



Rethinking digital copyright law for a culturally diverse, accessible, creative Europe

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Abbreviation list

IP: Intellectual Property

IPRs: Intellectual Property Rights





Executive Summary

ReCreating Europe seeks to contribute to the creation of a creative, diverse, and accessible copyright regulatory framework in the European Union. Work Package (WP) 4 – titled *Creative industries* – examines the interaction between the incentive structures and business models of creative industries and copyright law.

Task 4.2 – titled *New business models in the European creative industries* – includes three subtasks. These sub tasks deal with (i) examining business models of small and micro creative enterprises (Subtask 4.2.1), (ii) studying negative intellectual property spaces in the European context (Subtask 4.2.2), and (iii) analysing the impact of creative hubs on gentrification processes (Subtask 4.2.3). This report outlines the results of Subtask 4.2.2.

This report is divided into two main parts. Part 1 provides a theoretical framework to the study of negative intellectual property. Part 2 presents the results of two case studies.

Part 1 provides the theoretical foundation for the empirical analysis presented in Part 2. The section starts with introducing the concept of negative IP space. As the extant literature on negative IP spaces has mainly focussed on case studies, we develop a systematic assessment of the empirical evidence provided in this literature to develop a thorough theoretical framework for our empirical research. This assessment develops a systematic analysis of the sectors that have so far been considered negative intellectual property spaces. This analysis makes it possible to identify a new taxonomy of intellectual property spaces, and to elaborate on the structural elements that characterise negative IP. This discussion provides the theoretical premise for the identification of the two case studies presented in Part 2.

Part 2 outlines the results of our empirical research. Section 2.1 shows the preliminary results of a study on Italian haute cuisine chefs. As chefs are one of the first community of creators where informal systems of intellectual property have been documented, this section opens with a review of the literature on haute cuisine as a negative IP space. Section 2.1.1 outlines the methodology adopted for this case study. We designed a survey which was distributed to all 1901 restaurants included in the 2022 Michelin Guide of Italian restaurants. Together with our research questions, this section outlines the different research strategies adopted in our survey. As the data collection is in progress, Section 2.1.2 presents preliminary results. By investigating a sector that has already been studied in the literature of negative IP, our research seeks to ask new questions and to bring new perspectives to a consolidated scholarly debate.

Section 2.2 presents our research on the industry of academic book publishing. While Section 2.1 discusses a sector which has long been considered a negative IP space, this second case study asks whether academic book publishing is an industry that is transitioning towards a low-IP equilibrium. We ask this question because – as shown in D2.8 – the use of copyright-infringing platforms has become increasingly widespread among researchers. For this case study, we elaborate evidence gathered with a series of semistructured interviews to industry professionals. Studying academic book publishing from the angle of negative IP provides interesting insights into an industry that is currently undergoing deep transformations. The case study reports the issues and criticisms raised by industry professionals, analyses changes in current business models, and presents emerging practices.





1 Theoretical premise

1.1 Definitions

The standard economic justification of intellectual property (IP) is founded on incentive theory. According to this view, Intellectual Property Rights (IPRs) create the incentives necessary to stimulate innovation and creativity. To do so, IPRs provide creators and inventors with exclusive rights over their intellectual work. Through these exclusive rights, creators and inventors are able to profit from their creations. The theoretical assumption is that, if creators and innovators can anticipate that they will be able to profit from these exclusive rights, they will systematically engage in innovative activity. According to this view, if this expectation was to be removed, creativity and innovation would stifle. This is the reason why, according to incentive theory, Intellectual Property Rights (IPRs) play an essential role in promoting innovation and creativity. Granting exclusive rights, however, can also be detrimental to competition. IPRs provide creators and inventors with monopolistic power that can lead to reduced quantities, higher prices, and slow diffusion of innovations. This creates a tension between providing the appropriate incentives for innovation, and enabling access to new technologies and ideas.

The tension between these double dimensions of IPRs (incentivising innovation while limiting access to it) is at the origin of ongoing debates on whether IPRs effectively promote creativity and innovation among individuals and firms. The literature on "optimal IP design" frames this tension in terms of a trade-off between "static" (i.e., access) and "dynamic" (i.e., innovation) efficiency (Granstrand, 1999; Scotchmer, 2006; Pollock, 2009). More generally, the incentive-based view of IPRs has widely debated, as there is no clear-cut evidence about the grounded functioning of IPRs among individuals and firms. A growing number of empirical studies have investigated the link between IPRs and innovation, but the results of this literature are mixed. For patents, the main issues lie in the methodological difficulties in estimating how R&D activities are affected by changes in the patent system (Levin et al., 1987; Bessen, 2008; Budish, Roin, and Williams, 2016). As for copyright, empirical studies have found both that piracy correlated with significant declines in creators' revenues, and that the extension of the duration of copyright does not necessarily lead to more or better creative works (Hui and Png, 2002; Telang and Waldfogel, 2018; Giorcelli and Moser, 2020).

Besides, other studies have shown that firms do not necessarily respond to IPRs in the ways foreseen by incentive theory. For example, uses of IPRs as defensive, strategic, and signalling strategies have been widely documented (Hall and Ziedonis, 2001; Noel and Schankerman, 2013; Moser, 2016; Moser, 2018). The opensource movement has appropriated the incentive logic of standard IPRs, but has turned its functioning upside-down. Starting from open-software, this movement has developed a series of bottom-up licences to standard IPRs (such as the GNU General Public Licence, and the Creative Commons Licence), to promote sharing and diffusion and prevent appropriation (Moglen, 1999; Schweik and English, 2012). From a niche phenomenon, the open-source model has grown to become an integral part of today's software industry (Lerner and Tirole, 2005; Schrape, 2019). The open source movement has been analysed from the perspective of the economics of the commons (Ostrom, 1990; Ostrom, 2000; Ostrom, 2010; Marciano, Frischmann, and Ramello, 2019). Since participants of open-source projects pool their knowledge and skills rather than tangible goods, the economics of the commons has been adapted to the features of shared intellectual goods. This led to the development of the literature on the so-called 'knowledge commons' (Madison, Frischmann, and Strandburg, 2010; Frischmann, Madison, and Strandburg, 2014; Safner, 2016; Strandburg, Frischmann, and Madison, 2017). The literature on the 'innovation commons' argues that innovation originates in a form of cooperation in the knowledge commons that precedes the emergence of markets and firms, thereby producing a theoretical critique of the link between knowledge appropriation and innovation (Allen and Potts, 2016; Potts, 2018; Potts, 2019). Similar criticisms were made by scholars who argued that exclusionary IPRs undermine the emergence of a shared knowledge commons, disputing the very foundations of intellectual property (Lessig, 2001; Boldrin and Levine, 2005; Boldrin and Levine, 2008). Moreover, growing evidence has been found that innovation is not always achieved by individual inventors





and firms, but rather by communities that share their knowledge. In this process of 'collective invention' incremental technological improvements, rather than being appropriated, are publicly shared, contributing to the sector's knowledge accumulation and rate of innovation. Processes of collective invention have first been identified by economic historians (Allen, 1983; Meyer, 2003; Nuvolari, 2004; Frenken and Nuvolari, 2004; Lane, 2019; Bessen and Nuvolari, 2019), and equivalent phenomena have also been documented in contemporary corporate innovation (Powell and Giannella, 2010).

The concept of negative intellectual property space was developed by law scholars who started to engage with this debate over the grounded mechanisms of formal IPRs. The concept was first introduced in 2006 by Sprigman and Raustiala, who provided the following definition:

A substantial area of creativity into which copyright and patent do not penetrate and for which trademark provides only very limited propertisation (Raustiala and Sprigman, 2006, p.1764).

In their 2006 paper, Raustiala and Sprigman defined negative IP with a negative definition. That is, they identified negative IP as the 'areas of creativity' to which standard forms of IP do not apply. This first definition was introduced while studying the US fashion industry, in which apparel designs are not protected by standard forms of IP. In the introduction to a volume published over a decade later, Sprigman offered an alternative definition of negative IP spaces, expanding the concept:

To identify creative activities and industries to which IP rules could apply, but which for some reason entirely or mostly escape this type of regulation (Sprigman, 2017, p.588).

This definition widens the scope of negative IP spaces, as it also comprises sectors and activities in which formal IPRs could apply, but are not enforced for a series of contingent reasons. Rosenblatt offered a further definition of negative IP, as part of her theoretical paper on this concept:

Areas in which creation and innovation thrive without significant protection from intellectual property law (Rosenblatt, 2010, p.317).

In this definition, the attention is shifted from formal IP law, and the centre of the stage is given to innovative and creative activities, stressing that these can occur also in the absence of the incentives related to formal IP law.

The variety of these definitions shows the difficulty to have a univocal understanding of negative IP spaces. On the one hand, this difficulty is related to the fact that the literature on negative IP has mainly provided case studies rather than theoretical contributions on the subject. On the other hand, it also stems from the complexity to define an object that – by definition – eludes established categories.

Given this high heterogeneity of definitions, it was deemed necessary to start our investigation of negative IP spaces with a clearer conceptual framework, which would provide a sound premise to our empirical research.

1.2 A New Taxonomy of Negative Intellectual Property Spaces

In D4.6, we introduced a new taxonomy of negative intellectual property spaces. The aim of this new classification is to understand systematically the elements that make negative intellectual property spaces emerge. To achieve this, we have started from a systematic review of the extant literature. For each case study of negative IP, we have recorded the following five features:

- 1. industry under consideration;
- 2. enforceable IP (i.e., whether the study concerns copyright, patent, or trademark);
- 3. appropriability strategy (i.e., the strategies used in the sector to handle the lack of IP protection);
- 4. research methodologies;
- 5. theoretical contribution of the study



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This classification led to a series of tables that are published in D4.6, and provide a systematic review of the extant literature on cases of negative IP spaces. This classification makes it possible to study the characteristics that make the case studies developed so far diverge most significantly. We identify eight different dimensions on which the case studies presented so far can be assessed. We then assess each case study against these dimensions, with scores from 0 to 3. The dimensions are briefly discussed below:

Does any IP apply?

This dimension measures the extent to which formal IPRs apply to the sector under consideration. This dimension is measured as a continuum because negative IP spaces can be found in sectors were IPRs fully apply (as in the case of video making), in sectors were they do not (as with apparel designs), and in sectors where, even if IPRs would apply, they are not enforced by the actors (examples are street and tattoo artists).

Relevance of intrinsic motivation

This dimension investigates the motivations followed by actors. A score of 0 corresponds to a sector where actors mainly follow monetary incentives, while a score of 3 corresponds to a sector dominated by intrinsic incentives to innovate. Cases of negative IP span across this spectrum of motivations, going from street artists and fan fiction to the financial services industry and the 18th-century iron industry of England.

Role of digital disruption

This dimension measures to what extent the digital revolution has affected the business models of the sector under investigation. A score of 0 corresponds to a sector that has not been impacted by the digital revolution, while a score of 3 corresponds to a sector in which digital technologies have played a disruptive role. An example of the former are high-cuisine chefs and tattoo artists. An example of the latter is the adult entertainment industry, or open-source software.

Innovators' community tightness

With this dimension, we measure how the community of actors is closely-knit. Extant cases comprise sectors were innovators are not acquainted with each other and mainly interact through impersonal exchanges, as in the case of the adult entertainment industry or in fashion. These cases correspond to a score of 0. Other case studies include community of innovators that thoroughly organised, and where innovators often know each other personally, as in the case of stand-up comedians and high-cuisine chefs.

Is copying included in business model?

This dimension captures the extent to which the possibility of copying is an integral part of the business model. A score of 0 corresponds to sectors where copying is strongly policed and sanctioned, as in the case of stand-up comedians. A score of 3 corresponds to a sector in which copying is incorporated in the business model, as in the case of the fashion and adult entertainment industries.

Industry structure (horizontal vs hierarchical)

This dimension measures the level of organisational complexity of the sector. It ranges from 0 in the case of sectors dominated by horizontal communities (e.g. free innovators) to 3 for sectors characterised by highly hierarchical structures, as in the case of fashion.



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Level of innovation costs

This dimension captures the level of capital intensity of the sector under consideration. A score of 0 corresponds to a sector where the level of fixed capital is rather low (for example, the capital involved in the creation of a new joke), while a score of 3 corresponds to sectors with a high capital intensity (for example, the capital necessary to produce new vaccines).

How easy copying is

This measure assesses the cost of copying. This dimension ranges from sectors where copying can be made with a simple copy-and-paste operation, as in the case of the sharing of digital content (score of 3), to sectors in which copying is significantly more difficult to achieve, as in the case of a dinner in a high-cuisine restaurant.

Use of social norms

This dimension measures to what extent the community of innovators resorts to informal norms to police copying and sanction infringing behaviours. This dimension ranges from 0 for sectors where similar norms do not seem to play a significant role (as in fashion or the adult entertainment industry), to 3 for sectors in which similar norms provide the key strategy to regulate copying and imitation among innovators (as among haute-cuisine chefs and stand-up comedians).

As these dimensions have been identified because they show the features on which extant case studies differ most significantly, assessing each case study against them means exploring the maximum level of variability across the literature. The result of this analysis is a multi-layered mapping of the various dimensions of 'negativity' discussed in the literature, as shown in Table 1:

	Comparative assessment of Case Studies of Negative IP											
	Haute-cuisine chefs	Stand-up comedians	Tattoo	Street art	Collective invention	Open science (Flu network, Oncomouse)	Free innovators	Open source (software and hardware)	Adult entertainment	Fashion	Sports strategies (American gridiron football)	
Social norms	3	3	3	3	3	2	3	3	0	0	0	
Ease of copying	1	2	2	2	3	2	2	3	3	3	3	
Intrinsic motivation	2	2	2	3	1	2	3	2	1	1	3	
Industry structure	2	2	1	1	1	2	0	1	3	3	3	
Digital disruption	0	1	1	1	1	2	2	3	3	0	1	
Innovators' community tightness	2	1	2	2	2	2	3	3	0	0	3	
Level of innovation costs	2	1	1	1	2	3	2	2	1	2	2	
IP Applies	0	0	2	2	3	3	3	3	3	0	0	
Unrestrained copying	1	0	1	1	2	1	2	1	3	3	3	

Table 1 Systematic comparison of case studies of negative IP

Table 1 reflects high diversity of sectors that have been analysed as negative IP spaces. As this assessment is based on the characteristics that differ most significantly across extant case studies, this table reflects the maximum level of divergence present in the literature. As it provides a complex and multi-layered 'negativity



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scale', Table 1 shows that the concept of 'negativity' has been interpreted in different ways, and that negative IP spaces can be found in a high diversity of sectors.

Table 1 represents the result of the first step of our taxonomic exercise, which aims to map the highest degree of variability across the sectors that have been discussed as negative IP spaces. The second step of the taxonomic exercise is to investigate whether it is possible to find common trends in the previous analysis. The rationale of this procedure is that, if it is possible to find common trends across the highest degree of variability of negative IP spaces, these common features will identify the structural elements that characterise negative IP spaces. This analysis leads to the identification of three main groups of negative IP spaces, which are highlighted in different colours in Table 2. These three groups form a new taxonomy of negative IP spaces based on the structural characteristics of the literature.

	Comparative assessment of Case Studies of Negative IP: a tentative taxonomy											
	Haute-cuisine chefs	Stand-up comedians	Tattoo	Street art	Collective invention	Open science (Flu network, Oncomouse)	Free innovators	Open source (software and hardware)	Adult entertainment	Fashion	Sports strategies (American gridiron football)	
Social norms	3	3	3	3	3	2	3	3	0	0	0	
Ease of copying	1	2	2	2	3	2	2	3	3	3	3	
Intrinsic motivation	2	2	2	3	1	2	3	2	1	1	3	
Industry structure	2	2	1	1	1	2	0	1	3	3	3	
Digital disruption	0	1	1	1	1	2	2	3	3	0	1	
Innovators' community tightness	2	1	2	2	2	2	3	3	0	0	3	
Level of innovation costs	2	1	1	1	2	3	2	2	1	2	2	
IP Applies	0	0	2	2	3	3	3	3	3	0	0	
Unrestrained copying	1	0	1	1	2	1	2	1	3	3	3	
Taxonomy	Taxonomy Social-norms based systems					Commons-based systems Knockoff systems						

Table 2 Systematic comparison of case studies of negative IP: a tentative taxonomy

As can be seen in Table 2, our analysis suggests that negative IP spaces can be divided into three main groups, which have the following characteristics:

- The first group comprises sectors in which actors resort to bottom-up social norms aimed at policing copying and sanctioning infringing behaviours. These norms generate informal IP-like regimes. These sectors are also characterised by tight communities, where innovators are often acquainted with each other, as this is an essential precondition for the development and enforcement of a system of social norms. These sectors tend to have moderate levels of inequality and comparatively higher degrees of intrinsic motivation. The level of capital intensity of these sectors is relatively low, and their business models have usually not been disrupted by the digital revolution. We label the sectors with these characteristics 'social-norms based systems'.
- The second set includes sectors whose actors also share some sort of norms regulating copying. Actors often have high levels of intrinsic motivation (that can also coexist with monetary incentives), and their communities are usually organised in some institutional form (for example with scientific





journals, or some sort of membership, such as online communities). Formal IPRs generally apply to their creations, but the actors of these sectors choose deliberately to eschew from enforcing their rights, and often publicly share their work (e.g. through free sharing or open licensing). The high propensity to openly share innovations and the existence of norms about copying generate sectors in which copying is comparatively easy and widely accepted, though within the limits prescribed by norms. A key difference between this group of cases and social-norms based systems is that actors belonging to this second set choose share a purpose: namely, creating a public good. These sectors can be labelled 'commons-based systems'.

The third group includes sectors whose fundamental characteristic is unrestrained copying, which is widespread and occurs in the absence of significant forms of regulation. This is possible because, in these sectors, copying is fully integrated in the industry's business model. The community of innovators tends to be looser than in the previous two groups, and there are no significant social norms. Actors tend to have low levels of intrinsic motivation, and industries are comparatively more unequal than in the other two groups. Following the definitions used in the first studies on these sectors, we call these cases 'knockoff systems' (Raustiala and Sprigman, 2012).

This taxonomy provides a new theoretical tool to classify the wide variety of sectors that fall under the category of negative IP spaces. As can also be seen from Table 2, there is a degree of variability among the case studies belonging to each of these groups, and the boundaries between them are more blurred than the previous list of bullet points would at first glance suggest. As the only other taxonomy of these sectors is based on legal classifications (Rosenblatt, 2010), this taxonomy is the first attempt at investigating the structural characteristics of negative IP spaces. Moreover, it provides a helpful tool to identify research gaps, conduct comparative studies, and identify patterns.

For example, the category of 'social-norms based systems' not only identifies a spectrum of sectors in which copying is governed through informal norms, but also shows that these arrangements can be flexible and long-lasting. Studies have documented that changes in creative activity corresponded with changes in the informal system of norms developed by the community of creators, providing evidence to show that these informal systems can change together with sectorial trends (Fagundes, 2012; Fagundes, 2017). Moreover, it has been shown that stand-up comedians and haute-cuisine chefs were able to coordinate their behaviours for decades thanks to informal norms, which have also adapted to sectorial trends (Fauchart and von Hippel, 2008; Oliar and Sprigman, 2008). This category of commons-based systems may be interesting for the literature on knowledge commons. In his study of innovation commons, Potts suggests that the origins of innovation lie in an innovation common that is then appropriated into the model of competitive markets and proprietary firms. He suggests, then, that appropriation is the mechanism that dominates the mature stages of economic innovation (Potts, 2019). The category of commons-based systems may contradict this argument, as these systems include sectors that are able to combine high levels of innovation, limited propertisation, and a wide circulation of knowledge commons.

It is also interesting to ask what impact the digital transformation is having on these sectors, given Von Hippel's argument that the internet has the potential to facilitate the pooling of distributed knowledge and the connection of innovators in across horizontal networks (von Hippel, 2005). As norms-based systems are based on some form of personal acquaintance among members of the community, previous studies suggest the digital transformation does not have a disruptive impact on them. Commons-bases systems, on the other hand, seem to be accelerated by the digital transformation, as digital and communication technologies facilitate the sharing of and access to knowledge commons. As for knock-off systems, the picture is mixed. While the negative-IP dimension of the fashion industry and of sports strategies has not been transformed by the internet, the adult entertainment industry has become a knock-off system because the digital transformation made unrestrained sharing of copyrighted material possible. As adult entertainment has



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often been an industry at the cutting edge of structural transformations, it is possible that its transition towards a knock-off system may anticipate similar developments in other industries in which copyright plays a key role.

2 Case Studies

The taxonomy discussed in Section 1 provides the theoretical foundation to our empirical research, which is presented in this section.

As outlined in detail in our taxonomy, the literature on negative IP spaces argues that there are fundamentally two ways in which a sector can be creative in the absence of IP:

- The first is the model followed in both social-norms based systems and in commons-based systems: namely, the development of bottom-up arrangements on how copying should be governed. These bottom-up arrangements can either be completely informal – as in the case of social norms – or can be codified, as exemplified by open licences. The key difference between these two systems is that, while in norms-based systems copying tends to be regulated in IP-like arrangements, in commonsbased systems actors deliberately choose to share their creations, contributing to the development of a public good.
- 2. The second way in which a sector can show a high level of innovation in the absence of formal IP is the model shown by knock-off systems. In these systems, copying is unpoliced and unrestrained, because it is fully integrated into the business model. In the fashion industry, unrestrained copying on apparel designs is not policed because it contributes to accelerating the fashion cycle, as argued by Sprigman and Raustiala (Raustiala and Sprigman, 2006; Raustiala and Sprigman, 2012). As new designs get copied by increasingly larger strata of the industry, they lose the allure of novelty and distinction that is essential to cutting-edge style. This spread of new designs accelerated by unrestrained copying makes them go out of fashion more quickly, opening the space for further new designs, thereby accelerating the business cycle. This is the phenomenon that Sprigman and Raustiala have called the 'piracy paradox': i.e., a case of piracy that does not hinder, and possibly accelerates, innovative activity (Raustiala and Sprigman, 2006; Raustiala and Sprigman, 2009; Raustiala and Sprigman, 2012). Innovations in sports strategies often secure a first-mover advantage to their inventors, but once the new strategy is publicly implemented, there is no legal means or informal norms to prevent competitors from copying it. This process of uncontrolled imitation secures close competition, which is essential to the entertainment provided by sports (Raustiala and Sprigman, 2012, pp.126–132). A clear example of these dynamics is the so-called 'Fosbury Flop' – i.e., the backwards jumping style used in the sport of high jumping. After Dick Fosbury won the gold medal at the 1968 Olympics using this technique, the Fosbury Flop was increasingly imitated by other professional athletes, until it became the dominant technique in the sport. In the adult entertainment industry, copyright fully applies to video contents, but the advent of the digital revolution has made the enforcement of this right increasingly difficult. Studies suggest that the answer from this sector was a shift in the industry's business model. Adult entertainment productions do not focus on persecuting the unauthorised circulation of copyrighted contents, but rather use that content as a way to lure potential customers into subscribing to services that cannot be reproduced by copying, such as live performances and interactive experiences. The sector's



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answer to digital disruption, then, has been to shift the core of its revenues to products that are less exposed to piracy, and to use unrestrained digital sharing as a way to reach new potential customers (Darling, 2017; Raustiala and Sprigman, 2019).

Given these two main models of dealing with the absence of formal IPRs, we decided to focus our empirical analysis on two case studies that correspond to each model. In the first case study, copying is managed through informal and bottom-up means. In the second, copying might become an integral part of the business model. The first case provides a paradigmatic study of a social-norms based system, investigating how haute-cuisine chefs manage their creative activities. The second case involves a sector that has the potential to become a knock-off system: it studies how the digital transformation and online piracy are impacting academic publishing.

2.1 Haute-cuisine chefs

Haute cuisine is an established sector for the study of informal norms related to intellectual property. Chefs are the first community in which these informal norms have been documented, and are the subject of a series of studies.

In their 2008 paper in *Organization Science*, Fauchart and Von Hippel were the first to document that French chefs resort to what the authors labelled a 'norms-based intellectual property system' (Fauchart and von Hippel, 2008). The authors used a mixed methodology. They identified their research questions through grounded research, by conducting qualitative interviews with established chefs active in the Paris area. In these interviews, the authors enquired how chefs normally behaved with regards to copying and imitating other chefs' recipes, and asked what was considered appropriate behaviour. The authors then distributed a survey to test whether chefs followed the norms identified through grounded research, and if these norms worked as a tool to protect their innovation activity. The survey was distributed to chefs recognised as outstanding in the Michelin guide of French restaurants. The authors distributed 485 surveys, 104 of which received answers. Drawing on the literature on the role of informal norms as a way for communities to organise behaviours (Ostrom, 1990; Ellickson, 1991), Fauchart and Von Hippel documented the existence in contemporary society of an intellectual property regime based solely on informal norms. Subsequent studies in this field documented that these informal intellectual property regimes complement codified IPRs, and are based on implicit social norms that are shared across the members of a specific community.

Fauchart and Von Hippel's brought haute cuisine to the attention of legal scholars, economists, and organisational scientists. This also occurred at a time in which the popularity of haute cuisine was increasing, possibly also thanks to the success of tv shows on the subject. The result was the development of a scholarly literature on haute cuisine. A number of case studies have been published, with the aim of investigating creative processes among chefs (Capdevila, Cohendet, and Simon, 2015; Abecassis-Moedas, Sguera, and Ettlie, 2016; Savino, Messeni Petruzzelli, and Albino, 2017; Koch et al., 2018). A few books have appeared on creativity, communication, and industry organisation in haute cuisine (Rousseau, 2012; Lane, 2014; Leschziner, 2015). Haute-cuisine chefs provide an ideal community for innovation scholars interested in how networks affect innovation activities (Dahlander and Frederiksen, 2012). As they form a distinct community of creative professionals with clearly identifiable rankings, haute-cuisine chefs offer an ideal group to study these dynamics. Castellucci and Slavich, for example, reconstructed a master-apprentice network among 194





accomplished chefs, and investigated how creativity is affected by these relationships (Castellucci and Slavich, 2020).

Di Stefano, King and Verona have expanded Fauchart and Von Hippel's study from the perspective of organisational studies, investigating how chefs take decisions regarding knowledge sharing within their system of informal norms. The authors developed a scenario-based field study, distributing a survey to Italian chefs included in the 2009 Michelin guide of Italian restaurants that investigated the determinants for chefs' decision to share knowledge. They found that chefs are significantly more likely to share knowledge with someone they expect will conform to norms about knowledge use, and analysed how these expectations are affected by a number of variables (Di Stefano, King, and Verona, 2014). In a second paper, the authors analysed the determinants for chefs to sanction transgressors to social norms, finding that the probability for a chef to sanction a violation is negatively correlated with the reputation of the violator, not significantly affected by the public visibility of the violator, and positively correlated with geographical proximity (Di Stefano, King, and Verona, 2015). In a third paper, the authors explored the role played by spatial proximity, showing that geographic concentration is positively correlated with respecting social norms about knowledge transfer (Di Stefano, King, and Verona, 2017). Favaron, Di Stefano and Durand have studied how the introduction of a new ranking system (namely, the Michelin guide of restaurants for Washington, D.C., which had its first edition in 2016), affected the status of restaurants in the city, using variation in the restaurants' menus before and after the publication of the Guide (Favaron, Di Stefano, and Durand, 2022).

This literature has widely documented that haute-cuisine chefs resort to informal norms regulating how knowledge is shared across their community. It has also investigated the determinants for chefs' decisions on whether to share knowledge with other chefs, documenting the key role of the expectation that the recipient will conform to norms about knowledge sharing.

In our study, we explore the following research questions:

- What are the determinants of knowledge sharing in the creative community?
- What are the patterns of knowledge sharing in the creative community?
- What is the role of knowledge disclosure in industry trends?

We explore these questions with a survey distributed to all restaurants included in the 2022 Michelin Guide of Italian restaurants.

2.1.1 Methodology

Our research for this case study started with desk research, during which we consulted both the academic literature on the subject and more popular outlets, such as interviews to chefs, tv series, popular books, and tv shows. We then scheduled a first round of qualitative interviews with industry professionals, during which we asked questions about the dynamics of their sector, their role, their professional ethics, their perceptions, and about creativity in the kitchen. We then used a web scraper to download information from the website of the Michelin Guide for Italian restaurants 2022.

We wrote a first draft of our survey, which we validated during a second round of interviews with industry professionals. This second round of interviews allowed us to assure face validity, and to update our draft following the direct advice of professionals. The survey was then distributed via email to all 1901 restaurants included in the 2022 Michelin Guide of Italian restaurants. The contact email was explicitly addressed to the





restaurant's chef, it included a synthetic outline of the research project, together with the full details about privacy protection and management of personal data. For the distribution of the survey and data gathering, we rely on the GDPR-compliant Qualtrics survey platform. While the data collection is currently in progress, we have already received 279 responses.

To address the research questions outline above, our survey uses a combination of methodologies. What follows is an outline of the survey, which is included in Appendix 3 and 4.

First, we ask chefs in different moments of the survey a set of direct questions about their demographics, their perceptions of style and similarity between restaurants, their perceptions of industry trends, their opinions on how a restaurant can become distinct from the others, the role of creativity and innovation, and their opinions on knowledge sharing and imitation.

Second, following the methodology used by (Di Stefano, King, and Verona, 2014), we build a scenario-based experiment. We give chefs four randomly-assigned scenarios. In this analysis, we ask respondents to imagine a chef with a number of characteristics which we provide. These characteristics are randomly assigned by the survey algorithm among all possible combinations of characteristics. We then ask questions about how the respondent would interact with the chef presented in the given scenario. This methodology makes it possible to manipulate a series of controls and variables of interest, and to observe how respondents react to these changes. Our scenarios are divided into two subsets of two scenarios each. Each respondent is given two random scenarios of the same subset, so that we will be able to build individual-level "fixed effects", which will allow us to reduce our bias due to unobserved individual-level characteristics.

In the first group of scenarios, we present respondents a chef with the following randomly assigned characteristics: experience (long vs short), reputation (excellent vs mediocre reviews), similarity (similar vs dissimilar cuisine to that of the respondent), degree of competition (restaurant proximity: close vs far), visibility (good vs poor). These are the same variables manipulated by (Di Stefano, King, and Verona, 2014). The respondent is therefore given a scenario of the following type (items in bold are randomly assigned):

Imagine a chef that

- . has over twenty years/one year of experience in the sector,
- . has excellent/mediocre reviews,
- . offers a cuisine that is similar/dissimilar to yours,
- . works in a restaurant that is close to/far from yours,
- . has good/poor visibility (for example in terms of media presence).

We then ask respondents a set of questions on how they would behave in the given scenario. We replicate the questions asked by (Di Stefano, King, and Verona, 2014), which investigate whether respondents would share knowledge with the chef of the given scenario, and their expectations that, if they did, the given chef would follow the sector's informal norms. We then add other questions, asking whether the respondent would give the assigned chef misleading information, the probability that the respondent would sanction the given chef in case of a violation of social norms, their expectation that, in case they shared knowledge, the given chef would reciprocate in the future, and the legitimacy of reproducing the respondent's recipes with attribution. This first group of scenarios is designed to replicate the analysis by Di Stefano, King, and Verona, as well as to investigate the determinants of other behaviours and expectations, such as the decision to sanction, the possibility of using knowledge sharing in strategic ways, and the expectation of future reciprocity.







In the second group of scenarios, we manipulate additional variables. Together with experience (long vs short), proximity (close vs far), and visibility (good vs poor), we also manipulate the following variables: to consider a source of inspiration (yes vs no), and to be considered a source of inspiration (yes vs no). This set of scenarios is presented in the following form:

Imagine a chef that

- . has twenty years/one year of experience in the sector,
- . you consider/do not consider a source of inspiration,
- . considers/does not consider you as a source of inspiration,
- . works in a restaurant that is close to/far from yours,
- . has **good/poor** visibility (for example in terms of media presence).

Also in this second group of scenarios, we ask respondents questions on how they would behave in the given scenario. With this group of scenarios, we manipulate variables concerning active and passive imitation, to explore what role imitation plays in determining respondents' behaviours. Also in these scenarios, we ask questions about the probability that, if asked, respondents would share knowledge with the given chef, the expectations that the given chef would respect informal norms, the intention to sanction infringing behaviours, and the expectation of future reciprocity from the given chef. Additionally, we ask questions about the perceived legitimacy of imitating the given chef without attribution, and the perceived legitimacy of being imitated by the given chef without attribution.

With this scenario analysis, we aim at deepening our knowledge of the determinants of knowledge sharing and other behaviours within a community that regulates intellectual property through informal norms. In comparison with the extant literature, our scenario analysis introduces more independent variables and explores a wider range of dependent variables (behaviours).

Additionally, our survey is designed to gather the evidence necessary to build a network analysis. Our aim is to reconstruct the following networks between the restaurants included in the 2022 Michelin Guide of Italian restaurants:

- 1. A master-apprentice network
- 2. A network of perceived similarity
- 3. A network of knowledge exchange
- 4. A collaboration network
- 5. An inspiration network

To build network 1), we ask respondents in which restaurants they have worked for at least six months. We give respondents both a dropdown menu where respondents can find all restaurants included in the 2022 Michelin Guide, and we provide the possibility of manually inserting restaurants that are not included in the Guide. To build network 2), we ask respondents which restaurants, among those included in the 2022 Guide, they perceive as similar to theirs. Also in this case, respondents are given the option of inserting manually restaurants that are not included in the 2022 Guide. As for network 3, we ask respondents to provide both the restaurants from which they have been asked information, and restaurants to which the respondents have asked information. As in the previous cases, we provide respondents with the full list of restaurants included in the 2022 Guide, and give them the possibility of mentioning additional restaurants. Networks 4) and 5) are built with the same methodology, and by first asking, respectively, if respondents have collaborated with the chefs of other restaurants, and if their menus include recipes that are attributed to the





chefs of other restaurants. If respondents give a positive reply to these questions, they are asked to indicate the chefs of which restaurants they have collaborated with, and the chefs of which restaurants these recipes are attributed to.

This network analysis will make it possible to reconstruct patterns of knowledge exchange across the community of chefs. As far as we are aware, no previous study has delivered a similar analysis of knowledge sharing in a creative community governed by informal norms. Moreover, this analysis will also allow to study the similarity of the network of knowledge exchange with other networks that characterise the community of chefs. To the best of our knowledge, this will also be the first analysis of this kind, as previous studies have considered the creative community as a coherent whole, without analysing its internal organisation.

2.1.2 Preliminary results

We have distributed our survey to the 1901 restaurants included in the 2022 Michelin Guide of Italian restaurants. While we have already received 232 responses (191 of which – 82% – are complete), the data collection is still in progress. However, the evidence gathered so far makes it possible to share some preliminary results.

For example, responses gathered so far suggest that imitation is indeed a common phenomenon among Italian haute cuisine chefs. As shown in Figure 1, almost 40% of respondents report that their menu includes recipes that take inspiration from other chefs' work. This is an encouraging result for us, given the importance given to imitation and inspiration in our scenario analysis.

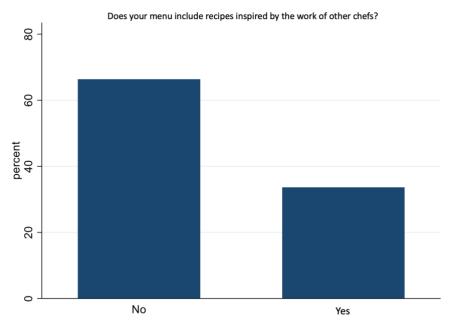


Figure 1 Responses to the question "Does your menu include recipes inspired by the work of other chefs?" (percentages)

Answers about the frequency of knowledge sharing also provide interesting results. Figure 2 shows that over 50% of respondents report that they were "sometimes" asked information about their recipes by other chefs,



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while around 30% replied "often" and over 10% replied "very often". Only less than 10% report that they have never been asked information by their peers. So far, no respondent has replied "once" to this question.

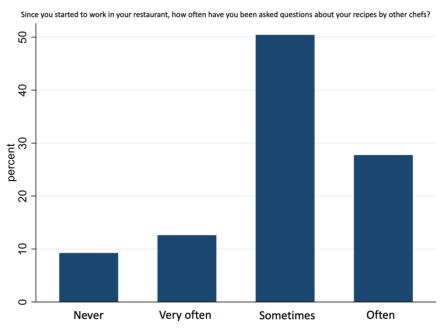
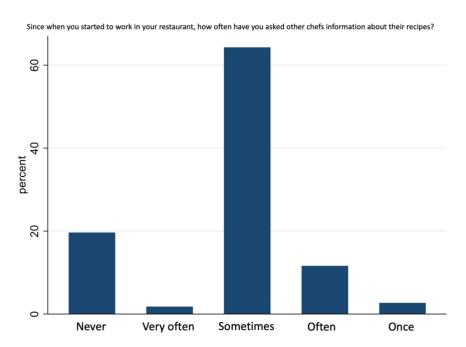
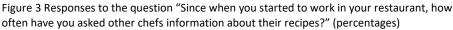


Figure 2 Responses to the question "Since you started to work in your restaurant, how often have you been asked questions about your recipes by other chefs?" (percentages)

Figure 3 reports results for the reciprocal question: how often respondents asked information about recipes to their peers. This figure shows that comparatively less respondents report that they asked about their







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peers' recipes "often" and "very often", while the majority of the respondents replied that they "sometimes" asked for this information.

Figures 4 and 5 represent the results to the question, respectively, about how often respondents received and gave misleading information about recipes. While most respondents replied that they have never received nor given misleading information, it is significant that a few of them report that this has occurred at least once. As in previous answers, we see that respondents are more likely to report that they were given misleading information than to report that they have given it. These are significant results, because they show that in some cases, chefs use knowledge transfer in a strategic way. This is a phenomenon that previous literature had not documented.

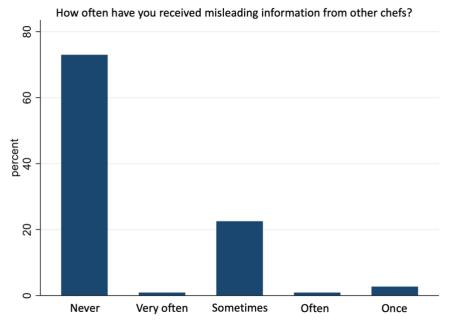


Figure 4 Responses to the question "How often have you received misleading information from other chefs?" (percentages)





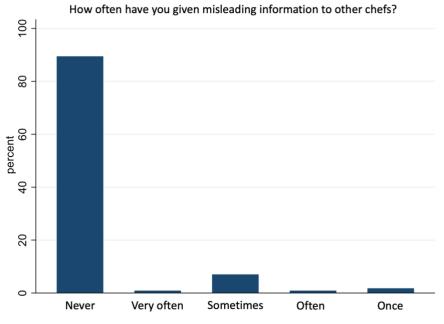


Figure 5 Responses to the question "How often have you given misleading information to other chefs?" (percentages)

These preliminary results confirm that knowledge exchange is quite widespread in the Italian haute cuisine sector. They also show that respondents tend to have a 'self-centred bias', namely that they tend to underestimate the contribution that they receive from their community of peers with respect to the contribution that they provide. These results also show that our survey will likely make it possible to document for the first time that creators resort to knowledge exchange in strategic ways, such as by providing misleading information. Finally, the responses gathered so far suggest that imitation plays a relevant role in the industry, which is an encouraging preliminary result for a survey that uses imitation and style similarity as important variables of analysis.





2.2 Academic publishing

While our first case study examines a sector that has been widely documented as a negative IP space, our second case study concerns a sector that has never been investigated from the perspective of negative IP.

The advent of the internet and of digitalisation have had a strong impact on academic publishing. Following the definitions provided by (Verhoef et al., 2021), we understand the transformation brought about by digital technologies in three phases: 1) digitisation: "the encoding of analog information into a digital format (i.e., into zeros and ones) such that computers can store process, and transmit such information"; 2) digitalisation: how IT or digital technologies can be used to alter existing business processes; and 3) digital transformation: "the most pervasive phase, ... describes a company-wide change that leads to the development of new business models". The present report is mainly concerned with describing processes of digitalisation, i.e. of how IT technologies are impacting the academic publishing industry, and seeks to outline elements of the emerging digital transformation of this sector.

Almost all of today's academic journals have a digital distribution of their articles, and quite a few of them – including some of Nature's outlets – have moved to a digital-only model.¹ While this widespread shift to digital distribution has made content published in journals and books easier to access, it poses a possible challenge to the traditional business model based on subscription. Critics argue that, in the digital era, the subscription model should be strongly revisited, because technology facilitates the traditional role of academic publishers. The so-called 'open access movement' has pushed for the spread of various forms of open access in scientific communications. The theoretical argument posed by this movement is that, in a world in which progress is founded on scientific knowledge, access to this knowledge should not be impeded by any form of barrier, as made possible by the current state of technology. The 2003 *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities*² marked a milestone for a movement that has seen growing traction and influence over the following years,³ and has managed to turn open access from a niche phenomenon into an established practice in academic publishing. However, some representatives of this movement argue that more should be done to achieve what they call 'full open access' (Schiltz, 2018).

While critical of the subscription model, the open access movement calls for a reform in the legal agreements under which scientific research is published. However, the advent of digitalisation makes it possible to access paywalled contents via online sharing, bypassing current copyright laws. Since the late 2000s, a growing number of online repositories have appeared which provide access to research papers to anyone, often infringing copyright law. Aaron Swartz's *Guerrilla Open Access Manifesto* is often cited as a foundational moment for a movement that created large copyright-infringing shadow libraries, and contributed to bringing criticisms to the subscription model into the mainstream (Swartz, 2008; Bodó, 2016).

In 2011 Kazakhstan, neuroscientist Alexandra Elbakyan founded Sci-Hub, an online repository that provides access to millions of research papers, often infringing publishers' copyrights by bypassing their paywalls and storing content on its own servers. The repository has grown rapidly in the following years, both in terms of popularity and of scope of stored material. Download data from September 2015 to February 2016 revealed that downloads from Sci-hub were occurring all over the world, including the US and European countries (Bohannon, 2016; Elbakyan and Bohannon, 2017). This sparked a lively online conversation between academics, librarians, and other actors over the future of academic publishing (Woolston, 2016). Data on Sci-Hub catalogue shows that in 2017 the site's database included 69% of the 81.6 million papers recorded in

³ https://openaccess.mpg.de/mission-statement_en



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¹ https://en.wikipedia.org/wiki/Category:Online-only_journals

² https://openaccess.mpg.de/Berlin-Declaration

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Crossref, and over 85% of paywalled papers: a coverage that was wider than provided by major research libraries in the United States, such as the University of Pennsylvania (Himmelstein et al., 2018). In summer 2022, Sci-Hub reported that its repository comprised 88,343,822 files.

In parallel, starting from 2008 an online repository of books named Library Genesis (LibGen) has appeared. Run by anonymous operators who draw from a long-run tradition of copyright infringement in Russia, LibGen provided a platform where collections of digital reproduction of books and other contents were aggregated, often as a result of bottom-up uploads from users (Bodó, 2018). Over the years, LibGeb has accumulated an extensive catalogue of books, several of which are protected by copyright. As of 2014, LibGen's catalogue included almost 1.2 million documents, and downloads from its repository were coming from European countries, Russia, and developing countries (Bodó, 2018). In 2019, over two million books available on LibGen. Data from 2015 show that downloads from LibGen occurred extensively in both developed and developing countries, with the USA, India, Germany, United Kingdom, and China appearing as the top-5 countries in terms of total downloads (Bodó, Antal, and Puha, 2020).

Some academic publishers saw the emergence of these platforms as a real threat. Following an official complaint filed by major academic publisher Elsevier, in 2015 a New York district court ruled that websites such as Sci-hub and LibGen violate US copyright law (Schiermeier, 2015). In June 2017, a New York district court awarded Elsevier 15 million \$ in damages from Sci-Hub, LibGen and related websites for damages resulting from copyright infringement (Schiermeier, 2017). However, since both Sci-Hub and LibGen are out of the jurisdiction of American courts, these rulings are difficult to enforce. Since 2015, Sci-Hub and LibGen's original domains were repeatedly shut down, but the repositories were made available again under new domains. Alexandra Elbakyan and supporters of shadow libraries replied to these rulings with an opposite argument. They contend that these repositories should be made legal, as they aim to delivering the right to science and culture under Article 27 of the Universal Declaration of Human Rights, and they dispute the legality of the subscription model under the same Article. At the same time, this attempted crackdown from a major academic publisher sparked critical reactions, with critiques depicting the business model exemplified by Elsevier as a staggeringly profitable system that did not benefit the pursuit of science (Buranyi, 2017).

Despite these attempts at shutting these platforms down, their usage has become increasingly widespread. According to a statement by its owners, Sci-hub received around 400.000 requests per day in September 2019.⁴ This traffic has possibly grown during the period of lockdowns related to covid-19, during which access to research libraries was limited. Previous research has investigated the motivations behind the popularity of these websites, suggesting that there may be a variety of logics behind this phenomenon. Readers from developed countries may be attracted to these sites for convenience or ideological reasons, while barriers to access may be among the driving motivations for readers from developing countries (Machin-Mastromatteo, Uribe-Tirado, and Romero-Ortiz, 2016; Bruijns et al., 2017; Caffrey and Gardner, 2017; Nicholas et al., 2019).

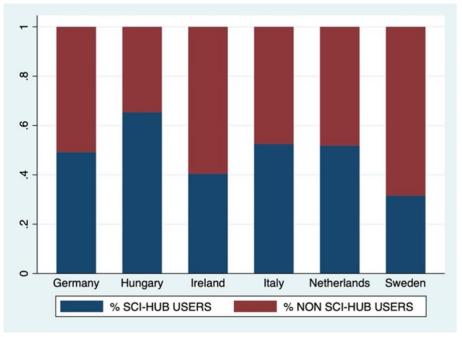
While previous studies on the usage of Sci-Hub and LibGen analyse aggregate or country-level data (Bodó, Antal, and Puha, 2020) or focus on a specific field (Mejia et al., 2017), the survey conducted in D2.5 and D2.8 gathered individual-level evidence about the use of these platforms among researchers active in institutions located in six European countries (Germany, Hungary, Ireland, Italy, The Netherlands, and Sweden). As it covers a heterogeneous population (both in terms of field and age group), D2.8 provides one of the first systematic analysis on the use of piracy among individual academics. As shown in Figure 1, D2.8 reveals that a substantial subset of the academic community from Germany, Hungary, Ireland, Italy, the Netherlands, and Sweden uses shadow libraries such as Sci-Hub or LibGen.

⁴ https://roskomsvoboda.org/49416/



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Have you ever used online platforms or databases like SCI-HUB, Z-Library, or Library Genesis (LibGen)?

Figure 6 Country-level answers to the question "Have you ever used online platforms or databases like SCI-HUB, Z-Library, or Library Genesis (LibGen)?" Source: survey distributed to researchers from Germany, Hungary, Ireland, Italy, the Netherlands, and Sweden discussed in D2.5 and D2.8

Table 3 provides summary statistics of the usage of Sci-Hub across this population. Together with countrylevel responses, Table 3 also includes descriptive statistics of the answers for academic field.





	Total		USE	SCI-HUB	1	
	Resp.		No		Yes	
	N	Col.%	N	Row %	N	Row %
	Coun	try				
GERMANY	460	16%	234	51%	226	49%
HUNGARY	173	6%	60	35%	113	65%
IRELAND	292	10%	174	60%	118	40%
ITALY	951	33%	452	48%	499	52%
NETHERLANDS	421	15%	203	48%	218	52%
SWEDEN	552	19%	378	68%	174	32%
	ERC	fields				
LS	509	18%	268	53%	241	47%
PE	813	29%	371	46%	442	54%
SH	1188	42%	686	58%	502	42%
PE.LS	88	3%	48	55%	40	45%
PE.SH	126	4%	51	40%	75	60%
PE.SH.LS	22	1%	9	41%	13	59%
SH.LS	78	3%	48	62%	30	38%
Total	2849	100%	1501	53%	1348	47%

Legend: The 25 ERC academic fields are aggregated here in the 3 broad categories PE (1-10) is Physical Sciences& Engineering; SH (1-6) is Social Sciences & Humanities; LS (1-9) is Life Sciences. Individual were asked to select up to 4 ERC sub-categories.

Table 3 Summary statistics of the usage of Sci-Hub. Source: survey distributed to academics from Germany, Hungary, Ireland, Italy, the Netherlands, and Sweden discussed in D2.5 and D2.8

Figure 1 and Table 3 show that, on average, 48.3% of academics from major universities of these countries resort to shadow libraries, and that on average 49.3% of respondents by field used these resources.

These are rather significant results, as they suggest that almost half of the academic community surveyed in D2.5 and D2.8 resorted to shadow libraries. All respondents were affiliated with major national universities, which implies that most of the respondents could access at least some copyrighted material through their institutional subscription. This, however, did not prevent them from resorting to copyright-infringing repositories. As shown in Figure 2, lack of access and the high cost of research papers appear among the motivations given by respondents for using shadow libraries, but they are not the dominant motivation for this conduct. The two most common motivations given by these academics, in fact, relate to a use of these platforms that is complementary to copyright-abiding platforms, or relate to reasons of practical convenience, such as timesaving. Moreover, it is significant that almost a quarter of the respondents mention their frustration with academic publishers among the motivations for bypassing paywalled platforms.





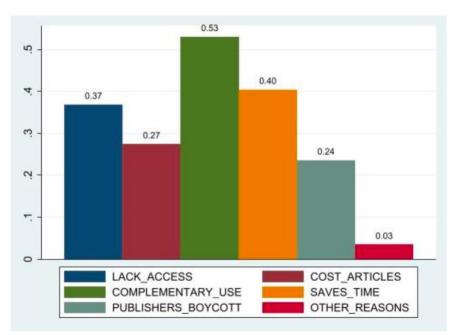


Figure 7 Reasons for Sci-Hub usage. Source: survey distributed to academics from Germany, Hungary, Ireland, Italy, the Netherlands, and Sweden discussed in D2.5 and D2.8

These rather surprising results lead to our main research question on the academic publishing industry:

If it is true that around half of the target audience of academic publications uses copyrightinfringing platforms to access content, should we think that academic publishing is a sector in transition towards a negative IP equilibrium? And if this is so, what business models are making this transition possible?

This main research question can be divided into the following sub-questions:

- 6. Is online piracy of copyrighted content posing an existential threat to the academic publishing industry?
- 7. How is the industry addressing the widespread piracy of its products?
- 8. Is the academic publishing industry developing features akin to negative IP spaces (and, more specifically, to knockoff systems)?
- 9. Are there emergent practices that seem to indicate new possible business models?

Within the wide sector of academic publishing, we decided to focus primarily on academic books rather than on academic papers. This was due to the working hypothesis that the digitalisation of academic books is in a less advanced stage in comparison with the digitalisation of academic journals, which are today almost entirely distributed on the web, either in open access or through subscriptions. In other words, we formulated the hypothesis that, while the transition of academic journals to the digital distribution is today in a mature stage, the same transition is less advanced for academic monographs. Moreover, while academic journals are distributed through a relatively standardised model, academic books are sold via a comparatively more diverse range of strategies. These selling strategies target library consortia, single research libraries, as well as individual readers, and books are sold in large packages, in series, in collections, and as individual volumes. As a result of the undergoing digitalisation process and of this diverse selling strategy, we expected





to find a higher degree of experimentation in how academic books are impacted by digitalisation and piracy. Our expectations were widely confirmed during our subsequent interviews with industry professionals, in which we found that the sector of academic book publishing is characterised by a significant amount of experimentation, making it a particularly instructive context of analysis.

2.2.1 Methodology

This case study involved qualitative research methods. We started by conducting desk research, gathering the evidence available on shadow libraries. We investigated both the academic literature on the subject and more popular outlets, such as newspaper articles and specialised blogs. We discussed this evidence with copyright experts active at the Sant'Anna School of Advanced studies. This led us to develop a first picture of the sector, and to formulate the research questions outlined above. We then designed an interview guide that was adopted for our semistructured interviews. This guide is included in Appendix 2. As interviews were semistructured, this guide was tailored to each interviewee's individual experience and field of expertise.

We interviewed a variety of industry professionals, gathering information about their experience and role in the industry, their view of how digitalisation is impacting the sector of academic book publishing, and their perceptions of the role played by piracy. Industry professionals were identified through the professional emails available on academic presses' websites, via professional social networks, and by snowball sampling. When contacting potential interviewees, we made clear from the start that their statements would have been anonymised and used solely for research purposes. Interviews took place from March to December 2022. Interviews occurred via online videocalls and were all tape-recorded. Eventual contradictions between narratives were checked with follow-up emails, or with specific questions addressed to other interviewees from the same presses. Additional documents from academic presses were consulted to validate the evidence gathered through interviews. Our sample includes professionals collaborating with seven different presses. Our sample of firms includes:

- One of the so-called 'big four' STEM publishers (Reed-Elsevier, Wiley-Blackwell, Springer, and Taylor & Francis)
- Two large commercial presses
- Two major university presses
- Two smaller independent presses

This sample aims to be descriptive of a sector that is characterised by a few major players, a number of large commercial enterprises, university presses (which are not registered as for-profit organisations), and a long tail of smaller independent presses. In total, we conducted 17 interviews to 17 industry professionals. As can be seen from Appendix 1, our sample mainly comprises professionals working in the editorial part of the business, but we ensured to include a diverse range of views by also selecting professionals with roles in the legal, digital, open access, and managerial aspects of the industry.





2.2.2 Results

As can be seen from the Interview Guide included in Appendix 2, our semistructured interviews aimed at understanding the business model adopted by academic book publishers, and what role digitisation and piracy play in current industry changes.

Target market

A key element to understand the current business model of academic book publishers is to clarify what their target market is. When asked about this, industry professionals overwhelmingly reported that their target market is institutional: university, research, and specialised (firms' or learned societies') libraries. Statements such as "[our press]'s target market is institutional" [interview A], or "for our academic division, our market is major research libraries" [interview I] were common during our interviews. Some interviewees reported that the market of bookshops and individuals used to be rather important [interview I], but that today over 90% of presses' sales are to institutions [interview B]. Some presses also publish paperback editions of their books aimed at the trade market and priced at the level of the individual reader. However, this is an option that is reserved to a selected subset of overall book production that is considered viable for the generalist market. Presses' most important partners remain university libraries and research libraries [interview F].

Having an institutional target market is an essential feature of the business model of today's academic book publishing, as it is key to understand their pricing strategies and their limited ability to segment the market. Books addressed to institutions are sold at a considerably higher price than those addressed to the trade market. The rationale behind this pricing strategy is that the number of copies sold of these specialised books is limited by the number of purchasing institutions, making a higher price the best option to recover the investment made for their publication. This focus on the institutional market, however, limits the ability of publishers to segment the market by offering lower prices to the individual reader. When asked about the possibility of selling on the margin to single individuals at lower prices, the majority of professionals deemed this strategy irrational. They mentioned a strong expectation that this strategy would erode the institutional market, i.e., their primary source of revenues. The few books which are also sold on the trade market are often paperback editions which appear with a significant delay from the first hardback edition, which would have already been purchased by institutional libraries. Hence, the limited price differentiation used by these publishers is aimed at hedging the institutional market, and it occurs not only occur by target market, but also by time horizons [interview J].

Decline of print and the rise of digital

Interviewees generally agreed in indicating the late 2000s as the moment in which digital editions started to become an essential part in the business of academic book publishing. The early movers were publishers that invested in digital books in the second half of the 2000s, and started to produce these texts as ebook first [interview G]. A few interviewees mentioned that the transition of academic books to digital format and digital distribution did not change the core of their editorial strategy [interview D], or the essence of what a research book is, defining it as an "intellectual arrangement of ideas" [interview P]. Other professionals, however, described the arrival of digital technologies as a watershed change. They confirmed our working hypothesis of a lag in the digitisation of academic books with respect to academic journals. For journals, we were told that "print is gone, long gone", while books were described as being "10-20 years behind" in the transition [interview E]. Another professional pointed out that the early 2000s were the beginning of "the big



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push towards digitisation and online consumption", and that "online consumption has consistently increased its momentum over the years, in the past 15 years or so".

Academic journals were the first to shift to online consumption because the traditional model of distribution based on physical issues turned out to be easily compatible with the new digital technologies. Journals were already sold in subscriptions, and had the advantage of producing a constant output and predictable revenue each year: two characteristics that facilitated the transition to digital distribution [interview I]. This servicelike model was transferred to digital technologies starting from the early 2000s. In the second half of the 2000s, early movers in the digitisation of academic books started to sell ebooks following the subscription model already used for journals [interview F]. To do this, it was necessary to produce books that were born digital and were eventually also printed – and not the other way around. This implied a radical change of the entire production process [interview G]. Around 2010, then, academic books started to be available both as digital and as printed editions [interview C]. Since then, the share of revenues coming from digital editions has been constantly increasing. Several interviewees mentioned pandemic-related lockdowns as a strong accelerator in the consumption of e-texts [interview A, C, E]. Professionals agreed that digital sales have become essential. Figures varied between presses, with some reporting that "print and online have reached relative parity" [interview A]; others that before the pandemic 1/3 of the book revenues came from digital format, and 2/3 from print, while today the figures have reversed, with 2/3 of these revenues coming from digital [interview B]; and others claimed that in their "academic division" (which does not only include books) print is declining as fast as 10% a year [interview K]. Print has, therefore, declined strongly, but it has not disappeared [interview F]. Some professionals reported the expectation that digital distribution will become the dominant one, also because they are not expecting researchers and students to be on campus as much as before the pandemic [interview C]. Another interviewee summarised this general impression by pointing out that the industry is today at an "inflection point" in the transition of books to digital format, because with the pandemic revenues from ebooks reached, or even surpassed, revenues from print.

Digital as costly

When confronted with the question of why prices for ebooks did not significantly decrease despite the reduction in shipping and raw material costs, industry professionals pointed out that the production of ebooks implies significant additional costs to the production of printed books. Some recognised that the marginal cost of one additional digital copy is close to zero, but mentioned at the same time the high fixed costs needed in the development of the digital infrastructure, as well as its relatively high running costs [interview I, G]. Others claimed that digital publishing is "more expensive than traditional publishing. You have to hire at least 15 different tech companies to do that", and remarked that presses have to face these costs on top of the costs involved in the traditional production and distribution of books [interview B]. All interviewees stressed that the costs of publishing digital books are higher than people tend to think.

High rates of learning and experimentation

As a sector in which digital technologies have arrived relatively late, academic book publishing shows a high rate of experimentation. The first wave of introduction of IT technologies implied a significant investment both in the necessary technical infrastructure and in the reskilling of people, who needed to transition from analogue to digital tasks and workflows. While this process of technology adoption is today largely completed, our interviews revealed that the industry is still characterised by a high rate of technological learning and of experimentation. Industry professionals admitted that significant efforts are currently being made in process innovation to streamline workflows and identify possible efficiency gains. We found more





than once the expectation that margins could be improved by reducing inefficiencies through simplification, rationalisation, and reduction of costs [interview A, I]. Often presses have more than one distribution platform, and significant gains can be made by making these parallel infrastructure converge [interview I].

Moreover, the advent of digital technologies opens a number of new possibilities in terms of selling and distribution strategies. For example, digital distribution makes it possible to restrict the permitted access to ebooks. We were told that for some time presses restricted the number of users who could access the same resource at the same time. This was a strategy to upsell popular titles. However, we were told that this arrangement did not turn out to be successful with librarians, and was therefore largely abandoned. Today, libraries often buy perpetual access to the titles they are interested in [interview I]. Moreover, digital technologies make it possible to sell books in collections or other kinds of bundles [interview C]. This can occur either by setting an upfront price for a specific package of titles, or can take more sophisticated shapes. In patron-driven acquisitions, for example, libraries are given access to presses' content, and purchase only the titles which are accessed by their users, after a certain threshold is met [interview C]. While some publishers sell access to titles on a subscription-like model, others provide perpetual access to books, either by selling entire collections, or through evidence-based acquisitions [interview J].

The library market is protected

A further key element to understand why academic book publishers do not put significant effort in trying to segment the market is the fact that the library market is protected.

Librarians and academic presses form a community of understanding which share some fundamental norms. As one interviewee put it, "academic publishing is a unique industry, in that it is highly competitive, and yet, it is at the same time highly collegial" [interview A]. A fundamental norm shared across this community is that research content should be accessed only through fully legitimate ways. Respect of this norm provides academic publishers with a secure and relatively predictable market, which hedges them against piracy among single users. As it is also recognised by industry professionals, piracy has always occurred on the margin of this protected market. One professional recalled that – at the time of their university studies – it was customary for students to access expensive (and compulsory) readings via photocopies shared among the members of the same class. The interviewee remarked that with digitisation "nothing has changed, it has just been made slightly easier" [interview G]. Crucially, also at that time the university library would buy an original copy of the book.

More than once our interviewees pointed out that librarians share a common ethics with publishers, and that the vast majority of them would never suggest their users to look for the material they need on a copyright-infringing platform. In an interviewee's words: "librarians, as a whole, are very law-abiding and have very high ethics. They are against piracy just like us. And even if they know that a book is available to the students on a pirate site, they would still buy the book from us. It's a real partnership between publishers and librarians" [Interview B]. Others pointed out that this is also due to the fact that piracy damages librarians as well: when someone uses a copyright-infringing platform, they bypass both publishers and libraries, delegitimising the latter as well [interview C]. Others described this close entanglement of libraries and publishers in terms of a "symbiotic relationship" [interview Q].





Shrinking library budgets as a possible threat

An industry whose target market is made of institutional libraries is obviously exposed to the risk of shrinking library budgets.

When asked about this, industry professionals recognised that the decline in funding of major research libraries has produced significant changes in institutional acquisitions. A professional remembered that, around 15 years ago, research libraries would buy every title they published, whereas today they consider every single book they purchase or every single collection [Interview B]. This trend is perceived as an issue in the medium term. The same professional pointed out that very popular book series used to have hundreds of standing orders, whereas today standing orders have reduced to just a few dozens [Interview B]. In general, a major squeeze of library budgets was described as "definitely a threat to the industry" [interview Q]. Other professionals pointed out that a major threat for the industry would be to stretch the norms with librarians to the point of breaking their community of understanding, suggesting that the aggressive pricing policies used by major publishers could make this risk quite real [interview O].

Anti-piracy strategies

We were interested in understanding what strategies academic publishers adopt to prevent piracy. The use of notice and takedown procedures is widespread, but mostly as a reactive response to inputs that publishers receive from authors and other counterparts [interview A]. Professionals working in legal departments said that, while major publishers may have units dedicated to monitoring the unauthorised circulation of their texts, most presses rely on external partners for these services [interview L]. While notice and take down processes may not work with the websites of shadow libraries, they are effective for major search engines [interview L, P]. However, our interviews suggest that publishers use only limited active policies to monitor and limit the unauthorised circulation of their copyrighted material. We found one press that was considering to "ramp up" its legal services to move from being reactive to being proactive against piracy [interview K]. Besides, one interviewee pointed out that adopting an aggressive anti-piracy strategy directly addressed to end users may be a double-edged sword. As academic publishers committed to sharing knowledge, suing academics who share the results of their research may turn out to be counter productive [interview F].

Piracy as existential threat?

Other interviewees stressed that shadow libraries are not the only form of piracy that occurs on the web. They also mentioned other forms of piracy such as the exchange of institutional credentials, the presence of pirated copies on legal platforms, the exchange of titles among one's personal network, and online platforms where academics can create personal profiles and share their research, in some cases breaching publishers' copyrights [interview M].

Opinions about the threat posed by the circulation of unauthorised copies varied across our interviews. We found stark positions against these practices, such as: "every pirated book is a lost booksale" [Interview D]. Others were persuaded that academics would agree with publishers in condemning piracy, as they would also be harmed by it: "academics are very focused on making sure that intellectual property rights are observed ... it is not just about royalties, but it is also about moral rights" [interview M].







However, the majority of the responses were more nuanced. Others contended that, as publishers, "first of all, we are in principle against piracy and against theft". However, they also observed that "as our primary market is institutional, we are not suffering from piracy as badly as presses that also target the individual reader" [Interview B]. Another professional observed that the industry is today facing a sort of "a Napster moment". But they also observed that there are at least two fundamental differences. The first is that their primary clients are institutions, and "universities would probably be very reluctant to just tell their employees to please do something illegal". The second major difference is the emergence of a possibly alternative model, i.e. open access. They concluded that "so yes, I think [piracy] is a threat, but I do not think it is existential" [interview F].

This view was seconded by another professional, who observed that "from my perspective, the e-landscape was far more disruptive and alarming 10 years ago than it is now". Their opinion was that, today, piracy is harming more individual authors than in harms publishers, and that "it is the responsibility of the industry to support those authors". They added that "commercially speaking, we do not feel powerfully threatened by piracy. But we know that it is a very real threat for authors" [interview A]. This view was supported by another interviewee, who replied to the question whether piracy represents a threat for them as follows: "To be entirely honest, it really isn't. It seems to be something that is more talked about outside of the publishing industry than inside the publishing industry ... We don't notice that it is having a particular impact on sales and income" [interview I].

Some accepted the existence of piracy as "part of the landscape" and as a "fact of life". They even contemplated the possibility that, under certain circumstances, piracy may even be beneficial to the industry, as the shadow circulation of titles may lead to someone on the margins to buy the book [interview J]. This view was not isolated. Referring to the informal practice of researchers sharing copies of their work with their peers without authorisation, another interviewee remarked that "I'm sure it happens every single day. Honestly – and I am speaking personally, not for [my press] here – I see that as harmless, and I also see it as beneficial, in a certain way. It is beneficial for our authors, because it disseminates their scholarship to likeminded individuals, and stimulates further scholarship". However, they added that this kind of unauthorised circulation could also be beneficial for publishers, because thanks to this information circulation "the librarian may develop an interest in acquiring the work, the journal or the series" [interview A]. Others framed piracy as "just a reality" presses have to deal with, and, while they admitted that it is key for publishers to portray themselves as against piracy, they also admitted that anti-piracy measures could also be counter-productive: "Publishers have been killing themselves to try and stop piracy for the entire time that I have been in the industry. But you can't do it. They do things like DRMs [digital rights management], they issue take-down notices... And I think it's important that publishers signal that they do not accept piracy ... But all this kind of restrictions that publishers place on content, a lot of them just encourage piracy, because they compromise the user experience" [interview Q].

Piracy as a sign of the shortcomings of the current model

Significantly, some respondents elaborated further on this theme, arguing that the increasing diffusion of shadow libraries can be seen as a sign of publishers' shortcomings.

An interviewee who stated "I don't think [shadow libraries] are a serious threat in themselves", and argued that their existence shows the gaps in how publishers manage to deliver [interview N]. Another professional observed that readers resort to shadow libraries not only to bypass paywalls, but also out of convenience. They likened this to today's popular (and entirely legal) platforms to access movies and music: "why do people pay for Netflix or Spotify? They could just rip this stuff off over the internet, but they prefer to have a





nice and shiny platform where they can find everything. Isn't it great? It's so easy!". Academic publishers, instead, have several different platforms, which are not always easy to navigate: "The one thing where the publishing industry as a whole missed the trick is: where is the Spotify for academic titles? I am being very self-critical here. There is this sense that publishers are very proud of their own platforms, but you as an academic would probably say: "I don't care who is the publisher. I just want to get stuff, and it would be so much better if I could have just one thing, like Spotify, where I could get access to everything". We are not very good at making this easy for you guys" [interview F].

This was again likened to the way other industries have failed to deal with digital piracy. When facing these issues, another professional mentioned the "massive mistake" made in the past by the music and gaming industries, which invested heavily in preventing copying of software and CDs. The interviewee remembered the gaming industry claiming that it was missing a significant amount of revenues because of copying. However, "they were not missing it, they were just selling at a too high price". When tech companies started to sell songs on legal platforms for a strongly reduced price than that of a CD, people preferred to pay that amount than to use illegal platforms. The conclusion of this argument was that "the most important thing is the convenience ... students and researchers do not want to steal things, you just need to make it easy" [interview G]. However, other professionals contended that a similar system based on a single platform would be coupled with strong market consolidation. While they recognised that the sector had shown tendencies of a growing consolidation, the long tail of independent publishers is showing remarkable persistence [interview F]. Another professional agreed with this view, and remarked that, in a world where widespread piracy exists, the solution from publishers is to offer a better service than what is offered by shadow libraries: "Everything that gets published is available online almost immediately, and that is true of every single publisher. It feels to me that what publishers need to do, really, is to just make sure that we have ways of allowing access to content which are better, more seamless and more equitable, so that you don't need to go for the pirated version" [interview Q].

Digitisation towards digital transformation?

Quite a few of our respondents agreed that digitisation is yet to show its full potential in the sector of academic book publishing.

We found that both small and major presses have in some cases decided to develop their digital solutions inhouse, making the digital transition an integral part of their business strategy. Some reported that they initially experimented with outsourcing these processes, but found themselves unsatisfied, and decided to make an internal investment on their transition to digital [interview D]. While there are presses that rely on external partners for these services, others referred to having in-house developers as a clear strategy to gain a head-start [interview J, N].

While some professionals tended to underplay the disruptive impact of digital technologies, others argued that it will bring a radical change in the entire business model: an "end to end transformation" [interview K]. These arguments tended to come from professionals who had a spotify-like, subscription-based, vision for the future of the industry. Incidentally, they also observed that this "digital-first model" would have the potential to make piracy a marginal phenomenon, as already occurred in other industries [interview K].

Others pointed out that digital technologies have the potential to make the content accessed via legal means significantly different from the content that users can find in shadow libraries. These professionals pointed at features such as better access to content, enhanced systems for referencing, searching, and increased flexibility and customisation [interview O, Q]. Professionals also mentioned the potential of digital technologies to "vastly increase the range of outputs that we think of as scholarly content", pointing to the



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scholarly value of some public conversations currently occurring on social media [interview I]. Making content accessed via legal platforms remarkably different from the one found on shadow repositories may be an additional strategy to marginalise piracy.

Other professionals remarked that – at the high level of major academic publishers – it is already possible to observe deep transformations in the sector's core business model. They reported that major presses are increasingly moving upstream in the research process, and moving from selling their content to also selling services [interview C]. Examples of these services are access to or licences of usage data, metrics, citations, metadata, repositories, and submission systems [interview C, I, Q]. Others contended that this binary dichotomy between publishing and services should not be stretched excessively, and argued that the future of the industry is probably going to be a blur of the two [interview Q]. Professionals also claimed that, significantly, this transformation could have been started by a change in demand. Specifically, professionals pointed at the moment in which – as part of the so-called 'big deals' between library consortia and major presses – libraries started to ask to pay not just to read, but also to publish. This shift, which was driven by the funding for open-source publishing, was allegedly a strong driver for publishers to also focus on selling publishing services [interview C]. While these structural changes show the transformational potential of digital technologies, they also show how the way in which funding is allocated will indeed be an important determinant in how the sector will evolve.

Open access: a minor (though steadily growing) trend

A particularly interesting trend is represented by open access. If academic publishing managed to achieve a complete transition to open access, piracy of research content would have no reason to exist. The challenge lies in finding a viable strategy to make this transition possible in a sustainable and fair way.

There are contrasting views on open access, as well as several different models to publish content in open access. When the open access movement first emerged, some major publishers opposed the new model. There was a compelling economic reason for this opposition, as starkly stated by an interviewee: "the margin for the subscription model was exceptional. Margin for open access is just lower" [interview E].

Most of our interviewees agreed in considering open access as an interesting alternative to subscription publishing, raising the issue, however, that a sustainable funding model has not yet been identified [interview D, I, L, Q].

Different models have been experimented. The first model is to offer researchers the possibility of publishing in open access under the payment of a fee. This fee is supposed to represent the publisher's lost revenues for publishing without a paywall. One professional undermined this view, reporting that "there has always been the pretence that it is about production costs but it's clearly about what it's worth to you to publish in my journal" [interview I]. Moreover, measuring lost revenues is possibly even more difficult for books, because production costs are more variable than with journals, revenues from books vary between fields, and books are mostly sold in series [interview I]. Nevertheless, it is possible to identify a range of fees on which most publishers currently converge, both for a peer-reviewed article and for a standard (250-pages) monograph [interview A, B]. Funding for this kind of open access is increasing, but it is very dispersed and follows different approaches (from grants to crowd-funding) [interview B, C]. These diverse sources of funding are making a significant amount of experimentation possible. The complexity of this system has made it a part of an editor's job to reach out to funding bodies, seeking on a case-by-case basis for the appropriate support [interview A]. The second model are the so-called 'transformative agreements', which are negotiated between institutions (such as library consortia) and publishers. With these agreements, institutions pay to have both access to journals' output, and to have the possibility of publishing an agreed amount of papers





from their researchers in open access. These are also called 'read and publish' agreements, as institutions pay both for access and for the option to publish. Significantly, both models change the touching point of publishers, who, instead of dealing with librarians – i.e., their traditional partners – deal either with library consortia, or with individual researchers [interview E].

Several interviewees reported the expectation that open access is going to increase its share of the market in the coming years, in a piecemeal transition that will be gradually managed by institutions as well [interview I]. Professionals mentioned that funding for open access is increasing, together with presses revenues from this kind of publications. It is still a minor part of the business, with shares ranging between 2 and 8% of total book output, but professionals also reported that this share is steadily growing [interview B, C]

Open access: critical elements

Interviewees pointed out a number of criticisms to current open access models. One professional understood the open access movement as part of a wider trend. Their view what that publishers are dealing with an increasingly unfavourable to rightsholders that can be seen "in open access movements, in copyright exemptions, in exhaustion of copyright ... all sort of trends that point towards the erosion of copyright" [interview M].

Others pointed out that the model of transformative agreements has the bitterly ironic characteristic of favouring market concentration, as publishers holding a limited number of journals struggle to have the scale needed to offer attractive transformative agreements [interview N]. Others described these "read-publish deals" as uncompetitive, because in their view these arrangements, instead of creating wider access, may make the market more consolidated and concentrated [Interview D]. As for the possibility of charging individual authors to publish in open access, professionals stressed that this model is at risk of excluding scholars from less-well endowed institutions and from developing countries [interview B]. Others pointed out that the pay-to-publish model shifts the incentives for publishers: since they receive all their revenues up-front, presses may be less interested in promoting and marketing open access books [interview O].

Other professionals mentioned that, while funding bodies and research institutions are pushing publishers to make their share of content published in open access, a thorough discussion on how this transition should be funded to work at scale still needs to occur: "You can't put those mandate out there without discussing how you are going to fund that plan ... Don't misunderstand me: I am fully supportive of open access, and I think those mandates are absolutely necessary ... but I do also think that if we are going to have serious conversations about open access, we really need to understand how that is funded: we need to have an adult conversation about the costs, if we want to keep the ecosystem working" [interview Q].

Open access: emerging models

In conclusion, we highlight recent experimentations that are seeking to identify a model for open access that may be sustainable and scalable. These experimentations are being carried out by university presses, which, being mission-driven, may be in a particularly favourable position to experiment business models that move in this direction.

Some presses are experimenting with a "freemium" model, whereby they release the pdf copy of selected books in open access, while they offer kindle, print, and indexed ebooks for sale. While libraries tend to buy the indexed content, these books enjoy increased visibility among individual readers thanks to open-access pdf texts. We were told that this model has so far been applied to titles that were expected to make a relevant



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impact, and that the response has been encouraging, as it provides "a good story for libraries", visibility for the author, and a significant amount of usage. While this is not a full-fledged model for open access publishing, it may be an interesting model during the transition to open access.

Other interesting experimentations are seeking to introduce open access agreements within the traditional partnership between libraries and publishers. A model experimented by a university press seeks to pool resources from a number of libraries to fund the publication of its scholarly collections in open access. In exchange for their support to the programme, participating libraries get access to the publisher's backlists and archives, and significant discounts to the publisher's trade titles. If the number of participating libraries will be sufficiently high, the fees to take part in this programme – which will be tailored to each library size – may be affordable, and libraries would pay not to buy their own digital copy of a monograph, but to fund its publication in open access.

Another university library is experimenting with a scheme to publish journals in open access starting from library funding. Two journals from this publisher are currently offered under a subscription scheme that allows the press to turn these journals in open access after a certain funding threshold is met. If financial support reaches this threshold, content for that subscription year is made available in open access. Libraries that subscribe to this scheme are given, in addition, access to the back-catalogue of those journals.

A similar scheme is currently being experimented with also for academic monographs. Titles selected for this scheme are offered on sale to libraries in perpetuity, following the established model. If sales go above a certain threshold, the title is made available in open access. In exchange for their financial support, libraries that subscribed to the scheme are listed on a public acknowledgement page. At the same time, the book is also sold in print, and, if the transition to open access occurs, it is sold as a paperback.

In both cases, the threshold to publish the book or the journal in open access is set at an amount that allows publishers to break even, plus some provision for lost sales. While this model does not provide particularly high margins, it gives publishers a hedge against publication risk of losses.

These models were being experimented with at the time of our interviews, and industry professionals claimed it was too soon to assess how viable these experiences were. However, we were told that the response from both libraries and authors had been largely positive. The significant feature of the last two models is that they are founded on the long-established partnership between publishers and libraries, and do not require significant restructuring in the relationship between them. Under these two schemes, libraries purchase ebooks and subscribe to journals without any significant change to the traditional model. When a certain threshold is met, these revenues make it possible to publish content in open access. While this exposes publishers to the risk that libraries may prefer to avoid purchasing in the expectation that that content will eventually become available in open access, we were told that at the time of our interviews there were no signs that this could become a trend. As these schemes are built on the established relationship between publishers and libraries, they may have the potential to offer a scalable model.





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4 Annexes

4.1 Appendix 1 – List of interviews

- Interview A 17/03/22: Senior Acquisitions Editor
- Interview B 23/03/22: Publishing Director
- Interview C 29/03/22: Open Research Director
- Interview D 29/04/22: Managing Director
- Interview E 05/05/22: Publishing Director
- Interview F 06/05/22: Product Director
- Interview G 08/06/22: Senior Manager
- Interview H 30/06/22: Senior Manager (second round)
- Interview I 14/07/22: Senior Product Manager
- Interview J 19/07/22: Publishing Director
- Interview K 22/07/22: Chief Transformation Officer
- Interview L 01/08/22: Team Legal Specialists (joint interview)
- Interview M 16/09/22: Legal Director
- Interview N 16/09/22: Publishing Director
- Interview O 22/09/22: Editor
- Interview P 28/11/22: Commissioning Editor
- Interview Q 16/12/22: Publishing Director





4.2 Appendix 2 – Semistructured interview guide

- 1. Questions about the interviewed subject
- . Background
- . Experience
- . Role
 - 2. Questions on the Press
- . How would you describe the business of your press?
- . How would you describe your editorial strategy?
- . What is your target market?
- . What makes your press distinctive from the others?

3. Questions about digitalisation in general

. When did digital content become a central part of your business?

. What was your digital strategy? Have you created new platforms and infrastructures? Have your selling and distribution strategies changed?

. Has digital content become an increasing part of your business? What is the balance between print and digital today?

. What do you think is going to be the role of the digital in the future of the industry?

. Has the digital transformation changed your Press' editorial strategies? Do you think it will determine a radical change in the industry's business model?

4. Questions on piracy/LibGen

. What is your perception of digital piracy (such as LibGen)? Do you think it is a threat to the business model of the industry?

. Do you know how many of your books are available through digital piracy? Is this something that you monitor?

. Do you think there have been changes in the dimension/importance of this phenomenon? Have you experienced a decline in sales?

. Would you have any estimate of what is the proportion of your legal-vs-piracy readers?





. Who do you think are these shadow readers?

. Have you designed any strategies to address digital piracy? Do you have barriers or any other kind of counter-piracy policies? Do you do any kind of awareness campaigns? Do you use proprietary platforms to access you digital texts?

5. Open Access

- . In a world in which all academic publishing is open, there is no need for piracy
- . What do you think is going to be the role of Open Access in this landscape?
- . What are the main trends you are currently observing in Open Access publishing?
- . What role do funding bodies play in shaping Open Access publishing?

. Would you have any materials, memos, or any other documentation which we could read to have a better idea of these questions? Is there someone you think we should get in touch with?





4.3 Appendix 3 – Survey distributed to Italian chefs (original Italian text)

Start of Block: Consent

Consenso Indagine su chef e creatività

CONSENSO PER I PARTECIPANTI ALLA RICERCA Firmando questo modulo di consenso informato, dai il tuo consenso a partecipare al questionario, e comprendi che:

- La tua partecipazione a questo sondaggio di reCreating Europe è volontaria

- Puoi decidere di interrompere la tua partecipazione in qualsiasi momento

- Sei incoraggiata/o a porre domande sul progetto e sulla tua partecipazione in qualsiasi momento

I tuoi dati personali saranno trattati in modo confidenziale e non verranno divulgati, come indicato nell'informativa privacy

🔘 Do il mio consenso

Non do il mio consenso

End of Block: Consent

Start of Block: Demographics

Q1 Quanti anni hai?





O Femminile

O Maschile

🔿 Non binario

O Preferisco non rispondere

Q3 Quanti anni di esperienza hai in cucina (a partire dai primi stage)?

🔿 Da meno di 5 anni

🔘 Fra i 5 e i 10 anni

🔘 Fra i 10 e i 20 anni

🔿 Da più di 20 anni

Q4 Da quanto tempo lavori nell'attuale ristorante?

🔘 Da meno di 5 anni

- 🔘 Fra 5 e 10 anni
- Fra 10 e 20 anni
- 🔿 Da più di 20 anni

**** * * ***



Q9 Come descriveresti il tipo di cucina del ristorante in cui lavori?



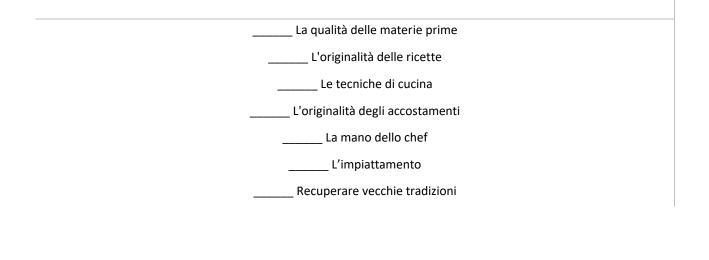
ReCreating Europe	870626
(puoi cercare digitando le iniziali e puoi inserire più di una risposta)	
[Lista di stili culinari inclusi nella Guida Michelin 2022]	
Q10 Come descriveresti lo stile del tuo ristorante? (puoi cercare digitando le iniziali e puoi inserire più di una risposta)	
(puol cercare digitando le mizian e puòl mserre più di una risposta)	
[Lista stili ristoranti inclusi nella Guida Michelin 2022]	
Q11 Secondo te, quali ristoranti hanno uno stile simile al tuo?	
(puoi cercare digitando le iniziali e puoi inserire più di una risposta)	
[Lista ristoranti inclusi nella Guida Michelin 2022]	
Q12 Se ci sono ristoranti simili al tuo che non sono inclusi nella lista precedente, puoi inserirli qui:	
End of Block: Demographics	
Start of Block: Innovazione e fonti di ispirazione	

Q13 Secondo te che cosa è essenziale per offrire un menu distintivo?

(scegli i tre elementi secondo te più importanti)

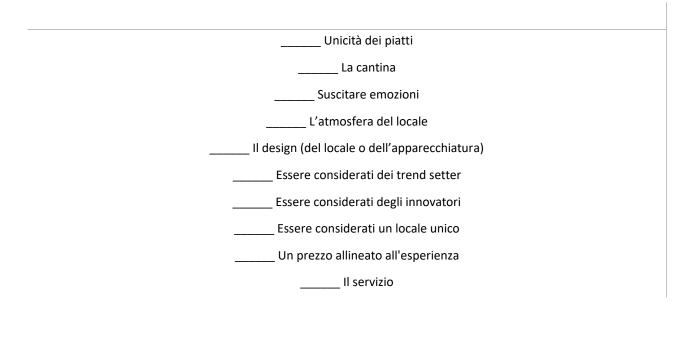






Q14 Secondo te che cosa è essenziale per offrire un'esperienza unica?

(scegli i tre elementi secondo te più importanti)



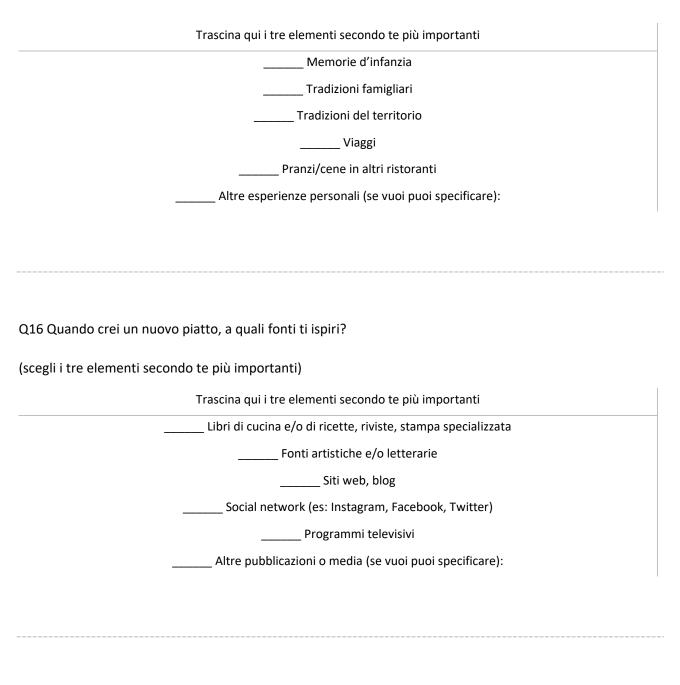
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Q15 Quando crei un nuovo piatto, a quali esperienze personali ti ispiri?

(scegli i tre elementi secondo te più importanti)



Q17 Quando crei un nuovo piatto, a quali esperienze professionali ti ispiri?

(scegli i tre elementi secondo te più importanti)

Trascina qui i tre elementi secondo te più importanti

___ Background di studi





__ Esperienze formative (es: stage)

___ Conferenze

_____ Scambio di informazioni con altri chef

_____ Sperimentazione empirica: per tentativi ed errori

_____ Altre esperienze professionali (se vuoi puoi specificare):

End of Block: Innovazione e fonti di ispirazione

Start of Block: Scambio di conoscenza

Q18 Da quando hai iniziato a lavorare nel tuo ristorante, quanto spesso **ti sono state richieste** informazioni da altri chef sui tuoi piatti?

🔿 Mai

🔾 Una volta

Qualche volta

🔾 Spesso

🔘 Molto spesso

Q19 Da quando hai iniziato a lavorare nel tuo ristorante, **da quali ristoranti** ti hanno chiesto informazioni sui tuoi piatti?

Puoi anche fare riferimento anche solo agli scambi più significativi

(puoi cercare digitando le iniziali e puoi inserire più di una risposta)



[Lista ristoranti inclusi nella Guida Michelin 2022]





Q20 Se ti hanno chiesto informazioni da ristoranti che non sono inclusi nella lista precedente, puoi inserirli qui:

	 	 	-	
	 	 	-	
		 	-	
	 	 	-	
age Break				





Q21 Da quando hai iniziato a lavorare nel tuo ristorante, quanto spesso **hai chiesto** informazioni ad altri chef sui loro piatti?

🔿 Mai

🔾 Una volta

Qualche volta

🔾 Spesso

O Molto spesso

Q22 Da quando hai iniziato a lavorare nel tuo ristorante, **a quali ristoranti** hai chiesto informazioni sui loro piatti?

(puoi cercare digitando le iniziali e puoi inserire più di una risposta)



[Lista ristoranti inclusi nella Guida Michelin 2022]

Q23 Se hai chiesto informazioni a ristoranti che non sono inclusi nella lista precedente, puoi inserirli qui:





Q183 Da quando hai iniziato a lavorare nel tuo ristorante, quanto spesso **hai ricevuto informazioni volutamente incomplete o fuorvianti** quando hai chiesto ad altri chef informazioni sui loro piatti?

🔿 Mai

🔘 Una volta

Qualche volta

🔿 Spesso

🔘 Molto spesso

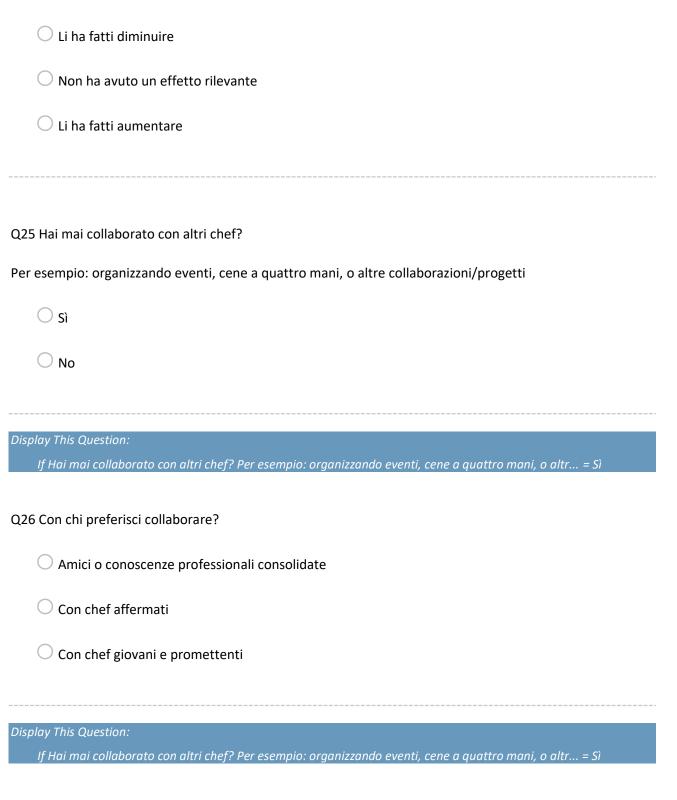
Q182 Da quando hai iniziato a lavorare nel tuo ristorante, quanto spesso hai dato informazioni volutamente incomplete o fuorvianti a chi ti chiedeva informazioni su un tuo piatto?

	O Mai
	🔿 Una volta
	O Qualche volta
	○ Spesso
	O Molto spesso
Pa	ge Break





Q24 Credi che l'emergenza COVID-19 abbia avuto un effetto su questi scambi di informazioni?



Q177 Con quali chef (di quali ristoranti) hai collaborato?





(puoi cercare digitando le iniziali e puoi inserire più di una risposta)

[Lista ristoranti inclusi nella Guida Michelin 2022]

Display This Question:

If Hai mai collaborato con altri chef? Per esempio: organizzando eventi, cene a quattro mani, o altr... = Sì

Q178 Se hai collaborato con ristoranti che non sono inclusi nella lista precedente, puoi inserirli qui:

Page Break





Q27 Il tuo menu include dei piatti che si ispirano al lavoro di altri chef?



Display This Question:

If II tuo menu include dei piatti che si ispirano al lavoro di altri chef? = Sì

Q28 A quali chef (di quali ristoranti) si ispirano questi piatti?

(puoi cercare digitando le iniziali e puoi inserire più di una risposta)



[Lista ristoranti inclusi nella Guida Michelin 2022]

Display This Question:

If Il tuo menu include dei piatti che si ispirano al lavoro di altri chef? = Sì

Q29 Se i tuoi piatti sono ispirati a ristoranti che non sono inclusi nella lista precedente, puoi inserirli qui:

End of Block: Scambio di conoscenza

Start of Block: Imitazione

Q30 Sei d'accordo con le seguenti affermazioni?





(1 = per niente d'accordo; 10 = completamente d'accordo)

	1	2	3	4	5	6	7	8	9	10
Imitare altri chef è una pratica diffusa			_	_	_	F	_	_		
Imitare altri chef è una pratica legittima					-	⊨				
Il settore avanza anche grazie all'imitazione fra chef					-	⊨				
Uno chef influente ha molti imitatori					-	⊨				
Avere molti imitatori fa diminuire la reputazione di uno chef					-	⊨				
Per imitare legittimamente bisogna riconoscere la fonte di ispirazione, attribuendo l'idea al suo creatore					-	⊨				

Page Break





Q181 Nella prossima sezione, troverai quattro scenari in cui ti presentiamo uno chef con delle caratteristiche che variano da scenario a scenario.

Per ogni scenario, ti chiediamo come ti comporteresti con uno chef con quelle caratteristiche.

Fai attenzione a come cambiano queste caratteristiche da scenario a scenario.

End of Block: Imitazione

Start of Block: Scenario 1

[elements in **bold** are randomly allocated. Each respondent is given two randomly allocated scenarios]

Q31 Immagina uno chef che:

- . ha oltre vent'anni/un anno di esperienza nel settore,
- . gode di recensioni eccellenti/mediocri,
- . propone una cucina simile/dissimile alla tua,
- . lavora in un ristorante che si trova vicino/lontano al tuo, e
- . gode di molta/poca visibilità (es: in termini di presenza mediatica).

(1 = molto bassa; 10 = molto alta)

1	2	3	4	5	6	7	8	9	10





Se questo chef ti chiedesse informazioni su un tuo piatto, qual è la probabilità che tu dia una risposta?	
Se questo chef ti chiedesse informazioni su un tuo piatto, qual è la probabilità che tu dia informazioni volutamente incomplete o fuorvianti?	
Nel caso tu condividessi informazioni accurate con lui, qual è la probabilità che questo chef non riprodurrà esattamente il tuo piatto, che attribuisca a te l'originale, e che ti chieda il permesso di condividerlo con altri?	
Se tu scoprissi che questo chef non ha rispettato i precedenti comportamenti, qual è la probabilità che tu faccia qualcosa per segnalarlo? (es: confidare o segnalare la vicenda a colleghi; parlarne con l'interessato; pubblicare post su blog o social media)	
Nel caso tu condividessi informazioni con lui, qual è la probabilità che questo chef ricambierà in futuro, condividendo informazioni sui suoi piatti con te?	
Considereresti legittimo se questo chef riproducesse una tua creazione, attribuendo a te l'originale?	

End of Block: Scenario 1

Start of Block: Scenario 2

[elements in **bold** are randomly allocated. Each respondent is given two randomly allocated scenarios]

Q63 Immagina uno chef che:

- . ha oltre vent'anni/un anno di esperienza nel settore
- . consideri/non consideri una fonte di ispirazione
- . ti considera/non ti considera una fonte di ispirazione
- . lavora in un ristorante vicino/lontano al tuo
- . gode di molta/poca visibilità

1	2	3	4	5	6	7	8	9	10





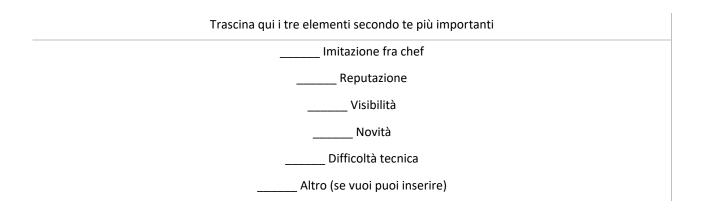
Se questo chef ti chiedesse informazioni su un tuo piatto, qual è la probabilità che tu dia una risposta?	
Nel caso tu condividessi informazioni con lui, qual è la probabilità che questo chef non riprodurrà esattamente il tuo piatto, che attribuisca a te l'originale, e che ti chieda il permesso di condividerlo con altri?	
Se tu scoprissi che questo chef non ha rispettato i precedenti comportamenti, qual è la probabilità che tu faccia qualcosa per segnalarlo? (es: confidare o segnalare la vicenda a colleghi; parlarne con l'interessato; pubblicare post su blog o social media)	
Nel caso tu condividessi informazioni con lui, qual è la probabilità che questo chef ricambierà in futuro, condividendo informazioni sui suoi piatti con te?	
Considereresti legittimo se questo chef proponesse un piatto simile al tuo, senza attribuirlo a te?	
Ti considereresti legittimato a imitare un piatto di questo chef, senza attribuirlo a lui?	

End of Block: Scenario 2

Start of Block: Imitazione e trend del settore

Q95 A tuo avviso, quanto sono importanti i seguenti fattori nell'affermarsi di trend/mode nel settore?

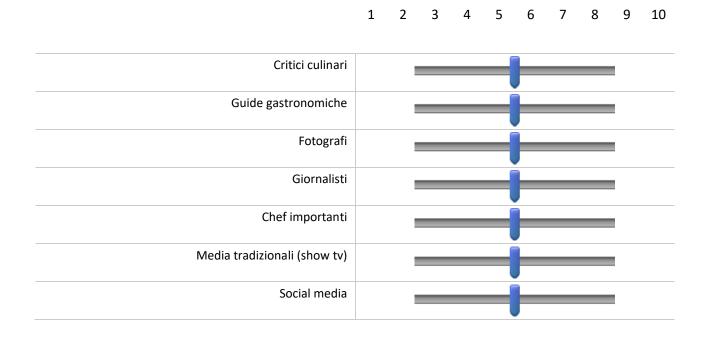
(scegli i tre elementi secondo te più importanti)







Q96 Per ottenere una buona reputazione, quanto sono importanti - nella tua esperienza - le relazioni con o la presenza su... (1= molto poco; 10= moltissimo)



Q97 Sei d'accordo con le seguenti affermazioni?





(ultima domanda!)

	Pienamente d'accordo	D'accordo	Né in accordo né in disaccordo	In disaccordo	Fortemente in disaccordo
Rivelare informazioni su un piatto o una tecnica può essere un modo per acquisire visibilità e/o imitatori	0	0	0	0	0
Rivelare informazioni su un piatto o una tecnica può essere un modo per essere percepiti come un innovatore	0	\bigcirc	\bigcirc	0	0
Per imitare altri chef è sufficiente osservare e assaggiare i loro piatti	\bigcirc	0	\bigcirc	\bigcirc	\bigcirc
Imitare altri chef è una pratica diffusa	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Il settore avanza anche grazie all'imitazione fra chef	\bigcirc	0	\bigcirc	\bigcirc	\bigcirc
Avere molti imitatori fa diminuire la reputazione di uno chef	\bigcirc	0	\bigcirc	\bigcirc	\bigcirc

End of Block: Imitazione e trend del settore





4.4 Appendix 4 – Survey distributed to Italian chefs (English translation)

Start of Block: Consent

Consent Survey on Chefs and creativity

CONSENT FOR RESEARCH PARTICIPANTS

By signing this informed consent form, you give your consent to participate in the questionnaire, and you understand that:

- Your participation in this reCreating Europe survey is voluntary
- You can decide to stop your participation at any time
- You are encouraged to ask questions about the project and your participation at any time

O I give my consent

○ I do not give my consent

End of Block: Consent

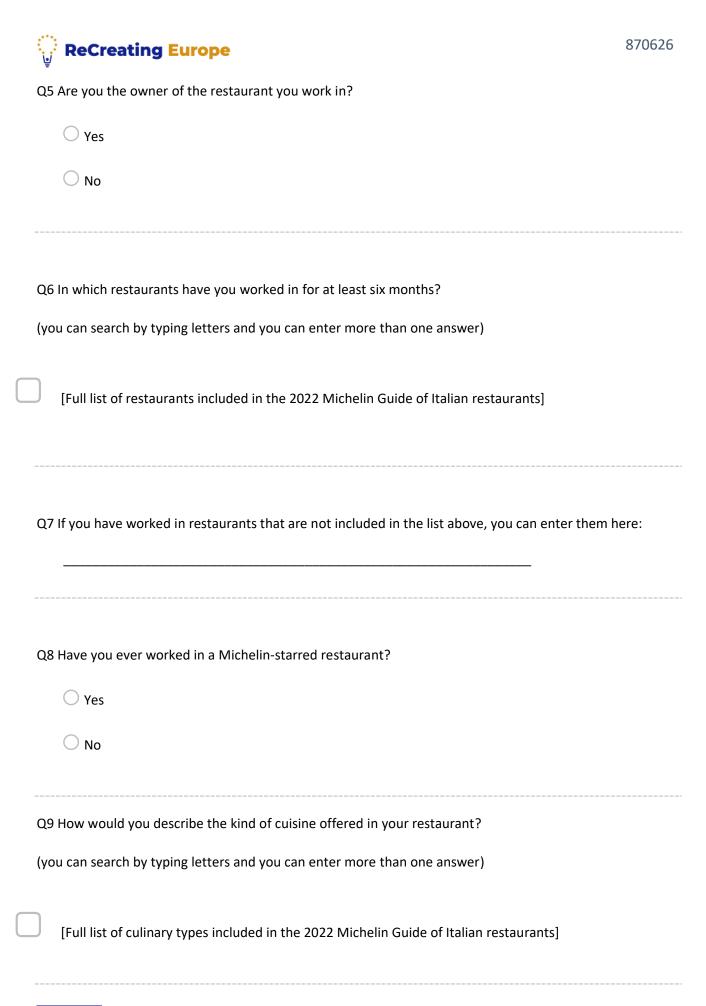
Start of Block: Demographics

Q1 How old are you?



ReCreating Europe 87							
Q2 What gender do you identify with?							
○ Female							
○ Male							
O Non binary							
O I prefer not to answer							
Q3 How long has your experience in restaurants been (starting from the first stages)?							
O Less than 5 years							
O Between 5 and 10 years							
O Between 10 and 20 years							
Over 20 years							
Q4 How long have you been working in your current restaurant?							
\bigcirc Less than 5 years							
O Between 5 and 10 years							
O Between 10 and 20 years							
Over 20 years							









Q10 How would you describe your restaurant's style?

(you can search by typing letters and you can enter more than one answer)

[Full list of restaurants styles included in the 2022 Michelin Guide of Italian restaurants]

Q11 In your opinion, which restaurants have a style similar to yours?

(you can search by typing letters and you can enter more than one answer)

Full list of restaurants included in the 2022 Michelin Guide of Italian restaurants

Q12 If there are restaurants similar to yours that are not included in the list above, you can enter them here:

End of Block: Demographics

Start of Block: Innovazione e fonti di ispirazione

Q13 In your opinion, what is essential to offer a distinctive menu?

(select the three elements that you think are most significant)

_____ The quality of the ingredients

_____ The originality of the recipes

_____ Cooking techniques





_____ The originality of the combination of tastes

_____ The hand of the chef

_____ The visual aspect of the dish

_____ Recovering old traditions

Q14 In your opinion, what is essential to offer a unique experience?

(select the three elements that you think are most significant)

Uniqueness of dishes
The wine list
Stirring up emotions
The restaurant's atmosphere
The design (of the restaurant, of cutlery, etc.)
To be considered trend setter
To be considered innovators
To be considered a unique restaurant
A price that is in line with the experience offered
The service

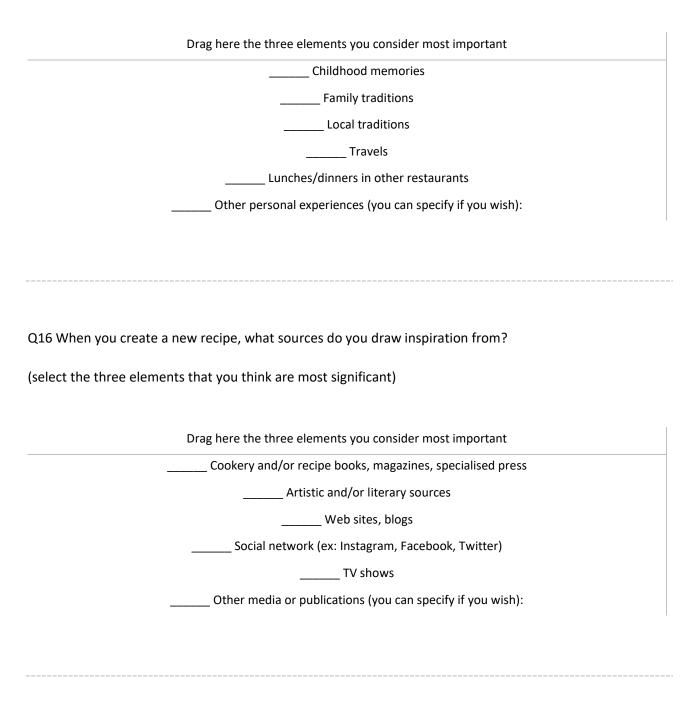
Page Break





Q15 When you create a new recipe, what personal experiences do you draw inspiration from?

(select the three elements that you think are most significant)



Q17 When you create a new recipe, what professional experiences do you draw inspiration from?





(select the three elements that you think are most significant)

Drag here the three elements you consider most important
Background of studies
Training experiences (e.g. internships)
Conferences
Exchange of information with other chefs
Empirical experimentation: trial and error
Other personal experiences (you can specify if you wish):

End of Block: Innovazione e fonti di ispirazione

Start of Block: Scambio di conoscenza

Q18 Since you started working in your restaurant, how often **have you been asked** by other chefs about your recipes?

O Never

Once

O Sometimes

Often

○ Very often





Q19 Since you started working in your restaurant, **which restaurants have asked** you about your dishes? You can also refer to just the most significant exchanges

(you can search by typing letters and you can enter more than one answer)

[Full list of restaurants included in the 2022 Michelin Guide of Italian restaurants]

Q20 If you have been asked for information by restaurants that are not included in the list above, you can enter them here:

Page Break





Q21 Since you started working in your restaurant, how often **have you asked** other chefs about their recipes?

Never
Once
Sometimes
Often
Very often

Q22 Since you started working in your restaurant, which restaurants **have you asked about** their dishes? (you can search by typing letters and you can enter more than one answer)

[Full list of restaurants included in the 2022 Michelin Guide of Italian restaurants]

Q23 If you asked for information to restaurants that are not included in the list above, you can enter them here:





Q183 Since you started working in your restaurant, how often have you received deliberately incomplete or misleading information when asking other chefs about their dishes?

○ Never		
Once		
○ Sometimes		
○ Often		
O Very often		

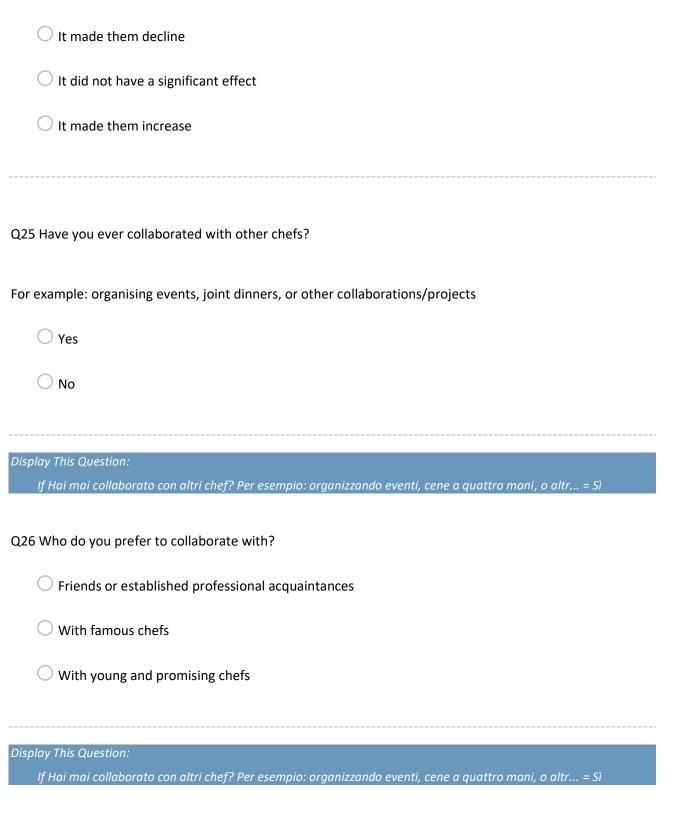
Q182 Since you started working in your restaurant, how often **have you given deliberately incomplete or misleading information** to people asking about one of your dishes?

	○ Never
	○ Once
	○ Sometimes
	○ Often
	○ Very often
Pag	ge Break





Q24 Do you think that the COVID-19 pandemic has had an effect on these exchanges of information?



Q177 With which chefs (from which restaurants) have you collaborated?





(you can search by typing letters and you can enter more than one answer)

[Full list of restaurants included in the 2022 Michelin Guide of Italian restaurants]

Display This Question:

If Hai mai collaborato con altri chef? Per esempio: organizzando eventi, cene a quattro mani, o altr... = Sì

Q178 If you have collaborated with restaurants that are not included in the list above, you can enter them here:

Page Break





Q27 Does your menu include recipes inspired by the work of other chefs?



🔿 No

Display This Question:

If II tuo menu include dei piatti che si ispirano al lavoro di altri chef? = Sì

Q28 Which chefs (from which restaurants) are these dishes inspired by?

(you can search by typing letters and you can enter more than one answer)

[Full list of restaurants included in the 2022 Michelin Guide of Italian restaurants]

Display This Question:

If II tuo menu include dei piatti che si ispirano al lavoro di altri chef? = Sì

Q29 If your recipes are inspired by restaurants that are not included in the list above, you can enter them here:

End of Block: Scambio di conoscenza





Start of Block: Imitazione

Q30 Do you agree with the following statements?

(1 = not at all agree; 10 = completely agree)

	1	2	3	4	5	6	7	8	9	10
Imitating other chefs is a common practice						-				
Imitating other chefs is a legitimate practice					-	⊨				
The sector is advancing also thanks to imitation between chefs					-	F				
An influential chef has many imitators					-	F				
Having many imitators diminishes a chef's reputation					-	F				
To legitimately imitate one must acknowledge the source of inspiration, attributing the idea to its creator					-	F				

Page Break





Q181 In the next section, you will find four scenarios in which we introduce you to a chef with characteristics that vary from scenario to scenario.

For each scenario, we ask you how you would behave with a chef with those characteristics.

Pay attention to how these characteristics change from scenario to scenario.

End of Block: Imitazione

Start of Block: Scenario 1

[elements in **bold** are randomly allocated. Each respondent is given two randomly allocated scenarios]

Q31 Imagine a chef who:

- . has more than twenty years/one year of experience in the industry,
- . enjoys excellent/mediocre reviews,
- . offers a similar/dissimilar cuisine to yours,
- . works in a restaurant that is near/far from yours, and
- . enjoys high/low visibility (e.g. in terms of media presence).

(1 = very low; 10 = very high)

1 2 3 4 5 6 7 8 9 10





If this chef asked you about one of your recipes, what is the probability that you would give an answer?
If this chef asked you for information about one of your recipes, what is the likelihood that you would give deliberately incomplete or misleading information?
Should you share accurate information with him, what is the probability that this chef will not reproduce your recipe exactly, that they will attribute the original to you, and that they will ask your permission to share it with others?
If you found out that this chef had not complied with the behaviour above, what is the likelihood that you would do something to report it? (e.g.: report the matter to colleagues; talk to the person concerned; publish blog or social media posts)
Should you share information with them, what is the likelihood that this chef will reciprocate in the future by sharing information about their recipes with you?
Would you consider it legitimate if this chef reproduced one of your creations, attributing the original to you?

End of Block: Scenario 1

Start of Block: Scenario 2

[elements in **bold** are randomly allocated. Each respondent is given two randomly allocated scenarios]

Q63 Imagine a chef who:

- . has more than twenty years/one year of experience in the field
- . considers/does not consider you a source of inspiration
- . you consider/does not consider them a source of inspiration
- . works in a restaurant near/far from yours
- . enjoys high/low visibility

1	2	3	4	5	6	7	8	9	10





If this chef asked you about one of your recipes, what is the probability that you would give an answer?	
In case you shared information with them, what is the probability that this chef will not reproduce your recipe exactly, that they will attribute the original to you, and that they will ask your permission to share it with others?	
If you found out that this chef had not complied with the behaviour above, what is the likelihood that you would do something to report it? (e.g.: report the matter to colleagues; talk to the person concerned; publish blog or social media posts)	
Should you share information with them, what is the likelihood that this chef will reciprocate in the future by sharing information about their recipes with you?	
Would you consider it legitimate if this chef offered a recipe similar to yours, without attributing it to you?	
Would you consider it legitimate to imitate a recipe of this chef, without attributing it to them?	

End of Block: Scenario 2

Start of Block: Imitazione e trend del settore

Q95 In your opinion, how important are the following factors in the emergence of trends in the industry?

(Choose the three elements you consider most important)

Drag here the three elements you consider most important
Imitation between chefs
Reputation
Visibility
Novelty
Technical difficulty
Other (if you want you can specify)





Q96 To achieve a good reputation, how important - in your experience - are relationships with or presence on...? (1= very little; 10= very much)







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Q97 Do you agree with the following statements?

(Last question!)

	Fully agree	Agree	Neither in agreement nor in disagreement	Disagree	Strongly disagree
Revealing information about a recipe or technique can be a way to gain visibility and/or imitators	0	0	0	0	0
Revealing information about a recipe or technique can be a way to be perceived as an innovator	0	\bigcirc	0	\bigcirc	\bigcirc
To imitate other chefs, it is sufficient to taste their dishes	\bigcirc	0	0	0	\bigcirc
Imitating other chefs is a common practice	\bigcirc	\bigcirc	0	\bigcirc	\bigcirc
The sector is advancing also thanks to imitation between chefs	0	\bigcirc	0	\bigcirc	\bigcirc
Having many imitators diminishes a chef's reputation	\bigcirc	0	\bigcirc	0	\bigcirc

End of Block: Imitazione e trend del settore

