

Platform Strategies

A Guidebook for Entrepreneurs in the Platform Economy

Paul Belleflamme and Nicolas Neysen



PLATFORM STRATEGIES

Over the past decade, platforms have spread through many industries and generated an increasing share of the global economy. Many of the world's most valuable companies have adopted a platform-based business model and today, we find that platforms pervade our everyday lives. So far, however, the existing management literature has failed to provide professionals and students with appropriate tools to understand the business models that make those platforms successful. This book offers rigorous analysis of the complexity of platforms, as well as practical strategic guidance and tools to help you deal with this complexity.

Written in an accessible style and based on a comprehensive approach, Platform Strategies is self-contained and does not require the reader to have specific prior knowledge. The book is both academically rigorous and a pragmatic and efficient guide, incorporating path-breaking insights from academic research on platforms with real-world applications of concepts and tools. The book engages with case studies and highlights important take-aways that can be implemented in practice. You'll learn how to use new tools of strategic management and how to adapt well-established ones.

This book is an invaluable resource for entrepreneurs (experienced or aspiring), managers of existing platforms and businesses, professionals, and students in business, management, and economics.

Paul Belleflamme is professor of economics at UCLouvain. He is the author, with Martin Peitz, of Industrial Organization: Markets and Strategies (2015) and The Economics of Platforms: Concepts and Strategy (2021).

Nicolas Neysen is lecturer in strategy at HEC Liège (University of Liège), where he also leads the Digital Lab. He holds a PhD in Management Sciences and worked for seven years as a consultant for Accenture.

"This is THE book for anyone interested in founding, growing, or transforming a business into a platform."

Chiara Farronato, Assistant Professor of Business Administration, Harvard Business School

"This book is a comprehensive take on the strategies for building platform businesses. It adapts the well-known business theory to the age of platforms and explains the unique characteristics of these businesses using a combination of a theoretical framework and a large set of case examples. Recommended reading for anyone building a platform business."

Juho Makkonen, Co-founder and CEO, Sharetribe

"As a co-founder and CEO of a platform, I have found this book very helpful to better understand my business and challenges, even after more than 10 years running a platform.

The book suggests in its introduction that entrepreneurs actually (and maybe regularly) read strategy books to better run their business. I might be an exception, but I'm not sure this is often the case. It certainly isn't my case. Why? Probably for multiple reasons like lack of time or interest or even because entrepreneurs don't even think about it, but I believe that it is mostly because entrepreneurs believe that there is a gap between their reality and what academics think they know about it, too big a gap to get anything useful out of such a book.

Well, I think this book might be the exception! The concepts are laid out in simple terms and the book takes a very practical approach. A must-read for platform entrepreneurs (to be) or for 'traditional' entrepreneurs willing to analyze the opportunity to move towards a platform model!"

Charles-Albert de Radzitzky, Co-founder and CEO, Spreds

"A tour-de-force combination of academic insights and practical relevance, Platform Strategies is a timely and masterful guidebook on value generation through platform business models."

Michael Zhang, Irwin and Joan Jacobs Chair Professor, School of Economics and Management, Tsinghua University

"Belleflamme and Neysen's book uses sharp economic reasoning, sound managerial intuition and evocative examples to create a unique offering in the crowded space of books on the platform economy. Structuring the book around the building blocks of Value Proposition, Value Creation and Value Capture, the authors take the reader through the intricacies of digital platforms and how entrepreneurs can navigate on and around platforms. This book is rigorous, entertaining and it leaves the reader with a host of useful prescriptions on how to thrive in the platform economy."

Tobias Kretschmer, Professor of Management and Director, Institute of Strategy, Technology and Organization, LMU Munich

"A fabulous book. Belleflamme and Neysen translate their deep economic expertise into a concise, complete and highly accessible roadmap for launching and growing a platform business. A must-read for any entrepreneur, executive or business student looking to succeed and thrive in the rapidly evolving platform economy."

Arun Sundararajan, Harold Price Professor of Entrepreneurship, New York University; author, The Sharing Economy

"Finally! An easy-to-read, pragmatic, and no-nonsense toolbox for entrepreneurs who want to be successful in the booming platform business world!"

Bart De Ridder, Intelligent Platform Services Lead France & BeNeLux, Accenture

"With Platform Strategies, Belleflamme and Neysen offer us a valuable addition to the ideal library for platform entrepreneurs anywhere. This guidebook is a thorough yet reader-friendly volume, full of actionable principles and examples."

Annabelle Gawer, Chaired Professor in Digital Economy,
University of Surrey; co-author of The Business of
Platforms: Strategy in the Age of Digital Competition,
Innovation, and Power



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For my sons, Charles and Marcel, my inexhaustible source of love. Nicolas Neysen



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PREFACE

The idea of writing this book originated in June 2017, on the heels of a master's thesis defense at the Louvain School of Management. Two students had just presented their project of a digital platform that would connect hockey players and clubs from all over the world, with the idea to organize camps mixing hockey training with language education. As evaluators of the thesis, we were torn between two conflicting opinions. On the plus side, the students came up with an original idea and laid out a comprehensive roadmap for how to design their platform, touching on marketing, operational, and financial issues. On the minus side, although they apprehended the web of interdependences between the users of their platform, they failed to untangle this web in a clear and articulated way. Nevertheless, we could not decently blame them for this shortcoming because they had not been given the right keys: The conventional strategic management toolbox that they used was simply inadequate.

After leaving the two students (with our congratulations and a good mark), we sat ruminating about ways to improve the situation. Those were not the first students – or entrepreneurs, as we realized – who got lost in the intricacies of platforms. And, quite frustratingly, we could not find the appropriate tools to guide them, despite the plethora of books, articles, and blog posts extolling the virtues of platforms.

As Hanif Kureishi wrote, "It's frustration which makes creativity possible." The next day, we began to mull over the outline of a new book. Judging by the number and length of the emails that we exchanged, our frustration must have run deep. It was only matched by our enthusiasm to start working on a common project. Two weeks later, we met for a few days in Aix-en-Provence (where Paul was working at the time). Inspired by the beauties of Provence, we drafted the pitch for our book project. We sent it to Routledge a couple of weeks later.

To be frank, our initial plan for the book was chaotic (maybe, the Rosé wine from Côteaux d'Aix-en-Provence was a bit too inspirational). We wanted to organize our framework around the acronym "P.L.A.T.F.O.R.M.S.". Each letter corresponded to a building block of the framework and was associated with two keywords (like Purpose and Proposition, Linkage and Leverage, or Actors and Affiliation). Fortunately for us, four anonymous reviewers, whom Routledge invited to evaluate our first pages, unanimously told us that a mnemonic with nine letters and 18 words was not likely to assist anyone in remembering anything! Yet, they liked the project very much and encouraged us to go forward. We are extremely grateful for their help. Without their constructive advice, the letters of 'platforms' would have been rearranged into 'smart flop' (yes, we also thought of using anagrams to indicate how to navigate our impossible framework...).

We then decided to follow Thomas Mann's wise words: "Order and simplification are the first steps toward the mastery of a subject." Order: The book is now divided into six chapters, organized in a straightforward sequence – value proposition (Chapters 1 and 2), value creation (Chapters 3 and 4), and value capture (Chapters 5 and 6). Simplification: We propose simple tools to address the complexities of platforms in a progressive and systematic way. Yet, we do not sweep complexity away because we fully agree with Elif Shafak's advice: "Do not be afraid of complexity. Be afraid of people who promise an easy shortcut to simplicity." The shortcuts that we present in this book are not meant to be easy (some effort is required on your part) but efficient (your investment should be worth it).

We have benefited greatly from the input of students (at Louvain School of Management, Imperial College Business School, Aix-Marseille University, College of Europe, and Sacred Heart University Luxembourg), colleagues

(special thanks to Chiara Farronato, Kayvan Lavassani, Daniel Trabucchi, and Jordana Viotto da Cruz), and practitioners (our gratitude goes in particular to Dimitri De Boose, Cédric Goffeau, Benoit Hanzen, Julien Paquet, and Olivier Simons). Finally, we are grateful for the unwavering support of our partners, Catherine and Magali.





Scan this code to access the tools and frameworks presented in the book



INTRODUCTION

Up to recently, few people were accepting rides from – or proposing rides to – absolute strangers. From an economic and social point of view, this situation was unsatisfactory, as assets were not put to their best use: People were traveling in half-empty cars, while other people would have gladly traveled with them. The reasons behind this matching failure were two-fold. On the one hand, a lack of coordination explained why demand and supply could not meet: It took hitchhikers a great deal of perseverance and luck to find a driver (or often, several drivers) to bring them to their destination. On the other hand, there was a lack of trust between people not knowing one another beforehand: Even if a hitchhiker was heading to a popular destination, along a busy road, they may just be ignored by most drivers or prefer to turn down the offer of the driver who would finally stop.

To try and solve these problems, a French entrepreneur, Frédéric Mazzella, created an online market for hitchhiking in 2006, called CoVoiturage (the French word for carpooling). The website's main role was to coordinate supply and demand: An algorithm was matching people looking for rides

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with people offering rides, while all these people were comfortably sitting at home. Although the site attracted many users, it eventually flopped because the trust issue had not been addressed properly. Both sides of the market were largely unreliable, with passengers not showing up and drivers overbooking or canceling offers at the last minute.

Drawing the lesson from this first venture, Mazzella revamped CoVoiturage by introducing a reciprocal rating system (whereby passengers can evaluate drivers and drivers can evaluate passengers) and making advanced online payment compulsory (to reduce no-shows and cancellations). With these two additional features (and a new name, BlaBlaCar), the platform quickly became a huge success: In 2021, the BlaBlaCar community had 100 million members worldwide, including 20 million in France (and more members joined in 2022 because of the explosion in fuel prices).

Platforms: what are they? A definition

To start off on the right foot, we must define clearly what we mean by 'platform'. BlaBlaCar is the prototypical example of the platforms that we are going to study in this book. It exploits the following business opportunity: Individuals or organizations would benefit by interacting more with one another, but they fail to do so because they cannot afford the costs of organizing this interaction by themselves (costs of finding one another, coordinating their needs, achieving trust, etc.). By reducing these costs and acting as an intermediary, the platform is in a position to create value for all the participants (and for itself, if it is the objective). Moreover, the platform's value tends to increase with the number of participating users. In the BlaBlaCar example, passengers find the platform more attractive if more drivers join it and vice versa, as more win-win matches can be achieved. This is a manifestation of so-called positive network effects: The value of the interaction increases with the number of participants. It is by leveraging positive network effects that platforms create value for their users.

Given this description, we choose to define a platform as follows: A platform is an entity that brings together economic agents with complementary needs and facilitates interaction among them.² To do so, a platform deploys strategies to reduce the transaction costs that users must bear to interact (that is, costs related to

search, matching, coordinating, contracting, building trust, etc.) and to add value to the interaction by leveraging network effects (for instance, through rating and review systems, payment services, data analytics, etc.). The platform operates a physical or virtual infrastructure, via which the interaction among users takes place.

Depending on whether users have the same or different interaction objectives, they are said to belong to the same or different groups (or 'sides'). Accordingly, a distinction is made between one-sided platforms (like social networks) and two-sided (or multi-sided) platforms (like those connecting hitchhikers and drivers, buyers and sellers, employers and employees, etc.). As we will discuss later, choosing the number of sides – that is, which users to connect and how – is a major decision for platform operators.

A platform is an entity that brings together economic agents with complementary needs and facilitates interaction among them.

A platform economy

Over the past decade, platforms have spread through many industries and generated an increasing share of the global economy. The five names that spring to mind are Apple, Alphabet (Google), Microsoft, Amazon, and Meta (Facebook, Instagram, WhatsApp). These companies, which occupy the top of the list of the world's most valuable companies, have adopted a platform-based business model, either from the very start or at some later stage. Very large platforms also exist in the China-dominated part of the world; think of Alibaba, Tencent, Baidu, or Xiaomi.

These platforms pervade our everyday lives. Just take this book as an illustration. You may have bought it on Amazon, after having heard of it on some Meta's social network, or searched for it through Google search engine; if it is an e-book version that you bought, you may be reading it on an Apple or Microsoft tablet; also, the original manuscript was produced using a famous Microsoft software on an Apple MacBook by one author and a Microsoft-powered PC by the other author.

Despite the dominance of a few giant platforms, many smaller platforms manage to thrive. In the European Union, for instance, it is reported that over 10,000 digital platforms are in operation. Most of them are small and

medium-sized enterprises.³ If you ambition to swell their ranks, continue to read this book!

Most - but not all - platforms are digital

The rapid development of digital technologies and the increased adoption of smartphones have vastly expanded the scope of value creation and capture for platforms. Digital technologies allow platforms to reduce transaction costs substantially, manage network effects more actively, and add value to the interactions.

Even if the vast majority of platforms are, nowadays, digital platforms, the reality of platforms is centuries-old. One can say that the concept of a platform was born as soon as someone had the idea to organize a market in a town square, attract merchants and farmers on one side and city dwellers on the other, and invite them to engage in some form of exchange. Indeed, this description meets all the characteristics of our definition. First of all, a location identified and recognized by all as a central place is delimited: The marketplace in front of the church. The date and time are set to ensure a sufficient number of participants and, thus, increase the chances of doing business: Every first Saturday of the month. Finally, the whole organization is supervised: The public authority delimits and rents slots, manages access at the city gates, ensures the safety of participants, levies taxes on goods, etc.

Not all digital business solutions are platforms

As 'platform' has become a catch-all term, it is important to clarify what our definition does not encompass. In particular, not all digital business solutions relying on a digital infrastructure should be called a platform, at least in the way that we hear the word. For example, a company launches a webshop to engage in e-commerce; another company develops an intranet portal to ease access to corporate information for its employees; a hospital develops a mobile application allowing patients to book medical appointments, etc. Although these organizations would probably advertise their new solution as a 'platform', we prefer not to call them so. As solutions of that sort do not put users in contact with one another, the value that they create for their users is largely independent of how many users adopt them. That is, network effects are missing.

In contrast, the platforms that we consider in this book are, in essence, managers of network effects. They primarily act as intermediaries, not as merchants, resellers, or service providers, as we now explain.

Platforms are intermediaries whose primary role is to manage network effects.

Platforms versus pipelines

It is clear from our definition that platforms *enable* transactions. That is, they create value by facilitating the interaction between different groups of external and independent participants. In contrast, traditional organizations create value by transforming 'inputs' into 'outputs', relying on resources and assets that they own. Such organizations are commonly known as 'pipelines' because they *control* transactions in a linear way.⁴ In other words, platforms set up an infrastructure through which service providers and consumers can interact to exchange goods and services, whereas pipelines produce or resell the goods and services, and deliver them to the consumers.

Platforms enable transactions while pipelines control them.

Relative merits

We observe that platforms and pipelines coexist in various sectors of the economy. Typical examples are Uber and Lyft versus taxi companies for short-distance mobility in many cities, Airbnb versus hotel chains in the short-term accommodation sector, or BlaBlaCar versus SNCF or Air France for long-distance travel in France. Such a competition between platforms and pipelines suggests that there are competitive advantages and disadvantages to enabling or controlling transactions. In general, platforms fare better than pipelines in terms of motivation and adaptation. That is, by giving independent suppliers greater control, platforms can rely on the suppliers' motivation to meet the consumers' needs. Because suppliers are in direct contact with the consumers, they are also in a better position to spot changes in the demand and adapt their products or services accordingly.

In contrast, pipelines fare better than platforms in terms of coordination. By maintaining direct control over important aspects, such as product variety, advertising, prices, or responsibility for order fulfillment, pipelines coordinate better decisions that generate spillovers across products or services (for instance, if selling more of one product contributes to increasing the demand for another product).

To sum up, platforms do not provide products or services directly by themselves, but they do so indirectly by facilitating the interaction between those who make and those who consume (or those who co-create when the value comes from matching users). By leveraging network effects, platforms make the quality of the interaction grow organically. Yet, a potential downside, compared to pipelines, is the loss of control over part of the operations, which increases the risk of seeing users served below their expectations. The chief strategy officer of Alibaba Group, Ming Zeng, calls this the 'control paradox' of building a platform: On the one hand, "command-and-control has become a dominant way of thinking for most businesses"; yet, on the other hand, "[b]eing a platform means you must rely on others to get things done, and it is usually the case that you do not have any control over the 'others' in question."

Not an either-or situation

While platforms and pipelines are quite different models, they are by no means incompatible. Some companies successfully combine the two models. Other companies travel the platform-pipeline spectrum in one or the other direction. The idea is to leverage the strong points of the two models according to the specificities of different activities or changing circumstances. Here are some examples.

Amazon is the most well-known company with a hybrid 'pipeline/platform' model. Amazon started as an online reseller of books and CDs (a pipeline model) and, only later, opened its infrastructure to third-party sellers by creating the Amazon Marketplace (a platform model). Recently, Amazon reinforced its pipeline position through the successive acquisition of Whole Foods Market (2017) and Metro Goldwyn Mayer (2021). These acquisitions turn Amazon into, respectively, a brick-and-mortar reseller of groceries and a movie producer. Arguably, Amazon can perform these activities more efficiently as a pipeline than as a platform.

Many companies that start as pure platforms choose to include some pipeline aspects into their operations at some stage of their development, as illustrated by Deliveroo, a food-delivery platform. The company started as a pure platform by connecting independent restaurants to diners via its ordering and delivery services. Yet, it quickly realized that its model was malfunctioning in urban areas in which restaurants are in short supply. In reaction, Deliveroo decided to build its own network of so-called 'Editions kitchens' to prepare food for delivery-only customers in these areas. In a similar move, Airbnb tries to grow its supply by partnering with real estate investors to turn housing buildings into Airbnb-friendly apartments that can host a combination of long-term tenants, long-term stays, and short-term trips.⁷

The move from a pipeline to a platform is also possible. Traditional companies can consider opening up to the platform model without necessarily questioning their core business or their founding principles. For instance, they can launch a new business unit that enables transactions instead of controlling them, without affecting the rest of their activities. This is what Marriott International did in 2019 when it decided to launch the 'Homes & Villas' program, offering 2,000 luxury properties worldwide. This new activity, which includes rentals managed by third-party companies, was a clear move to compete with Airbnb and similar platforms in the booming short-term rental sector.

It appears thus that there is no reason to oppose the platform and the pipeline models. Instead of facing an either-or situation, firms can consider a whole spectrum of possibilities, ranging from a pure pipeline business to a pure platform business. Between the two extremes, there is a richness of hybrid business models, which differ in the degree of control that the firm maintains over transactions. The possibility to navigate along this spectrum calls into question a principle dear to the advocates of the value-based theory of the firm. According to this theory, it is the possession of rare, hard-to-imitate, and non-substitutable strategic capabilities that allows a company to develop a sustainable competitive advantage. In contrast, platforms demonstrate that success can be achieved without owning any critical resource or differentiated asset but by connecting those who own such resources or assets.

Between the 'pure pipeline' and the 'pure platform' extremes, there is a richness of hybrid business models that differ in the degree of control that the firm maintains over transactions.

'Platformization'

By moving along the pipeline/platform spectrum, firms choose the level of 'platformization' that best suits their business. Platformization can be seen as the addition of platform-like elements to a pipeline. By 'platform-like', we mean that the new elements add value to the existing business by enabling interactions among external stakeholders (mainly suppliers, customers, and contractors). The objective is to add value by leveraging the network effects that result from the interactions.

Platformization can be achieved in two main ways.⁸ The first method consists in encouraging interactions among existing customers, thereby inducing them to co-create value. One common way is to propose a review and rating (R&R) system whereby customers share information about the products or services that the pipeline offers. Positive network effects arise because the quality of the shared information increases with the number of participating customers. Coming back to the example of Amazon, the introduction of an R&R system was the company's first move away from its initial pipeline (reseller) model.

The second platformization method consists of opening the doors to independent third parties. This is what Marriott International did with its Homes & Villas program, which lets third parties manage rentals. The manufacturers of video game consoles also followed this strategy. Initially, they sold their console along with a set of games produced in-house; their business was thus fully integrated. It is only later that they opened the doors to third-party game developers. Network effects then resulted from the interactions between gamers and game developers. As participation grew in one group, the console became more attractive to the other group.

Pipelines can be 'platformized' by encouraging interactions among existing customers and by opening the doors to third parties.

What is this book about? What we do

Reid Hoffman, a co-founder of LinkedIn, once proposed the following metaphor: "Building a startup is like jumping off a cliff and assembling an airplane on the way down. Building a company is like assembling a Cessna. Building a marketplace is like assembling a Boeing 747" (quoted in Lu, 2019).

Our objective with this book is twofold. First, we want to make sense of Reid Hoffman's analogy by explaining the number of ways in which platforms are complex and, as a result, harder to conceive, launch, and operate than other businesses. Second, we aim at providing you with a strategic guide to help you deal with this complexity. Hopefully, the rigorous analysis and practical tools that we present in this book should allow you to assemble a well-functioning airplane before you hit the ground.

"Building a startup is like jumping off a cliff and assembling an airplane on the way down. Building a company is like assembling a Cessna. Building a marketplace is like assembling a Boeing 747" (Reid Hoffman).

You may ask why a specific guide is needed. After all, we are surrounded by a multitude of platforms, whose modes of operation are so largely commented that they become common sense. Moreover, strategic management academics and practitioners have developed a set of compelling models and frameworks to guide decision-makers in a large variety of environments.

Even if there is some amount of truth in these arguments, we beg to disagree on two counts. First, as someone once wrote, common sense is what tells us the earth is flat. We mean here that the platform-based business model turns out to be much more challenging than it may appear at first glance. Second (and this is a direct consequence of the first point), the well-known tools of strategic management look rusted and inadequate when it comes to assisting decision-making in the platform economy. We believe thus that a new strategic toolbox is necessary to apprehend correctly the ins and outs of the platform-based business model. Of course, we do not mean to throw the baby out with the bathwater. The well-established tools (like the value proposition canvas or Porter's Five Forces) will stay, although they will have to be dusted, fixed, or reshaped. On top of that, we will forge brand new tools like the 'Linkage Map' for instance, which you will soon discover.

We also believe that this new toolbox is the distinguishing feature of this book. There is no shortage of good books about platforms out there.¹⁰ These books will certainly entertain you with a rich variety of interesting

examples and case studies (mostly success stories). Yet, it is not clear whether these books will teach you anything useful for your practice. Examples and cases are valuable if they lead to clear and meaningful lessons, which one can then transpose to different contexts. It is our contention, however, that such a transposition can hardly be made without using a proper set of tools and methods.

What we do not do

In the interest of transparency, we find it important to also indicate what this book is not about. First, this book is not intended to replace more comprehensive strategy or marketing manuals. Platform operators are faced with a whole series of questions, unknowns, and challenges. Most of those are common to any type of organization but some are specific to platforms. It is this set of platform-specific issues that this book focuses on. The book should, therefore, be seen as a complement to more general strategy books. That is, we propose new approaches wherever we believe that the complexity of platforms requires it. For the rest, the existing theories and tools remain entirely valid.

Second, the book is not meant as a practical guide that addresses technical issues (for instance, how to develop a digital platform infrastructure using this or that programming language). To find answers to these important questions, we refer you to the MIS (Management of Information Systems) section of your favorite bookshop. Our guide is positioned further upstream in the implementation of a platform. It deals with strategic rather than operational choices. In other words, our objective is to help you formulate an articulated business model for your platform (well ahead of developing a mock-up of its technical implementation).

Who is the book for?

This book is primarily intended for entrepreneurs (experienced or aspiring) who contemplate developing a platform-like venture by facilitating interactions and managing network effects among individuals or organizations. We believe that this book will allow entrepreneurs to ask the right questions at the right time and provide them with an adequate toolbox to address these questions systematically and productively. Of course, this

book will not provide them with a ready-made recipe and a guarantee of success thanks to it (only charlatans would claim such things). Our goal is rather to make entrepreneurs understand where and why they could fail. As Warren Buffet once said: "Risk comes from not knowing what you are doing." With the rigorous analyses and the tools that we propose in this book, we believe that entrepreneurs should have a better knowledge of what they are doing and, thereby, limit the risk of failure.

The book is also of interest to two other types of managers. First, managers of existing platforms may want to take a critical look at past decisions and inform their new choices to optimize the growth of their business. Second, managers of existing pipelines may find the inspiration for the platformization of some aspects of their business. The tools that we propose should also allow these entrepreneurs and intrapreneurs to structure their thoughts.

Finally, the book is aimed at students in management and economics. In MBA and pre-experience master's programs, it can serve as the main text for a dedicated course on the management of platforms or as a complementary text for more general courses in Strategy, Entrepreneurship, or Innovation Management. It can also serve to acquaint bachelor students in various disciplines with the specificities of the platform economy, whose economic significance and ubiquity are growing by the day.

How is the book organized? Approach

The book is self-contained and does not require any specific prior knowledge (although some background in management or economics may facilitate the understanding of some concepts). Throughout the book, we blend academic rigor with a no-nonsense approach. On the one hand, we incorporate the path-breaking insights from the academic research on platforms, which has burgeoned in economics and management science over the last 20 years; a list of selected references to these two strands of literature appears at the end of each chapter; we also propose further readings. On the other hand, the book is conceived as a pragmatic and efficient guide, which is written in a readable and jargon-free style. To facilitate the understanding of the concepts and tools, we illustrate them with a large number of real-world applications, which we formulate as short 'cases'. We also

highlight the important take-aways from our analysis (as we already did in this introduction). Each chapter is articulated around a list of key questions, which are stated at the start of the chapter and answered in a few sentences at its end.

Our philosophy can be summarized by three keywords, all starting with the letters 'HUM'. First, there is humility. We do not propose recipes for success, just well-thought-out tools that should help you avoid the many traps that platforms have in store for managers. Second, there is humanity. Unlike many strategy books that envision business as a zero-sum game and use military metaphors to expose their arguments, we insist on the positive-sum game aspect (win-win) of platform businesses. Also, our strategic guide is as suitable for commercial for-profit platforms as it is for prosocial non-profit platforms. Third, there is humor. Although we provide you with serious analyses, frameworks, and models, we do not want to take ourselves too seriously (a very Belgian trademark). We have done our best to make the exposition as brisk and lively as possible. Writing this book was great fun for us and we hope that it will also be fun for you to read it! Having fun does indeed generate network effects. As Anthony Burgess once declared: "Laugh and the world laughs with you, snore and you sleep alone."

Outline

This book is composed of three parts and each part is divided into two chapters. The three parts follow a very logical sequence: value proposition, value creation, and value capture.

Part I of the book is concerned with the value proposition: What sort of value does the platform propose to its users? Because interactions are key for platform users, platforms cannot propose value on their own but must combine forces with their users. It is then crucial for platform operators to identify and understand the various types of network effects that may be at work among their users. To this end, Chapter 1 clarifies the concepts and proposes a new tool – the Linkage Map – to describe the network effects that a platform can manage. Knowing how users will affect one another allows then the platform to design its value proposition, that is, to state clearly and simply the benefits that it will provide its users with. Chapter 2 explains why this exercise is both trickier and riskier for platform businesses and

presents a dedicated tool – the Multisided Value Proposition Canvas – to help managers deals with these difficulties.

Part II is concerned with the value creation process, which consists in translating the value proposition into a concrete offering for the platform's potential users. As a preliminary step, the platform must gauge the external factors that may either improve or damage its chances of creating value successfully. To perform a competitive analysis that fits the specificities of platforms, Chapter 3 extends existing tools to develop a more suitable one – the Platform Value Net. Then, as platforms co-create value with their users, the prerequisite for value creation is to convince users to join the platform. Yet, this is easier said than done as users accept to join the platform only if they expect other users to do so as well: A conundrum known as the 'chicken-and-egg' problem. Chapter 4 describes three generic strategies to address this problem and a specific tool – the Lever Selector – to determine which strategy is the most efficient to launch the platform given the circumstances.

Finally, Part III tackles the value capture. Value has been proposed and created; now it is time to capture it. That is, once the platform is launched, ways must be found to monetize the services offered to the users. Chapter 5 analyzes two main monetization strategies. The first strategy is to let users pay for the value they get on the platform; yet, pricing is tricky because the value for each user is conditional on the participation of other users. To deal with this complexity, the concept of leverage-based pricing is developed and an organizing tool – the Platform Pricing Matrix – is proposed. The second strategy consists of onboarding advertisers on the platform and making them pay for the attention (and, potentially, the personal data) of the primary users of the platform. Finally, Chapter 6 sheds light on the challenges facing platforms that are up and running - establishing trust among platform users, designing retention strategies to counter the risk of platform leakage, choosing an appropriate growth path, and monitoring the platform's activities in an informative way. To help you perform the latter task, we introduce one final tool, the Multisided Balanced Scorecard.

Online resources

A companion website – www.platformstrategies.org – provides supplementary resources. It allows you to download (for free!) blank versions of the various canvases proposed in the book. It also gives you access to a bank of case

studies (which will be restocked regularly) and teaching resources (slides, readings, and videos). As actions speak louder than words, we hope to turn this website into a platform that promotes the sharing of knowledge about platform strategies. Your contribution is, of course, more than welcome!

Notes

- 1. For a more complete account of the story, see Botsman (2017).
- 2. Our definition follows what Gawer (2014, p. 1241) refers to as the *economics* perspective on platforms, which "posits that platforms fundamentally create value by acting as *conduits* between two (or more) categories of consumers who would not have been able to connect or transact without the platform." Gawer (2014, p. 1243) contrasts this view with what she calls the *engineering design perspective* on platforms, which "interprets platforms as purposefully designed technological architectures (including interfaces) that facilitate innovation."
- 3. EU Observatory on the Online Platform Economy website, September 2021 (https://platformobservatory.eu/).
- 4. See, for example, Van Alstyne et al. (2016).
- 5. We follow here Hagiu and Wright (2019).
- 6. See Zeng (2015).
- 7. See RentalScale-Up (2022).
- 8. For more, see Hagiu and Altman (2017) and Hagiu and Wright (2021a, 2021b, 2021c). The authors discuss a third platformization method, which consists in going down the value chain by creating interactions between the firm's customers and these customers' customers. Arguably, this method can be applied by a smaller set of businesses than the other two.
- This quote is often attributed to Albert Einstein, although other sources contend that it should be attributed instead to the economist Stuart Chase.
- 10. As you may have already read some of these books, the fact that you are currently reading these lines means that you are still hungry to learn more – or differently.

Bibliography

Botsman, R. (2017). Who can you trust? How technology is rewriting the rules of human relationships. New York: Public Affairs.

- Gawer, A. (2014). Bridging differing perspectives on technological platforms: Toward an integrative framework. *Research Policy* 43(7), 1239–1249. https://doi.org/10.1016/j.respol.2014.03.006.
- Hagiu, A. and Altman, E.J. (2017). Finding the platform in your product: Four strategies that can reveal hidden value. *Harvard Business Review* 95:4, 94–100. https://www.hbs.edu/faculty/Pages/item.aspx?num=52837.
- Hagiu, A. and Wright, J. (2019). Controlling vs. enabling, *Management Science*, 65:2, 577–595. https://doi.org/10.1287/mnsc.2017.2956.
- Hagiu, A. and Wright, J. (2021a). Product-to-platforms (Part I). *Platform Chronicles* (February 9). https://platformchronicles.substack.com/p/product-to-platforms-part-i?s=r.
- Hagiu, A. and Wright, J. (2021b). Product-to-platforms (Part II). *Platform Chronicles* (February 23). https://platformchronicles.substack.com/p/product-to-platforms-part-ii?s=r.
- Hagiu, A. and Wright, J. (2021c). Product-to-platforms (Part III). *Platform Chronicles* (March 9). https://platformchronicles.substack.com/p/product-to-platform-part-iii?s=r.
- Lu, D. (2019). Not all marketplaces are created equal: Tales of a marketplace founder. Hackernoon (January 13). https://hackernoon.com/notall-marketplaces-are-created-equal-tales-of-a-marketplace-founder-9fcofb802706.
- RentalScale-Up (2022). How Airbnb wants to unlock the next generation of Hosts (March29). https://www.rentalscaleup.com/airbnb-unlock-the-next-generation-of-hosts/.
- Van Alstyne, M.W., Parker, G.G., and Choudary, S.P. (2016). Pipelines, platforms, and the new rules of strategy. *Harvard Business Review* 94(4), 54–62. https://hbr.org/2016/04/pipelines-platforms-and-the-new-rules-of-strategy.
- Zeng, M. (2015). Three paradoxes of building platforms. *Communications of the ACM* 58(2), 27–29. https://cacm.acm.org/magazines/2015/2/182646-three-paradoxes-of-building-platforms/fulltext.

Introduction

Botsman, R. (2017). Who can you trust? How technology is rewriting the rules of human relationships. New York: Public Affairs.

Gawer, A. (2014). Bridging differing perspectives on technological platforms: Toward an integrative framework. Research Policy 43(7), 1239–1249.

https://doi.org/10.1016/j.respol.2014.03.006.

Hagiu, A. and Altman, E.J. (2017). Finding the platform in your product: Four strategies that can reveal hidden value. Harvard Business Review 95:4, 94–100.

https://www.hbs.edu/faculty/Pages/item.aspx?num=52837.

Hagiu, A. and Wright, J. (2019). Controlling vs. enabling, Management Science, 65:2, 577–595. https://doi.org/10.1287/mnsc.2017.2956.

Hagiu, A. and Wright, J. (2021a). Product-to-platforms (Part I). Platform Chronicles (February 9). https://platformchronicles.substack.com/p/product-to-platforms-part-i?s=r.

Hagiu, A. and Wright, J. (2021b). Product-to-platforms (Part II). Platform Chronicles (February 23). https://platformchronicles.substack.com/p/product-to-platforms-part-ii?s=r.

Hagiu, A. and Wright, J. (2021c). Product-to-platforms (Part III). Platform Chronicles (March 9). https://platformchronicles.substack.com/p/product-to-platform-part-iii?s=r.

Lu, D. (2019). Not all marketplaces are created equal: Tales of a marketplace founder. Hackernoon (January 13). https://hackernoon.com/not-all-marketplaces-are-created-equal-tales-of-a-marketplace-founder-9fc0fb802706.

RentalScale-Up (2022). How Airbnb wants to unlock the next generation of Hosts (March 29). https://www.rentalscaleup.com/airbnb-unlock-the-next-generation-of-hosts/.

Van Alstyne, M.W., Parker, G.G., and Choudary, S.P. (2016). Pipelines, platforms, and the new rules of strategy. Harvard Business Review 94(4), 54–62. https://hbr.org/2016/04/pipelines-platforms-and-the-new-rules-of-strategy.

Zeng, M. (2015). Three paradoxes of building platforms. Communications of the ACM 58(2), 27–29. https://cacm.acm.org/magazines/2015/2/182646-three-paradoxes-of-building-platforms/fulltext.

Understanding and activating network effects

Belleflamme, P. and Peitz, M. (2018). Platforms and network effects. In Corchon, L. and M. Marini (Eds). Handbook of game theory and industrial organization. Cheltenham, Northampton MA: Edward Elgar.

Boudreau, K. (2021). Promoting platform takeoff and self-fulfilling expectations: Field experimental evidence. Management Science 67(9), 5953–5967.

https://cacm.acm.org/magazines/2015/2/182646-three-paradoxes-of-building-platforms/fulltext">https://cacm.acm.org/magazines/2015/2/182646-three-paradoxes-of-building-platforms/fulltext.

Belleflamme, P. and Peitz, M. (2018). Platforms and network effects. In Corchon, L. and M. Marini (Eds). Handbook of game theory and industrial organization. Cheltenham, Northampton MA: Edward Elgar.

Boudreau, K. (2021). Promoting platform takeoff and self-fulfilling expectations: Field experimental evidence. Management Science 67(9), 5953–5967. https://doi.org/10.1287/mnsc.2021.3999.

Brandenburger, A. and Nalebuff, B. (1996). Co-opetition. New York: Broadway Business. Dadson, S.A. (2017). Reaching 50 million users: The journey of Internet and non-Internet products. TechToday-Medium. https://medium.com/techtoday/reaching-50-million-users-the-journey-of-internet-and-non-internet-products-7a531d36f4ea.

Fisman, R. and Sullivan, T. (2016). Everything we know about platforms we learned from medieval France. Harvard Business Review, March 24. https://hbr.org/2016/03/everything-we-know-about-platforms-we-learned-from-medieval-france.

Keegan, P. (2001). Lego: Intellectual property is not a toy. Business 2.0 (September). Madrigal, A.C. (2018). The perfect selfishness of mapping apps. The Atlantic (March 15). https://www.theatlantic.com/technology/archive/2018/03/mapping-apps-and-the-price-of-

anarchy/555551/.

Noakes, S. (2018). 50 million users: How long does it take tech to reach this milestone? Posted on LinkedIn on February 8 (2018). https://www.linkedin.com/pulse/50-million-users-how-long-does-take-tech-reach-milestone-simon-noakes.

Ovide, S. (2020). Airbnb's biggest problem. New York Times (November 17).

https://www.nytimes.com/2020/11/17/technology/airbnb-troubles.html.

Peppler, L. (2019). The amazing flywheel effect. Medium. https://medium.com/swlh/the-amazing-flywheel-effect-80a0a21a5ea7.

Rabang, I. (2019). The Airbnb startup story: An odd tale of airbeds, cereal and ramen. Bold Business. https://www.boldbusiness.com/society/airbnb-startup-story/.

Shapiro, C. and Varian, H.R. (1999). Information rules. A strategic guide to the network economy. Boston MA: Harvard Business School Press.

Co-creating value with platform users

Belleflamme, P. and Neysen, N. (2021). A Multisided Value Proposition Canvas for online platforms. Journal of Business Ecosystems 2(1), 1–14. https://doi.org/10.4018/jbe.2021010101. Curchod, C. and Neysen, N. (2009). Disentangling positive and negative externalities on two-sided markets: The eBay Case. Working Paper 09/03. Louvain School of Management. https://cdn.uclouvain.be/public/Exports%20reddot/iag/documents/WP_3_Curchod_Neysen.pdf. Lanning, M.J. and Michaels, E.G. (1988). A business is a value delivery system, McKinsey Staff Paper, No. 41.

Nemrow, J. (2013). The lessons I learned from my failed music startup... Digital Music News (April 12). https://www.digitalmusicnews.com/2013/04/12/startup/.

Osterwalder, A. and Y. Pigneur (2010). Business model generation: A handbook for visionaries, game changers, and challengers. Hoboken NJ: Wiley.

Osterwalder, A. , Pigneur, Y. , Bernarda, G. , Smith, A. and Papadakos, T. (2014). Value proposition design: How to create products and services customers want, Hoboken NJ: John Wiley & Sons.

Sinek, S. (2011). Start with why: How great leaders inspire everyone to take action. New York: Penguin Publishing Group.

Assessing a platform's competitive position

Arthur, W. B. (1989). Competing technologies, increasing returns, and lock-in by historical events. Economic Journal 99, 116–131. https://doi.org/10.2307/2234208.

Bain, J. S. (1956). Barriers to new competition. Cambridge MA: Harvard University Press. Belleflamme, P. (2020). An introduction to the economics of platform competition (I, II, and III). IPdigIT (April). http://www.ipdigit.eu/2020/04/an-introduction-to-the-economics-of-platform-competition-part-1/.

Brandenburger, A. and Nalebuff, B. (1996). Co-opetition. New York: Broadway Business. Brown, C. (2016). 3 Questions to ask before adopting a platform business model. Harvard Business Review. https://hbr.org/2016/04/3-questions-to-ask-before-adopting-a-platform-business-model.

Chen, L., Yi, J., Li, S., and Tong, T.W. (2022). Platform governance design in platform ecosystems: Implications for complementors' multihoming decisions. Journal of Management 48(3), 630–656. https://doi.org/10.1177/0149206320988337.

Giannoni, S., Brunstein, D., Gueéniot, F. and Jouve, J. (2021). Multichannel distribution strategy of Airbnb hosts. Annals of Tourism Research Empirical Insights 2, 100017. https://doi.org/10.1016/j.annale.2021.100017.

Hagiu, A. and E. Altman (2017). Finding the platform in your product. Harvard Business Review 95, 94–100. https://www.hbs.edu/faculty/Pages/item.aspx?num=52837.

Hagiu, A. and Wright, J. (2020a). Seven questions to evaluate network effects moats. Platform Chronicles (December 2). https://platformchronicles.substack.com/p/network-effects-and-defensibility.

Hagiu, A. and Wright, J. (2020b). How defensible are Zoom's network effects? Platform Chronicles (December 15). https://platformchronicles.substack.com/p/how-defensible-are-zooms-network.

Porter, M.E. (1989). How competitive forces shape strategy. Harvard Business Review 57(2), 137–145. https://hbr.org/1979/03/how-competitive-forces-shape-strategy.

Viotto da Cruz, J. (2019). Platform governance and complementors' quality: Evidence from crowdfunding websites. Unpublished manuscript.

Zhu, F. and Furr, N. (2016). Products to platforms: Making the leap. Harvard Business Review 94, 72–78. https://hbr.org/2016/04/products-to-platforms-making-the-leap.

Launching a platform

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management 17(1), 99–120. https://doi.org/10.1177/014920639101700108.

Belleflamme, P. and N. Neysen (2017). The rise and fall of Take Eat Easy, or why markets are not easy to take in the sharing economy. Digiworld Economic Journal (Communications & Strategies) 108, 59–76.

Biyani, G. (2021). Before Udemy could succeed..., Thread on Twitter (January 22). https://twitter.com/gaganbiyani/status/1352714283323437057?ref_src=twsrc%5Etfw.

Charlot, C. (2018). Quand le babysitting devient un business num é rique. Trends-Tendances (February 8). https://trends.levif.be/economie/high-tech/numerik/quand-le-babysitting-devient-un-business-numerique/article-normal-792279.html.

Choudary, S. (2014). Platform design: The three elements for designing platforms. Platform Revolution. https://platformthinkinglabs.com/materials/the-three-design-elements-for-designing-platforms/.

De Boose, D. (2018). A chaque palier de croissance son mode de financement. Blog post (April 23). https://www.ing.be/fr/business/my-business/growth/financing-growth.

Dou, Y. and Wu, D.J. (2021). Platform competition under network effects: Piggybacking and optimal subsidization. Information Systems Research 32(3), 820–835. https://doi.org/10.1287/isre.2021.1017.

Duggan, T. (2020). Seamless, Grubhub deliver confusion with mistaken restaurant listings. San Francisco Chronicle (January 26). https://www.sfchronicle.com/food/article/SF-restaurant-Kin-Khao-doesn-t-offer-delivery-15005797.php.

Garun, N. (2020). Grubhub's new growth hack is listing restaurants that didn't agree to be listed. The latest in its string of shady practices. The Verge (January 30).

https://www.theverge.com/2020/1/29/21113876/grubhub-seamless-fake-restaurant-listings-no-permission-postmates-doordash.

Gelman J.R. and S.C. Salop (1983). Judo economics: Capacity limitation and coupon competition. The Bell Journal of Economics 14, 315–325. https://doi.org/10.2307/3003635.

Gracia, C. (2022). Your marketplace MVP – How to build a Minimum Viable Platform. Marketplace Academy – Sharetribe (January 5). https://www.sharetribe.com/academy/how-to-build-a-minimum-viable-platform/.

Hawley, K. (2018). White Castle partners with Grubhub as delivery moves toward exclusivity. Skift.Table (January 10). https://table.skift.com/2018/01/10/white-castle-partners-with-grubhub-as-delivery-moves-toward-exclusivity/.

Knowledge at Wharton (2017). The inside story behind the unlikely rise of Airbnb (April 26). https://knowledge.wharton.upenn.edu/article/the-inside-story-behind-the-unlikely-rise-of-airbnb/. Makkonen, J. (2022). 11 marketplace metrics you should be tracking your measure your success. Sharetribe. https://www.sharetribe.com/academy/measure-your-success-key-marketplace-metrics/.

Malardé, V. (2019). Economie collaborative et r é gulation des plateformes num é riques. PhD Dissertation, Universit é de Rennes 1.

Newman, J. (2018). The dream of a privacy-first social network: 6 alternatives to Facebook. Fast Company (April 19). https://www.fastcompany.com/40559106/the-privacy-first-social-network-a-great-idea-that-never-works.

Newton, C. (2019). How TikTok could fail. The Verge (August 7).

https://www.theverge.com/interface/2019/8/7/20757855/tiktok-growth-monetization-influencers-regulation.

Perez, M. (2020). Shroud signs a streaming deal with Twitch after a stint on Microsoft's defunct Mixer. Forbes (August 11). https://www.forbes.com/sites/mattperez/2020/08/11/shroud-signs-a-streaming-deal-with-twitch-after-a-stint-on-microsofts-defunct-mixer/.

Porter, J. (2021). Epic spent at least \$11.6 million on free games and gained 5 million new users in return. The Verge (May 4). https://www.theverge.com/2021/5/4/22418782/epic-games-store-free-games-cost-apple-trial-arkham-subnautica-mutant-year-zero.

Rachitsky, L. (2019). How to kickstart and scale a marketplace business – Phase 1: Crack the chicken-and-egg problem. Lenny's Newsletter (November 20).

https://www.lennysnewsletter.com/p/how-to-kickstart-and-scale-a-marketplace.

Ries, E. (2011). The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses. New York: Crown Business.

Schonfeld, E. (2008). At Glassdoor, find out how much people really make at Google, Microsoft, Yahoo, and everywhere else. TechCrunch (June 11). https://techcrunch.com/2008/06/10/at-glassdoor-find-out-how-much-people-really-make-at-google-microsoft-yahoo-and-everywhere-else/

Sharetribe (2020). Talk to your users before building anything with Charles Armitage (Florence). Transcript of Two-Sided: The Marketplace Podcast (Season 1, Episode 4, June 17).

https://www.sharetribe.com/twosided/ep4-charles-armitage-florence-talk-users-before-building/.

Teixeira, T. (2016). How Uber, Airbnb, and Etsy attracted their first 1,000 customers. Harvard Business School Working Knowledge (July 13). http://hbswk.hbs.edu/item/how-uber-airbnb-and-etsyattracted-their-first-1-000-customers.

Uber (2019), US safety report 2017–2018, https://www.uber-

assets.com/image/upload/v1575580686/Documents/Safety/UberUSSafetyReport_201718_Full Report.pdf.

Wicklow, M., Belleflamme, P., and Peitz, M. (2020). Who pays what on Spotify? IPdigIT (May 18). http://www.ipdigit.eu/2020/05/who-pays-what-on-spotify/.

Yoffie, D.B. and Kwak, M. (2001). Judo strategy. Turning your competitors' strength to your advantage. Boston MA: Harvard Business School Press.

Monetizing a platform

Armstrong, M. (2006). Competition in two-sided markets. Rand Journal of Economics 37, 668–691. https://doi.org/10.1111/j.1756-2171.2006.tb00037.x.

Cann. O. (2017). Who pays for Dayos? World Economic Forum (January 16).

https://www.weforum.org/agenda/2017/01/who-pays-for-davos.

Charlot, C. (2018). Quand le babysitting devient un business nume rique. Trends-Tendances (February 8). https://trends.levif.be/economie/high-tech/numerik/quand-le-babysitting-devient-un-business-numerique/article-normal-792279.html.

Cicero, S. (2021). Pricing in platforms and marketplaces.

https://stories.platformdesigntoolkit.com/pricing-platforms-marketplaces-151ab67b130a.

Ellison, G. and S. F. Ellison (2009). Search, obfuscation, and price elasticities. Econometrica 77, 427–452. https://doi.org/10.3982/ECTA5708.

Evans, D.S. and R. Schmalensee (2007). The industrial organization of markets with two-sided platforms. Competition Policy International 3, 150–179.

https://www.competitionpolicyinternational.com/assets/0d358061e11f2708ad9d62634c6c40ad/EvansSchmalensee.pdf.

Lee, D. (2019). Etsy sellers aren't happy with the platform pushing them to offer free shipping. The Verge (July 9). https://www.theverge.com/2019/7/9/20687821/etsy-free-shipping-policy-seller-us-uk.

Lehr J. (2020). 9 tricks to experiment with your pricing strategy. Medium (July 2). https://medium.com/point-nine-news/9-tricks-to-experiment-with-your-pricing-strategy-329b07a5b171.

Ong, T. (2018). Uber is bringing its urban planning tool Uber Movement to London. The Verge (March 15, 2018). https://www.theverge.com/2018/3/15/17123372/uber-movement-urban-planning-tool-anonymized-ride-data-london.

Porter, M.E. (1980). Competitive strategy. New York: Free Press.

Rochet, J.-C. and J. Tirole (2003). Platform competition in two-sided markets. Journal of the European Economic Association 1, 990–1029. https://doi.org/10.1162/154247603322493212.

Rochet, J.-C. and J. Tirole (2006). Two-sided markets: A progress report. Rand Journal of Economics 37, 645–667. https://doi.org/10.1111/j.1756-2171.2006.tb00036.x.

Statt, N. (2020). Quibi reportedly lost 90 percent of early users after their free trial expired. The Verge (July 8). https://www.theverge.com/2020/7/8/21318060/quibi-subscriber-count-free-trial-paying-users-conversion-rate.

Steiner, I. (2019). Etsy helps UK sellers compete in the US with new pricing tools. eCommerceBytes (August 14).

https://www.ecommercebytes.com/C/abblog/blog.pl?/pl/2019/8/1565819902.html.

Swanson, S. (2020). Etsy's "Free Shipping" controversy. Emenator.

https://www.emenator.com/news/Etsy-s-Free-Shipping-Controversy/45/.

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Belleflamme, P. , Lambert, T. and Schwienbacher, A. (2022). Spillovers in crowdfunding. Mimeo. http://dx.doi.org/10.2139/ssrn.3259191.

Belleflamme, P. and Neysen, N. (2017). The rise and fall of Take Eat Easy, or why markets are not easy to take in the sharing economy. Digiworld Economic Journal 108, 59–76. https://en.idate.org/product/the-sharing-economy-myths-and-realities/.

Belleflamme, P. and Peitz M. (2018). Inside the engine room of digital platforms: Review, ratings, and recommendations. In Ganuza, J.J. and G. Llobet (Eds). Economic analysis of the digital revolution. FUNCAS Social and Economic Studies 5. Funcas: Madrid. https://blog.funcas.es/wp-content/uploads/2018/11/Economic-Analysis-of-the-Digital-

Revolution.pdf.
Belleflamme, P. and Peitz M. (2021). The economics of platforms: Concepts and strategy.
Cambridge: Cambridge University Press.

Botsman, R. (2017). Who can you trust? How technology is rewriting the rules of human relationships. New York: Public Affairs.

Cabral, L. and Hortaçsu, A. (2010). The dynamics of seller reputation: Evidence from eBay. The Journal of Industrial Economics 58, 54–78. https://doi.org/10.1111/j.1467-6451.2010.00405.x.

Choudary, S.W. (n.a.) Platform metrics: The core metric for platforms, networks and marketplaces. https://platformthinkinglabs.com/materials/platform-metrics-the-core-metric-for-platforms-networks-and-marketplaces/

Choudary, S.W. (2018) The architecture of digital labour platforms: Policy recommendations on platform design for worker well-being. International Labour Office – Future of Work Research Paper series. Geneva: ILO. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_630603.pdf.

Coolican, D.A., Barros, B., Jordan, J., Chen, A., Jin, L. and Murrow, L. (2021). The a16z Marketplace 100–2022. Menlo Park CA: Andreessen Horowitz. https://a16z.com/marketplace-100/.

Dudic, Z., Dudic, B., Gregus, M., Novackova, D., and Djakovic, I. (2020). The innovativeness and ssage of the Balanced Scorecard Model in SMEs. Sustainability 12(8): 3221. https://doi.org/10.3390/su12083221.

Eisape, D. (2020). Platform business models in sharing economy: Using a balanced scorecard approach to compare Airbnb, Marriott and Uber business model canvases. Nordic Journal of Media Management 3, 401–432. https://doi.org/10.5278/njmm.2597-0445.5842.

Eisenmann, T., Parker, G., and Van Alstyne, M. (2011). Platform envelopment. Strategic Management Journal 32, 1270–1285. https://doi.org/10.1002/smj.935.

Farronato, C., Fradkin, A., Larsen, B. and Brynjolfsson, E. (2020). Consumer protection in an online world: An analysis of occupational licensing. National Bureau of Economic Research Working Paper Series, No. 26601, April. https://www.nber.org/papers/w26601.

Gu, G. and Zhu, F. (2021). Trust and disintermediation: Evidence from an online freelance marketplace. Management Science 67, 794–807. https://doi.org/10.1287/mnsc.2020.3583.

Hagiu, A. and Rothman, S. (2006). Network effects aren't enough. Harvard Business Review, April, 64–71. https://hbr.org/2016/04/network-effects-arent-enough.

Hagiu, A. and J. Wright (2021a). Platform leakage I. Platform Chronicles (May 4). https://platformchronicles.substack.com/p/platform-leakage.

Hagiu, A. and J. Wright (2021b). Platform leakage II: The good, the bad, and the ugly. Platform Chronicles (May 18). https://platformchronicles.substack.com/p/platform-leakage-ii-the-good-the.

Jin, L. and Coolican, D.A. (2018). 16 ways to measure network effects. Future.

https://future.com/how-to-measure-network-effects/.
Jordan, J. , Jin, L. , Coolican, D.A. and Chen, A. (2020). 13 metrics for marketplace companies.

Future. https://future.com/marketplace-metrics/.
Joy, J. (2021). Ask an Alum. Love at first Swipe. Columbia Magazine (Spring/Summer), 47–48. https://magazine.columbia.edu/sites/default/files/2021-04/2021 Spring-Summer PDF.pdf.

Kaplan, R.S. and Norton, D.P. (1992). The Balanced Scorecard. Measures that drive performance. Harvard Business Review, January/February, 71–79. https://hbr.org/1992/01/the-balanced-scorecard-measures-that-drive-performance-2.

Lehman, T., Terrier, C. and Lalive, R., (2022). Improving matching efficiency in two-sided markets using a mutual popularity ranking approach. Mimeo.

https://drive.google.com/file/d/161wjZAyhgwZPKv3XfMrly0iElmrTTDwu/view.

Liu, C. (2019). The platform and data strategy of Meituan. Hackernoon (February 12). https://hackernoon.com/the-platform-and-data-strategy-of-meituan-1db03d5cfffa.

Madani, D. (2022). Spotify removes Neil Young's music over Joe Rogan dispute. NBC News (January 26). https://www.nbcnews.com/pop-culture/pop-culture-news/spotify-agrees-remove-neil-youngs-music-joe-rogan-dispute-rcna13698.

Makkonen, J. (2022). 11 marketplace metrics you should be tracking to measure your success. Sharetribe. https://www.sharetribe.com/academy/measure-your-success-key-marketplace-metrics/.

Morgan, B. (2018). How Amazon has reorganized around artificial intelligence and machine learning. Forbes (July 16). https://www.forbes.com/sites/blakemorgan/2018/07/16/how-amazon-has-re-organized-around-artificial-intelligence-and-machine-learning/?sh=4a96db2f7361.

Porter, J. (2020). Uber to offer boat rides in London as new commuter service. The Verge (July 8) https://www.theverge.com/2020/7/8/21317224/uber-commuter-boat-thames-clipper-london-riverboat-service.

Rachitsky, L. (2020). Twitter tread @leenysan, 25 June 2020 .

4309-2.

Rakuten. Today (2016). Speeding up C2C: Image recognition making e-commerce easier. (August 23). https://rakuten.today/blog/image-recognition-making-e-commerce-easier.html. Resnick, P., Zeckhauser, R. and Swanson, J. (2006). The value of reputation on eBay: A controlled experiment. Experimental Economics 9, 79–101. https://doi.org/10.1007/s10683-006-

Roth, E. (2022). Uber Eats brings bill splitting to deliveries. The Verge (March 9). https://www.theverge.com/2022/3/9/22969561/uber-eats-bill-splitting-deliveries-takeout.

Zhu, F. (2019). Friends or foes? Examining platform owners' entry into complementors' spaces. Journal of Economic & Management Strategy 28, 23–28. https://doi.org/10.1111/jems.12303. Zhu, F. and M. Iansiti (2019). Why some platforms thrive and others don't. Harvard Business

Zhu, F. and M. lansiti (2019). Why some platforms thrive and others don't. Harvard Business Review 97(1), 118–125. https://hbr.org/2019/01/why-some-platforms-thrive-and-others-dont.