

he global economy is rapidly becoming digital and all IP (internet protocol). Information and communications technology (ICT) is no longer a specific sector but the foundation of all modern, innovative economic systems. The internet and digital technologies are transforming the lives we lead and the way we work – as individuals, in business, and in our communities – as they become more integrated across all sectors of our economy and society.

These changes are happening at a scale and speed that bring immense opportunities for innovation, growth and jobs. They also raise challenging policy issues. These challenges can be tackled holistically by larger countries, such as the US, or by entities representing larger blocs, such as the European Commission as in its 2015 document, 'A digital single market strategy for Europe'. But for smaller countries outside a supranational umbrella it is very difficult to set up a coherent policy and regulatory framework.

In my past and current policy work, and in IIC meetings, we have been and still are discussing the ever-changing environment and the fact that regulators and industry are faced with a new reality and different market rules – and have to fundamentally change our modus operandi. This is undisputed.

What needs more emphasis in the discussion is

the 'what'. What is new, what are the new market rules, what do regulators need to change? What are the priorities? What is the roadmap?

This, the first in a series of articles, attempts to stimulate discussions, and ultimately to propose a way forward to bridge this policy gap.

This first article sets out yesterday's ecosystem – the 'good old world' – and has a view on the 'brave new world', which we don't yet fully grasp. After having had a round of hopefully controversial feedback, subsequent articles will propose a roadmap. Currently, I see two main themes emerging: coordination between policymakers and regulators on a national and international level; and how to deal with the international giants.

THE WORLD HAS CHANGED

Yesterday was simple and unidimensional. Markets were organised on a national level, telecoms service providers (TSPs) had a predominantly national focus. The industry was rather healthy, regulation reached maturity, and rules were understood and accepted (this is, of course, an oversimplification and mostly applicable to advanced countries).

The new reality is complex, multidimensional and converged. Industry profits appear insecure, while global over the top (OTT) players disrupt old business models. (I refer to OTT in the wider sense – OTT players deliver their services over fixed and

mobile broadband provided by the TSPs. Customers pay (with their data) to the OTT company. OTT services may be in competition with services provided by TSPs, as in international voice services or in addition, as with video. So boundaries are blurry and overlap.)

Previously, in the late 1990s, 'convergence' was a buzzword, much as 'smart' and 'IoT' are today. Convergence was focused on technology, was never defined and was without a viable business model. Now convergence has rapidly arrived, in a never envisaged form fueled by fast and ubiquitously available IP networks. We embrace global business models that not only disrupt the telecoms industry, but also other industries such as the hotel business and even taxis, in the transport world. OTT players are global by nature and often have a position of tremendous strength.

Geographic borders often no longer exist; we operate in a 'glocal' (global/local – we live locally but consume globally) environment. Boundaries between domains, which were often isolated silos, also no longer exist. For example, spectrum is as much requested by private entities, mostly in the form of unlicensed bands, as by traditional users, i.e. broadcasters and mobile operators.

It is also increasingly unclear what is a content producer or a mere customer of a platform. We definitely live in a 'prosumer' world – today's customers are consuming services, but also producing data and content, which is monetised by the platforms.

THE CONSUMER PERSPECTIVE

Yesterday the deal was straightforward. The consumer paid money for a service. Today's prosumers are either additionally or fully paying with their personal data. Free apps and communication on social networks, resulting in targeted advertising, are prime examples.

Consumer protection, in the wider sense, is becoming more important. It is no longer only about getting refunds, but about data protection, striking the right balance between privacy and data exploitation, the right to be forgotten, protection from cyber-bullying, identity theft, hate speech, data ownership and the portability of data and content when dealing with global entities. These of course have a different significance for private and commercial users.

There are no free lunches. If a 'free' app asks for access to your address book, emails, browsing history etc., common sense says there is something wrong and you are paying with your data and loss of privacy.

THE INDUSTRY PERSPECTIVE

Mindset change

TSPs were used to owning and to a certain extent controlling the customer via the last mile. Therefore they had near exclusive access to the customer and all their data. With OTT players, TSPs are now faced with global competitors implementing an often superior business model:

- 'Free' international calls are hard to beat
- A substantial movie catalogue for \$9 a month is a reasonable proposition.

After some years of futile fight, TSPs are now switching to a more cooperative model, where OTT players are seen as complementary and enablers rather than competitors. This has coincided with a shift of the business model towards selling connectivity and data. Without OTT players no one would need an unlimited mobile data package with speeds of 100 Mbps. One might also argue that the benefits of fast internet are enabled by OTT – otherwise we might still be paying per minute.

Change in business model

TSPs are selling connectivity and enabling convergent services but keep complaining about OTT impinging on their revenues. However, convergence cuts both ways as, for example, TSPs are breaking into the banking sector with money transfers and e-payments. Further examples of business opportunities are in providing data

TELECOMS AND AUDIOVISUAL (AV) CONVERGENCE

A prime example of the challenge we face is the convergence of telecoms, IT and audiovisual media. Here we see all the elements of a converged environment and competition, or the absence of, at various levels of the value chain.

Content production

Studios Prosumer

OTT

Transmission IP-TV OTT via www
means Satellite Terrestrial

(Digital) rights management

The transmission, i.e. the delivery, can be part of a TSP's triple play bundle or simply as OTT on the internet. The 'last mile' is often in a competitive setting, e.g. cable TV operators are delivering fast broadband services and TSPs are providing triple play.

The AV industry is one the biggest drivers of bandwidth, with currently around 80% of internet usage being AV content. The AV industry is driving and will continue to drive innovation, through virtual realities and holographic images, as examples. All of this will be accompanied by a massive increase in bandwidth.

Nevertheless, when we turn to the AV business model we see a huge gap concerning the needs and wants of the global 21st century user. The overwhelming share of content production and intellectual property rights (IPRs) are clinging to completely outdated concepts: the industry is adhering to business models that are not accepted by the user and easily circumvented by technology. Pirating is the consequence. But what is the AV industry doing? Complaining, instead of reacting to the changed environment.

I see this as a very good example of an industry unwilling to come to terms with a changed reality. This reminds us very much of the 1990s music industry, where due to Napster and others a whole industry was reformed.

It is undisputed that the interests of the authors need to be protected and an effective IPR regime is needed. However, shouldn't this regime be in line with a global setting rather than maintaining the status quo and preserving the existing collecting societies?

centre services and smart city platforms.

TSPs are very vocal in complaining about OTT cutting into their core revenue. But have we heard banks complaining or have taxi companies named TSPs as accomplices in the establishment of ride sharing platforms? Have IT companies complained about TSPs setting up data centres and cutting into their core business?

To give a concrete local example of convergence cutting both ways, in 2010 non-telecoms revenue in Qatar was around 5% of total revenue of the TSPs. This increased to more than 20% or around 2 billion Qatari riyal by 2015. As a result, the regulatory implications are drastically changing. The industry is faced with regulations ranging from financial to health, cybersecurity, blocking and filtering, critical infrastructure, data retention and interoperability of spectrum – to name just a few.

REGULATORY INSTITUTIONS

Previously, issues were nicely compartmentalised, not only from a sectoral but also from a competency and geographical point of view. The new reality is international and multidimensional. Telecoms regulators previously dealt ex-ante with telecoms matters and the competition authority handled ex-post cross-sectoral matters on a national level. Media authorities addressed content related issues. Financial watchdogs dealt with financial issues. Data protection authorities tackled privacy concerns. Some regional coordination, as with BEREC in Europe and the Gulf Cooperation Council have evolved over the years.

Issues and abuses have not only become multinational, but are now also cross-sectoral. Many countries have taken the right steps, setting up a converged communications regulator that also takes care of the AV sector. Some authorities have developed ex-ante and ex-post competencies. But coordination with the competition authority is still a mixed bag – working well in many jurisdictions while in others we see a turf war.

We need to move from silos to a converged mindset and environment.

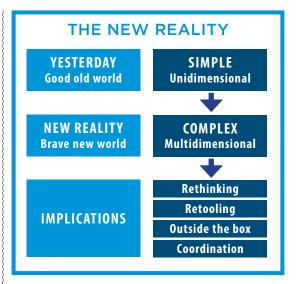
IMPLICATIONS

The implications of the new reality are vast. We are required to rethink our approach and also to retool. We need to critically evaluate which tools are still fit for purpose in this interconnected world.

This brings us back to the key question – what do we want to achieve in our jurisdictions? This question is or will be answered in a completely different way in a Trumpian US than a protectionist Middle Eastern country.

It is not only Qatar where we need a 'glocal' approach since many of the problems are global, as are some of the solutions. But we need to break it down to the local context and solve the issues in our own environment. What is clear is that without a clear policy goal, without the buy-in of all stakeholders and effective enforcement, we can't achieve any targets.

One implication that is already clear is that there needs to be a lot more coordination between the



regulatory entities to address these global issues. Another question is whether our traditional ex-post proceedings, lasting three years or so, are fit for purpose or just solving yesterday's problems. For example, is there a real controversy about ride sharing platforms and the business of taxi drivers, or is the actual focus on worker protection?

There seems to be a common understanding that similar rules for similar services should apply. However, implementation is hard. First of all, what are 'similar' services in an all-IP world? The fact that an OTT call has limitations regarding location and should be treated differently to 'classic' voice calls seems to be increasingly far-fetched, especially in light of voice over LTE, which is effectively a carrier grade OTT service.

And lastly, we often talk about regulation but are not clear what we mean. Is it market access by licensing; is it data protection; is it wholesale and retail charge approval? Here all entities are challenged to create clarity.

OUR DEBATE

The IIC has long been at the centre of the policy and regulatory debate about telecoms and media, but the past few years have brought unprecedented challenges from new technologies and convergence. We invite you to respond to Rainer Schnepfleitner's article in whatever format suits you best – with a particular focus on how the many smaller regulatory authorities can best achieve coordination in the 'global/local' environment. In the coming months we will gather feedback and look forward to your responses.

RAINER SCHNEPFLEITNER heads the regulation affairs and competition department of the Communications Regulatory Authority (CRA) of Qatar. The CRA was recently set up as a converged regulator for telecoms, IT, access to digital media and post. A key part of his current role is policy for converged communications. This article does not represent the official position of the CRA.