

Regulatory effectiveness in the era of digitalisation

Context

The rise of the **digital economy** is one of the defining features of the 21st century. **Digital technologies** affect societies and economies in many ways, including via new means of communication and collaboration; new products that feature a strong service component; the role of data as driver of economic growth; the automation of tasks with artificial intelligence (AI); and the emergence of new business models such as platforms. Digitalisation is therefore fundamentally transforming the way we live and work together. It has consequences for the well-being and cohesion of society as a whole; as well as deep impacts for businesses in all sectors, through effects on productivity, employment, skills, income distribution, trade and the environment.

Governments and regulators play a major role in encouraging digital innovation and in incentivising the development of these technologies for the benefit of society. They can foster broad public and consumer interests and limit any potential unintended negative consequences of these developments by providing general rules that reflect societal values and preferences. Often, however, regulatory frameworks lack the agility to accommodate the increasing pace of technological developments. Digital technologies also **challenge deeply the way governments regulate**: by blurring the traditional definition of markets; challenging enforcement; and by transcending administrative boundaries domestically and internationally.

The **pace of digitalisation and its impacts on society and markets** have been widely addressed by the OECD and others. Yet much less is understood and said on how the traditional regulatory functions of governments, including the application of good regulatory practices, should evolve with these transformative changes. It is therefore timely to engage in such work, especially since the digital transformation is an ongoing process that challenges regulations in place and creates new regulatory needs. Domains such as retail, finance, communication and entertainment have already “digitalised”. Others, such as healthcare or education, are still expected to change fundamentally with the growing use of data analytics and AI.

Challenges

Digitalisation presents great and **unprecedented opportunities**. However, considerable uncertainty remains on the evolution of such transformative technologies. Governments should proactively seek a deeper understanding of the potential implications for society as well as of the **critical challenges** these emerging technologies pose to their rulemaking activity. The challenges can be broken down into four broad categories: i) the pacing problem; ii) designing "fit-for-purpose" regulatory frameworks; iii) the regulatory enforcement challenges; iv) the institutional and transboundary challenges.

Pacing problem. Beyond the nature of digital innovation, the sheer pace of technological change itself fundamentally challenges contemporary regulation. Digital technologies tend to **develop faster than the regulation or social structures** governing them. While the disconnect between the technological pace and regulation has always been a concern, there is a growing consensus that digital technologies break new "pacing" grounds.

Designing "fit-for-purpose" regulatory frameworks. Digitalisation blurs the usual delineation of markets and sectors, as illustrated by the "new" convergence in telecommunications, media markets and **digital platforms**. It also confuses the traditional distinction between consumers and producers, as is the case with the rise of individual "prosumers" in the electricity market that both consume and supply energy to the network. This blurring of boundaries affects, inter alia, the scope of the regulators' mandate and activities. The economic properties of digital business also challenge the standard cost-based regulatory models as **price formation in the digital economy obeys different rules**. New forms of regulatory intervention may be needed to address emerging market failures deriving from information asymmetries in some digital markets (e.g. transactions of personal information in return for "free" digital products or services).

Regulatory enforcement challenges. Digitalisation challenges regulatory enforcement by **questioning the traditional notion of liability**. In particular, it makes it more difficult to apportion and attribute responsibility for damage or harm caused by the use of technology to end users. A specific example is provided by the difficulty to enforce copyright/property rights with the internet offering new ways to distribute content. Another example is the difficulty of attributing liability (to the vendor, the distributor, or the original equipment manufacturer?) when AI is involved.

Institutional and transboundary challenges. The traditional institutional framework underpinning regulations – around sector or activity-focused ministries and agencies – is also showing its limits when dealing with the **transversal challenges** raised by digitalisation. Digital technologies can indeed span multiple regulatory regimes, creating the potential for confusion and risks. Moreover, digitalisation pays no regard to national or jurisdictional boundaries and drastically increases the intensity of cross-border flows and transactions. It gives businesses **global reach** while being able to locate various stages of their production processes or service centres across different countries. This feature enables companies to "forum shop" or to avoid compliance when it comes to their physical presence, their internal tax policy, and their policy for data protection or other regulated areas. The mismatch between the transboundary nature of digitalisation and the **fragmentation of regulatory frameworks** across jurisdictions may undermine the effectiveness of action and therefore people's trust in government. It may also generate barriers to the spread of beneficial digital innovations.

Regulatory policy and co-operation are the cornerstone of effectiveness and efficiency

The answer to the pacing problem is not rushing into regulation as there is a real risk of getting it wrong. In some cases, a regulatory approach may not even be the best course of action. The traditional regulatory policy tools provide important opportunities to pause, consult, question and test the approaches that may help achieve general policy objectives. They can support governments in choosing between regulatory and alternative approaches to promote digital innovation while mitigating the risks. This can range from explicitly preventing the development and use of digital technologies; to adopting a "wait and see" approach in order to discover which perceived risks materialise; or setting fixed-term regulatory exemptions (such as regulatory sandboxes) for innovative entrants. Given the dynamics of digital transformation, it is likely that the appropriate (mix of) regulatory solutions will require periodic adaptations and constant government monitoring.

More than ever, a "whole-of-government" approach to rulemaking is needed to address the institutional challenges raised by digitalisation. In view of their cross-jurisdictional nature, regulating digital technologies calls for increased dialogue and coherence among government bodies. This may potentially require specific institutional responses such as: the establishment of thematic platforms offline and online bringing together key relevant players; and a more prominent role for regulatory oversight in sharing expertise and good practices across policy areas.

In response to this need, some jurisdictions have developed a range of institutional mechanisms to tackle fragmentation, including in the United Kingdom the Ministerial Group on Future Regulation and the Centre for Data Ethics and Innovation.

Given the level of technical expertise involved, the uncertainty surrounding digital developments and the overwhelming pace of digital transformation, governments need more than ever to actively engage a broad and diverse range of stakeholders, invest in foresight and horizon scanning, initiate regulatory impact assessments early in the policy making process, and carry out regular post implementation reviews. These are important steps to create and sustain regulatory solutions that are evidence-based and to capitalise on the expertise of those who are familiar with the technologies and their implications. Beyond widening the knowledge base for rulemaking, a broader public debate on the fundamental values and preferences of society may help refine the broader goals of regulatory policy.

A number of jurisdictions have started putting a strong emphasis on stakeholder engagement to respond to the opportunities and challenges arising from digital technologies. The 2018 Digital Charter of the United Kingdom brought together the government, the tech sector, and businesses and civil society to collectively address the challenges of digitalisation and find solutions. This involves making it as easy as possible for citizens to give their views and harnessing the ingenuity of the tech sector, and to look to them for answers to specific technological challenges. Denmark has launched a set of key principles to follow during rulemaking, in particular at the impact assessment stage, which highlight the importance of supporting companies' ability to test, develop and apply new digital technologies and business models.

Given the strong cross border effects of the digital economy, solutions limited to the domestic domain will no longer suffice. International regulatory cooperation is needed to avoid arbitrage; protect consumer rights effectively; and promote interoperability across regulatory frameworks and enforcement, whilst creating a favourable environment for the digital economy to thrive. Governments have also recognised the need to address cyber threats and harms together.

Responses to the trans-boundary challenges are emerging, notably through the development of an architecture of international and regional organisations and greater awareness at the domestic level of the limitations of unilateral action. As an example, Canada has enshrined the key principle of International Regulatory Co-operation in its new Cabinet Directive on Regulation.

Regulatory co-operation remains nevertheless challenging because of differing priorities and systems. The regulatory co-operation required to address the challenges of digitalisation will need to take into account these political economy factors, as well as make the most of the wide range of possible approaches (unilateral, bilateral, and international).



Next steps

With its *2012 Recommendation on Regulatory Policy and Governance*, its Regulatory Policy Committee work on International Regulatory Cooperation, and connection with markets through the Network of Economic Regulators, the OECD is uniquely placed to develop practical guidance on Good Regulatory Practice that enables the broad societal benefits of digital transformation, while mitigating the risks.

Looking ahead, there is a need for further analytical work and guidance to help policy makers navigate the domestic and international regulatory opportunities and challenges of digitalisation and support them in their consideration of regulatory responses. This could be done through: the development of a typology of relevant regulatory approaches to leverage the opportunities and mitigate the challenges of the digital transformation; the identification of the strengths, weaknesses and needed adaptations of existing regulatory policy approaches; and the consideration of how digital technologies can help resource-constrained governments and regulators to better regulate.

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