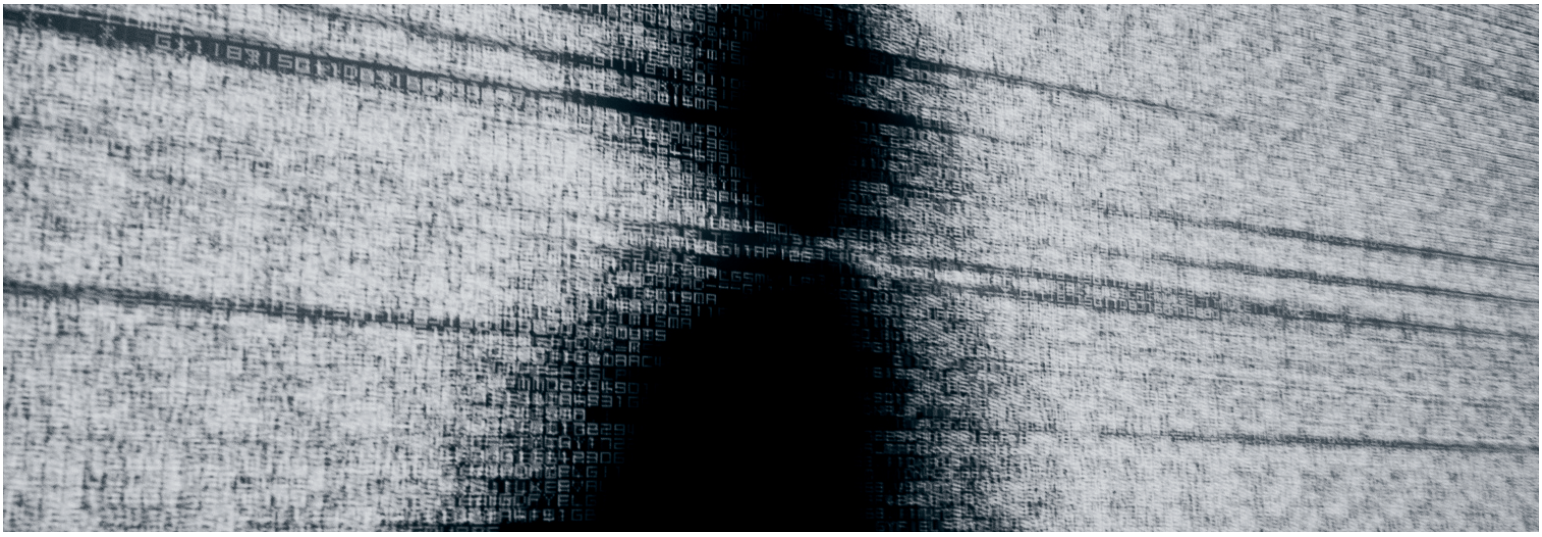

SEEING THE FOREST FOR THE TREES

Why the Digital Single Market Matters for Transatlantic Relations

EDITED BY GUILLAUME XAVIER-BENDER

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Seeing the Forest for the Trees

Why the Digital Single Market Matters for Transatlantic Relations

January 2016

1 Introduction

Guillaume Xavier-Bender

Distance doesn't mean anything anymore. We are on the verge of a very high-speed world." The day was January 6, 1927, and two technicians, one in New York, one in London, were testing the line for the first official two-way transatlantic conversation due to take place on the following day.[1] The protagonists of this "non-official" breakthrough understood very well the technological age they were entering. What they might have not foreseen, on the other hand, is that nearly 89 years later, this enabling technology coupled with the advent of the Internet and the so-called digitalization of economies and societies, would still occupy such a big part of the spotlight in transatlantic relations.

In the European Union in particular, efforts to move forward on the EU's Digital Agenda have sparked vibrant debates over the potential role of the U.S. government and of U.S. companies in the "digital future" of the continent. Heralded as a priority of his mandate by European Commission President Jean-Claude Junker,[2] the creation of a digital single market is indeed not separable from ongoing discussions over EU-U.S. collaboration on digital issues.

First, U.S. businesses' predominance in digital technologies implies that any changes to the regulatory framework in Europe will have a direct impact on U.S. interests in Europe. Second, the already deep integration of the transatlantic economy, and the scale of exchanges and investments between the two continents, implies that any realization of a digital single market in Europe will affect most — if not all — U.S. businesses in Europe, and European business in the United States. Third, public sentiment over data privacy and cybersecurity have evolved in such a way that trust between citizens and governments on both sides of the Atlantic needs to be rebuilt through cooperative reform.[3] Finally, as the digitalization of economies globally accelerates the digitalization of societies with often disruptive consequences, any lack of collaboration on how to address these transformations is a missed opportunity in facing global challengers.

With a range of initiatives already started or still in the blocks, the Digital Single Market (DSM) strategy of May 2015 has ambitions to connect Europe's 28 digital markets, to make the EU a world leader in information and communication technologies, and to provide adequate levels of protection to European citizens and consumers in the digital age. As outlined in the DSM strategy, "having 28 different national consumer protection and contract laws discourages companies from cross-border trading and prevents consumers from benefitting from the most competitive offers and from the full range of online offers."[4] In addition, "the lack of regulatory consistency and predictability across the EU"[5] in the telecoms sector has a direct impact on the future of broadband services, radio spectrum, and rules for net neutrality in Europe. The current fragmentation of both markets and regulations hinders the development of an ambitious and competitive data economy in the EU by limiting the scalability

The creation of a digital single market is indeed not separable from ongoing discussions over EU-U.S. collaboration on digital issues.

[1] Cary O'Dell, First Official Transatlantic Telephone Call (January 7, 1927), Library of Congress, 2005, http://www.loc.gov/programs/static/national-recording-preservation-board/documents/FIRST%20TRANSATLANTIC%20CALL.pdf

[2] http://ec.europa.eu/priorities/digital-single-market/index_en.htm

[3] See *Report of the Transatlantic Digital Dialogue. Rebuilding Trust through Cooperative Reform*, German Marshall Fund and Stiftung Neue Verantwortung, November 2015, http://www.gmfus.org/publications/transatlantic-digital-dialogue-rebuilding-trust-through-cooperative-reform

[4] European Commission, Communication on a Digital Single Market Strategy for Europe, COM(2015) 192, May 6, 2015, Brussels, p. 4, http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0192&from=EN

[5] Ibid., p. 9

The tendency to find new ways to protect sectors affected by digital transformation is on the rise.

of data-driven technologies and increased connectivity.

In order to achieve these goals, the European Commission set itself 18 actions to be completed by the end of 2016, all of which will require the support of the member states and of the European Parliament. With increasing tensions within Europe — and with the United States — when it comes to all things digital, the political challenges ahead might be as difficult as the policy ones.

As Andrea Renda remarks in his chapter "How Deep is the Ocean? Notes on the Transatlantic Digital Market," "the real elephant in the room is neither data protection nor Snowden and not even Europe's obsession with platform regulation and neutrality at once. The biggest issue, which could also become the biggest opportunity for the two blocs, is the digital economy itself." Indeed, while the consequences of the NSA revelations of 2013 are still looming over the debate in Europe — in particular in Germany — and while the European Court of Justice's October 6, 2015 decision to invalidate the EU-U.S. Safe Harbor agreement[6] might be a game changer in the flow of data across the Atlantic, a greater concern lies with the ability of the EU to fully embrace the digitalization of its economy. While the European Commission seems keen to put an end to the fragmentation of 28 national digital markets, member states need to accept transformation and the accompanying impact on existing economic, societal and political paradigms. And despite increased efforts, this is still far from being the case.

When in October 2015 France and Germany announced their own bilateral initiative to collaborate in the consolidation of Europe's digital economy, Emmanuel Macron, the French minister of economy, told the German business daily Handlesblatt that "digitization is rocking our economies. It's breaking down the barriers between classic sectors — that makes our companies vulnerable."[7] Others might argue that cross-sectoral innovation actually strengthens companies rather than weakens them, but Macron is right in signaling that digitalization is breaking down barriers within European economies. But what it is also doing, by virtue of the very nature of the Internet, is breaking down barriers between European economies. Traditional silos are indeed disappearing, often as quickly as traditional geographies.

As a consequence of these barriers breaking down, the tendency to find new ways to protect sectors affected by digital transformation is on the rise. In December 2013, former Vice-President and Commissioner for the Digital Agenda Neelie Kroes had famously warned that "Europe needs data protection, not data protectionism."[8] Two years on, her call is yet to be fully heard. Between advocates of the localization of European data in Europe, initiatives aimed at subjecting Internet platforms to differential regulation, uncertainty over the future of data transfers to the United States, and the cacophony surrounding the rise

[6] In order to facilitate the flow of data between the European Union and the United States, while ensuring a high level of protection of personal data, the European Commission had recognized on July 20, 2000, the Safe Harbour Privacy Principles and accompanying Frequently Asked Questions (FAQs) issued by the U.S. Department of Commerce as providing adequate protection for the purposes of personal data transfers from the EU. As a result, personal data could be freely transferred from EU member states to companies in the United States that signed up voluntarily to the principles, despite the absence of a general data protection law in the United States. See *European Commission, Communication on the Transfer of Personal Data from the EU to the United States of America under Directive 95/46/EC following the Judgement by the Court of Justice in Case C-362/14 (Schrems)*, November 6, 2015, http://ec.europa.eu/justice/data-protection/international-transfers/adequacy/files/eu-us_data_flows_communication_final.pdf

[7] https://global.handelsblatt.com/edition/293/ressort/politics/article/emmanuel-macron-france-digital-economy

[8] https://agenda.weforum.org/2013/12/europe-needs-data-protection-not-data-protectionism/

of a "sharing economy" challenging traditional industries, Europeans are signaling that they are not willing to embrace the digital age at the cost of losing their independence and national specificities. A continent-wide digital strategy is therefore most welcome in order to avoid missing the opportunities of increased digitalization in Europe, while at the same time addressing the concerns of all stakeholders.

Barriers to digital innovation are plentiful, and many will argue that most underlying hurdles rest with established regulatory frameworks in Europe. But as Robert Atkinson notes in his chapter "EU Digital Single Market: Pursuing Contradictory Goals?," "a key to digital innovation is for policymakers to recognize and accept that it creates disruption." Indeed — and quite paradoxically — a first step toward greater digital innovation is recognizing the disruptive effects of a given technology and of the business model that allows its development. This disruption, characterized by what German economist Joseph Schumpeter called the process of creative destruction, is what allows innovative technologies, processes, and models to supplant incumbents. It is a constant of change and of competition in a market economy. Inevitably, it creates frictions between incumbents and new entrants. It also creates tensions between those interested parties that will indirectly gain or lose in this transition phase. Current debates about the possible negative impact of digitalization on labor and inequality in the United States and Europe are good indicators of where economies and societies are in the process of digitalization. As noted by Erik Brynjolfsson and Andrew McAfee: "not only are the new technologies exponential, digital, and combinatorial, but most of the gains are still ahead of us."[9] Managing this transition phase will be crucial. It is safe to say that both the Europeans and Americans are in their early stages, and that neither has yet found the appropriate way to address it. The EU's Digital Single Market strategy has the merit of trying to address this by setting a general ambition for Europe.

In their respective articles published here, Robert Atkinson and Andrea Renda take a look at how digitalization is being addressed by the European Union. While one examines the contradictory goals that the EU might be pursuing with its current strategy, the other takes a look at possible areas of agreement with the United States in regulating digital markets in the EU. Indeed, when it comes to understanding how Europeans might become leaders in digital industries, transatlantic views are needed on how the European Union might come to embrace disruptive innovations, might create EU-wide spectrum markets, might encourage or limit consolidation among broadband providers, might take advantage of public-private partnerships, and might regulate platforms and geo-blocking of digital content.

At a time when the ambition to set up a real transatlantic digital market is rising, whether through or independent from a Transatlantic Trade and Investment Partnership (TTIP), any initiative from the EU to create a digital single market among its member states should take into account perspectives from the United States.

Policymakers on both sides of the Atlantic are indeed facing similar pressures and friction in the digitalization of their economies and societies. But

A first step toward greater digital innovation is recognizing the disruptive effects of a given technology and of the business model that allows its development.

[9] Brynjolfsson, Eric and Andrew McAfee, *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*, W. W. Norton & Company, January 2014. See also Bernstein, Amy and Anand Raman, "The Great Decoupling: An Interview with Erik Brynjolfsson and Andrew McAfee," *Harvard Business Review*, June 2015, https://hbr.org/2015/06/the-great-decoupling

As policymakers in the European Union strive to create a fully integrated digital single market, they should embrace a holistic approach that breaks down existing silos in both regulation and politics.

beyond regulatory differences that often reflect societal and culture choices, the fundamentals of digital transformation remain the same: connectivity (the technology), control (the rights), competitiveness (the market), and competition (the players).

As policymakers in the European Union strive to create a fully integrated digital single market, they should embrace a holistic approach that breaks down existing silos in both regulation and politics. There is little sense for the EU to embark in the digitalization of its economy and society without taking into account the breadth of its industrial base, as well as its economic relations with strategic economic partners, in particular the United States. While keeping in mind these 4Cs of digital transformation (connectivity, control, competitiveness, and competition), the European Union and its member states could look into the following orientations in order to coherently — and productively — implement its strategy:

1) Cooperation between the EU and United States is essential in making sure that the transatlantic economy reaps fully the benefits of increased digitalization. Ex-ante coordination in regulating the technologies and services of the future would benefit both businesses and consumers. This requires a greater knowledge and understanding throughout Europe of U.S. policies and processes.

2) Collaboration between the private and the public sector is indispensable in order to avoid creating artificial barriers and blockages to the development of digital technologies. This could imply rethinking legislative processes and current investment schemes in order to better integrate digitalization as part of most legislative packages in the European Union and in the United States.

3) The digital economy knows no boundaries between sectors. This means two things: 1) it is counterproductive to regulate in silos; and 2) digital innovation in one sector increasingly affects innovation in another, often unrelated, sector. This is reflected namely in the advent of the Internet of Things — or connected devices — and of machine-to-machine technologies.

4) Getting the politics of digital transformation right matters as much as getting the policies right, if not more so in the current context of transatlantic relations. Indeed, the risk exists that a policy that may "make sense" for both businesses and consumers may not see the light of day because of its political sensitivity.

For these reasons, policymakers in the European Union should see the forest for the trees when it comes to creating a digital single market. Current discussions over data protection, data privacy, data retention, e-commerce, copyright, platforms, etc. are laying the pipes of new economies and societies across the continent. This is what should always remain in sight, no matter how tedious and complex the legislative process ahead might be, and no matter how difficult and costly the political battles ahead might be. If the Digital Single Market strategy is to be Europe's gateway toward the digital age, if it is to be a strategic tool for the future of European economic integration first, and transatlantic economic integration second, then it must feed into the EU's initiatives toward a global strategy.

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2 EU Digital Single Market: Pursuing Contradictory Goals?

Robert Atkinson

The European Commission has embarked on an ambitious journey to create a seamless 28-country market for all digital goods and services in Europe. It is a journey that carries great hopes and expectations, because while there has been considerable progress since 1992 in establishing a single European market for goods, there are still significant barriers to a digital single market (DSM) , which the Commission's proposals attempt to overcome.

One of the barriers might be the logic of the endeavor itself. What is the European Commission really seeking to achieve through a digital single market? Why will market forces not be enough? Despite an array of speeches, op-eds, and reports from the Commission and Parliament, the answers remain anything but clear. The document announcing the DSM raises as many questions as answers when it states:

> A Digital Single Market is one in which the free movement of goods, persons, services, and capital is ensured and where individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence. Achieving a Digital Single Market will ensure that Europe maintains its position as a world leader in the digital economy, helping European companies to grow globally.[1]

Here and throughout the document, the European Commission alludes to three distinct, goals: 1) to make Europe a leader in digital industries, with the subtext of replacing U.S. digital industry leaders with European ones; 2) to protect consumers in areas such as privacy and prices based on competitive markets; and 3) to spur information and communication technologies (ICT) adoption by all industries in Europe. The problem, however, is that these goals as outlined are contradictory. Many of the Commission's proposals to achieve one goal (for example, privacy protection) will make it harder to achieve other goals (such as having the EU become a digital industry leader). Pushing for stronger European digital companies could come at the expense of stronger ICT adoption by businesses and consumers. In fact, a number of the measures to achieve any one goal will make it harder to achieve both of the other two.

Many of the Commission's proposals to achieve one goal (for example, privacy protection) will make it harder to achieve other goals (such as having the EU become a digital industry leader).

Unfortunately, the debate in Brussels has largely ignored these contradictions, reflecting the fact that policymakers believe that they can "have it all." They cannot have it all, but they can make important progress by focusing on the most important goal: fostering more ICT adoption. And if the Commission wants to best achieve that goal, it should pursue a bolder digital agenda that would include new policies for broadband industry consolidation, accept disruptive innovation, and capitalize on public-private partnerships, among other things.

Helping European Companies Become Digital Leaders

Let's start with the goal of helping European companies become digital leaders. European Commissioner for Digital Economy and Society Günther Oettinger has proclaimed the necessity "to replace today's Web search engines, operating systems, and social networks with European ones" and has called for "digital independence" from

[1] Brussels. "Final Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions," *A Digital Single Market Strategy for Europe*, European Commission, 6.5.2015 COM(2015) 192, 3.

If European cloud providers are truly better than foreign cloud providers, then no regulations or restrictions are needed, for European businesses and consumers would naturally adopt them.

the United States.[2] Likewise German Economic Minister Sigmar Gabriel believes the EU needs to regain its "digital sovereignty" against U.S. "digital imperialists."

Not surprisingly then, a number of proposals in the DSM plan appear to be driven by a desire to eliminate an alleged lack of European competitiveness when it comes to digital trade, and to support European digital companies.[3] But were these proposals to be implemented, particularly in ways that disadvantage foreign digital companies, they would have the unfortunate effect of making it harder to help all European companies adopt more ICT and become more digital, which represents the single biggest opportunity to grow the EU economy since ICT use has been shown to be a major driver of productivity.[4]

Take, for example, the goal of creating a European cloud. Recognizing the importance of cloud computing, the Commission wants to break down barriers within Europe to access cloud computing services and as a result, proposes launching a "European Cloud initiative including cloud services certification." It is not exactly clear what this will mean in practice, but there is certainly a very real concern that this will morph into an initiative that favors European cloud providers or requires cloud providers to store data in Europe. If it does, it would mean that European businesses and consumers would find it harder to utilize best-in-class solutions from the global market for ICT services. If European cloud providers are truly better than foreign cloud providers, then no regulations or restrictions are needed, for European businesses and consumers would naturally adopt them. If they are not, then regulations and restrictions would force European consumers and businesses to pay more or get lower-quality cloud services. This in turn would discourage ICT adoption in the rest of the European economy.[5]

The DSM plan has similarly ambiguous language regarding technology standards when it states that: "industry stakeholders decide 'bottom-up' in which areas to develop standards and this is increasingly taking place outside of Europe, undermining our long-term competitiveness." But if this takes the turn of developing European-based standards, it would be like a "GSM (Global System for Mobile Communications) for the digital era."[6] If European standards are not good enough to be the global standard, then European businesses and consumers would have a harder time accessing global best-in-class digital products and services.

Perhaps the issue that has raised the most concern among U.S. government officials and U.S. technology companies is the European Commission's proposed assessment of "the role of platforms, including in the sharing economy, and of online intermediaries." Again, like other measures, it is not clear what this actually means. If the goal is to ensure adequate consumer protection and competitive markets, then as the Information Technology and Innovation Foundation (ITIF) has argued, there is no need for special rules of digital platforms as existing powers, including competition policy, are more than adequate.[7] If the goal is to target non-European digital platform companies

[2] A February 2015 memo by DG Connect staff charged, "[W]hile EU app developers account for 42% of global consumer application revenue, the overall EU trade balance of the app economy is negative €128 million [$145 million], mostly due to the app platform fees that EU developers pay on revenue earned to North American platform owners."

[3] https://itif.org/publications/2015/07/13/digital-trade-surplus-should-not-be-driving-europe%E2%80%99s-digital-agenda.

[4] https://itif.org/publications/2014/06/02/raising-european-productivity-growth-through-ict.

[5] *A Digital Single Market Strategy for Europe*, 14.

[6] Europe worked to develop and then push the GSM "2G" digital cellular phone standard.

[7] https://itif.org/publications/2015/10/19/why-internet-platforms-don%E2%80%99t-need-special-regulation?_ga=1.132896398.1831456108.1435966265.

and subject them to anti-trust enforcement (including substantial fines) or regulatory burdens to achieve a "level playing field," then the results would likely be higher-priced or lower-quality digital services for consumers and businesses in Europe.

In other words, achieving the goal of building a stronger European digital industry through these kinds of means is likely to come at the expense of the goal of spurring ICT adoption and greater digital use among European consumers and companies. Or consumers still might adopt but they would be paying more for it and many products would be less competitive.

Creating a Digital "Level Playing Field"

The EU policy to create a digital "level playing field" could also have a negative effect on digital adoption. The DSM states:

> Telecoms operators compete with services which are increasingly used by end-users as substitutes for traditional electronic communications services such as voice telephony, but which are not subject to the same regulatory regime. The review of the telecoms rules will look at ways of ensuring a level playing field for players to the extent that they provide competing services and also of meeting the long term connectivity needs of the EU.[8]

But in trying to achieve a "level playing field," the result could very well be subjecting a wide array of ICT services and applications to increased regulation that would raise costs or lower quality. This notion of a level playing field is painting with too broad a brush. Just because something is communicating over IP protocols does not mean that it is telephony or should be regulated like telephony. Indeed, the Internet has thrived because it has largely been unregulated, especially when it comes to commerce. Moreover, if the European Commission seeks to obtain parity, then why not "regulate down" and reduce the regulatory burdens on European telecom providers.

Enhancing Consumer Protection

A second goal of the DSM is to enhance consumer protection, which the Commission asserts would complement the goal of increased ICT adoption. For example, it states, "Businesses and consumers still do not feel confident enough to adopt cross-border cloud services for storing or processing data, because of concerns relating to security, compliance with fundamental rights, and data protection more generally."[9]

In fact, stronger consumer protection, either through regulation or antitrust enforcement, is also to come at the expense not just of greater ICT adoption but of ICT production as well. Despite the claims of Commission officials, there is little evidence that consumers are not participating in the digital economy because of lack of trust. To be sure, just 15 percent of Europeans feel they have complete control of the information they provide online.[10] But in this regard, Europeans appear to be no different than Americans. If anything, they appear to be less concerned about privacy, not more. According to the Pew Research Center, less than 5 percent of Americans are very confident that their personal information they provide online will be private and secure.

But more to the point, despite the widely repeated claim that lack of trust affects digital participation, there is little or no evidence to support this. For example, the Social Science Research Center Berlin

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[8] *A Digital Single Market Strategy for Europe*, 10.

[9] *A Digital Single Market Strategy for Europe,* 14.

[10] http://ec.europa.eu/public_opinion/archives/ebs/ebs_431_en.pdf.

Many of the DSM's initiatives to increase digital trust, as well as the proposed European data protection rules, will have a deleterious effect on digital supply.

found that not only would almost all European participants in a study not pay one euro more to buy a DVD where their privacy was protected than one where it was not, but that even when prices were identical they did not prefer to shop at the more protective store.[11] If a lack of trust hurts digital use, why is it that virtually all Europeans use telephones, even though more than 60 percent of them do not trust phone companies to keep their data private.

Moreover, the fact that the United States leads Europe in many digital economy indicators, including e-commerce, and that its privacy protection regime is seen by most Europeans as being weaker than Europe's, suggests that strong regulations to protect consumers are not the key to greater adoption. For example, over 250 million Europeans have signed up for Facebook, and even more use Google regularly. In fact, more Europeans (71 percent) than Americans (65 percent) use social networks.

More importantly, digital adoption is driven not just by user demand but by business supply. If the regulatory regime makes it more difficult for digital producers to thrive, by definition they will provide fewer, lower-quality, or higher-priced services, which will reduce adoption. In fact, many of the DSM's initiatives to increase digital trust,[12] as well as the proposed European data protection rules, will have a deleterious effect on digital supply. A study by Avi Goldfarb of the University of Toronto and Catherine Tucker of MIT documents how EU privacy laws negatively affect the efficacy of online advertising. Goldfarb and Tucker analyzed the impact of the European Union's 2002 Privacy and Electronic Communications Directive, which was implemented in various European countries (France, Germany, Italy, the Netherlands, and the United Kingdom) and limits the ability of advertisers to collect and use information about consumers for targeted advertising. The authors find that the privacy laws resulted in an average reduction in the effectiveness of the online ads by approximately 65 percent (where the effectiveness being measured is the frequency of changing consumers' stated purchase intent). The authors write that "the empirical findings of this paper suggest that even moderate privacy regulation does reduce the effectiveness of online advertising, that these costs are not borne equally by all websites, and that the costs should be weighed against the benefits to consumers."[13] This is why the European Center for International Political Economy (ECIPE) finds that, if fully enacted, the European Data Privacy Directive would reduce EU GDP by 0.35 percent.[14]

This is an important issue because a major goal for the Commission is not only to build data innovation companies but also to help EU companies in traditional industries better utilize data for innovation and competitiveness.[15] But data innovation depends first and foremost on the ability to collect and use data, often in ways that were not initially planned. Instituting overly stringent privacy regulations to protect consumers will have the effect of limiting the use of data and hurting Europe's efforts to win in the innovation economy.

[11] Dorthea Kübler, "Unwillingness to Pay for Privacy: A Field Experiment," Social Science Research Center Berlin, June 2010, http://ftp.iza.org/dp5017.pdf.

[12] *A Digital Single Market Strategy for Europe*, 2.

[13] Daniel Castro, *Stricter Privacy Regulations for Online Advertising Will Harm the Free Internet* (Washington DC: ITIF, 2010) 4.

[14] Stephen Ezell, "Stephen Ezell on Innovation Matters," Office of Science and Technology Austria Bridges vol. 41, 2014 October, http://ostaustria.org/bridges-magazine/item/8284-stephen-ezell-on-innovation-matters.

[15] Daniel Castro and Alan McQuinn, *Cross-Border Data Flows Enable Growth in All Industries* (Washington DC: ITIF, 2015).

ICTs and Productivity

Given that it would seem impossible to achieve digital leadership and increase ICT usage while also enacting the kind of consumer protection proposed, which goal is the most important to achieve? Let me suggest that the most important challenge for Europe is to boost productivity, not through replacing U.S. digital market share with European, but by boosting use of ICT by all industries and organizations. Higher productivity growth is the sine qua non of economic growth; it is the principal way that economies grow. For most of the post-War period, European productivity grew significantly faster than that of the United States, but after 1995, that trend reversed.[16] From 1995 through 2013, European labor productivity grew at about 1 percent annually, compared to the United States' nearly 2 percent. As a result, the labor productivity gap in the European Union relative to the United States widened by 10 percentage points between 1995 and 2013, from 89 percent to just 79 percent of U.S. levels.

Productivity increases stem from a variety of factors, but the principal one is the use of more and better "tools" by producers — in other words, the use of more and better equipment and software. And in today's knowledge-based economy, the tools that are most ubiquitous and most effective in raising productivity are ICT-based. These digital tools are more than simply the Internet, although that itself drives growth. They include IT hardware, software applications, and telecommunications networks, and increasingly tools that incorporate all three components, such as computer-aided manufacturing systems, robots, and self-service kiosks.

Thus, ICT has become the modern economy's key driver of productivity growth, which explains why nearly all scholarly studies since the mid-1990s have found positive and significant effects of ICT on productivity. Indeed, as research performed in 2011 by Oxford Economics confirms, ICT generates a higher return to productivity growth than most other forms of capital investment.[17] In fact, ICT workers contribute three to five times more productivity than non-ICT workers.

What about digital industries? Isn't expanding them the key to growth? In fact, for the United States, which leads the world in digital industries, the lion's share of ICT-led growth (more than 85 percent) comes from the use of ICT by all industries, not the production of ICT by "Silicon Valley"-type firms.[18] Moreover, while it is natural that EU policymakers look with envy on the U.S. digital success, it is important for them to remember that Europe already runs a very large trade surplus with the United States. Since 2003, Europe has tallied a $568 billion net surplus in trade in goods and services and income payments with the United States (in 2014 dollars). In particular, Europe runs large trade surpluses with the United States in advanced industrial sectors, including automobiles, automotive parts, and industrial goods where it utilizes its world class engineering capabilities. Does Europe need to increase its trade surplus with the United States even more by unfairly treating U.S. digital firms and favoring EU ones? Only time will tell.

Moreover, while the EU does lag behind the United States in IT industries (Europe and the United States generally are on par on communications[19]),

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[16] *Raising European Productivity Growth Through ICT*, 4.

[17] Oxford Economics, "Capturing the ICT Dividend: Using Technology to Drive Productivity and Growth in the EU," (Oxford, England: Oxford Economics, September 2011).

[18] Robert David Atkinson and Andrew S. McKay, *Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution* (Washington DC: ITIF, 2007).

[19] Robert David Atkinson, Richard Bennett, and Luke Stewart, *The Whole Picture: Where America's Broadband Networks Really Stand* (Washington DC: ITIF, 2013).

The Commission needs to assume control of spectrum policy, preempting national governments to reduce market fragmentation and regulatory complexity.

especially Internet firms, it also lags behind on ICT use. For example, European firms do not invest as much in ICT as firms in the United States do, and that gap is expected to widen over time. In fact, whereas in 2000, EU-based firms invested about 80 percent as much as U.S.-based firms in ICT as a share of total capital investment, by 2011 that ratio had declined to 57 percent.[20] This is unfortunate, because higher levels of ICT investment drive higher productivity growth. As Cardona et al. find, firm-level analyses provide "solid evidence that over the last two decades, an increase of ICT investment by 10 percent translated into higher output growth of 0.5-0.6 percent," regardless of the country studied.[21] Europe's lag with the United States is particularly problematic in the services industry. From 1999 to 2009, U.S. services sector productivity grew by 32 percent, while it grew just 21 percent in Germany and 20 percent in Holland.[22] To be sure, some European countries, such as Norway, Poland, and the United Kingdom, have seen greater labor productivity growth in services than the United States over that period. But in total, from 1995 to 2007, EU private sector services productivity grew only one-third as fast as it did in the United States, primarily due to the greater deployment and usage of ICT in America's service sectors.

So what should Europe focus on to drive digital adoption among all firms and organizations? First, there is much in the proposed DSM strategy that would help move Europe in that direction, including efforts to reduce cross-border shipping costs, streamline VAT collection and remittances, harmonize national e-commerce regulations, harmonize radio frequency spectrum policy for cellular communication networks, enhance incentives for broadband build-out, limit restrictions on the free flow of data within Europe, spur digital skills development, and enhance e-government (including spurring adoption of the "once only" principle, the idea that consumers enter their personal data with government only once, not every time they interact). Strong and swift action in these areas will likely lead to real digital progress.

But the European Commission should not shy away from even bolder proposals, even though member states are likely to oppose them. There are several areas of opportunity.

A Bolder European Digital Union

Spectrum

First, the Commission should be even bolder with regard to broadband policy, starting with creating EU-wide spectrum markets. It makes no sense to have 28 different spectrum auctions and rules. The Commission needs to assume control of spectrum policy, preempting national governments to reduce market fragmentation and regulatory complexity. Here, the Commission can learn from the United States, which leads Europe by a significant margin in the deployment and adoption of 4G LTE networks, in part because the U.S. federal government determines spectrum policy, not the 50 individual states.[23] The Federal Communications Commission (FCC) determines the rules for

[20] OECD, OECD Factbook 2013: Economic, Environmental and Social Statistics (Science & Technology: Investment in ICT: Shares of ICT investment in non-residential gross fixed capital formation; accessed April 2, 2014), http://www.oecd-ilibrary.org/economics/oecd-factbook-2013_factbook-2013-en; World Bank, Databank: World Development Indicators (Gross Fixed Capital Formation as percentage of GDP); The Conference Board, Total Economy Database: January 2014 (Table 5; accessed April 2, 2014), http://www.conference-board.org/data/economydatabase/.

[21] M. Cardona, T. Kretschmer, and T. Strobel, "ICT and Productivity: Conclusions from the Empirical Literature," Information Economics and Policy 25, no. 3 (September 2013): 109–125, doi:10.1016/j.infoecopol.2012.12.002.

[22] Robert David Atkinson and Ben Miller, *Raising European Productivity Growth Through ICT* (Washington DC: ITIF, 2014) 2.

[23] See Doug Brake, "Lessons from the United States for EU Spectrum Policy," (Washington, DC: ITIF, forthcoming).

nation-wide spectrum auctions. If Europe were to do the same, allowing operators to aggregate uniform licenses across regions, the efficiency of spectrum markets would increase. EU member states oppose having the European Commission take over spectrum policy in large part because they fear revenue loss, but there is no reason why revenues from EU-wide spectrum auctions cannot flow back to the individual countries. Indeed, EU-wide auctions would likely generate more revenues than would national ones.

Broadband Providers

Likewise, the European Commission needs to take stronger steps to allow and encourage consolidation among broadband providers, particularly across borders. Europe has twice as many broadband providers as the United States, and the small size of many European providers means higher costs and less capital to invest in world-class networks. It makes little sense that many EU member states, especially smaller and middle-sized ones, have distinct national broadband providers. Providing advanced broadband is a process where scale matters and drives continued investment and innovation. A fragmented market with national providers will continue to hold back next-generation broadband in the EU.

Yet many nations oppose policies to allow consolidation for fear of losing their "national broadband champion." Still others oppose consolidation for fear that it will reduce competition. But this fails to differentiate between competition within and between a region. For example, Proximus (Belgacom) in Belgium does not compete with BT or Telefonica. Therefore, if a larger carrier were to acquire and merge with Proximus, it would have absolutely no deleterious effect on competition.

Digital Regulations

The European Commission also needs to preempt digital regulations that individual member states adopt. A core tool to enable a digital single market is regulatory harmonization. Toward that end, the Commission has proposed to enact floors below which member states would not able to go. But there is no sign that the Commission also seeks a ceiling above which member states could not go. For example, the Article 8 of Directive 99/44/EC on consumer sales states that member states can use more stringent provisions in the field covered by the Directive. If the goal is to ensure a baseline level of consumer protection, then setting an EU floor with member states allowed to institute more stringent regulations will help. But if the goal is a digital single market that makes it easier for digital producers in Europe to easily sell across borders, then the EU needs to also set a ceiling and floor that are the same. In other words, it should not let national governments set their own more stringent standards. Multiple and conflicting standards go against the goal achieving a digital single market.

Disruptive Innovation

Another key to digital innovation is for policymakers to recognize and accept that it creates disruption. One reason that the United States leads in digital industries is because the policymakers and the public by and large support, or at least accept, digital disruption. Unfortunately, all too often, ICT-based business models and innovations are met with resistance in Europe. For example, France's minister of culture has attempted to portray Amazon.com's free shipping of online orders — a business model innovation — as "a strategy of dumping."[24] And a bill recently unanimously approved by France's lower house of Parliament would effectively force online

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[24] http://ostaustria.org/bridges-magazine/item/8284-stephen-ezell-on-innovation-matters.

booksellers to sell at higher prices than brick-and-mortar stores by banning any seller from applying government-related discounts to the cover prices of books that are shipped to readers. Similarly, some regional courts in Germany have banned Uber Pop, a ride-sharing car service based on a smartphone app. Unless innovators and entrepreneurs, whether U.S. or European, know they can innovate and disrupt existing business models in Europe — in transportation, lodging, telecommunications, higher education, finance, and other sectors — they will be less inclined to establish businesses in Europe.

Instead of subjecting Internet platforms to differential regulation, the European Commission should ensure that rules against particular harmful actions apply to all digital parties, whether platform or non-platform.

Public-Private Partnerships

The European Commission would also be well advised to take advantage of core European competencies, particularly Europe's real ability to engage in smart public-private partnerships. As the Information Technology and Innovation Foundation (ITIF) has shown in its series "Explaining International IT Application Leadership," the United States lags in IT application areas that involve "chicken-or-egg" dynamics where innovation requires complementary action at the same time, in large part because of the lack of an overall government strategy.[25] A case in point is digital signature/E-ID technology: users will not sign up for a digital ID unless there are applications they can use them for and vice versa. In areas such as health IT and digital signatures, some European countries lead the world because they have embraced digital public-private partnerships. Europe has real opportunities in areas such as smart cities, the industrial Internet ("Industry 4.0"), health IT, smart transportation, digital IDs, and many other areas. Policymakers would be well advised to chart out steps on how the EU can help member states drive these and other application areas through smart public-private partnerships.

Internet Platforms

Finally, the European Commission would be well advised to tread carefully when it comes to subjecting Internet "platforms" to differential regulation.[26] The Commission should understand that platforms provide tremendous efficiencies, scale, and network effects that enable creation of value-added digital services that European consumers enjoy, such as Google, Facebook, Twitter, Spotify, Taxify. This scale is ultimately good for consumers. For example, there is a reason why an application like Twitter has few direct competitors. Imagine if people had to monitor two "Twitters" or people needed to "Tweet" on more than one service. Moreover, even though digital monopolies or oligopolies exist, it is important to note that "Schumpeterian" competition exists, whether within or between existing platforms, or between the current platform and the next-generation one. For instance, Facebook competes with Google for the same advertising revenue. Existing platforms will likely face disruptive competitors in the future, and that threat keeps them on their toes. So instead of subjecting Internet platforms to differential regulation, the European Commission should ensure that rules against particular harmful actions apply to all digital parties, whether platform or non-platform.

Geo-Blocking

The Commission should be cautious in its proposals to outlaw geo-blocking of digital content, a practice whereby the price or availability of a digital good or service differs by the location of the consumer. As ITIF has written, prohibiting geo-

[25] Stephen Ezell, *Explaining International IT Application Leadership: Intelligent Transportation Systems* (Washington DC: 2010) 39.

[26] Joseph V. Kennedy, "Why Internet Platforms Don't Need Special Regulation," (Washington, DC: ITIF, 2015) https://itif.org/publications/2015/10/19/why-internet-platforms-don%E2%80%99t-need-special-regulation?_ga=1.70532752.1831456108.1435966265.

blocking will likely harm at least some consumers of digital content who are located in lower-income EU nations.[27] What appears to be motiving the Commission in this area is the very real frustration that some EU consumers cannot get access to digital content that they have legally acquired the rights to when visiting other EU nations. There is no reason the content industry cannot implement technologies around digital rights management that give European consumers the rights to access content they have acquired legally wherever they happen to be in Europe.

However, when it comes to mandating that all content be released in Europe at the same time, under the same license rules, and at the same prices, the Commission would be advised to tread carefully, for the results could be the opposite of what is expected. The DSM's supporters appear to have the view that if the Commission banned geo-blocking, prices for digital content would decrease. But, more likely, prices would converge, meaning that prices would go down for some Europeans and up for others. If the Commission mandates that "if you live in the UK, then you can access *iTunes* in Bulgaria," that will simply force platforms to establish EU pricing — and the EU price will be the UK price, not the Bulgarian price. An EU ban on geo-blocking would reduce the ability to charge lower prices in lesser-developed markets within the EU. In the United States, content companies have the freedom to make commercial decisions related to demand — there is no government mandate to license nationally — and that is why there is territoriality in some situations (for example, with regard to some live sports broadcasts) and cross-national licenses in most others.

Beyond the DSM: An EU-U.S. Digital Single Market

It is important to view the DSM as first step, not a final step. If a European digital single market is good, and it is, then a European-U.S. digital single market is even better. For example, the European Commission rightly states that "Restrictions, such as those related to data location, force service providers to build expensive local infrastructures (data centers) in each region or country."[28] As a result, it argues that "any unnecessary restrictions regarding the location of data should be removed and prevented." But that logic applies not only to restrictions between EU member states, but also to restrictions between the EU and the United States. As such, that ambition should be applied to upcoming negotiations over the Transatlantic Trade and Investment Partnership (TTIP) so that it expands the location and movement of European citizens' data outside Europe, including within the United States.

To be sure, policymakers on both sides of the Atlantic need to work to enable such cooperation. This is why steps like the Umbrella Agreement between the EU and the United States to establish strong high-data protection standards for transatlantic law enforcement cooperation is so important. It is also why working cooperatively to restore some kind of Safe Harbor Agreement on transatlantic data flows is important after the European Court of Justice upheld the Irish High Court's decision to overturn the Safe Harbor. But beyond this, each side still has work to do. As ITIF has written, while Congress took important steps this summer in passing the USA Freedom Act, there is still more work to be done, particularly

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[27] Joseph V. Kennedy, *Why Geoblocking Can Increase Consumer Welfare and Improve Income Equality* (Washington DC: ITIF, 2014) 8.

[28] *A Digital Single Market Strategy for Europe*, 14.

in establishing new standards for transparency, cooperation, and accountability.[29]

European policymakers also need to better understand that in most instances, they do not need to keep data within European borders in order to protect their citizens.

But European policymakers also need to better understand that in most instances, they do not need to keep data within European borders in order to protect their citizens. As ITIF has shown in its report "The False Promise of Data Nationalism" businesses that operate in the EU (whether EU firms or foreign) will still have legal responsibility based on national or EU laws for data privacy and security even if they store data in the cloud in a non-EU country.[30] U.S. companies in Europe cannot dodge their legal obligations vis-à-vis privacy and commercial security simply by storing EU personal data outside Europe. This means that a TTIP agreement should have almost no exceptions for cross border data flows (other than areas like national security and illegal content such as pirated digital content).

Likewise, TTIP should liberalize markets for telecommunications and broadband so that European companies can more easily buy U.S. telecom, cable, and broadband companies and vice versa. Doing so would give businesses and consumers on both sides of the Atlantic access to the best broadband providers in either region.

Finally, it is important to remember that if the EU succumbs to pressures from consumer groups, powerful incumbent industries, and some member states to craft a DSM that creates a digital wall around Europe with systemic discrimination against U.S. digital firms, then that would make TTIP negotiations far more difficult. In contrast, if U.S. policymakers see that Europe is building an open and fair DSM, and if EU policymakers see that Congress is making real efforts to provide adequate safeguards for EU citizens, then both sides will be much more open to advancing a TTIP that will go a long way toward creating a transatlantic digital market. And that is a goal virtually all of us should be able to champion.

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[29] Alan McQuinn, "Congress Still Has a Long Way to Go On Surveillance Reform," *Roll Call*, August 6, 2015 http://blogs.rollcall.com/beltway-insiders/congress-still-has-a-long-way-to-go-on-surveillance-reform-commentary/?dcz.

[30] Daniel Castro, *The False Promise of Data Nationalism*, (Washington DC: ITIF, 2013)1.

3 How Deep is the Ocean? Notes on the Transatlantic Digital Market

Andrea Renda

There are many good reasons to advocate for the integration of the U.S. and the EU economies, in particular in the digital sphere, where many of the layers of the Internet are already inherently globalized. Such integration promises more competition in the provision of services, more widespread diffusion of content, more investment, and, consequently, more dynamic efficiency and innovation. Even more importantly, as the digital world is preparing for yet another paradigm shift (the Internet of Things), securing the availability of an integrated market of 800 million consumers for future industrial and commercial applications would likely boost innovation and economic incentives even more. And if the (future) European Digital Single Market is attributed a value of approximately €500 billion, or 4 percent of the EU GDP, further expanding this market to the United States would create even more value for consumers on both sides of the Atlantic.

The more the United States and the EU evolve into knowledge-intensive economies, the more portable (mobile) those economic activities become, and the more competition and choice there will be for consumers of both blocs. The two know very well that the digital economy is one of the juiciest fruits to be reaped from enhanced transatlantic cooperation; it is hardly surprising to observe that as negotiations on the Transatlantic Trade and Investment Partnership (TTIP) progress, the digital component of the trade deal appears to grow in importance every day.

While the integration of the two markets would bring obvious economic gains, it would not be accurate to say that the two blocs are natural partners (or even a good couple). Recent events confirm that the political climate for the integration of the two markets is far from favorable.

First, the Datagate scandal spurred by the revelations of Edward Snowden has seriously undermined the trust between U.S. and EU authorities. The European Parliament in March 2014 called for the suspension of the "Safe Harbor" agreement, which allows smooth flows of data between the two sides of the Atlantic. The agreement has since been invalidated by the Court of Justice of the EU.[1] Tensions between the parties at the table are so significant that it is now widely thought that there can be no TTIP agreement without an agreement on data protection (possibly outside the TTIP and before its conclusion).

Second, recent initiatives adopted by EU member states, in particular France and Germany, and later by EU institutions, have been interpreted in Washington as signs of an anti-U.S., protectionist campaign in Europe. In an interview released in February 2015, U.S. President Barack Obama accused European corporations and regulators of strategically hampering the position of U.S. Internet companies.[2] The underlying reason, according to him, is that European companies "can't compete with us" and thus need to alter the level playing field to be able to survive. The reference is not only to the ongoing antitrust investigation on Google, but also to recent calls by the European Parliament to unbundle search engines (read again: Google) from other commercial services, the current uprising of taxi drivers against Uber in many cities, the mounting debate on tax avoidance practices by several IT companies, and the wave of "Google taxes" imposed to remunerate publishers. A European Commission spokesperson called Obama's comments "out of line."[3]

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[1] Judgment of the Court (Grand Chamber) of October 6, 2015. Maximillian Schrems v Data Protection Commissioner. Case C-362/14.

[2] See i.a. "Obama attacks Europe over technology protectionism," Murad Ahmed, Duncan Robinson, and Richard Waters, *Financial Times*, February 16, 2015, http://www.ft.com/cms/s/0/41d968d6-b5d2-11e4-b58d-00144feab7de.html#axzz3ejxpiSNf.

[3] Id.

Even if the EU will manage to complete its Digital Single Market in the coming years, there is no guarantee that this will not be done to the detriment of U.S.-based Internet players.

Third, the new wave of EU protectionism is being further evidenced by the current plans to scale-up, at the pan-European level, the Industrie 4.0 platform launched in 2011 by the German government. The initiative aims at coordinating the transition of the German industry toward the use of cyber-physical objects and equipment in the factories of the future (often described as the "fourth industrial revolution"). It is powered by a mix of technologies, which include nanotechnologies and Internet of Things (IoT) solutions that design and realize smart objects, cloud computing technologies for the low-cost storage of data and applications, a mix of wireless technologies for always-on connectivity (including 5G), advanced robotics, 3D printing, and big data analytics for optimized management of the supply chain. From a U.S. perspective, the worry is that some of the key industry players involved in Industrie 4.0 end up developing standards that are incompatible with those being developed in the United States, in particular when it comes to cloud computing, but also with respect to supply chain management.[4]

Finally, and perhaps most importantly, it is still very difficult for the EU to negotiate a full agreement with the United States since the EU does not yet have a Digital Single Market, as finally and widely acknowledged by its political leaders.[5] Not only is the infrastructure layer overly fragmented across the EU, but also network neutrality rules and to a large extent copyright rules are still governed by the laws of the 28 member states. And even if the EU will manage to complete its Digital Single Market in the coming years, there is no guarantee that this will not be done to the detriment of U.S.-based Internet players. This is why the launch of the EU Digital Single Market strategy in May 2015 has raised a few eyebrows in Washington, in particular since the strategy contained rather ambitious proposals in terms of data protection, took a rather hostile approach toward platforms, and was coupled with the launch of am extensive sectoral inquiry of the European Commission, DG Competition, into the e-commerce sector, which many thought to be chiefly aimed at challenging some of the distribution practices of giants like Amazon.com.

More generally, the prospects for any bilateral negotiation rest in the possibility, for the two parties, to gain from the agreement, and maybe even from reciprocal concessions. In this respect, a closer look at the two systems reveals that differences are much wider than it might have seemed at first blush. From infrastructure regulation to antitrust law applied to the ICT sector, and of course to data protection and copyright, the transatlantic digital economy today is a patchwork of diverging regulatory solutions, which is very difficult to harmonize and streamline for the two blocs. That may be due to a lack of political will, the mere fact that given solutions would benefit one party more than another, or because one party (the EU) is unable to coordinate the rather diverse sets of priorities of its member states.

The remainder of this paper is organized as follows. Section 1 takes stock of the main existing differences between the regulatory systems of the United States and the European Union in the digital economy. Section 2 elaborates on a possible future strategy for a successful realization of the transatlantic digital economy. Section 3 briefly concludes with a reality check on what is likely to

[4] One possible example is the recent joint initiative launched by Deutsche Telekom and SAP to merge production technology with IT and telecommunications, which might result in standards that are different from the ones proposed by AT&T, Cisco, IBM, Intel, and General Electric, that dominate the top standards alliances in this field.

[5] See, for an early diagnosis of the problem at a time in which the EU did not recognise it, Pelkmans and Renda (2010).

happen in practice within the TTIP negotiations, and beyond.[6]

Gauging the Distance Between the Two Systems

The most appropriate way to look at the distance between the United States and the European Union in terms of trade and investment is not to look at tariff barriers, which in the digital economy are particularly low; rather it is non-tariff regulatory barriers that count. Given that the Internet ecosystem can be essentially described as a layered architecture, based on infrastructure and network equipment as the bottom layer, it is useful to gauge the distance between the two economic blocs by looking at each layer.

The Infrastructure Layer

The Problem

There is no Internet without a suitable underlying infrastructure, be that fixed or wireless. And the faster, the more reliable the infrastructure that carries the Internet's zettabyte of traffic, the greater the possibilities for end users in terms of available cutting-edge applications and content. Even besides this immediate effect, a widespread, high-speed, resilient infrastructure provides a plethora of broader benefits. Ultra-fast broadband is widely considered an increasingly important driver of productivity and economic growth, which in turn translates into better economic conditions for society as a whole and, with some caveats, also in more qualified jobs.

Companies operating with global value chains consider infrastructure availability and connectivity one of the key factors in deciding where to locate production; the increasing use of tele-work and 3D printing, among other things, make connectivity an essential asset to claim citizenship in the future of manufacturing. Finally, the upcoming Internet of Things revolution, with an expected resulting boom in the number of connected devices from the current 7 billion to at least 50 billion by the end of the decade, is likely to create a new digital divide between countries that can rely on resilient and efficient connectivity and those that cannot.[7]

The State of Play: U.S. and EU Regulation and its Outcomes

However conscious of the importance of widespread, ultra-fast broadband connectivity, the United States and the EU have diverged widely in their regulatory approach to broadband telecommunications over the past decade. On one hand, the U.S. Federal Communications Commission (FCC) has actively pursued a deregulatory approach in order to stimulate the deployment of high-speed broadband networks, which resulted in the lifting of infrastructure-sharing obligations on high-speed broadband networks since 2003. The presence of a pervasive legacy cable infrastructure, which itself could be upgraded to high-speed networks thanks to new technologies and standards, has led to the emergence of vibrant facilities-based competition throughout the United States.[8]

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[6] Some of the analysis in this paper is inspired and taken from previously published work, in particular Renda, Andrea and Christopher Yoo, *Telecommunications and Internet Services: The digital side of the TTIP*, in CEPS-CTR project "TTIP in the Balance," Center for European Policy Studies and Center for Transatlantic Relations, 2015, https://www.ceps.eu/system/files/SR112%20Renda%20and%20Yoo%20Telecoms%20TTIP.pdf.

[7] See Renda, Andrea, "Selecting and Designing ICT Innovation Policies," forthcoming October 2015, report for the European Commission, Joint Research Centre.

[8] See Renda, Andrea, "The Costs and Benefits of Transatlantic Convergence in Telecom Services, in Dan Hamilton and Joseph Quinlan (eds), *Sleeping Giant: Awakening the Transatlantic Services Economy*, Johns Hopkins University and Brookings Institution, Washington, DC, November 2007; "The review of the telecoms framework: a tale of the anti-commons, paper for [the] first report of the "Monitoring ICT European Regulation" initiative, NEREC, Madrid, 2009;.and Yoo, Christopher, "U.S. vs. European Broadband Deployment: What Do the Data Say?," Institute for Law and Economics Research Paper No. 14-35, University of Pennsylvania, Philadelphia, PA,2014.

The United States and the EU will continue to have a very different approach to regulation of fixed-line broadband networks.

On the other hand, the absence of a legacy cable infrastructure in many countries in Europe has led regulators to opt for infrastructure sharing, which was made even more extensive and invasive after 2003, exactly as the United States was going in the opposite direction. The application of the so-called "ladder of investment" model to encourage the entry of new players in each of the EU member states has led to a significant fragmentation of the market, with hundreds of telecom operators now populating the continent.[9] While offering consumers a variety of alternative providers, in many countries this fragmentation has led to a "catch 22" situation, in which the obligation to share any improvements at regulated prices deters incumbent players from upgrading their infrastructure, and the ability to access the existing infrastructure on quite favorable terms discourages new entrants from investing as well.

The impact of these policies is most visible in the availability of Next Generation Networks (NGNs). As reported by Renda and Yoo (2015), studies commissioned by the United States and the EU on broadband coverage in 2011, 2012, and 2013 reveal that the United States has consistently outpaced Europe in NGN coverage. Data on investment levels reveal the same pattern: from 2007 to 2012, U.S. providers invested on average greater than two times more per household than their European counterparts. Since 2008, European investment levels have languished at 35 percent below their pre-2008 peak, while the drop-off in the United States has been a more modest 7 percent.[10]

At the same time, a proactive spectrum policy by the FCC has led to the early auctioning of the digital dividend spectrum, which enabled the early deployment of very high-speed mobile broadband networks such as 4G (Long Term Evolution, LTE). Likewise, difficulties in achieving the needed coordination between national authorities have led to significant delays in the reallocation of spectrum to mobile operators. The absence of a timely, coordinated EU spectrum policy has made Europe a laggard in the deployment of 4G broadband. The U.S. market has also become quite competitive. As of December 2014, AT&T reached 99 percent of the U.S. population with its LTE network, with Verizon reaching 96 percent, Sprint 78 percent, and T-Mobile 72 percent (FCC 2014). This makes it quite likely that more than 70 percent of the population can choose from among three, if not four, LTE providers.

This stark divergence of regulatory approaches has led to the exact result one would expect: while in the United States the FCC has started to worry about vertical exclusion, in Europe the priority is now stimulating investment and possibly achieving a degree of industry consolidation. Both stances also bear important consequences for ongoing debates on network neutrality, as recent initiatives take into account the current state of development of the telecommunications infrastructure.

Possible Areas of Agreement

The United States and the EU will continue to have a very different approach to regulation of fixed-line broadband networks. However, recent EU initiatives (including the "Juncker Plan") to boost public-private investment in broadband networks in rural and remote areas should, whenever possible, be left open to non-EU investors, which would certainly create more integration between the two markets. In terms of future regulation, the following actions appear desirable:

- *Reach a general agreement on the conditions that would trigger mandatory network sharing (e.g. cases in which only one network is*

[9] For a description, see Renda (2009); and Pelkmans, Jacques, and Renda, Andrea, "Single eComms market? No such thing," Communications & Strategies, 2nd quarter, 2011.

[10] See Yoo (2014).

economically viable), and at what terms. This would make life a lot easier for industry players wishing to invest in broadband networks in the transatlantic digital market, as it would minimize regulatory difference and enable a better selection and matchmaking of supply and demand.

- *Open up all procurement markets in this domain to players from the other bloc*. This step is made even more difficult since public procurement is still essentially dealt with at the state level both in the United States and (to a lesser extent) in the EU.

- *Cooperate in the revision and update of market definition processes in order to incorporate all sources of competition*: from fixed-wireless competition to fiber-cable competition. Most importantly, an update must look at competitive pressure exerted by over-the-top (OTT) players. These third-party providers utilize network services such as Skype, which uses a smart phones network connection for voice calls.[11]

The Logical Layer: Net Neutrality and Beyond[12]

The Problem

One of the policy areas in which the divergence between the United States and the EU has been most evident over the past decade is network neutrality, defined as a rule prohibiting network operators from discriminating between types of Internet traffic and thus obliging them to treat all bits in the same manner. Companies operating at the application and content layers of the Internet ecosystem have advocated for such a rule since the mid-2000s. Their efforts have triggered a furious debate first in the United States and later in the EU and globally.

Arguments in favor of regulatory intervention to mandate network neutrality and to keep telecom networks functioning as "dumb pipes" developed mostly with reference to telecommunications operators in their role of Internet Service Providers. On one hand, telecom operators claim that preventing them from managing traffic on their networks would jeopardize the quality of the user experience, deny the possibility of a more efficient and effective provision of the Internet service, and leave the whole Web vulnerable to spam and illegal peer-to-peer file sharing, which — despite its illegality — has continued for many years and represents roughly half of all Internet traffic.

On the other hand, "neutralists" challenged this view by stating that the end-to-end nature of the Internet should not be contaminated by intelligence in the core of the network, which would reduce the value of the network due to filtering of content and speech, and the narrowing of spaces for creativity at the edges.

The Regulatory Approaches in the United States and the EU

In the United States, after the initial decision to keep Internet access services essentially deregulated, a recent "Open Internet Order" adopted by the FCC on February 26, 2015, reclassified Broadband Internet Access Services (BIAS) as a telecommunications service, completing what can only be seen as a U-turn from the direction the FCC had taken since 2002.[13]

One of the policy areas in which the divergence between the United States and the EU has been most evident over the past decade is network neutrality.

[11] Microsoft, Facebook, and Google have announced plans to bring connectivity to developing countries for free, from refugee camps (Facebook) to remote areas (Google Loon) to many cities in India (Microsoft). This trend might expand, at a later stage, to developed countries, as shown by the first steps of Google Fiber in a number of U.S. cities.

[12] The Internet architecture is composed of the infrastructure layer, the logical layer, the application layer, and the content layer.

[13] The FCC has also stated it will refrain from applying as many as 27 provisions of Title II, and as many as 700 codified rules, resulting in what it calls a "light-touch" approach for the use of Title II. See FCC (2015, p. 12).

Both parties would gain considerably from an open debate on net neutrality. As of now, even if the rules in place are not too different, there is a remarkable degree of uncertainty.

The order establishes three "bright-line rules" prohibiting blocking, throttling, and paid prioritization, with all other conduct being governed by a general standard prohibiting unreasonably interfering with disadvantaging consumers' ability to reach the content, applications, services, or devices of their choice or edge providers' ability to access consumers using the Internet. The order created exceptions for reasonable network management, defined as practices primarily used for and tailored to achieving a legitimate network management purpose as opposed to a business purpose.

Another new feature of the order is that it extends full network neutrality protection to wireless networks.[14] With respect to specialized services, which the order renamed non-Broadband Internet Access Services (non-BIAS) data services, the FCC continued to permit providers to offer these services while also continuing to monitor their development and use.

In Europe, the debate is more recent, but has been equally fierce. After a first attempt to introduce rules on net neutrality in 2009, in late 2013 the debate on the "Connected Continent" proposal saw starkly divergent positions expressed by the European Parliament and the Council. A political agreement was finally announced by the European Commission on June 30, 2015. Under the new agreement, users will be free to access the content of their choice, they will not be unfairly blocked or slowed down anymore, and paid prioritization will not be allowed. This, to a great extent, is quite similar to the FCC's new approach to net neutrality in the United States.

In parallel, Internet access providers will still be able to offer specialized services of higher quality, such as Internet TV and new innovative applications, so long as these services are not supplied at the expense of the quality of the open Internet. These rules will be a reality across all member states as soon as the text officially applies on April 30, 2016.[15] The European Commission explained that "all traffic will be treated equally, subject to strict and clearly identified public-interest exceptions, such as securing networks or combating child pornography, and subject to efficient day-to-day network management by Internet service providers."[16]

Possible Areas of Agreement

Both parties would gain considerably from an open debate on net neutrality. As of now, even if the rules in place are not too different, there is a remarkable degree of uncertainty, both due to the threat of extensive litigation in the United States and to the implementation challenges that the rules will pose on both sides of the Atlantic.

Finding an agreement on specific issues would be advisable and would add to legal certainty and overall market performance both in the United States and in the increasingly fragmented European Union. Examples include:

- a "black list" or practices that are always to be considered prohibited;
- a "grey list" of practices that are to be prohibited under well-defined circumstances; and
- a "white list" of allowed practices, to be consistently interpreted and regularly updated in what could become a very useful "living agreement."

[14] Instead of a separate rule for wireless, the FCC decided that it would instead simply take engineering attributes into account when assessing reasonable network management.

[15] http://europa.eu/rapid/press-release_IP-15-5265_en.htm.

[16] Id.

Such an agreement can only occur if industry and civil society organizations participate. Finally, the prospects for an agreement on network neutrality chiefly depend on the position that the EU will take in related fields, most notably in its regulatory reforms on e-commerce and copyright and in the ongoing antitrust investigations against Google. All these dossiers are deeply intertwined with network neutrality, not only because they call into question the potential introduction of "platform neutrality" obligations, but also since they all directly or indirectly refer to the conduct of U.S. companies in the European territory.

The Platform and Applications Layer: Between Antitrust and Regulation

The Problem

While the network neutrality debate still looms, the Juncker Commission has also launched a new initiative to extend the neutrality principle to Internet "platforms." Many official documents published by the European Commission and the European Parliament in the past months allude to the pressing need to limit U.S.-headquartered companies' dominance over the Internet.

Since last year, French and German institutions have repeatedly called on the European Commission to split Google into two companies, a recommendation endorsed by the European Parliament in November last year. The French Digital Council has loudly called for legislation that would impose neutrality obligations on large Internet platforms, starting obviously with Google but then reaching all of the so-called GAFTAM companies.[17]

The first weeks of the Juncker Commission seem to have emphasized the need to go beyond a "silo" approach in telecoms and media regulation to address the problem of the rising power of OTT platforms through a consistent set of legal instruments covering competition, copyright, privacy, and security issues. What might emerge is an additional layer of regulation and responsibilities for Internet intermediaries.

Current and Proposed Regulation

In the United States, there is virtually no debate on platform regulation. An antitrust investigation against Google was conducted by the FTC and closed in 2013 with an acquittal, with the FTC concluding that Google's conduct had increased consumer welfare.[18] In the EU, however, antitrust rules are interpreted, implemented, and enforced in a way that is significantly different compared to that of the United States. This is not only a matter for historians or a subject matter for academic writings; the different approach has resulted in starkly divergent positions being adopted in merger control (e.g. the GE/Honeywell merger cleared in the United States and rejected in the EU in 2001), and most notably in the area of single-firm conduct (e.g., the U.S. and EU Microsoft cases).[19]

This divergence becomes even more important in the digital economy. Many digital markets tend to be characterized by competition "for" rather than "in" the market, as firms compete in a high-risk, high-reward game that produces only one winner. The structuralist view of competition prevailing in the EU rests on the authorities' distrust of this dynamic form of competition despite the fact that in Europe, just as in the United

In the United States, there is virtually no debate on platform regulation.

[17] GAFTAM: Google, Amazon, Facebook, Twitter, Apple, Microsoft. See Conseil National du Numérique (2014), "Platform Neutrality: Building an open and sustainable digital environment," Opinion No. 2014-2, French Digital Council, Paris (www.cnnumerique.fr/wp-content/uploads/2014/06/PlatformNeutrality_VA.pdf).

[18] Renda, Andrea, Felice Simonelli, Giuseppe Mazziotti, Alberto Bolognini, and Giacomo Luchetta, "The Implementation, Application and Effects of the EU Directive on Copyright in the Information Society," CEPS, No. 120, November 2015, https://www.ceps.eu/system/files/SR120_0.pdf.

[19] Renda (2001, 2004).

A broader cooperation between the United States and the EU on antitrust issues seems to be difficult, but would be highly desirable.

States, market power is not equated with market share, but in principle requires a finding that the company at hand behaves to an appreciable extent independently of competitors, suppliers, and consumers.[20] The consequence is that the European Commission can regard certain companies as dominant even when they have a high chance of being displaced by other market players in the generation of their product in what is an ever-changing competitive landscape.

The continental drift in antitrust, exacerbated by the peculiar economics of high-tech markets, lies at the roots of many differences between regulatory practices in the two legal systems, in particular regarding infrastructure regulation and network neutrality. It underlies the U.S. relatively "hands-free" approach to both merger regulation and single-firm conduct in cyberspace, which contrasts sharply with the EU "interventionist" approach.

While the numerous antitrust investigations against Microsoft in both jurisdictions over the past 15 years are probably the clearest illustration of the existing divergence, the current European Commission's case against Google is a good example of a case dismissed by the FTC in the United States and currently being reproposed, with remarkable emphasis, in the EU. And more could come from the ongoing antitrust case against Amazon.com (for selective distribution practices in the e-books market), and from similar initiatives.

But so-called platforms are not exclusively attacked in Europe from an antitrust perspective. An ongoing consultation launched in September 2015 and due to remain open until the end of the year could produce unpredictable results. EU institutions are currently floating between the temptation to extend the neutrality principle to platforms and the need to attribute more responsibility to platforms by departing from the "mere conduit" principle, in particular for what concerns the monitoring and enforcement of privacy and copyright violations.

And here comes the next challenges for so-called "intermediaries": the reform of EU copyright law. Here, the EU seems to have opened a debate on issues that are largely underexplored in the United States, including the viability of geo-blocking practices and the enhanced liability of intermediaries. This reflects the fact that Europe is increasingly considering policies to redistribute revenues along the Internet value chain, away from large IT intermediaries such as the GAFTAM companies and instead toward content producers and telecommunications operators.

We consider it quite unlikely that any measure on intermediary liability and deviations from the "mere conduit" principle, if actively pursued by the European Commission in a transatlantic dialogue, would be agreed between the parties. Moreover, an agreement on platform liability based on the emerging EU approach would likely be unfortunate in economic and legal terms. Imposing heavy obligations on emerging Internet intermediaries both in terms of neutrality and liability for copyright and privacy would amount to a true oxymoron: treating them as dumb pipes on one hand and as editors of content on the other.

Possible Areas of Agreement

A broader cooperation between the United States and the EU on antitrust issues seems to be difficult, but would be highly desirable. Ideally, cases in which the same conduct is judged in two starkly diverging ways by authorities of the two

[20] See http://ec.europa.eu/competition/antitrust/procedures_102_en.html. The European Commission explains that "market shares are a useful first indication of the importance of each firm on the market in comparison to the others. The Commission's view is that the higher the market share, and the longer the period of time over which it is held, the more likely it is to be a preliminary indication of dominance. If a company has a market share of less than 40 percent, it is unlikely to be dominant."

blocs should not occur anymore in the future, especially in the digital economy. In the medium term, the two blocs should gradually reach mutual recognition of antitrust decisions, so that legal certainty is more significantly promoted.

One difficulty in this respect is the very different modes of enforcement that the two legal systems currently feature, in particular the much stronger private antitrust enforcement observed in the United States compared to the EU. To put it simply, while the EU antitrust legislation is in all likelihood stricter than the U.S. one, the consequences of a condemnation in the EU are less dramatic since private antitrust damages actions do not always, nor on a massive scale, follow public decisions. Last year, the EU had adopted a new directive that should encourage more private antitrust litigation, but it is still unclear whether this will lead to significant changes.

On the issue of platform regulation, the only possible (and meaningful) area of agreement, or "landing zone," would be a gradual move toward responsible platform cooperation, especially in the monitoring and enforcement of legislation, and an agreement on market monitoring to ensure that the current, "platformized" Internet pursues a number of public policy interests. Platform neutrality is a "no go," and should be left out of any transatlantic digital economy.

The Content Layer: Can Europe Put an End to its Copyright Mess?

The Problem

Over the past two decades, the emergence of the digital economy, and the diffusion of the Internet have resulted in significant new opportunities to create, disseminate, and consume content, at the same time challenging the ways in which content production has been traditionally promoted and encouraged. After a few years, it became clear that copyright owners had lost control of the use and distribution of their content on the Web, and users started to create a huge and uncontrollable secondary market for digital content. This triggered several policy responses, from the 1996 World Intellectual Property Treaty to its implementation in the United States (the 1998 Digital Millennium Copyright Act) and the EU (in particular with Directive 2001/29/EC).

Since then, there have been both similarities and differences in the way the United States and the EU handle digital content. Both legal systems have decided to exempt intermediaries from liability for the conduct of their subscribers or users, in line with the principle of network neutrality. However, as the digital economy was creating a lot of demand for content reuse and dissemination, e.g. to develop user-generated content and to use data for both research and commercial applications, the most important aspects of copyright legislation became enforcement, possible exceptions and limitations, and the fair remuneration of artists.

First, on enforcement, the United States has gradually stretched the scope of legal precedents like Sony v. Universal Studios to capture evolving and gradually more sophisticated forms of illegal peer-to-peer file sharing. At the same time, some EU member states have gone directly to empowering Internet Service Providers (ISPs) as cyber-policemen, even able to sanction their subscribers after a number of warnings for violations of copyright (e.g. the French HADOPI law).

None of the two approaches today can be said to have worked entirely, but technology seems to be likely to solve the problem more effectively thanks to the emergence of rather cheap, access-based legal services managed by established platforms (e.g. Spotify, Apple Music).

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On exceptions and limitations, it seems clear that the U.S. approach, based on "fair use" as a general clause, is more easily adaptable to the evolution of the market, compared to the closed, optional system of exceptions and limitations introduced in Europe by the 2001 Information Society Directive.

Current Regulatory Proposals

In the United States, current reform proposals concentrate mostly on the music sector, where the U.S. copyright office proposed to modernize rules by 1) creating a performance royalty that would pay artists and record labels when their songs are played on traditional radio; 2) eliminating the copyright loophole that cuts artists and labels out of digital royalty payments for songs recorded before 1972; and 3) putting the copyright attached to a song's composition on equal footing with the copyright attached to the sound recording.[21] While these proposals are currently under debate, there appears to be weaker momentum for a massive reform of copyright legislation, since the "fair use" principle appears to be quite well equipped to fit the needs of the emerging data-driven economy.

In the EU, the story is very different. Over the past year, the debate has reached a peak, and copyright reform has been put at the forefront of the Digital Single Market strategy. The European Commission plans to propose revisions by the end of 2015. The issues that are mostly debated as of now are:

- the need to attribute more liability to online intermediaries, by reviewing the "mere conduit" principle included in the 2000 EU e-Commerce Directive;[22]
- strengthening enforcement, possibly by relying once again on cooperation with intermediaries;
- contrasting so-called "geo-blocking" practices, now considered one of the worst obstacles on the way to market integration, and accordingly included in the new EU Digital Single Market strategy;[23] and
- reviewing existing exceptions and limitations, possibly to introduce an exception for text and data mining.

But the most important regulatory stance, i.e. unifying copyright through the creation of a single copyright title for Europe, seems unlikely to be pursued by the EU at this stage, due to strong resistance by a number of member states.

Possible Areas of Agreement

Content regulation and copyright legislation are among the least likely to be harmonized across the Atlantic, as demonstrated by the fact that at the beginning of the negotiations on TTIP, the French government immediately obtained the exclusion of audiovisual content from the scope of the negotiation. The problem is further exacerbated by the fact that in the EU, copyright law remains essentially national, and no attempt seems to be on the horizon to further harmonize legislation at the EU level. Even worse, the obsession of EU policymakers with geo-blocking seems to be only partly justified, and invoked almost exclusively with respect to large U.S.-based companies. This is not the best starting point for a negotiation.

[21] http://copyright.gov/docs/musiclicensingstudy/copyright-and-the-music-marketplace.pdf.

[22] Directive 2000/31/EC of the European Parliament and of the Council of June 8, 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, July 17, 2000.

[23] European Commission's Communication on "A Digital Single Market Strategy for Europe," COM(2015) 192 final, Brussels, May 6, 2015. Geo-blocking refer to commercial practices that either prevent online customers from accessing and purchasing products and services from a website based in other member states or automatically reroute requests to a domestically located store. As a result of these practices, consumers are often charged more for products or services (particularly music or audio-visual) purchased online on the basis of their IP address, their postal address, or the credit card used to make the purchase.

A useful, desirable landing zone in this field would be a broad agreement on the compatibility between the "fair use" exception available in the United States, and the (revised) list of exceptions available in the EU. In particular, very important exceptions that affect research and education, user-generated content, social networking, and data-driven applications should be given a predictable and uniform regulatory framework in order to maximize the value of the Internet for all users, application providers, and content developers.

Data Protection

The Problem

No other issue related to the online world has been as prominent in the debate over the transatlantic digital economy as data protection. Even before the Snowden revelations, the issue was almost intractable in transatlantic regulatory cooperation. Against this background, the emergence of the Internet, and even more of cloud computing, creates significant legal challenges alongside certain potential benefits.

The starkly divergent legal approaches in the United States and the European Union have been best highlighted by the Court of Justice of the EU (CJEU) in its September 2015 decision invalidating the U.S.-EU Safe Harbor Agreement. First the Computer and Communications Industry Association and most recently Eric Schmidt, chairman of Google parent company Alphabet, have warned that the decision, in leaving a degree of regulatory discretion to national privacy authorities of EU member states, risks triggering a "balkanization" of the Internet, and thus the end of "one of the greatest achievements of humanity."[24]

The issue is as important as it is difficult to handle. The United States and in the European Union have always followed different legal approaches to privacy and data protection.[25] First, the United States has traditionally relied on piecemeal, sectoral regulation, and private ordering to address privacy issues. The European Union, in contrast, enacted the first horizontal, omnibus data protection laws in the 1970s followed by the adoption of the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data in 1981 and the enactment of the EU Data Protection Directive in 1995. Moreover, in Europe privacy is explicitly considered a fundamental right, whereas the U.S. Constitution contains no explicit reference to privacy.[26] Many prominent U.S. scholars consider privacy as amounting to a property right, i.e., an alienable commodity that can be traded in exchange for customized service.

Finally, in the United States, privacy legislation and case law traditionally focused on the protection of the citizen against violations and misbehavior of public authorities, whereas in the EU the focus is rather on the private sector. In a widely cited article published in the Yale Law Journal, James Whitman interpreted the fundamental divergence between the legal approaches to privacy in the United States and the EU as being rooted in a cultural difference between those who view privacy as an aspect of liberty and those who regard privacy as an aspect of dignity.[27]

No other issue related to the online world has been as prominent in the debate over the transatlantic digital economy as data protection.

[24] Mark Bergen, *Eric Schmidt: Get Ready for 'a Lot' More Alphabet Companies*, October 13, 2015, http://recode.net/2015/10/13/eric-schmidt-get-ready-for-a-lot-more-alphabet-companies/.

[25] Schwartz and Daniel J. Solove, Reconciling Personal Information in the United States and European Union, UC Berkeley Public Law Research Paper No. 2271442, 2013.

[26] The term "privacy" does not appear explicitly in the U.S. Constitution or the Bill of Rights. However, the U.S. Supreme Court has ruled in favor of various privacy interests, deriving the right to privacy from the First, Third, Fourth, Fifth, Ninth, and Fourteenth Amendments to the Constitution.

[27] See Whitman (2004), at 161, quoting Post (2001), and arguing that "Continental privacy protections are, at their core, a form of protection of a right to respect and personal dignity …By contrast, America, in this as in so many things, is much more oriented toward values of liberty, and especially liberty against the state."

In the United States, the "right to privacy" is historically and legally rooted in the Fourth Amendment and was translated into statutory law through a rather piecemeal, sectoral approach.

Existing and Proposed Legislation

This divergence is also reflected in existing legislation. In the United States, the "right to privacy" is historically and legally rooted in the Fourth Amendment and was translated into statutory law through a rather piecemeal, sectoral approach. Among the statutes enacted, the most relevant are certainly the Electronic Communications Privacy Act (ECPA, in particular its Title II, also known as the Stored Communications Act) of 1986, the USA PATRIOT Act of 2001, and the Foreign Intelligence Surveillance Amendment Act (FISA) of 2008. All these statutes have received criticism over the past years. While ECPA has been criticized for having been largely outpaced by technological innovation, and in particular by cloud computing, the PATRIOT Act was criticized for provisions that can lead companies to turn over data to the U.S. government even without notice to the customer.

But the most heavily criticized provision is certainly the FISA, which amended the 1978 Foreign Intelligence Surveillance Act, and introduces the possibility for the U.S. government to monitor foreign communications and access data of foreign citizens located outside of the United States without a warrant. A recent report for the European Parliament observed that "while there has been a great deal of concern at the international level over the USA PATRIOT Act, there has been virtually no discussion of the implications of … § 1881a of FISA," which "for the first time created a power of mass-surveillance specifically targeted at the data of non-U.S. persons located outside the U.S., which applies to cloud computing".[28]

Beyond this legislation, which mostly focuses on government intrusion into the private sphere of individuals, an increasingly important player in the privacy domain is the Federal Trade Commission (FTC) in its role of consumer protection enforcer. The FTC has filled an important gap in U.S. privacy law by protecting customers against privacy- and security-reducing practices adopted by providers. However, there seems to be significant space for a clarification of the FTC powers, as well as of the criteria and definitions used by the FTC in enforcing legislation to protect consumer privacy and data security.[29]

On the European side, the legal approach is completely reversed. At the EU level, in addition to the Data Protection Directive (DPD), which does not cover judicial and police cooperation,[30] other relevant legislation in force include the 2002 and 2009 e-Privacy Directives and the Data Retention Directive. The latter, however, has been declared invalid by the CJEU in a May 2014 decision.[31]

The EU Data Protection Directive applies to data held both by the public sector and the private sector. There are, however, important exemptions that give governments the possibility to access and process data for tax and criminal law purposes. As a result, it is fair to state that, contrary to what occurs under U.S. statutory law, the main EU directive

[28] Bigo, Didier, Sergio Carrera, Nicholas Hernanz, Julien Jeandesboz, Joanna Parkin, Francesco Ragazzi, and Amandine Scherrer. "National Programmes for Mass Surveillance of Personal Data in EU Member States and Their Compatibility with EU Law," Brussels: European Parliament, 2013.

[29] All entities that store consumer information on the Internet face the threat of FTC enforcement if the way they store and secure information does not match their declarations to their customers.

[30] This is currently covered by the Council of the European Union's 2008 Framework Decision on the protection of personal data processed in the framework of police and judicial cooperation in criminal matters.

[31] The Data Retention Directive (2006/24/EC) was adopted to amend the e-Privacy Directive in order to provide a more effective response to the terrorist attacks of in New York 2001 and Madrid in 2004. It focused on the regulation of data retention to permit access by law enforcement authorities for a certain period if necessary as a means for prevention, investigation, and prosecution of serious crime as defined by each of the member states in its national law.

applies far more stringently to the private sector than to the public sector.

Currently, a new legal framework for data protection has been approved in Brussels and will be effective in early 2016. The new General Data Protection Regulation goes far beyond the previous legislation and will improve individuals' ability to control their data by ensuring that when their consent is required, it is given explicitly and freely, and by equipping Internet users with an effective "right to be forgotten" in the online environment.[32] It will also guarantee easy access to one's own data and a right to data portability, as well as reinforce the right to information so that individuals fully understand how their personal data is handled.

The new legislation also seeks to improve the means for individuals to exercise their rights by strengthening national data protection authorities' independence and powers, and by enhancing administrative and judicial remedies when data protection rights are violated. In particular, qualified associations will be able to bring actions to court on behalf of the individual.

Finally, these new rules seek to reinforce data security by encouraging the use of privacy-enhancing technologies, privacy-friendly default settings, and privacy certification schemes, and by introducing a general obligation for data controllers to notify both data protection authorities and data subjects about data breaches without undue delay. Companies with more than 250 employees and firms that are involved in processing operations that, by virtue of their nature, their scope, or their purposes, present specific risks to the rights and freedoms of individuals, will be asked to designate a Data Protection Officer. The proposed regulation also foresees very harsh sanctions for non-compliance.

In a recent commentary, U.C. Berkeley Professor Paul Schwartz) observed that the proposed new rules would significantly affect U.S. companies' daily practice of authorizing the sharing of personal information through simple "notice and consent."[33] Indeed, the proposed regulation lists "consent" as one of the legal justifications for the processing of personal data, but requires that written consent for personal information processing be presented in a form "distinguishable" from any other matter. More importantly, it places the "burden of proof" of demonstrating consent on the "controller." This requirement "heightens the risk that a user's consent will not stand up if a data protection commissioner or the user herself challenges the assent after the fact."

Finally, and most problematically, the proposed regulation states that consent "shall not provide a legal basis for the processing" when "there is a significant imbalance between the position" of the controller and the party to whom the data refers. Thus, Internet companies would not be able to justify processing by a party's consent if they offer take-it-or-leave-it terms for the processing of personal data or provide services for employees or other parties that lack effective bargaining power.

As a consequence, Schwartz concludes that U.S. IT companies will not be able to rely on one-sided click-through agreements. The new rules are far-reaching also in terms of jurisdiction, since the proposed regulation potentially subjects all cloud services to EU privacy law.

The effect of the expansion of the remit of EU data protection rules is already being felt while the

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[32] The right to be forgotten is described as the right to have their data deleted if they withdraw their consent and if there are no other legitimate grounds for retaining the data. See General Data Protection Regulation Proposal, European Commission 2012.

[33] Schwartz, Paul, "EU Privacy and the Cloud: Consent and Jurisdiction under the Proposed Regulation," BNA Privacy and Security Law Report 12 (April 29): 1–3, 2013

General Data Protection Regulation is expected to be finally put to a vote by the European Parliament in plenary early 2016.

General Data Protection Regulation is expected to be finally put to a vote by the European Parliament in plenary early 2016. In May 2014, the CJEU ruled against Google in a case brought by a Spanish individual who requested the removal of a link to a digitized 1998 article in La Vanguardia newspaper about an auction of his foreclosed home for a debt that he had subsequently paid.[34] The Court ruled that search engines are "data controllers" and, as such, are responsible for the content to which they point. Thus, Google was required to comply with EU data privacy laws.

In so ruling, the CJEU also clarified that even if the physical server of the search engine operator processing the data is located outside Europe, EU rules apply if the operator has a branch or a subsidiary in a member state that promotes the selling of advertising space offered by the search engine. Moreover, search engines are to be considered controllers of personal data. Google can therefore not escape its responsibilities under European law when handling personal data by saying it is a search engine. EU data protection law applies, and so does the right to be forgotten.

The CJEU ruled that individuals have the right — under certain conditions — to ask search engines to remove links with personal information about them. This applies where the information is inaccurate, inadequate, or excessive and is subject to a "balancing test" with other fundamental rights such as freedom of expression. The responsibility for performing this test rests with the data controller in the first instance.

This case is a good example of the tendency, increasingly evident in Europe, to expand the territorial scope of EU data protection rules to avoid their circumvention by the localization of servers outside the territory of the EU, and to increasingly ask online intermediaries to cooperate in the enforcement of EU rules.

Finally, the current Data Protection Directive also governs the transfer of data, permitting data transfers only to other countries with an "adequate" level of protection. The United States does not appear on the list of countries with "adequate" protection but the U.S. Department of Commerce (DoC), in consultation with the EU, developed a "Safe Harbor" agreement so that U.S. companies can transfer European data to the United States if the company handling the transfer essentially complies with the DPD in handling and processing the data. Today, almost 5,000 organizations are reportedly certified under this agreement.

Yet Safe Harbor has always been controversial. In Germany, data protection authorities (DPAs) have voiced their concerns since 2010.[35] After the Snowden revelations, some member states, the European Commission, and the European Parliament have called for a suspension and a

[34] Google Spain SL, Google Inc. v *Agencia Española de Protección de Datos, Mario Costeja González*. Costeja initially attempted to have the article removed by complaining to the Spanish Data Protection Agency, which rejected the claim on the grounds that it was lawful and accurate, but accepted a complaint against Google and asked Google to remove the results. Google sued in the Spanish *Audiencia Nacional*, which referred a series of questions to the CJEU.

[35] In 2010, the Dusseldorf Kreis, a working group comprised of 16 German state DPAs that are responsible for the private sector issued a resolution requiring German data exporters to exercise additional diligence when transferring data to Safe Harbor-certified organizations, and prohibited German data exporters from relying solely on Safe Harbor in order to transfer data to the United States.

thorough revision of Safe Harbor.[36] Meanwhile, on the basis of a thorough analysis and consultations with industry, the European Commission made 13 recommendations to improve the functioning of the Safe Harbor scheme, addressing key areas such as transparency, redress, enforcement, and access to data by public authorities.

Eventually, the Court of Justice issued a rather stiff decision in October 2015, basically slamming Safe Harbor and giving national privacy authorities powers to ensure that personal data be kept by online intermediaries within the territory of their country of citizenship, or at least in the EU. Even more importantly, the court has explicitly declared that the European Commission's 2000 decision establishing Safe Harbor is invalid, since U.S. legislation enables a type of mass surveillance that violates both the right to a private life and the right to judicial redress constitutionally guaranteed to European citizens.

As tensions mount in the EU, the United States has shown some but apparently insufficient signs of reaction. In 2014, the FTC took several enforcement actions, including high-profile actions against MySpace, Facebook, and Google.[37] In 2015, actions were brought against companies that were falsely claiming to be under Safe Harbor certification in an attempt to show more concern for the adequacy of Safe Harbor's self-certification procedure.[38]

Both courts and legislators have taken action to address the problem of bulk collection of metadata. Importantly, the U.S. Court of Appeals for the Second Circuit ruled that the U.S. National Security Agency's bulk collection of phone and other records was never authorized under section 215 of the USA PATRIOT Act.[39] This decision arrived just as the USA PATRIOT Act (set to expire at the end of May 2015) was being replaced by the USA Freedom Act, signed into law on June 2, 2015.[40]

The new act explicitly bans the limitless collection of telephone data by forcing the government to use a "specific selection term" in any surveillance warrant, and replaces the centralized bulk data collection system with an obligation for network providers to store data and, upon request, deliver it to the government. This new system has been criticized for failing to remove massive data collection (critics argue the collection is now simply delegated to private corporations), and at the same time reducing the efficiency and effectiveness of government surveillance action.

Criticisms have also been raised given that a few hours after signing the act into law, the Obama administration reportedly asked the Foreign Intelligence Surveillance Court (FISA Court) to restore the mass data collection at least for a transitional period of six months.

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[36] In July 2013, the Conference of the German Data Protection Commissioners, including both federal and state commissioners, issued a press release stating that surveillance activities by foreign intelligence and security agencies threaten international data traffic between Germany and countries outside the European Economic Area. In light of these developments, the German commissioners decided to stop issuing approvals for international data transfers until the German government can demonstrate that unlimited access to German citizens' personal data by foreign national intelligence services complies with fundamental principles of data protection law (namely, necessity, proportionality, and purpose limitation).

[37] See e.g. "Google, Facebook, MySpace; privacy rule breakers or trend makers?," by John Fontana, ZDNet, http://www.zdnet.com/article/google-facebook-myspace-privacy-rule-breakers-or-trend-makers/.

[38] In January 2014, the FTC announced settlements with 12 companies that allegedly falsely claimed they complied with Safe Harbor, even though there were no substantive violations of the Safe Harbor Privacy Principles. Also see Press Release, "FTC Settles with Two Companies Falsely Claiming to Comply with International Safe Harbor Privacy Framework," April 7, 2015, https://www.ftc.gov/news-events/press-releases/2015/04/ftc-settles-two-companies-falsely-claiming-comply-international.

[39] *ACLU v. Clapper.*

[40] Uniting and Strengthening America by Fulfilling Rights and Ensuring Effective Discipline Over Monitoring Act of 2015 or the USA FREEDOM Act of 2015.

In the age of convergence, globalization, and the data-driven economy, the United States and the EU do not seem to be converging fast enough in their approaches to data protection.

Against this background, the new Freedom Act seems unlikely to achieve all the improvements that EU authorities were expecting. Its actual impact on mass surveillance activities seems obscure at best at the time of writing.

Possible Areas of Agreement

Are prospects for transatlantic convergence on data protection really so gloomy? Maybe not. Very recently, there has also been some positive news. First, the two blocs have finalized the so-called "umbrella agreement" on data protection, which focuses mostly on law enforcement cooperation. However, the agreement will only be effective when the U.S. Congress finally approves and signs into law the Judicial Redress Act of 2015 to extend to citizens of "designated countries" (including EU member states) the right to challenge possible misuse of their data by the U.S. government in U.S. courts.

In addition, there seems to be signs of a certain willingness of national data protection authorities in EU member states to reach a common position on the compatibility and adequacy of US privacy law. This is encouraging, since the alternative — a proliferation of practices in 28 member states — would be a nightmare.

But to be sure, in the age of convergence, globalization, and the data-driven economy, the United States and the EU do not seem to be converging fast enough in their approaches to data protection. Putting aside the "likely" landing zones for now, it is possible to identify a number of useful action items that would make the transatlantic digital economy a closer goal.

A first action item would be a streamlining, update, and harmonization of the definition of personally identifiable information, and, more generally, of the rules that apply to online data protection. A second item would be the agreement on a set of model contracts that cloud providers and clients can use, which would be considered fully compliant with privacy legislation on both sides of the Atlantic. And third, emerging cooperation between enforcement authorities and the Judicial Redress Act are promising steps toward the protection of the rights of EU citizens against the surveillance activities of U.S. government agencies.

Other than this, what seems likely is that the United States will keep under-protecting privacy in the name of efficient commercial transactions, whereas in the EU, Internet services might end up caught in the net of an over-formal, over-comprehensive legal framework that leaves little room for trade-offs between privacy and welfare-enhancing customized service for data subjects.

Can it Work? Reflections on the Future Transatlantic Digital Market

Is there any chance for a true transatlantic digital economy, which, under the right conditions, would probably represent a dream come true for citizens and Internet companies? Not in the short term. And not with the current negotiation dynamics as we see them evolving in the TTIP negotiations and in other fora. But the real elephant in the room is neither data protection, nor Snowden, and not even Europe's obsession with platform regulation and neutrality at once. The biggest issue, which could also become the biggest opportunity for the two blocs, is the digital economy itself.

To put it bluntly, there is very little sense in proposals to harmonize regulatory regimes that are already proving unfit for purpose. The reality is that many of the regulatory tools that both the United States and (even more) the EU have been applying over the past two decades have already passed their expiration date. It is time to sit down and write new rules, and there is very little that one could save from past regulatory frameworks. For example, if

TTIP will become a "living agreement," then the new rules will mostly require enhanced cooperation between public and private players, and might even be mostly promoted and proposed by the private sector under the supervision of public authorities.[41] This, as things stand, appears to be the only way toward a quick realization of the transatlantic digital economy.

In particular, new rules, and implementation strategies, are needed in the following domains:

- *Network neutrality implementation criteria*. Which traffic management practices can always be considered as reasonable, and under what circumstances? Which ones are always prohibited, on both sides of the Atlantic?
- *Intermediary responsibility criteria*. What monitoring activities can and should responsibly be performed by large online intermediaries, without compromising their freedom to run a business?
- *Antitrust review*. How should relevant markets be defined in digital markets? How should market power be detected? Is demonstration of "actual" (as opposed to "likely") consumer harm essential to finding abusive conduct? Can companies have their compliance programs validated *ex ante* by the U.S. FTC or by the European Commission, provided that they set up a monitoring mechanism that public authorities can use regularly to verify compliance? A joint U.S.-EU "Antitrust Modernization Commission" would definitely be needed in this field.
- *Copyright*. A general "compatibility table" is needed showing the differences between the exceptions allowed under the "fair use" approach in the United States and the list of exceptions and limitations (as revised in the near future) in the EU.
- *Data protection*. Develop a common definition of personally identifiable information, mutually recognized model contracts for cloud computing, and transatlantic agreement on common standards for cloud computing, avoiding fragmentation.

Who could possibly decide on these rules? And even if they were put in place, who would really guarantee their equal, impartial implementation in the two legal systems? The only way for this to happen seems to be a large, industry-wide agreement reached in cooperation/consultation with civil society, which would end up establishing a transparent public-private transatlantic body in charge of overseeing the evolution of regulation in the digital economy. From that moment onwards, the platform for cooperation should become the rule, not the exception. For example:

- Antitrust authorities should be given the option to intervene in ongoing investigations on both sides of the Atlantic, and join the investigation while it is still in the making. They should not launch separate, uncoordinated inquiries at different moments of time, leaving the market in a state of uncertainty.
- New regulatory proposals could be subject to joint impact assessments by authorities from both sides.

Most importantly, the industry should help public authorities in the area of enforcement and remedies. This is the area that has registered the

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[41] See Hamilton, Daniel S., and Jacques Pelkmans, "Rule-Makers or Rule-Takers,? An Introduction to TTIP," in CEPS-CTR project "TTIP in the Balance," Center for European Policy Studies and Center for Transatlantic Relations, 2015, http://transatlanticrelations.org/sites/default/files/SR112%20Renda%20and%20Yoo%20Telecoms%20TTIP.pdf.

There is no real alternative to co-regulation as the future of Internet regulation, even without any transatlantic dimension.

most recurrent failure of legislation in the digital economy. On these aspects, it is clear that many of the emerging rules (for example, on net neutrality) would require a fair amount of technology to be monitored and enforced. Only industries that operate networks or other parts of the infrastructure on the Internet are in a position that allows them to intervene in real time, should illegal acts be perpetrated by users or providers.

This is why there is no real alternative to co-regulation as the future of Internet regulation, even without any transatlantic dimension: without suitable cooperation of the private sector, and in particular of large Internet operators, no such rule will be easy to implement, other than by transforming the Internet into a heavily monitored cage.

Will co-regulation happen? It is too early to say, but both parties could possibly gain from an enhanced, industry-driven, widely multi-stakeholder agreement on how to govern the digital economy in the United States and the EU in the years to come. While U.S. companies are certainly the most obvious beneficiaries, the emergence of a duty of responsible cooperation for intermediaries and the revision of market definition to incorporate all sources of competition will probably be welcomed by European telecommunications companies. And if the EU manages to put an end to its messy discussion of copyright and media policy, such a broad transatlantic regulatory framework would also be able to achieve a better balance between large online intermediaries and media providers, who often lament their inferior bargaining power vis-à-vis giants like Amazon.com, or Apple.

To be sure, however, such an agreement would not realize the dream that some policymakers in Europe have, i.e. that of replacing the "GAFTAM" with European companies. But the history of the Internet reveals that all the leading companies of today have been in more peripheral positions, of applications or "complementors," in their early years. Keeping the gates of Europe open to U.S.-based platforms and stimulating entrepreneurship and innovation in Europe is thus the best recipe to ensure that the next Google and the next Amazon.com end up being European. Because the market said so.

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