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**Beyond e-books: investigating
the digital transformation of the
publishing industry**

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Table of Contents

Abstract	VII
Introduction	IX
1. Literature review	2
1.1 Digitization, digitalization, digital transformation	2
1.2 Digitization of the publishing industry	4
1.2.1 E-publishing effect	5
1.2.2 Environmental impact of e-publishing	7
1.2.3 E-commerce	11
1.2.4 Print on Demand	12
1.3 Digitalization and remote work	13
1.4 Remote work and environmental impact	15
2. An overview of the Italian publishing sector	24
2.1 The Italian publishing sector	24
2.2 The niche: film and theatre publishing	26
2.3 Italian publishing and environmental impact	27
2.4 Innovation, outsourcing, “remoteisation”	28
3. Cue Press	32
3.1 Methodology	33
3.2 Cue Press: digital publishing for the performing arts ..	34
3.2.1 Born digital	36
3.2.2 Remote work	40
3.2.3 Environmental concerns	40

3.3 Inside the remote teams	42
3.3.1 Graphic Design	42
3.3.2 Marketing	43
3.3.3 Editorial	45
3.3.4 Challenges and strategies	46
3.3.5 Remote work and environmental impact	51
4. Findings and suggestions	54
4.1 Findings	54
4.1.1 E-publishing effect	55
4.1.2 Environmental impact	55
4.1.3 E-commerce	56
4.1.4 Digitalization	57
4.1.5 Remote work and environmental impact	57
4.2 Suggestions	58
4.2.1 Optimize digitalization and remote work	59
4.2.2 Reduce the environmental impact	60
5. Conclusions, limitations and future research	66
5.1 Conclusions	66
5.2 Limitations	67
5.3 Future research	68
Appendix	72
Interviews	74
Graphic design and marketing	74
Editorial	85

Bibliography	94
Sitography	106

ABSTRACT

The rise of remote working and the growing environmental impact of digitalization has become urgent in the wake of the pandemic crisis (Marek, Wińska, Dąbrowski, 2021). This work aims to investigate the digitization of processes and their environmental impact in small cultural publishing houses, with a specific focus on the Italian publishing industry. This industry is mostly made up of small and micro enterprises with limited production structures and financial resources (Filardo, 2021). This kind of enterprises make extensive use of remote work and do not yet have adequate tools to control their environmental impact, so it is increasingly important for this sector to find ways to manage these challenges effectively. The study addresses a gap in the existing literature, which has mainly focused on the digitization of the book product and the reduction of the impact of printing processes (Lebert, 2009; Gilbert, 2015; Benhamou, 2015; Benghozi, Salvador, 2016; Hviid et al., 2017), and highlights the need for a more comprehensive discourse on the digitization of processes and its environmental impact. Through a case study analysis of Cue Press, a small publisher specialized in performing arts, the study seeks to understand how the industry is coping with the digitization of processes and its environmental impact in the situations of small and medium-sized enterprises with limited possibilities. In the end, some good practices and remote management tools will be suggested to make digitization effective and more sustainable in this kind of organizations and hypotheses for future studies will be put forward.

INTRODUCTION

«You see, in every publishing house there is a guy who is indispensable because he is the only person capable of finding things in the mess he creates».

Umberto Eco, *The Foucault's Pendulum*

The pandemic crisis has brought to the forefront the issue of remote working and the increasing environmental impact of digitalization (Marek, Wińska, Dąbrowski, 2021). This work aims to investigate the digitization of processes and their environmental impact in small cultural publishing houses, with a specific focus on the Italian publishing industry, which mostly comprises of small and micro enterprises with limited production structures and financial resources (Filardo, 2021). However, it is imperative for these enterprises to find ways to manage these challenges effectively as they make extensive use of remote work and do not yet have adequate tools to control their environmental impact.

The existing literature on the topic has primarily focused on the digitization of the book product and the reduction of the impact of printing processes (Lebert, 2009; Gilbert, 2015; Benhamou, 2015; Benghozi et al., 2016; Hviid et al., 2017). While these studies have provided valuable insights, there is a need for a more comprehensive discourse on the digitization of processes and its environmental impact. This study aims to fill this gap by conducting a case study analysis of Cue Press, a small publisher specializing in performing arts. The study seeks to understand how the Italian publishing industry is coping with the digitization of processes and its environmental impact in the context of small and medium-sized enterprises with limited possibilities.

The findings of the study will provide some good practices and remote management tools that can be used to make digitization more effective and sustainable in small cultural publishing houses. Additionally, the study will also put forward hypotheses for future studies on this topic. By doing so, it hopes to provide valuable insights and recommendations for cultural publishing houses looking to digitalize their processes and reduce their environmental footprint.

The first chapter will involve conducting a review of recent and pertinent studies and research on topics of concern. The focus of the review will center on the digitization of the publishing industry, with emphasis on the switch from print books to e-books and the environmental advantages it brings. Another subject of the review will be remote work, exploring its difficulties and prospects. Additionally, the literature on the assessment of the environmental effect of remote work and digitalizing procedures will be analyzed.

The second chapter will offer an overview of the Italian publishing sector and its

distinctive features in relation to the previously mentioned themes, to give a complete comprehension of the industry and its present condition regarding the research topic. An overview of the niche to which the case study belongs will be described in order to frame the history of Italian publishing that has dealt with theatre and cinema. Finally, how the sector is responding to the phenomena of environmental impact and remote work will be described.

Chapter 3 showcases the results of a case study performed on a small cultural publishing firm which boasts interesting characteristics in these same domains and, regarding size, methods, and traits, can be considered a representative instance in the publishing industry. The case study was executed to furnish an in-depth analysis of the organization's activities and to investigate how it tackles the difficulties and possibilities presented by digitization, digitalization, remote work, and environmental impact.

In the end, some best practices and remote management tools for making digitalization more effective and sustainable in this kind of organizations will be suggested, and hypotheses for future studies in the area of digitalization and remote work in the publishing industry will be put forward.

1. LITERATURE REVIEW

The aim of this study is to investigate the current state of the Italian publishing industry in regards to the digitalization of processes, workflows, and teams, as well as the associated environmental impacts and suggest some project management tools to manage these processes. To achieve this goal, in this first chapter a literature review of recent and relevant studies and research in these areas will be conducted. One focus of the review will be the digitization of the publishing industry, which has largely been studied in terms of the transition from printed books to e-books and the potential environmental benefits of this shift. However, there has been relatively little research specifically focused on the digitalization of processes, workflows, and teams within the publishing industry. Another area of interest for this review is the phenomenon of remote work, including the challenges and opportunities it presents. Additionally, the literature surrounding the measurement of the environmental impact of remote work and the digitalization of processes will be examined, as well as the ways in which these impacts can be minimized.

1.1 Digitization, digitalization, digital transformation

A premise is needed to clarify the difference between terms that are very often confused and used one instead of the other. In the field of economics, it is crucial to distinguish between the terms digitization, digitalization, and digital transformation as they are often used interchangeably but refer to distinct processes and stages of technological advancement. What's the difference between these terms?

Digitization is the process of converting analog data, such as text, images, and audio, into digital form (Gartner, 2017)¹. This is often done through the use of scanners, digital cameras, and other equipment that can capture and convert analog data into a digital format. Digitization allows for the efficient storage, manipulation, and distribution of digital data, making it easier to access and share information. In addition, digitization also enables the use of advanced data analytics techniques, such as Machine Learning and Artificial Intelligence, which can be used to extract insights and gain a competitive advantage. The benefits of digitization are not limited to the storage, manipulation, and distribution of digital data. It also enables the automation of repetitive and time-consuming tasks, leading to increased efficiency and cost savings. In short, digitization refers to the process of converting analog information or systems into digital form (Bloomberg, 2018).

1 <https://www.gartner.com/en/information-technology/glossary/digitization>

In the context of the publishing industry, digitization involves the conversion of physical books and magazines into digital media such as images, electronic text, or e-books².

On the other hand, digitalization is a dynamic process that goes hand in hand with technological evolution (Bartoli, 2022) and refers to the use of digital technologies to automate processes and systems. It provides businesses with new opportunities to create value; allows for establishing connections between sectors, areas of activity, and individuals and facilitates the creation of new business models (Castells, 2010). This can involve the use of computers, software, and other technologies to streamline and improve efficiency in various industries and sectors. Digitalization often involves the integration of digital technologies into existing systems and processes, rather than replacing them completely. So, «we refer to digitalization as the way in which many domains of social life are restructured around digital communication and media infrastructures» (Brennen, Kreiss, 2016). Empirical studies conducted in USA have demonstrated the significant impact of digitalization on various economic outcomes. Specifically, the literature suggests that comprehending the intricacies of digitalization is paramount to addressing key economic challenges such as increasing the employability of workers, augmenting the efficiency of firms and industries, and promoting the economic growth of regional economies in a context of fast mean digital scores increase, especially in sectors related to publishing (**Fig. 1.1**) (Muro, 2017).

In the end, digital transformation refers to a more comprehensive and fundamental shift towards the use of digital technologies in all aspects of business and society. It encompasses the profound changes taking place in society and industries through the use of digital technologies (Vial, 2021). This can involve the adoption of new business models, the integration of digital technologies into all areas of operations, and the creation of entirely new products and services. Digital transformation requires a significant investment in technology and often requires organizations to fundamentally rethink their operations and business strategies (Agarwal et al. 2010; Majchrzak et al. 2016). It is the «strategic business transformation that requires cross-cutting organizational change as well as the implementation of digital technologies [...] We digitalize processes and roles that make up the operations of a business, and we digitally transform the business and its strategy» (Bloomberg, 2018). This work focuses particularly on the digitalization of the publishing industry: the incorporation of digital technology, specifically in regards to processes, workflows, and team management.

2 <https://www.hurix.com/digitizing-books-at-scale/>

1.2 Digitization of the publishing industry

Since the emergence and widespread adoption of digital technology in the early 2000s, the impact of these new technologies on the book market has been extensively studied (Lebert, 2009; Gilbert, 2015; Benhamou, 2015; Benghozi, Salvador, 2016; Hviid et al., 2017). Researchers have focused on understanding the ways in which digital devices and technologies have transformed the book as a product, and how the book industry has had to adapt to this rapidly changing landscape (Hillesund, 2001). These changes have included shifts in the way books are produced, distributed, and consumed, as well as the emergence

Industry group	Mean digital score, 2002	Mean digital score, 2016	Score change, 2002-2016
Professional, Scientific, and Technical Services	43	55	+12
Finance and Insurance	39	55	+16
Media	33	52	+19
Management of Companies and Enterprises	37	51	+14
Health Care Services and Hospitals	35	46	+11
Real Estate and Rental and Leasing	26	45	+19
Information and Communications Technology	32	44	+13
Utilities	26	44	+18
Wholesale Trade	26	44	+18
Oil & Gas Extraction	25	43	+18
Educational Services	27	41	+14
Retail Trade	28	41	+12
Advanced Manufacturing	24	39	+15
Other Services (Except Public Administration)	21	37	+16
Transportation and Warehousing	15	33	+18
Basic Goods Manufacturing	15	33	+18
Arts, Entertainment, and Recreation	17	33	+15
Construction	12	33	+21
Administrative and Support and Waste Management and Remediation Services	19	32	+14
Nursing and Residential Care Facilities, and Social Assistance	23	32	+9
Accommodation and Food Services	15	30	+15
Mining (Except Oil and Gas)	12	30	+18

Fig. 1.1
Industry mean digitalization scores and change in USA, 2002 and 2016 (Muro, 2017).

of new business models and the impact on traditional publishing houses (Moberg et al., 2011). Overall, the adoption of digital technology has had a significant impact on the whole book market, including production, distribution, consumption, prices and profits (Jiang, Katsamakos, 2010; Øiestad, Bugge, 2014; Brooks, Fitz, 2015), and requiring the industry to adapt and innovate in order to stay competitive in the digital age.

1.2.1 E-publishing effect

The emergence of e-books and e-publishing has had a significant impact on the publishing industry, leading to a shift towards a more digital business model. According to Carreiro (2010), the digital revolution has forever changed the publishing industry, with e-publishing becoming a key player in the market. E-publishing, or electronic publishing, refers to the distribution of books and other published materials in digital form, typically through the use of electronic devices such as e-readers or tablets. E-pub³ has been described as a “hot” market, with the potential to significantly disrupt the traditional publishing industry and included among the elements that drive the new post-paper market (Sabatier, Fizzle, 2011). Overall, the rise of e-books and e-publishing has had a major impact on the publishing industry, leading to a transformation of the way books and other published materials are produced, distributed, and consumed. While e-publishing has opened up new opportunities for publishers and authors, it has also presented challenges, including the need to adapt to new business models and the potential for copyright infringement (Delgado, Gallego, 2001; Giavarra, 2002; Iglezakis, Synodinou, Kapidakis, 2010).

Over the past two decades, researchers have continued to explore the impact of digital technology on the publishing industry. One of the key areas of interest has been the ways in which publishing houses have had to adapt to the «greatest transformation of the publishing industry since the emergence of printing» (Carreiro, 2010). This transformation has presented both challenges and opportunities for publishing houses.

On the one hand, digital technology has allowed for a faster turnaround time and a wider reach, as electronic content can be easily distributed and accessed globally (Getz, 1997). On the other hand, traditional publishing houses have had to adapt to the changing market and have faced increased competition from digital-native companies (Katan, Mustafa, Adnan, 2018).

Researchers have explored a wide range of topics related to the impact of digital technology on the publishing industry, including the comparison of digital products and services to traditional printed books, the proportion of titles available in digital formats, and the impact of the digital transformation on the value chain of publishing (Magadán-

3 E-pub is an open standard specifically for publishing digital books based on XML. From 2007, it is the official standard of the International Digital Publishing Forum (IDPF, 2007).

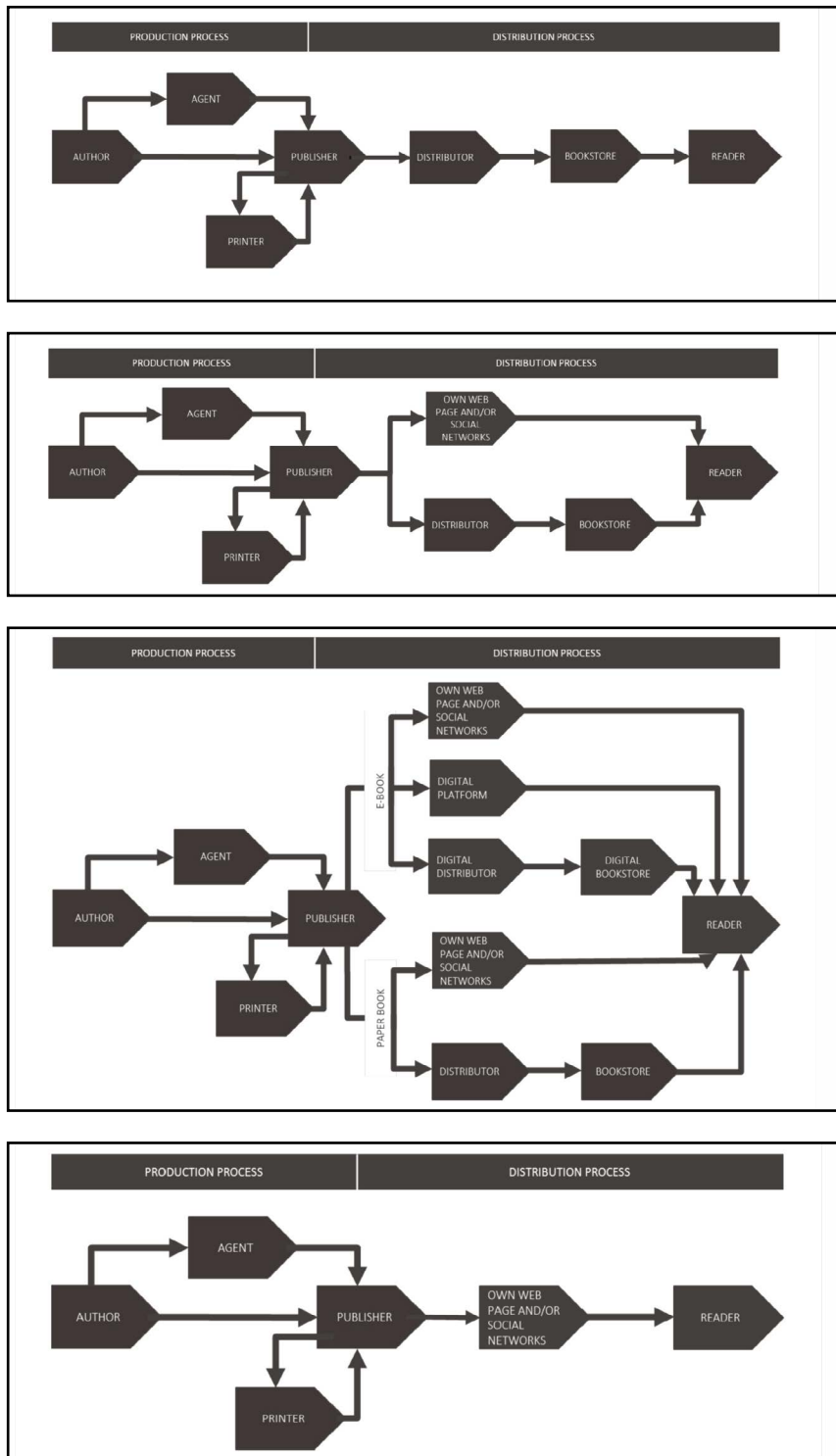


Fig. 1.2
The impact of the digital transformation on the value chain of publishing. From above: the traditional value chain, the traditional value chain with the emergence of internet, extended value chain, value chain of direct sales via the web (Magadán-Díaz, Rivas-García, 2022).

Díaz, Rivas-García, 2018). In particular, Magadán-Díaz and Rivas-García (2022) have focused on the transition from analog to digital products, examining the importance and weight of digital products and services in the publishing industry and analyzing the features of e-book formats and the new ways in which books are financed, distributed, and consumed (Fig. 1.2).

In the context of the digitization of the publishing industry, researchers have identified business models that are linked to new types of editorial content and devices

(Holm, Günzel, Ulhøi, 2013). These models are often centered around the evolution of the publishing industry due to the environmental digitalization that has changed reader behavior and needs. These analyses have focused on the impact of the digital revolution on the final offering and the value chain of the publishing industry, both in terms of the production process and the players involved (Ciarcelluti, 2020).

One key aspect of this researches has been the rise of digital distributors and the opportunities presented by new editorial products such as e-books and audiobooks (Carden, 2008). These developments have had a significant impact on the publishing industry, leading to the proliferation of new business models and the disruption of traditional publishing models.

Overall, the digitization of the publishing industry has led to significant changes in the way books and other published materials are produced, distributed, and consumed. By examining the business models and trends that have emerged in the digital age, researchers have been able to gain insight into the impact of these changes on the industry and the ways in which publishing houses are adapting to this transformation.

Publishing houses are facing a number of challenges related to the online diffusion of e-books and the increasing popularity of digital versions of printed books. One key challenge is the development and maintenance of e-book platforms, which are often used to distribute digital versions of books to a wide audience (Baye et al., 2013, Benghozi, Salvador, 2016). In addition, publishing houses are grappling with the impact of digitization on various types of books, including fiction, non-fiction, and educational materials (Benghozi, Benhamou, 2010; Salvador, Benghozi, 2022).

The influence of digital books on printed book categories is another area of concern for publishing houses. As the demand for digital content grows, it is important for publishing houses to consider the ways in which this trend is affecting the sales and popularity of traditional printed books. This includes examining the impact of digital books on various book categories, such as bestsellers and niche markets, as well as the ways in which digital and printed books may be competing for market share (Salvador, Benghozi, 2022).

1.2.2 Environmental impact of e-publishing

Many of these studies dwell briefly on the environmental impact, but limited to the reduction of the impact of printing processes and methods of reading used by readers. There has been a growing focus in the publishing industry on the environmental impact of different book formats, particularly in recent years. Studies and research have compared the environmental impact of printed books and digital books, with the goal of understanding the relative sustainability of each format (Borggren, Moberg, Finnveden, 2011). These studies have generally focused on the final products, taking into account

factors such as the materials used in production, the energy required for production and distribution, and the potential for recycling or reuse. In short, the environmental impact of different book formats has become a key area of interest for researchers and industry professionals, as the publishing industry looks to find ways to reduce its environmental footprint and promote sustainability.

There have been a number of studies that have examined the environmental impact of the digitization of school books, with a particular focus on school publishing houses and the use of mixed books, which contain both a paper and digital component. These studies have sought to understand the environmental impacts of the production and use of digital school books and identify opportunities to reduce their negative impact on the planet (Tua et al., 2022).

In general, the majority of research and studies on the environmental impact of publishing products have focused on comparing the environmental impacts of printed books and digital books. These studies have consistently found that the environmental impact of traditional printed books is greater than that of digital formats (Chowdhury, 2010; Moberg et al., 2011; Borggren, Moberg, Finnveden, 2011; Tahara et al., 2018; Tua et al., 2022). There are a number of reasons for this. The production of printed books involves the use of materials and resources, as well as transportation for distribution. These factors can contribute to greenhouse gas emissions and other forms of pollution (Tahara et al., 2018). In contrast, digital books do not require the use of physical materials or transportation for distribution, which can reduce their environmental impact (**Fig. 1.3**).

Additionally, the disposal of printed books can also have environmental consequences, as they may end up in landfills or incinerators, while digital books do not have the same

Stage	Paper books			E-books		
	Item	GHG emission [kg-CO ₂ e/book]	Ratio	Item	GHG emission [kg-CO ₂ e/book]	Ratio
Materials	Paper	0.559	54.0%	E-device (Electronic Parts)	0.091	60.3%
	Ink	0.013		E-device (Other Parts)	0.046	
	Water and additives	0.001		E-device (Accessories)	0.009	
	Plates	0.023		E-device (Packaging)	0.002	
	Glue for binding	0.002				
	Plastic for book jacket	0.002				
Production	Planning session	0.006	10.4%	Planning session	0.010	37.6%
	News gathering activities	0.001		News gathering activities	0.002	
	Writing	0.011		Writing	0.018	
	Designing	0.003		Designing	0.005	
	Image editing	0		Image editing	0.001	
	Proofreading	0.002		Proofreading	0.004	
	Plate output	0.002		Digitalization for conversion	0.002	
	Printing	0.067		Development for sales system	0.008	
	Book binding	0.021		E-device (assembly)	0.010	
	Plastic laminating	0.003		Operations for sales system	0.034	
	Distribution	Delivery (outbound)		0.039	4.6%	
Delivery (inbound)		0.012				
Use	Bookstore operation	0.058	40.5%	E-device (download)	0.003	1.7%
	Shopping ("bookstore")	0.268		E-device (use)	0.001	
	Shopping ("Internet")	0.124				
End of Life	Disposal from household	0.001	-9.4%	E-device (crush & landfill)	0.000	0.0%
	Recycle from household	0.005				
	Recycle from factory	0.02				
	New production avoidance	-0.131				
	Total:	1.112	100.0%	Total:	0.245	100.0%

Fig. 1.3
Comparison of GHG emissions for paper books and e-books by stage (Tahara et al., 2018).

disposal issues. Finally, the energy consumption of digital infrastructure and devices, such as e-readers, can also contribute to the environmental impact of digital books, although this impact is generally smaller than that of printed books (Amasawa, Ihara, Hanaki, 2018).

Overall, it is clear that the environmental impact of traditional printed books is generally greater than that of digital formats.

The purpose of this work is to examine the environmental impact of the processes involved in the production, rather than the impact of the digital products themselves. In order to do this, it will be useful to review studies and research that have attempted to quantify the environmental impact of digital products and propose ways to reduce this impact, given the increasing popularity and proliferation of digital products. This analysis will provide valuable insights into the sustainability of the digital production process and help to identify opportunities for improvement.

There have been calls from various parties to develop a way of producing digital publications in accordance with principles of sustainability, known as eco-publishing (Collins, 2020). This approach involves calculating, minimizing, and communicating the environmental impacts of digital publications, with a focus on reducing the impact of the devices used to read them. While the environmental impact of these devices is a primary concern, there is also an increasingly urgent need to reduce the impact of the manufacturing of digital publishing products. To achieve this goal, it is necessary to monitor and possibly reduce the environmental impact of the production process. This could involve implementing eco-friendly production methods, using sustainable materials, and reducing energy consumption and waste. By taking a holistic approach to eco-publishing, it is possible to minimize the environmental impact of digital publications while still providing readers with high-quality content. Overall, eco-publishing is an important consideration for the publishing industry as it seeks to reduce its environmental impact and operate in a more sustainable manner. By implementing eco-friendly production practices and reducing the impact of digital publications on the environment, the industry can play a role in addressing the global challenge of climate change⁴.

There is ongoing debate about the carbon footprint of e-books and e-readers, and whether or not the environmental benefits of replacing print books with digital books are significant. Some research suggests that under certain circumstances, the environmental benefits of e-books may not be realized. For example, if a reader only reads a limited number of books, the carbon footprint of producing and distributing the e-book may outweigh the benefits of not printing a physical book. However, it is important to note that the carbon footprint of e-books and e-readers varies depending on a number of factors, including the production and distribution methods used, the type of device used to read the e-book, and the reader's usage patterns. For example, if an e-reader is used to read a large number of books, or if it is powered by renewable energy, the environmental benefits

4 <https://lab.cccb.org/en/the-environmental-impact-of-digital-publishing/>

of e-books may be more significant⁵. The manufacturing and recycling of electronic goods, including e-readers and other devices used to access digital publications, can have significant environmental impacts. The production of these goods can consume large amounts of resources and generate waste, and the recycling process can be complex, with many electronic products ending up in landfills rather than being properly disposed of⁶, and publishing companies have yet to tackle the resource use of digital publications: while there has been some research on the carbon footprint of print books and the environmental benefits of e-books (Chowdhury, 2010; Moberg et al., 2011), there has been relatively little focus on the resource use of digital publishing as a whole. This includes not only the production of electronic devices, but also the energy consumption and waste generated by the digital production and distribution process⁷.

The shift from material-based services to digital services is transforming the environmental impact of our everyday activities. As more and more aspects of our lives become digitized, the visible material use of products and services is decreasing, while the environmental impacts of digital services are becoming more prevalent (Shueb, Mir, 2014). This trend is particularly significant in the context of the digital transformation that is underway, as the importance of the information and communication technologies (ICT) sector is expected to continue growing rapidly in the coming years (Belkhir & Elmeligi, 2018). The ICT sector is a major contributor to global greenhouse gas emissions, and the increasing reliance on digital technologies has the potential to further exacerbate this impact.

Therefore, it is important to consider the environmental implications of the digital transformation and take steps to minimize the impact of digital services on the environment. This could involve developing more sustainable technologies, implementing eco-friendly production and consumption practices, and promoting the use of digital services that have a lower environmental impact. As the use of digital technologies continues to grow, it is important to consider the future implications of both devices and digital services on the environment. The environmental impact of these technologies can be significant, and it is necessary to take steps to minimize this impact.

One approach that has been proposed to address this issue is the concept of digital sobriety (Belkhir & Elmeligi, 2018; Shift Project, 2019; Chevance, 2020; Guillard, 2021; Pompa, 2021), which involves using digital technologies in a more mindful and responsible manner. This could involve reducing the amount of time spent using digital devices, choosing eco-friendly devices, and using digital services in a way that minimizes their environmental impact. By adopting a more sober approach to digital technologies,

5 <https://www.anthropocenemagazine.org/2020/08/the-environmental-footprint-of-paper-vs-electronic-books/>

6 <https://lab.cccb.org/en/the-environmental-impact-of-digital-publishing/>

7 <https://bookriot.com/carbon-footprint-of-publishing/>

it is possible to reduce the environmental impact of these devices and services, while still enjoying the many benefits they provide. By considering the long-term implications of these technologies on the environment, it is possible to create a more sustainable digital future for all (Itten et al., 2020).

1.2.3 E-commerce

Publishing and e-commerce are two closely related industries that are both driven by the use of digital technologies and the internet. In 2021 AIE (Associazione Italiana Editori) noted the explosion of e-commerce among the consumption habits of Italian readers (Ufficio Studi AIE, 2022). E-commerce refers to the buying and selling of goods and services online. One important way in which these two industries are interconnected is through the sale of publishing products (both digital and print) through e-commerce platforms. E-commerce platforms, such as Amazon, Apple Books, and Google Play, offer a wide range of publishing products, including e-books, digital magazines, and digital versions of print publications. These products can be easily purchased and downloaded online, making it convenient for consumers to access and consume digital content. Overall, the relationship between publishing and e-commerce is a close and mutually beneficial one, with both industries relying on each other to reach and engage with consumers. As the use of digital technologies continues to grow, it is likely that the relationship between these industries will continue to evolve and strengthen.

There has been a significant amount of research on the sustainability of e-commerce purchases compared to traditional purchases, with a particular focus on the environmental impacts of these different types of transactions (Oláh, 2018). Some studies have sought to determine whether online purchases or offline purchases are more sustainable from an environmental perspective, and what factors influence emissions and their impacts (Pålsson et al., 2017). Osservatorio eCommerce b2c research group developed an impact estimation model to examine the environmental impacts of online and offline purchasing processes. Their findings suggest that, overall, online purchasing processes have a lower environmental impact compared to traditional, offline purchases. This is due to a number of factors, including the reduced energy and resource consumption associated with the production and distribution of digital products, and the lower levels of transportation emissions associated with online shopping (**Fig. 1.4**) (Osservatorio eCommerce b2c, 2019). However, it is important to note that the environmental impact of online purchases can vary depending on a number of factors, including the distance the products are shipped, the type of products being purchased, and the efficiency of the production and distribution process.

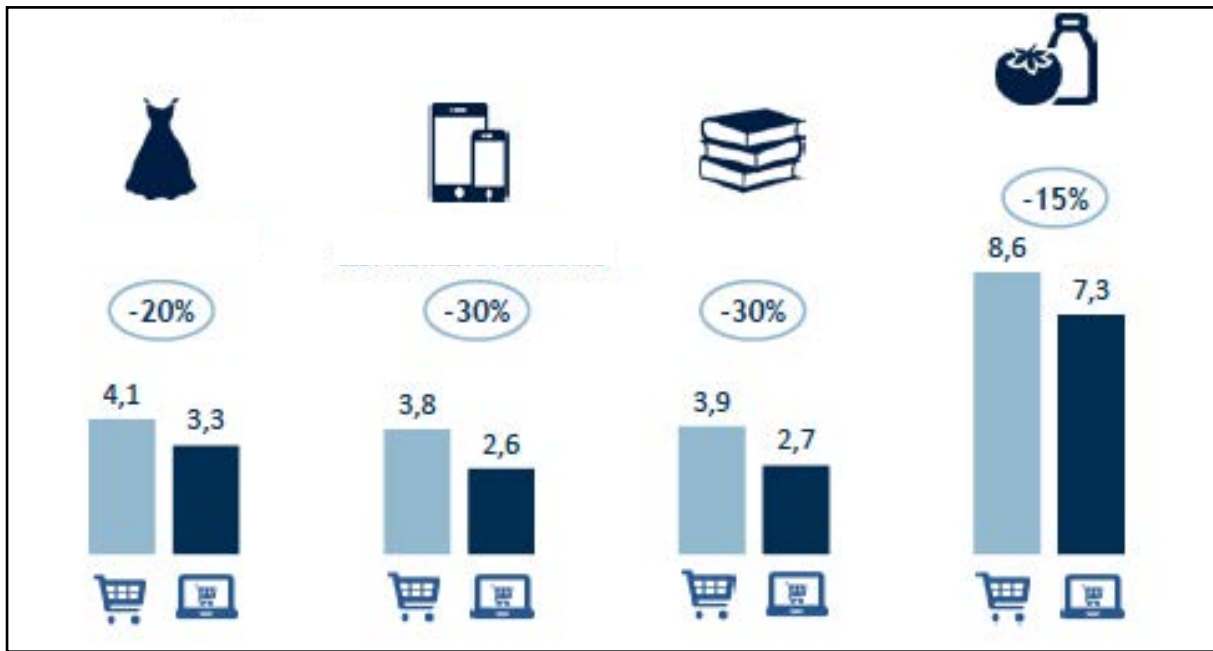


Fig. 1.4
Kg of CO₂ generated in online and offline purchasing processes for different products: clothing, technology, publishing, grocery. (Osservatorio eCommerce b2c, 2019).

1.2.4 Print on Demand

Print on Demand (POD) is a technology that allows publishers to print single copies of books from a virtual library of titles in response to customer orders (Gallagher, 2014).

This technology has been widely adopted in the publishing industry and is often cited as a key factor in the digital revolution, due to its ability to reduce the environmental impact of book production. One of the main benefits of POD is that it enables publishers to print only the number of books that are actually needed, rather than producing large quantities of books that may go unsold. This means that less paper and ink are used, which can help to reduce the environmental impacts of book production (Magadán-Díaz, M., Rivas-García, 2022).

In addition, POD can also reduce transportation emissions, as books are typically shipped directly from the printer to the customer, rather than being transported to warehouses or bookstores. Overall, POD has the potential to significantly reduce the environmental impact of book production, making it a more sustainable choice for publishers and consumers alike.

1.3 Digitalization and remote work

After an overview of the digitization of the book, the sales system and the printing system, we now turn to the central focus of this study, the digitalization of the internal work processes in a publishing house. Digitalization and remote working have had a profound impact on the publishing industry, particularly for small publishers. Even before the widespread adoption of remote work in response to the Covid-19 pandemic (Fig. 1.5), small publishing companies were leveraging digital tools and remote collaboration to streamline their operations and increase efficiency. From a project management perspective, the use of digital tools and platforms allows for more efficient coordination and communication among team members, regardless of their physical location. From an economic perspective, small publishers often rely on remote collaboration to reduce overhead costs and increase their competitiveness in a crowded marketplace (Ferreira et al., 2021).

The main focus of this work is to investigate the role of project management in facilitating the digitalization of processes and reducing the environmental impact of medium-sized to small cultural publishing houses. The digitalization of processes and teams has been a topic of interest for some time, and the pandemic has only accelerated the trend towards remote work and virtual teams. However, there has been relatively little research specifically focused on the digitalization of processes within the publishing industry. While there are a number of studies and research that address digitalization in general or in other industries, it is still useful to review these works in order to gain a broader understanding of the challenges and potential solutions related to the digitalization of processes in the cultural publishing sector. These insights will be helpful in formulating a proposal, which will be discussed in more detail in Chapter 4.

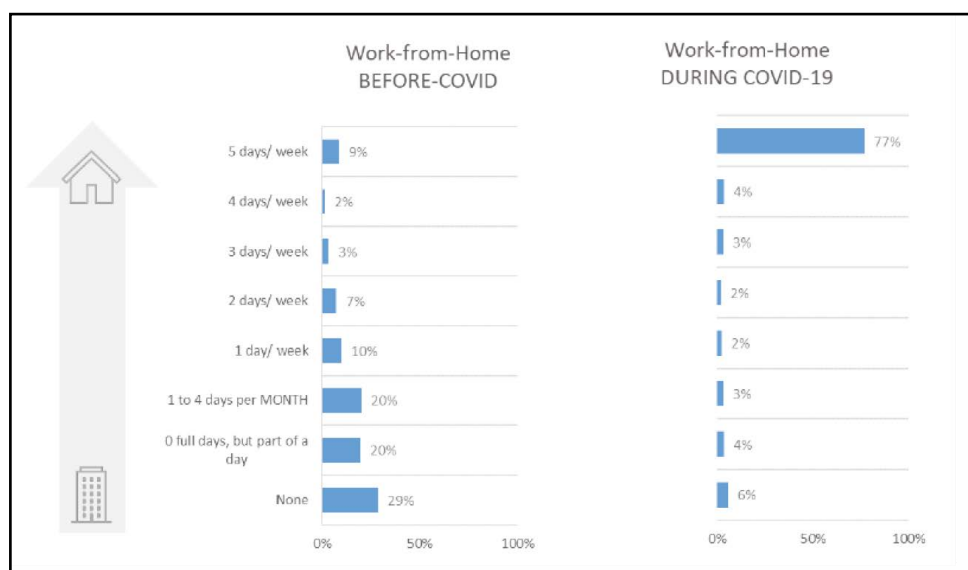


Fig. 1.5 Work from home during Pandemic (Machado, 2021).

In recent years, researchers have conducted a number of studies on the topic of virtual teams, exploring the various benefits and challenges faced by these teams and the ways in which they use technology to overcome these challenges. These studies have provided a broad overview of the state of virtual teams, highlighting the key issues that these teams must grapple with and the strategies that they use to manage these challenges.

Benefits include increase in productivity, better work-life balance and reduced costs for organizations (Shin et al., 2000; Basile, Beauregard, 2016; Popovici et al., 2020; Ferreira et al., 2021). On the other hand, some of the key challenges faced by virtual teams include difficulties in maintaining effective communication and collaboration, managing diverse team members with different cultural backgrounds, and overcoming geographical and time zone barriers (Morrison-Smith, Ruiz, 2020).

In response to these challenges, virtual teams often rely on a variety of technologies, such as video conferencing, project management software, and online collaboration tools, to facilitate communication and collaboration.

According to Morrison-Smith and Ruiz (2020), the challenges faced by virtual teams can be grouped into five categories: geographical distance, temporal distance, perceived distance, the configuration of dispersed teams, and diversity of workers.

Geographical distance refers to the physical distance between team members, which can pose challenges related to motivation and awareness in distributed collaborations, establishing trust, and maintaining informal and face-to-face communication. Temporal distance refers to the differences in time zones between team members, which can make it difficult to coordinate meetings and collaborate effectively. Perceived distance refers to the perceived barriers that can exist between team members, which can hinder communication and collaboration. The configuration of dispersed teams refers to the nature of the work being done, the role of explicit management and leadership, the composition of the group, and the socio-cultural distance between team members. Diversity of workers refers to the differences in backgrounds, experiences, and cultures among team members, which can affect communication and collaboration.

Machado (2021) describes the main remote project team challenges during the Covid-19 and outline a set of best practices to address them. These challenges include the need to work longer hours to ensure productivity and project flow, the need to adapt to a new mode of work, the excess of information to process, social isolation and loss of contact, difficulties in communication with the team and among team members, the lack of appropriate workspace, a reliance on immediate communication, the need to learn new online tools and technologies, a lack of team commitment, technological, organizational, and personal problems, a lack of collaboration and trust within the team and with the organization, difficulties in integrating individual and group activity, and the presence of conflicts between personal and professional life. To address these challenges, Machado suggests a set of best practices that can help remote project teams to mitigate these

issues. These practices include daily meetings, taking care of inter-personal relations, self-managing time, planning of remote meetings, encouraging the routine culture, using virtual rooms, providing training on new tools, offering flexibility in work hours, celebrating achievements, providing financial support, creating virtual communication channels focused on the well-being and health of team members and their families, using new collaborative tools, and reviewing company objectives. By implementing these practices, remote project teams can work more effectively and efficiently, despite the challenges they face.

Accepting Machado's invitation, this work will try to study remote project management in a time of non-pandemic context investigating these issues in a broader context, where the choice of work format (face-to-face or remote) is a matter of preference rather than necessity (Machado, 2021).

Continuing the review of the studies that have hypothesized solutions to the most frequent problems that arise in remote teams, Kniel and Comi (2021) identify three key elements that are essential for building shared understanding in remote design teams: remote environment, remote collaboration, and performance requirements. Through interviews with designers, they also identify several enablers of shared understanding, including team spirit, shared experience, trustworthiness, and transparency. Project management can further facilitate shared understanding by implementing micro-practices such as face-to-face meetings, online updates, and information visualization. However, the study also highlights several barriers to building shared understanding in remote design teams, including challenges in information sharing, cultural differences, and overruling decisions (**Fig. 1.6**). To address these challenges, the study recommends several practical implications for design practice, including establishing ground rules for remote collaboration, promoting transparency through clear role allocation and responsibilities, striking a balance between information overload and scarcity, and maintaining focus by sharing information visualizations that provide an overview of the big picture. Overall, this study provides valuable insights into the factors that contribute to shared understanding in remote teams and suggests strategies for overcoming common challenges.

1.4 Remote work and environmental impact

Remote work, also known as telecommuting or telework, refers to the ability to perform work tasks remotely, outside of a traditional office setting. With the proliferation of digital technology and the increasing adoption of remote work practices, it is important to examine the potential environmental impact of this trend. There are a number of factors that can contribute to the environmental impact of remote work, including the energy consumption of digital devices, the carbon emissions associated with commuting, and the

overall impact of the physical office space. In some cases, remote work may have a positive impact on the environment, as it can reduce the need for commuting and result in the reduction of energy use in office buildings. However, it is important to carefully consider the potential environmental impacts of remote work, as it may also result in an increase in energy consumption and carbon emissions in other areas (Fig. 1.7) (Hook et al., 2020; Ku et al., 2022).

There have been a number of studies and research that have examined the environmental impact of remote work, with some finding that it can have a positive impact on the environment and others finding that it may have a negative impact (Hook et al.,

Team types	Elements	Enablers	Barriers
Co-located teams	Team, task, competence, process, context (Badke-Schaub, Neumann et al., 2007).	Face-to-face communication, project management, project organization (Kleinsmann & Valkenburg, 2008). Ability to transform knowledge, equality of language, efficiency of information processing, quality of project documentation, organization of resources, allocation of tasks and responsibilities (Kleinsmann et al. 2007). Use of visual artifacts (Goldschmidt, 2007). Development of an explicit frame of reference (Van der Bijl-Brouwer & Van der Voort, 2014).	Lacking face-to-face communication, project management, project organization (Kleinsmann & Valkenburg, 2008). Lacking ability to transform knowledge, equality of language, efficiency of information processing, quality of project documentation, organization of resources, allocation of tasks and responsibilities (Kleinsmann et al. 2007).
Remote teams	Goals and objectives, tasks, roles and responsibilities, teams (Hinds and Weisband, 2003). Shared vision, solution understanding, and role distribution (Cash et al., 2017).	Similarity among team members, shared experiences, and sharing of information (Hinds and Weisband, 2003). Company and project goals, use of technology (Jordan & Adams 2016). Previous experience and skills of team members, task type and organizational context, guidance on question-asking and feedback (Cash et al. 2017).	Lacking similarity among team members, shared experiences, and sharing of information (Hinds and Weisband, 2003).

Fig. 1.6
Shared understanding: elements, enablers, barriers (Kniel, Comi, 2021).

Type of effect	Nature of impact on energy use and emissions	
	<i>Reduce</i>	<i>Increase</i>
<i>Direct</i>		<ul style="list-style-type: none"> • Energy consumed in manufacturing, using and disposing of ICT equipment
<i>Higher-order</i>	<ul style="list-style-type: none"> • Reduction in commuting travel and energy use • Reduction in office energy use 	<ul style="list-style-type: none"> • Increase in weekly travel due to longer commute on non-teleworking days • Increase in non-work travel by teleworker • Increase in energy consumption at home for heating, cooling, lighting and other uses • Increase in travel by teleworking household due to increased availability of car

Fig. 1.7
Summary of direct and indirect impacts of teleworking on energy use and emissions (Hook et al., 2020).

2020; Schupak, 2021; Ku et al., 2022; Shreedhar et al., 2022). As the trend towards remote work continues to grow, it is important to continue to examine the environmental impacts and to identify ways to mitigate any negative impacts. By understanding the potential environmental impacts of remote work, it is possible to develop strategies to promote sustainability and minimize the environmental footprint of this trend.

Every online action we take has an environmental impact. The relationship between carbon emissions and digitization are more and more evident (Sharma, Dash, 2022). Access to any digital service is becoming more energy expensive every day: the access people obtain to any digital service requires electricity to be used (Chen, 2022).

One notable omission in many research studies on the environmental impact of digital products is the consideration of the environmental impact of the production process behind these products. This includes the environmental impact of remote teams and digital workflows that are used to produce editorial goods, whether they are in physical or digital form.

The shift towards remote work and digital workflows has been driven in part by the desire to reduce the environmental impact of traditional office environments and the transportation associated with commuting (**Fig. 1.8**) (Sutton-Parker, 2021). However, it is important to recognize that these digital processes also have their own environmental impact. For example, the use of digital infrastructure and devices, such as servers and computers, consumes energy and can contribute to greenhouse gas emissions (Williams, Tang, 2013). Additionally, the production of editorial goods, whether in physical or digital form, often involves the use of materials and resources, as well as transportation for distribution. It is crucial to consider the environmental impact of the production process behind editorial goods, both physical and digital, in order to fully understand the true environmental cost of these products. This requires a holistic approach that takes into account the full life cycle of the product, from the energy and resources used in its production to the disposal of the product at the end of its lifespan (Weidema et al., 2008).

The primary focus of this work is to identify and propose tools that can be used to analyze and reduce the environmental impact of the production processes used by remote or mixed teams in small and medium-sized enterprises in the cultural publishing industry.

The prevalence of remote and mixed teams, particularly in the context of the Covid-19 pandemic and lockdowns, has led to an increase in research efforts focused on understanding the environmental impacts of remote work (Marek, Wińska, Dąbrowski, 2021). One key aspect is the recognition that the environmental impact of production processes extends beyond the finished product itself. The energy and resources used in the production process can all contribute to negative environmental impacts, such as greenhouse gas emissions and pollution (Williams, Tang, 2013). By identifying and implementing tools to analyze and mitigate these impacts, it is possible to reduce the overall environmental footprint of cultural publishing enterprises (De Silva et al., 2015).

There is a widely held belief, supported by various studies, that remote work has a lower environmental impact compared to traditional on-site work (Hook et al., 2020; Schupak, 2021; Ku et al., 2022; Shreedhar et al., 2022). This belief is based on the fact that remote work can reduce the need for transportation, which is a significant contributor to greenhouse gas emissions and other forms of pollution (Fig. 1.9) (Bleviss, 2021). In addition, remote work can also reduce the energy consumption of office buildings, as employees are not physically present and using electricity, heating, and other resources (Hook et al., 2020). While it is commonly believed that remote work has a lower environmental impact compared to traditional on-site work, scholars agree that it is important to thoroughly investigate this assumption. Given the rapid growth of remote and digital workflows, particularly in the publishing sector, it is essential to carefully monitor and control the environmental impact of these ways of working. This includes developing tools and methods to reduce the environmental impact of remote work as much as possible, wondering if remote working is always better for the environment. The answer from the researchers seems to be: not necessarily. Said more precisely, the answer to the question of whether remote work is always better for the environment is not necessarily a straightforward one (Schupak, 2021). While remote work may have some environmental benefits, such as reducing transportation-related emissions and energy consumption

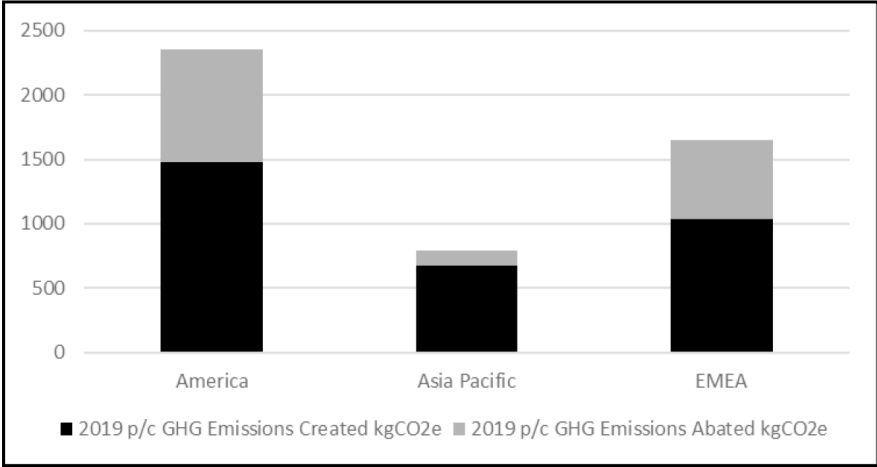


Fig. 1.8
Global per capita commuting emissions 2019 (Sutton-Parker, 2021).

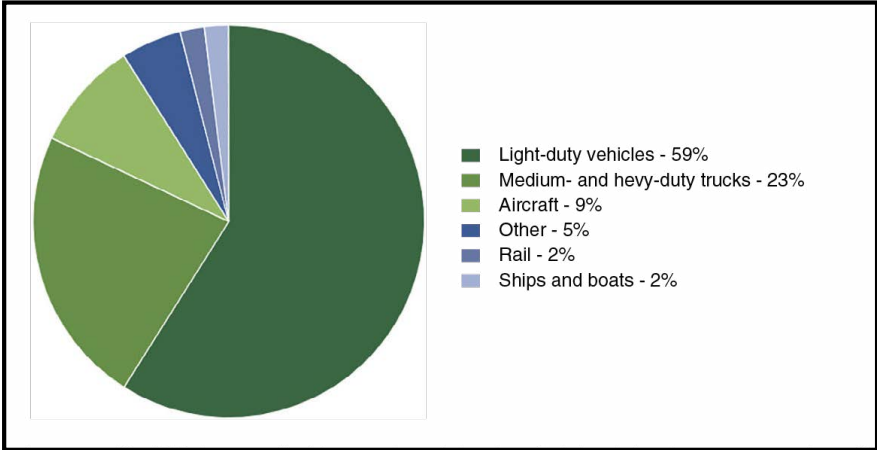


Fig. 1.9
Sources of U.S. transportation greenhouse gas emissions 2018 (Bleviss, 2021).

in office buildings, it also has its own environmental impacts. For example, the use of digital infrastructure and devices consumes energy and can contribute to greenhouse gas emissions (Belkhir & Elmeligi, 2018).

Therefore, it is important to consider the environmental impact of the entire production process, including the energy and resources used in the production of digital products and the disposal of electronic waste, in order to fully understand the environmental impacts of remote work. By taking a comprehensive approach to understanding the environmental impact of remote work, we can better identify opportunities to reduce its negative impact on the planet and make informed decisions about its adoption.

A brief example of a tool such as videoconferencing will now be given. The use of tools such as videoconferencing has become increasingly prevalent in recent years, particularly in the context of the Covid-19 pandemic and the shift towards remote work. While videoconferencing can offer numerous benefits, such as reducing the need for transportation and in-person meetings (Ong, Moors, Sivaraman, 2014), it also has indirect environmental impacts (**Fig. 1.10**). One such impact is the emission of greenhouse gases, which contribute to climate change (Ledley, et al., 1999; Manabe, 2019).

According to Stoltz and Jungblut (2019), an hour of videoconferencing can emit around 157 grams of carbon. This is due to the energy consumption of the digital infrastructure and devices used to support videoconferencing, as well as the transportation of data. These emissions can add up over time, particularly if videoconferencing is used frequently. It is important to consider the environmental impact of videoconferencing and other digital tools when making decisions about their use. While these tools can offer significant benefits (Gibson, O'Donnell, 2009; Karis, Wildman, Mané, 2016) it is also important to be mindful of their potential environmental impacts and take steps to mitigate them. This may involve using energy-efficient devices, offsetting emissions through carbon credits or other measures, or finding alternative ways to reduce the environmental impact of videoconferencing (Oláh, 2018).

It is helpful to consider the potential environmental impacts of a scenario in which all members of a work team are engaged in pure teleworking, meaning that they work from home for the entirety of their work day. In this scenario, it is possible that the environmental impact of the work team could be even greater than that of a traditional on-site work scenario (Bouscayrol et al., 2021).

It is well established that teleworking can reduce the need for commuting and the associated energy consumption (Lewis, Tranter, Axford, 2009), which can lead to a net reduction in economy-wide energy consumption. Studies have identified the conditions under which teleworking is likely to result in such a reduction, as well as circumstances in which the benefits of teleworking may be outweighed by unintended impacts (Hook et al., 2020). In general, the main source of energy savings from teleworking is the reduced distance travelled for commuting, with the potential for additional savings from lower

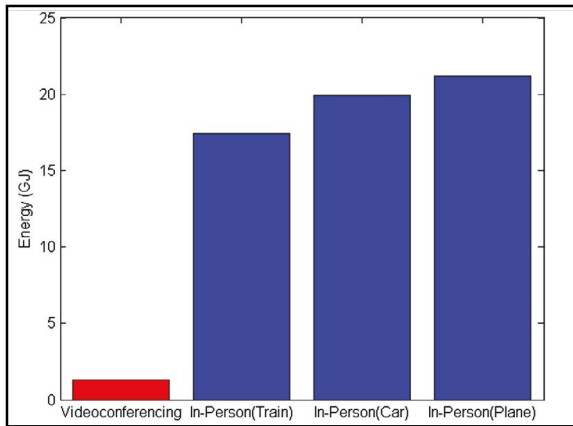
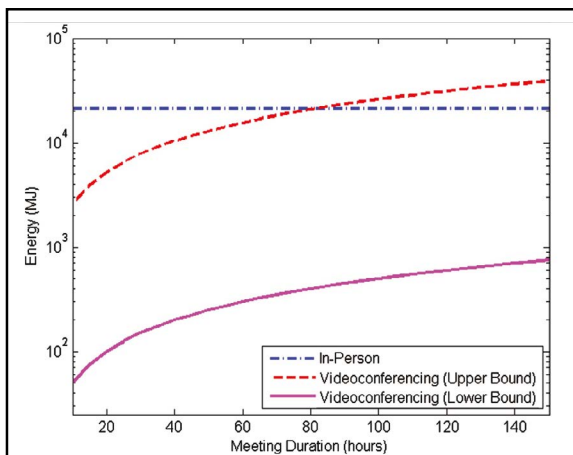
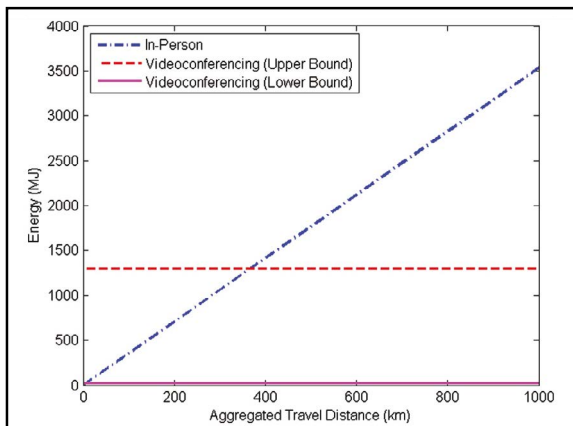


Fig. 1.10 From above: comparison of the energy cost for videoconferencing vs. the different modes of transportation for in-person meetings, energy curve for all meeting modes as the aggregated travel distance is varied, energy curve for all meeting modes as the meeting duration is varied (Ong, Moors, Sivaraman, 2014).



office energy consumption. However, it is important to recognize that the relationship between teleworking and energy consumption is complex and not always straightforward. While many studies suggest that teleworking, both from home and from telecenters, can lead to a net reduction in energy use and emissions, there are also numerous uncertainties and ambiguities surrounding the actual or potential benefits of teleworking in this regard (Hook et al., 2020).

In summary, the modern modes of flexible or mobile work, such as teleworking and remote work, have become so complex and fluid that it is difficult to accurately track their energy footprint or to compare it with traditional forms of work. This is due in part to the non-linear nature of these modes of work, which can involve the use of a variety of digital

tools and platforms. Additionally, these modes of work can also be energy-intensive, due to the energy consumption of digital infrastructure and devices. As a result, it can be challenging to accurately measure the environmental impact of flexible or mobile work and identify opportunities to reduce it, comparing it with a dissolving notion of regular work (Hopkins, McKay, 2019).

In the next chapters this work aims to try to clarify these fields a little more, outlining the characteristics that are identified in a particular sector such as cultural publishing to combine digitalization, remote work and environmental impact thanks to tools and strategies offered by project management.

2. AN OVERVIEW OF THE ITALIAN PUBLISHING SECTOR

In the preceding chapter, a thorough literature review was conducted to systematically appraise the existing body of research on the digitization of the publishing industry and its environmental impact, digitization and remote work, and remote work and environmental impact. The literature review aimed to identify key research gaps and explore the current state of knowledge in these areas. The present chapter builds upon this foundation by providing an overview of the Italian publishing industry and its salient characteristics in relation to the aforementioned topics, to furnish a comprehensive understanding of sector and its current state in relation to the research topics.

2.1 The Italian publishing sector

The Italian publishing sector is made up of a variety of publishing companies, ranging from large multinational corporations to small independent publishers. The sector is responsible for the production and distribution of books, magazines, and newspapers, and has a significant impact on the Italian economy. The Italian publishing industry has seen consecutive growth over the past years, in both digital and physical formats, in line with the European trend. Although 60% of the population are book readers, and a greater proportion of the population, 62%, read e-books and audiobooks. The number of titles currently on the market has increased by 10% (Ufficio Studi AIE, 2019). This growth can be attributed to various factors, including the digitalization of production processes, digital marketplaces, and changes in consumer behavior. Additionally, the advent of IBS.it and Amazon.it has had a significant impact on the expansion of the catalog.

The number of publishing houses¹ in Italy has also seen significant growth, with 13,201 firms having at least one active title on the market. However, the number of physical copies printed has seen a drastic decline since the year 2000, with 116 million copies printed since the beginning of the century. This is likely due to the rise of e-books, as well as advancements in production technologies and trends such as production on demand (Ciarcelluti, 2020).

On the other hand, the Italian publishing sector has also faced several challenges in recent years, particularly in regards to cost growth and a lack of financial resources among smaller companies. This has been compounded by a general reduction in consumer

1 A publishing house is a company that is involved in the production and distribution of books, journals, or other printed or digital media. <https://dictionary.cambridge.org/dictionary/english/publishing-company>

confidence and concerns about “high bills” for personal and household goods and services (Ufficio Studi AIE, 2022). Despite these challenges, the publishing industry has emerged as a leading cultural force in Italy, with a market worth EUR 3,429 billion and more than 85 thousand new titles published per year². This has been driven by an increase in e-commerce and innovations in distribution and printing processes, which have allowed for a better calibration of production and a wider range of offerings for readers. As highlighted by Filardo (2021), the sector is marked by a certain fragmentation, mostly made up of micro, small and medium enterprises (**Fig. 2.1**) with poor production structures and financial resources.

Small and medium enterprises (SMEs) are businesses that are typically smaller in size and scope compared to large corporations³. SMEs are often defined by their number of employees and/or annual revenue, and they play a significant role in European economy as major drivers of innovation and employment, and in particular in the Italian economy⁴.

Furthermore, the emergency situation caused by Covid-19 has acted as an accelerator for important transformations, and in 2021 the industry showed an ever-growing catalogue of available titles. This is dominated by the “long tail” which is a market made up of many titles with small sales, but together confirms publishing as the country’s first cultural industry, despite the historical Italian criticalities in terms of reading indexes and territorial disparities. The market is driven by a hard core of strong readers who read and buy more and more (Ufficio Studi AIE, 2022).

At the same time, the Italian publishing market is dominated by a few major players, such as Giunti, Feltrinelli, and Mondadori⁵. These companies publish a wide range of

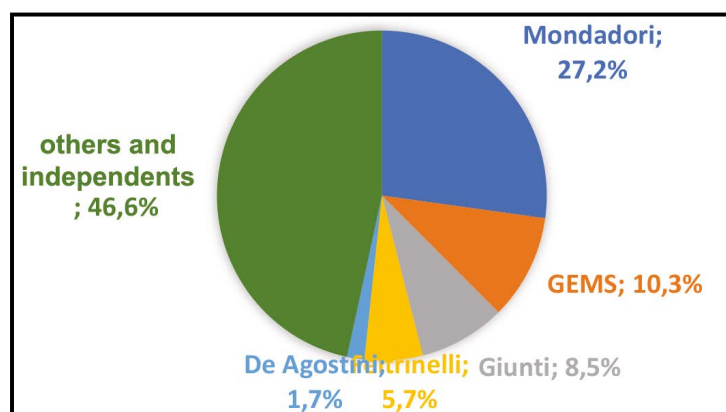


Fig. 2.1
Market shares of publishing houses in Italy in 2020 (Filardo, 2021).

2 <http://www.albusnet.eu/k-hub/report-publishing-italy-2022-highlights/>

3 «The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million» (European Commission, 2020).

4 «SMEs represent 95% of the number of companies in the OECD member states (OECD, 1998), and over 99% of the European enterprises (European Commission, 2011). In the past five years, they have created around 85% of new jobs and provided two-thirds of the total private sector employment in the EU (European Commission, 2018)» (Mura et al., 2020).

5 <https://2seasagency.com/italian-publishing-industry/>

books, including fiction, non-fiction, children's books, and academic works. In addition to traditional print books, these publishers also produce e-books and audiobooks.

There is also a vibrant independent publishing scene in Italy, with many small publishers producing a wide range of high-quality works. Many of these independent publishers specialize in niche areas, such as poetry, art books, or regional literature.

2.2 The niche: film and theatre publishing

The case study to be presented in Chapter 3 deals with a particular sector of the publishing industry, film and theatre publishing. Starting from the early 20th century, Italian publishing houses specializing in books on theatre and cinema began to emerge, reflecting the growth and development of these art forms in Italy. Major publishers in this field included Einaudi and Editori Riuniti, who produced works such as *L'avanguardia teatrale in Italia* (Giulio Einaudi Editore, 1977) by Franco Quadri and *Storia del cinema Italiano* (Editori Riuniti, 1979) by Gian Piero Brunetta. In the 1980s and 1990s, Italian publishing houses continued to explore the potential of books on theatre and cinema, producing works that tackled contemporary social and political issues. For example, La Casa Usher published *Il nuovo teatro Italiano 1975-1988* (La Casa Usher, 1988) by Oliviero Ponte Di Pino, which discussed the theatre avant-gardes in Italy, and Ubulibri publisher produced important works such as *Chroma* (Ubulibri, 1995) by the british director Derek Jarman.

Today, the film and theater publishing industry in Italy is a niche sector with a diverse range of players and a complex economic landscape. On one hand, there are smaller specialized publishers that focus on niche areas within film and theater. These companies often struggle to achieve economic sustainability due to their limited scale and scope, as well as the high fixed costs associated with publishing and the challenges of building a customer base in a specialized niche⁶. As a result, these smaller players may not be as significant in terms of publication numbers and revenue as their larger counterparts.

On the other hand, there are also larger generalist publishing houses in Italy that deal with film and theater, though these materials may make up a smaller portion of their overall output. These companies often have more resources and reach, and are able to publish a wider range of materials related to film and theater. However, they may not have the same level of specialization and focus on these specific areas as the smaller publishers.

There is a lack of medium-sized publishing houses in Italy that are specialized in film and theater and able to achieve economic sustainability. This gap in the market may be due to a variety of factors, including the high fixed costs associated with publishing and

6 <https://www.publishersweekly.com/pw/by-topic/international/international-book-news/article/91088-italian-book-market-expects-slight-dip-in-2022-sales.html>

the challenges of building a customer base in a specialized niche. It may also be due to the competitive nature of the industry, as smaller publishers may struggle to compete with larger players that have more resources and economies of scale.

2.3 Italian publishing and environmental impact

Italian publishers, like many other industries, are becoming increasingly aware of the need to reduce their environmental impact and carbon footprint. Many publishers are taking steps to minimize their environmental impact by implementing sustainable practices throughout the publishing process. GEDI is the first Italian publishing group to achieve carbon neutrality, reducing their carbon footprint through a substantial investment in renewable energy sources^{7,8}. Mondadori has recently presented its first Sustainability Plan, in which it has identified strategic areas, qualitative and quantitative targets, and short and medium-term actions aimed at continually improving performance in environmental terms, consistent with the Sustainable Development Goals outlined in the UN 2030 Agenda⁹. Zanichelli, one of the largest publishers in Italy (mainly textbooks for school, university and hard sciences)¹⁰ pledges to choose paper mills and printers that use more renewable energy and fewer chemical reagents, use vegetable-based inks in printing, vegetable-based glues in binding and biodegradable materials in cover lamination, reduce paper waste in bookbinding, assess the feasibility of offsetting greenhouse gas emissions by financing tree plantations or other initiatives that reduce carbon dioxide emissions¹¹.

One of the ways that Italian publishers are reducing their environmental impact is by adopting more sustainable printing techniques. Many publishers are switching to digital printing methods, which use less energy and produce less waste than traditional offset printing methods. Messaggerie Libri, one of the most important Italian distributor of publishing products, offers a Print on Demand service that allows publishers to manage the entire process of printing their titles reducing their environmental impact (and storage costs and waste)¹².

Additionally, many publishers are using more environmentally friendly materials, such as recycled paper and vegetable-based inks, in the production of their books.

7 <https://www.gedi.it/en/media/news/gedi-first-italian-editorial-group-achieve-carbon-neutrality>

8 <https://www.breakinglatest.news/business/gedi-the-first-italian-publishing-group-to-achieve-carbon-neutrality/>

9 <https://www.giornaledellalibreria.it/news-editori-editoria-green-come-si-muovono-gli-editori-verso-un-futuro-sostenibile-4971.html>

10 <https://www.publishersglobal.com/directory/publisher-profile/7755>

11 <https://www.zanichelli.it/chi-siamo/obiettivo-dieci-in-sostenibilita/sostenibilita-ambientale-7#punto7>

12 <https://www.giornaledellalibreria.it/news-distributori-il-print-on-demand-e-la-ricetta-migliore-per-la-media-e-piccola-editoria-parola-di-messaggerie-4710.html>

Wetlands is a new publishing project based in Venice, dedicated to social and environmental sustainability issues where volumes are composed, produced and printed by local labour on environmentally sustainable paper and with algae paper covers¹³. The Mondadori Group since 2010 has been committed to significantly reducing greenhouse gas emissions and increasing the use of certified paper for the production of books and magazines. In 2021 the group reached 100% purchase of certified paper: the PEFC mark¹⁴ is now placed on all publishing products in synergy with printers who have signed up to the certification. For 10 years, Sergio Bonelli Editore has also been publishing its comics, including the legendary *Tex* and *Dylan Dog*, using certified raw material, that comes from sustainably managed forests or from forests and plantations that are selectively used and replanted after cutting¹⁵.

Italian publishers are also looking at ways to reduce their carbon footprint by minimizing the transportation of books. This can be done by using more efficient transportation methods and by reducing the distance that books need to travel. For example, Zanichelli is making efforts to reduce the paper supply distance and organise warehouses for more efficient transport of the finished product (Tua et al., 2022).

2.4 Innovation, outsourcing, “remoteisation”

The innovations brought about by digitization and the tendency to outsource work, especially in small publishing houses with few economic resources, has led to the emergence of numerous work teams that collaborate on a permanent basis and can therefore be configured as remote teams (Ead, 2021).

The advent of desktop publishing software, specifically QuarkXPress and Adobe InDesign, in the mid-1990s has had a profound impact on the operations of publishing houses (Chagnon, 2002). One of the primary outcomes has been the diminished need for specialized technical assistance from graphic designers, as their tasks have been largely assumed by editors. Additionally, the utilization of these tools has facilitated the transfer of semi-finished products both within and outside of the publishing house. These developments, in conjunction with the broader digital revolution in communications and the shift towards cloud-based archival solutions, have enabled greater collaboration and remote teamwork within the industry (Bologna, Soru, 2022).

The publishing industry have long since been progressively outsourced to independent professionals and specialized service providers (Bologna, 1997).

13 <https://www.giornaledellalibreria.it/news-editori-editoria-green-come-si-muovono-gli-editori-verso-un-futuro-sostenibile-4971.html>

14 The PEFC label is a globally trusted mark that provides assurance that the forest and tree based materials within a product come from a sustainably managed forest. <https://pefc.org/>

15 <https://quifinanza.it/green/editoria-bio-certificazione-pefc-chi-sono-editori-green/687158/>

This strategy has allowed for a reduction in fixed expenses while preserving a level of operational flexibility. By outsourcing these functions, publishers are able to tap into the expertise and efficiency of external resources, rather than relying solely on in-house staff, with typical advantages and disadvantages of outsourced and remote work management (Dieci, Fontani, 2012; Cavani, Soru, 2021).

The advent of digitization has significantly impacted the professional profiles sought by publishing firms in the realm of communication and marketing (Nelson, 2006). As the need to establish a web presence and utilize social media platforms has become imperative, companies are now seeking specialized personnel such as social media managers, digital strategists, and marketing professionals with expertise in the digital sphere (Tomasena, 2019). The extent to which outsourcing is utilized within the communication and marketing domain varies. Publishing firms tend to retain key personnel for strategic decision-making, however, it is not uncommon for entire projects, including those of significant financial magnitude (such as launching a book on social media), to be delegated to multiple individuals (Bologna, Soru, 2022).

According to a survey conducted by Redacta¹⁶, the contractual status of members of these that are actually remote work teams is primarily that of freelancers. In 2019, Redacta initiated an anonymous online survey to gather data on editorial work. The results indicate that the majority of respondents (88%) identify as freelancers. Additionally, 82.3% of those surveyed reported having autonomy in their working hours, which is a characteristic commonly associated with remote work, regardless of contractual status (Redacta, 2020).

16 Redacta was born from the initiative of some Acta (Association of Advanced Tertiary Consultants) members and companies as an investigation into working conditions in the book publishing industry. <https://www.actainrete.it/redacta/>

3. CUE PRESS

The preceding chapters have provided a comprehensive examination of the research conducted to date in the areas of remote work, environmental impact, and digitization within the Italian publishing sector. Additionally, an overview of the sector's characteristics in these areas was also presented. This chapter presents the findings of a case study that was conducted within a small cultural publishing house which presents interesting characteristics in these same areas and in terms of size, modalities and features can be considered an emblematic example within the publishing sector.

The case study was designed to provide a detailed examination of an organization's operations and to explore how it is addressing the challenges and opportunities presented by digitization, remote work and environmental impact. The case study focused on the Cue Press publishing house, which is a small and specialized publisher based in Italy. The Cue Press publishing house is chosen to be the focus of this study because it is an example of a small cultural publishing house that has embraced digitization and remote work. As such, it serves as an emblematic case providing valuable insights into the challenges and opportunities facing small and medium enterprises in the cultural publishing industry as they navigate the process of digital transformation.

A range of data sources has been utilized to achieve this goal, including documents produced by the organization, scientific literature, and interviews with project managers. By comparing these various sources of information, the aim is to gain a detailed and nuanced understanding of the challenges and opportunities facing the organization as it navigates the process of digital transformation. The company produces e-books and paper books on the performing arts and has established itself as a leading player in this niche market.

A contextual overview of the Cue Press publishing house will be provided, including its history, operations, and position within the broader publishing industry landscape, to understand the challenges and opportunities facing the organization. The size and scope of the company and its target market will be explored in order to better understand the constraints it faces.

Next, specific issues of digitization, remote work, and environmental impact will be delved into. With respect to digitization, the areas of the organization's operations where the company is actively digitizing its products will be examined, and the management of this process will be studied. This will include looking at the specific technologies and processes that are being used, as well as the challenges and opportunities presented by this process. The management of digitalization and remote work by the organization will also be explored, including any challenges or successes encountered. This will include examining the tools and technologies that are being used to support remote work, as well

as the strategies and policies in place to ensure effective collaboration and communication among remote workers.

The company's approach to environmental sustainability will be analyzed, with a particular focus on the impact of remote work and its associated dynamics. Interviews with project managers have been conducted to understand how the organization is addressing its environmental impact and what strategies it is using to minimize its carbon footprint. This will include examining the company's policies and practices related to energy consumption, as well as the challenges and opportunities encountered in this regard.

3.1 Methodology

A mostly qualitative research approach is adopted for this case study, which involves collecting and analyzing data in a non-numerical format¹. Qualitative research is commonly used to explore complex, nuanced, or subjective issues and typically involves in-depth interviews, focus groups, or other forms of direct engagement with participants (Merriam, Tisdell, 2015).

In-depth interviews with key stakeholders within the organization, specifically the project managers of the areas most affected by the phenomena being studied, were conducted to gather data for this case study. The purpose of these interviews was to gather detailed and contextualized information about the organization's attitude towards the issues of digitization, remote working and environmental impact.

It is important to note that qualitative research is just one of many approaches that can be used to study complex issues. An alternative approach is quantitative research, which involves collecting and analyzing data in numerical form (Becker, Bryman, Ferguson, 2012). Quantitative research is often used to test hypotheses, establish correlations, or make predictions, and it typically involves structured surveys or experiments (Sukamolson, 2007). In general, qualitative research is well-suited for exploring complex, subjective, or emergent phenomena, while quantitative research is better-suited for testing hypotheses or establishing correlations (Khaldi, 2017).

For this reason, it is often beneficial to use a mixed-methods approach that combines both qualitative and quantitative research methods in order to gain a more comprehensive and nuanced understanding of the issues being studied. A mixed research approach, which combines both qualitative and quantitative methods, is adopted to gain a more comprehensive and nuanced understanding of the phenomena being studied.

For some specific topics, where the collection of numerical data helped to better understand the phenomenon under investigation, the quantitative survey method was

1 <https://library.cityu.edu/researchguides/researchmethods/qualitative>

also used. This approach is particularly useful when studying complex or multifaceted issues, as it allows researchers to draw on the strengths of both approaches in order to gain a more robust and nuanced understanding of the topic (Bryman, Becker, Sempik, 2008).

In-depth interviews with key stakeholders within the organization were conducted in the context of this case study. The purpose of the interviews was to gather detailed and contextualized information about the organization's operations, and to understand the perceptions, attitudes, and experiences of the individuals who work within the company. The purpose of the study of data concerning internal processes was to gather more objective and quantifiable data about the organization's operations, including data on demographics, job functions, and attitudes towards digitalization and remote work.

By combining the insights gained from the interviews with the more objective and quantifiable data, the findings were triangulated and a more robust and reliable understanding of the issues being studied was gained. Ultimately, the use of this approach and its implementation allowed for a more comprehensive understanding of the Cue Press publishing house and its efforts to implement digitalization, manage remote work, and address environmental sustainability.

Interviews with project managers were conducted in January 2023 and they can be read in their entirety in the final appendix. The interview with the editorial project manager is the result of a live interview lasting about an hour. The interview with the project managers of the graphics and marketing departments was conducted simultaneously and lasted approximately 3 hours, during which the participatory observation mode was also conducted. The interviews from which the characteristics and initial intentions of the company were extrapolated come from the press area of the publishing house website² and mainly date back to the period from 2012 to 2014.

3.2 Cue Press: digital publishing for the performing arts

Cue Press is a digital publishing house based in Imola (Bologna), specialized in producing e-books and paper books on the performing arts. Born as a start-up³ in 2012, since its founding Cue Press has established itself as a leading player in this niche market, serving scholars and enthusiasts of cinema and theatre.

A start-up is a company that is in the early stages of operation and is often focused on developing and bringing a new product or service to market. Start-ups are typically characterized by their innovative nature and rapid growth potential, and they are often

2 <https://www.cuepress.com/news>

3 On the use of the words start-up, startup or start up see <https://startupblogpost.com/is-it-startup-or-start-up-knowing-the-grammar-of-hyphens/#:~:text=The%20short%20answer%20to%20this,the%20context%20of%20budding%20businesses>

seen as key drivers of economic development and innovation⁴.

The “about us” section of the publishing house website states that one of the key elements of Cue Press’s identity is its mission to «re-launch publishing sector through new production models» and to «restore commercial value to works that the usual production standards have condemned to disappearance». In other words, the company aims to use digital innovation to overcome the barriers that have traditionally separated the cultural publishing industry from the logic of the market and entrepreneurship. By leveraging the cost-saving and agile nature of digital technologies, Cue Press aims to explore new markets and recover fundamental texts that may not have been economically viable through traditional publishing methods⁵. In this sense, Cue Press is a prime example of a small or medium enterprise that is using digitization to create new opportunities. By embracing digital innovation and exploring new markets, the company has been able to carve out a unique niche within the cultural publishing industry and establish itself as a leader in its field.

Cue Press is a limited company, which means that it is a type of business structure in which the liability of the owners is limited to their individual investments in the company⁶. It is registered as a small and medium-sized innovative enterprise in the special section at the Register of Companies⁷. This classification is given to companies that meet certain criteria, such as being engaged in innovative activities, having a high growth potential, and being managed by highly qualified personnel.

In 2021, the share capital of Cue Press was calculated at EUR 10,000, which refers to the total value of the company’s shares that have been issued to shareholders. In the same year the total assets of Cue Press, as reflected in the balance sheet, amounted to EUR 175,000. This represents the total value of the company’s tangible and intangible assets, including cash, investments, property, equipment, and intellectual property. In terms of financial performance, Cue Press recorded revenue from sales and services of EUR 350,000 in the same year. This indicates the total amount of money that the company generated from selling products or providing services to its customers. As of 2021, Cue Press had a total of one employee. However, in 2021-2022 it employed twenty external collaborators and employees with other contractual forms. This means that the company is relatively small, with a limited number of workers and collaborators.

The mission of Cue Press is to revitalize the sector of performance arts publishing through the development of new production models for both print and digital materials.

4 *Incredibol!* grant issued by the Municipality of Bologna and won by Cue Press defines start-ups as follows: «Start-ups (regardless of their legal form) must have been established no more than 4 years at the expiry date of this public notice and the average age of the partners must be less than 40 years». (Comune di Bologna, 2021).

5 <https://www.cuepress.com/cover/chi-siamo>

6 <https://dictionary.cambridge.org/it/dizionario/inglese/limited-company>

7 As defined by Article 4 paragraph 2 of Law No. 33/2015.

This involves «overcoming the barriers that have traditionally separated the production of these materials from the logic of the market and entrepreneurship»⁸. By finding innovative ways of producing and distributing literature and other materials related to the performance arts, Cue Press aims to restore commercial value to works that have been deemed unviable by traditional production standards.

One of the key areas of focus for Cue Press is the classical studies and research of theater and cinematography. These areas of study often produce works that are considered to be of academic or cultural value, but which may not necessarily have a strong commercial appeal. By adopting new production models that are more flexible and responsive to changing market conditions, Cue Press hopes to be able to bring these works to a wider audience and to generate financial value for them.

Overall, the mission of Cue Press is to contribute to the ongoing evolution of the performance arts publishing sector; to help ensure that it remains relevant and financially sustainable in an increasingly competitive and rapidly changing market, and to restore commercial value to works that have been condemned to obscurity by traditional production standards.

The target audience of Cue Press is composed of individuals who are interested in theatre and film, including scholars such as teachers and students, as well as spectators, critics, and journalists. These individuals are likely to be drawn to the company's products and services due to their specific focus on the performance arts, and their commitment to producing high-quality materials that meet the needs and interests of this particular audience.

Cue Press aims to serve as a resource for theatre and film scholars by offering a wide range of materials that are relevant to their research and teaching, including books and other digital materials. These resources may cover a variety of topics, from the history and theory of the performance arts, to practical guides and case studies related to specific productions or techniques.

3.2.1 Born digital

Cue Press had a unique approach to digital publishing when it was founded in 2012. The company saw digital products as a way to enhance the traditional reading experience by offering additional multimedia elements and tools for studying, reviewing, and memorizing.

The following examination of Cue Press' intentions and strategies regarding digital transformation is the outcome of an extensive study of press review articles that were dedicated to the establishment of the publishing house, which were conducted

8 <https://www.cuepress.com/cover/chi-siamo>

approximately from 2012 to 2014. This examination aims to provide an overview of Cue Press' initial approach to digital transformation and how it has evolved over time.

To accomplish this, the press review articles that were published during the establishment of the publishing house will be first analyzed. Additionally, this examination will include insights from interviews with the director of Cue Press, Mattia Visani, to gain a more comprehensive understanding of the publishing house's current approach to digitization, particularly with regard to the book product.

Cue Press is a publishing house that has a strong focus on digital publishing and has been experimenting with new formats and technologies since its inception. The company's approach to digital publishing is centered on offering high-quality, interactive e-books that are accessible on all reading devices and offer additional multimedia content and tools for studying, reviewing and memorizing. In addition to offering traditional e-books, Cue Press has been interested in developing the concept of the "multimedia book," which would be structured to allow for the incorporation of videos, photos, interviews, and other materials within the framework of the book and offer unexpected possibilities for the reader. Cue Press has equipped itself with a digital publishing platform: a technology born from the collaboration with the Bologna based software house and design studio ChiaLab⁹, to offer its publications the best available technology. In an interview, the company stated that it sees digital products as an opportunity to increase the reading experience by providing additional resources to support and deepen the experience, such as real-time browsing of related content, specific research, and multimedia testimonials¹⁰. Visani said, «we are talking about the future, about prospects that will be realised in the medium/long term. We all have the perception that this is the right path, even if no one has yet touched upon the real potential of digital in publishing»¹¹.

Cue Press is also interested in redefining the relationship between authors and publishers, with a focus on common work and profit¹². The company aims to offer high royalties in exchange for low initial guaranteed minimums and believes that the low acquisition costs of digital publishing, combined with its cultural value in terms of recovering and preserving texts, make it an attractive option for both authors and publishers¹³.

When the Cue Press publishing house was founded, the market for digital products such as e-books was in the midst of a period of rapid growth. At the time, e-book sales in USA had already surpassed those of paper books, and this trend was beginning to be seen in Europe as well, where the number of digital readers was constantly increasing. Cue Press emphasized its commitment to both traditional and digital publishing, stating

9 <https://www.chialab.it/>

10 <https://www.cuepress.com/news/intervista-editoria-digitale-mattia-visani-cue-press>

11 <https://www.cuepress.com/news/intervista-editoria-digitale-mattia-visani-cue-press>

12 <https://www.cuepress.com/news/ribalta-digitale-consoli>

13 <https://www.cuepress.com/news/cue-edizioni-digitali-teatro-bettocchi>

that «it is important to move in parallel on both tracks, to meet a diverse audience and to keep up with the times»¹⁴. In this context, the company's founders saw an opportunity to leverage the cost-efficiencies and agility of digital technologies in order to produce and distribute high-quality content in a more sustainable and cost-effective manner¹⁵. In order to achieve this goal, the company adopted a digital-first approach, with a focus on producing e-books and digital print-on-demand paper books for a specific market niche: scholars and enthusiasts of cinema and theatre.

In order to achieve his goal, Cue Press approached digital publishing tools with a focus on innovation and experimentation. As Marco Polillo, President of the Italian Publishers' Association (AIE) from 2009 to 2015, noted in an interview, «experimenting could be the key word for safeguarding publishing»¹⁶. Cue Press embraced this approach and sought to offer curated, original content through the use of digital formats that allowed for greater flexibility and interactivity.

One of the key characteristics that Cue Press sought to imprint on its digital products was the ability to offer a high-quality reading experience. As the company state on its website, its interactive e-books were designed to be «enriched with in-depth information, multimedia elements, and tools for studying, reviewing and memorizing». The graphics of these e-books were also designed to ensure maximum accessibility on any device, and they could be enjoyed online via advanced browsers¹⁷.

In addition to enhancing the reading experience, Cue Press also recognized the potential of digital publishing to recover and preserve texts that might otherwise be lost. As the company stated in an interview, «the idea of a closed and finished product will disappear, the book will be an open and evolving work»¹⁸. This approach to digital publishing not only allowed Cue Press to bring new life to older texts, but it also opened up the possibility for the company to explore new forms of storytelling and reader engagement through the use of multimedia elements such as videos, photographs, and interviews.

Since the birth of Cue Press, the industry has evolved. While the proliferation of e-books, has led to a growing e-books market, it has not yet displaced the traditional paper format as the preferred medium for reading and scholarly research. In fact, the market for e-books has been observed to have exhibited a positive growth trajectory, with a notable increase in Italy, where the e-book market grew by 37% in terms of value, between the years 2019 and 2020 (**Fig. 3.1**) (Filardo, 2021).

This can be attributed to the increased accessibility and convenience provided by digital technology, as well as the widespread adoption of e-readers and other digital devices. Additionally, the emergence of digital platforms and online retailers has made it

14 <https://www.cuepress.com/news/intervista-come-nata-cue-press-catanese>

15 <https://www.cuepress.com/news/intervista-come-nata-cue-press-catanese>

16 <https://www.cuepress.com/news/ribalta-digitale-consoli>

17 <https://www.cuepress.com/interactive-ebook>

18 <https://www.cuepress.com/news/cue-edizioni-digitali-teatro-bettocchi>

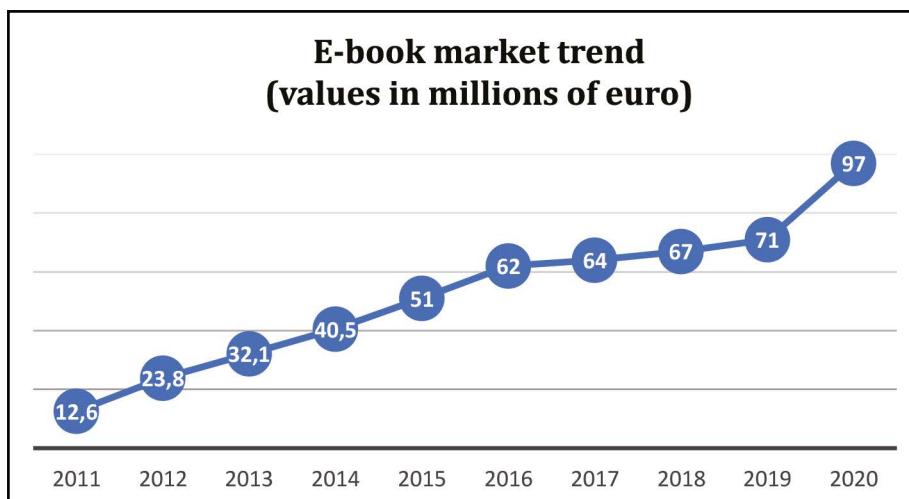


Fig. 3.1
E-book market value trend (2011-2020) (Filardo, 2021).

easier for consumers to purchase and access e-books, thereby driving the growth of the market.

Furthermore, the COVID-19 pandemic has accelerated this shift towards digital consumption, with lockdowns and social distancing measures leading to a surge in the demand for e-books (Kodama, et al., 2021). This trend is expected to continue in the foreseeable future, with the e-book market projected to grow at a compound annual growth rate (CAGR) of approximately 2.75% during the period 2020-2025¹⁹.

It's worth mentioning that, although e-books are often cheaper than their print counterparts, the convenience and utility of print books means that paper formats are still in high demand. This is especially true in the scholarly research community, where print formats are still viewed as the most reliable and credible medium for disseminating information (Blummer, Kenton, 2020).

In one of the most recent interviews, Cue Press director Mattia Visani does not deviate much from the vision that animated the publishing house ten years ago: he still sees the book as a project and still relies on the proprietary publishing platform created in collaboration with ChiaLab. As he himself stated, at Cue Press «the book ceases to be an object and becomes a project», where the content can be accessed outside the individual publication, which «is no longer something we forget on the shelf, but an interactive, multimedia element». In line with this vision, the interactive e-books from Cue Press include multimedia elements such as audio, videos of performances, and images, which can be accessed via the web platform created in collaboration with the software house ChiaLab. This approach allows for an immersive reading experience that goes beyond the traditional print book and enhances the overall understanding of the content²⁰.

The classic e-pub format does not lend itself well to the graphically and typographically complex volumes published by Cue Press. To overcome this problem, in addition to distributing their books in this format, that the publishing house has developed the special

19 <https://www.statista.com/outlook/amo/media/books/ebooks/worldwide>

20 <https://aboutbologna.it/cue-press-casa-editrice-digital-first-arti-spettacolo/>

interactive book format that is only usable on their platform, in order to differentiate their products from those of their competitors by offering a unique and interactive reading experience that is not available elsewhere. Additionally, by using a proprietary platform, Cue Press is able to better control the distribution and sales of their interactive eBooks, leading to increased revenue. The company also wants to use the interactive features to encourage readers to spend more time using the platform, increasing engagement and building a loyal customer base. Furthermore, the format lends itself better to scholarly non-fiction due to the in-depth analysis, multimedia elements, study, review and memorisation tools.

3.2.2 Remote work

The Cue Press publishing house is not exclusively a remote work environment, but rather a mixed one that combines both remote and on-site work (**Fig. 3.2**). The editorial department, for example, has a physical work location where two people are permanently based, as well as a rotation of contributors and trainees. This physical location serves as a hub for collaboration, communication, and decision-making within the department, and it provides a sense of community and connection for those who work there.

At the same time, the company's editorial, graphics, and marketing departments also make use of remote work teams, which allow employees to work from home or other locations outside of the office (the publishing house has a marketing and communication office located in Bologna). This arrangement allows the company to tap into a wider pool of talent, as it is not limited to hiring employees who live in the local area. It also allows the company to be more flexible and agile in terms of how it allocates resources and organizes its work, as it is not tied to a specific physical location and allows, in the words of Mattia Visani himself, to «overcome localism thanks to digital»²¹.

3.2.3 Environmental concerns

Here, considerations that emerge from reading the points concerning environmental impact in the company's Code of Ethics and Sustainability Report are presented. Cue press' attention to the environment is limited to what is found in these two documents. Cue Press did not adopt a Code of Ethics until 2022. The document, which has five pages of social and moral rules drawn up by the company, has not yet been approved by the board in its final draft during the processing of this study. On the other hand, the Sustainability Report, drawn up between January 2021 and July 2022, has sixteen pages and is the

21 <https://www.cuepress.com/news/anno-svolta-conquisteremo-digitale-sughi>

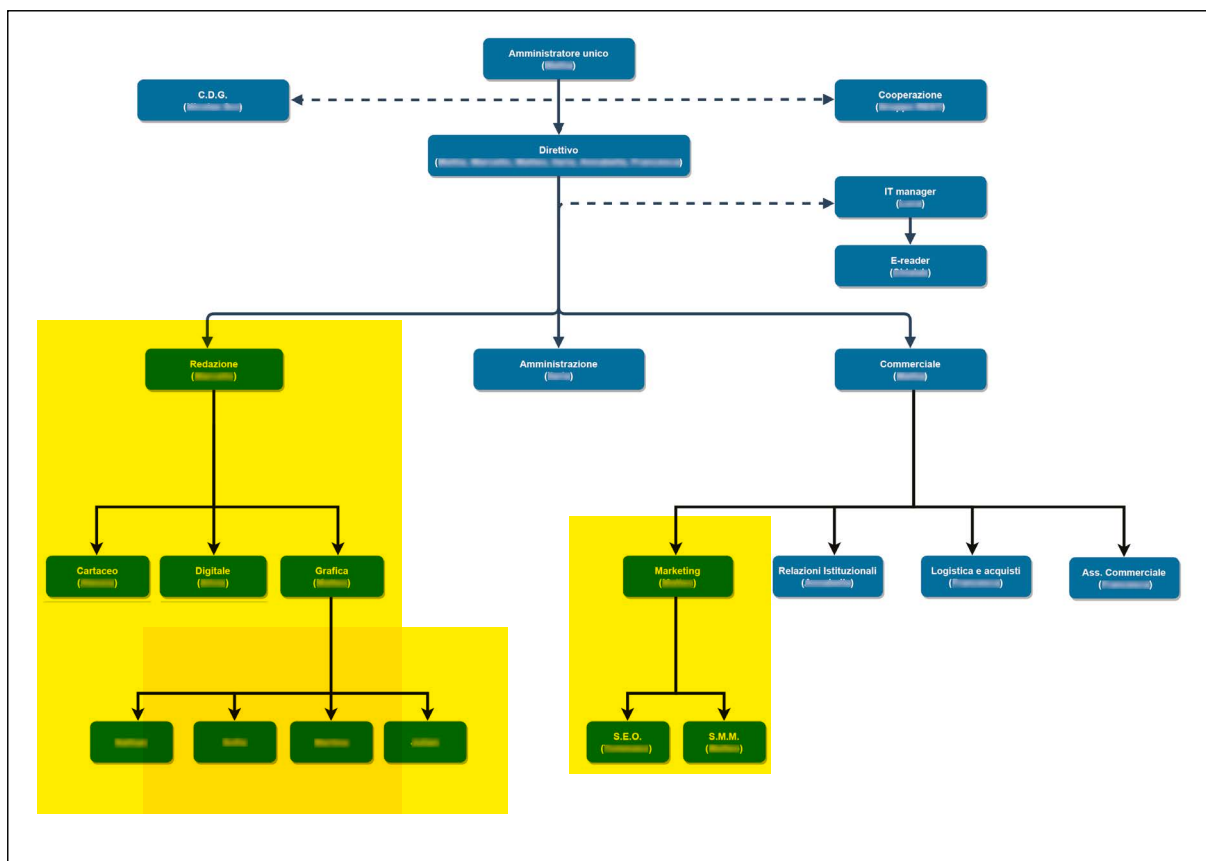


Fig. 3.2
Organigram of Cue Press. Remote departments are highlighted in yellow (own elaboration).

document addressed to all stakeholders communicating commitments and achievements in the field of Corporate Social Responsibility.

Point 4.11 of Cue Press’s Code of Ethics regarding environmental protection commits the company to protecting the environment. It states that «safeguarding the environment is central to Cue, which directs its activities towards respecting the balance between economic initiatives and environmental needs and takes into consideration the rights of future generations». The text of the Code of Ethics highlights some of the actions taken by the company to address environmental issues, such as «the use of innovative technologies to make the best use of energy and natural resources, the promotion of an eco-sustainability culture through internal communication activities, and the promotion of purchasing policies that are sensitive and consistent with environmental issues».

It can be noted that the commitment of the publishing company to environmental protection appears concrete and well-structured. However, it would be beneficial to have more information about the actual impact that the actions taken have had in terms of reducing greenhouse gas emissions and the impact on the ecosystem. Overall, committing to environmental protection is a crucial aspect for modern companies, and Cue Press appears to have taken some actions to address this challenge.

The excerpt from Cue Press’s Sustainability Report concerning environmental

protection highlights the company's commitment to minimizing its environmental impact. The report states that «the company's environmental policies and management systems focus on separating waste and minimizing consumption of paper, electricity, and gas». Additionally, the report highlights that «Cue Press uses a district heating system which helps in reducing the consumption of fossil fuels and the consequent considerable reduction of local pollution, and also the adoption of water-saving taps for more parsimonious use of water». However, the report also indicates that apart from the standard consumption mentioned above, the company does not have other significant consumption mainly due to the fact that «Cue Press works mainly in the digital world and that many activities are outsourced». The report also mentions that there is a lack of information on resources used, impacts on the environment and mitigation activities.

In summary, Cue Press's Sustainability Report indicates that the company has implemented certain environmental policies and management systems, such as a district heating system, water-saving taps and waste separation, however, the report also highlights some information gaps, such as the company's own environmental impact, supplier's environmental impact, resources used and impacts on the environment.

3.3 Inside the remote teams

Cue Press has implemented a decentralized team structure, comprising of three distinct remote teams: graphic design, marketing, and editorial. This section will present the information and data gathered during the interviews with the remote project managers of each team. These interviews were conducted as a means of obtaining a comprehensive understanding of the unique challenges and successes of managing remote teams within the context of the publishing house. The raw data, in the form of the complete transcripts of the interviews, are available in the appendix section of this work.

3.3.1 Graphic Design

The graphic design team at Cue Press is a remote team that deals with books layout and graphic editing. It is made up of a senior graphic designer (the project manager) and four external collaborators, two of whom are based abroad in Malta. The team operates by tracking progress and job assignments on a Trello board (a web-based, Kanban-style²², list-making application²³), which is managed by the project manager. Collaborators are

22 Kanban is a simple method for project management, which is based on the principles of visualising the workflow and limiting work in progress. <https://kanbantool.com/it/modello-kanban>

23 <https://trello.com/>

notified when a job is assigned or changes status, but they do not have direct access to the board. The team generally works on jobs individually, as the frequency of activation of remote resources can be low. There are no regular collective meetings, but collective training sessions are held on Google Meet (a video-communication service developed by Google²⁴) or in-person when possible. The team «follows some common lines which also concern, for example, how to track the amount of work performed, how to deliver the work, how to use communication tools such as e-mail or Slack (an instant messaging software²⁵)». The volume of communication and file sharing within the graphic design department is «about 300 mails a year. Number of files, often of large dimensions (drafts of books and images), exchanged with untracked WeTransfer²⁶ (several dozen). Little or no video calls. Few messages on Slack». The team has experienced some challenges with remote collaboration, such as a slower process and «due to remote team characteristics and when an initial common training moment is missing (or the initial one is long past) several reviews of the delivered jobs are required». Despite this, «all the books on which remote team work was carried out were a good result and benefited from the work in team mode».

3.3.2 Marketing

The marketing team at Cue Press is responsible for the online communication of the publishing house, including tasks such as Google positioning, social media management, e-mail marketing, multichannel content production, and metrics. The team is led by a project manager who designs the strategy, creates most of the content, and coordinates the team members. The team also includes a permanent external collaborator (an SEO specialist²⁷) and occasional collaborators such as social media managers, photographers, videomakers, and copywriters. The team also includes trainees from universities or specialized schools, who collaborate in the communication activities and are considered full members of the team during their traineeship. The team typically works with 3-5 members. A collaborator is considered remote when he or she «works remotely from the project manager».

The team operates remotely and tracks progress on jobs, loads, and job assignments via a Trello board (**Fig. 3.3**). The team meets bi-weekly on Google Meet to discuss work done, work in progress, and work to be done, using Kanban methodologies. Then work is discussed individually among those who have to deal with it via Slack, e-mail, restricted

24 <https://meet.google.com/>

25 An instant messaging software <https://slack.com/>

26 A service for transferring files <https://wetransfer.com/>

27 Search engine optimization (SEO) entails the systematic enhancement of website traffic volume and quality to a web page or website, originating from search engines (Giomelakis, Veglis, 2016).

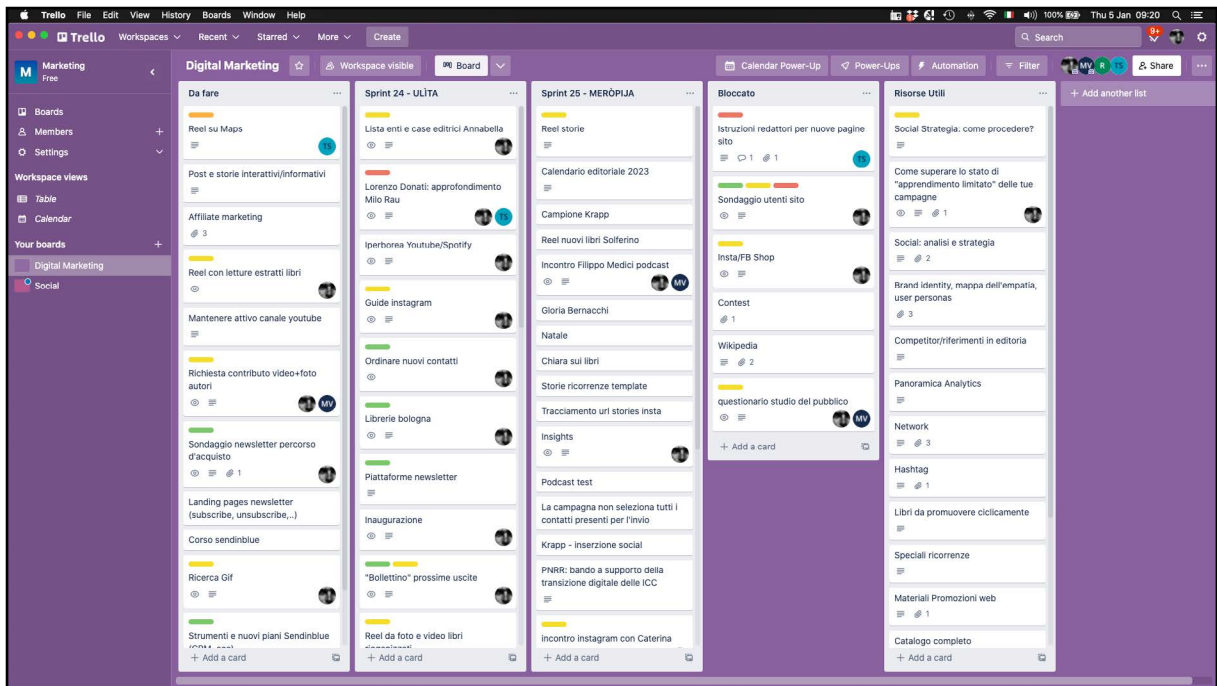


Fig. 3.3
Trello board of the marketing team
(own elaboration).

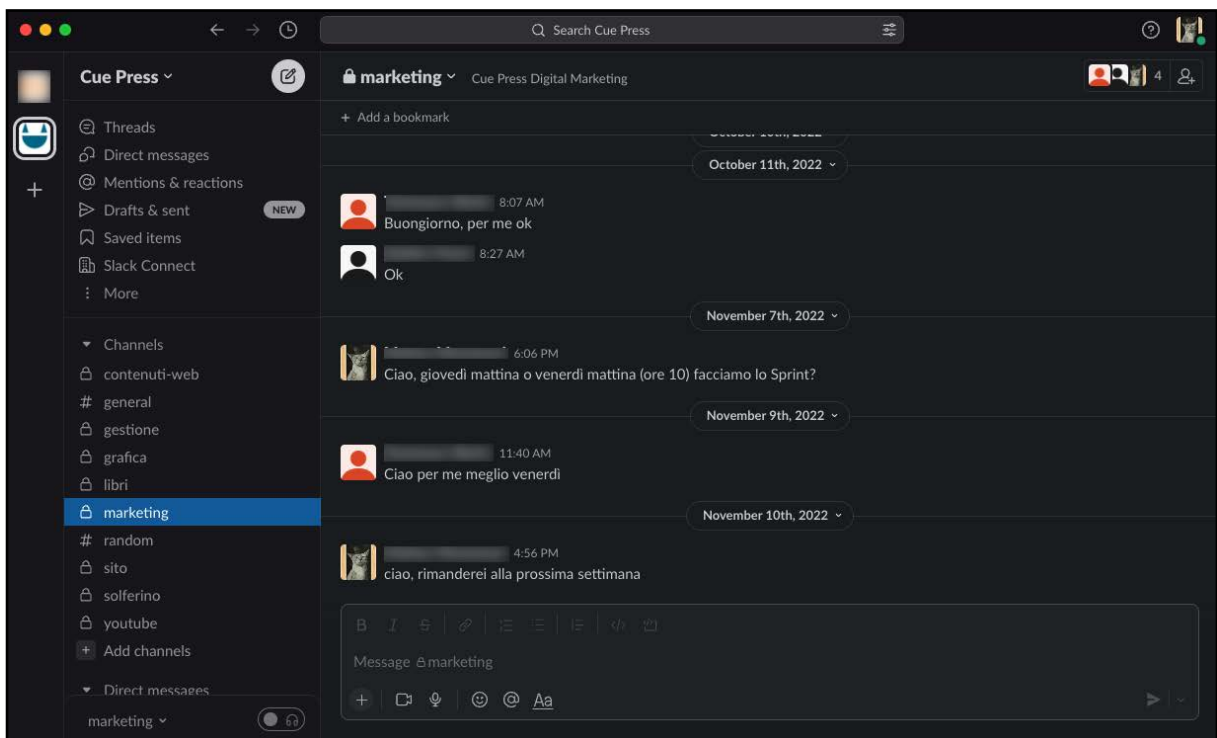


Fig. 3.4
Chatting on Slack to arrange an online meeting
(own elaboration).

Google Meets, and rarely by phone. The team members can meet in the Bologna office dedicated to communication and marketing whenever possible or necessary.

The volume of communication and file sharing within the marketing department is moderate, with an average of «10 mails per day. An average of 1-2 hour of video calls per week. At least 2-3 messages on Slack per day, often exchanging images or videos».

Cue Press defines and manages remote collaboration in the context of marketing projects by having all contributors work remotely, with the possibility for those who live in proximity to the headquarters to occasionally work on site. The use of remote teams and remote work in the marketing department can slow down the processing of projects and require several reviews of the delivered jobs when an initial common training moment is missing or has passed since long time. However, the team has had successful remote marketing projects and collaborations in recent years, with tasks that were carried out in team mode resulting in a good outcome. The increased use of digital technologies and production methods has also facilitated the remote collaboration in the marketing department: «without these technologies, a production of this size in such a short time would not be possible ».

3.3.3 Editorial

The findings from the interview with the remote project manager of the editorial department at the Cue Press publishing house reveal that the editorial team is responsible for working on the texts of books, which includes exchanging drafts with authors and translators, and typesetting the texts. The team is coordinated by an editor-in-chief who works in the main office, and includes one to three external editors per project, who all work remotely from various cities in Italy. The team members communicate and collaborate using tools such as e-mail, telephone, Dropbox (a file hosting service²⁸), Wettransfer, Trello, and WhatsApp (an instant messaging service²⁹). The use of remote teams and remote work within the editorial staff affects the efficiency and quality of the work, as the process is sometimes slowed down due to the remote team characteristics, and multiple reviews of the delivered jobs are required. However, the incorporation of digital technologies and production methods has allowed Cue Press to maintain the quality and consistency of the work, and has had a positive impact on the company's operations and business model. Overall, the interview to the project manager suggests that the use of remote teams and digital technologies has enabled Cue Press to efficiently produce a large volume of work in a short amount of time.

28 <https://www.dropbox.com/>

29 www.whatsapp.com

3.3.4 Challenges and strategies

In the interviews with the remote project managers of the graphic design, marketing and editorial departments of the publishing house, a range of challenges and problems that can be encountered when working remotely has been discussed, as outlined in the literature by some researchers (**Fig 3.5**) (Machado, 2021).

They noted that some of the difficulties, such as working longer hours and adapting to a new way of working, are not perceived as significantly different from the normal working mode. However, the need for effective communication, both within the team and with external collaborators, is a major issue, as the need to manage the balance between personal and professional life. The use of technology for communication is sometimes

ID	Challenges	Count
CH1	More work hours to ensure productivity and projects flow	23
CH2	New work mode	21
CH3	Excess of information	18
CH4	Social isolation and loss of contact	17
CH5	Communication with the team and among team members	14
CH6	Absence of appropriate space work could lead to anxiety and depression for team members	13
CH7	Immediate communication dependency	12
CH8	Online tools and new technologies learning	11
CH9	Lack of team commitment	10
CH10	Technological, organizational and personal problems	10
CH11	Lack of collaboration and trust within team members (among them and with the organization – synergy)	09
CH12	Individual and group activity integration	07
CH13	Presence of conflict between personal and professional life	07
CH14	Processes and control activities	06

ID	Best Practices	Count
BP1	Daily Meeting	28
BP2	Taking care of inter-personal relations	21
BP3	Self-managing time	21
BP4	Planning of remote meeting	21
BP5	Encouraging the routine culture	17
BP6	Virtual rooms	15
BP7	New tools training	13
BP8	Hours flexibilization	13
BP9	Celebrate	12
BP10	Financial support	10
BP11	Create virtual communication channels focused on the well-being and health of team members and their families	09
BP12	New collaborative tools	07
BP13	Review of companies' objectives	06

Fig. 3.5
Remote project management challenges and best practices experienced during Covid-19 pandemic (Machado, 2021).

problematic, leading to misunderstandings and impacting collaboration and trust within the team. Self-learning and self-organization were found to be critical in effectively managing remote work, as well as an adequate work space and the ability to manage one's time and place of work. While the excess of information and the difficulty in transmitting information remotely are major problems for the editorial department, the lack of commitment on the part of the team was noted as a challenge for both the graphic design and marketing departments. The integration of individual and group activities was not reported as a problem. Overall, the remote project managers emphasized the importance of self-learning and self-organization, and noted that remote work can better manage the balance between personal and professional life «thanks to the remote and flexible mode», but also highlighted the challenges that arise, particularly in terms of communication and collaboration.

In the interviews, strategies were discussed for managing and resolving the challenges faced in remote working. The managers acknowledged that some issues, such as the need for longer working hours and the need to adapt to new work modes, are not significantly different from traditional working methods and do not require specific interventions. However, they also implemented strategies to tackle other challenges such as social isolation and loss of contacts. To address these challenges, the managers organize real-life encounters and provide non-work related online channels for leisure and chatting. They also provide alternatives for team members who lack an adequate work space and clarify the use of communication tools.

The remote project managers face several challenges while managing remote teams and, to address these challenges, they implement various strategies. To learn new tools and technologies, the project manager encourage self-learning and organize live meetings and distance support for training. To deal with the lack of commitment, the project managers motivate the team. To address technological, organizational, and personal problems, and to improve collaboration and trust within the team and the organization the project managers engage in one-to-one calls on Google Meet to listen and understand the team's issues, and do everything possible to solve or minimize them. To deal with difficulties in integrating individual and group activities, the project managers schedule group calls for common alignment moments. The project manager noted that conflicts between personal and professional life are normally resolved by team members themselves, and «certainly better managed thanks to the remote and flexible mode».

The project managers employ a multi-faceted approach that focus on motivating the team and providing support and training. To address the need to learn new tools and technologies, they provide resources for self-learning, as well as organize live meetings for training. To combat the lack of commitment from team members, the project managers keep the team motivated. To address technological, organizational and personal problems, and to listen and understand the team's challenges and take action to minimize them, the

project managers engage in one-to-one calls, either on Google Meet or in person. Even to address the lack of collaboration and trust within the team and with the organization, the project managers use one-to-one calls as a mean to understand and address the team's problems. To resolve difficulties in integrating individual and group activities, group calls to facilitate common alignment are scheduled. The project managers also noted that conflicts between personal and professional life are often resolved by team members themselves.

The editor-in-chief feel that his approach effectively addressed the challenges faced by the remote editorial team, including social isolation («the lack of contact with external collaborators with whom one has less contact and whom one cannot identify with a face but only by name is somewhat felt»), work space («points and instructions have been included in editorial guidelines and standards to try to prevent this problem»), and team collaboration and trust. By providing real-life encounters, training, and support, the project manager helped ensure the productivity and success of the remote editorial team.

Experience and thoughts on various strategies for dealing with problems in remote working were presented to the project managers. They were asked to rate the usefulness of each strategy on a scale of 1 to 5 and provide details on how they would implement them.

The remote project manager in the editorial department noted the importance of interpersonal relations and self-management of time for remote working success, with a usefulness score of 5 and 3 respectively. Despite daily meetings being not feasible in any department «due to the distance and the fact that many collaborators are not full-time on the project», the managers suggested planning extra-work moments such as having a drink together and participating in cultural activities, and having regular phone calls to listen and understand the team's problems. The marketing project manager already scheduled bi-weekly Google Meet with the marketing team but suggest if the budget allowed, it would be «ideal to have a monthly meeting with the marketing team in more depth (mixed live/remote) and a monthly meeting involving marketing and the entire editorial team. As for the graphics team, at least two meetings per year (mixed live/remote) would be useful».

Other strategies such as virtual rooms, providing training on new tools, offering flexibility in working hours, and financial support were rated as highly useful, with an average score of 4.3. The project managers acknowledged challenges such as social isolation and difficulties in communication, but implemented strategies such as real-life encounters, promoting self-organization, and motivating the team to address these issues. Encouraging a culture of routine was reported as being difficult due to «the often temporary nature of collaborations and the personal nature of each employee's routines» and assigned a usefulness score of 4. The marketing and graphic project manager suggested «getting all co-workers to set software such as Slack and Trello to open automatically at computer start-up would be a good implementation strategy».

Celebrating achievements was considered not done enough and was assigned a score of 4. The managers also emphasized the importance of providing solutions to technological, organizational, and personal problems that are more frequent in remote work. The average score of all the strategies is 3.3, which indicates that the strategies are generally perceived as useful by the project managers. However, it is important to note that some strategies are more feasible to implement than others and the usefulness scores may vary depending on the specific context and resources available.

In addition, the managers reported that, while some challenges such as social isolation and difficulties in communication with team members were perceived, they were not unique to remote work. However, the managers acknowledged that technological, organizational, and personal problems were more frequent in the remote working mode and were resolved more or less quickly depending on the self-learning ability of employees or the project manager's ability to provide solutions.

The remote project managers from Cue Press' graphics, marketing and editorial departments were interviewed also to assess the enablers and micro practices for increasing shared understanding within the team, as outlined by Kniel and Comi (2021) (Fig. 3.6).

Results showed that reliability and transparency were rated highly, with scores of 5 and 4 respectively. The enabler of shared experience was also rated 4, with the project managers emphasizing the importance of building shared experience through training and face-to-face interactions. Face-to-face meetings were rated 4 as well, but the project managers stated that the teams «don't get as many as we would like. When time and budget allow, we try to increase the frequency, even when we don't strictly need to».

4 SAGE Open

Table I. Shared Understanding: Elements, Enablers, Barriers.

Team types	Elements	Enablers	Barriers
Co-located teams	Team, task, competence, process, context (Badke-Schaub, Neumann et al., 2007).	Face-to-face communication, project management, project organization (Kleinsmann & Valkenburg, 2008). Ability to transform knowledge, equality of language, efficiency of information processing, quality of project documentation, organization of resources, allocation of tasks and responsibilities (Kleinsmann et al. 2007). Use of visual artifacts (Goldschmidt, 2007). Development of an explicit frame of reference (Van der Bijl-Brouwer & Van der Voort, 2014).	Lacking face-to-face communication, project management, project organization (Kleinsmann & Valkenburg, 2008). Lacking ability to transform knowledge, equality of language, efficiency of information processing, quality of project documentation, organization of resources, allocation of tasks and responsibilities (Kleinsmann et al. 2007).
Remote teams	Goals and objectives, tasks, roles and responsibilities, teams (Hinds and Weisband, 2003). Shared vision, solution understanding, and role	Similarity among team members, shared experiences, and sharing of information (Hinds and Weisband, 2003). Company and project goals, use of technology (Jordan & Adams 2016). Previous experience and skills of team	Lacking similarity among team members, shared experiences, and sharing of information (Hinds and Weisband, 2003).

Fig. 3.6
Shared understanding: elements, enablers, barriers
(Kniel and Comi 2021).

The project managers highlighted the efforts made to increase transparency and the importance of reliability, shared experience and face-to-face meetings in increasing shared understanding and running the project smoothly. However, they acknowledged that some enablers such as team spirit, visualisation of information, and online updates are limited by budget and the nature of the work. Strategies are provided to implement the key enablers, such as prioritizing face-to-face interactions, actively listening to and addressing team members' issues, planning regular extra-curricular activities, scheduling regular in-depth calls with team members, and sharing tips and advice.

The results from the interviews indicate that there are several obstacles to building shared understanding among remote teams, as identified by Kniel and Comi (2021). One of the main challenges is the difficulty in sharing information effectively, which can lead to insufficient moments of information sharing to allow everyone to understand and deepen their knowledge. To address this challenge, teams try to share information as much as possible, constantly monitoring the understanding of remote collaborators, and offering one-to-one meetings to deepen when necessary.

Another obstacle is cultural differences among team members, although this challenge was not considered to be significant, happening «more often from experience due to young age or field of origin» with teams trying to iron out differences quickly through documentation and explanations when a new person join the team «by providing documentation and articulate explanations». Additionally, the remote project managers noted that teams often struggle to make decisions in a collaborative manner, lacking the «ability as a team to steer all visions more decisively and concretise them into a common decision». The average score for usefulness was 3, highlighting the need to address these obstacles to improve shared understanding among remote teams.

The results of the interviews indicate that the organization is aware of the challenges of building shared understanding in remote teams and is actively working to address them. Kniel and Comi's (2021) study recommends several practical implications for design practice, which Cue Press has already implemented or plans to implement. Key strategies include establishing ground rules for remote collaboration, such as Sprint management (a sprint is a short period of time in which a team works together to complete a certain amount of work³⁰) of the marketing team, control and organization of tasks on a shared Trello board, and use of Slack and e-mail for communication and exchange of materials. In the graphics team «a guideline document indicates how best to manage remote work, including how to manage files, tools to be used, how to track time and progress, and deadlines. A desirable improvement would be to draw up similar guidelines also for the marketing team and, vice versa, to adopt Sprint-style working methods also in the graphics team». The organization has also assigned clear roles and responsibilities to team members to promote transparency «but sometimes due to rapid staff turnover or work fragmentation

30 <https://www.atlassian.com/it/agile/scrum/sprints>

responsibilities and roles are not clearly established». Additionally, the organization tries to strike a balance between information overload and information scarcity by providing «accessible and complete information that can be used independently by collaborators when they need it». The organization also uses visualizations of information to provide an overview of the big picture, which can help maintain focus on the project's goals. However, it is worth noting that the organization rates the usefulness of the last strategy lower than the others, indicating that there is room for improvement in this area. The organization's score averages at 4, indicating that the strategies being implemented are useful and effective in addressing the challenges of building shared understanding in remote teams.

3.3.5 Remote work and environmental impact

The increasing adoption of remote work, particularly in the wake of the COVID-19 pandemic, has become a prevalent trend in today's world, with many organizations, including publishing houses like Cue Press, embracing this trend as a means of maintaining business continuity (Ferreira et al., 2021). However, as with any organizational change, it is important to consider the potential impacts of remote work on the environment, as well as the sustainability of the organization's operations.

Sustainability management is a critical aspect of organizational governance, and the environmental impact of remote work processes is an important consideration. As discussed in Chapter 1, remote work processes have the potential to lead to increased energy consumption and carbon emissions, and with the proliferation of digital technology and the increasing adoption of remote work practices, it is essential to examine the potential environmental impact of this trend (Hook et al., 2020; Schupak, 2021; Ku et al., 2022; Shreedhar et al., 2022).

To this end, an investigation was conducted to assess the environmental impact of remote work processes at Cue Press, specifically by interviewing the company's remote project managers. The results of these interviews indicate that there is a lack of information and initiatives regarding environmental concerns related to remote work within the organization. Specifically, the company does not have any data on the energy consumption of the devices and equipment used for remote work, the transportation methods used by employees, or the waste generated while working remotely. Furthermore, it appears that the company is not currently taking any steps to encourage employees or collaborators to adopt sustainable practices while working remotely.

In conclusion, this study has highlighted the need for increased awareness and implementation of sustainable practices in the remote work environment within Cue Press. The lack of data and initiatives in this area highlights a significant gap in the company's sustainability management. The findings of this study indicate that there is a critical need

for Cue Press to undertake methods to measure and mitigate the environmental impact of its remote work processes. The the next chapter will suggest practical strategies on how to deal with this problem.

4. FINDINGS AND SUGGESTIONS

In the first chapter, a literature review was conducted to systematically appraise the existing body of research on the digitization of the publishing industry and its environmental impact, digitization and remote work, and remote work and environmental impact. The literature review aimed to identify key research gaps and explore the current state of knowledge in these areas. The second chapter provided an in-depth study of the Italian publishing industry and its salient characteristics in relation to the aforementioned topics, to furnish a comprehensive understanding of the sector and its current state in relation to the research topic. The third chapter presented the findings of a case study on the Cue Press publishing house, which is a small and specialized publisher based in Italy.

In this final chapter, the information gathered from the literature review and case study will be analyzed and compared to identify any new or unexpected insights. Additionally, a theoretical contribution will be provided by outlining a process model for digitalization, identifying the key phases and requirements for successful digitalization in publishing organizations. The chapter will also suggest best practices and remote management tools for making digitalization more effective and sustainable in this kind of organizations.

Finally, the chapter will put forward hypotheses for future studies in the area of digitalization and remote work in the publishing industry. This will include suggestions for further research on the environmental impact of digitalization, as well as potential strategies for improving the effectiveness of remote work in the publishing industry.

4.1 Findings

Cue Press was founded in 2012 with a unique approach to digital publishing, fitting into the radical transformation taking place in the publishing industry following the introduction of digital technologies. The company aimed to enhance the traditional reading experience by offering high-quality, interactive e-books with additional multimedia elements and tools for studying, reviewing and memorizing. Cue Press also sought to redefine the relationship between authors and publishers, with a focus on common work and profit and high royalties in exchange for low guaranteed minimums.

The company adopted a digital-first approach, targeting the niche market of scholars and enthusiasts of cinema and theatre and seeking to offer curated, original content through the use of digital formats that allowed for greater flexibility and interactivity. The company emphasized a focus on innovation and experimentation and sought to offer a high-quality reading experience with accessible contents on any device. The company also

recognized the potential of digital publishing to recover and preserve texts and opened up the possibility for new forms of storytelling and reader engagement.

4.1.1 E-publishing effect

Cue Press has not passively suffered the e-publishing effect which has significantly impacted the industry (Carreiro, 2010), but it is one of those companies born on the wave of it. It has adopted a strategic approach to the digital publishing market, focusing on providing high-quality, interactive e-books that cater to the reader's need for multimedia content and learning tools. The company has faced the challenge of the limitations of the traditional e-pub format and overcome it by developing a proprietary platform that enables the creation of its unique interactive book format. This format is better suited to graphically and typographically complex volumes and is aimed at differentiating Cue Press' offerings from those of its competitors. The platform also allows the company to control the distribution and sales of its interactive e-books, leading to increased revenue and customer engagement. The multimedia book format is aimed at offering readers an enriched and interactive reading experience that is not available elsewhere.

4.1.2 Environmental impact

The preference for the digital product and the adoption of Print On Demand technologies right from the start place Cue Press among the publishing houses that exploit new technologies to produce with a reduced environmental impact compared to the traditional publishing industry, linked to paper and big productions (Borggren, Moberg, Finnveden, 2011). The publishing house approaches environmental impact through its Code of Ethics and Sustainability Report. The company's Code of Ethics states its commitment to environmental protection, including the use of innovative technologies, promotion of an eco-sustainability culture, and sensitive purchasing policies.

However, there is a lack of information on the actual impact and verification mechanisms for these actions. The Sustainability Report mentions environmental policies and office management systems, such as district heating, water-saving taps, and waste separation, but also highlights information gaps, such as the company's own environmental impact and that of suppliers. To have a complete picture of the company's environmental performance, it is important for Cue Press to gather more information, integrate sustainability into its supply chain management, and communicate more transparently about their environmental impact. It would be beneficial to have more information about the actual impact that the actions taken have had in terms of reducing greenhouse gas

emissions and the impact on the ecosystem. Additionally, it would be important to know if there are any verification and monitoring mechanisms in place to ensure that the company is meeting its commitments and achieving its goals.

To evaluate the validity and effectiveness of these actions, more information on the actual impact produced and the verification mechanisms implemented would be important. Furthermore, it would be crucial for Cue Press to promote environmental sustainability not only within the company, but also in external communication to create a positive environmental culture in society and the book industry.

The Sustainability Report also indicates that apart from the standard consumption, the company does not have other significant consumption mainly due to the fact that Cue Press works mainly in the digital world and that many activities are outsourced. This lack of information on the company's environmental impact might raise some questions about the transparency of the company's sustainability efforts. The Report also mentions that there is a lack of information on the supplier's environmental impact in terms of resources used, impacts on the environment and mitigation activities. This lack of information on the supplier's environmental impact can be an indication that the company has not yet fully integrated sustainability into its supply chain management.

To have a complete picture of the company's environmental performance, it would be important for Cue Press to gather more information and make it publicly available. Furthermore, it is important for the company to integrate sustainability into the supply chain management and communicate more transparently about their environmental impact.

4.1.3 E-commerce

Cue Press adopts a multi-channel distribution strategy for its books, encompassing traditional distribution through brick-and-mortar bookstores for print books and digital distribution through a third-party platform for e-books. Additionally, the firm also operates its own e-commerce platform for direct sales of both print and digital books.

Anticipating the widespread habit of buying books online among Italian readers, Cue Press immediately set up its own e-commerce for both paper and digital books. This strategy presents several benefits for the publisher. By selling books directly through its own platform, Cue Press has the opportunity to increase its profit margins and bypass intermediaries, potentially enhancing its revenue stream. Furthermore, the ability to sell e-books directly to customers allows for a wider reach, as e-books can be sold and distributed to customers globally. This can increase the publisher's customer base and market share. However, there are also potential drawbacks to this approach (Taher, 2021). Operating an e-commerce platform requires investment in technology and personnel,

which may be costly for a small publisher like Cue Press (Sin, 2016). Furthermore, managing both print and digital sales can be complex and time-consuming, requiring a significant investment in resources and expertise. From an environmental point of view, online purchasing processes have a lower environmental impact compared to traditional, offline purchases (Pålsson et al., 2017; Oláh, 2018; Osservatorio eCommerce b2c, 2019).

It's noteworthy that the environmental impact of purchasing items online is contingent on multiple variables, including the mode of transportation for the product, the products being bought, and the production and distribution efficiency. The distance the products are shipped also plays a significant role in determining the environmental impact.

4.1.4 Digitalization

Like many other small publishers (Ead, 2021; Bologna, Soru, 2022), Cue Press often rely on remote collaboration. The publishing house operates in a blended work environment that incorporates both remote and in-person work. The project manager of the editorial department works in the physical workspace where some employees are stationed full-time, and from there coordinates the activities of a remote team. On the other hand, the graphics and marketing departments use full remote work options, allowing project managers and employees to work from their own homes or other remote locations.

This allows the company to draw from a wider pool of talent and be more flexible and efficient in terms of resource allocation and work organization. The use of remote work brings for Cue Press a wide range of advantages, challenges and problems characteristic of this mode of work (Dieci, Fontani, 2012; Cavani, Soru, 2021). The main ones identified from the literature and from previous studies were extensively illustrated in Chapter 1, and were found in the interviews with remote project managers summarized in Chapter 3.

4.1.5 Remote work and environmental impact

The adoption of remote work has generally made it possible to reduce the environmental impact of most companies. However, scholars warn that it is important to continue studying the impact that new technologies have, and that it can potentially become very significant. As remote work practices become increasingly prevalent and digital technology continues to advance, it is crucial to assess the potential environmental impact of remote work processes. This is due to the potential for increased energy consumption and carbon emissions that may result from remote work. Examining this trend is necessary to understand its environmental impact and take steps to minimize it (Hook et

al., 2020; Schupak, 2021; Ku et al., 2022; Shreedhar et al., 2022). Cue Press to date has not yet equipped itself with the tools necessary to evaluate, monitor and reduce the impact of its remote work activities on the environment. The interviews to the remote project managers found that there is a lack of information and initiatives regarding environmental concerns within the organization. The company is lacking data on energy consumption, transportation methods, and waste generated while working remotely. Furthermore, no efforts are being made to promote sustainable practices among remote employees.

In order to better understand the impact of remote work, it is necessary for Cue Press to collect this information. This data can be used to implement sustainable practices that will reduce the environmental impact of remote work and ensure the company operates in an environmentally responsible manner. The study highlights the need for increased awareness and implementation of sustainable practices in the remote work environment within the company.

Collecting this information would provide Cue Press with a good starting point to understand the environmental impact of remote working, and to identify areas where the company can make improvements. This data can then be used to inform and implement sustainable practices which can help reduce the environmental impact of remote working and ensure that the organization is operating in an environmentally responsible manner.

As the next paragraphs will suggest, practical strategies on how to deal with this problem, such as providing training and resources for employees on sustainable remote work practices, and conducting regular assessments of the environmental impact of the organization's remote work processes, can help the company to ensure that it is operating in a sustainable manner, and that it is contributing to the mitigation of climate change while working remotely effectively.

4.2 Suggestions

From the analysis of the case study and based on the comparison with the literature, it emerges that companies similar to Cue Press make extensive use of remote work but may not exploit it efficiently due to various types of limitations. Additionally, they often lack the tools, budget, or corporate culture to measure and restrain the environmental impact of remote work processes.

Drawing on the literature on project management, some suggestions will be hypothesized to make the remote work of a publishing house like Cue Press efficient and at the same time reduce and monitor the environmental impact of its remote work processes.

4.2.1 Optimize digitalization and remote work

To enhance the effectiveness of remote work management, a small publishing house like Cue Press should consider adopting or implementing the strategies and solutions recommended by remote project managers interviews and literature (Machado, 2021; Kniel, Comi, 2021). This process can encompass a variety of practices that must be championed by the organization (such as providing resources, time, and budget) and executed by project managers.

One approach could be to foster real-life encounters as often as possible, including opportunities for non-work activities and casual conversations. It's also important to establish online channels for leisure and socializing outside of work-related matters. Whenever possible, video calls should replace e-mail exchanges and phone calls. Team members should be well-informed on how to use the various communication tools and when and how frequently they should be checked. Additionally, allowing extra time for deliveries and planning ahead can also contribute to more efficient remote work.

Project managers can support their team by providing access to online resources for self-learning, offering distance support and organizing live training sessions. They should also be attentive to their team's concerns, by conducting one-on-one calls and regularly holding group calls (at least every 15 days) for alignment. Furthermore, the project managers should schedule regular calls with each team member (at least every 15 days) to check in and provide further training if needed. Whenever new tools need to be learned, in-depth and day-long training sessions should be arranged. Celebrating achievements and frequently testing new collaborative tools and methods can also be beneficial.

To ensure that everyone is on the same page, the organization should establish and follow common practices, such as adopting Sprint-style working methods and producing guidelines documents. Accessible and complete information should be available for all team members to access independently. By making the objectives more shared throughout the organization and communicating them effectively in special meetings, a shared experience can be built through joint training and work sessions.

Other literature, such as Arunprasad (2022) could be used to build a framework for effectively managing a remote workforce in a small publishing house. Arunprasad identify five organizational factors to achieve the desired outcomes of employee engagement, collaboration, and organizational agility (**Fig. 4.1**). By aligning this five key organizational factors, the publishing house can create an environment that promotes employee engagement, collaboration, and organizational agility.

Firstly, it is important to focus on technology orientation. By providing employees with the necessary tools and resources, they will be able to work effectively from remote locations. This includes ensuring that employees have access to reliable technology, communication tools, and relevant resources.

Secondly, strong leadership is crucial. Leaders must set clear expectations and promote open communication to guide and support employees. This will create a sense of direction and accountability, and ensure that employees have the information and guidance they need to be successful.

Thirdly, human resource management (HRM) practices play an important role in promoting employee engagement. By fostering a culture of trust, support, and recognition, employees will feel valued and motivated to perform at their best.

Fourthly, external processes must be established to facilitate effective teamwork and collaboration among remote employees. This includes ensuring that processes are in place for communication, decision-making, and information sharing.

Finally, it is important to promote an organizational culture of innovation and continuous improvement. This creates an environment that encourages growth, creativity, and learning, and fosters a sense of purpose and meaning for employees.

By prioritizing these five factors, the publishing house can create a framework that supports its remote workforce and drives better outcomes. A focus on technology orientation, leadership, HRM practices, external processes, and organizational culture will contribute to a more effective and productive remote work environment.

4.2.2 Reduce the environmental impact

One of the primary focus of this work is to identify and propose tools that can be used to analyze and reduce the environmental impact of the production processes used by remote or mixed teams in small and medium-sized enterprises in the cultural publishing industry.

Here are some suggestions for using project management tools to make remote work teams in a publishing house more sustainable. By using these project management tools, remote work teams in a publishing house can effectively track progress towards sustainability goals, mitigate risks and capitalize on opportunities, and promote a culture of sustainability. Additionally, by involving stakeholders and regularly evaluating the effectiveness of sustainability initiatives, it will ensure that the publishing house is on the

5 factors critical for the success of remote work	Outcome at different levels		
	Individual	Team	Organisation
Technology	Connect	Collaborate	Adapt
Culture	Identify	Share	Learn
Leadership	Influence	Self-manage	Change
Internal process	Direct	Be flexible	Evolve
External process	Acquire information	Boundary span	Differentiate
The final outcome for the organisation	Engagement	Collaboration	Agility

Fig. 4.1
Factors for success of remote work (Arunprasad, 2022).

right path towards sustainability. In order to ensure a sustainable future for the publishing house, it is important to establish clear goals and objectives related to sustainability, and to track the progress of remote work teams towards achieving these goals. To do this, a project management software like Trello or Asana (a tool for managing teams, projects and tasks¹) can be utilized to provide a centralized platform for setting and monitoring these goals.

Effective communication and collaboration are key elements for remote work teams to achieve sustainability goals. By utilizing communication and collaboration tools, remote teams can work together towards these objectives and foster a culture of sustainability. Additionally, decision-making tools should be used to create opportunities for team members to participate in decision-making related to sustainability.

Reporting and evaluation tools are also crucial in evaluating the effectiveness of sustainability initiatives, and using the results to inform future decision making. Furthermore, collaboration and communication tools should be used to engage with stakeholders outside of the publishing house, such as authors, readers, and industry experts, to gain a broader perspective on sustainability and identify new opportunities for innovation.

Here are some other suggestions adapted to the publishing environment and based on the framework presented by Marcelino-Sádaba, González-Jaen and Pérez-Ezcurdia (2015). Adopting sustainable practices in remote work teams in a publishing house requires a holistic approach, integrating environmental considerations into all aspects of the product innovation process. This includes incorporating a sustainability perspective early on in the process, utilizing the knowledge and experience of procurement staff, and assigning responsibility for sustainability implementation. Utilizing tools such as ecodesign methodologies, multi-criteria decision making, and Life Cycle Assessment (LCA)² can aid in balancing environmental and traditional design criteria.

It is important to incorporate environmental protection into project feasibility studies, in addition to traditional economic attributes. Value Management (VM) can be used as a practical tool to introduce sustainability into projects in the early stages of decision-making. Indicators can be used to assess the sustainability, taking into account factors such as environmental aspects. All stakeholders, including customers and consultants, should be incorporated into the assessment process to ensure their perspectives are considered. Assessment tools, such as checklists and simulation studies, can be used to ensure sustainability is taken into account proactively. Green provision, partnership agreements, and environmental declarations can be used to ensure that projects are sustainable. Holistic cost management should consider sustainability elements that do

1 <https://asana.com/>

2 A structured and internationally standardised method for quantifying the potential environmental impacts associated with a good or service from its resource consumption and emissions (ISO, 2009).

not influence the cost or even save costs. A comprehensive sustainability strategy should be implemented, involving input and participation from all stakeholders, both internal and external to the organization. This strategy should include the development of a framework for stakeholder participation in projects, with a focus on balancing personal economic profit with environmental aims, and a consideration of the “triple P” (people, planet, profit) and its potential negative effects. Multi-criteria analysis can be used to assess complex projects and balance the interests of multiple stakeholders. Additionally, sustainability criteria should be incorporated into the project life cycle, through mapping of stakeholder participation in upstream and downstream activities, and implementing a sustainable procurement process for materials, equipment, and services. The remote work teams should be encouraged to reduce their carbon footprint through green office practices and sustainable transportation options, and project management tools that prioritize sustainability should be utilized. A sustainability training program and continuous monitoring and reporting on progress should also be implemented to ensure the effectiveness of these efforts.

It is essential to implement a comprehensive project management system that incorporates principles of sustainability. This can include utilizing tools such as life cycle assessment and sustainability indicators to evaluate the environmental impact of projects and products. Furthermore, implementing a product life cycle planning and design strategy, utilizing techniques such as LCA, can ensure that products are designed with sustainability in mind from the start. The establishment of a sustainability committee, composed of employees from different departments, to oversee the implementation of these policies and identify new opportunities for sustainability within the company is also crucial. Regular assessment and reporting of the company’s progress in implementing these policies, as well as providing sustainability training and resources for employees, can help ensure the effectiveness of these efforts.

It is crucial to incorporate sustainability assessment as a key decision-making tool when selecting projects and choosing the most sustainable alternatives. Decision-making support systems such as the Analytical Hierarchy Process (AHP), Analytic Network Process (ANP) and Distance to Target (DT) method, Fuzzy rules systems (Enea, Salemi, 2001), Value Management, Cognitive reasoning maps, and Decision windows can be utilized to select sustainable projects. Transparency and involvement of different stakeholders in the decision-making process should be emphasized, along with the implementation of a reference framework to introduce the sustainability context within the decision-making process. At the organizational level, project management can be utilized as a tool for continuous learning, knowledge management, and innovation. Continuous monitoring and evaluation of these proposals is necessary, and project managers should be trained and certified in sustainable development and ethics as a fundamental skill in project management.

In conclusion, incorporating project management practices and fostering a culture of sustainability, as advised by Shreedhar, Laffan, and Giurge (2022), are key to effectively integrating remote work processes within a publishing house. To make remote work teams in a publishing house more sustainable, it is essential to incorporate a paradigm of environmental consciousness across all departments. This includes developing policies that yield co-benefits, such as environmental and financial benefits, and incorporating sustainability considerations into every corporate decision. To address remote employees' travel, technology, waste, and energy emissions, it is essential to address existing social norms and perceptions. Providing initiatives, tools, and tips to help employees adopt green behavior at home, adhering to existing environmental policies, and allowing employees to choose how they implement them are also crucial. To support employees, the company should encourage and support to change to renewable sources of energy at home, offer incentives for active travel, and provide recycling and safe disposal of duplicate or old electronic devices and electronic waste and establish a team or committee dedicated to sustainability.

5. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

5.1 Conclusions

The rise of remote work, coupled with the environmental impact of digitalization, has brought significant challenges for small and medium-sized cultural publishing houses seeking to balance efficiency, productivity, and environmental sustainability. The COVID-19 pandemic has accelerated this trend and highlighted the need for these publishing houses to reassess their strategies for remote work and environmental sustainability. The findings of this study indicate that small and medium-sized cultural publishing houses, like Cue Press, are extensively using remote work, but face significant challenges in leveraging it effectively and sustainably.

One key challenge facing these kind of companies is the lack of resources and financial allocation to assess and mitigate the environmental impact of remote work. Many of these publishing houses do not have the tools or expertise to effectively measure the carbon footprint of their remote work processes or implement sustainability initiatives. This is a major barrier to creating a culture of sustainability, which is essential to achieving long-term environmental goals. However, project management practices can offer a useful solution to this problem, enabling small and medium-sized publishing houses to allocate resources more effectively and create a culture of sustainability that aligns with their business objectives.

Another key challenge for small and medium-sized cultural publishing houses is the need to balance the benefits of remote work with the costs of reduced collaboration and communication. While remote work can provide significant benefits in terms of flexibility, productivity, and cost savings, it can also reduce collaboration, communication, and creativity. This can create significant challenges for project management and hinder the ability of teams to work effectively together. However, project management can also offer solutions to this problem, providing tools and frameworks for collaboration, communication, and decision-making that can help to overcome these challenges.

Finally, the findings of this study highlight the importance of ongoing research and innovation in the field of remote work and sustainability in this specific field. As the trend towards remote work continues to grow, these publishing houses will need to adopt new strategies and practices to effectively manage the environmental impact of their operations. This will require ongoing research and innovation in the field of remote work and sustainability, as companies seek to create a more sustainable and resilient future for themselves and the planet.

In conclusion, this study has highlighted the urgent need for small and medium-

sized cultural publishing houses to address the environmental impact of digitalization and the growing trend towards remote work. While there are significant challenges in this regard, project management practices can offer a useful solution to these challenges. By adopting project management practices, small and medium-sized cultural publishing houses can better assess the environmental impact of remote work, allocate resources more effectively, and create a culture of sustainability that aligns with their business objectives. Furthermore, ongoing research and innovation in the field of remote work and sustainability will be essential to achieving long-term sustainability goals and creating a more sustainable and resilient future for small cultural publishing houses and the planet.

5.2 Limitations

The limitations of this study include several factors that may have impacted the results. Firstly, the analysis was based on a single publishing house, which is small in size and has a rather short history of only ten years. This limits the generalizability of the findings to larger and more established publishing houses. Furthermore, the publishing house has limited resources and is not well-structured, which may have impacted the effectiveness of their digitalization efforts.

Another limitation of the study is that interviews were only conducted once and not at regular intervals to track the evolution of the topics studied. This may have resulted in an incomplete understanding of the changes that occurred in process over time. The study also did not focus on specific projects but rather only on the different remote areas. This approach may have missed important details that would have been revealed by a project-based analysis. Additionally, the effects of experimenting with different project management methodologies were not analysed, which could have provided valuable insights into how to improve the efficiency of the digitalization process.

The environmental impacts of the publishing house in the area of remote and on-site work were not scientifically measured. Given the increasing importance of sustainability in the publishing industry, this is a significant limitation. Similarly, the impacts of remote working on the psycho-physical health of employees were not thoroughly investigated. This is particularly relevant given the current global shift towards remote work and the potential impact on employees' well-being.

Moreover, the study did not consider the contractual and income issues resulting from the adoption of remote working, which could have provided important insights into the challenges faced by small and medium-sized publishers. Finally, the costs associated with the various working modes in the specific context of publishing houses were not analysed, limiting the understanding of the economic implications of digitalization in this sector.

5.3 Future research

This work is based on an analysis of the efficiency and environmental impact of the remote activities of a small Italian publishing house and a comparison with literature that has explored the issues of remote working, workflow digitisation and environmental impact. The main continuation of this research is the extension of the analysis to a larger sample of publishing houses, which in terms of size and characteristics can be compared with the case study. In addition, conducting interviews and research over an extended period of time analysing the evolution of conditions within an organisation can provide further useful elements for research. Analysing larger and more structured organisations with more extensive resources can contribute further insights to the study. Checking the conditions of the sector in different countries and economic areas is another topic that should be explored.

Future studies should aim to identify strategies for improving remote collaboration and communication and explore the environmental impact of remote work in publishing. Project management strategies such as Agile methodologies, virtual team management tools, and communication protocols will also need to be further investigated to improve the efficiency of remote work teams in publishing. These studies will provide valuable insights into how remote work can be effectively implemented and managed in the publishing industry, ultimately leading to improved outcomes for employees and the industry as a whole. The following are some of the key hypotheses and suggestions for future research in this area.

First, future research should investigate the potential for improving the efficiency of remote work teams in publishing through the implementation of specific project management strategies. This could include examining the effects of different project management strategies, such as Agile methodologies, virtual team management tools, and communication protocols, on remote work team performance. Second, it is important to understand the environmental impact of remote work in publishing and identify strategies for reducing its impact. Researchers could conduct a Life Cycle Assessment to compare the environmental impact of remote work with that of traditional office-based work, examining factors such as energy consumption, paper usage, and transportation emissions. Third, remote work teams in publishing may face specific challenges in terms of collaboration and communication. Researchers could conduct a qualitative study to explore these challenges, identify strategies for improving collaboration and communication among remote teams. Fourth, there is a need to investigate the impact of remote work on the mental and physical well-being of employees in the publishing industry. Researchers could examine the impact of remote work on work-life balance, stress levels, and overall well-being. Fifth, it is also important to understand the impact of remote work on the job market and labor force in publishing. Researchers could investigate the impact of remote

work on job losses and gains and identify opportunities for retraining and upskilling workers in the remote work environment.

In the context of small and medium-sized specialized cultural publishing, there are some additional considerations and hypotheses that should be investigated. For example, researchers could examine the specific challenges faced by these publishers in implementing remote work, including the impact on relationships with authors, quality control, and cultural identity. Financial challenges, such as the cost of virtual team management tools and the impact on revenue streams, should also be examined. Furthermore, the cultural specificities of small and medium-sized specialized cultural publishers should be taken into account, including the potential impact on the preservation of cultural heritage. Finally, research should consider the potential impact of remote work on diversity and representation in the industry, including the opportunities for more geographically diverse teams and the risks of perpetuating existing inequalities.

In summary, future studies in remote work in small and medium-sized specialized cultural publishing should focus on identifying and addressing the unique challenges faced by these publishers in implementing remote work, examining the financial and environmental impact of remote work, and considering the cultural and diversity implications of remote work in this specific field. This will provide valuable insights into how small and medium-sized specialized cultural publishers can successfully transition to remote work while maintaining their cultural identity and financial and environmental sustainability.

APPENDIX

Interviews

This section contains the full interviews with remote project managers from Cue Press. The interviews were conducted in January 2023.

Graphic design and marketing

Graphic design

Question: Describe the team and explain its operation and remote characteristics.

Answer: The graphics team deals with layout and graphic editing. It is coordinated by a senior graphic designer and made up of 4 external collaborators, two of whom are resident abroad (Malta). The whole team, including the project manager, works remotely. Progress on jobs, loads, and job assignments are tracked and managed via a Trello board. The bulletin board is used by the project manager to track work. Collaborators don't see it, even if they have access to it and get notified when a job is assigned or changes status (for example, from "in progress" to "done"). Normally the jobs are managed individually, also because the frequency of activation of remote human resources can be low (even a few months). There are no collective moments, but collective training sessions have been held on google meet or live when possible. The team follows some common lines which also concern, for example, how to track the amount of work performed, how to deliver the work, how to use communication tools (e-mail or slack).

Q: Can you explain the process and strategies your team uses for coordinating and managing remote graphic design projects?

A: Progress on jobs, loads, and job assignments are tracked and managed via a Trello board. The bulletin board is used by the project manager to track work. Collaborators don't see it, even if they have access to it and get notified when a job is assigned or changes status (for example, from "in progress" to "done"). Normally the jobs are managed individually, also because the frequency of activation of remote human resources can be low (even a few months). There are no collective moments, but collective training sessions have been held on google meet or live when possible. The team follows some common lines which also concern, for example, how to track the amount of work performed, how to deliver the work, how to use communication tools (e-mail or slack).

Q: How many team members and collaborators do you typically work with on a graphic design project and in what capacity are they considered "remote"?

A: It is coordinated by a senior graphic designer and made up of 4 external collaborators, two of whom are resident abroad (Malta). A collaborator is considered remote when he works remotely from the project manager.

Q: What tools and technologies do you use to facilitate communication and collaboration with remote team members and collaborators in the graphic design department?

A: Slack, e-mail, Trello.

Q: Can you provide any metrics on the volume of communication and file sharing within the graphic design department, such as the average number of emails and video calls per day?

A: About 300 mails a year. Number of files, often of large dimensions (drafts of books and images), exchanged with untracked WeTransfer (several dozen). Little or no video calls. Few messages on Slack.

Q: How does Cue Press define and manage remote collaboration in the context of graphic design projects?

A: Contributors are all remote. It may happen that those who live in the vicinity of the headquarters sometimes go to work on site. They are all managed by the reference project manager.

Q: How does the use of remote teams and remote work in the graphic design department affect the efficiency and quality of the projects?

A: Processing is often slowed down due to remote team characteristics and when an initial common training moment is missing (or the initial one is long past) several reviews of the delivered jobs are required.

Q: Can you share any examples of successful remote graphic design projects or collaborations that Cue Press has undertaken in recent years?

A: In general, all the books on which remote team work was carried out were a good result and benefited from the work in team mode.

Q: How does the increased use of digital technologies and production methods, such as graphic design software, affect Cue Press' operations and business model in the graphic design department?

A: Without these technologies, a production of this size in such a short time would not be possible.

Marketing

Q: Describe the team and explain its operation and remote characteristics.

A: The marketing team takes care of the online communication of the publishing house: Google positioning, social networking, e-mail marketing, multichannel content production, metrics. It consists of a project manager who is in charge of designing the strategy, creating most of the content and coordinating the team members. He is joined by a permanent external collaborator, the SEO specialist. With a cadence that depends on various factors, occasional collaborators such as social media managers, photographers, videomakers, critics are added to the team, whose integration into the team can take up to several months. Finally, trainees from universities or specialised schools, also from abroad, collaborate in the communication activities and are, for the duration of their traineeship, full members of the team.

The whole team, including the project manager, works remotely. Progress on jobs, loads, and job assignments are tracked and managed via a Trello board. The team meets bi-weekly on Google Meet to discuss work done, work in progress and work to be done, modelled on Agile/Scrum methodologies. Then work is discussed individually among those who have to deal with it via Slack, email, restricted Google Meetings and rarely by phone. Whenever possible or necessary, team members who can meet in the Bologna office dedicated to communication and marketing.

Q: Can you explain the process and strategies your team uses for coordinating and managing remote marketing projects?

A: Progress on jobs, loads, and job assignments are tracked and managed via a Trello board. The team meets bi-weekly on Google Meet to discuss work done, work in progress and work to be done, modelled on Agile/Scrum methodologies. Then work is discussed individually among those who have to deal with it via Slack, email, restricted Google Meetings and rarely by phone.

Q: How many team members and collaborators do you typically work with on a marketing project and in what capacity are they considered “remote”?

A: 3-5 members. A collaborator is considered remote when he works remotely from the project manager.

Q: What tools and technologies do you use to facilitate communication and collaboration with remote team members and collaborators in the marketing department?

A: Slack, e-mail, Trello, Google Meet.

Q: Can you provide any metrics on the volume of communication and file sharing within the marketing department, such as the average number of emails and video calls per day?

A: An average of 10 mails per day. An average of 1-2 hour of video calls per week. At least

2-3 messages on Slack per day, often exchanging images or videos.

Q: How does Cue Press define and manage remote collaboration in the context of marketing projects?

A: Contributors are all remote. It may happen that those who live in the vicinity of the headquarters sometimes go to work on site. They are all managed by the reference project manager.

Q: How does the use of remote teams and remote work in the marketing department affect the efficiency and quality of the projects?

A: Processing is often slowed down due to remote team characteristics and when an initial common training moment is missing (or the initial one is long past) several reviews of the delivered jobs are required.

Q: Can you share any examples of successful remote marketing projects or collaborations that Cue Press has undertaken in recent years?

A: In general, all the tasks on which remote team work was carried out were a good result and benefited from the work in team mode.

Q: How does the increased use of digital technologies and production methods, such as marketing software, affect Cue Press' operations and business model in the marketing department?

A: Without these technologies, a production of this size in such a short time would not be possible.

Q: I will now ask you a series of general questions relating to the scientific literature in the field of remote work and the problems that can be encountered during its performance. Let us start with those elaborated from the text of Machado (2021). Which of these challenges/problems have you or your co-workers encountered/perceived in working with remote co-workers?

Q: The need to work longer hours to ensure productivity and project flow

A: Not different from the normal working mode.

Q: The need to adapt to a new way of working

A: Not different from the normal working mode.

Q: The excess of information to process

A: Not different from the normal working mode.

Q: Social isolation and loss of contacts

A: Aometimes, an aspect which can have negative as well as positive overtones.

Q: The difficulties in communicating with the team and between team members

A: Definitely a problem, usually because of problems in using technologies to communicate or an inadequate understanding of how and when to use them.

Q: The lack of an adequate work space

A: Is a problem that seldom arises, it is however necessary to have excellent self-organisation in managing one's time and place of work.

Q: Dependence on immediate communication

A: Not different from the normal working mode.

Q: The need to learn new tools and technologies

A: Not very different from the normal working mode. Sometimes it can happen that in the absence of very good self-learning skills, it is a problem not to have someone more experienced beside you who can quickly give explanations.

Q: The lack of commitment on the part of the team

A: Can happen, although because of the distance it is very difficult to distinguish it from other issues (technological, etc.).

Q: Technological, organisational and personal problems

A: Certainly happen more frequently than in normal working mode. They are resolved more or less quickly depending on the self-learning ability of the employees or the project manager's ability to provide solutions.

Q: The lack of collaboration and trust within the team and with the organization

A: Probably never encountered, but can happen, although because of the distance it is very difficult to distinguish it from other issues (technological, etc.).

Q: Difficulties in integrating individual and group activities

A: Happens often, particularly if common alignment moments are not well planned.

Q: Presence of conflicts between personal and professional life.

A: Not different from the normal working mode, but certainly better managed thanks to the remote and flexible mode.

Q: How did you deal with/resolve them?

Q: The need to work longer hours to ensure productivity and project flow

A: Not different from the normal working mode.

Q: The need to adapt to a new way of working

A: Not different from the normal working mode.

Q: The excess of information to process

A: Not different from the normal working mode.

Q: Social isolation and loss of contacts

A: Provide for real-life encounters as often as possible to include non-work activities (having a coffee, an aperitif) and non-work chats and discussions. stimulate online channels for leisure and chatting not directly related to work (via chat, slack). When possible replace e-mail exchanges and phone calls with Google Meet.

Q: The difficulties in communicating with the team and between team members

A: Clarify as much as possible how we use the various communication tools (slack, mail, meet, phone), on what occasions, how often they should be checked.

Q: The lack of an adequate work space

A: Personally, having a very good organisation with respect to time and space needed for each type of work. For team members, check whether they have adequate space and means available and provide alternatives in the locations we have available.

Q: Dependence on immediate communication

A: Not different from the normal working mode, properly organising work in such a way that it is not seriously dependent on immediate communication, e.g. working in advance and allowing extra time for deliveries, always having other work to move on while waiting for answers, etc.

Q: The need to learn new tools and technologies

A: Pointing out online tools for self-learning, providing distance support and organising live meetings for training.

Q: The lack of commitment on the part of the team

A: Motivating the team.

Q: Technological, organisational and personal problems

A: Listening and trying to understand the team's problems, mainly through one-to-one calls on google meet, and doing everything to solve or minimise them.

Q: The lack of collaboration and trust within the team and with the organization

A: Motivating the team, Listening and trying to understand the team's problems, mainly through one-to-one calls on Google Meet.

Q: Difficulties in integrating individual and group activities

A: Planning group calls (at least every 15 days) for common alignment moments.

Q: Presence of conflicts between personal and professional life.

A: Normally everyone is able to solve it themselves.

Q: Have you ever used/thought of using one or more of these strategies to deal with problems in remote working? Explain in detail. Do they seem useful to you from 1 to 5? How would you implement them?

Q: Daily meetings

A: Due to the distance and the fact that many collaborators are not full time on the project it is not possible. Usefulness: 1.

Q: Taking care of interpersonal relations

A: Listening and trying to understand the team's problems, mainly through one-to-one calls on google meet, and doing everything to solve or minimise them. Usefulness: 5. It would be ideal to plan extra-work moments to maintain good relations: having a drink

together, participating in cultural activities related to the specific field.

Q: Self-management of time

A: At the moment there is a great deal of autonomy in the self-organisation of time. This is not a particularly problematic factor, on the contrary: the organisation and I as project manager should improve in giving guidance to the team on deadlines and time limits. Usefulness: 3.

Q: Planning remote meetings

A: We scheduled with the marketing team a bi-weekly google meet, since hardly anyone is full time on the project. Usefulness: 5. If the budget allowed, it would be ideal to have a monthly meeting with the marketing team in more depth (mixed live/remote) and a monthly meeting involving marketing and the entire editorial team. As for the graphics team, at least two meetings per year (mixed live/remote) would be useful.

Q: Encourage a culture of routine

A: Due to the often temporary nature of collaborations and the personal nature of each employee's routines, it is not easy to make an impact in this area. However, we try to have common habits in the control of communication and monitoring tools. Usefulness: 4. Getting all co-workers to set software such as Slack and Trello to open automatically at computer start-up would be a good implementation strategy.

Q: Using virtual rooms

A: This is more or less what we already do when we schedule google meet calls restricted to members who have to deal with specific tasks. This is very important to discuss technical details and go into depth without burdening common calls. Usefulness: 5. When budgets and time schedules allow, it is useful to schedule a call of the project manager with each co-worker at least bi-weekly.

Q: Providing training on new tools

A: When new tools are introduced into the workflow we try to do small training sessions, online or live. Unfortunately not enough, it would be good to have them in-depth and day-long, live if possible, whenever new tools have to be learnt. Usefulness: 5.

Q: Offering flexibility in working hours

A: In the teams I work with there is already a lot of flexibility in terms of working days and hours. Usefulness: 5.

Q: Celebrate achievements

A: We celebrate little (if any) results. The few written communications via chat or e-mail to celebrate the achievement of a goal or an external recognition of our work are not enough and we should increase the number of celebratory moments much more, when possible live in pleasant activities such as going to a restaurant, a beer together, a cultural activity. Usefulness: 4.

Q: Providing financial support

A: It is, of course, the most important item in the context of paid employment. It is not

always constant or regular, and because of the field in which we work, it can rarely be truly satisfying. A better control of the budget and a refinement of the business plan, as well as a more extensive involvement of project managers in strategic decisions is in place to try to improve and make it possible. Usefulness: 5.

Q: Creating virtual communication channels focused on the well-being and health of team members and their families

A: We do not do anything similar, but it could be an interesting experiment to share, for example on a dedicated slack channel, good practices. We could start with work-specific (mainly desktop computer) health issues: posture, prevention of back problems, eyesight, mental health, how to avoid stress and burnout, office yoga, ... Usefulness: 2.

Q: Using new collaboration tools

A: We often introduce new collaborative tools. We test them and if they work we maintain them. With more budget and time dedicated to researching collaborative tools and methods, it would be nice to do this more frequently and methodically. Usefulness: 4.

Q: Reviewing corporate objectives.

A: We try to do this often with teams so as to keep everyone clear on the objective for which they do often fragmented tasks that risk losing sight of the strategic horizon. It could be improved by making the objectives more shared throughout the organisation and conveying them to all employees in an orderly manner in special meetings, even once or twice a year might be enough. Usefulness: 3.

Q: We now turn to the analysis of Kniel and Comi (2021) of enablers and micro practices to increase the so called shared understanding. «Shared understanding refers to the social process whereby the divergent knowledge of individual team members is transformed to generate collaborative knowledge building» (McCarthy et al., 2019). Do these enablers and micro practices seem useful to you on a scale of 1 to 5? How would you implement them? Do you already implement them?

Q: Team spirit

A: Team spirit is crucial for remote graphic design team and perhaps even more for marketing team at Cue Press. It promotes collaboration, cohesion, and a sense of shared success among team members. Without it, there can be a lack of trust, communication breakdowns, and a lack of motivation to produce high-quality work. This can lead to a less productive and less successful team. To foster a strong team spirit within the Cue Press publishing house, it is crucial to prioritize face-to-face interactions and non-work related activities for both the marketing and graphic design teams. This can be achieved by encouraging the use of online communication channels for leisure and casual conversations, as well as replacing email and phone exchanges with virtual meetings using platforms like Google Meet. Additionally, it is essential to actively listen to and address any issues

or concerns the team members may have, through one-on-one meetings and by making a concerted effort to find solutions or minimize problems. To further strengthen team cohesion, it is beneficial to plan regular extra-curricular activities such as social events, drinks or cultural activities related to the specific field. When budgets permit, it would be valuable to hold in-depth, monthly meetings with the marketing team, as well as regular meetings involving the entire editorial team. For the graphics team, at least two annual meetings with a live/remote format could be useful. Furthermore, it would be beneficial for the project manager to schedule regular, in-depth calls with each team member, especially when new tools and techniques need to be learned. Another way to enhance team spirit is by increasing the frequency of celebratory moments and recognizing the team's achievements. This could include fun activities such as going out for a meal or a cultural outing. To further encourage good practices, it could be an interesting experiment to share tips and advice for maintaining good work-specific health, such as posture, stress management, and preventing burnout on a dedicated Slack channel. Additionally, it would be beneficial to communicate clear, shared objectives throughout the organization in special meetings, at least once or twice a year. Usefulness: 5.

Q: Shared experience (some experience of working remote together and are familiar with all the tools they need to work remotely).

A: We try to build up shared experience quickly by doing training and work in joint sessions. It would be useful to increase these opportunities. Usefulness: 4.

Q: Reliability

A: It is very important to have in mind the degree of reliability of each employee. This can usually be understood after the first experiences of working together, even remotely. Usefulness: 5.

Q: Transparency.

A: Transparency is important to build a good team spirit and to all work with the same goals. Unfortunately, it is often put on the back burner or has no way of being developed due to the fragmented nature of the work and budget. We also try to exercise it in a reduced way as far as possible. For example, by giving quick overviews to employees of what is happening at a more macro level in the company, even when they and their work are not directly involved. Usefulness: 4.

Q: Face-to-face meetings

A: They are very important but we don't get as many as we would like. When time and budget allow, we try to increase the frequency, even when we don't strictly need to. Usefulness: 4.

Q: Online updates

A: In addition to the meetings already carried out and those desired above, online updates that each employee can do themselves via work progression tracking tools are useful. For instance, on the Trello noticeboard of the relevant team, everyone can see where their own

and others' tasks stand. It would be good to implement this practice for everyone to check frequently and experiment with other tools and modes of online updates. Usefulness: 5.

Q: Visualisation of information

A: Visualising the final product of communication (in marketing) and examples of finished or in-process materials (in the graphics team) is important and is a practice already implemented whenever possible. Unfortunately, due to budget and time constraints, not as much as would be appropriate. Usefulness: 4.

Q: These are some obstacles highlighted by Kniel and Comi (2021) to building shared understanding in remote design teams. Have you encountered them? How do you address/resolve them?

Q: Challenges in sharing information

A: Sometimes it is difficult to share fully due to the insufficiency of moments of information sharing that have the right duration to allow everyone to understand and deepen. We try to do as much of this as possible and constantly monitor whether the remote collaborators have everything clear and in case deepen individually in one-to-one meetings, usually on google meet and when possible live.

Q: Cultural differences

A: Our remote teams for the time being do not suffer from significant cultural differences, but more often from experience due to young age or field of origin. We always try when a new person joins to iron out these differences as quickly and effectively as possible (by providing documentation and articulate explanations).

Q: Prevailing/dominant decisions

In general, we try to make decisions in a collegial manner, leaving everyone free to express their opinion in their own field. On the contrary, we often lack the ability as a team to steer all visions more decisively and concretise them into a common decision.

Q: To address these challenges, the study recommends several practical implications for design practice, do they seem useful to you? Do they seem useful to you from 1 to 5? How would you implement them? Do you already implement them?

Q: Establish ground rules for remote collaboration

A: We try to establish and follow common practices, such as sprint management of the marketing team (on the Agile model) with bi-weekly google meet, control and organisation of tasks on a shared Trello board, use of Slack and email for communication and exchange of materials. As far as the graphics team is concerned, a guideline document indicates how best to manage remote work, including how to manage files, tools to be used, how to track time and progress, and deadlines. A desirable improvement would be to draw

up similar guidelines also for the marketing team and, vice versa, to adopt Sprint-style working methods also in the graphics team.

Usefulness: 5.

Q: Promote transparency through clear allocation of roles and responsibilities

A: Both teams are set up for a clear division of roles, but sometimes due to rapid staff turnover or work fragmentation responsibilities and roles are not clearly established.

Usefulness: 5.

Q: Strike a balance between information overload and information scarcity

A: Unfortunately, as in the classic way of working, the workflow is often subject to fluctuating load flows, and timing often forces overloads or scarcity. We try to have accessible and complete information that can be used by collaborators independently when they need it.

Usefulness: 5.

Q: Maintain focus by sharing visualisations of information that provide an overview of the big picture

A: In the marketing team, the two-week view of how tasks are progressing on the Trello board. There is also a similar tool for the graphics team, but it is only used by the project manager. Usefulness: 4.

Q: Can you provide information on the energy consumption of the devices and equipment used for remote work?

A: No idea.

Q: Can you provide information on the transportation methods used by employees while working remotely?

A: No idea.

Q: Can you provide information on the waste generated while working remotely?

A: No idea.

Q: How is the company encouraging employees/collaborators to adopt sustainable practices while working remotely?

A: Currently in no way.

Editorial

Q: Describe the team and explain its operations and remote characteristics.

A: The editorial team works on the texts of books (both re-editions and unpublished works). It exchanges drafts with authors and translators and typesets the texts. It is coordinated by a chief editor who coordinates between 1 and 3 external editors per project (approximately two books per month). The team varies frequently (often different for each book). The project manager works from the head office while the contributors work remotely in various cities in Italy. The project manager keeps track of the work on a Trello board, which is not shared with the other team members. There is no time for meetings or collective work involving the whole team as the work is fragmented and each member is in charge of a task that can be carried out independently. The team follows common rules, including how the work is to be delivered, which are laid down in an Editorial Standards document provided to each member at the beginning of the work. Each team member communicates with the project manager in an individually agreed way, usually by email, phone call (more frequent) or whatsapp messages. Files are shared via Dropbox and Wetransfer and are generally .doc, pdf or indesign not very heavy.

Q: Can you describe the role and responsibilities of the editorial staff at Cue Press?

A: The editorial team works on the texts of books (both re-editions and unpublished works). It exchanges drafts with authors and translators and typesets the texts.

Q: How is the editorial staff coordinated, and who is responsible for managing the team?

A: It is coordinated by an editor-in-chief who works in the main office.

Q: How many members of the editorial staff work remotely, and in what capacity are they considered "remote"?

A: One to three external editors per project (about two books per month), all based in various cities in Italy. The team varies frequently (often different for each book). A collaborator is considered remote when he works remotely from the project manager.

Q: What tools and technologies does the editorial staff use to facilitate communication and collaboration with remote team members and collaborators?

A: E-Mail, telephone, Dropbox, Wetransfer, Trello, Watshapp.

Q: Can you provide any metrics on the volume of communication and file sharing within the editorial staff, such as the average number of emails and video calls per day?

A: 5/10 mails per day, 2/5 phone calls, no video calls.

Q: How does Cue Press define and manage remote collaboration within the editorial staff?

A: Contributors are all remote. It may happen that those who live in the vicinity of the headquarters sometimes go to work on site. They are all managed by the reference project

manager.

Q: How does the use of remote teams and remote work within the editorial staff affect the efficiency and quality of the work?

A: Processing is sometime slowed down due to remote team characteristics and several reviews of the delivered jobs are required.

Q: Can you share any examples of successful remote projects or collaborations within the editorial staff at Cue Press?

A: In general, all the books on which remote team work was carried out were a good result and benefited from the work in team mode.

Q: How has the incorporation of digital technologies and production methods, affected Cue Press' operations and business model within the editorial staff?

Q: How does the editorial staff at Cue Press address the challenges of remote collaboration and maintain the quality and consistency of the work?

A: Without these technologies, a production of this size in such a short time would not be possible.

Q: I will now ask you a series of general questions relating to the scientific literature in the field of remote work and the problems that can be encountered during its performance. Let us start with those elaborated from the text of Machado (2021). Which of these challenges/problems have you or your co-workers encountered/perceived in working with remote co-workers?

Q: The need to work longer hours to ensure productivity and project flow

A: Yes, but at the same time benefiting from the fact that the work is released from traditional office hours.

Q: The need to adapt to a new way of working

A: Not different from the normal working mode.

Q: The excess of information to process

A: Is one of the big problems. Also due to the frequent turnover of employees, it is found that transmitting information remotely takes more time than it would do live.

Q: Social isolation and loss of contacts

A: The lack of contact with external collaborators with whom one has less contact and whom one cannot identify with a face but only by name is somewhat felt.

Q: The difficulties in communicating with the team and between team members

A: Is somewhat pronounced in remote work, but it does not usually happen. There have, however, been cases of employees suddenly disappearing and never to be found again. In remote work this can happen more easily, it is difficult to disappear from an office with this dynamic. In fact, it also happened in the graphics team, where a co-worker with whom we had worked satisfactorily and continuously suddenly disappeared.

Q: The lack of an adequate work space

A: Is a problem that seldom arises, it is however necessary to have excellent self-organisation in managing one's time and place of work. It has happened both in the editorial and graphics departments that someone has lost the work they were working on because they do not make backups and we have no control over their equipment and working method. Points and instructions have been included in editorial guidelines and standards to try to prevent this problem.

Q: Dependence on immediate communication

A: Not different from the normal working mode. Because the workflow is set according to the agreements and customs you have with each external collaborator.

Q: The need to learn new tools and technologies

A: Not very different from the normal working mode.

Q: The lack of commitment on the part of the team

A: Because of the distance, it can still occur, making it challenging to differentiate it from other problems, such as technological ones.

Q: Technological, organisational and personal problems

A: Certainly happen more frequently than in normal working mode. They are resolved more or less quickly depending on the self-learning ability of the employees.

Q: The lack of collaboration and trust within the team and with the organization

A: Because of the distance, it can still occur, making it challenging to differentiate it from other problems, such as technological ones.

Q: Difficulties in integrating individual and group activities

A: No.

Q: Presence of conflicts between personal and professional life.

A: Not different from the normal working mode, but certainly better managed thanks to the remote and flexible mode.

Q: How did you deal with/resolve them?

Q: The need to work longer hours to ensure productivity and project flow

A: Not different from the normal working mode.

Q: The need to adapt to a new way of working

A: Not different from the normal working mode.

Q: The excess of information to process

A: Not different from the normal working mode.

Q: Social isolation and loss of contacts

A: Provide for real-life encounters as often as possible to include non-work activities (having a coffee, an aperitif) and non-work chats and discussions.

Q: The difficulties in communicating with the team and between team members

A: No.

Q: The lack of an adequate work space

A: Personally, having a very good organisation with respect to time and space needed for each type of work. For team members, check whether they have adequate space and means available and provide alternatives in the locations we have available.

Q: Dependence on immediate communication

A: Not different from the normal working mode, properly organising work in such a way that it is not seriously dependent on immediate communication, e.g. working in advance and allowing extra time for deliveries, always having other work to move on while waiting for answers, etc.

Q: The need to learn new tools and technologies

A: No.

Q: The lack of commitment on the part of the team

A: Motivating the team.

Q: Technological, organisational and personal problems

A: Listening and trying to understand the team's problems, mainly through telephone, and doing everything to solve or minimise them.

Q: The lack of collaboration and trust within the team and with the organization

A: Listening and trying to understand the team's problems, mainly through telephone, and doing everything to solve or minimise them.

Q: Difficulties in integrating individual and group activities

A: It would be great to have at least one live meeting per month.

Q: Presence of conflicts between personal and professional life.

A: Normally everyone is able to solve it themselves.

Q: Have you ever used/thought of using one or more of these strategies to deal with problems in remote working? Explain in detail. Do they seem useful to you from 1 to 5? How would you implement them?

Q: Daily meetings

A: Due to the distance, the nature of work and the fact that many collaborators are not full time on the project it is not possible. Usefulness: 1.

Q: Taking care of interpersonal relations

A: Listening and trying to understand the team's problems, mainly through phone calls, and doing everything to solve or minimise them. Usefulness: 5. It would be ideal to plan extra-work moments to maintain good relations: having a drink together, and with someone it happens regularly.

Q: Self-management of time

A: At the moment there is a great deal of autonomy in the self-organisation of time. This is not a particularly problematic factor, on the contrary: the organisation and I as project manager should improve in giving guidance to the team on deadlines and time limits. Usefulness: 3.

Q: Planning remote meetings

A: Not very important. Usefulness: 3. If the budget allowed, it would be ideal to have a monthly/weekly meeting with the team in more depth (but mixed live/remote) and a monthly live meeting involving the other teams.

Q: Encourage a culture of routine

A: No, most employees are professionals who are completely autonomous. It only happens with trainees and the workflow is organised accordingly. Usefulness: 2.

Q: Using virtual rooms

A: No. Usefulness: 1.

Q: Providing training on new tools

A: There is hardly any need. Usefulness: 2.

Q: Offering flexibility in working hours

A: There is already a lot of flexibility in terms of working days and hours. Usefulness: 5.

Q: Celebrate achievements

A: We celebrate little results, mainly with email or telephone celebrations and continuing to provide work to those who work well. The few communications to celebrate the achievement of a goal or an external recognition of our work are not enough and we should increase the number of celebratory moments much more. Usefulness: 4.

Q: Providing financial support

A: It is, of course, the most important item in the context of paid employment. It is not always constant or regular, and because of the field in which we work, it can rarely be truly satisfying. A better control of the budget and a refinement of the business plan, as well as a more extensive involvement of project managers in strategic decisions is in place to try to improve and make it possible. Since I cannot manage a budget I can only give more or less work as needed. Usefulness: 5.

Q: Creating virtual communication channels focused on the well-being and health of team members and their families

A: We do not do anything similar. Usefulness: 1.

Q: Using new collaboration tools

A: There is not much need for new tools, the ones we have are already enough. At most, we should introduce new collaborative workflows to relieve the project manager of work and give employees more responsibility. Usefulness: 2.

Q: Reviewing corporate objectives.

A: We don't do that. It could be improved by making the objectives more shared throughout

the organisation and conveying them to all employees in an orderly manner in special meetings, even once or twice a year might be enough. Usefulness: 3.

Q: We now turn to the analysis of Kniel and Comi (2021) of enablers and micro practices to increase the so called shared understanding. “Shared understanding refers to the social process whereby the divergent knowledge of individual team members is transformed to generate collaborative knowledge building” (McCarthy et al., 2019). Do these enablers and micro practices seem useful to you on a scale of 1 to 5? How would you implement them? Do you already implement them?

Q: Team spirit

A: Is not so fundamental as each one does a piece of work independently of the others. Usefulness: 3.

Q: Shared experience (some experience of working remote together and are familiar with all the tools they need to work remotely)

A: We try to build up shared experience quickly by doing training. It would be useful to increase these opportunities. Usefulness: 4.

Q. Reliability

A: It is very important to have in mind the degree of reliability of each employee. This can usually be understood after the first experiences of working together, even remotely. Usefulness: 5.

Q: Transparency.

A: Transparency is important to build a good team spirit and to all work with the same goals. Unfortunately, it is often put on the back burner or has no way of being developed due to the fragmented nature of the work and budget. We also try to exercise it in a reduced way as far as possible. Usefulness: 4.

Q: Face-to-face meetings

A: They are very important but we don't get as many as we would like. Usefulness: 4.

Q: Online updates

A: Usefulness: 3.

Q: Visualisation of information

A: Usefulness: 2.

Q: These are some obstacles highlighted by Kniel and Comi (2021) to building shared understanding in remote design teams. Have you encountered them? How do you address/resolve them?

Q: Challenges in sharing information

A: Sometimes it is difficult to share fully due to the insufficiency of moments of information

sharing that have the right duration to allow everyone to understand and deepen.

Q: Cultural differences

A: Our remote teams for the time being do not suffer from significant cultural differences, maybe from experience due to young age. We always try when a new person joins to iron out these differences as quickly and effectively as possible (by providing documentation and articulate explanations).

Q: Prevailing/dominant decisions

A: In general, we try to make decisions in a collegial manner, leaving everyone free to express their opinion in their own field. On the contrary, we often lack the ability as a team to steer all visions more decisively and concretise them into a common decision.

Q: To address these challenges, the study recommends several practical implications for design practice, do they seem useful to you? Do they seem useful to you from 1 to 5? How would you implement them? Do you already implement them?

Q: Establish ground rules for remote collaboration

A: A guideline document indicates how best to manage remote work, including how to manage files, tools to be used. Usefulness: 5.

Q: Promote transparency through clear allocation of roles and responsibilities

A: Team id set up for a clear division of roles. Usefulness: 5.

Q: Strike a balance between information overload and information scarcity

A: We try to have accessible and complete information that can be used by collaborators independently when they need it. Usefulness: 4.

Q: Maintain focus by sharing visualisations of information that provide an overview of the big picture

A: Usefulness: 2.

Q: Can you provide information on the energy consumption of the devices and equipment used for remote work?

A: No idea.

Q: Can you provide information on the transportation methods used by employees while working remotely?

A: No idea.

Q: Can you provide information on the waste generated while working remotely?

A: No idea.

Q: How is the company encouraging employees/collaborators to adopt sustainable practices while working remotely?

A: Currently in no way.

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