

Leading problems and prospects in the regulation of the digital economy

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Abstract This paper tackles the issue of problems, experience and the pathways for development for the man and society in the digital economy. In particular, it focuses on the digital technologies and the information society. Moreover, the paper contemplates on the regulatory environment in the digital economy and discusses some of the crucial issues of this phenomenon such as taxation and cryptocurrencies.

Our results demonstrate that digital economy requires special measures of regulations due to its specific features and peculiarities. Electric payment systems and cryptocurrencies might speed up the process of money transfers and international payments, yet they pose numerous threats related to the anonymity of such transactions. Moreover, digital economy might bring both benefits and disasters such as cybercrimes and hacker attacks. But the most serious issue is that the development of the digital economy has been so unprecedentedly fast that the existing legislation is lagging behind its development in enormous proportions. Legislators need to think hard how to set up the limits for the digital economy operation and control without hampering its growth and potentials which are beneficial for the development of the economy and society.

1 Introduction

By joining the foundations of technological progress and innovation, the state can also create new markets for links, exports and imports that may be unknown or inaccessible to private investors or venture capitalists. The digital societies today represent the result of years of active cooperation between public and private sector players (David and Foray 2003). A range of innovative solutions and technologies have been tested and then implemented to make any the most advanced digital nation in the world. However, there is another dark side: the technological revolutions are disrupting economies and societies to a great extent (Niño-Amézquita et al. 2017; Strielkowski et al. 2017; or Gomber et al. 2018).

Digital technologies have permeated our daily tasks and interactions in the 21st century. The information society refers to societies in which the creation, dissemination, exploitation and manipulation of information is important for political, economic, social and cultural aspirations (Bailey et al. 2019). The information society has opened many possibilities for a broader social group than ever before. In addition, one can consider the relationship between the digital economy and disability. Participation of people with disabilities in the digital economy in a variety of national and platform contexts might be beneficial for both sides.

One more important issue of the digital economy is that it might help people with disabilities and other socially secluded groups. With Internet banking, work from home and webinars there is no longer a need to commute to work. Criticisms of digital work, platforms, and economics have been reiterated in the literature on the experiences of people with disabilities in preoccupation with digital technologies. It is well known that people with disabilities in different areas of life often experience bullying, exclusion, marginalization and rejection. When they go online, they often experience the complex interfaces of disability, technology, work, and self-confidence in the digital economy. On the other hand, the regular labour market can weaken and exploit structural inequalities

and barriers for people with disabilities. Many people would probably agree that new forms of digital work, work relationships, consumption patterns and community building for stranger with disabilities on twitch.tv, which is viewed by these people as an entrepreneurial space, may possibly be emancipatory. And then there is a virtual world of gamers, creators and streamer with disabilities to the digital disruption methods of disability service providers. There is a key issue in the relationship between digital platforms, the provision of services and the interest and representation of people with disabilities.

European Union (EU) also tracks the development of the digital economy using its own Index for Digital Economy and Society (DESI). This data allows EU Member States to track progress and identify where the problems still exist to facilitate policy and legislative action (Karnitis et al. 2019). With regard to the EU digital strategy, there are a number of initiatives to motivate girls and women to engage in digital studies and careers. Initiatives include the EU Code Week, the Digital Opportunity Program, Digital Skills, and Jobs Coalition, just to name a few. It seems that one should not look at the digital economy in isolation from other economic activities or consider it a substitute for any older type of business. The destruction of traditional business models is not a virtue. The livelihood of many people, especially the most vulnerable, depends on them and will continue to do so. The digital economy should therefore build on, adapt and promote economic activity.

This paper is structure as follows: Section 2 discusses the regulatory environment in the digital economy. Section 3 focuses on the issue of taxation in the digital economy. Section 4 contemplates about cryptocurrencies and the future of money in the digitalised world. Finally, section 5 concludes with some closing remarks and policy implications.

2 Regulatory environments in the digital economy

The digital economy creates a transparent, inclusive and sustainable path for growth and development. In order to achieve the goals ahead, policymaking in the modern digital economy needs to be reviewed (Chetty et al. 2018). The globalization of the digital economy has brought unprecedented growth to all sectors of the public and private sectors, enabling a globally accessible market.

While technology is potentially transformative, some countries can effectively facilitate and ensure the implementation of this promise by creating a favourable regulatory environment. Regional governments should set up the appropriate regulatory infrastructure and use digital payments in their interaction with citizens (Jankowski et al. 2018). Confidence-building measures are essential for growing participation in the digital economy. This is important because investment in new industries can be thwarted by inadequate regulation, the protection of incumbents, and the lack of additional policies, such as standards and data access (Wood et al. 2019).

Unintentional distortions, such as changes in investment or innovation incentives, or the introduction of barriers to the introduction of new business models, can be costly to the economy. These unintentional costs occur when the regulation is out of date or slow to catch up. In short, a failure to maintain the usefulness of regulation affects the ability of new companies to enter markets and spread new technologies throughout the economy. The regulation aims to enable more innovation in the private digital services sector and its effects should be restrained in the short term. Increased political risk further limits foreign investment and immigration, especially as neighbouring countries offer greater stability. Together, these factors dampen the potential economic impact of the new legislation.

Given the weak infrastructure and working conditions for private companies, the regulatory changes are welcome, but have a weak impact. The ability to transport large volumes of data seamlessly and quickly across borders can undermine national regulatory standards in areas such as data protection and consumer protection. Meltzer argued that such data restrictions limit access to digital commerce networks and online resources, and reduce the ability of companies to synthesize large volumes of data to significantly impact business models, reduce productivity, innovation, and enterprise competitiveness by forcing companies to invest in data facilities of lesser scale quality. While this wave of digitization has massive economic benefits, data localization could cause massive economic costs, he added. EU Digital Single Market advocates also call for a new telecom framework for businesses to improve spectrum coordination, as well as more modern, consistent copyright provisions across the EU to help consumers access digital content and protect businesses. Goods, people, services and capital must be able to move freely across national borders, and the differences between EU countries in terms of data protection and Internet law must be harmonized if there is to be a Digital Single Market. Critics warn that over-concentration on the EU could drive a wedge between Europe and the rest of the world as uniform rules could lead to digital isolation. Companies and organizations benefiting from a digital single market could also bear the burden of new legislation that must be adhered to internally and implemented.

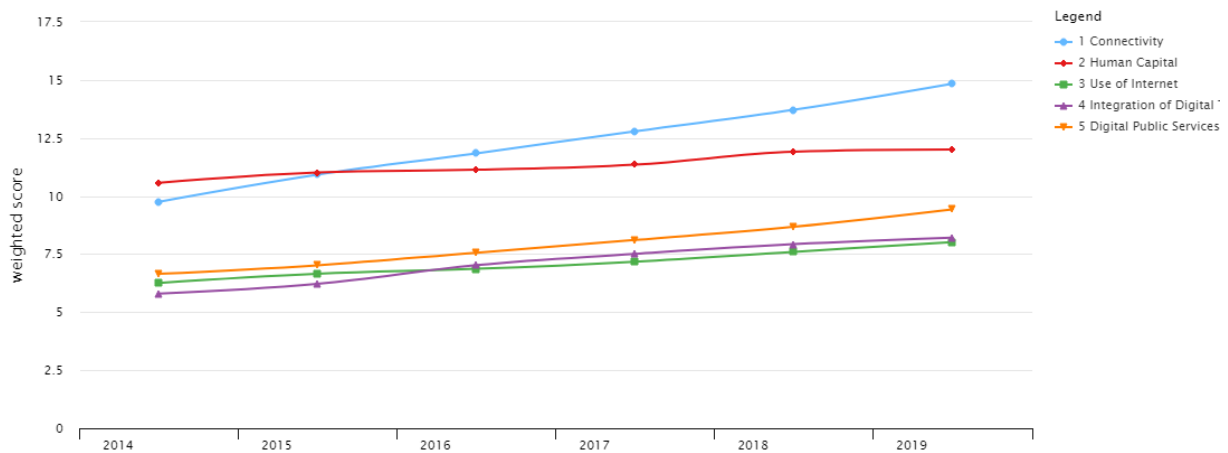


Fig. 1. Digital Economy and Society Index (2014-2019)
Source: European Commission (2019)

Digital technology also allows for cross-border transactions that are not adequately covered by national regulations such as consumer law or where national regulations vary significantly, such as data protection law. Many regulators have some catching up to do in a digital world and this can lead to unequal competitive conditions from which either established companies or less frequently new entrants can benefit. All too often, regulators focus on how to integrate innovation or new technology into the existing legal framework.

Legislation may also provide new interpretations of existing regulation, taking into account new insights based on market developments or technological innovations. Another option is to leverage the existing framework to a greater extent by enforcing it more rigorously in situations where it is required. Here we see different approaches and options depending on the authorities involved. An assessment of current regulation and enforcement may require national regulators to better target certain digital platforms. Traditional reforms had limited impact on economic growth as the horror stories continued and new rules with more coverage (many of the reforms highlighted in the report use digital approaches to address high-risk behaviour while reducing exposure and streamlining regulatory compliance. If India and China adopt such a digital approach to modernizing customs and trade rules, we can expect that to spread rapidly.

Of course, the scale of digitization or the use of digital technologies in industries and companies is very different. While some consider the digital economy as conceptually no different than the overall economy, some of the effects of disruptive digital technologies are very specific. Some argue that this momentum creates an incentive for platforms to grow above profit and engage in predatory pricing. They need to do this while working in existing frameworks and trying to foster innovation. They need to balance their responsibility to protect citizens by promoting innovation in new technologies and businesses, and to resist the need for overregulation. The next study will look at how regulators can leverage technologies and tools such as machine learning, text analysis, and design thinking to dramatically change their functionality, increase efficiency, reduce costs, and improve compliance and acceptance. There will still be many critical issues that policymakers and regulators need to address when regulating the digital economy. Regulators have focused on the integrity, trust and positioning of platforms in the market, and set rules of engagement and transparency to enable competition and improve interoperability opportunities.

3 Issue of taxation in the digital economy

The OECD published a document to provide an update of the proposed resolution on tax issues related to the digital economy. The report published last week includes a roadmap revising the rules for linkage and profit distribution.

Companies need to understand and structure their tax profiles to align with digital models. They also need to understand and plan all aspects of digital monetization taxation when it comes to strategic expansion, in particular licenses and intellectual property, and how to absorb debt and equity in a digital investment scenario. Furthermore, companies should take every opportunity to share their perspectives, both within the OECD commenting process and directly with tax officials in countries that are part of their global footprint. Financial services are all about fintech and the provision of electronic platforms for trading, selling or reaching consumers. They disrupt industries, jobs and, as it turns out, the basis on which governments charge and then collect taxes. There are currently three important proposals for new ways to tax the digital economy.

In the roughly 100 years that the international tax system, as we know it, existed, companies in the country where they are physically present were largely taxable. However, with the advancement of technology, this system has struggled to keep up. The most obvious example of this is the digital economy, where digital business models may require little physical presence in one country (magnitude without local mass). The digital business includes companies that add value through user engagement, typically by collecting data. Social media, search engines and online marketplaces are the three most obvious examples. In some kind of bartering, users get free social or economic interaction in exchange for providing valuable data to the digital service provider.

4 Cryptocurrencies and the future of money

The digital currency may be denominated in a government currency and issued by the issuer responsible for redeeming digital money for cash. Digital currencies, which are denominated in units of value or decentralized or automatic, are considered virtual currencies. As such, Bitcoin is a digital currency, but also a kind of virtual currency.

Bitcoin is an interesting example. It used to be an etalon for the digital currency and the model cryptocurrency praised by millions. Its design and the technology behind it made it impenetrable. Its prices spikes in the last yeas (see Figure 2) but what followed was a sharp decline followed by the raise of the price again (Aalborg et al. 2019). This development clearly demonstrates that digital currencies are still in their beginnings and many people are reluctant to believe in their potential, while some openly distrust them.

At international and national level, the use of cryptocurrencies is hotly debated and argued (Dierksmeier and Seele 2018). The regimes differ in various countries. For example, in Latin America, the Central Reserve Bank of El Salvador, colon (the national currency) and the United States dollar are the only unrestricted legal tender for which use is permitted of payment obligations in Germany. Any transaction made with virtual currency is the responsibility and risk of the person making the transaction. In the Middle East, the central bank of Jordan reportedly warned against the use of virtual currencies and said they were not legal tender (Campbell-Verduyn 2018). The warnings are similar to those of other countries: there is a high risk of devaluation, their value is very volatile, virtual currencies can be used for criminal activity, and there is a risk of total loss, as it is not supported by a central authority. 20In addition, the central bank has reportedly advised all banks, money changers, financial firms and payment service providers that they are prohibited from trading in virtual currencies.

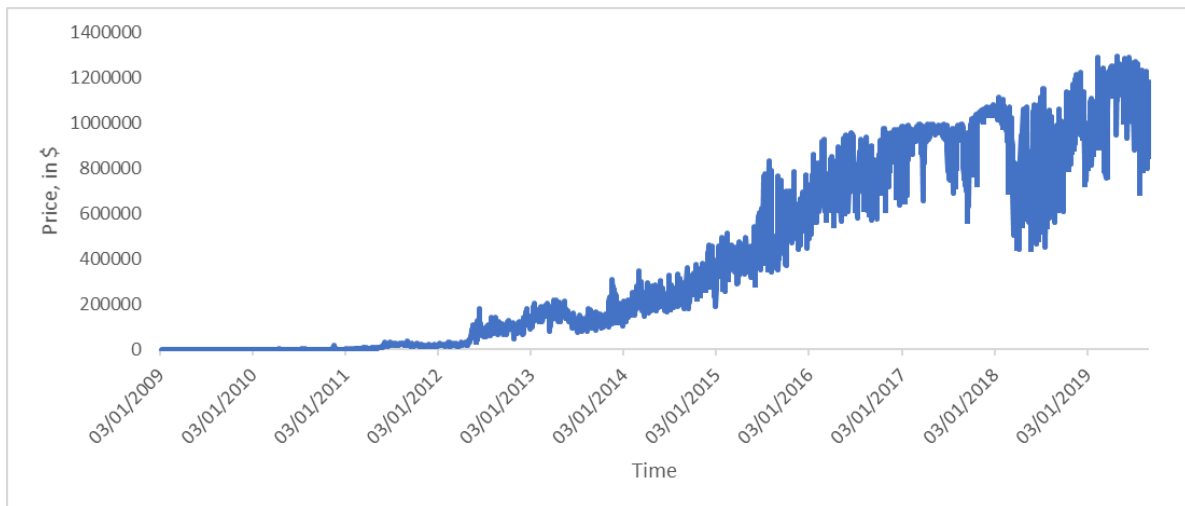


Fig. 2. The volatility of the price of Bitcoin (2009-2019)

Source: Coinmetrics (2019)

Nonetheless, many scientists warn against rejecting virtual currencies and noted that in many countries, especially developing countries, the use of virtual currencies could increase rather than the fiat currency of another country, such as the United States dollar (Dwyer 2015; Luther 2016;). The anonymity associated with using virtual currencies (e.g. Bitcoin transactions) increases the risk of potential misuse. Government regulation remains the key to virtual currencies that attract more users and potentially cover the risk of abuse. While some people argue that unregulated virtual currencies are a safe haven for money laundering and illicit cash flow, others present this as the ultimate instrument to combat identity theft and loss of personal financial information.

Many would agree that cryptocurrencies must be investigated around the world, but no official actions are longer demanded. There is a common belief that technological crypto-currency based innovation is highly

valuable to the global financial system, but voiced concerns about consumer protection and investor protection, the risk of money laundering and terrorist financing, tax evasion and volatility and stability of cryptocurrencies. Perhaps, the solution might be that cryptocurrencies should be considered more appropriately as assets rather than currencies, and that regulation should result from this position. Some countries, including Brazil and the United Kingdom, do not agree with this position, claiming that cryptocurrencies would not be regulated under such an approach. Even the post-Soviet countries are investing time and effort into investigating the potential of cryptocurrencies. In 2017, the financial regulators of Ukraine issued a joint statement on the status of cryptocurrencies in the country. According to him, cryptocurrencies cannot be classified as money, foreign currency, means of payment, electronic money, securities or money substitute. The regulators also stated that they continue to work to determine the legal status of cryptocurrencies and the legal regulation of transactions in these currencies.

5 Conclusions and policy implications

Generally, one would probably agree with the postulate that digital economy brings many positives and negatives. Surely, it is a product of the human progress and means a lot for the advancement of the world economy. Never before has economic activity around the globe been so smooth and functional. In the same time, digital economy also poses many threats most of which no one could predict even a decade ago.

There are few areas where governments can exert greater influence than the development of digital infrastructure and access in their countries. They should recognize the crucial role of the private sector in marketing new technologies and other innovations. But no country should fail to exploit the potential of digital technologies to significantly improve human productivity and quality of life.

In order to achieve greater involvement in the digital economy, there must be a deep understanding of the differences in access and acceptance among the populations of different countries. The digital economy has the potential to radically change the social environment and economic activity of Asia. It is already experiencing high growth, rapid innovation and widespread use in other sectors of the economy.

Digital transformation is a process that invests in technology, processes, people and systems to transform the way companies operate in the digital economy. It is indeed the transformation of the entire office culture, where processes are automated and digitized and affect every unit of an organization. The digital transformation is therefore not an easy task for large and small companies. Businesses face a series of digital challenges as they try to change their business.

One important issue of the digital economy that ordinary people should also learn how to live in the new digital age. In the era when banking is done online and all issue, from work-related to private ones, are communicated via social networks and Internet resources, it is crucial to obtain some level of digital financial literacy. Moreover, people should become aware of dangers cybercrimes and hacking might bring and teach themselves how to properly behave on the Internet. This is another important task for the policymakers and stakeholders today.

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