

Information and Communication Technology Dossier

A Global Perspective



ICTD-4: April-June 2018

After much anticipation and deliberation, the European Union General Data Protection Regulations (EU-GDPR) 2018 came into force to ensure protection of EU citizens' data, which is expected to setup a strong precedence for other existing and upcoming data protection measures across the globe. While several nations are embracing digital economy and emerging technologies, especially Artificial Intelligence, such regulations are critical and timely so as to instil trust amongst digital consumers.

The ICT sector has always been experiencing various regulatory, accessibility and competition challenges, and this quarter was no different in occurrence of such stories, which also compel us to ponder over possible solutions that could aid in overcoming these challenges.

This edition of the ICT Dossier covers four major stories – 5G may replace fixed broadband in parts of Norway; Meru vs Ola, Uber: CCI wades in to decide if common investors dilute Competition; *Niti Aayog* pilots AI-bases initiatives in agriculture, education and healthcare; and the much-talked about new European GDPR rules.

Like the previous edition, this ICT Dossier focuses on four verticals, namely; IPR and Competition; Innovation and Disruption; Connectivity; and Privacy and Data Ownership. Purpose of the dossier is to flag important issues for each of the four verticals, to a layperson as well as policymakers.

Each story ends with several questions for the reader to contemplate and think of the way forward. This dossier may also be accessed at www.cuts-ccier.org.

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5G to Replace Fixed Broadband in Parts of Norway

Forthcoming 5G technology may replace fixed broadband for some of Telenor's Norwegian customers as the former state-owned monopoly switches off its copper networks in the next few years.

Berit Svendsen, the CEO of Telenor Norway, said 5G's performance capabilities could help satisfy demand for high-speed broadband connections in communities where fibre rollout is not commercially viable. The Norwegian telco plans to switch off its last-mile copper networks by 2025, relying on a mixture of fibre and high-speed mobile technology to serve broadband customers. It has already started trials of so-called 'fixed wireless access' on its 4G infrastructure as it explores alternatives to the costly rollout of new fibre networks.

"We have started to test fixed wireless on 4G infrastructure because we are phasing out copper in 2025 and there are still 200,000-300,000 people using broadband on that," said Svendsen during a keynote presentation at the 5G World Summit in London. "We can also use fixed wireless to go into areas where fibre rollout is not profitable."

Source: <https://www.lightreading.com/mobile/5g/5g-may-replace-fixed-broadband-in-parts-of-norway-says-telenor/d/d-id/743901>

Food for Thought

As has been established by several studies and reports, broadband internet plays a crucial role in reducing digital divide and adding value to a nation's gross domestic product (GDP) growth, by providing last mile connectivity to citizens. Both developed and developing economies have been pursuing in enhancement of broadband infrastructure in order to bridge this divide. Certain countries, such as Australia, India and US have also implemented national digital programmes and broadband projects, wherein funds have been allocated for building fixed broadband network infrastructure across the landscape, with special preference towards rural region connectivity.

However, fixed broadband network projects of such magnitude usually run into billions and are bound to experience delays, which have further inflated implementation costs and disturbed the demand-supply equilibrium in the broadband sector, eventually increasing the digital divide in rural regions. As per ITU 2017 statistics, mobile broadband has seen massive surge in adoption globally, exceeding 50 per 100 inhabitants, as compared to fixed broadband that is steadily de-growing. The ITU's statistics also reveals that while there were 0.9 billion fixed broadband users globally, mobile broadband users were close to 7.7 billion during the same period. This has been possible with the advent of new mobile technologies, such as LTE, and also creates a strong case to explore 5G opportunities so as to further enhance quality and experience of broadband connectivity.

Perhaps, it would be beneficial to converge and come up with 'fixed wireless' infrastructure that can be leveraged by 5G technology on existing networks, for which rural regions may act as perfect test beds. Such an approach may significantly bring down implementation costs,

accelerate connectivity and support governments' efforts to reduce digital divide. Though at a nascent stage, 5G technology has demonstrated its performance and capabilities in various tests globally and can be plugged into the existing national broadband projects.

However, several questions arise while deliberating on these approaches. With most rural regions ill-equipped with basic amenities and/or having difficult terrains, do governments and operators have the will power to invest in such regions? How would operators ensure that 5G integration into 4G networks is seamless and interoperable? Would existing rules and regulations need to be amended to enable this convergence? Would governments be willing to revisit their existing national broadband projects to replace fibre technology to 5G technology, so that nations are prepared well in advance?

Meru Vs Ola, Uber: CCI to Decide if Common Investors Dilute Competition

The Competition Commission of India (CCI) has recently passed an order rejecting Meru's complaints against Ola and Uber (Opposite Parties) for predatory pricing and entering into anti-competitive agreements. The CCI's decision, while clearing the OPs, contains some views that have important consequences on common investors.

By way of this order and in the context of common shareholders in the OPs (which happen to be active competitors in the defined markets), the CCI has considered whether the existence of common investors in the OPs can lead to erosion of competitive constraints between the two. The CCI observed that this could be in the form of a price increase or quality reduction which may be unprofitable for a firm, but beneficial for common investors; or coordinated effects such as creating incentives to facilitate collusion and earn collusive profits.

It noted that common ownership may lead to softening of competition; however, in the absence of evidence on the anti-competitive harms of common ownership to markets and stakeholders, an adverse finding could not be arrived at in this specific instance. The CCI went ahead to also indicate that it would monitor whether safeguards have been put in place by parties to ensure that competition is not compromised by common investments.

Source: <https://economictimes.indiatimes.com/small-biz/legal/meru-vs-ola-uber-cci-wades-in-to-decide-if-common-investors-dilutes-competition/articleshow/64894032.cms>

Food for Thought

As defined by Organisation for Economic Cooperation and Development, common ownership refers to simultaneous ownership of shares in competing firms by institutional investors. Common ownership of shareholdings or common investments in competing firms comes with the risk of unilateral price increase or coordinated effects to facilitate collusion and earn collusive profits. The CCI, by way of this order, highlighted the potential anticompetitive effects of common ownership by institutional investors in both Ola and Uber.

The CCI observed that the trigger point to order an investigation has to be a contravention of Section 3 and 4 of the Act. However, no evidence was placed on record to suggest that competition between Ola and Uber had been compromised because of common investments. Thus, the Commission noted that in the absence of evidence of 'any discernible effect' on competition, it cannot arrive on an adverse finding. At the same time, it promised to remain watchful of any harmful anticompetitive effects of common investments in the two companies.

With this ruling, India has effectively entered the international discourse on the issue of potential anti-competitive effects of common ownership. The issue of potential anti-competitive effects of common ownership have gained prominence globally. However, the actual harms remain to be delineated as the theories of harm associated with common ownership are yet to be supported by empirical evidence.

The abovementioned order also showcases a pro-innovation and pro-competition approach adopted by the CCI in dealing with disruptive innovation models. This order is in line with the Austrian Economist, Joseph Schumpeter's view that markets driven by innovation are marked by 'gales of creative destruction', which translates into competition leading to improved performance and lower costs. Although the order currently deals with online platforms only, the order could be indicative of CCI's intention of balancing regulatory intervention and promoting innovation so long as it does not harm competition.

This ruling raises several thought-provoking questions. How to assess discernible impact of common ownership on competition in the market? Further, as technology leads to leapfrogging of undertakings to mobilise innovation and provide services at a lower cost, does the mandate of the Act to establish dominance for investigating predatory pricing still hold good? Above all, is the CCI prepared to tackle novel competition law challenges brought forth by the advent of disruptive technologies while maintaining a pro-competitive approach in the market? Possible challenges range from application of traditional competition law tools to multi-sided markets, the impact of mergers & acquisitions on emergence of disruptive innovations, innovations backed by deep pockets serving as barrier to entry for incumbent players in the market to competition law treatment of big data and AI related issues, as well as tackling price collusion by data crunching algorithms.

NITI Aayog to Adopt AI in Agriculture, Education and Healthcare

Signalling the intent of the Indian government to deploy frontier technology in combating real-life problems, policy think tank *NITI Aayog* has started work on three proofs of concept using Artificial Intelligence (AI) in the areas of agriculture, healthcare and regional languages.

Two sources confirmed the developments. "We at *NITI (Aayog)* are looking at putting factors in place that will help in catalysing AI across sectors. Looking at India's population we are looking at maximising reach," said one of the sources, a top-level *NITI Aayog* official. *NITI Aayog* has formed a committee on frontier technology of six people and will get in touch with global experts, academia, companies and other ministries to take projects on the ground.

“The most important use of technology is when you use it for uplifting the economy and improving the quality of lives of the people,” said the second government source. “Most of the projects that NITI Aayog is taking up is in line with this.”

Source: <https://factordaily.com/niti-aayog-artificial-intelligence-in-agriculture-education-healthcare/>

Food for Thought

As we enter into the fourth industrial revolution, marked by emergence of new range of technologies, AI is rapidly gaining prominence in international discourses. Recently, the NITI Aayog released a 'Discussion Paper for a National Strategy for Artificial Intelligence', thereby successfully entering a realm thus far unexplored in the Indian context. The present Indian government clearly recognises AI's potential to transform the nation's economics, and hence, had asked the NITI Aayog to institutionalise a 'National Programme on AI' so as to provide direction to research and innovation in emerging technologies.

*The paper outlined five focus areas for strategy – **healthcare** – which can support in addressing barriers on accessibility for healthcare facilities, especially in rural areas; **agriculture** – so as to address challenges such as inadequate demand prediction, lack of assured irrigation, and overuse/misuse of pesticides and fertilisers; **education** – solving quality and access issues of the education sector; **smart cities & infrastructure** – to help meet demands of urbanisation and enhancing quality of life; **smart mobility and transportation** – provide solutions such as autonomous fleets for ride sharing, semi-autonomous features such as driver assist, and predictive engine monitoring and maintenance. These areas lie at heart of India's development and visioning their transformation using AI would require an innovative approach, fused with pragmatism.*

However, relevant stakeholders also need to recognise the AI ecosystem's vulnerability and risks on ethical conduct, privacy and overall security protocol, which mainly revolve around the AI system's biasness towards a propaganda, and collection/misuse of personal data. These risks may eventually lead to accountability and trust issues, both within and outside the system. Hence, addressing these fundamentals are crucial for the ecosystem to survive the test of ongoing discourses and contribute in nation building.

While these intentions are promising, a few considerations will have to be addressed – what would be the possible regulatory challenges and how would the current system address it? Would an ex-ante approach be required to assess costs and benefits of the technology in implementing it across various sectors? Since AI is fuelled by data, how would India's digital footprints be aligned with the infrastructural requirements for data collection and analytics? With the advent of Data Protection Law in the country expected soon, how would such emerging technologies be considered? Finally, how would implementing agencies ensure trust of sectoral actors and end-citizens on artificial intelligence?

New European Rules to Give US Internet Users True Privacy Choices

Europe's new data privacy rules, the General Data Protection Regulation, have taken effect, but what they actually mean remains to be discovered. And whether the GDPR, as it is known, really helps protect your private data may depend on complaints that Max Schrems, an Austrian privacy activist, filed against Google, Facebook, Instagram and WhatsApp on the day the regulation went into effect.

It's not a US law, but the GDPR applies to all companies, located anywhere in the world, that offer goods or services to EU residents, or that monitor online activities of people in the EU. As a result, many large multinational companies have chosen to comply with the GDPR worldwide, rather than trying to differentiate between customers and users located in the EU and elsewhere.

Although the GDPR is in many ways similar to the EU's previous privacy rules, it offers the tantalizing possibility of giving people real control over their data for the very first time – though it might take years to sort out.

Source: <https://theconversation.com/new-european-rules-may-give-us-internet-users-true-privacy-choices-for-the-first-time-97982>

Food for Thought

After much anticipation and deliberation, the EU passed the GDPR 2018 that empowers users with complete control over their personal information. The digital economy has been growing by leaps and bounds every second, which was recently marred by high-profile controversies such as the Facebook-Cambridge Analytica Scandal, the Russians being accused of influencing the 2016 US elections through perception manipulation on social media. Hence, the timing of the EU GDPR couldn't have been better to instil trust on users' online privacy.

The aim of the GDPR is to protect all EU citizens from privacy and data breaches, with the extended jurisdiction on all companies processing personal data, regardless of the company's location. Other major changes to the existing directive include hefty penalties for non-compliance, stronger conditions for consent, breach notification with 72 hours, right to be forgotten, etc. This new directive has caused ripple effects in the digital economy and created trouble for existing international regulators, who have failed to secure explicit exemption from the law. The first month of its implementation has seen a sharp increase in complaints across the territory, showing strong public interest in the new rules. However, this is also expected to threaten ongoing and future international probes and enforcement actions in cases involving market manipulation and fraud.

This regulation will also set precedence for upcoming data protection laws in other countries, with India being the current focus of stakeholders, as the expert committee, setup under the Ministry of Electronics & Information Technology (MeitY), prepares to finalise its recommendations and propositions for such a law. While consumer has been given strong preference in the GDPR and digital firms around world largely accepting to comply with these

regulations, it still remains to be seen how would the GDPR perform in the border-less digital economy.

Keep the above in mind, the following questions arise – What would be the digital economy's future with such regulations coming into play? Would such regulations guarantee a consumer's data privacy and protection? How would cross-border data flows be impacted? How would multiple sectoral regulators, across the globe, interact with each other and ensure to be in-sync with changing laws? What could be the learnings from such regulations for developed and developing nations, who are still testing the waters with many uncertainties surrounding the data protection framework?



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