Going digital is not just about making sales via mobile devices, or using Twitter to communicate with customers. Digital adopters are making transformational shifts in the way they use data all across their businesses; carry out back-office functions; manufacture, store and transport their goods (including money); and approach and communicate with their stakeholders (from suppliers, to customers, shareholders, employees and even regulators).

Some industries are seeing their businesses profoundly disrupted by new digital entrants (think what Uber has done to transport, or Amazon to retail), while for others, the imperative is to incorporate digital opportunities into their businesses to become more competitive within their existing markets.

No industry is being left untouched by digitalisation, although some (eg financial services, healthcare, hospitality, retail, automotive) are moving forward faster than others. Agility and flexibility characterise successful digital businesses and many companies are struggling to keep pace with innovation and to engage the right teams within their organisations. However, the C-suite increasingly recognises the strategic necessity of embracing digitalisation, and digital strategy is a boardroom issue.

Setting and implementing a digital strategy requires a host of interdisciplinary skills. Equally importantly, going digital requires a significant cultural shift in many organisations, particularly in the way they engage with third parties to deliver elements of that strategy.

Allen & Overy is an engaged and active player in the digital ecosystem. We work with companies at all stages of growth and development, from established players with scale and pedigree, to emerging companies making a name for themselves through their energy and ideas. One of our particular strengths is navigating the cultural issues that can arise when large institutional organisations work with smaller digital players. Our lawyers are experts in working with our clients to produce consistent and risk-conscious results while preserving and encouraging the innovation, creativity and agility that these alliances promise.

We have the ability to field integrated multidisciplinary teams to help clients smooth the path for digital projects. From anticipating regulatory hurdles, to protecting intellectual property, to motivating and retaining key staff and negotiating transactions with partners and suppliers, our team has experience of all aspects of the digital journey. We are able to draw on insights from across a range of industries to identify best practice and mitigate risks – we know the issues that matter, and those that don’t.

Digital transformation

Digital transformation, built on IT cornerstones of cloud, mobile, social and big data, is affecting all industries.
Bringing new technology into a business frequently involves finding new partners. Established market participants may work with new-generation companies to short-cut the R&D cycle for new technologies; they may buy or collaborate to bring new skills into the business; or they may use their partners to provide access to new markets or distribution channels. A fundamental question is what form that collaboration might take. Digital transformation is certainly driving M&A as companies buy in technology and skills or combine with peers to build scale, but commercial collaborations are also a popular route to achieving these goals. Equally, corporate venturing may offer a way to connect with early-stage companies to assess potential technologies, exert a degree of influence on the future direction of the emerging company and be in a good position to acquire or license technology if it looks to be shaping up well. It is important to understand the pros and cons of M&A over other forms of involvement such as investment or collaboration.

Culture clash can be a particularly corrosive dynamic when emerging and established companies come together in investments, M&A or commercial partnerships. It is often lamented that while established players may look to start-ups precisely because they are agile and nimble, trying to scale that culture into a large organisation is hard to do. Meanwhile, the bureaucracy of the big company may frustrate the start-up. This culture clash doesn’t start after the deal is signed, it can be a barrier while the deal is being negotiated. To work through this, both sides need to understand the goals of the transaction and how they might differ for each party. They also need to understand what contributions each partner might make. These contributions are not only financial; for an emerging company “softer” areas like the introduction the established player can make to other market participants, or the mentoring that might be available to team members, could all be valuable considerations. Due diligence is also likely to be different; emerging companies simply don’t have the track record of established players. Diligence will need to focus more on the strength of the team, the company’s references from partners, investors and customers, and a solid understanding of the market in which the start-up operates.

The ability to manipulate large sets of structured and unstructured data (“big data”) is one of the key characteristics of the digital revolution. For many businesses, there are two types of big data opportunities. One relates to how they can take advantage of the data available to them to improve the way in which they run their business, the second relates to whether they can monetise the data they collect through business-as-normal activities. There are however a number of legal and regulatory issues that need to be considered before working with big data. The first is a clear understanding of relevant privacy and data protection frameworks. Where data includes personal information (of customers or staff, for example), many data protection laws impose data minimisation requirements, purpose limitation requirements and cross-border data transfer restrictions. Data security will also be an important concern. How should you protect data against a possible breach? It is important to understand what technical and organisational measures may be required under relevant legislation in order to protect the data that is held. There will also be intellectual property considerations associated with the use of big data. For example, who owns the input data that companies are using to conduct data analytics? Who owns the output data?
The more we put online, the more we expose ourselves to the risks of cyberattack. Cyberattackers are quick to spot the potential vulnerabilities of new technologies and exploit them to commit civil and criminal offences (and to frustrate detection of those activities). Risks to business are significant and include damage to reputation, business interruption, financial loss, litigation, loss of IP and confidential information, and regulatory sanctions. Cybersecurity is about prevention of (and/or preparation for) cyberattacks, but also about reaction once the risk has been realised. It requires an integrated approach across traditional security disciplines proactively to understand, detect and respond to advanced and evolving threats.

Intellectual property frameworks have a clear role to play in protecting and promoting innovation. However, digital technologies also make it increasingly technically possible to easily share ideas and content, whether or not this material has IP rights attached. Equally, in today’s ‘smart economy’, a new IP paradigm of open innovation has emerged where companies may bring in innovation from a wide range of external sources, including for example crowdsourcing ideas using open digital platforms or working with open source software. The current IP protection framework can be difficult to apply effectively to the digital world and there can be challenges for IP rights management when ideas or technology born in an open source environment are commercialised at a later date.

New business models and working processes also run the risk of creating grey areas around liability. For example, who assumes liability if a driverless car has a crash? Current regulations mean that car owners are generally liable for accidents caused by their vehicles (and are consequently required to hold insurance against this risk). In the connected car world, what interplay will there be with product liability regimes? Will manufacturers be held liable? Or imagine the case of a healthcare app which provides monitoring of symptoms or a reminder to take medication – could the producer of the app be held liable for healthcare issues that arise as a consequence of an issue with the app? What if the issue with the app was in fact triggered by a communications network outage? In some countries, product liability legislation is strictly limited to ‘products’ and not ‘services’ – in a digital environment such a distinction may be very difficult to make, as may questions of relevant jurisdiction. Clearly identifying such risks and planning for them will be essential, as will expertise in dispute resolution in the event of such a problem.
Our experience

Automotive

- **Baidu**, on the data and IP aspects of its open source platform for self-driving cars and corporate partnerships. We also assisted the client on a technology collaboration with leading car makers.
- A leading AI company on a pan-European study of civil and criminal liability regimes in the context of connected and self-driving vehicles.
- **Fleetlogic** (now part of TomTom Telematics) on several digitalisation matters including privacy and data protection aspects of in-car mobility systems, including on the negotiations of agreements for the development of an App for connected car systems with Pon, the importer of VW, Audi and Porsche in the Netherlands; and on various technical agreements and projects related to their connected car systems, including agreements for connected fleet management with car lease companies.
- Japanese telecoms operator **KDDI** on the telecommunication regulatory framework applicable to connected cars in the context of a multi-jurisdictional survey in Europe (all EU countries and non-EU countries) and in 30 countries worldwide.
- **Toyota** on a wide range of matters relating to the regulatory and privacy aspects of a global project to develop and commercialise ‘connected cars’. We also advised (through Toyota Research Institute) on a minority investment in SLAMcore Limited. SLAMcore is a London-based start-up focused on the development of Simultaneous Localisation and Mapping Algorithms (SLAM) for Augmented Reality (AR)/Virtual Reality (VR) systems, mobile robotics and autonomous vehicles (including drones).
- **TASS International**, an autonomous (self-) driving software developer for the automotive industry, and its shareholders on its acquisition by Siemens.

Consumer & Retail

- **Starbucks Corporation** on a strategic co-operation with the Alibaba Group aimed at enhancing Starbucks’ digital experience and building Starbucks’ online presence, delivery capabilities and customer base and network in the PRC, while utilising various online platforms operated by and services offered by the Alibaba Group (including Tmall, Taobao, Al Pay, Hema and Ele.me).
- **Marks & Spencer**, the unique own brand retailer, on its GBP750m food delivery joint venture with Ocado, the UK’s leading pure play digital grocer.
- A Shopping Platform on the establishment of guidelines for the processing of geolocation data and the launch of geolocation-based advertising activities in the European Union.
- **Prosus** on its hostile GBP4.9bn all-cash offer to acquire Just Eat, the UK-based international online food order and delivery service.
- One of the world’s fastest growing travel booking platforms on a cybersecurity incident caused by a malicious JavaScript code contained in a web-based analytics tool developed and provided by a subcontractor. We advised on mitigating the adverse impact of the incident occurring a few weeks prior to a Series D funding round; minimising the reputational impact; security measures implemented by our client to identify and contain the impact of the cybersecurity incident (ie precautionary measures, initial investigation, engagement of an independent expert); transparent communication with the public; safeguarding the interests of the company vis-à-vis the subcontractor responsible for delivering the data analytics tool; and investigations by the data protection regulators.
- **Tesco** on big data and privacy issues for behavioural advertising with its diverse customer base, including the approach to its customer-facing ‘privacy centre’ and the required changes to its external privacy policy. This included providing strategic advice in relation to the monetisation of its data assets, involving its provision of certain customer data elements to third parties in return for digital marketing, advertising, and online monitoring services.

Financial Institutions

- **BNP Paribas Fortis** on the development and roll-out of an innovative mobile payments platform in Belgium. The platform was developed with Belgacom and Accenture, and integrates mobile payments, virtual ticketing, e-couponing and loyalty programmes into a mobile wallet.
- **CLS**, the market-leading FX service provider, on the launch of two new products: its CLSNet product (a bilateral transaction netting solution) and its related CLSTradeMonitor product (an innovative post-trade monitoring and reporting tool). Our advice covered the entirety of the products’ development and launch phases, and included advising on a range of issues relating to the distributed ledger technology platform on which the CLSNet product can operate.
- **KASIKORNBANK (KBank)** on a major managed services, transformation and insourcing project with IBM to bring about the establishment of five shared IT service companies within KBank and bring about the restructuring of KBank’s IT operations to enable KBank to pursue its digital banking ambitions unencumbered by its historical terms with IBM.
- **The Bank of Cyprus** in negotiating an agreement with IBM for a digital transformation program aimed to improve their online offering. The agreement consisted of several separate components, including an outsourcing component, software development and a digital factory.
- **AirSwap** on its development of a decentralized exchange for the trading of virtual currencies and related crypto-tokens.
- A global bank on a range of digital/data initiatives including their use of cookies across Europe and their approach to Adtech.
Industrials, Energy & Infrastructure

- Saudi Aramco on a range of matters connected to its digital transformation including a cloud project with Alibaba and a partnership with Google for the establishment of IT cloud capabilities in the KSA.
- Abu Dhabi Future Energy Company PJSC on collaboration framework and agreements with Siemens for Masdar City’s, Smart Grid and Smart Buildings.
- HOMA in contract negotiations with a big utilities and energy grid provider concerning a complex software and infrastructure project in the field of smart grid and decentralised energy sources for implementing the energy transition.
- INRIX, a U.S.-based provider of location-based data and analytics, such as traffic and parking, to automakers, cities and road authorities worldwide, on its Europe-wide terms for the sale of its iPhone Application through the Apple iStore.
- Nuon Energy on the establishment and structuring of green energy provider PowerPeers that allows customers to choose from which green energy producer (wind, solar, biomass) they want to buy energy and advising PowerPeers on the negotiation of software agreements with a global consultancy firm and Ponsfacio, a flexible SaaS provider in the Energy sector.
- Umicore in relation to a digitalisation project with the University of Queensland.

Life Sciences

- Google DeepMind on various issues relating to the potential commercialisation of their AI protein-folding product “AlphaFold” through drug discovery partnerships.
- Bupa on a multi-jurisdictional regulatory advice in connection with the global launch of its new app, Bupa Touch.
- GSK on a wide range of digitalisation matters including in relation to data protection aspects of the roll out of a new mobile application for Apple iOS smartphones and Android smartphones that will be used by Pulmonary Arteria Hypertension patients to assist them in managing their condition and the launch of a post-marketing observational study of the effectiveness of a newly marketed asthma drug. As part of this study patients will be invited to use a wearable activity monitor to be worn on the patient’s wrist, which will collect data on the patient’s activity (steps, calories, active and latent bouts) and sleep patterns.
- A major electronics company on the regulatory classification of different mobile health applications and digital platforms as medical devices, and on the regulatory aspects related to the launch, marketing, and advertising of these technologies in several EU jurisdictions.
- Exscientia Limited on a research collaboration and licence agreement with Roche pursuant to which Exscientia will use its AI drug discovery platform to design pre-clinical drug candidates for Roche.
- Novartis on a wide range of digitalisation matters including its first ever “telehealth” project, involving Qualcomm Life, aimed at the development and commercialisation of a new internet-enabled inhaler for the treatment of lung patients.

Telecommunications, Media and Technology

- PLDT and its mobile unit Smart Communications on their digital transformation programme which involved a) a >USD300m seven-year strategic transformation partnership with U.S. technology company Amdocs to update existing core application systems and b) a >USD50m transformation partnership with global information and communications technology leader Huawei to transform wireless service delivery platforms. The deal involves the delivery of new systems and services integrating artificial intelligence, machine learning and other advanced technologies into the PLDT operating environment.
- A large Indonesian telecommunications company on the use of artificial intelligence in relation to data exchange arrangements and data monetisation services.
- A leading global technology provider on the development of standard terms and conditions for their software-as-a-service and platform-as-a-service offerings.
- Forum Group, a developer of mobile applications, in drafting terms and conditions for its applications, as well as on related advice on data protection and e-commerce aspects. This includes an app which allows customers to place and pay for orders in catering venues. The data collected from the customers is being sold to venue owners and can be used eg for targeted marketing.
- Euvison Technologies a specialist in image recognition applications powered by artificial intelligence, on its acquisition by Qualcomm from its shareholders.
- A technology group on the launch of an application relating to a natural disaster alert system in more than 50 jurisdictions.
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