

# Information and Communication Technology Dossier

A Global Perspective



ICTCD-1: July-September 2017



Digitisation and rapid strides in Information and Communication Technologies (ICTs) have set the foundation for fourth industrial revolution. As it continues to pervade everything, unprecedented dynamism has been observed in economic growth, governance, business operations and consumer trends. The advent of new age disruptive and innovative technologies so emerged, along with digitally inter-connected solutions, has impacted all genres of stakeholders.

Despite portraying immense benefits to stakeholders, fresh array of challenges have emerged from the ongoing digital revolution. These may be attributed to the need for an optimal policy framework pertaining to intellectual property rights (IPRs); level playing field between incumbents and new age disruptive businesses; safeguarding and promoting innovation; data and privacy protection for consumers; threat to employability; cyber-discrimination, among others.

These are global challenges and not restricted to a specific geography. All countries, across the globe, are grappling to devise optimal solutions. The dynamic nature of technology and short evolution cycle makes it more difficult for policymakers to understand technology and frame ideal policies. Thus, it is important to be abreast of global developments, learn from cross-country experiences and understand the impact on stakeholders. To enable the same, CUTS has launched this quarterly dossier, which envisages capturing relevant news to trigger an informed debate on key issues. In these dossiers, news as published is utilised without verifying its accuracy, but ensuring its veracity.

The dossier will focus on four verticals, namely; IPR and Competition Laws; Innovation and Disruption; Connectivity; and Privacy and Data Ownership. We send herewith the inaugural dossier with the usual caveats spelt out in the introduction. The same can also be accessed at [www.cuts-ccier.org](http://www.cuts-ccier.org).

Comments and suggestions on the Dossier are welcome!

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## 5G Standardisation by 2019

The International Telecommunications Union (ITU) is hoping to complete all standardisation around the Fifth-Generation (5G) networks by 2019. According to ITU Secretary General, Houlin Zhao "5G is not finalised yet and ITU is working to improve its parameters and fix spectrum for it. Though some countries, including Korea, are already test running the technology, the standardisation will be fixed at the Plenary Assembly of Radio Communications Sector by 2019."

5G has higher capacity than current 4G, allowing a higher density of mobile broadband users, and supporting device-to-device, ultra-reliable, and massive machine communications. Its research and development also aims at lower latency than 4G equipment and lower battery consumption, for better implementation of the Internet of things.

Source: <https://guardian.ng/technology/telecoms-union-to-complete-5g-standardisation-by-2019/>

### **Food for Thought**

*Since standardisation forms the core of interoperability, enabling increased connectivity between devices and realising the full potential of Internet of Things (IoT) will greatly depend on the ability of present-day technology developers and innovators to create standardised products.*

*5G technology will be instrumental in facilitating IoT services. Due to its inherent benefits for businesses and consumers, open and collaborative standardisation processes through Standards Setting Organisations has shaped previous wireless technologies like 3G, 4G etc. However, this collaborative mechanism is under a constant threat from proprietary-led models of standardisation which is generally promoted by select firms in a unilateral fashion.*

*The on-going efforts to arrive at a global standard for the upcoming 5G technology are a typical example which depicts this complex interface. As technology developers race to establish their proprietary technologies first and popularise the same as essential to "the standardised 5G network", they simultaneously enhance the risk of industry fragmentation, replication of R&D efforts, contradicting specifications, incompatible variants and delays in development.*

*Furthermore, as collaborative standardisation paradigms face increased scrutiny from antitrust regulators and proprietary models not being made subject to regulatory burden, companies would only be discouraged to take part in collaborative standard setting activities in the future. Due to the fact that regulators and standard development organisations have tried to increasingly regulate how members participate in collaborative standard setting procedures,*

*the same might reduce the incentives for firms to innovate and take part in the collaborative standard setting process.*

*In light of this, the question remains; how can regulators and policymakers across the globe ensure that collaborative and open standardisation paradigms are promoted and a winner-takes-all proprietary model does not emerge in the future? Also, how can policymakers and regulators work together to address current regulatory lapses which could hamper emergence of a truly global standard for 5G? While contemplating the answer to this question, they ought to look at how incentives to innovate in the form of IP ownership can be balanced with competition policy principles.*

## **Freeing Spectrum to Reduce Cost of Data**

Unless the Southern African Development Community (SADC) countries increase access to the internet and reliable broadband for their citizens, it will be difficult for the region to embrace the so-called Fourth Industrial Revolution. The switchover from analogue to digital broadcasting will free up an extraordinary amount of spectrum, as a result of the better transmission efficiency of digital technology, said Chief Executive Officer of SENTEC Mlamli Booi.

The high cost of data has been one of the issues that South Africa has been battling with and unless data costs come down significantly, it will be difficult to achieve universal access to the internet. Booi believes that the spectrum that would be freed as a result of migration to digital broadcasting will allow mobile operators to expand the data capability and this will allow operators space to provide cheaper data.

Source: <https://businesstech.co.za/news/internet/196770/freeing-spectrum-will-reduce-the-cost-of-data/>

### **Food for Thought**

*Wireless devices, such as mobile phones, laptops and tablets, have become the primary modes of accessing digital services by consumers. However, the tremendous increase in demand, has posed severe resource and infrastructural constraints, such as radio spectrum availability and installation of Base Transceiver Stations (BTS).*

*Several developing countries including India, have been facing spectrum scarcity, which, in turn, is hampering the ubiquitous digital inclusion. Added to this, unrealistic revenue expectations through spectrum auction by policymakers, creates financial burden on operators, resulting in higher cost of services for consumers and limited funds to invest in infrastructure by operators.*

*Thus, there is a global need to optimise regulatory framework to ensure, that ample spectrum is available and also optimally utilised. This may be achieved by: 1) Spectrum reallocation: optimising allocation to government, defence and long-standing users to newer services like mobile communication, broadband services and video distribution; and 2) Spectrum leases & sharing: relaxing the commercial limitations for licensees to use spectrum for new services and third parties.*

*To meet growing demands in future, it is vital that the countries deploy efficient policies on facilitating more spectrum for commercial utilisation and improving the spectrum distribution and allocation. Along with it, it is essential to assess how can current policies be reshaped, along with the possibility of Public Private Partnership (PPP) models for spectrum sharing and trading etc.? Ample availability of spectrum for commercial use will result in better services, and reasonable cost for auctions will impact the consumer cost of data.*

## **Uber Banned in London**

Travel watchdog Transport for London (TfL) refused to renew ride-hailing company Uber's licence and said that it was 'not fit and proper' to hold a private hire operator licence. TfL's regulation of London's taxi and private hire trades is designed to ensure passenger safety. Uber can appeal against the decision within 21 days of TfL formal communication. Uber London Limited was licenced as a Private Hire Operator in 2012. This licence expires on September 30, 2017.

Earlier in September 2017, a group of British MPs had written a letter to TfL urging it to not renew Uber's licence which will expire on September 30, 2017. The MPs had alleged that the app-based cab service was endangering the public with frequent reports of Uber drivers being involved in sexual assaults. They had also alleged that the cab provider had underpaid and mistreated its workers, apart from avoiding taxes. In response to the TfL's move, Uber said the decision would "show the world that, far from being open, London is closed to innovative companies".

Source: <http://www.businesstoday.in/current/world/uber-banned-in-london-transport-for-london-says-the-taxi-operator-is-not-fit-and-proper/story/260807.html>

### **Food for Thought**

*Uber is one of the most notable disruptor in the digital world. While, its innovative taxi services are operating in numerous countries, it has been facing flak from transport and labour ministries and competition agencies, as well as the judiciary in various jurisdictions as well. Partially, this may be attributed to company's behaviour and its lax attitude towards the existent laws.*

*However, it has also faced wrath because of some archaic regulations and policies in place. In Austin, Texas, Uber was banned as it was not allowed to self-regulate its drivers and regulations requiring fingerprint-based security checks were enforced. In Bulgaria, Uber suspended its operations owing to mass protests and a threatened strike by traditional taxi operators, because its drivers were working without a taxi licence, a professional driver's licence or a defined legal status. Uber retracted out from Denmark when fare meters and seat occupancy sensors became mandatory for all vehicles providing a taxi service. In Hungary, Uber suspended its operations when the nationalist government passed legislation making it impossible for it to operate following months of persuasive protests by Hungary's taxi drivers.*

*The innovation brought forth by new age technologies, such as Uber, has been embraced by consumers. However, because of challenges in regulating such businesses and technologies, there has been high uncertainty on the sustenance of these entities, which will impact the state of future innovation and investments. Thus, there is an urgent need of devising an optimal regulatory framework which enables constantly evolving disruptive technology driven businesses. This leads us to a few questions to ponder over: Whether the laws have kept pace with the rapidly evolving disruptive technology led businesses? There is a need to undertake cost-benefit analysis (CBA) for the existing and proposed regulations to ensure that benefits are greater than costs for both, the producers and consumers. How can regulators be better capacitated to let go of archaic and change resistant mindset?*

## **Organisations Face GDPR Challenges**

The General Data Protection Regulation (GDPR) will go into effect in 2018, making organisations accountable for personal data protection including how and where data is stored and how it is processed within the organisation. Under the GDPR, individuals have the right to request that their personal data be erased or ported to another organisation. This raises questions about the tools and processes organisations need to have in place.

However, according to a new survey from SAS, for 48 percent of respondents, it is a challenge just to find personal data within their own databases (copied data sets, CRM data, etc.). In these cases, complying with GDPR regulations will be quite a challenge. Of the surveyed organisations, 58 percent have problems managing data portability and the so-called right to be forgotten. Controlling access to personal data is also a serious challenge. Large organisations and financial institutions have more difficulty finding stored personal data than other organisations.

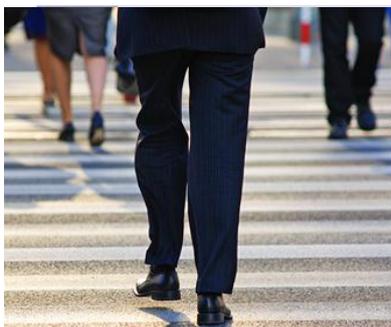
Source: <http://markets.businessinsider.com/news/stocks/SAS-survey-organizations-face-GDPR-challenges-1002568045>

## **Food for thought**

*The importance for consumer's data has been increasing with the growth of digital economy. Most of the consumers, in the zeal of enjoying various 'free' internet based services, like, social networking, messaging, e-commerce, entertainment etc., accept the terms and conditions of usage, without reading and knowing what's at stake. For the rest, more often than not, there is no choice for negotiating on the terms and conditions but it's only take it or leave it situation for consumers, thus forcing them to give unfettered control over their valuable usage data to the platform/app owners. The control over data is leading towards market concentration and dominance in terms of 'value' proposition, as well as posing entry barriers. Evidence of this may be drawn from companies such as Alphabet, Facebook and Microsoft, constituting top five technology companies in the world.*

*The user interactions, coupled with the use of algorithms and artificial intelligence, can significantly enhance firms' competitiveness. As the algorithms get further refined due to consumer interactions, it is easier to predict consumer preferences, which may be used to enhance and personalise quality of service. The new entrants do not have access to such data, making it difficult for them to offer services of similar quality, thus failing to attract consumers. This results in creation of monopolies and higher entry barriers. Thus, the key question here is, who owns the data — the consumers who generate it or the businesses which use it?*

*If the consumers own the data, then not only should the operators seek permission from consumers on data usage, but consumers should also be entitled to obtain copies of the collected data. These copies may also be procured by competitors, which will be the consumer's right to data portability. Such a right to data portability could be an important ex ante tool to promote competition, particularly when the traditional competition enforcement tools appear to be helpless. Thus, it is pertinent to ask, whether consumers should be de-facto entitled to the data they produce? Should all jurisdictions have a law, ensuring that the data ownership stay with consumers. Also, should consumers have a right to data portability?*



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