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Dear Sir or Madam,

I am pleased to write to you to submit my application to the 2020 NBER Digitization Tutorial. I thank you to give me the opportunity to describe my academic background and current research projects in the present letter.

**Presentation:**

I am currently a PhD student in Economics at Telecom Paris, a French leading engineer school specialized in information and communication technologies. Telecom Paris is notably part of « Institut Polytechnique de Paris », which brings together several prestigious engineering schools including Ecole Polytechnique and ENSAE Paris in order to create a leading research institution.

Before starting my PhD, I was a student at ENSAE Paris where I obtained a Master in research in Economics. The main courses I followed at ENSAE were Industrial Organization (with Prof. Thibault Vergé, Laurent Linnemer, Philippe Choné, Marie-Laure Allain, Claire Chambolle); Empirical Industrial Organization (Prof. Roxana Fernandez); Game Theory (with Prof. Olivier Gossner and Nicolas Veille); Corporate finance theory (Prof. Denis Gromb) and Contract Theory (Prof. Robert Gary-Bobo).

Before joining ENSAE, I was a student at Toulouse School of Economics where I spent five years and obtained a bachelor and master in economics. I started to develop an interest in economics of digitization when I was a master student at TSE. Indeed, I followed several courses in industrial organization (with applications to competition policy and regulation) with several renowned researchers active in digital economics such as Bruno Jullien, Doh-Shin Jeon, Alexandre de Cornière, Yassine Lefouili and Wilfried Sand-Zantman. I even had the opportunity to follow some courses with Jean Tirole. During my studies at TSE, I naturally followed the standard training in economics (microeconomics, macroeconomics, econometrics).

Attending the tutorial would be a unique opportunity for me to meet leading researchers in the field of digital economics and to discover new research topics. Should you give me the pleasure to accept my application, I would be honored to participate in the tutorial.

**Research interests:**

I am mostly interested in theoretical industrial organization, with a particular focus on digital economics. However, I am also currently involved in several research projects in empirics. Hereafter, I give a brief description of my current research projects.

1) Product differentiation with bundles of characteristics and multi-purchasing

Abstract: *I study firms' incentives to differentiate in one-sided and two-sided contexts. I propose a location model where firms offer bundles of characteristics and consumers can purchase more than one product or service (multi-purchasing). An increase in differentiation leads to a reduction in the overlap between the characteristics offered by the two firms. This induces more consumers to purchase both products. In a one-sided environment, firms focus on the total size of the demand, whereas firms that operate in a two-sided environment also care about the composition of the demand (i.e., single-purchasers and multi-purchasers). I show that maximum product differentiation arises in one-sided environments despite the absence of any strategic interactions between firms' prices. In multi-sided environments, this result may be reversed when the value of single-purchasers on the other side of the market is substantially larger than the value of multi-purchasers. Finally, I provide an implication of the model as regards merger policy: I show that mergers may be more beneficial for consumers in two-sided markets than in one-sided markets.*

2) Platforms market power in online labor markets, with Ulrich Laitenberger, Estrella Gomes-Herrera and Frank Mueller-Langer

*Online labor markets have been growing in recent years, facilitating employers to recruit workers over large distances. Large platforms have emerged which intermediate between employers and workers. As there are only few relevant players, this raises the question to which extent these platforms have market power. Against this background, we study how workers behavior is affected by platform fees using data covering over 250,000 posted projects and 2.5 Million wage bill proposals. To identify the effect of fees on workers behavior, we exploit an exogenous unexpected fee change for a subset of workers. We study different stages of the contracting process (the workers project selection and bidding behavior) and satisfaction of employers with workers performance. Preliminary results suggest that despite the fee change, affected workers do not pass-on the fee increase into higher prices. We interpret this as evidence of market power of the platform towards the workers.*

3) Upstream competition between mobile network providers: evidence from Chile, with Vicente Lagos-Toro

*We study incumbent firms incentives to provide network access to a new entrant in the Chilean telecom market. We observe the decision of the entrant to switch access providers after a few months of activity on the market. We argue that this decision was driven by a more attractive access contract proposed by the new access provider, who decided to provide access to the entrant after experiencing a lot of cannibalization from it. The incentives to provide access are closely linked to the level of cannibalization from the entrant, since the access provider can partly recoup losses through access revenues. We built a structural model to estimate demand and recover wholesale prices on the supply side. Our aim is to find evidence of intensified wholesale (access) competition as one of the former incumbent firm was losing substantial market share to the benefit of the entrant.*