

The **Conference on the Regulation of Infrastructures** is the annual event that brings together all the Areas of the **Florence School of Regulation**. The **8th edition** aims to identify the key challenges of digitalisation for traditional network industries; discover various regulatory approaches to platforms and determine benefit scenarios for consumers and to the platforms themselves.

Digitalisation is transforming all industries, including the network industries. It is creating a new model of industrial organisation using online platform as intermediaries for multisided markets. As a matter of fact, digital platforms display all characteristics of the traditional network industries: network effects, efficiency, scale, concentration, market power, etc.

The involvement of online platforms in the network industries benefits consumers by fulfilling unmet needs, often efficiently and at low cost. Platforms do this partly by exploiting access to existing network infrastructures that are often vital for national economic growth and wellbeing. However, if online platforms are allowed to sideline traditional network operators, it may mean that vital investment in building and maintaining the infrastructures on which these markets are founded becomes unsustainable in the long-term.

Another pertinent issue concerns the regulatory approach to platforms, as the success of online platforms is achieved, in part, by exploiting regulatory environments that place incumbent firms at a disadvantage. There is a debate as to whether platforms should be subject to the same regulatory obligations as traditional network players, and whether platforms should have access to network services under regulated terms.

This 8th Florence Conference on the Regulation of Infrastructures aims to identify the key challenges of digitalisation for traditional network industries, discover various regulatory approaches to platforms and determine benefit scenarios for consumers and to the platforms themselves.



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Atik, C. “Data Ownership and Data Portability in the Digital Agriculture Sector: A Proposal to Address A Novel Challenge”

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Abstract

With the advent of so-called ‘Smart Farming’ practices, farming activities have become more efficient thanks to the effective usage of data-driven Digital Agriculture services. However, there have also been data-related challenges in the emerging Digital Agriculture sector. One of the most prominent concerns is the lock-in problem of farmers when they desire to change their existing digital service providers, mainly due to the legal ambiguity in ownership and portability of agricultural data. Although the Digital Agriculture literature has focussed on ownership of data, providing ownership right for farmers might not be the best tool to address this concern. Moreover, this paper argues that it can even exacerbate farmers’ dependency on technology providers instead of addressing the lock-in problem. In this context, this paper seeks alternative regulatory tools (i.e., data portability and data pooling) to eradicate regulative reasons for the data-related lock-in problem in the sector.

Andriychuk, O. “Fighting Fire with Fire. On the Role of Internet Service Providers in Restoring Competition in Online Platforms”

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Abstract

This paper aims to challenge the current regulatory assumptions about procompetitive nature of Net Neutrality rules in the area of online platforms. The main focus of the paper is twofold: (A) it looks at the (pro- and/or anti-) competitive role Net Neutrality rules play in online platforms; and (B) it explores the instrumental role of EU competition law in securing Europe’s interests in the global economic and technological race (industrial policy). The focus (A) challenges the dominant regulatory narrative that Net Neutrality protects innovation and competition in the sector of online platforms. I submit that it does not. Quite the opposite: Net Neutrality rules (in their current form at least) are the artificially created regulatory impediments to competition — both between (i) the industry of Content and Applications Providers (CAPs) and Internet Service Providers (ISPs) (which is quite obvious) but also (ii) between CAPs themselves (and this is not being discussed in the literature). By lobbying the rules, which disable any form of competition on the upstream level (premium speed) with which the content is delivered to end-users, CAPs essentially are acting as a cartel, agreeing not to compete on a very important (especially for newcomers and disruptive innovators) factor of competition: the speed. The focus (B) reinvigorates the focus (A). Here I argue that not only competition policy (*sensu lato*) does not investigate potential collusion between the leading CAPs, it legitimises such a quasi-cartel by adopting Net Neutrality rules driven by laud political campaigns and catchy rhetorical slogans. Zooming out the picture and looking at current EU enforcement priorities in the area of Big Tech, Net Neutrality rules appear to be particularly counterintuitive: on one hand the EU uses a very ‘creative’ interpretation of its current (competition and free movement) and new (copyright, privacy, State aid, tax avoidance/evasion) rules and policies trying to limit the omnipotent and ever-growing economic power of GAFAM, Netflix, Hollywood studios and other powerful CAPs. On the other hand, however, it offers absurdly comfortable regulatory conditions for these companies, preventing European ISPs from even trying to take part in the rapidly growing entertainment race for global (and for this matter primarily EU) viewers’ attention, helping to monopolise the (emerging) markets by the current incumbents even more unequivocally. In other words, the paper asks: does EU competition (*sensu lato*) policy have to be (a) coherent; (b) proactive and (c) pro-European. I aim to prove that current EU Net Neutrality policy is none of those as it (a) goes in the direction opposite to EU regulatory, antitrust and industrial agenda; (b) does not encourage competition, but hinders it offering generous protectionist measures to GAFAM and other CAPs; and (c) serves the interests of primarily non-EU companies, prohibiting EU ISPs from competing in this highly rewarding, paradigmatic race on the merits.

Becchis, F., Postiglione, M., Valerio, S. “Regulating the Platform Economy: Problems, Challenges, Tools”

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Abstract

In recent years, new organizational and business models, generally identified as “platforms”, have emerged and penetrated a wide spectrum of economic sectors, including for example transport and mobility, tourism and accommodation, logistics and delivery.

In this paper, firstly we focus on those structural features which seem to determine the growth of platforms and their disruptive effects on incumbent industries. Following Rauch and Schleicher (2015), we show how platforms’ success essentially lies in their ability to erase transaction costs, which in turns depends on the increasing availability of new technological means which connect people at previously unknown scales. Then, we outline a series of social mechanisms which contribute to the process of trust and reputation building in digital environments and solve problems of information asymmetry, thus increasing the level of safety in transactions and the potential for growth of these business models. Moreover, we address the complex issue of defining the economic nature of platforms activities, with a focus on the ECJ decision on Uber: through the lens of the theory of the firm and the research programme

on markets and hierarchies, we discuss whether platforms are pure intermediaries and, consequently, should be allowed to freely establish and operate.

Secondly, we draw on the insights provided by Biber et al. (2017) to show that platforms' business models can be considered disruptive not just because of their economic impact on incumbent industries, but also for their effects in terms of creation of "a policy problem that the existing regulatory regime does not effectively manage". Following this approach, we analyze four main possible strategies regulators can choose between when they have to cope with policy disruption and decide how to address the entry of platforms in more or less heavily regulated markets: ban new operators, keep the pre-existing regulatory regime, create a new one or allowing platforms to be free to operate out of the traditional set of rules. We draw on a series of case studies to show how there is not a unique and prescriptive answer to such complex phenomena: independently from the specific decisions taken by regulators, what counts more is the rationale lying behind the behaviour of regulators. However, we also clearly state that blocking the entry of platforms and new business models should require other reasons than simply their economic impact on old industries and incumbents.

Finally, we focus on two crucial issues which seem to be relevant for the development of platforms and their long-term sustainability. First of all, we analyze the nature of the employment relationships which tend to arise in platform environments, addressing the longstanding debate on how platform workers should be classified. Then, we focus on the contentious issues of data collection, management and ownership, starting from the analysis of the economic nature of data, the existence of markets for data and the polarization which seems to affect the current theoretical debate: on the one hand, we examine whether data have to be considered a mere issue of consumer and privacy protection, as suggested for example by Sokol and Comerford (2017); on the other, we highlight the main elements which characterize the school of thought represented by Arrieta Ibarra et al. (2017), who suggest to treat data as a competition issue and to consider platforms users as the legitimate owners of the data they produce. In light of this, we critically discuss some of the novelties introduced by the GDPR, paying special attention to the right to data portability and its potential ability to foster competition in digital markets.

Bock, B., Fechner, A., Klein, A., Wolf, A. “Transparency of Routing Service Platforms and Potential for Segregation and Manipulation”

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Abstract

When observing mobility and digital platforms in context of regulation, it is necessary to consider relevant regulatory aspects of digitisation and automation. As these can be fairly abstract, it can be helpful to illustrate them with understandable and common examples. Therefore, the aim is to demonstrate aspects of digitalisation such as digital segregation and manipulation of information by aggregating the results of popular and well-used routing services for information on door-to-door connections.

Users increasingly rely on information from such routing services. If repetitive routines are formed through positive user experiences, it can quickly happen that information made available is no longer questioned (Canzler 2016). This allows the potential for manipulative tweaking e.g. of travel times to influence user behaviour in a subversive way which is hard or nearly impossible to detect.

We evaluated various routing APIs with results showing significant differences in durations for public transport (PT) routings for selected European cities. Our studies show that the calculated travel times, which are played back via data interfaces for identical queries, differ systematically both between individual sub-areas and between modes of transport. Although it is not yet possible to derive any further statements on the origin of the differences, one thing has become obvious for the authors: if a routing service provider wishes to influence the choice of transport mode between, for example, motorised private transport and PT systematically and subversively, this would be possible without the public directly noticing (Bock, Klein 2018).

We have analysed three of the leading PT-routing services: ‘Bing’, ‘Google’ and ‘Here’. We consider one to be the benchmark (‘Google’), as it is by far the most popular service of the three services studied here. All of the services are available globally and include real-time information on street traffic velocities and PT departure times. Traffic velocities can influence street-bound PT, such as busses, whereas delayed departures can influence trip durations, for example, when connecting services are missed. The volume of non-standardised parameters that can be passed to the API increases the complexity of the experiment and has been kept to a standard set which we considered to be comparable over the various services. Uncertainties do remain as it is unclear if PT is routed on a network representing realistic traffic volumes.

The development of the described meta-routing analysis is part of the current research project 'xMND' funded through the 'mFUND Projects' by the German Federal Ministry of Transport and Digital Infrastructure.

Bostoan, F. “Regulating Online Platforms: Lessons From 100 Years of Telecommunications Regulation”

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Abstract

Policymakers are increasingly sounding the alarm on the economic and political power of online platforms—the digital intermediaries such as Google, Amazon and Facebook that play an increasingly important role in our economy. This concern is fueled by recent scandals such as Cambridge Analytica, but while such events capture the public’s attention, the anticompetitive behavior of these platforms is more subtle but no less harmful to consumers. Valid concerns have been raised, for example, about the way in which platforms buy out potential challengers or discriminate against competitors in vertically related markets. Due to the novelty of the behavior, a coherent regulatory response has been absent. However, the behavior is not completely novel: over the past 100 years, telecom operators have been regulated to prevent the same kind of anticompetitive conduct that platforms are now being accused of. That is why this paper surveys the history of telecom regulation and transposes the various interventions to the digital sphere. The goal is to devise a taxonomy of regulatory options and to clarify the trade-offs inherent in each of them. In doing so, account is taken of both EU and U.S. law and policy in the telecom as well as the platform sphere. The envisaged result is a toolbox for regulators to rationalize their policy towards platforms, bearing in mind that the effectiveness of each intervention depends both on the kind of platform and the kind of conduct they want to target.

Cappelli, V., Cuccuru, P. "Blockchain infrastructure for a smarter energy sector. A primer on liability"

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Abstract

Smart grids are essential for a more efficient and reliable energy supply system. They facilitate the integration of decentralised electricity generation and encourage energy production by prosumers. Blockchain technology can support and streamline this process. The application of blockchain to smart grids can help coordinate energy production and promises to enable peer-to-peer transactions through smart contracts.

The intersection of smart grids and blockchain ledgers recalibrates the relationships within energy supply systems in favour of a decentralised energy-sharing network. Within this context, whether there is – or should be – a middleman responsible for energy supply is a core issue to investigate. While intermediaries challenge the technological – and philosophical – assumptions of blockchain systems, they also enormously ease the allocation of liability in case of dysfunctions. The main question this paper aims to address is where liability should stand in a complex system that combines the traditional energy infrastructure with an automated digital grid based on blockchain technology. Different models of blockchain, and the impact they have on liability, are briefly considered. The article suggests that energy supply system needs intermediation in order to ensure an adequate level of protection to consumers.

Ducuing, C. “Conceptualizing digital infrastructure: a study of data sharing legal regimes in the field of network industries”

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Abstract

The paper aims to contribute to finding solutions to the challenges arising from the growing role of a digital infrastructure in the value chain of traditional industries, and especially of network industries. Digitization – by means of data-driven techniques – of the traditional network industries consists of very diverse initiatives from different players, mainly incumbent operators and new (ICT) players. The introduction of data-driven techniques is generally viewed as a position form of optimization of network industries’ activities and value to society, and is sometimes even pursued, such as in the case of MaaS (Mobility-as-a-Service). The scholarship has however also shown that the emergence of a digital layer disrupts the ecosystem of network industries, when it leads to digital platformization and to the commodification of the traditional network operators. The specificity of platformization in the field of network industries was found to consist in the risk that the (financial) sustainability of subsidized network operators may be endangered, as a result of the capture of value from the digital platform. Two main regulatory solutions have been envisaged: regulating a “fair” data transaction between the traditional operator and the digital platform on the one hand, and regulating the digital platform as an infrastructure in the network industry ecosystem, in addition to the physical infrastructure, on the other hand.

The present paper aims to contribute to the scholarly debate on this topic, by discussing the concept of infrastructure in the digital environment. The hypothesis is hereby twofold. With regard to the digitization of network industries, we firstly posit the existence of conflicting views on digital infrastructure, or in other words of two layers of digital infrastructure. Secondly, we posit the need for a legal consistent conceptualization of ‘infrastructure’ for the digital environment. In the light of the theoretical consideration of “most data” as infrastructure proposed by the OECD, the paper analyzes three illustrations of data sharing legal regimes – or legislative initiatives – in the field of physical infrastructure, namely the PSI Directive, the on-going discussion on the governance of in-vehicle data and the proposal of the Commission to regulate “energy data management” as part of the on-going revision of the Third Energy Package.

Adopting an explanatory methodology, the paper exposes that these data sharing regimes are based on two close but different sources of inspiration, which are however intertwined and left unclear. On the one hand, by targeting – public or private – entities deemed “monopolist” with regard to the data they create

and hold, these regimes are undoubtedly inspired from competition law and especially the essential facility doctrine. On the other hand, beneficiaries appear to be both entities in related markets who need data to conduct their business, but also third parties at large to foster innovation. The latter is found to illustrate a purposive view of data as infrastructural resource. This understanding of “raw” data (management) as infrastructural resource for all to use may run counter the ability for traditional operators to get a “fair price” for ‘their’ data. The paper therefore proposes to further differentiate the data sharing legal regimes according to the rationale and to the beneficiaries. Additionally and in a broader perspective, the paper also highlights the need to further research the conditions under which the legitimate interests of the stakeholders can be balanced in data sharing legal regimes – or even digital infrastructure, specifically hinting at operators burdened with subsidized public service obligations.

Esteve Guasch, V."Capital Structure, Investment, and Regulation: The England and Wales Water Sector"

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Abstract

This paper analyses the relation between capital structure, investment and regulation in the context of the England and Wales water sector. Since the beginning of the 2000s the sector has massively increased its gearing levels. This has raised several concerns regarding the viability of future investment in the sector. Theoretically, debt can be strategically used by regulated companies to reduce the ability of the regulator to reduce prices ex post, thus alleviating the under-investment problem created by regulatory opportunism. Available empirical evidence supports this reasoning by showing that higher gearing leads to higher prices and higher investment rates in regulated sectors. We conduct an empirical test in a panel of 20 England and Wales water companies for the period 1997-2009 to test whether this applies to our case study. Our results are negative: higher gearing in the sector has not resulted in higher investment. We argue that the strategic use of debt to limit regulatory opportunism might be at place, but that this has not resulted in higher investment because under-investment has not been a problem of the sector in the first place, but quite the contrary.

Fuentes, R., Hunt, L.C., Lopez-Ruiz, H.G., Manzano, B. “The ‘iPhone effect’: The Impact of Dual Technological Disruptions on Electrification”

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Abstract

Meeting climate change goals requires both the decarbonization of the electricity sector and the electrification of much of the rest of the economy. However, the electricity sector is navigating major disruptions that are changing the regulatory and business landscape. This paper focuses on the question of whether these changes would help or hinder electrification, taking transportation as an example.

Like the electricity sector, transportation is undergoing a deep transformation. We suggest that businesses in both sectors will at some point offer aggregated services, repackaged as subscriptions, and traded on digital platforms. We also argue that data created by these activities would be so valuable that this could be reason alone to move toward this model. This could create synergies between companies that could eventually lead to a rebound effect of electrification, with more vehicle miles traveled and more electricity consumption than before.

Gonçalves, E., Dutra, J., Naccache, P. “Smart Metering Regulation in Brazil: Potential Impacts from Regulatory Delay”

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Abstract

Introduction of a new feature in a regulated industry as the power sector, such as smart metering, is different from the introduction of a new good in a non-regulated business. Potential competitors could have incentives to delay the implementation of this new feature. A regulatory framework for smart metering implementation involves approval of meters' property, meters' certification, communication protocols' homologation, period of roll out and specific requirements to guarantee the substitution of currently installed meters. In European countries, smart metering is being discussed for over a decade, with a high development - Brazil, however, is far behind those countries. In the country, implementation of the smart metering has to be authorized by ANEEL, the Brazilian Energy Commission, and the smart metering equipment itself has to be homologated by Inmetro, the National Institute for Measurement, Quality, and Technology. Inmetro began discussing smart metering in 2009 and its regulation for electronic meters has been modified several times. This instable regulatory framework has contributed to leave the country behind many others in terms of smart metering implementation. In this context, this paper aims to measure potential losses in consumer welfare from regulatory delay of smart metering implementation approval by the regulator in Brazil. Preliminary results show a welfare loss of about 6 billions of Brazilian reais (present value) and indicate consumers have willingness to pay for the new venture higher than estimated costs involved.

Gunst, A., Zobu, B., Wallace-Müller, K. “ Digitalisation in the Energy Sector and Energy Blockchain”

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Abstract

The digital technologies are being integrated into the energy systems to make them more intelligent, efficient, reliable, and interconnected. The digitalisation in the transport, construction and industrial areas is increasing the energy demand all over the world, and requires the deployment of the digital technologies into the energy infrastructures. The digitalisation of the energy industry will be a key driver of future change. Thus, the energy systems have tendency to be transformed into a more sustainable, renewables-based systems, away from large-scale fossil fuel-based energy production. Electricity production needs more and more innovative solutions to make energy markets more fit for renewables and distributed energy resources. Digitalisation is the solution to implement the innovative technologies into energy sector and make the energy more profitable for final consumers.

For this purpose, it is important to support researches and innovation in the public and private sector at national and international level and to digitalise the energy sector. For example, the EU supports Horizon 2020 projects in order to implement Clean Energy Package and to speed up the digitalisation of the energy system in synergy with Energy Union and Digital Single Market policies. The first step is to set up the energy markets and digital platforms where network operators can have access the infrastructure services from connected consumers which help them to manage the network. Digital technologies have a curial importance for the development of the transmission and distribution system operators, suppliers. The energy regulators are developing the new platforms where the energy services may be procured through the combination of local markets via congestion management. The digitalisation of the energy systems requires at the same time digital energy infrastructures where digital devices, communications and interconnection systems may be safely used by final customers. The data exchange and interoperability of the energy infrastructures are the main challenges of digitalisation which require the development of the interoperability and cooperation in the energy industry.

Heim, M., Nikolic, I. “A FRAND Regime for Dominant Digital Platforms”

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Abstract

Dominant digital platforms are under increased scrutiny by regulators around the world, notably competition authorities. Much of the discussion focuses on market access and contestability. However, many doubt whether traditional competition law enforcement can, by itself, be an adequate solution to the challenges posed by dominant digital platforms. Instead, a broader regulatory solution could be devised to ensure effective competition and to provide access to critical platforms or access to data. On the premises that regulation is warranted, this paper considers whether a Fair, Reasonable and Non-Discriminatory (FRAND) access regime could be a solution to ensure effective competition, while maintaining the incentives of dominant platforms to innovate. The paper shows that, beyond the application of FRAND in the competition law context, the European Union institutions have consistently used the FRAND regime to ensure access to critical infrastructure or inputs. The FRAND regime has been applied in EU legislation such as standardisation, chemicals, electronic communications framework, public sector information, research framework, vehicles emissions, payment services, credit rating agencies and benchmark regulations. It has proved itself to be a flexible and pragmatic tool, able to apply to different market dynamics and bottlenecks. Drawing out the common elements of this European FRAND access regime, the paper considers how it could be applied as a regulatory solution for dominant digital platforms.

There are a number of policy options available which, rather than being alternatives, could be complementary. First, implementation of a FRAND access regime could be voluntarily adopted ex ante by emerging digital platforms, before network effects become entrenched. Having in place access regimes to enable new entrants to compete on or for the market would be a preventative measure forestalling competition scrutiny. Competition law guidance would be beneficial in providing some legal certainty on the scope of such a remedy, for example by creating a safe harbour. Guidance should be based on the European Commission’s practice, which is sufficiently extensive. Second, this approach can be

supplemented by ad hoc competition law enforcement to ensure access where competitive harm might otherwise occur.

Competition law may not be able to resolve all of the issues raised by dominant digital platforms. Therefore a third option would be for FRAND access to be mandated by future European legislation, based on for public policy criteria. Subjecting the platform to FRAND access provisions prevents the need to engage in regulated access ex post, as FRAND terms are market based. The public interest policies elaborated in existing FRAND-based legislation (such as media plurality, access to information, access to communication networks and infrastructure, access to EU-funded research) are instructive in moving undertakings to adopt FRAND-based access. Therefore, while regulators deliberate on the question of dominant digital platforms, legislated FRAND regimes can be considered as an effective access framework beyond the classic notions of market power. There is sufficient precedence in existing European legislation to serve as guidance.

As a result, FRAND enables the maintenance of competitive conditions, according to existing industry norms and practices, minimising disruptions and ensuring that regulatory solutions are as seamless and as limited as possible.

Klien, M. “Performance consequences of water utility aggregation: the role of structure and behavior”

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Abstract

We analyse how aggregations affect the performance of water utilities. Using a difference-in-difference design we find no evidence that the aggregations had an effect on cost. Also, aggregated utilities also do not seem to outperform non-aggregated utilities in the post-merger years. We discuss factors such as the design of aggregations and utility cost structure as potential explanations why the aggregations did not improve utility performance.

Knieps, G. "Internet of Things and the network economics of operator platforms"

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Abstract

The Internet of Things (IoT) poses disruptive challenges for traditional network industries, enabling IoT applications for physical network services based on real time, adaptive and location sensitive data. There is an open and ever-expanding set of physical IoT applications. Important areas for applications are smart sustainable cities, intelligent transportation systems, smart energy networks, commercial drones, smart manufacturing, e-health etc. Prosumer peer-to-peer activities as well as business-oriented market activities are organised via operator platforms in order to provide shared mobility services, transactive energy services connecting home networks via microgrids, cooperative networked vehicle services etc. New challenges and requirements for a variety of heterogeneous operator platforms arise, combining the requirements of physical IoT applications with complementary virtual networks enabling interactive machine-to-machine communication. Different virtual networks which are complementary for heterogeneous IoT application services are based on sensor networks, quality of service (QoS) requirements of all-IP broadband communication and big data processing. The transactions of platform operators are manifold: Questions regarding the division of labor between all-IP traffic service providers, virtual network providers and platform operators for physical IoT applications arise, including the role of bundling between virtual network operators and physical platform operators as well as the bundling of different physical IoT application services. The focus of this paper is on the industrial organisation of operator platforms driven by the requirements of IoT applications and the future role of regulation of operator platforms.

ICT based smart networks are characterised by large innovational potentials for changing the architectures of physical networks as well as changing markets for network services. Thus, operator platforms for IoT applications are facing highly innovative markets with entrepreneurial opportunities to develop new innovative services and thereby disrupt traditional network industries. "Mobility as a Service" platforms can be organised for physical transportation services enabling seamless app-based mobility as a service combining the advantages of different forms of transportation. Driverless vehicle platforms provide highly interactive (cooperative) net-worked/automated vehicles with the support of high-volume location critical big data processing (edge cloud). An issue which is gaining increasing attention is the future potential of shared self-driving vehicles, where the function of driver responsibility is shifted to the platform operator for the transportation process. Microgrid platforms organise the low voltage

generation and consumption of electricity with a particular focus on renewable energy. The traditional value chain in electricity networks from large power planed generation, high voltage transmission networks, medium voltage distribution networks and local/regional low power household networks is challenged, due to bottom up renewable energy production and consumption within home networks and aggregation of prosumer activities via microgrid platforms with import/export to the mi-crogrid node of the distribution network.

The question regarding the future role of the regulation of operator platforms has several dimensions: Firstly, an increasing need for technical regulations, such as specifications of safety and liability regulations in shared mobility, ride sourcing and networked driverless vehicles application can be identified. Secondly, data protection and cyber security become increasingly relevant within the IoT. Thirdly, network neutrality regulation should not hamper the entrepreneurial search for new IoT applications and the required QoS guarantees of data packet transmission within virtual networks. Fourthly, if public subsidies for loss-making network services are granted, platform operators should also be allowed to participate in the competition process for subsidies, e.g. subsidies for public transit should not be limited to providers specialising in a specific mode of transportation. Finally, the future role of antitrust policy and market power regulation of platform operators is analysed. It is to be expected that operator platforms will not require a new paradigm of market power regulation. The market for taxi services should be liberalised and ride sourcing should no longer be forbidden. Although direct and indirect network externalities as well as the potentials of economies of scale are significant for operator platforms, they do not result in network specific market power. The key question is whether the interaction between platform operators and the providers of the underlying physical infrastructure raises market power problems, which then would require regulatory interventions. If, due to the absence of active or potential competition, the owner of a monopolistic bottleneck facility has network specific market power, this should be regulated to guarantee non-discriminatory access at regulated access charges. Platform competition should be enabled by access regulation. Only a platform which constitutes a monopolistic bottleneck infrastructure needs to be regulated.

Korsakaite, D., Biekša, D., Jasas D. “Electronic Trading Platform as the Catalyst for Biomass Sector Competitive Transformation and Growth: Lithuanian Case Analysis”

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Abstract

Discourse over competitive energy policies is yet rarely focused on biomass, disregarding the role that biomass holds globally. The paper presents Lithuanian case of combining swift growth of biomass-for-energy market with simultaneous implementation of a new regulatory market design exclusively built on competitive principles. The reform accounts for 6 years by now, and impacts of the reform are assessed. The paper explains the wider energy context pulling for the reform; outlines the implemented regulatory design of digital biomass market and adjustments of regulatory model in district heating; assesses impacts of the reform; formulates proposals for further market development and regulatory model upgrades.

Mathew, B. “Why now, a proposal to tax digital activities?”

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Abstract

Over the past several years, multinational bodies and tax jurisdictions independently proposed or implemented tax regulation for the digitalised economy. To what extent does digitalisation deserve to be a driver of tax reform? This paper suggests that the new international tax issues to be tackled are that of extensive application of digital technology and not that of digitalised business activity. Tax revenue risks are present for both digital and digitalised economies, reasons for which differ from each other. Business activity that cannot exist in the absence of ICT is known as extensive use of digital technology whereas using ICT to improve current business processes is an intensive use of digital technology. Hence the paper starts by exploring the relationship between e-commerce, e-business, extensive and intensive use of digital technology. How does the extensive use of digital technology cause tax policy issues? The paper delves into the relationship between digitally extensive activities and tax jurisdictions, indicating an incongruence with tax principles used to allocate taxing rights to the market jurisdiction. Digitally extensive activities do not have a strong incentive to strategize investment locations as jurisdictional investments are not imperative for digital transactions. The paper also suggests a difference between the customer jurisdiction and resource/service delivery jurisdiction (user) in the context of online advertising. These points are further highlighted, suggesting why taxable activities captured under the “digital services tax” are not completely justified for a separate tax on revenues. This paper concludes that digitally extensive activities cannot be blamed for tax avoidance when they have a weak relationship with tax jurisdictions from the very outset. For purposes of fairness, policymakers are not advised to single out and evaluate digital activities in isolation. This paper recommends that tax reform should be motivated by underlying principles that are relevant for the relationship between digital activities and tax jurisdictions.

Murati, E. “MaaS platform provider as a multimodal transport operator: vacatio legis in EU level on passenger rights in the multimodal context”

Presenting and Corresponding Author

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Abstract

Integrated and seamless mobility has been a futuristic vision of mobility for a few years already. Today, Mobility as a Service (MaaS) embodies that vision. It is a new transport concept that integrates existing and new mobility services into one single digital platform, providing customised door-to-door transport and offering personalised trip planning and payment options. In MaaS you can buy a single ticket or a monthly subscription. These could be used for one specific means of transport – e.g. train - or for combination of two or more means of transport. A multimodal travel suffers a fragmented legal base: each transport means has specific rules based in different legal sources (national or EU laws); there are no common rules on compensation and damages; multimodal travel chains are not covered by any legislation (no rules on rerouting or assisting when transferring between modes); the rights of passengers and the liabilities of carriers vary between transport modes; Hence, when a journey involves multimodal transport (i.e. when different modes of transport are used by a passenger one after the other to complete one journey), passenger rights cannot be guaranteed when an event occurring during one transport segment affects the following one if the latter segment is operated with another mode of transport.

The main assumption in this paper is that a MaaS platform is offering a single multimodal contract, allowing the researcher to investigate which are the duties and liabilities of acting as multimodal transport operator (MTO) and how passenger rights could be under challenge in a multimodal journey within EU legal framework. Therefore, my research questions in this paper are: what kind of liabilities bears MaaS provider acting as a multimodal transport operator towards its passenger? Which EU regulation is applicable to a multimodal passenger’s transport contract in case of a transport disruption?

The aim of this research is to describe MaaS from a legal context in EU level, highlighting the legal framework and status, possible legal obstacles and appropriate recommendations. Since MaaS is a new innovation and not yet much is known, an exploratory research design is chosen. Given that the concept of multimodal transport is well known in the transport of goods an analogic and comparative approach will be used. As for the expected results: firstly, to justify the need of a passenger multimodal transport contract; secondly, to identify the most relevant aspects and legal uncertainties of passenger multimodal transport, observing the peculiarities, similarities and differences with the multimodal transport for the carriage of goods. Thirdly, to identify, to formulate and to suggest a logical and satisfactory solution to the problems of legal nature.

Oliveira Cruz, C., Miranda Sarmiento, J. “Mobility as a Service platforms”

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Abstract

Urban mobility is experiencing a profound change. On the one hand, mobility patterns are becoming more complex, and typical home-work-home travel is no longer the rule, as journeys now typically connect multiple points in a rather inconstant pattern. This has changed the approach transport to planning, in that the existing transportation planning and operation approaches have been focused on the ability to identify typical home-work/school-home travel and plan the transport system accordingly. The traditional approach has been: forecast -> plan -> deliver.

The traditional transport system itself is changing. Despite being supported by public transport (bus+metro+rail) and the private car, new mobility solutions are emerging. These are characterized by greater flexibility, in that they take advantage of the “sharing concept” (e.g., bicycles, electric scooters, car-sharing, etc.), and, simultaneously, they provide solutions with lower GHG emissions. As a result, the typical forecast-plan-deliver paradigm is progressively being abandoned.

Urban mobility follows a fuzzier pattern, and even the urban transportation system behaves like an active organism where solutions are often quickly replaced. When a new solution is understood to be problematic, it is quickly abandoned. For example, a few years ago, segways seemed to be the answer for short-distance urban travel, but they have now been quickly replaced by electric bicycles and/or electric scooters, at a much lower cost and higher convenience to users.

This dynamic and evolving environment raises several new challenges at different levels.

With regards to travel payment, the typical model of a monthly pass vs. a one-travel ticket is no longer able to meet the demands of less stable patterns regarding utilisation and the payment system needs to

integrate different modes and mobility solutions. This means that there is a need to have an integrated system which allows the use of different modes, without the need to have different types of physical tickets. However, dynamic systems are also needed - which allow the sharing of revenue between the distinct modes and operators.

The technological development of mobile apps, RFID, Bluetooth, and QR codes, among others, together with the decreasing cost of these technologies, is facilitating the adoption and development of digital payment solutions.

The best digital solutions are Mobility-as-a-Service (MaaS) ones. This system transforms the physical transportation system into a commodity and takes advantage of the internet of things (IoT), i.e., by communicating real-time information regarding the transportation system capacity and its operation.

However, the onset of MaaS solutions is anything but linear. Several business models have emerged, with different partners originating from different industries (e.g., technological, transport operators, infrastructure managers, etc.), who have been developing their solutions, often in competition. It is not unusual to have different MaaS solutions in the same city which integrate different solutions.

Besides facilitating payment, eliminating physical tickets enables achieving a genuinely digital utilization system. MaaS also produces massive quantities of data, which are crucial for city and transport planners to be able to understand the dynamics of the mobility system and identify the bottlenecks of the system and act accordingly. From a public policy perspective, this data represents the fundamental basis for informed decision making for city management. However, bearing in mind that these solutions are primarily developed by private companies, concerns start to be raised not just about data privacy, but also with regards to data property.

Parcu, P.L. “New digital threats to media pluralism in the information age”

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Abstract

During the past years, social media have favored the rapid proliferation of news and information. Nevertheless, there are increasing doubts about the quality and diversity of online news. A limited number of players (i.e. so-called GAFAM), enjoy a high market share in the media markets, which allow them to act as digital gatekeepers. In particular, the concentration of economic power negatively affects the plurality of online media as well as the quality of online information via the spread of the ‘fake news’. The paper investigates what could be the role of EU competition policy in tackling the new digital threats. The high degree of market concentration in new social media, in fact, could trigger the enforcement of competition policy, either by sanctioning abuses by dominant digital platforms or by preventing economic concentrations.

Porcher, S., Saussier, S. “Public Versus Private Management in Water Public Services: Taking Stock, Looking Ahead”

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Abstract

Governments have largely turned to public-private partnerships (PPPs) to manage public services. Although it is difficult to analyze PPPs as discrete and alternative forms of public service organisation, they all constitute some forms of partial outsourcing of activities that contribute to the realisation of a public service. In water industries, the most common form of PPPs is the concession, in which a private firm finances and operates the public service of water while the infrastructure remains public. This report seeks to answer the question of whether PPPs have contributed successfully to the quality and improvement of water public services all around the world. The paper is organised in three sections. In the first section, the different supposed advantages and costs of PPPs are presented. The second section reviews some of the most important studies on the efficiency of PPPs in water industries. The last section provides some recommendations to improve the use of PPPs in water public services.

Wahyuningtyas, S. Y. "Governing Algorithm for Fair Competition in the Digital Market in Indonesia"

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Abstract

The use of big data and its processing mechanism through machine learning has become a cutting edge that helps boost e-commerce around the world. Indonesia is one among countries in the South East Asia where e-commerce grows immensely. With an even dependent society on digital technology, algorithms play an increasingly important role as a powerful tool of regulation in the digital market. However, algorithms as a set of a mechanism are often opaque and it could lead to a biased decision, for instance, due to poor quality input of data, poorly defined rules, lack of contextual awareness, or the occurrence of feedback loops. Hence, it is necessary to ensure that algorithms should be accountable. Algorithms could also put a test on competition law, when they are designed to harm competition or when the design results in the harm of competition. This study uses a legal comparison approach to gain insights and lesson learned from the EU competition law in dealing with cases that involve the use of an algorithm and relevant policies and regulations. A legal comparison with the Singapore Competition Act is also carried out, particularly in the merger case of Grab and Uber, to understand the differences of the approach taken by CCCS and KPPU that led to a different decision on the case. The paper aims at answering the following questions: First, which elements should be considered to detect the use of algorithms for anti-competitive behaviors. Second, whether we should and could govern algorithm regulation to ensure fair competition in the digital market. Third, which competition policy approach having been taken in Indonesia to tackle the problem resulted from algorithm regulation in e-commerce. The study focuses on the development of e-commerce in Indonesia.