



RegTech is the new GovTech

ARCEP AND IRG 20TH ANNIVERSARY **CONFERENCE PROCEEDINGS**

Paris, 22 February 2017 Cité de la mode et du design





REGTECH IS THE NEW GOVTECH

Reinventing regulation



IN ORDER TO CELEBRATE ITS 20TH BIRTHDAY, ARCEP CO-ORGANIZES WITH IRG (INDEPENDENT REGULATORS GROUP) AN INTERNATIONAL CONFERENCE ON WEDNESDAY FEBRUARY 22, 2017, IN PARIS: "REGTECH IS THE NEW GOVTECH, REVISITING REGULATION".

On the program of debates: economic efficiency of regulation, Internet of tomorrow, algorithms as the epicenter of the digital revolution and new modes of regulation.

Disclaimer

The "RegTech is the new GovTech – Reinventing regulation" conference proceedings must not be taken as an exhaustive verbatim account. Their aim is more to provide the reader with a detailed synopsis of each talk or discussion.

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WATCH, OR RE-WATCH, THE CONFERENCE IN ITS ENTIRETY OR JUST ONE TALK IN PARTICULAR, BY ACCESSING THE VOD LINK ON THE ARCEP WEBSITE, AT: http://video.arcep.fr/fr/20-ans-de-l-arcep.fr

20 YEARS







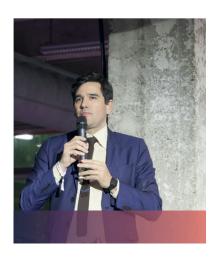








FOREWORD



Régulating It means ensuring a new State alchemy, combining high standards for the public service and the interests of our fellow citizens, by relying on economic forces. Regulating therefore means, above all, creating opportunities for entrepreneurial and industrial projects. Today, regulation means leaving the door open to new barbarians - those entrepreneurs who are revolutionising every sector of activity thanks to digital technology - by adopting a pro-innovation stance.

This year, Arcep and the Independent Regulators Group (IRG) are celebrating their 20th anniversary. To mark the occasion, we wanted to host a conference on the topic of "RegTech is the new GovTech" to situate regulation within the body of public policy, and to include it in the Open Government movement whose bywords are agility and participation.

Jean Tirole, Matthew Kirk, Alejandra de Iturriaga Gandini, Nick Grossman, Laure Lucchesi, Primavera de Filippi, William Webb, Cédric Villani and Yochai Benkler all lent their voices to this time of reflection and debate that focused on three important questions.

First, **what meaning should we give to regulation?** The creation of independent, sector-specific regulators in the late 20th century marked the emergence of a new decentralised form of public sector action, entrusting each authority with the task of governing a tangible or intangible "common good". For Arcep, this "common good" is internet, fixed and mobile telecoms and postal networks.

There are several dimensions to this regulation. First, an economic dimension, which gives Arcep the role of market "architect", but also a user-centric dimension, working to protect the core principle of net neutrality, as Arcep is also tasked with fulfilling the role of network "guardian".

Second, what does regulating mean on a daily basis? It means ensuring a new State alchemy, combining high standards for the public service and the interests of our fellow citizens, by relying on economic forces. Regulating therefore means, above all, creating opportunities for entrepreneurial and industrial projects.

Today, regulation means leaving the door open to new barbarians – those entrepreneurs who are revolutionising every sector of activity thanks to digital technology – by adopting a pro-innovation stance.

Lastly, **what is the future of regulation?** This is a question that every regulator is bound to ask itself. The first step is to develop an obsession about the future, and maybe even a somewhat paranoid vision of it, to be able to detect future silos and potential monopolies that could threaten our "common goods". Once we have this in mind, how can we fail to have concerns about the unprecedented concentration of information being generated by the internet giants?

Preparing to regulate in an uncertain future also means conceiving of new, more agile methods of regulation that tap into the newfound power of individuals and civil society in our digital world, and into the "wisdom of crowds". This is the very ambition set by the data-driven regulation programme to which we at Arcep are committed.

To conclude, then, let us be aware of the force that regulation represents for France and Europe's future competitiveness. More than ever before, regulation must make brave choices, such as those taken in the past to impose competition in monopolistic sectors, or by giving net neutrality a strong and lasting status that protects it from political swings.

Long live European regulation. Long live competition, connectivity, the open internet. Long live the free and open exchange of information and communication!

SÉBASTIEN SORIANO,

CHAIRMAN OF ARCEP AND BEREC, THE BODY OF EUROPEAN REGULATORS















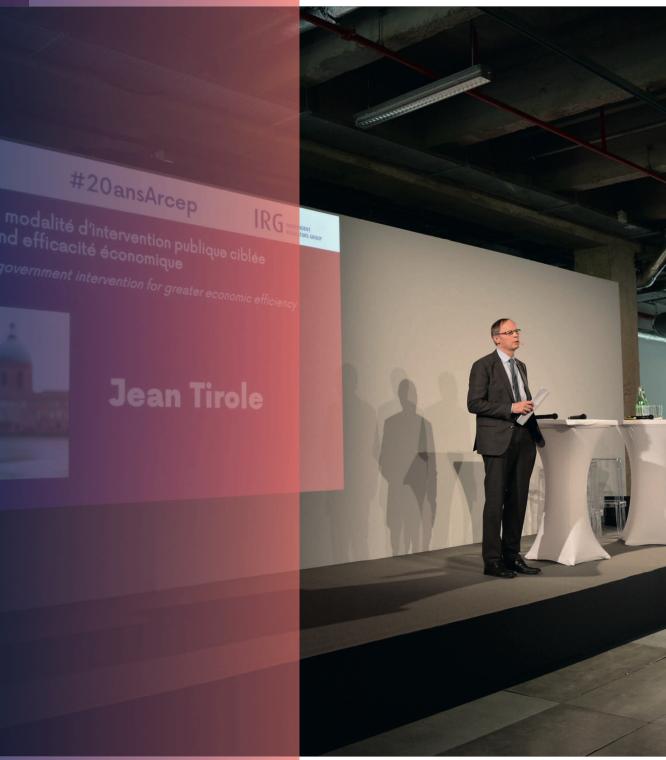




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Jean Tirole, economist and winner of the Nobel Prize in economics (2014)



targeted government intervention for greater economic efficiency

Synopsis of the talk given by **Jean Tirole**, economist and winner of the Nobel Prize in economics (2014)

Behind the notion of an economy for the common good is the idea of creating economic institutions that serve the public interest. While the market has a number of weaknesses, the State itself suffers from multiple malfunctions that shape the methods used to implement public actions. Independent administrative authorities thus make it possible to ensure the quality of public decisions in their respective fields, by protecting them from political pressure.

Regulation has experienced a number of changes over the past several decades, with the introduction of reforms that encourage businesses to meet higher standards and be more cost-conscious, such as efficiency incentives, tariff rebalancing and opening markets to competition.

The new challenges created by digital technology add to the list of issues coming to disrupt today's regulatory infrastructure. Digital technology is indeed affecting our society in profound ways, and the telecoms sector in particular. The three companies that have the highest market caps in the world – Apple, Alphabet/Google and Microsoft – and seven of the 10 biggest start-ups, are all multifaceted platforms.

These platforms put several communities of users in touch with one another, thanks to a technological interface that streamlines the interaction between these users. They have tremendous market power, and are at the heart of the value chain in a number of sectors, already today and even more so tomorrow.

The challenges surrounding these platforms are multifarious. First, we need to taken into account the specific features of these players whose economic viability depends on the participation of each of the user communities.

Next, these players create societal challenges in the realm of competition law. By benefitting from massive economies of scale and network externalities, dominant players are the winners who "take all", and we need to ensure that new entrants are able to forge themselves a place in niche segments. But they raise other competition issues as well, such as those surrounding tying, asymmetric price structures, the strings of platforms, or massively dominant platforms imposing single prices.



The advent of multifaceted platforms may also lead the regulator to work on inequalities or how personal data is treated. In particular, the regulator must simultaneously respond to concerns over the use of personal data, and take into consideration the potential benefits of massive data collection.

Societal challenges concern not only internet companies but also users, and the digital industry in general, as the adfunded model is revealing its limitations.

So, still a great many challenges ahead over the next 20 years for Arcep, BEREC, and all those who will be tasked with regulating digital platforms. But I have no doubt they will succeed.

Behind the notion of an economy for the common good is the idea of creating economic institutions that serve the public interest.

20 YEARS OF REGULATION

as seen by a market player

Synopsis of the talk given by **Matthew Kirk**, Group External Affairs Director, Vodafone

In Europe, consumers are the central focus of operators' and regulators' actions. The process of opening the mobile market up to competition was undertaken for the benefit of users. In 10 short years, consumers went from the Nokia 3310 to the smartphone; each new generation of mobile telephony ushered in radical changes in terms of traffic, capacity and quality. 4G coverage in Europe is extensive, and the industry is already preparing for 5G. Plus, prices have decreased.

This success can be attributed in part to regulators who worked on the markets' competition structure and who, more recently, began to identify investment as a crucial factor for improving long-term benefits for consumers. The more recent trend of authorising mergers and acquisitions marks another shift in attitude for regulators, and reflects an approach focused more on dynamic efficiency than on price. We can already see the benefits of pro-investment regulation in the rapid deployment of new generation access networks, better coverage and faster connections in the wake of mergers.

One of the best new approaches to take: data-driven regulation, built on transparency and heavy consumer involvement.









In Europe's fixed markets, however, while retail market competition is satisfactory, we are still seeing anti-competitive practices in wholesale markets. From the consumer's standpoint, the contrast between mobile and fixed is striking, with broadband access prices on the rise despite the use of out-dated copper lines. In the UK and Germany, which have largely opted to upgrade the legacy copper network rather than deploy fibre, veteran operators' market share is growing. While some today are concerned about the emergence of oligopolies, regulators appear to be overlooking the risks of new monopolies forming. Does this mean we need to revise competition and regulatory models?

One of the best new approaches to take: data-driven regulation, built on transparency and heavy consumer involvement. Vodafone has already adopted this path by publishing information on its customers' satisfaction, and the results are encouraging.

From the industry's standpoint, this new form of intervention reflects a shared conviction that greater customer satisfaction is what allows a company to stand out in the marketplace. Empowering users by giving them better information on which to base their choices creates commercial opportunities for operators wanting to work on building their customers' trust, and stimulates competition, whether in terms of quality of service, price or control over personal data. To steer the market in this direction, regulators need to work closely with operators and consumer representatives to identify the relevant indicators.

However, this form of regulation only makes sense if the choices made by, now better informed, consumers are not constricted by bottlenecks and persistent dominant positions, which regulators must continue to work on fixing.

Operators' actions in support of transparency may thus be combined with targeted and efficient involvement from the regulator, aimed at increasing investments, notably in fibre, and strengthening competition with a view to the sector's eventual deregulation. The past twenty years have been surprising and thrilling. And I can't wait to see what the next twenty hold.

20 YEARS OF REGULATION

AS SEEN BY A REGULATOR

Synopsis of the talk given by **Alejandra de Iturriaga Gandini**, Electronic and Audiovisual Communications

Director, CNMC (Spain), IRG and BEREC member

This is a success story. Telecommunications have always been defined as an essential sector in any modern society. Opening the sector up to competition was encouraged very early on, making it possible to move from a State monopoly to a competitive marketplace. And national regulatory authorities played a vital role in that process. Reviewing the past twenty years is a difficult but useful exercise, not only to assess past actions but also, with a market in a state of perpetual evolution, to identify those challenges that regulators need to concentrate on. We can structure this exercise around three key objectives.

First, promoting competition and investment. In the late 1990s in each EU Member State, a single operator was supplying telecommunications services to the whole country. Today, a great many players have entered the market and have managed to seize the opportunity to expand their businesses beyond national borders. At the same time, mergers between alternative operators have helped to strengthen competition with incumbent carriers.

This increase in competition translates, first, into the markets' gradual deregulation. Second, we see it in more targeted intervention by the regulator. This includes a shift in focus to remedying bottlenecks such as access to essential infrastructure, by introducing tools that have proven their effectiveness in all European countries. The deployment of new generation access networks must thus remain a priority.







We must preserve this competitive environment, which has the power to stimulate both innovation and investment. The emergence of oligopolies in Europe, the increasing prominence of OTT players and fixed-mobile convergence must not undermine the benefits of regulation.

Next, achieving a single digital market. Telecommunications are by nature international. The past 20 years have seen the emergence of pan-European players, which is why regulation cannot be confined within national borders, but must be conceived on a European if not global scale.

BEREC, which unites Europe's national regulators, plays an essential role in guaranteeing a consistent European regulatory framework, and the expertise of all of its members contributes to the creation of a single digital market in an increasingly complex environment. Proof of this can be found in BEREC's recent work on the vital issues that are net neutrality and roaming. However, local specificities may still justify regulatory intervention at the national level.

But there are still challenges to the creation of a single internal market. In business markets, which have a European dimension, regulators must, for instance, continue to work on fostering greater competition.

Finally on the matter of consumer rights. Over the past two decades, regulators have acted on consumers' behalf: transparency on pricing, which helps consumer choose their products, fixed and mobile number portability, universal service, access to an open internet and roaming all testify to regulators' commitment. But despite these positive changes, regulators still need to step up their efforts for ensuring an internet that is open to everyone.

Here, the enforcement of *ex ante* and *ex post* regulations constitute a success story that must continue, starting with the review of the European framework.



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AND WHAT ABOUT TOMORROW?

Hacking regulation through data

PRESENTATION

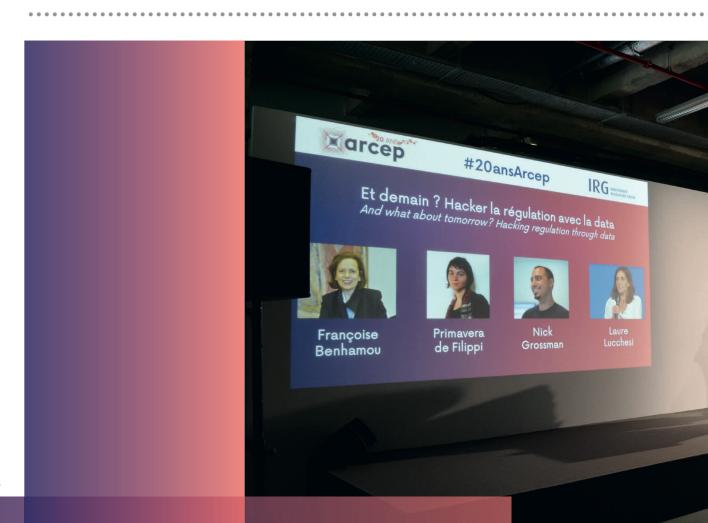
Debate moderated by Françoise Benhamou, Arcep Executive Board member, with :

Nick Grossman, Union Square Ventures General Manager, Author of "Regulation, the Internet Way" **Laure Lucchesi**, Etalab Director (DINSIC)

Primavera de Filippi, Research Fellow at CERSA and the Berkman-Klein Center for Internet & Society at Harvard University

INTRODUCTION

Generally speaking, digital tools force the State to consider a rethink of its relationship with citizens and businesses. We expect it to use digital tools to increase its capacity for action. How to create the conditions that enable crowdsourced solutions and encourage innovation? How to incentivise the market to head in the right direction?







Nick Grossman, Laure Lucchesi, Françoise Benhamou and Primavera de Filippi





INTRODUCTION

Synopsis of the introduction to the debate by

Nick Grossman, Union Square Ventures General Manager
and author of "Regulation, the Internet Way"

Union Square Ventures is a capital risk firm based in New York that invests in internet platforms. Its general belief is that competition is essential as it allows platforms to position themselves in the market and to grow in size and significance.

Today it is these online platforms that are creating a challenge for regulators. Some of them have become very powerful thanks to the volume of data they have already collected. But, as it currently exists, regulation is not designed to meet these new challenges. So we need to find new ways to organise competition, by putting data back in the hands of governments, individuals and the public.

Current regulation is focused largely on market access conditions. Keeping in mind that it is precisely by offering easy access that online platforms are changing the markets and moving them away from their traditional structures. Moreover, platforms collect and use a host of data, allowing them to establish their users' responsibilities in a strict fashion. In this way, online platforms self-regulate since they seek to gain users' trust, and set themselves up as guarantors of the security of the services they provide. This observation also makes it possible to sketch out a new form of public regulation, where data play an essential role.

This is the type of regulation we need: online platforms capitalise on network effects, which means that the value of the goods and services they provide does not depend solely on their intrinsic qualities, but also on the number of users they have. By attracting a huge number of users, the GAFA quartet (Google, Apple, Facebook and Amazon) now enjoys a dominant position. They have massive databases and full control over their access: they have the power to refuse their users' and other companies' access to these data. The regulator must therefore identify courses of action for opening up access to these data.

Online platforms also have the particular feature of exercising centralised control over their data. To give users back control over their own data, and to reduce the power of the companies which today have exclusive access to these data, we need to decentralise them. This is the central appeal of blockchain technologies: tomorrow's solutions for sharing and protecting data.

By supporting public blockchains, it would be possible to simultaneously encourage data sharing and recognise the rights attached to users' personal data.

THE DEBATE

"Data-driven regulation" is one of the three new regulatory methods that Arcep identified during its strategic review. Arcep shares this desire to construct regulation together and to tap into the power of crowdsourcing with Etalab – a department under the aegis of the Prime Minister, and part of the General Secretariat for the Modernisation of Public Action, responsible for the State's open data and open government initiatives.

The Etalab task force works on modernising public action and the digital transformation. It has identified two key drivers: openness, in the sense of crowdsourcing, and data. Its data-related actions are built around three priorities: opening up and sharing public data, transparency and the participatory nature of public action, and data governance, all with the goal of making better decisions.

Data can be approached in a variety of ways. First, data can be obtained in exchange for permission to do business. For instance, a ride sharing application may sign agreements with local authorities who, in exchange for a business permit, take the data generated by the company to help optimise management of their roadway infrastructures. These data can then serve as currency for financing projects: for instance, by offering to finance electric car charging infrastructure, regional authorities may want to create a database. Besides which, public data can be seen as an essential infrastructure; the Digital Republic Act in France thus provided for the creation of a public data department, which is justified by the critical nature of public data whose supply must meet certain quality of service standards. Etalab is, for instance, considering the creation of a national database of addresses that could be useful for entities such as La Poste or SAMU emergency medical assistance services. Which then gives rise to the challenge of standardising public data to be able to merge the different databases. In a great many instances, public data can be qualified as being of general interest. Opening up access to public data generates positive externalities by stimulating economic and social innovation, and so creating value. When it comes to sector-specific regulation, it seems safe to say that data could be used as an incentive mechanism - a tool whose efficiency will certainly be worth measuring.





However "data-driven regulation" can also be understood more generally as the process of using data for implementing ex ante regulation. Here, blockchain technology seems an especially useful tool. First, it can help the process of regulation as its makes it possible to verify collected data by guaranteeing perfect traceability of the processes, and by recording every action and transaction. It thereby empowers the players and makes auditing easier. Second, it provides a tool for regulation, strictly speaking, with the deployment of smart contracts, those lines of code that can be used to automate the implementation of predefined rules, with a guarantee of execution. So, depending on the objective the regulator has set, these two aspects of blockchain technology can be combined to achieve the same outcome using two different techniques.

Blockchain technology can nevertheless suffer from certain shortcomings when it comes to enforcing *ex ante* regulation, as it does not allow any flexibility in the established rules. Which means it can only be useful when there are strict rules that can be codified in a formal mathematical language.

It should also be said that this form of "data-driven regulation" will require new skills, and the teams responsible for it will need to bring in data scientists and experts with a perfect understanding of data ownership and distribution issues.



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WHAT WILL NETWORKS

look like 20 years from now?

Synopsis of the talk given by William Webb, CEO of Weightless SIG, Director of Webb Search

The world is changing so quickly that some people believe it is impossible to predict what things will look like in 20 years. But, back when the internet was accessed over a modem and the Nokia 3310 phone was popular, it was already possible to predict that in the year 2000 we would be able to use e-tickets on a smartphone in airports, that automatic lawn mowers would tend to our gardens, that phones would recognise our voices, and that we would be able to pre-order beverages from Starbucks and be sure they'd be ready when we got there. It was, however, harder to predict that people would use social networking sites to communicate, that Pokémons and other virtual realities would be so popular, that security and privacy would be major issues, and that twenty percent of people would say having Wi-Fi access is more important than having sex. We were nonetheless able to anticipate that the mobile technologies that have emerged over the past 20 years would usher in societal change.

One might believe what a number of players are already saying will come with the emergence of 5G: a communications revolution, with improved connectivity in terms of speed, capacity and latency. But this is not a realistic scenario. These improvements have reached their limits. Studies show that increased connection speeds no longer give consumers any noticeable benefit. The same is true of video quality.

The real issue for users today is coverage. To be more specific, users now demand ubiquitous coverage. One way to achieve that is with Wi-Fi, which will be a key element in the coming years. Consumers depend on it.





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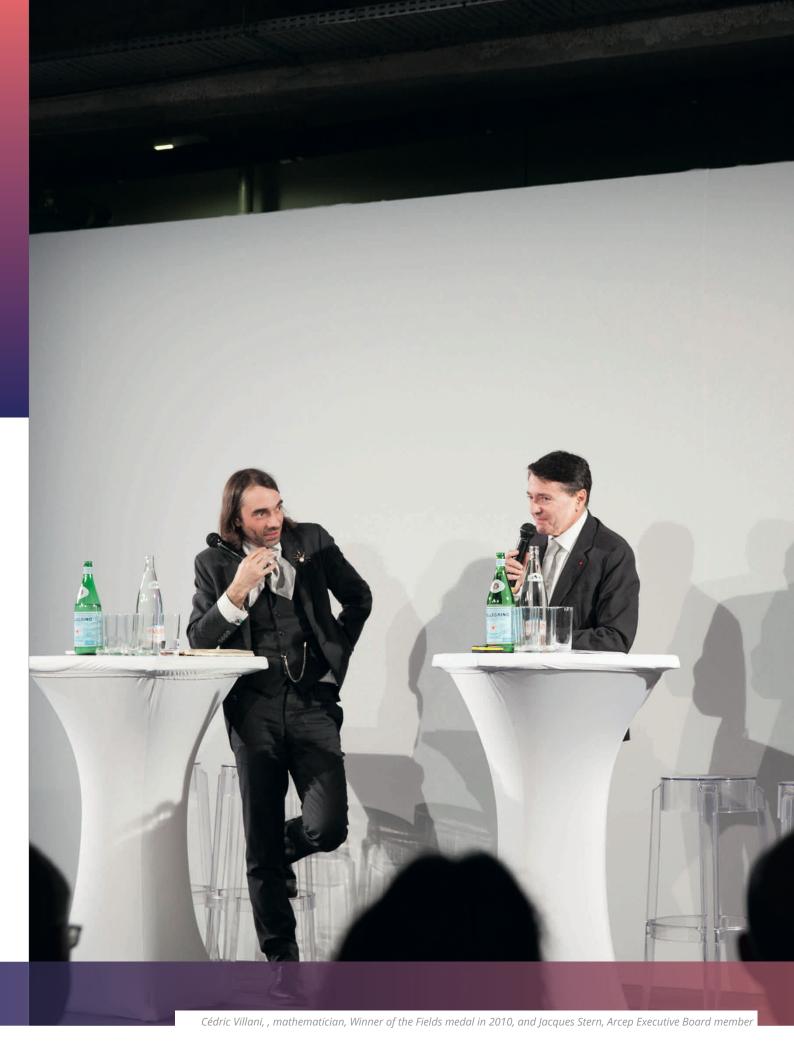
Taking a broader perspective, one of the regulator's objectives for the next 20 years must be to enable ubiquitous communications. This ubiquity will mean major changes. First, big data will enable us to streamline our predictive capabilities. Next, the Internet of Things will disrupt productivity in every sector. Connected cows will become a reality, and will make sense. Lastly, IoT will transform our cities, and maybe the smart city will change the way we move and travel. None of these changes will be possible without ubiquitous connectivity.



To make this happen, governments and regulators will need to steer their actions in three directions. First, they need to focus on spectrum, and particularly on ensuring the availability and proper conditions for the use of unlicensed bands, for the sake of IoT deployments and Wi-Fi. They must also allow for more flexible competition, letting different players compete with one another on different networks. For this to happen, we will need to accept a real change in how we think about competition, notably by authorising mergers. Lastly, they will need to encourage and facilitate investments to achieve better coverage in those areas, such as rural ones, that will never be profitable.

Let's not forget that we created a world where mobile connectivity has become essential So let's prove that we are up to the task!

One of the regulator's objectives for the next 20 years must be to enable ubiquitous communications.









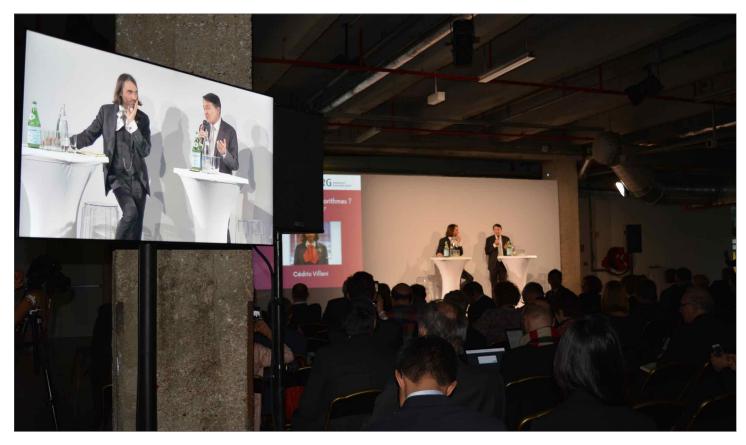
TO UNBUNDLE **ALGORITHMS ONE** DAY?

Synopsis of the discussion between **Cédric Villani**, mathematician, Winner of the Fields medal in 2010 and Jacques Stern, Arcep Executive Board member

When we open the paper today, we are more and more likely to see an article about algorithms, these specific sets of rules whose basic principle dates back 4,000 years.

The fundamental changes of these past several years can explain this sudden popularity with the general public. In various fields, the tasks being given to the machine have changed: in terms of speed, mechanism and objective. As these machines have begun to perform better and better, the methods developed have changed and a new generation of algorithms has emerged, one that is revolutionary in terms of capacity.

The new prospects opened up by algorithms and machines are also contributing to this notoriety: 20 years ago, algorithms and artificial intelligence lay solely in the hands of mathematicians and computer scientists, often with limited results. Today, algorithms are a very common part of our daily lives, having made their way into concrete uses such as applications that calculate driving instructions that satisfy users' criteria as fully as possible.



Now that they have moved outside the professional sphere, algorithms are everywhere and so demand that we see them differently. Their performance depends on collective data, since this new wave of algorithms favours a probabilistic approach that consists of allowing chance to explore a set of possibilities: algorithms often begin to learn by imitating large batches of examples. If they produce better results in a great many areas, they also rely on the existence of large databases. Furthermore, the fact that these algorithms are capable of evolving to improve their performance means that nobody, not even their designers, fully knows how they function, cannot fully prove that they have reached their goal, nor can absolutely guarantee that they will be able to complete the task they were assigned.

So does this mean we should be worried about algorithms? People are wondering about the advent of autonomous cars and digital medical records that store large quantities of our personal data, while it is impossible to guarantee absolutely what an algorithm will do. Broadly speaking, the promises of algorithms are as strong as the uncertainties they generate. Algorithms often raise two types of questioning. The first is economic: to complete more and more diverse tasks, algorithms will replace people, which runs the risks of









Today, algorithms are a very common part of our daily lives.

The promises of algorithms are as strong as the uncertainties they generate.



further widening the gap between skilled and unskilled labour. The second is societal: algorithms could restrict the diversity our society needs, which could profoundly alter people's behaviour, for instance through targeted advertising. The impressive efficiency with which algorithms can identify us is already generating reactions at the European level, since the legislator is committing to protecting consumers' privacy by allowing an online profile to be created only if the user has been informed of it and has given their consent.

But as far as we know, we do not yet live in a world where algorithms subjugate human intelligence: each one is designed and optimised to perform a single task. Seen in this context, there is no apparent pressing need to regulate algorithms. In the coming years, however, regulation may prove necessary: it would focus on the concepts of transparency — with an obligation to

know how an algorithm was designed – and of open interfaces, with the goal of allowing individuals to employ an algorithm without owning it, thanks to a set of instructions. In practical terms, these objectives would in any event be challenged by algorithms' technical properties, which contain biases that are due to both programming choices and the databases they draw from.

Regulation may prove necessary: it would focus on the concepts of transparency open interfaces.



HOW CAN REGULATION

pave the way for tomorrow's internet?

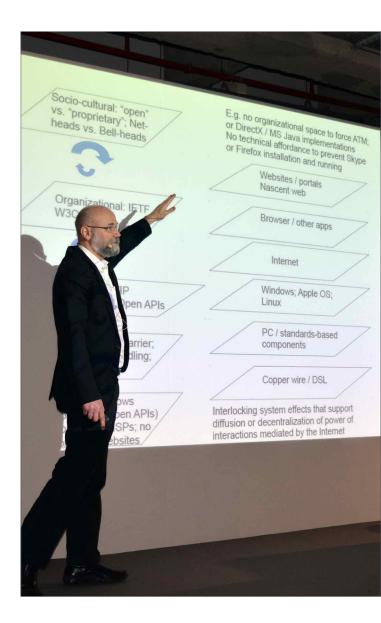
Synopsis of the talk given by Yochai Benkler, Professor of Entrepreneurial Legal Studies at Harvard Law School and Faculty co-director of the Berkman-Klein Center for Internet & Society at Harvard University

Telecom regulators are part of an environment that is more vast than the regulatory mandates they are assigned. Communication networks interact, on the one hand, with their underlying technical and organisational layers and, on the other, with the socio-cultural behaviours emerging in this environment.

The actions that regulators have taken with respect to market structures for the networks' physical layers have been successful in Europe, as reflected in the creation of lasting and effective competition in the marketplace. However, significant changes taking place in other layers affect the networks' overall architecture. For their action to be effective and relevant, telecom regulators need to keep a close watch over the changes affecting these other layers.

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Telecom regulators are part of an environment that is more vast than the regulatory mandates they are assigned. Communication networks interact. on the one hand. with their underlying technical and organisational layers and, on the other, with the socio-cultural behaviours emerging in this environment.

The launch of the Apple iPhone is a good case in point. When this smartphone and its iOS operating system arrived on the market, it ushered in an entirely new sales model, undergirded by the creation of an app store and the development of a new storage space for services in the cloud. At the same time, the success of applications led to the emergence of a closed system based on a new layer of proprietary programming interfaces, controlled by Apple, and the implementation of digital locks like DRM (Digital Rights Management). This organisation, which gives Apple several points of control, is the opposite of the classic open standards model that enabled the deployment of browsers like Mozilla Firefox.

Another major change comes from the availability of unlicensed frequency bands, i.e. those that can be used without an operator having to obtain prior authorisation. This has had a real impact on a number of vertical sectors that are vital to the economy as a whole, such as connected health, smart meters and contactless payment.

Seen from another perspective, technological developments have allowed cloud services to explode, although not necessarily in a lasting fashion, while data security and privacy issues are becoming more and more pressing.

The proliferation of proprietary standards in the internet's technical layers underscores data interoperability and portability imperatives: while there is no regulatory framework for these issues in the United States, these two notions need to be at the heart of regulation in Europe.

The latest developments concern the advent of big data and platforms, with all of the well-known economic and social issues they generate, such as the rise of fake news.

When faced with these changes, it is vital to strike the right balance between points of control and open spaces for innovation, and it does not need to be seen as an alternative between a centralised decision-making process and leaving the market to its own devices. Solutions can and must be of a different kind. Drawing on the works of people such as Elinor Ostrom, it has become an academic truth as well as a practical reality that knowledge networks and communities of practice provide both the ability to adapt and the resilience needed to make the right decisions.

The **20th** anniversary party

Fleur Pellerin

Former Minister of the Digital Economy and Culture



Philippe Wahl

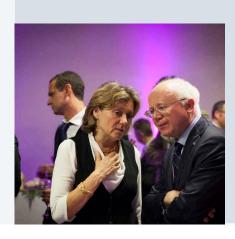
President and CEO of La Poste, flanked by two former Arcep Chairs

Jean-Michel Hubert (left)

Jean-Ludovic Silicani (right).

Bruno Lasserre

Councillor of State and former President of the French Competition Authority







Sébastien Soriano,

Arcep Chairman, and the members of the Executive Board



Stéphane Richard

CEO of Orange



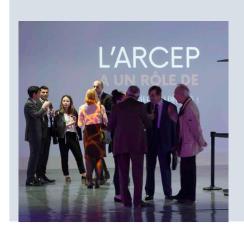
From left to right:

Pierre Louette (Orange), Bruno Lasserre (Council of State), Richard Viel (Bouygues Télécom), Taïg Khris (OnOff), Olivier Huart (TDF), Sébastien Soriano (Arcep), Yann de Prince (Kosc Telecom), Patrick Drahi (Altice), Stéphane Richard (Orange), Xavier Niel (Iliad-Free), Pascal Caumont (Adista), Michel Combes (SFR), Maxime Lombardini (Free), Pierre Bontemps (Coriolis) and Michel Paulin (SFR).



From left to right:

Jean Andriamaro Rakotomalala (ARTEC), Monique Liebert-Champagne (Arcep), Martin Randrianoely et Zarason Tongalaza (ARTEC), Françoise Benhamou (Arcep), Cedric Villani (Institut Henri-Poincaré), Joëlle Toledano (Centrale Supélec), Jacques Stern (Arcep), Axelle Lemaire (former Secretary of State for Digital), **Sébastien** Soriano (Arcep), Jean-Michel Hubert and Jean-Claude Mallet (former Arcep Chairs), Christian Bècle (former Arcep Board Member), Pierre-Jean Benghozi (Arcep), Bruno Lasserre (Council of State), Gabrielle Gauthey (former Arcep Board Member), Jean-Ludovic Silicani (former Arcep Chair), **Stéphane Hoynck** (former legal director of Arcep), Martine Lombard (Arcep), Marie-Laure Denis (former Arcep Board Member), Philippe Distler (Arcep), Michel Combot (Fédération française des Télécoms), **Jérôme** Coutant (former Arcep Board Member) and Fleur Pellerin (former Minister of the Digital Economy and Culture).











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Céline Picy ; Brigitte Baudesson ; Jean-Baptiste Sangla (Arcep)

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ARCEP, COMMUNICATIONS NETWORK ARCHITECT AND GUARDIAN

Internet, fixed and mobile telecom and postal networks constitute the "Infrastructures of freedom". Freedom of expression, freedom to communicate, freedom to access knowledge and to share it, but also freedom of enterprise and innovation, which are key to the country's ability to compete on the global stage, to grow and provide jobs. Because it is essential in all open, innovative and democratic societies to be able to enjoy these freedoms fully, national and European institutions work to ensure that these networks develop as a "common good", regardless of their ownership structure, in other words that they meet high standards in terms of accessibility, universality, performance, neutrality, trustworthiness and fairness.

Democratic institutions therefore concluded that independent state intervention was needed to ensure that no power, be it economic or political, is in a position to control or hinder users' (consumers, businesses, associations, etc.) ability to communicate with one another.

The electronic communications and postal regulatory authority (Arcep), a neutral and expert arbitrator with the status of quasi autonomous non-governmental organisation, is the **architect** and **guardian** of communication networks in France.

As network architect, Arcep creates the conditions for a plural and decentralised network organisation. It guarantees the market is open to new players and to all forms of innovation, and works to ensure the sector's competitiveness through pro-investment competition. Arcep provides the framework for the networks' interoperability so that users perceive them as one, despite their diversity: easy to access and seamless. It coordinates effective interaction between public and private sector stakeholders when local authorities are involved as market players.

As network guardian, Arcep enforces the principles that are essential to guaranteeing users' ability to communicate. It oversees the provision of universal services and assists public authorities in expanding digital coverage nationwide. It ensures users' freedom of choice and access to clear and accurate information, and protects against possible net neutrality violations. From a more general perspective, Arcep fights against any type of walled garden that could threaten the freedom to communicate on the networks, and therefore keeps a close watch over the new intermediaries that are the leading Internet platforms.