



THE JEAN-JACQUES LAFFONT  
**DIGITAL CHAIR**

ACTIVITY  
REPORT

2016 / 2017



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# EDITORIAL

**T**he Jean Jacques Laffont Digital Chair has just finished its second full academic year of activity. During 2016- 2017, research on digital issues at the Toulouse School of Economics has grown into a lively, innovative and interdisciplinary network, whose activities continue to develop into new topics and applications.

We have now 8 industrial and public partners (ACCOR, Caisse des Dépôts, Ministère de la Culture et de la Communication, Orange, SACD, SACEM, Samsung, Société Générale), our community includes 30 associated researchers and extensive international collaborations, including 4 major scientific projects and 13 international visitors. During this past academic year the Chair has held 8 international conferences (with over 500 attendees) and 15 workshops. Our researchers have published 19 articles in peer-reviewed journals, 19 working papers, 3 policy papers and 11 articles in the press.

The Chair's annual Digital Forum in Paris has gathered TSE economists and executives working at the forefront of the digital transformation who have shared their insights about the opportunities and risks that technology involves with an audience of leading decision-makers, journalists and researchers. An exclusive event whose theme, the importance and implications of platform revolution for competition, proved very timely in an era of social and institutional change.

Developing research into questions of fundamental importance to the public and private sectors alike, to governments and ultimately to the world is at the core of our mission. Thus, the Chair's ambition for the years to come is to become a leading research center on the digital economy, whose activities will serve to advance knowledge and to find realistic solutions to the big challenges of our time.

You will find in this report an overview of the Chair's activities in the academic year 2016 -2017. I wish you a pleasant read and I hope to continue working with you on the exciting challenges of the digital era in the years to come. And remember, that we are always eager to hear your comments and suggestions

**Jacques CRÉMER**

*Director of the Jean-Jacques Laffont Digital Chair*

**Jean TIROLE**

*TSE - IAST Chairman*



## HIGHLIGHTS

TSE FORUM  
digital8<sup>th</sup> JUNE 2017  
PALAIS BRONGNIART  
PARIS

On June 8 at the Palais Brongniart in Paris, the TSE Forum gathered world-class economists and executives working at the forefront of the digital and energy sectors to offer their insights and debate the future of those industries.

For an exclusive audience of leading decision-makers, journalists and researchers, the day kicked off with a masterclass by TSE's Alexandre de Cornière on the challenges of the age of digital platforms, followed by a roundtable discussion of these issues by Blablacar entrepreneur Frédéric Mazzella, Accor SVP Pierrick le Masne, and TSE president Jean Tirole.

### Masterclass on 'Digital platforms: economic and strategic issues' - Alexandre de Cornière, TSE

#### **What's a platform?**

It's an actor that allows different groups to interact, selling access to other users. There's great diversity: trading platforms (Amazon, Airbnb or Ebay); social networks (Facebook, LinkedIn, Twitter); payment systems (Visa, PayPal); operating systems (iOS, Android); communication systems (email, Skype).

#### **How have platforms become so important?**

Through the advance of technologies such as microprocessors, fixed and mobile internet, cloud computing. Today the five biggest firms in terms of market capitalization (Apple, Google, Microsoft, Amazon, Facebook) are all platforms.

#### NETWORK EFFECTS

When a platform's value increases with its number of users, these network effects create economies of scale - the more users, the lower the average cost.

Network effects present a problem of coordination in which people will only use a platform if they anticipate that others will also participate. In these multiple equilibria, everyone joins in or everyone doesn't.





Dynamic pricing is one way firms deal with this problem, offering very low or negative prices during the launch phase. Other strategies include asymmetric pricing and vertical integration, attracting users with additional, often complementary services.

## NATURAL MONOPOLIES

While network effects can be an obstacle for new firms, they can be a formidable shield for established firms. In a natural monopoly, just one firm will operate at equilibrium.

Everything hinges on contestability. It's important for regulators to create the conditions that allow other firms to enter and overtake the established firm.

Established firms have several strategies to counter new entrants.



Microsoft's insistence that Internet Explorer be installed with Windows is an example of bundling, and Google faces investigation in Europe for similar practices. Other problematic strategies are the buyout or imitation of competitors.

## FRONTIER RESEARCH

Platforms are ecosystems which confront market failures of two types: information asymmetry (we don't always know who or what we are dealing with); and externalities (when an action has consequences for an unrelated third party).

To deal with these problems, platforms attempt to control access and interactions. Some platforms are highly centralised, others leave agents to take their own decisions. Recommendations play a powerful and not always positive role. Platforms like Google and Netflix are likely to recommend their own services and advertising space rather than those of rivals.

Price control is another burning issue, as are most favoured nation clauses, in which platforms insist that sellers never offer a lower price elsewhere. Platforms argue they need to protect their investment, but these practices provide an incentive to charge excessively high commissions.

## SUMMING UP

Regulators need to be aware of the importance of network effects for market structures and strategies. The ambiguity of the relationship between the platform and the user is a very new research area. Economists have plenty of work to do!

## Round table on the platform revolution and the impact on competition

### Pierrick le Masne - Accor

Today, 25% of hotel reservations are made online: 40% on hotels' own websites, 60% on intermediaries such as Booking and Expedia - these are highly profitable, interdependent monopolies.

Airbnb is attractive because it gives the impression of being more personal. This is a superb innovation of the economic model.

Hotels need to reinvent the product. We've been forced to move out of reception and learn new expertise. What is the true profession of a hotel chain? Who are our competitors: Marriott or Booking?

The hardest thing for traditional big firms is that we can no longer rely on continuity. We have realized that we are mortal.

“ **The collusion of platforms is very strong in the hotel sector. They are a monopoly, highly profitable and interdependent** ”



# TSE FORUM digital



## Frédéric Mazzella - Blablacar

Three technologies have now matured to create new services and opportunities: databases, search engines and connectivity. Together, these technologies have allowed us to share our content, knowledge, networks, money, goods and time.

We can't regulate all this in the same way. And once humans have shared all this, what remains? We'll be left with love, art and sport.

Blablacar has 45 million members in 22 countries. To achieve this success, we've had to help construct trust online. When provided with the right tools, users can recreate a sense of trust almost comparable to that of friends. That's the energy or fuel behind platformization. It's a new economy.

“We've succeeded in creating bridges between people who've never met each other before”

### TRUST IN THE FUTURE

Together with NYU Stern Professor and sharing economy specialist, Arun Sundararajan, BlaBlaCar has produced a report on the mechanics of online trust, see: [www.blablacar.com/trust](http://www.blablacar.com/trust)



## Jean Tirole - TSE

Toulouse economists helped devise European Commission rules for credit card payments. But economists are very late in addressing the regulation of platforms.

People are very worried about the impact on the workplace. We can debate the employment status of an Uber driver for hours, but what's important is equality of opportunity. There's a trend toward less wage-earning jobs and more self-employed independents. One factor driving this is that building individual reputations has been facilitated by platforms like Blablacar, Uber, Airbnb.

The world may become richer and healthier, but we are not prepared for what awaits us, including the challenges of inequality.

The solutions are income redistribution, better education and protecting employees rather than jobs.

“Platform monopolies are inevitable. How do we manage these and make the market competitive?”

### FIND OUT MORE

*Economics for the Common Good* by Jean Tirole



# KEY NUMBERS

**8**

Partners

**8**

International conferences

**15**

TSE digital workshops

**19**

Working papers

**4**

major scientific projects

**13**

International visitors

**19**

Articles in peer-reviewed journals

**3**

Policy papers

**30**

Researchers interested in digital economy

**11**

Articles in the press

**540**

Attendees at our scientific conferences

# OUR PARTNERS



## TOULOUSE NETWORK FOR INFORMATION TECHNOLOGY (TNIT)

Created in 2005, it has joined the Chair and aims to stimulate high-quality economic research on the software industry, the development and role of the Internet, and intellectual property. The aim of the network is to encourage some of the best academic economists in the world to engage on the issues generated by the rapid development of information technology. The work of the network is funded by Microsoft Corporation, and managed by the Institut d'Economie Industrielle (IDEI).





# MAIN AREAS OF RESEARCH

PRESS AND MEDIA  
 SOCIAL NETWORKS  
 DIGITAL POLITICS  
 CONTENT-BASED INDUSTRIES  
 VALUE CHAIN  
 RESTRUCTURING FIRMS  
 DIGITAL HEALTH  
 TRANSPORT

PLATFORM REGULATION  
 AND COMPETITION  
 BUSINESS MODEL  
 EVOLUTION  
 SHARING ECONOMY  
 INDUSTRY STRUCTURE  
 AND COMPETITION  
 DATA OWNERSHIP,  
 MANAGEMENT AND USE

INTELLECTUAL PROPERTY  
 BLOCKCHAIN  
 DIGITAL IDENTITY  
 DATA STANDARDS  
 PRIVACY  
 AND SECURITY  
 MACROECONOMICS  
 AND PRODUCTIVITY

# PROJECT LEADERS



**Jacques CRÉMER**

Member of the  
 French Digital Council



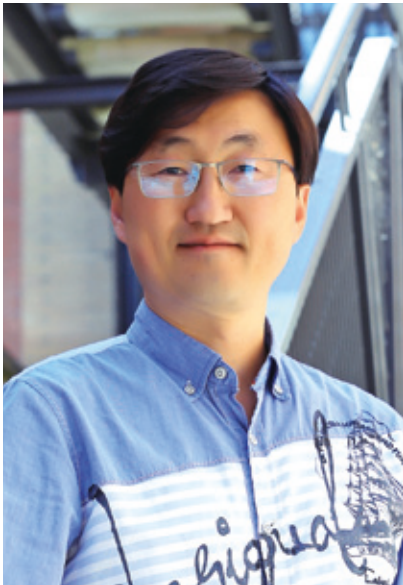
**Alexandre de CORNIÈRE**

2010 Young Economist  
 Essay Award



**Bruno JULLIEN**

2012 ACE Award for best paper  
 in competition economics



**Doh-Sin JEON**

2016 MaekyungKAEA  
Best Economist award



**Paul SEABRIGHT**

2013 FUE  
Diversity Prize



**Jean TIROLE**

2014  
Nobel Prize

## RESEARCHERS INVOLVED

- 🔗 Bruno Biais
- 🔗 Christophe Bisière
- 🔗 Jérôme Bolte
- 🔗 Jean-François Bonnefon
- 🔗 Marcel Boyer
- 🔗 Stéphane Caprice
- 🔗 Alexandre De Cornière
- 🔗 Claude Cramps
- 🔗 Jacques Crémer
- 🔗 Fany Declerk
- 🔗 Roberta Dessi
- 🔗 Isis Durrmeyer
- 🔗 Sébastien Gadat
- 🔗 Daniel Garrett
- 🔗 Renato Gomes
- 🔗 Johannes Hörner
- 🔗 Marc Ivaldi
- 🔗 Doh-Shin Jeon
- 🔗 Bruno Jullien
- 🔗 Augustin Landier
- 🔗 Yassine Lefouili
- 🔗 Estelle Malavolti
- 🔗 Nour Meddahi
- 🔗 Sophie Moinas
- 🔗 Mathias Reynaert
- 🔗 Andrew Rhodes
- 🔗 Anne Ruiz-Gazen
- 🔗 David Salant
- 🔗 Wilfried Sand-Zantman
- 🔗 Paul Seabright
- 🔗 Jean Tirole
- 🔗 Christine Thomas-Agnan

# RECRUITMENTS



**Daniel ERSHOV**  
University of Toronto

After five years as a postdoctoral researcher at the university of Toronto, Daniel Ershov will join TSE in September 2017 as an assistant professor.

His main research interests are firm competition, market regulation, and online markets. His most recent research looks at the effects of consumer search costs on entry, product design, and quality investment in online markets using unique data from the Google Play mobile app store.

[www.danielershov.com](http://www.danielershov.com)



# VISITORS

- Greg Taylor (*University of Oxford*), 10/01/2017 > 13/01/2017
- Andrey Fradkin (*MIT Sloan School of Management*), 27/03/2017 > 31/03/2017
- Marcel Boyer (*Université de Montréal*), 30/10/2016 > 15/11/2016 | 27/02/2017 > 04/03/2017 and 29/06/2017 > 09/07/2017
- Gary Biglaiser (*University of North Carolina*), 06/04/2017 > 10/04/2016 | 29/06/2017 > 06/07/2017
- Timothy Simcoe (*Boston University*), 01/09/2017 > 01/09/2018



# COLLABORATIONS



**Marcel BOYER**  
University of Montréal

Marcel Boyer is the Bell Canada Professor of industrial economics at the Université de Montréal and vice-president and chief economist at the Montreal Economic Institute. He is also vice-president of the Society for Economic Research on Copyright Issues.

His research collaboration with TSE ("The valuation and pricing of music copyrights in the digital era") analyzes the impact of digital technologies in traditional intellectual property rights.

The large scale digitization of music and books and the new exchange and dissemination digital technologies raise new risks of copyright erosion and inadequate compensation for creators.



**Diane COYLE**  
University of Manchester

Professor of economics at the University of Manchester, Diane Coyle was formerly economics editor of The Independent, vice-chair of the BBC Trust and a member of the UK Competition Commission.

Her research collaboration with the Chair will take the form of policy papers and reports, and will focus on the impact of internet platforms such as Google, Facebook and Amazon for the economy.

This year she has written two reports: "*Making the most of platforms: a policy and research agenda*", and "*Airbnb in European cities*", with Timothy Yeung (Toulouse School of economics).



**Fiona SCOTT-MORTON**  
Yale School of Management

An expert in competitive strategy, Fiona Scott-Morton is Professor at the Yale University School of Management since 1999.

Her area of academic research is empirical industrial organization, with a focus on empirical studies of competition in areas such as pricing, entry, and product differentiation. The focus of her current research is competition in healthcare markets and antitrust (competition) economics.

In collaboration with the Chair, she studies the impact of digital tools on consumer's responsiveness to choice-relevant information at different stages of decision-making, in the health care sector.



**Sean ENNIS**  
OECD

Sean F Ennis is currently a Senior Economist in the Competition Division of the Organisation for Economic Co-operation and Development (OECD) engaged in economic analysis for competition law and policy.

He has a strong interest in applied competition policy, telecommunications, media and health care.

# SCIENTIFIC PROJECTS

## Toulouse Digital Society Initiative: Digital Health

- 📍 Fiona Scott Morton, *Yale School of Management*
- 📍 Zack Cooper, *Yale School of Public Health and ISPS*
- 📍 Michael Chernew, *Harvard School of Public Health*

The research program studies the impact of digital tools on consumer's responsiveness to choice-relevant information at different stages of decision-making, in the health care sector. It will study how equipping patients and their agents with digital information on providers' quality and price will impact on the consumer's final choice of healthcare provider and on consumers' health care spending.

Funding of the Digital Chair Jean-Jacques Laffont will be used to purchase additional months of Research Assistant Time, as well as to cover travel expenses to present the results of the work in France.

## Assessing the Economic Impact of the Removal of Price Parity Clauses on Hotel Rooms' Prices

- 📍 Sean Ennis, *Organization for Economic Cooperation and Development (OECD)*
- 📍 Marc Ivaldi, *Toulouse School of Economics*
- 📍 Vicente Lagos, *Telecom ParisTech*

Booking.com's commitments represent an exogenous variation of the contractual relationships between this firm and hotels. This new regulation provides a sort of natural experiment that would allow researchers to measure the impact of price parity clauses on different outcomes of interest. The idea is to compare the evolution of different variables, before and after the proposition (December/2014), approval (April/2015) and adoption of the commitments (before July/2015), across different countries in which ACCOR interacts with Booking.com.

## Mobility

- 📍 Marc Ivaldi, *TSE*
- 📍 Moshe E Ben-Akiva, *MIT*

The collaboration is still in a very early stage. The project, still to be defined, will built on a previous project by MIT.  
<https://energy.mit.edu/research/mobility-future-study/>

## Trust based on facial recognition and the effects on platforms

- 📍 Jean-François Bonnefon, *TSE*
- 📍 Bruno Biais, *TSE*

The Chair's funding will serve to finance the experiments related to this project. In his experiments, Jean François Bonnefon will test the effects of platforms choosing between profile users with or without profile pictures (e.g. Ebay explicitly prohibits it, while AirBnb makes it compulsory) both in terms of market efficiency and discrimination.

# SCIENTIFIC OUTREACH

## WEBSITE

At the end of 2016, the Digital Chair launched its website. The website includes an overview of the chair and its partners, past and forthcoming events (conferences and seminars), working papers, articles in peer-reviewed journals as well as press articles on digital issues by the Chair's associated researchers. The Chair's outreach activities are also present in the form of activity reports, policy papers, newsletters, videos and scientific talks.

➔ <https://www.tse-fr.eu/digital>



## VIDEO

Our videos disseminate the Chair's scientific activity to the general public, their purpose being to facilitate access to scientific knowledge to non-scientific viewers. The following videos can be found on the Chair's website.

### ■ *The Internet and the News Media* by Susan Athey

A live recording of a lecture on the internet and the news media. Professor Athey (Stanford University) is the 2016 Jean-Jacques Laffont Prize laureate. She gave the annual Jean-Jacques Laffont Lecture at Toulouse School of Economics.

➔ [https://www.youtube.com/watch?v=Kc704nn8L\\_U](https://www.youtube.com/watch?v=Kc704nn8L_U)



*The Internet and the News Media* by Susan Athey

### ■ *Bruegel event 6, Digital platforms: A policy research agenda* by Diane Coyle

During the event "Digital platforms: A policy and research agenda" in October 2016, Diane Coyle (University of Manchester) presented a report, sponsored by the chair, on the current state of knowledge about digital platforms as well as relevant issues for research and policy.

➔ <https://www.youtube.com/watch?v=v0pfmASGzyg>



*Bruegel event 6, Digital platforms*

### ■ *Lecture in Digital media, Alexandre de Cornière*

Alexandre de Cornière presented the Opening Lecture on Economics of Digital Media in September 2016.

➔ <https://www.youtube.com/watch?v=YHLysA2NU2A>

## The following videos present the researcher's research topics

**Sébastien Gadat's research** is mainly focused on mathematical statistics, probability of random dynamical systems and applied mathematical modelling.

➔ <https://www.youtube.com/watch?v=RUYGbxO8TMo>

**Alexandre de Cornière's research** is about Industrial Organisation, Internet and Media Economics.

➔ <https://youtu.be/3-6Z9eQB60>

**Mathias Reynaert's research** and fields of interest are empirical industrial organization and environmental economics. The main focus of his research is the evaluation of taxes and regulations in the European car market.

➔ <https://youtu.be/dFVpkdptISw>



*Sébastien Gadat's research*



# SCIENTIFIC OUTREACH

## THE 3<sup>rd</sup> ISSUE OF THE BI-ANNUAL NEWSLETTER

The Digital Economy Newsletter has been launched in the fall of 2015. It aims at disseminating the scientific activity of the Chair to the general public and to our partners.

The third issue of the newsletter was published in March 2017 and it gives an overview of research findings discussed at the 2016 Digital Forum. It focuses on the analysis of markets and organizations:

- What are the leadership practices in the digital age?
- Centralized or decentralized decision making?
- What advantages do the platform business model bring?

are some of the many issues addressed in the newsletter.



## TSE DIGITAL

The Digital chair started in April 2017 to send an online newsletter to inform on events, visitors, publications, press articles or any news related to the chair. In each newsletter, a research focus targets one subject of digital interest. This newsletter will be sent every 3 months.

## POLICY PAPERS

- Marcel Boyer, University of Montreal

*The Three-Legged Stool of Music Value: Hertzian Radio, SiriusXM, Spotify (July 2017)*

This paper proposes an approach to identify the competitive market value of copyrights in music, as inferred from observing choices made by operators of Hertzian radio, satellite radio (SiriusXM), and interactive music streaming services (Spotify). The results suggest that rightsholders are significantly shortchanged and poorly served by the current copyright pricing framework.

### *The Competitive Market Value of Copyright in Music: A Digital Gordian Knot (July 2017)*

Pricing copyrighted works or assets so that creators are fairly compensated has always been a difficult task given the information good character of such works. Doing it in the digital era is even more challenging. This paper reviews some of the challenges and pitfalls in adequately framing the design of efficient royalty formulas, embedded into and discussed through the economics of public policy towards culture.

### *The Economics of Private Copying (July 2017)*

Private copying refers to copy made by an individual specifically for one's personal use, hence no commercial purpose. This paper discusses the economic foundations of private copying tariffs and reviews some private copying systems and their substantial differences regarding, among others, tariff fixing, scope of levy, liability of market players, methods of reporting, and legal monitoring and enforcement.

## PRESS ARTICLES

- Bruno Biais, "Le Crowdfunding cherche sa place", L'AGEFI, 15 June 2017
- Doh-Shin Jeon, "Is Google abusing its power?", TSE Mag, May 2017
- Matt Taddy, "The true potential of big data will be economic AI", TSE Mag, May 2017
- Jean-François Bonnefon, "Computers learn to cooperate better than humans", Science Mag, 28 March 2017
- Paul Seabright, "Les limites des modèles comportementaux du big data", Le Monde, 16 March 2017
- Bruno Biais, "Risques et promesses de la Blockchain", L'AGEFI, 1<sup>st</sup> February 2017
- Jean-François Bonnefon, "La voiture autonome pose un dilemme éthique", Libération, 22 August 2016
- Claude Crampes et Thomas-Olivier Léautier, "Numérisation de l'industrie électrique: chronique d'une révolution annoncée", 24 October 2016
- Diane Coyle, "The muddled economics behind curbs on Airbnb", Financial times, 26 October 2016
- Jean-François Bonnefon, "Whose Life Should Your Car Save?", Sunday Review, 3 November 2016
- Jean Tirole, "La nouvelle économie mondialisée entre les mains d'un petit nombre d'entreprises", Le Monde, 4 November 2016
- Jacques Crémer, "Quelle place faut-il laisser aux plateformes Internet?", Jéco, 6 November 2016
- Jean-François Bonnefon, "Voiture autonome: l'algorithme de la mort", Sciences et Vie, 1<sup>st</sup> December 2016

## EDUCATION

### ► Big Data Challenge between masters in Toulouse

The Chair contributed to finance a challenge organized among students of the Toulouse masters that include some training in Statistics and Machine Learning. It contributed for the editions of January 2016 and 2017.

► <https://www.youtube.com/watch?v=oQd1h-8Srf4>

### ► TSE digital courses

At the heart of the digital revolution, big data is transforming research, business opportunities and our daily lives. To give students a flying start in this ever-changing environment, TSE researchers Anne Ruiz-Gazen and Sébastien Gadat teach cutting-edge courses that draw on the skills of TSE's innovative team of statisticians and computer scientists. In particular, their masters' program offers 30 hours of big data classes, as well as the change to become proficient in machine learning, database management, web mining and statistical languages.

### ► Market regulation in the digital world

Taught by Alexandre de Cornière to M2 TSE students, this course at the Master's degree level was created in 2016. The course discusses recent regulatory issues and competition policy topics related to the digital economy. Lectures cover the following topics: net neutrality, uses of personal data online, bundling in platform markets: economic analysis of the Microsoft and Google cases, news aggregators and their effect on traditional media and the sharing economy.



# SCIENTIFIC OUTREACH

## AWARDS AND RESEARCH GRANTS

- ▶ **Doh-Shin Jeon** received, in 2016, the Maekyung-KAEA (Korea America Economic Association) Economist Award.
- ▶ **Daniel Garrett** was awarded an ERC Starting Grant for 2017-2022 for the following project: "*Building economic theories from a dynamic perspective - DYNMECH.*"

Transactions and players evolve over time and so can the preferences and choices of a consumer, or the perceived quality and value of a specific product. For Daniel Garrett, behaviour can only be fully understood from a dynamic perspective. In his ERC research he focuses precisely on "dynamic mechanisms". Daniel Garrett's grant will support work that seeks to explain dynamic behaviour and which could have a significant impact in a wide range of fields, from understanding employment practices to informing competition rules and taxation policies.

- ▶ **Sophie Moinas** was awarded a junior research grant by the ANR (French National Research Agency) for the project "*Price formation In Financial Markets*" for 2016-2021.

The purpose of this project is to further researchers' understanding of the extent to which gains from trade can be reaped in financial markets. Designing the organization of financial markets implies defining the microstructure of the market. Rules are often imperfect and give rise to various frictions. The objective of this research is to analyze the potential impact of these frictions on the prices, and thus on market quality and welfare.



Doh-Shin Jeon



Daniel Garrett



Sophie Moinas

# EVENTS

## DIGITAL WORKSHOPS

- Alessandro Bonatti (*MIT and TSE*), joint work with Rossella Argenziano (*Essex*) and Gonzalo Cisterna "Information Revelation and Consumer Privacy", 09/11/2016
- Andrew Rhodes (*TSE*), "Multiproduct Intermediaries", 16/11/2016
- Jérôme Pouyet (*Paris School of Economics*), joint with Thomas Tréguët "Vertical Mergers in Platform Markets", 30/11/2016
- Marc Bourreau (*Telecom ParisTech*), co-written with Pinar Dogan and Germain Gaudin "Streaming Platforms and Recommendation Bias", 14/12/2016
- Alexandre de Cornière (*TSE*), joint work with Miklos Sarvary (*Columbia*), "Social media and the news industry", 1/03/2017
- Timothy Destefano (*OECD*), "Information Communication Technology and Firm Performance: Evidence for UK firms", 15/03/2017
- Andrey Fradkin (*MIT*), joint with Chiara Farronato, "Market Structure with the Entry of Peer-to-Peer Platforms: The Case of Hotels and Airbnb", 29/03/2017
- Anastasya Parakhoniak (*TSE*), "Showrooming in a market of tangible goods with heterogeneous agents", 26/04/2017
- Urs Bergmann (*Zalando*), "Applied Machine Learning improves Business Efficiency", 3/05/2017
- Paolo Tasca (*UCL Research Centre for Blockchains technologies*), "Blockchain Systems: a technical, business and legal perspective", 10/05/2017
- David Salant (*TSE*), "A model of Internet abuse", 24/05/2017
- Antonio Russo (*ETH Zurich*), "Should We Tax Internet Access Services?", 31/05/2017
- Grazia Cecere (*University of Paris-Sud*), "The economics of free mobile applications", 14/06/2017
- Julian Wright (*National University of Singapore*), "Exploration of new products and new sellers on platforms", 21/06/2017
- Zhijun Chen (*Monash University*), "Competitive Personalized Pricing with Sophisticated Consumers", 28/06/2017

## CONFERENCES

### ► TNIT Annual Meeting

Once a year, the Toulouse Network for Information Technology (TNIT) organises, in the United-States, a conference to develop research on information technologies - *Redmond, Washington, 30/09-1/10/2016*.

### ► Opening Lecture

To introduce the new TSE Academic Year, Alexandre de Cornière presented the Opening Lecture on Economics of Digital Media. The rise of Internet has dramatically altered the landscape of the media industry. The lecture provided keys to understand some of the trends, and in particular discussed the role of the new gatekeepers Google and Facebook - *Toulouse School of Economics, Toulouse, 5/09/2016*

► Freedom and Control of Digital Expression - *Toulouse School of Economics, Toulouse, 13-14/10/2016*

► Inequality, Law and the Social Sciences - *Toulouse School of Economics, Toulouse, 13/12/016*

► 27<sup>th</sup>(EC)2 Conference on Big Data - *Toulouse School of Economics, Toulouse, 16-17/12/2016*

► The Economics of Intellectual Property, Software and the Internet - *Toulouse School of Economics, Toulouse, 12-13/01/2017*

### ► The economics of data ownership, access and trade

The workshop will bring together economists and law & economics scholars from academia and the data industry to discuss the issues and the emerging economic science on the role of data in platforms - *Brussels, 27-28/03/2017*

### ► European Fablab festival

The FabLab festival will brought together many organisations of digital creation around exhibitions, workshops, talk-shows or meetings *Toulouse, 11-14/05/2017*

### ► TSE Digital-Energy Forum

This conference brings together world-class economists, high-level policymakers and partners to debate the latest digital and energy issues. *Paris, 8/06/2017*

### ► Huitièmes Journées Franco-Chiliennes d'optimisation

This conference brings together researchers to discuss and work on the recent developments on data management. - *Toulouse, 05-07/07/2017*

## FRENCH DIGITAL COUNCIL

Jacques Crémer, researcher at Toulouse School of Economics and co-founder of the digital chair, was appointed member of the French digital council in 2016 for a period of three years. The Council aims at issuing independent opinions and recommendations on the impact of digital technologies on economy and society.



# ARTICLES IN PEER-REVIEWED JOURNALS

- Pierre Dubois and Bruno Jullien, "Product Design and Decision Rights in Vertical Structures", *Research in Economics*, vol. 70, December 2016, p. 558-568.
- Daniel F. Garrett, "Intertemporal price discrimination: dynamic arrivals and changing values", *American Economic Review*, vol. 106, n°11, November 2016, p. 3275-3299.
- Katrin Cremers, Fabian Gaessler, Dietmar Harhoff, Christian Helmers and Yassine Lefoulli, "Invalid but infringed? An analysis of the bifurcated patent litigation system", *Journal of Economic Behavior and Organization*, vol. 131, November 2016, p. 218-242.
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