brexit transitional period. After that, the UK has said that it will continue to recognise TSPs located in EU Member States, but (unless a trade deal provides otherwise) the reverse will not be true. At present there are no examples of English law requiring a QES to be

used. However, that may change if (as has been suggested) agencies such as the Land Registry decide to adopt QES.

DocuSign on coping with COVID-19: digitalising processes

With other business departments and industry sectors well into their digital transformation journey, it's time for legal to further embrace and accelerate the use of such important technologies.

This is particularly relevant today. COVID-19 has accelerated digital transformation in almost every organisation as we all pivot to mitigate the pandemic's impact. With increasingly remote or hybrid business models expected to last through the medium to long-term, it will be essential for legal to have these digital capabilities in place to support this approach.

Although there currently are challenges in using paper or having face-to-face contact, digital solutions are available that can support the legal department with this. And due to the uncertainty around COVID-19, it's likely we'll see more innovation and adoption of such technologies in this space that support the digitsation of documents, more automated legal processes and the use of electronic signatures. In addition to making the life of legal professionals easier, this is great news for customers too, as digital processes have been shown to drastically improve customer experience, decreasing the time it takes to send, receive and process agreements for any of the parties involved.

Much like remote working, once people understand the benefits of digital, it will be impossible to turn the clock back. Clients will expect and increasingly demand end-to-end digital experiences. Using this time to speed up digital transformation and further embrace more efficient workflow automation will be critical to future success in the legal sector.

By: Doug Luftman, Vice President & Deputy General Counsel, DocuSign

The Hidden Potential of Gamification in Legal Tech

By Marcel Hajd

Introduction

Not a day passes without a trending news story related to LegalTech. Ambitious lawyers and entrepreneurs are trying to enter the more and more competitive legal market, while convincing users how brilliant the LegalTech solution is they have brought to life. As a consequence, we may witness a number of similar LegalTech products based on very much alike technology. That being said, is there anything else that might increase user engagement for these great LegalTech products and increase their overall experience? What if a LegalTech product could bring a user into a stage of greater motivation and flow, so the user could be completely involved in an activity for its own sake. The answer may lie in designing LegalTech experience in the same manner as computer experts design games to achieve a similar level of engagement. Gamification is the use of game design elements outside of the game context. Gamification increases commitment and makes the activity more attractive, which is why it has hidden potential for a wide variety of LegalTech products.

Gamification and LegalTech

In the last few years, gamification has become a popular topic for marketing purposes, even though the phenomenon itself is not completely new. It is perceived as being a promising way to provide improved user experience and a positive influence on user behaviour through gamified application. Implementing a game mechanic merged with behavioural analytics in the LegalTech context may therefore present the extra mile all LegalTech companies are seeking for, while simultaneously trying to find their position in the market. Regardless of whether target users are companies, individuals, lawyers, academics, official authorities etc., a proper game mechanic in the LegalTech product will surely engage them all. Further to that, here are some of the main game mechanic elements that could be implemented in LegalTech solutions to engage the user:

- Achievements (badges, certificates, rewards, awards),
- Social mechanics (comments, ratings, review, followers),
- Challenges and consequences for uncompleted task,
- Progress bar to indicate the progress through a process or task,
- Feedbacks,
- Time constraints and loss aversion,
- Narrative and theme,
- On-boarding tutorials,
- Signposting (pointing the user in the right direction).

Some of the above listed game mechanics in Legal Tech products would probably not have the same impact on every potential group of users. For example, on-boarding tutorials and time constraints may be widely applicable in a variety of different Legal Tech products used by multiple types of users. However, a narrative element that draws a user into a story would probably be desirable only for individuals in A2J products, consumer online dispute resolutions tools or know your rights solutions, and not so useful for attorneys using solutions such as billing and money collection software. That being said, Legal Tech products do not need to include all of the above mentioned game mechanics or even look entirely like a virtual space that exists as a subset of reality with boundaries and rules. Only one game mechanic element may be powerful enough to have a great impact on user experience and engagement.

Once a LegalTech developer has determined the game mechanic strategy, it needs to be paired with motivators that might be enjoyable for the user (eg. social interaction with clients, feeling accomplished after completing something, organising and creating order out of a mess, learning a new skill, taking care or helping others, making society better, competing with others, etc.). After pairing game mechanics with motivators it is

important to clarify the objectives and rules of the "game". That should be done from an early stage because users need to have the feeling they have control of the situation. Once the LegalTech product empowered with game elements is ready to be used, it is desirable that the solution is capable of being adaptable to users' needs. In that respect, a gameful experience scale may be a useful measure of users' engagement and allow further development of the tool. One such example of a gameful experience scale is the six factor evaluation assessment called GAMEX. It embodies evaluation of enjoyment, absorption, creative thinking, activation, absence of negative effect, and dominance.

Conclusion

With the development of the LegalTech industry, the delivery of legal services has become more sophisticated and complex. On top of that, designing a successful LegalTech product requires extensive analysis, planning and design. Implementing game design elements would surely result in transforming LegalTech products from being "function focused" to "user-focused". This would therefore lead to a higher level of user motivation and engagement which may be limited if those LegalTech tools are only geared toward operational efficiency.

About the Author: Marcel Hajd is a fully qualified Slovenian lawyer with international background and several years of experience in advocacy. His recent transition into in-house enabled him to understand the business perspective of legal services more comprehensively. His past involvement in LegalTech projects and passion for technology itself led him to the decision to pursue a postgraduate degree in LegalTech.

Pilot Project Success

By Rik Nauta, CEO / Co-founder of Donna

We regularly run pilot projects with law firms where we introduce our contract tool Donna to their teams over a 4-week trial period. Generally, things go very smoothly. But we also love the projects that don't as it's during these that we tend to learn the most. We've summarised our key takeaways into an easy to remember acronym (PILOT) that we'd like to share with you: People, Incentives, Limits, Outcomes and Transparency. You can use it to ensure that your next project is a success. Most importantly, that it doesn't actually kill innovation, before the project even starts.

People are the engine

Your people - these pilot users are the single most important factor for pilot project success. It's ok to pick participants randomly but ideally you want people to participate who are passionate about a problem. In pilots where we've asked participants to self-select around a problem, we consistently see participants that are more actively engaged throughout the project. To do this, as a vendor we record short pitch videos, to help law firms self-identify users around a particular problem.

It's also important to make sure that those participating in the pilot are willing and have the time to commit. We do this by explicitly excluding anyone who doesn't complete a 15-minute onboarding call with us. Because let's face it, 'shallow feedback' from those who are apathetic or didn't really get it, is much more hurtful than constructive feedback from a few active participants.

Incentives are the fuel.

If you want your firm to be innovative have a look at what systemic incentives are working against innovation. A good example we have seen is how IT teams are incentivised. Teams that were heavily measured on their response time to support tickets, saw a negative impact on their metrics from installing a new tool. The same can be said for lawyers and the rest of your firm. Make sure there are appropriate, innovation-based incentives, besides the billable hour. Like how many pilot projects they participate on. Reward your employees for making improvements to their own or the team's workflow.

Limit as much as possible

Think of a pilot as a MVP (minimum viable pilot). The goal here is to learn, not to implement a solution. One way you can do this is by limiting the time for testing, ideally to a few weeks or a month. You'll see much better results after a few weeks of playing around and trying out three different solutions then a six-month pilot of a single product. Most importantly, stop looking for that unicorn solution that will solve everyone's problems, it doesn't exist. Instead, focus on finding and testing smaller solutions that actually solve someone's problem.

Outcomes before you start

As the adage goes 'what gets measured gets managed'. Always go into a pilot with some sort of practical and measurable outcomes that you will track. It can be something as simple as the number of errors caught during a document review, or how many more documents the team worked on this week. Aim for clear and realistic outcomes that you can use a proxy for actual impact. And don't be scared if the results are small initially. A 2% increase in weekly utilisation may not seem like a lot on the surface, but compounded over a year across a whole department, that's a big deal.

Transparency inside and out

The great thing about software today is that your vendor can tell you exactly what features were used, for how long and by whom. But often it's up to you to insist to see these sorts of metrics. Don't hesitate to ask. At a minimum, your vendor should be sharing stats about the usability of their product, and how active users were during the trial. The same goes for your team, encouraging a culture of transparency will embolden more innovation. Be sure to share key learnings and outcomes from a pilot, even if it went horribly wrong. By including team members in the decision-making process, you might be pleasantly surprised with the suggestions and outcomes.

Make sure to give these a try the next time you're piloting a new piece of technology, it may not be the right tool for your firm, but at least you'll be 100% certain.

Rik Nauta
CEO / Co-founder of Donna

Lawyer of the Future

Why lawyers should learn to code, but not for the reasons you think

Maarten Truyens is part of that rare breed of lawyers who first picked up programming as a child and never let go. He went on to have a long career as a solicitor at an international law firm and as an in-house counsel in several financial institutions, all the while leveraging his programming background to improve efficiency and service delivery where he saw fit. In 2016, he quit his job as an in-house counsel to focus on developing ClauseBase, an advanced document drafting platform of which he is currently the CTO. With his dual background of programmer/lawyer, he is often asked whether lawyers should learn to code as he did.

Coding courses for lawyers seem to be mushrooming like never before. Law firms are incentivizing their lawyers to learn how to code, universities offer interesting courses to students, and targeted online tutorials are available free of charge. The question that inevitably pops up whenever the merits of these courses are discussed is "should lawyers learn to code?" Naturally, the only answer, as ever, is "it depends".

First, having talked to quite some lawyers who took those courses, I would like to issue a word of warning. As usual in hype cycles, good ideas build up some momentum, but then get exaggerated up to inflated expectation peaks. I've scratched my head when seeing coding courses that advertise to learn everything you need to know to submit your legal app to Google's and Apple's app store in less than a day.

Do not believe these claims. You may be lured into thinking that mastering the syntax of a programming language (what is a "for-loop"? how do you iterate through an "array"?) is all you need to know to take the legal world by storm. It's not. In fact, it's probably the easiest part of the mountain you have to climb. Depending on what you're trying to achieve, you have to dive into the documentation of several "frameworks" and "function libraries" that you have to integrate into your code in order to produce real-world results, from fairly mundane stuff (e.g., calculating the last day of the month, or sending an email) to more advanced tasks like converting a text into a PDF file.

And that's just the programming language. Learning how to develop production-quality software that can be used by customers in the real world will take many months, because you will also have to learn some diverse skills outside the programming language. Do you know how to design a database? Apply cascading stylesheets on a webpage? Create a shiny, animation-driven user interface? Deal with online security? Scale your service for hundreds of users?

It should come as no surprise that lawyers who take these courses can easily get disillusioned once they leave the walled garden of the introductory course. Suddenly, you stumble over all those ancillary requirements you had not thought about before and end up in a technical jungle quite different from the predefined path that was so smoothly prepared by the course instructor.

Still, lawyers should not be discouraged by this warning. Quite the opposite, in fact. I see two main reasons why learning how to code is definitely recommended.

A first reason is that not all software should be client-facing production-quality. Even when you should probably leave the development of a client-facing app to an IT specialist, there are many internal development projects that do not require a high level of polish, yet can help you streamline your internal processes. Think about all the huge tables you create (e.g.: compliance questionnaires, data retention terms overviews, etc.) for

which you instinctively feel that MS Word or Excel may not really be the right tool. All the contracts that look similar (but never exactly the same) between client files, and for which the wheel is therefore reinvented every time. The old-fashioned internal knowledge base that looked so appealing but is now gathering digital dust because it's just a bit too limited. Or all the billing and reporting duties in your office that make you lose incredible amounts of time and seem to scream for automation.

A second reason is that learning how to code, no matter which programming language you use, will prepare you for the range of "no-code" and "low-code" programming platforms that are appearing everywhere on the market.

In my opinion, the most significant benefit of those platforms is not that they shield you from traditional code by offering an interactive drag-and-drop style. Rather, they avoid the friction of the ancillary requirements, by presenting you with a nicely integrated environment, allowing you to focus on the actual steps your software has to take to do something useful, so kind of like a larger version of the walled garden that the coding courses promised you. By experimenting with these no/low code platforms, you will start to implicitly think in terms of algorithms, data structures and digitization in general. You will probably not notice it, but these platforms will alter your brain for the better.

Lawyers who had a positive experience with development and automation, no matter what kind, will more quickly get up-and-running in new kinds of software (such as our own contract drafting platform) that they never encountered before. We truly believe that no/low code platforms will continue to play an important part in the legal sector, because they foster a "computational thinking" type of mindset and, by avoiding the frustration of all the ancillary programming requirements, prepare lawyers for tomorrow's digital world.

Maarten Truyens
CTO, ClauseBase

Covid, contact tracing, and what these say about future lawyers

David is a technology adviser to the British Government. He focuses on emerging technologies and most recently worked on the NHS COVID-19 contact tracing app. He describes his job as an intermediary between software engineers, ministers, and lawyers. He attributes many pitfalls of government technology programmes to low levels of technological literacy. Some of those lessons are relevant to young lawyers and he offers them here.

At the start of April this year, a Silicon Valley executive picked up the phone. 5000 miles away in London, it was answered by a weary civil servant. A heated discussion followed that spanned contact tracing, sovereignty, and brand management. Days later, governments around the world announced u-turns to their contact tracing strategies. This article is about why, and what it might mean for you and your career in law.

Digital contact tracing

A digital contact tracing system takes a labour-intensive activity and makes it cheap and scalable by outsourcing it to mobile phones. Simply put, these systems collect lists of 'meetings' and 'infected people'. An algorithm compares the lists and pushes out alerts whenever there are matches.

Broadly speaking, governments have two options: 'centralised' systems, where aggregated 'meeting' data is stored and processed on a government server; and 'decentralised' systems, where this activity takes place on each individual's phone. The former prioritises epidemiological utility whilst the latter prioritises privacy.

In this case, most governments sought to maximise the data available to their scientists and opted for centralised systems. They had good reasons but failed to articulate sufficiently why holding vast quantities of personal data was necessary and proportional in the battle against covid.

This compromised privacy and in the interests of preserving his company's reputation as the safest place on the market for user data, the Silicon Valley executive had the difficult job of telling governments, after weeks of careful design, that his operating system would no longer support their software.

Desirable, feasible, viable... What about legal?

Technology programmes are highly structured affairs. Specialised teams work in defined phases to maximise productivity, avoid bias, and ultimately deliver better services to the public. Assumptions are tested early and often and developers strive for a triumvirate of what is desirable, feasible, and viable.

The UK Government had fielded a star team of renowned engineers, scientists, and ethicists. Lawyers, however, were conspicuously absent. Every day, features were reviewed against the 'innovation criteria' above but there was no voice in the room to comment on how each increased or decreased legal risk.

This was both a supply problem and a mindset problem: because there are so few technically literate lawyers, legal advice is given at the strategic level and does little more than define the 'playing field' for developers to keep within. But the devil is in the detail, and scientists, developers, and lawyers often reach wildly different interpretations of what is 'necessary' and 'proportional'.

Build quickly, ethically, and legally

In government, contracts are the result of competitive tenders. Companies are under pressure to push technical and financial boundaries. Here, there was additional pressure to get to market quickly.

Software companies have evolved to thrive in this kind of environment. Self-directed, multi-disciplinary teams work in 'sprints'. There are few checks. Drags in the system are purged by individuals whose only job is to remove friction for developers.

What this all means for you

In five years or less, I am confident that lawyers will become an integral part of the design process to prevent exactly these mistakes from happening.

Ideally, lawyers will be a common component in technical teams. They would make judgements, sprint by sprint, on how design choices increase or decrease legal risk.

It will be your ability to participate generally, not to code, that will open these doors to you. Can you understand what a data scientist, developer, or product manager says to you? Can you compare the legal risks of two software stacks and articulate it back to them?

If this world interests you, read about 'design systems' and 'agile frameworks'. Try to spot the potential points of failure in a stressed and sleep-deprived team. If you find yourself working for a start-up, ask to sit in for a 'sprint' and pay attention to how quickly features are approved, coded, and shipped.

Set up a GitHub account, learn to do a pull request. You don't need to read code, but I've seen GDPR breaches prevented by someone spotting an issue in a project's documentation.

Finally, if you haven't read the GDPR, do it... now. You would be surprised how many people in this line of work go no further than basic principles and take liberties with its interpretation.

David Bentham
Technology Advisor to the British Government

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