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Existing informational asymmetries in the operation of digital platforms could be removed by requiring them to provide access to their data and/or to certain algorithms deemed central. This would make it possible to implement regulation in real time and not ex post as is the case today, where the time taken to make decisions significantly reduces their effectiveness. It would also make it possible to address the limitations of ex ante regulation in the face of the unpredictable innovations and evolutions in the uses of these technologies. However, this approach requires strengthening the resources and competences of the regulators. Without a strong willingness on the part of the legislator to guarantee this, any regulation based on data will not bring effective results.

The definition of "structural" digital platforms must include all the dimensions present in this type of exchange organisation (multiple sides, ecosystem, technological infrastructure) and specify the negative externalities beyond the economic domain that require these platforms to be considered differently from other economic actors, and thus necessitate a separate regulatory approach. Without a precise definition, the legal construction to define this type of actor will remain fragile.

The regulation of "structural" digital platforms could be similar to the type of prudential supervision that can be found in financial markets, given that most of the financial flows on these platforms are real-time advertising flows that can be observed using APIs, to which the regulator could impose access.

As co-creators of the value of digital platforms, users must be included in their regulation. This regulation could rely on two complementary approaches. The first would be to require platforms to include a representation of users in their governance and decision-making bodies, as can be the case for companies with employees. The second would consist of the "platformisation" of the regulator, through the organization of user participation mechanisms (a digital platform) and the construction of adequate regulatory tools (indicators, algorithms, etc.).

KEY TAKEAWAYS

Digital platforms are heterogeneous and complex entities. Between market and company, they incorporate three main dimensions: the intermediation and animation of exchanges, an underlying technological infrastructure, and the constitution and animation of an ecosystem of partners.

The diversity of digital platforms calls for vertical regulatory measures, complementary to competition law, to address specific issues regarding different categories of platforms.

Digital platforms raise concerns beyond the economic and competition domains alone, and may generate negative externalities in the social and political field. This must be taken into account in their regulation.

Though it may be necessary to improve competition law, it is important not to subvert it. The aim of competition law is not in itself to produce European digital champions.

The accumulation of data by dominant actors can be seen as a potential barrier to market entry, and therefore it can be argued that opening up access to data and imposing interoperability between digital platforms promotes competition. This requires agreement on a common definition of interoperability. However, interoperability is not, per se, sufficient to achieve sufficient competition; the skills and resources deployed by digital platforms contribute to their competitive advantage, not merely their volumes of data.
With more than four billion users worldwide, digital technology has now entered our daily lives, transforming many economic and human activities. While there is little doubt about the benefits of this transformation—the crisis we are experiencing bears witness to them—the transformation also raises many concerns. The fact that many exchanges in certain activities are structured by a set of global players raises questions for the regulator and for society more broadly. These actors are often defined as “digital platforms.” The power they have acquired can be the basis of the problems they generate, leading to abuses of their dominance.

It is therefore competition law that is called upon to resolve these situations. However, while some situations may be characterized by the abuse of a dominant position, it must be recognized that many of the negative externalities caused by digital platforms are not strictly economic. With a very large number of users, the nature of the use of digital technology has evolved considerably, introducing regulatory issues that did not exist at the outset of the digital era. This online behavior is emerging as a challenge far beyond the legal and economic issues encountered during the initial period of the internet (privacy, copyright). The sharing of false information, hate speech and harassment, for example, are behaviors that have taken on a new dimension on online platforms. Social media networks contribute significantly to the restructuring of democratic space and the parameters of public debate. As a result, the issue of regulating digital platforms can no longer be addressed through the strict economic terms of competition law alone. The problem raises three questions: 1/ Which actors do we intend to regulate? This calls for reflection on the modalities of the governance regulation take? This calls for reflection on the modalities of the governance and the effectiveness of this regulation. 2/ Which attributes of these actors are to be regulated and controlled? This involves identifying negative externalities and their effects. 3/ What forms can this regulation take? This calls for reflection on the modalities of the governance and the effectiveness of this regulation.

Some digital platforms, because of the prevalence of their use among citizens, consumers, and businesses, as well as their global reach, are questioning their own classification. Is their impact across various aspects of society, public debate, social life and the economy, so significant that they should be considered separately as “systemic” or “structural” digital platforms? Some contend that these platforms’ structure and technological features enable an unequal distribution of power and influence, giving rise to issues of concentration, exclusive control over digital space, and the manipulation of public opinion. Others argue that they have created a new and powerful entity capable of shaping the future of society, the economy, and the political landscape. These arguments have led to calls for regulation and control, raising questions about the role of the state and the limits of intervention in the digital age.

a specific status and ad hoc regulation? This debate is emerging at the European level, with a strong push from France³, and will be at the heart of discussions around the future Digital Services Act⁴.

Whatever the answers to these questions, it is also necessary to question the capacities of regulators in the digital age, the modalities of their monitoring or supervision activities, the nature of the tools on which they can base their analyses, and the data to which they have access to observe real-time online activities. Moreover, because the issues at stake concern the massive use of digital platforms by citizens, consumers and businesses, rethinking the regulation of such issues without integrating these users in some way is tantamount to denying some of the transformations achieved by the platformization of online space. Yet most attempts at collaboration so far have resulted more in the artifice of consultation than in a meaningful integration of these stakeholders in the regulation⁵.

³ A working group dedicated to the regulation of digital platforms at the European level was launched on February 24, 2020.
⁵ One example among others is the development of the Christchurch Call on the moderation of terrorist content online. See Renaissance Numérique, “L’Appel de Christchurch et les enjeux de la modération du “ contenu terroriste “”, blog.seriously.ong, 23 May 2019: http://blog.seriously.org/l’appel-de-christchurch-et-les-enjeux-de-la-moderation-du-contenu-terroriste
A DIGITAL PLATFORM CONTAINS MULTIPLE DIMENSIONS

The law is rigorous: how can you regulate an actor without defining it first? Digital platforms are a complex object, between market and company, and a definition must be established. Digital platforms encompass three main dimensions that must be accounted for in their regulation. Each of these dimensions raises its own regulatory challenges.

INTERMEDIATING AND FACILITATING EXCHANGES

The definitions employed in French law emphasize the intermediation between two types of actors, acknowledging the two-sided or multifaceted nature of these organizations. An “online platform operator” is defined as any natural or legal person offering, on a professional basis, for remuneration or otherwise, an online communication service based on:

- the classification or referencing, by means of computer algorithms, of content, goods or services, offered or put online by third parties;
- or the joining of multiple parties for the purpose of selling a good, providing a service or exchanging or sharing content, property or a service.

This leads to a singular focus on the number of users, and usually on only one side of the relationship, and to the adoption of this criterion as defining the threshold at which the given actor is considered a digital platform. Indeed, the phenomenon of direct network effects is given most importance, despite the fact that other mechanisms are at play in the formation of a digital platform, notably two-sided effects. This latter effect should lead to the consideration of all sides of digital platforms, in order to precisely define these platforms and reflect on their regulatory issues. (See Table 1).

THE UNDERLYING TECHNOLOGICAL INFRASTRUCTURE

There are other integral components of a digital platform, such as its technological infrastructure, which play a central role in defining and organising exchanges on the platform. Platform design and functionalities are just as important as the exchanges that take place on them, and can be the source of certain problems, especially competition issues (algorithmic collusion, discrimination in transactions). The design of the services, and particularly the matching algorithms between the different sides of the platform, are at the heart of the digital platform model. In addition, the various levels of transaction intermediation make it possible to differentiate between digital platforms and to identify distinct issues requiring regulation. Therefore, a distinction must be made between digital platforms that completely internalize the transaction (Uber, Airbnb, Amazon), and digital platforms that only carry out part of the transaction (connecting users on LinkedIn). Within the platforms that internalise transactions, a further distinction must be made between platforms that automatically set the price using a real-time algorithm (Ad-Exchange, Uber), and other platforms where sellers or buyers set the prices (Etsy, Airbnb). The specific question of regulating algorithms emerges in different terms.

ASSEMBLING AND ANIMATING AN ECOSYSTEM OF PARTNERS

The nature and importance of the ecosystems assembled and animated by digital platforms vary from one type of platform to another. Through their technical infrastructure, many digital platforms support an ecosystem of actors who then rely on the platform’s tools and/or the platform’s ability to reach users. This dimension is based on the complementary nature of the offers (indirect and two-sided effects - see Table 1) organised by the infrastructure, in particular through the use of SDKs (Software Development Kits) or APIs (Application Programming Interfaces). There are several potential competition issues at stake here, including the influence of technical choices over

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6 This is the approach adopted in Law No. 2016-1321 of 7 October 2016 for a Digital Republic: (article 23, in translation) : “Art. L. 111-7-1. - The operators of online platforms whose activity exceeds a threshold of a certain number of connections as defined by decree shall elaborate and disseminate to consumers responsible practices aimed at reinforcing the obligations of clarity, transparency and loyalty mentioned in Article L. 111-7.”


8 See the definition on Wikipedia: https://en.wikipedia.org/wiki/Application_programming_interface
TABLE 1 - THE PRINCIPAL NETWORK EFFECTS

<table>
<thead>
<tr>
<th>Types of network effects</th>
<th>Définition</th>
</tr>
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<tbody>
<tr>
<td>Direct network effects</td>
<td>The value of a good/service increases with the number of users.</td>
</tr>
<tr>
<td>Positive feedback effects (or social network effects)</td>
<td>The value of a good/service is amplified in the eyes of a potential user by the membership of a member of their social network or, more simply, by the sheer number of users, or by the valuation mechanisms of the good/service (customer opinions, ratings), which they can observe.</td>
</tr>
<tr>
<td>Indirect network effects</td>
<td>When a highly popular good/service creates a rich offering of complementary goods and services. An offer that, in return, reinforces the value of the good/service that generated it.</td>
</tr>
<tr>
<td>Two-sided effects</td>
<td>Two-sided effects concern intermediary platforms (bi- or multi-faced markets) that bring together two or more types of complementary and interdependent agents. The value of the platform for agents on one side increases with the number of agents present on the other side.</td>
</tr>
<tr>
<td>Proprietary or vendor lock-in effects</td>
<td>The costs of switching the technology are so high that the user does not change the good/service.</td>
</tr>
</tbody>
</table>

11 “Pourquoi Amazon bascule autoritairement des milliers de fournisseurs vers sa marketplace”, LSA, 8 March 2019: https://www.lsa-conso.fr/pourquoi-amazon-bascule-autoritairement-des-milliers-de-fournisseurs-vers-sa-marketplace312936


referring and dereferencing. In other words, the basic control of the digital platform can be abusive and can limit the opportunities of the partners involved. The control exercised by digital platforms that make such technical resources available can also lead to abusive situations. Twitter has now banned third-party applications and is increasingly restricting applications developed on the basis of its APIs9. Google has fundamentally changed access to its Google Maps API by significantly increasing its prices, after having launched the service for free in 200510. In the U.S., Amazon switched thousands of its suppliers on its marketplace from the status of wholesaler to the status of direct retailer without giving them prior notice11.

These different technological dimensions (the intermediation and facilitation of exchanges, the technological infrastructure, the assembly and animation of an ecosystem) lead us to distinguish digital platforms from other economic actors with which they are commonly confused, such as Netflix (which does not fall into this category of economic actors). Thus, a digital platform can be defined as a governance structure for exchanges that determines who can participate, what role can be played, how participants can interact, and how disputes are resolved through protocols and technological standards to facilitate connection, coordination and/or collaboration among the actors in the resulting ecosystem.
THE DIVERSITY OF DIGITAL PLATFORMS CALLS FOR PRECISE REGULATION

Beyond these common dimensions, there is a wide array of digital platforms that deal with exchange structures of different natures, along with further externalities. Competition law alone cannot solve all the challenges that may arise in the organisation of exchanges on these platforms. The diversity of digital platforms calls for vertical regulatory measures that are complementary to competition law to address these specific issues.

On the basis of platform characteristics - i.e. the nature of their exchanges and the relative scale of the network effects they exploit - it is possible to distinguish categories of platforms that relate to distinct economic and societal issues and therefore to different regulatory concerns.

Communications networks have the strongest direct network effects of all platforms, because each user benefits from the addition of each new user. Their underlying purpose is to allow users to interact with one another. WhatsApp, Facebook Messenger, Slack, iMessage and Snapchat all serve this purpose. On this type of platform, it is crucial to recruit a maximum number of users. Possible additional features (such as image filters, payment, storage, etc.) are relatively less important for success in such a market than the number of users. These platforms are essentially governed by telecommunications law, and in particular by the European Directive 2018/1972 with regard to certain aspects (confidentiality, use of traffic and geolocation data).13

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Operating systems (and video game consoles) are ecosystems of users and developers and demonstrate both strong direct network effects (many applications that involve communication and collaboration become more useful with more users, for example in massively multiplayer games) and indirect effects (application developers want more users while users want more applications).

Each of these broad generic categories of digital platforms has its own logic and technological, economic, managerial and societal challenges. Recruiting third party vendors to a marketplace is indeed somewhat different from managing an ecosystem of developers. Further, within these marketplaces, there exists a wide variety of digital platforms that can be categorized according to the nature of the transactions enabled by the platform (see Figure 2).

Social media networks such as Facebook, Instagram, Twitter, Pinterest, Reddit, YouTube and LinkedIn combine the direct network effects of communication networks (the "social" part of their name) with the connection to marketplaces. Social media networks build audiences and then sell segments of these audiences to advertisers for targeted campaigns. For this type of service, the number of users is important. However, additional functions are also important, such as access to games or multimedia content provided by third parties.

Data networks are a new type of network that did not exist before digital technology made the collection, analysis and the application of large datasets economically viable. Waze and Yelp, for example, collect data that improve recommendations for their users. These data networks exploit direct network effects, meaning that once each user’s data is added to the network, the value of the service provided by the network increases for the users. However, there is often a threshold at which further data no longer improves the service14. For this reason, direct network effects are more limited in these cases than with communications networks.

Marketplaces facilitate transactions between two or more distinct groups and help to minimize transaction costs, resulting in a greater number of exchanges. The more sellers the marketplace adds, the better it attracts customers who can access a wider range of products and a high level of competition between sellers. Third party vendors, due to their sheer variety, complement the offer and act as complements, thus as indirect network effects. In this case, indirect network effects reinforce two-sided effects.

Cloud platforms (OVHcloud, Microsoft Azure, AWS, Google Cloud Platform, etc.) provide basic infrastructure and services that allow third parties to create applications and services which are sold directly to users. These digital platforms thus rely on significant indirect network effects, which themselves lead to possible lock-in mechanisms. However, lock-in effects are not as powerful on the basic services of these digital platforms because of the existence of technologies that allow for the transfer of servers from one cloud to another (container applications like Kubernetes).

Economic and competition concerns alone differ widely depending on the type of digital platforms in question. For example, regulatory issues relating to operating systems are distinct from those relating to marketplaces. In the case of operating systems, it is important to clearly distinguish between the technical layers, which themselves concern different actors and different economic issues (see Figure 3). Finally, these categories are not mutually exclusive. Some major actors in the digital economy, such as Alphabet, Amazon or Microsoft, have deployed several types of digital platforms, giving them a comparative advantage, particularly in terms of data collection.

The nature of the exchanges organized by digital platforms may involve goods, advertising, software, work, people, content or data. Clearly, the exchanges concerning work (Uber, Youpjob) raise questions related to social law and access to professions that go far beyond the question of competition law. Similarly, dating platforms (Meetic, Tinder, etc.) raise other issues, in relation to human rights15, respect for human dignity and even children’s rights in some cases.

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While certain aspects of competition law merit development (see Scenario 1 in Part III), the challenge of regulating digital platforms, which are complex and inherently varied, exceeds this approach. The fact that digital platforms pose problems beyond the economic and competition fields alone, and may generate negative externalities in social and political spaces, must be accounted for in their regulation. For example, the attention that public authorities devote to the capacity of social networks and social media networks to deal with the spread of toxic content raises social and democratic concerns. While we can expect improvements in the way these actors moderate their content, we must also be vigilant about the power these actors have over online expression: they have the power to set the rules of expression, to enforce them and to revise them. In this respect, their role can be likened to that of “mediators of our fundamental rights” and ought to raise questions about the balance of responsibilities in a state governed by the rule of law.

It is not the purpose of competition law to regulate these matters. It is therefore important to identify these different regulatory issues in detail in order to build an adequate regulatory framework. This is a key issue for characterizing certain aspects of the platforms that can be described as structural or systemic.

We distinguish six principal challenges for platform regulation (see Figure 4):
lead to compulsive behaviour. In addition, there may be issues related to the matching function in marketplaces. The listing or delisting of certain offers in favour of others may be considered discriminatory. Finally, the use of pricing algorithms can also be problematic from a competition perspective, even if this risk cannot always be proven.

**FIGURE 4 - THE PRINCIPAL REGULATORY CHALLENGES FOR DIGITAL PLATFORMS**

<table>
<thead>
<tr>
<th>Ecosystem</th>
<th>User behavior</th>
<th>Platform</th>
<th>Design of interactions</th>
<th>Functionalities</th>
<th>Algorithm (liquidity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other economic actors</td>
<td>Start-ups</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**CHALLENGE 1: THE DESIGN OF EXCHANGES**

Multiple issues exist in the operation of certain platform functionalities and services. These may be economic, and fall within the scope of competition law, or they may concern the social and political sphere. They may relate to the design of services that facilitate certain inappropriate behaviour, either by easing them or by making them economically viable. For example, anti-democratic sites may finance themselves through online advertising marketed through programmatic advertising methods, with advertisers unaware of the media on which their banners will be displayed. In these design issues, the choice of using certain incentivising mechanisms in the interfaces, can lead to compulsive behaviour. In addition, there may be issues related to the matching function in marketplaces. The listing or delisting of certain offers in favour of others may be considered discriminatory. Finally, the use of pricing algorithms can also be problematic from a competition perspective, even if this risk cannot always be proven.

**CHALLENGE 2: THE LOGIC OF AN ECOSYSTEM**

The rationale of the ecosystem leads to multiple mechanisms of interdependence on the digital platform, among which it is possible for the platform to take advantage of its position in order to impose abusive rules on its partners, for example by authorizing or not authorizing actors to join the platform or by constraining their behavior on it. It should be noted that the abuse of economic dependence already exists in economic law and that it can be used to address many situations. In addition, the European P2B Directive (Platform-to-Business) settles the essential issues in this relationship from an economic perspective, notably regarding referencing/dereferencing, which often resembles a similar problem to the central purchasing agencies in the mass retail sector. It appears that French law, and henceforth European law, addresses this area.

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17. See e.g. the Competition Authority’s Decision No 19-D-26 of 19 December 2019 on practices in the sector of search-related online advertising: [https://www.autoritedelaconcurrence.fr/sites/default/files/integral_texts/2020-02/19d26.pdf](https://www.autoritedelaconcurrence.fr/sites/default/files/integral_texts/2020-02/19d26.pdf)
20. See definition on Dalloz: [https://www.dalloz-avocats.fr/documentation/Docuement?id=674201049672900005](https://www.dalloz-avocats.fr/documentation/Docuement?id=674201049672900005)
CHALLENGE 3: INTERACTIONS BETWEEN THE ACTORS IN THE ECOSYSTEM

Exchanges between users of social networks or social media networks can involve cyber-harassment, online hate, misinformation, political advertising, or marketplace scams. Here, the regulatory issue at stake does not concern the behaviour of the digital platform per se, but rather the behaviour it authorises or permits. A number of issues surround these problems: in relation to the liability regime applicable to the platforms, or in relation to the privatisation of the rules of law that only the platforms can render technically effective.

CHALLENGE 4: RELATIONSHIPS BETWEEN DIGITAL PLATFORMS ("COOPERATION")

The example of Google and Apple regarding mapping and search illustrates the concept of “cooperation”. Digital platforms, as powerful as they may be, require access to other digital platforms. This access may put them in direct competition with one other and may result in one platform blocking or limiting another from accessing its services. The cases are numerous: Google’s refusal to open YouTube to Windows Mobile, technical specifications (SDK, API) limiting certain harboring of services and applications. Commercial agreements can also limit competition, as can be inferred from the commercial agreement between Apple and Google on the default search engine in iOS.

CHALLENGE 5: RELATIONSHIPS WITH THIRD PARTY ECONOMIC ACTORS

Digital platforms acquire many companies to strengthen their products and services. On the other hand, some such acquisitions may have the sole purpose of removing a potential competitor from the market. Assessing the anti-competitive nature of such practices can be difficult, particularly in areas where the talent market is not always able to produce the necessary skills due to insufficiencies in the education and training system. As a result, some acquisitions take the form of hirings rather than product purchases. This is known as acquisition-hiring. In addition, when the buyout of a startup consists of purchasing software that then becomes a function of the platform, thereby exposing it to millions of users, it is difficult to believe that such a buyout leads to an overall decrease in consumer welfare.

CHALLENGE 6: IMPACT ON SOCIETY

This issue transverses the other regulatory challenges and brings us back to the platform model as such. Negative externalities manifest themselves in the social and political sphere, particularly in the public space and in its transformation through the use of certain digital platforms. These digital platforms raise political concerns because of their influence on our democratic life and their prevalence in our daily lives. Competition law is not designed to regulate such problems. Thus, breaking up Facebook, Instagram, and WhatsApp, for example, will not solve the problems of misinformation, online hate, or cyber-harassment. Simply dismantling these platforms would not solve the social problems that exist on them.

26 See the definition on Wikipedia: https://en.wikipedia.org/wiki/Acqui-hiring
In the end, it must be acknowledged that the regulation of digital platforms cannot be reduced to a simple adjustment of competition law, since competition law was not created to resolve problems beyond competition. Though some modifications to competition law are necessary, the challenges raised by digital platforms require a new regulatory approach.

What regulation would then be most suitable for digital platforms, and in particular for those presenting a particular standing? Faced with this last question, several avenues are possible and many actors are mobilizing to advocate in favour of one or the other of them: competition law, telecommunications law, consumer rights law, distribution law, media law. Few propose a prudential approach in the form of financial market supervision which could resolve certain regulatory difficulties, i.e. the specific limitations of each legal approach and the difficulties in articulating some of them.

28 See the Competition Authority’s position paper of 19 February 2020: https://www.autorite delaconcurrence.fr/fr/article/debat-sur-la-politique-de-concurrence-et-les-enjeux-du-numerique
29 See the definition of macro-prudential policy by the Financial Stability Board: https://www.economie.gouv.fr/hcsf/politique-macroprudentielle
The regulation of digital platforms can be imagined according to three scenarios. The first scenario is based on the idea that changes to competition law alone can improve the situation in markets with dominant digital platforms. This scenario will not address the many social and political issues that some digital platforms generate, but it has much support.

The second scenario consists of modifying existing regulations in sectors with digital platforms operating simultaneously across several markets, and fostering coordination among the regulators in order to better articulate regulatory action.

The third scenario favours a new approach to digital platforms, identifying some of them as playing a specific role and thus creating a dedicated supervisory body to monitor their activities. This approach requires in-depth legal reflection in order to arrive at a robust and shared definition of these actors. Finally, it is possible to imagine a combination of these three scenarios.

Whatever choice is made by the French and European authorities, it remains necessary to emphasize the concrete methods that the regulator will be able to draw on to ensure the effectiveness of the regulation. To this end, the design of a supervisory mechanism must genuinely and fully integrate the novel features of digital platforms, dynamic and technological entities, and not ignore the role of their users.

**SCENARIO 1: MODIFYING COMPETITION LAW ALONE**

Amending competition law on its own - bringing, in our view, limited effects to economic subjects and to the negative externalities that exceed the economic field - presents the minimum option. As a result, regulation would be only partially improved without fully accounting for the non-economic issues that are now the focus of citizens’ attention and which have potentially harmful effects on society as a whole.
In France, the Competition Authority has recently published a note on the subject, in which, in order to adapt to the speed of the digital economy, it proposes strengthening ex ante procedures in merger operations, as well as modifying the notification mechanism at the European level. It seeks also to propose a definition of a "structural" digital platform, according to three criteria: market access, market regulation and the importance of the digital platform to third parties. The authority thus defines a structural digital platform as:

1) A business that provides online intermediation services, in order to exchange, buy or sell goods, content or services, and
2) Which holds structural market power
   a) Due to its size, financial capacity, user community and/or the data it possesses,
   b) Allowing it to control access to or significantly affect the functioning of the market(s) in which it operates,
3) With regard to its competitors, its users and/or third parties who rely on access to its services for their economic activity.”

30 See the European General Regulation on Data Protection.
31 Facebook Inc. i.a., “The use of abusive business terms pursuant to Section 19 (1)”, GWB Decision: https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Entscheidungen/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=5; see the presentation of the decision by the President Andreas Mundt, “Implications of the German Facebook Decision”, April 2019: www.bundeskartellamt.de/SharedDocs/Publikation/EN/Reden/11Andreas%20Mundt%20-%20%20Global%20Competition%20Law%20Centre.pdf?
If it is necessary to improve competition law in the era of platformization, it is also critical not to subvert it. Changing the purposes of competition law risks weakening it. Many voices in Europe are calling for the transformation of competition law into a tool for industrial policy, or for the regulation of areas that do not concern the economy exclusively. Under no circumstances should competition law constitute an industrial policy. While the subject of concentration thresholds merits discussion, particularly given that competition issues have evolved considerably in certain industries, and at ever larger scales, the objective of competition law is not in itself to bring about the emergence of European digital champions. Here, we can question the recent attempts by French parliamentarians to amend national competition law, at the risk of contradicting existing European law and clashing with other states: are these changes the right method for constructing strong European law?

Many actors have outlined possible avenues for the reform of competition law. Some of these bear examining in depth.

First, “market definition” is an issue that could evolve to the extent that platforms, bi- or multi-faced, raise the problem of defining the relevant market with force and acuteness. The principles for pricing some of these models, widely described by economists, lead to the existence of free services on one or more sides of their model. This free access is inherent in the two-sided effects that digital platforms seek to maximize. As a result, there is a tendency to consider only the paid side or sides in the analyses, thus limiting the analysis of the definition of the market and of the alternative offers. For example, in the area of audiovisual media, free online video offers are not considered as substitutes within the paid television market, nor are off-market offers of sites offering pirated work. Ultimately, these analyses minimise the transformations under way and prevent market recomposition by employing an outdated approach.

Another point to consider is the evaluation of consumer welfare. How can we assess the loss in the welfare of users who access services free of charge, i.e. how can we objectively assess the effects of a possible reduction in competition for the consumer? Similarly, regarding predatory acquisitions, the issue at stake, if such a notion were introduced, would be to measure the effect on consumer welfare of the withdrawal of small actors from the market, for example a reduction in the ability of “multi-homing”. Thus, in the face of this digital transformation, there is a need to reassess our measurement of the preservation and enhancement of consumer welfare.

With regard to the opening of data, it is possible to consider the accumulation of data by actors already established in the market as a potential barrier to entry for other actors, and therefore to consider that opening up access to data and imposing interoperability between digital platforms would promote competition. Such an open approach could find inspiration in the opening up of banking data made possible in Europe by the Payment Services Directive, known as the “PSD2”. However, a common definition of interoperability must be agreed upon. Indeed, this concept brings a range of options, 38 See the analysis of the French Competition Authority in its review of the commitments undertaken by Canal+ at the time of the TPS takeover: https://www.autoritedelaconcurrence.fr/fr/communiques-de-presse/lautorite-de-la-concurrence-modifie-le-dispositif-de-mesures-qui-avaient-ete
41 Henri Isaac et al., “Restaurer le primat du consommateur dans l’analyse concurrentielle”, Concurrences n° 1-2017
42 For more information, see the Banque de France website: https://www.banque-france.fr/stabili-té-financière/secure-des-moyens-de-paiement-scripturaux/2eme-directive-sur-les-services-de-pailement

from data portability in the strict sense, to data standardization\textsuperscript{43}, to the sharing of a protocol allowing platforms to connect to one other, such as the SMTP open messaging protocol\textsuperscript{44}. From the perspective of citizens, the first option would render effective a right that is already incorporated in our legal framework, that of data portability\textsuperscript{45}. However, this could have limited effects. In the case of social networks or social media networks, for example, the potential value loss of social interactions for a user could constitute a lock-in effect. A second option would be to allow the user the freedom to leave a platform which no longer offers them value without losing the value of their social interactions (not only of their data), thus lifting this lock-in effect\textsuperscript{46}. The value of interoperability does not stop with social networks and social media networks. The European Commission points in particular to the difficulties that companies encounter with regard to the portability of their data between cloud platforms\textsuperscript{47}. Similarly, self-employed workers on a work platform should have the right to full and effective portability of the platform’s data related to their usage, so that they may maintain their investment in the quality of their services and are not penalized by switching platforms. Without real portability, the competition between these digital platforms is limited. However, from the point of view of the challenger companies, there is no consensus on interoperability. Some well-established niche operators fear that this openness could strengthen the main market players by giving them free access to their data, given the latter’s capacity for innovation.

In general, interoperability is not, 	extit{per se}, sufficient to establish sufficient competition, since it is moreover the skills and means deployed by digital platforms that give them a competitive advantage, not the volumes of data in themselves\textsuperscript{48}. However, while interoperability does not necessarily solve the issues of direct competition, it can foster innovation and the emergence of other services. After two years of opening banking data in Europe, the PSD2 Directive has led to the emergence of a number of fintech companies, but at this stage there are no actors capable of competing with the banks that retain sizeable advantages in the market: the advantages of creating money and granting real estate loans.

Finally, there is the question of the resources available to the competition regulator, which must necessarily be adjusted to meet these new challenges. The growing importance of the analysis of increasing volumes of data in controlled transactions and the analysis of these markets requires a strengthening of the regulator’s abilities. Without the strong will of the legislator to guarantee it, any regulation related to data will not be effective. Given the growing shortage of data science skills in Europe\textsuperscript{49}, the question of the remuneration of skilled data professionals is a central topic for reflection in the context of the civil service index grids\textsuperscript{50}. The subject is not limited to the recruitment of data scientists alone, but to the recruitment of a broader team with the many skills required for this work. An organization that is able to extract value from data brings together mathematical skills (data scientists), computer skills (data engineers, data architects) and business

\textsuperscript{43} In 2018, Google launched the Data Transfer Project, in which Facebook, Microsoft, Twitter and Apple are now also partners. This project essentially consists of standardizing data in order to enable direct data transfer between digital platforms. It should be noted that this voluntary approach demonstrates the recognition by these players of the shortcomings of the current framework. To find out more about the project: https://datatransferproject.dev

\textsuperscript{44} This position is taken up by the EDRi in its contribution to the future European Digital Services Act: “Platform Regulation Done Right”, 9 April 2020: https://edri.org/wp-content/uploads/2020/04/DSA_EDRiPositionPaper.pdf

\textsuperscript{45} Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

\textsuperscript{46} As an example, the World Wide Web Consortium (W3C), a global standards body, has developed an open standard for decentralized social networks, called ActivityPub, which is now used by more than twenty actors: https://www.w3.org/TR/activitypub/

\textsuperscript{47} “A European Data Strategy”, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 19 February 2020.


\textsuperscript{49} In 2018, the strong increase in demand from data professionals continued (+7%). The estimated gap increased by 10% to around 571 000 unfilled posts in the EU28 (496 000 without the UK), corresponding to 7.2% of total demand (7.9% without the UK). By 2020, the gap is expected to reach 641 000 unfilled posts in the EU28, corresponding to 7.8% of total demand (9.1% without the UK, where slower growth is expected due to the impacts of Brexit). See “Final results of the European Data Market study measuring the size and trends of the EU data economy”, 2019: https://ec.europa.eu/digital-single-market/en/news/final-results-european-data-market-study-measuring-size-trends-eu-data-economy

\textsuperscript{50} A 25 year old French data scientist is paid on average €51,000 a year. Source: 2019 Kaggle ML & DS Survey
SCENARIO 2: STRENGTHENING ALL REGULATION

Scenario 2 consists of the improvement of competition law (see Scenario 1) along with other rights. The objective would be to adapt all regulations to the digital age. This scenario requires better coordination between regulatory authorities in order to address issues in a meaningful way and to avoid potentially contradictory decisions. This scenario is already taking shape in France with the signing of agreements between independent administrative authorities.

The memorandum published on July 8, 2019 jointly drafted by seven independent administrative authorities and independent public authorities⁵¹ - the Competition Authority, the Financial Markets Authority (Autorité des marchés financiers, AMF), the Transport Regulatory Authority (Autorité de régulation des transports, ART, ex-ARAFER), the Electronic Communications Regulatory Authority of Postal Services and Press Distribution (Autorité de régulation des communications électroniques, ARCEP), the National Commission for Data Processing and Liberties (CNIL), the Energy Regulation Commission (CRE) and the Higher Audiovisual Council (Conseil supérieur de l’audiovisuel, CSA) - concerning data-based regulation is a first example of this coordination between regulators. This was also the case with regard to the protection of minors from exposure to pornographic content online⁵².

While such coordination is desirable, its effectiveness may be questioned in matters where the prerogatives of the regulators overlap, or where different interpretation is possible between them⁵³. Moreover, while this coordination contributes to capacity building among these bodies, in particular by sharing their reciprocal competences, it also requires the strengthening of their instruments and their qualification with the support of the legislator. An illustrative example is the entry into force of the General Data Protection Regulations (GDPR). This has been accompanied by an uneven and often insufficient increase in the power of data protection authorities across Europe⁵⁴.

SCENARIO 3: CREATING AD HOC SUPERVISION FOR SPECIFIC DIGITAL PLATFORMS

This scenario, which could be included in the framework of the future European Digital Services Act, consists of the creation of a specific status for certain digital platforms.

At this stage, the definitions are confined exclusively to the economic field (see the definitions proposed by the competition authorities in the text box of scenario 1). It is possible to consider a policy option that is broader in its approach and that addresses all of the identified negative externalities. Such an approach requires building a robust and shared definition of the notion of a "structural digital platform". It must include all the dimensions present in this type of exchange organisation (multiple sides, ecosystem, technological infrastructure) and specify the negative externalities beyond the economic field that require these platforms to be considered differently from other economic actors, and therefore require a separate regulatory approach.

In this respect, the simple criteria of size, number of users, and financial and/or data capacity are not in themselves sufficient to establish the structural nature of such an organisation and to distinguish it from other major actors.

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⁵¹ See “Coopération entre régulateurs : sept régulateurs publient le fruit de leur approche commune sur “la régulation par la donnée””, CSA, 8 July 2019: https://www.csa.fr/Informations/Presse/Communications-de-presse/Cooperation-entre-regulateurs-sept-regulateurs-publient-le-fruit-de-leur-approche-commune-sur-la-regulation-par-la-donnee


⁵⁴ Brave, “Europe’s governments are failing the GDPR”, 27 April 2020: https://brave.com/dps-re-port-2020/
in the economy. It must be the potential negative effects, beyond the realm of economic exchanges, that make certain digital platforms potentially specific organisations.

Without a precise proposal for the definition of these effects, the legal structure remains fragile; in any case, it is impossible to understand these effects on sole basis of economic criteria. Indeed, it could be found that classical economic actors fall under the scope of such a definition. For example, the purchase of small companies or of patents to remove them from a market is not exclusive to digital companies, as evidenced by the private label practices widely present in distribution, as well as the delisting practices widely practiced by distributors. It is therefore necessary to identify criteria that go beyond the purely economic domain, because what is at stake in the regulation exceeds this strict domain.

If such a definition is to be reached, it is then important to specify the type of regulation that should be established. It could resemble the prudential supervision that exists in financial markets. Indeed, the financial flows of the digital platforms potentially concerned by such supervision are for the most part real-time advertising flows observable from APIs, access to which could be imposed by a regulator. A European supervisory agency, modelled on the supervision of financial markets by the European Securities and Markets Authority (ESMA)55 at the European level or the AMF56 in France, could be responsible for enforcing European rules on these platforms and for ensuring that decisions concerning their design and operation do not deviate from these rules.

For such a scenario to be imagined, the possibility of geopolitical consequences should be considered (as seen with the recent frictions between France and the United States over the tax on digital services). It is therefore important to anticipate such reactions and to prepare a response, notably by ensuring the solidarity of European leaders on this subject prior to the implementation of such regulation.

To avoid this possibility, transcontinental supervision could be imagined around certain kinds of negative externalities and carried out by a global body such as the United Nations. A multi-stakeholder forum like the Internet Governance Forum, where a number of these externalities are discussed, could be given a stronger role or could in turn inspire the creation of an agency with enforcement power57. However, as nations increasingly diverge in their approaches to the internet and struggle to impose their own standards in the digital field58, achieving cohesion at this scale appears more complicated than ever before.

Finally, it is important not to lose sight of the fact that the tools of digital platforms and user practices are evolving rapidly, and the implementation of a regulatory framework is struggling to keep pace with rate of this innovation and of usage developments. It is in this context that we must not only reflect on the purpose of regulation, but more importantly on its modalities and means, in order to ensure that it is not perpetually out of step with these evolutions.

57 At the opening of the Internet Governance Forum held in Paris in 2018, French President Emmanuel Macron suggested that the Internet Governance Forum be directly attached to the United Nations Secretary-General with a dedicated secretariat: https://www.elysee.fr/emannuel-macron/2018/11/12/discours-du-president-de-la-republique-emmanuel-macron-lors-du-forum-sur-la-gouvernance-de-linternet-a-lunesco

58 “Technology: how the US, EU and China compete to set industry standards”, Financial Times, 24 July 2019: https://www.ft.com/content/0c91b8b4-92bb-11e9-aecf-2b1d33a3e271
Whatever scenario is ultimately accepted, it is critical to develop a comprehensive overhaul of the regulatory framework. Indeed, digital platforms are by nature dynamic objects, due to the constant evolution of their ecosystem and use of their services by third parties. Their activity is based on massive real-time data processing and the subsequent reliance on algorithms. Regulating such entities requires adapting the methods and tools of the regulators.

Significant informational asymmetries exist in the operation of digital platforms which could be addressed by requiring them to open up access to their data and/or to certain algorithms considered central (those used for matching or pricing, content ordering and filtering). This would allow the implementation of real-time regulation rather than ex-post regulation, as is the case today, and where the time taken to make decisions significantly reduces their effectiveness.

This would also make it possible to overcome the limitations of ex ante regulation in the face of the unpredictable nature of future innovation and developments in the uses of these technologies. The transparency thereby achieved would enable the regulatory authority to base its decisions on factual data stemming directly from the digital platforms. This type of mechanism could be applied to many regulatory issues: for example, market or service quality monitoring, analysis of possible collusion and the enforcement of compliance requirements. Such regulation could be based on a wide variety of data: technical, commercial, behavioural, financial. Of course, this would call for fundamental reform to the design of the regulatory authority.

Furthermore, by relying on real-time data and on facts (evidence-based regulation), it is possible to conceive of regulatory intervention unlike what has prevailed up to now. Indeed, the real time detection of possible malfunctions would enable direct adjustments by the digital platform, which could result in a type of self-regulation under the control or the permanent supervision of the regulator. It is important to avoid the types of biases seen in recent texts that have emerged to regulate online content, particularly in France, and which have led to a form of privatization of the regulation of the digital platforms that constitute our democratic space.

Between these two possibilities, there are multiple options that involve further stakeholders: users of digital platforms, citizens’ associations (consumer protection, rights defenders, etc.), relevant local and regional authorities, and
was constructed, on the basis of multilateral mechanisms such as the Internet Engineering Task Force (IETF) and the World Wide Web Consortium (W3C). These mechanisms should be replicated at the level of the digital platforms themselves and of the regulator. However, unlike the aforementioned bodies, the regulator must be responsible, along with the digital platforms, for enabling users to participate effectively in regulation, without limiting this governance to a narrow circle of technophiles. Moreover, in a state governed by the rule of law, it is the responsibility of the regulator to drive regulation.

User-inclusive regulation can be considered in two complementary approaches.

The first approach would be to impose on digital platforms a representation of users in their governance and decision-making bodies, as can be the case for companies with employees. This may be particularly relevant for digital platforms that rely directly on connecting people and work, and for contributors to digital content sharing platforms. Only users with a minimum use of the digital platform should be eligible, which should logically exceed a significant period of regular use, in order to ensure the person’s continued involvement in this activity and to provide stability to such a body in the long term. This could be accompanied by the availability of contributors’ activity data through an API which could be the basis for collective actions based on their data (data unionization) and a right to the portability of their acquired reputation (reputatio n portability) on the digital platform, rather than their data alone.

The second method would consist of organising user representation by offering them the possibility of participating directly in regulation by means of a digital platform put in place by the regulator, which would aggregate feedback and disputed cases. Structuring the billions of users of these digital platforms would give them a significant weight in the dialogue with the platforms, in order to impose the principles which should be respected.

In this respect, inspiration can be drawn from the way in which the internet even competitors. However, democratic leadership should promote their development and maintain control over these processes.

Introducing the users of digital platforms into the regulation is a logical response to the fact that the users are co-creators of value on these platforms, through the sharing and exploitation of their data. User-inclusive regulation can be considered in two complementary approaches.

The first approach would be to impose on digital platforms a representation of users in their governance and decision-making bodies, as can be the case for companies with employees. This may be particularly relevant for digital platforms that rely directly on connecting people and work, and for contributors to digital content sharing platforms. Only users with a minimum use of the digital platform should be eligible, which should logically exceed a significant period of regular use, in order to ensure the person’s continued involvement in this activity and to provide stability to such a body in the long term. This could be accompanied by the availability of contributors’ activity data through an API which could be the basis for collective actions based on their data (data unionization) and a right to the portability of their acquired reputation (reputation portability) on the digital platform, rather than their data alone.

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This type of regulation, associating a variety of actors, draws on the logic of digital platforms themselves by organizing regulation according to the same principles and by building adequate regulatory instruments (indicators, algorithms, etc.).

In this respect, inspiration can be drawn from the way in which the internet

59 For example, Facebook has recently instituted an “Oversight Board”: https://about.fb.com/news/2019/09/oversight-board-structure/. While this approach aims to help the company meet the challenges of content moderation and the requirements of the new regulations, it is nonetheless a tool at the disposal of a company and must in no way replace the prerogatives of justice in a state governed by the rule of law.

60 This reputation is based in particular on the rating functionalities on certain digital platforms.

61 See the IETF website: https://www.ietf.org
62 See the website of the W3C: https://www.w3.org
FURTHER READING

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Renaissance Numérique is France's main independent think tank focusing on the challenges of digital transformation in society. Bringing together universities, associations, corporations, start-ups and schools, it aims to develop workable proposals to help public stakeholders, citizens and businesses promote an inclusive e-society.

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