



D2.1 Möbius theoretical framework: opportunities, benefits, and risks

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Executive Summary

This deliverable reports on task 2.1. This report provides insights in the current practices of and trends in the European publisher industry, the link with new publishing/business models (self-publishing, crowdfunding, prosumer-driven), the Möbius consortium partners involved in the publishing industry, and current user practices and online communities (platforms, and fan fiction communities).

Besides the current state of the industry, this report presents the first user requirements for the Möbius book and the Möbius Prosumer Intelligence Toolkit. The presented user requirements are formed through various research activities involving professional users (publishers), end-users (fanfic enthusiasts) and the Möbius consortium.

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Terminology and Acronyms

<i>AI</i>	<i>Artificial intelligence</i>
<i>A03</i>	<i>Archive of Our Own</i>
<i>BMI</i>	<i>Business Model Innovation</i>
<i>CCI</i>	<i>Cultural and Creative Institutions</i>
<i>CCS</i>	<i>Creative and Cultural Sector</i>
<i>EUT</i>	<i>Eurecat</i>
<i>FEP</i>	<i>Federation of European Publishers</i>
<i>FFN</i>	<i>Fanfiction.net</i>
<i>FMWC</i>	<i>Foundation Mobile World Capital Barcelona</i>
<i>IP</i>	<i>Intellectual property</i>
<i>KKW</i>	<i>Kunstkraftwerk</i>
<i>LL</i>	<i>Living labs</i>
<i>MS Teams</i>	<i>Microsoft Teams</i>
<i>MVB</i>	<i>The Marketing and Publishing Services of the book trade</i>
<i>OTT</i>	<i>Over-the-top</i>
<i>OTW</i>	<i>Organization for Transformative Works</i>
<i>PIT</i>	<i>Prosumer Intelligence Toolkit</i>
<i>SEA</i>	<i>Search Engine Advertising</i>
<i>SEO</i>	<i>Search Engine Optimization</i>
<i>SOTA</i>	<i>State Of The Art</i>
<i>VLB</i>	<i>Das Verzeichnis Lieferbarer Bücher</i>
<i>WP</i>	<i>Work package</i>

1. Introduction

The main goal of task 2.1 is to provide a theoretical framework that puts forward the concrete opportunities, benefits and risks for the Möbius project. This was translated in the following specific research questions for this deliverable: 1/ What are the current practices in the European publishing sector (including traditional publishing, digital publishing, immersive books, and business models)? 2/ What is the definition of a ‘prosumer’ (including comparison with other user roles such as self-publisher or fan fiction writer)? 3/What are the current user practices (in the selected communities)? 4/ How do fan fiction communities engage users? 5/ What are the requirements for each of the Möbius tools?

Since the kick-off of the project, we outlined two main products: the Möbius book and the Prosumer Intelligence Toolkit (PIT):



	Möbius Book (MB)	The immersive book publication that will be developed within the Möbius project.
	MB creator toolkit	A web-based app that allows creators to design their own immersive book publication, including a feedback dashboard with user data from the Möbius book player.
	MB player	The interactive mobile application used to consume the Möbius book.
	Prosumer Intelligence Toolkit (PIT)	The toolkit will collect data from existing online communities and online prosumer activities. The goal of the PIT is providing publishers and professionals in the book industry with additional insights that help them to improve the publishing process.

Figure 1 Möbius products

As a starting point within this deliverable, we will first discuss the **Living Lab (LL) methodology** and its importance as a research practice in **section 2**. The LL approach will play an important role during the testing and piloting phases, starting from M9 until the final proof of concept is fully developed (see WP4 and WP5).

To analyse these opportunities, benefits and risks, a combination of research methods was applied, as shown in Figure 2. **Section 3** provides an overview of the **methodology** used to achieve insights on the current practices and user requirement gathering (see Figure 2).

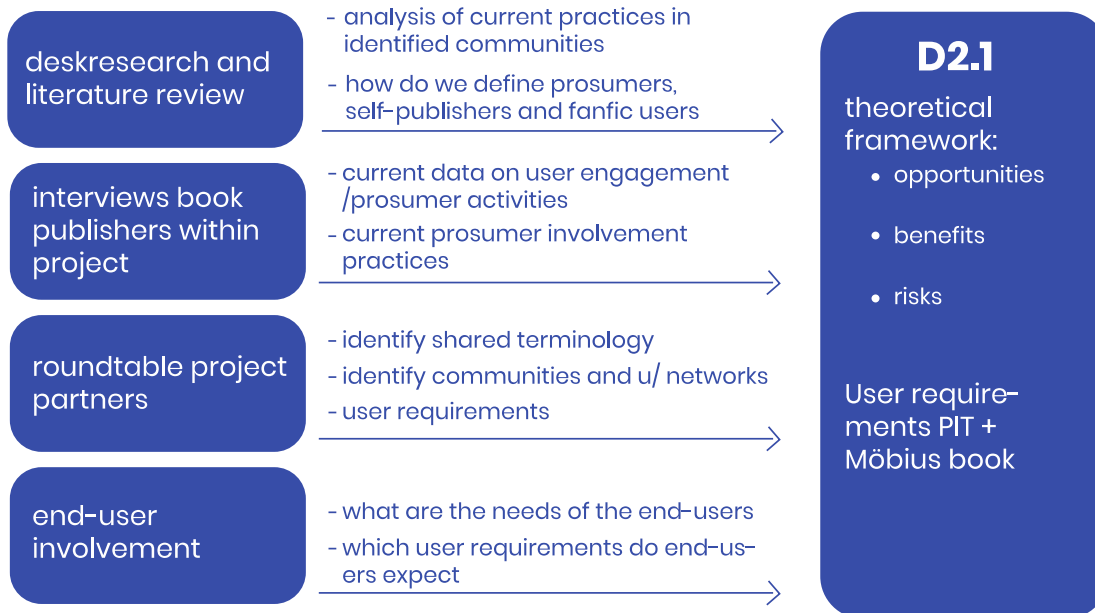


Figure 2 Research process

As the preparatory phase for the Living Lab approach starting M9, task 2.1 envisions developing a common framework for the Möbius project by gathering insights into the **current practices** of the European publishing industry, and the publishing partners from the Möbius consortium. As a result, this deliverable covers in **section 4** the benefits, opportunities and risks of the publishing industry, but also trends, market shifts (e.g., from analogue to digital formats) from the perspective of relevant social groups such as the fan fiction community and prosumers. In addition, the task included establishing a common understanding between consortium partners on the definition of central concepts within the project such as ‘prosumers’, ‘self-publishers’ and ‘fan fictions writers’.

The deliverable also discusses the concrete user requirements for each of the Möbius products in **section 5**. These requirements are the first stepping stone in the project and allow us to clarify the scope of the project in general and the specific expectations and needs of project partners, as well as end-users. The deliverable then concludes with a comprehensive summary of the benefits, opportunities and risks for the Möbius project and a forward look at the next steps in the project.

In order to develop the Möbius applications with the user requirements in mind, a technical toolkit and expertise is necessary. Möbius can rely on its technical partners IN2 and Eurecat to develop the different applications. As mentioned in the DoW, deliverable D2.1 would include a technical section describing the meaning of the technical toolkit and state of the art technology (SOTA). What technology is available? What technologies will we use to build the applications? Yet, after some discussion we agreed that it made more sense to fully integrate the technical input including the technical SOTA in D2.2 and D4.1, which focus on the technical aspects.

2. Living lab framework

Living labs (LL) play an important role throughout the Möbius project. The living lab research framework is applied from the start of the Möbius project, to involve all relevant actors in the development process. This starts with the analysis of current practices and expectations that lead to concrete user requirements, which is the focus of this deliverable. In the piloting phases as defined in WP4, the living lab methodology will ensure an iterative development and testing of the developed Möbius products, including the Möbius book (creators' toolkit and player) and the prosumer intelligence toolkit (PIT). For each of these products, the relevant user groups will be involved via different co-creation and evaluation activities. This way the living lab approach can guarantee that the final product resonates with the potential user groups. In this section, we will discuss the theoretical framework behind the living lab research method and how it will contribute to Möbius, followed by the concrete living lab approach we will apply within Möbius.

2.1 Theoretical framework

The European Network of Living Labs, which is a partner organisation within Möbius, defines a Living Lab as follows: "Living labs are user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings".¹ Living labs refer to "co-creation and appropriation of innovations by users, often in an (online or offline) community setting and involving also business stakeholders. Over the years, multiple definitions of living labs have been proposed.² For example, Westerlund and Leminen³ define living labs as: "physical regions or virtual realities, or interaction spaces, in which stakeholders form public-private-people partnerships (4Ps) of companies, public agencies, universities, users, and other stakeholders, all collaborating for creation, prototyping, validating, and testing of new technologies, services, products, and systems in real-life contexts".^{4 5 6}

Other authors describe Living labs as "physical arena as well as a collaborative approach in which different stakeholders have space to experiment, co-create and test innovation in real-

¹ Steen, K., & van Bueren, E. (2017). The Defining Characteristics of Urban Living Labs. *Technology Innovation Management Review*, 7(7), 21–33. https://timreview.ca/sites/default/files/article_PDF/SteenVanBueren_TIMReview_July2017.pdf

² Ballon, P., & Schuurman, D. (2015). Living labs: concepts, tools and cases. *Info*, 17(4). <https://doi.org/10.1108/info-04-2015-0024>

³ Westerlund, M., & Leminen, S. (2011). Managing the Challenges of Becoming an Open Innovation Company: Experiences from Living Labs. *Technology Innovation Management Review*, 1(1): 9–25.

⁴ Westerlund, M., & Leminen, S. (2011). Managing the Challenges of Becoming an Open Innovation Company: Experiences from Living Labs. *Technology Innovation Management Review*, 19–25. https://timreview.ca/sites/default/files/article_PDF/WesterlundLeminen_TIMReview_October2011_3.pdf

⁵ Leminen, S. (2013). Coordination and Participation in Living Lab Networks. *Technology Innovation Management Review*, 5–14. https://timreview.ca/sites/default/files/article_PDF/Leminen_TIMReview_November2013.pdf

⁶ Westerlund, M., & Leminen, S. (2011). Managing the Challenges of Becoming an Open Innovation Company: Experiences from Living Labs. *Technology Innovation Management Review*, 1(1): 9–25.

life environments defined by their institutional and geographical boundaries”.⁷ In addition, Living Labs can be used as innovation policy tool for developing countries.^{8 9 10}

Despite the different definitions for Living Labs provided by the scholars, all descriptions have the following elements in common, as described in the U4IoT handbook¹¹:

User engagement	To involve end-users from the beginning of the process.
Multi-stakeholder participation	Even if the focus is on users, involving all relevant stakeholders is of crucial importance. These are the quadruple helix actors, namely universities/academia, citizens, and representatives of public and private sector.
Multi-method approaches	There is no single Living Lab methodology, but all Living Labs combine and customize different user-centred, co-creation methodologies to best fit their purpose.
Real-life setting	Activities take place in real-life settings to gain in-depth knowledge of the context.
Co-creation	Active engagement from all stakeholders in the process from the very beginning. The process where people are able to put their needs and preferences first.

Table 1 Living Lab elements

Within the Möbius project, the living lab approach will provide a framework for the iterative development and large-scale piloting activities. The Living Lab approach will support **joint-value co-creation**, rapid **prototyping and testing**. Throughout the project lifecycle, the living lab approach will use iterative feedback processes.

2.2 Möbius Living Lab Methodology

As an overall methodological framework for the user evaluation and validation, Möbius will apply a living lab pilot methodology as developed by imec.¹² By organising user research as part of a living lab, the whole development cycle is supported, providing in-depth insights on

⁷ Voytenko, Y., McCormick, K., Evans, J., & Schliwa, G. (2016). Urban living labs for sustainability and low carbon cities in Europe: towards a research agenda. *Journal of Cleaner Production*, 123, 45–54. <https://doi.org/10.1016/j.jclepro.2015.08.053>

⁸ Garcia, A., Marsh, J., Trejo, J. and Switters, J. (2010), "Living labs and regional innovation policies in the Mediterranean area", Proceedings of the eChallenges Conference, Warsaw, Poland, October.

⁹ Hirvikovski, T. (2012), "Regional policy and design in user-driven open ecosystems", presented at Design Days, Brussels.

¹⁰ World Bank & ENoLL. (2015). Citizen-Driven Innovation A guidebook for city mayors and public administrators. https://openknowledge.worldbank.org/bitstream/handle/10986/21984/Citizen_Driven_Innovation_Full.pdf

¹¹ U4IoT (n.d). End-User Engagement Toolkit. Retrieved from: <http://www.u4iot.eu/end-user-engagement-toolkit>.

¹² Kilpi, K., & Lievens, B. (2013). Deliverable D2.2. Methodological Approach in Smart Platforms Enabling the Creative Industries for Future Internet (SPECIFI). <https://researchportal.vub.be/en/publications/deliverable-d22methodological-approach>

the users (multi-stakeholder approach) via qualitative and quantitative data. By involving all these stakeholders throughout the project, we can ensure that the developed proof of concept is validated with and by the relevant user groups and fits with their needs and expectations. The cyclical iterative process contributes to real-time validation of assumptions. Thus, the development process is accelerated and go-to-market opportunities improved.¹³ Figure 3 illustrates this cyclical approach of our living lab framework. The important aspect of this process is the close alignment with the technology development process via different feedback loops. This way we ensure that user feedback is taken into account in the different development stages.

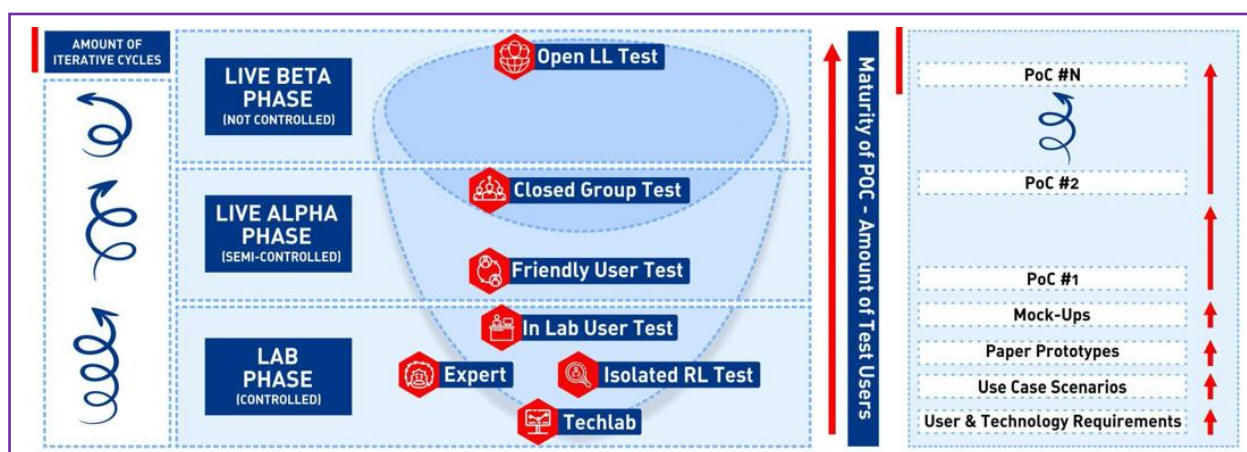


Figure 3 Living Lab Funnel¹⁴

The first 9 months of the project can be considered as the preparatory phase, in which the initial building blocks of the project as well as the basis for the impact assessment were defined. This phase is followed by 3 concrete pilot phases, each of which will engage a larger number of users, as can be seen in Figure 4 below. The detailed pilot methodology will be further discussed in D2.3. In the next section we will focus on the methodology that was applied for the preparatory phase to identify current practices, look into benefits, opportunities and risks and to define concrete user requirements.

¹³ Möbius H2020 proposal, unpublished

¹⁴ Developed by imec-SMIT

MÖBIUS | LARGE SCALE PILOT WITH USERS

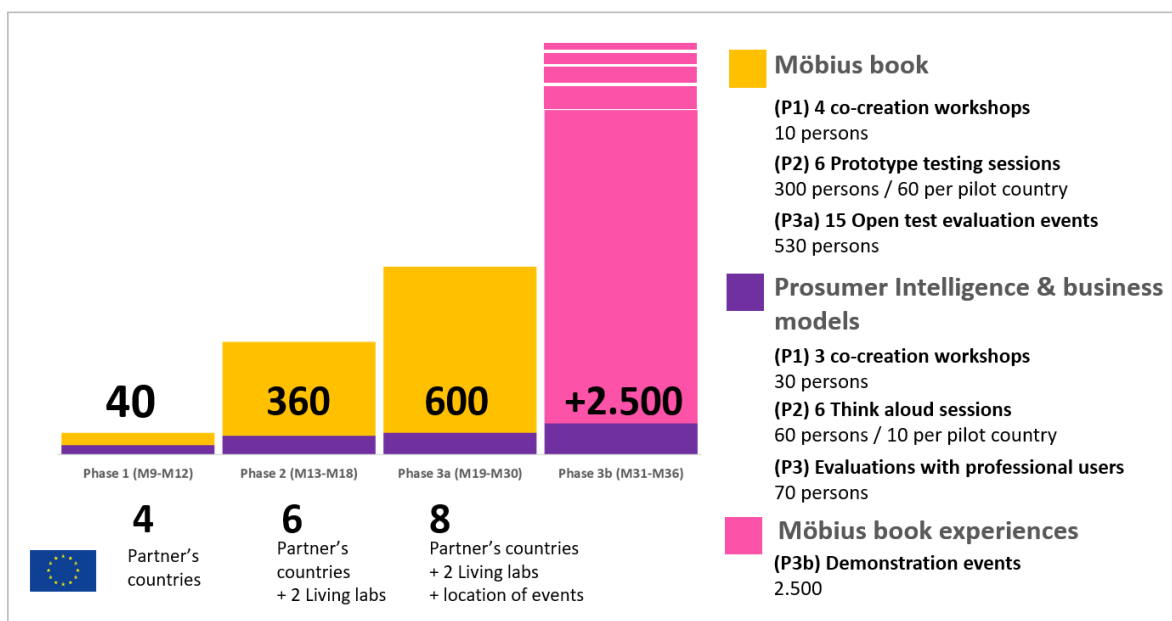


Figure 4 Möbius Living Lab phases¹⁵

3. Preparatory phase to the Living lab methodology

As mentioned above, the first 9 months of the project can be considered as a preparatory phase for the large-scale piloting activities that will follow later in the project. Following our living lab methodology, this preparatory phase focused on gathering user requirements from the different relevant stakeholders, building further on their current practices and expectations. To achieve this, we applied a mixed methods approach.

Most of the insights presented in the next section are based on desk research and qualitative research methods conducted over a timespan of six months (May-October). In this section, we present the applied methodology and concrete research activities. In our mixed-methods approach, each method has a specific goal and outcome, as defined in Figure 5.

¹⁵ Möbius H2020 proposal, unpublished

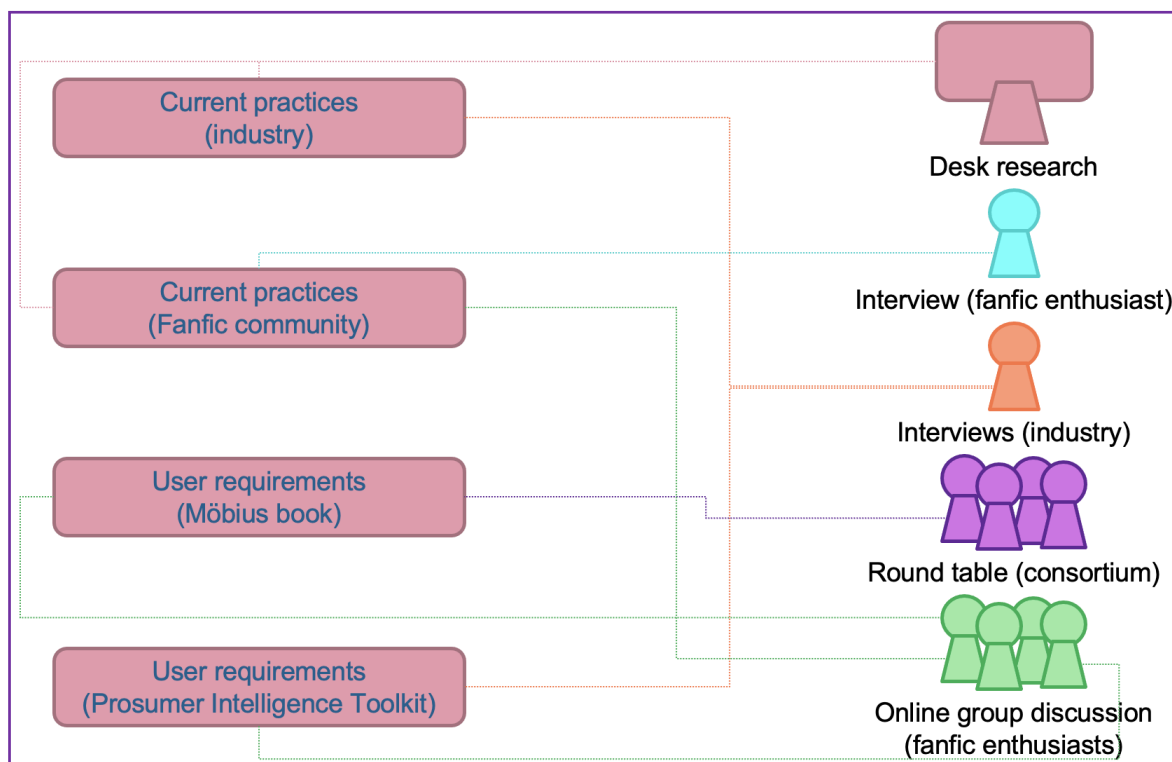


Figure 5 Research process for the preparatory phase

Below we will discuss each method in detail.

3.1 Desk research

Desk research was used in the first months of the project to get acquainted with the European publishing industry and fan fiction community platforms. It served as a preparation for the interviews, discussion and roundtable event and provided us with the necessary insights into the current status of the publishing industry and creative communities related to book publishing.

Setup

As a first introduction to the European publishing sector, the desk research focused on gathering insights (1) on the benefits, risks and opportunities for the European market in general, (2) to understand the consortium partners' activities and position in the market, (3) in existing online fan fiction communities, including how they are set-up, which business models they use, how user involvement is leveraged, etc. (see Table 10 for a full overview of the aspects monitored) and (4) in the terminology regarding fan fiction and prosumers. A full list of the organisations, platforms and websites included in the desk research is added in the annex (Annex I). The data from desk research was collected iteratively throughout the first six months of the project and added to the relevant section of the deliverable,

Outcomes and analysis

The desk research results are used to present the current state of the European publishing industry. We discuss the trends within the market, the role of digitalization for the sector, how markets react to innovation, how publishers and retailers handle the covid-19 pandemic, and the challenges and opportunities that the pandemic presents. The desk research also served as a starting point for the topic lists for the interviews.

3.2 Interviews

Following the exploratory phase, interviews with several publishers and consortium members (industry partners) provided us with concrete insights into the current practices, expectations of the project by the consortium partners, and user requirements for the prosumer toolkit.

Setup

From June onwards, imec conducted online interviews with several consortium partners to learn more about their current practices, position within or knowledge about the publishing industry, their perspective on immersive media, their thoughts on prosumers, their requirements for the Möbius tools and their view on the publishing markets' strengths, weaknesses, opportunities and threats. Table 2 provides an overview of the interviews conducted. To preserve the privacy of the participants, we only include the name of the company or organization, but not of the respondents.

Partner	Date
FEP	07/07/21
Eurecat	10/07/21
MVB	11/07/21
Bookabook	16/07/21
FMWC	18/07/21

Table 2 Consortium partners interviewed

Besides the interviews with the consortium partners, imec conducted three exploratory interviews (see Table 3). Through a call for participation via the Federation of European Publishers (FEP), two interviews were set-up with European Publisher Associations (Italian and Portuguese). Here, we focused on the strengths, weaknesses, opportunities and threats for the European and local publishing market. We also asked for input on their experiences with immersive books, digital publishing and innovations in publishing. Finally, we queried their knowledge of and expectations for the Möbius project and their requirements for the Möbius tools. In this phase of the project, one additional exploratory interview took place with a fanfic enthusiast. The interview provided interesting insights on the history of (online) fan fiction and

the philosophy behind the fanfic community. Both the publishers and the fanfic enthusiast gave refreshing insights into the European publishing industry and market trends.

External	Date
Fanfic enthusiast	03/07/21
Grupo Leya (Portugal)	28/07/21
Gruppo Editoriale Mauri Spagnol (Italy)	29/07/21

Table 3 Explorative interviews

Outcomes and analysis

The interviews were transcribed ad verbatim and analysed by labelling the contributions thematically to include all relevant aspects for this deliverable. For the interviews with publishers, the labels included current practices, strengths, weaknesses, opportunities and threats, experience with innovation in publishing sector, and future expectations. For the interview with the fanfic enthusiast, the thematical labelling considered: involvement in fan fiction communities, benefits and downsides of fan fiction platforms, approach towards fan fiction communities.

3.3 Roundtable event with consortium members

The **roundtable event** conducted with all the consortium partners aimed to gather a first set of user scenarios and user requirements for the Möbius tools.

To gather insights into the user requirements for the Möbius book, we organised an interactive co-creation workshop on 23/07/21. Consortium partners were asked to co-create brief user scenarios that functioned as steppingstones to discuss the requirements, features and must-haves of the Möbius book. The detailed set-up of the co-creation session using online tools is discussed below. All consortium members were present during the online event. The full list of attendees is available in annex (Annex E).

Setup

The co-creation session took place via MS Teams due to travel restrictions (Covid). After the introduction where the goal of the session was explained, the consortium members were divided into separate groups (breakout rooms). Each group received a link to the online co-creation tool, Miro, where they were asked to create scenarios for different user personas (created by imec to represent Möbius users, see Annex F).

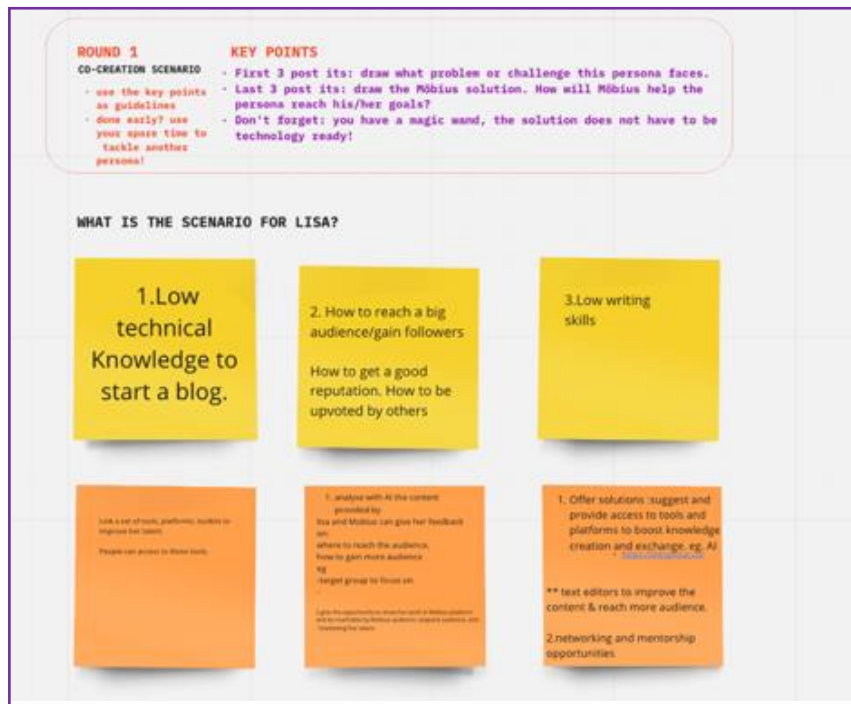


Figure 6 Miro brainstorm session screenshot

After the scenario creation in the breakout rooms, all participants were redirected to the plenary meeting. Here, each group presented and discussed their ideas. Following the brief presentations, each participant voted on their favourite idea or feature via-Dot Voting. The votes were used to discuss the features that were deemed more or less interesting by the consortium and gave first insights in which requirements resonated with the consortium.

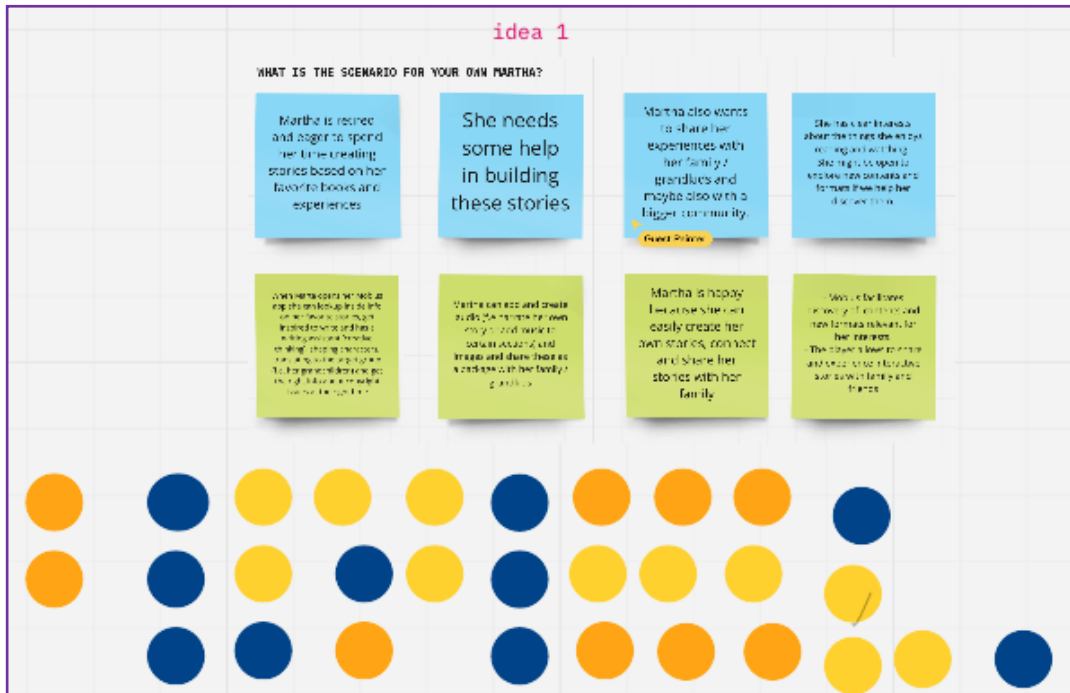


Figure 7 Dot Voting screenshot

To conclude the roundtable, there was a short random-word association exercise to gain insight into the perspective of the consortium on the role of prosumers and the dynamics of self-publishing. Participants got five minutes to associate as many words as possible with both terms. This exercise helped us to get a clear view on how the consortium partners perceive self-publishers and prosumers, and how both can relate to Möbius.



Figure 8 Self-publisher random-word exercise screenshot

Outcomes and analysis

After the roundtable event, imec closely analysed the different scenarios and the final Dot Voting motivations. First, the transcription of the discussion in each breakout room was analysed to make a comprehensive list of features for each scenario. Then, the features present in the scenarios were translated to concrete user requirements. Finally, user

requirements were analysed and grouped thematically to facilitate further validation and addition in the follow-up meetings and online group discussion with fan fiction enthusiasts (Annex C and D).

3.4 Group interview with fanfic enthusiasts

In addition to the interviews and roundtable event, imec organized an online group discussion on 16/09/21 with six fanfic enthusiasts. The aim of this group discussion was to improve our understanding of the community building behind fan fiction and of what makes fan fiction so appealing for fanfic enthusiasts. Also, we used this method to validate and complete our first set of user requirements.

A call for participation was shared across Möbius social networks, via the website and via imec's own channels and contacts. Six participants took part in the online group discussion (Annex H). Participants differed in the frequency of usage of fan fiction platforms. Most participants were active on AO3. One participant indicated that her engagement with fan fiction content had decreased in the last years, having shifted from fan fiction to audiobooks and podcasts.

Setup

The group interview was organised, recorded and transcribed through MS Teams. To start, imec thoroughly explained the design of the research activity, the informed consents were reviewed and signed digitally. Each participant was informed of his or her rights to stop the interview and the possibility of deleting their personal data and already collected data.

At the start of the interview, participants briefly introduced themselves, explaining their appeal towards fan fiction and which fandoms they follow. After the introduction, the interview transitioned into an active discussion about the discovery of fanfic content, the strengths and weaknesses of different fan fiction communities and platforms and the differences between fanfic stories and traditional books.

During the last section of the interview, we asked the participants to create the 'perfect fan fiction experience', to provoke requirements for the Möbius application. These requirements were simultaneously added to the list of requirements from the roundtable. Afterwards, the participants could vote on the full set of user requirements (both the requirements developed based on the roundtable and their own requirements developed during the discussion). Each participant had 100 points to distribute over the various user requirements. The scores were used to discuss the participants' priorities and the motivation behind their preferences.

Outcomes and analysis

The group discussion was transcribed and analysed at the level of the current practices of fan fiction enthusiasts (see section 4.5.2.), with specific attention for the likes and dislikes of fanfic communities, motivation to engage with fanfic and writing fan fiction. At the level of user requirements, the list was completed and the newer requirements were added to the themes drafted after the roundtable event. This list was then included in the survey for consortium members to rank and prioritize the full set of requirements (see section 5).

3.5 Survey

Before finalizing the Möbius user requirements, final input from our consortium partners was required. We asked the consortium to prioritize the final list for the Möbius application(s) for two specific reasons: on the one hand, because the user requirements were altered and new requirements were introduced based on the online discussion with end users. On the other hand, because the list of user requirements was extensive and a selection needed to be made to safeguard the scope of the project.

The survey launched on 29/09/21 and participation was possible until 14/10/21. Twelve responses from different consortium partners were registered. (Annex G shows the number of respondents per partner). From every consortium partner at least one representative participated.

Outcomes and analysis

The (consortium) survey and group interview results (Annex A, B, C and D) will be discussed together with the user requirements listed in section 5 of the deliverable.

In the following section, we will discuss the current practices and trends within the publishing industry. This section is based on the outcome of the desk research and interviews.

4. Current practices and trends within the publishing industry

This chapter starts with a review of the concept of business models applied to the creative and cultural sector and focuses on how this has changed due to the covid crisis (4.1.2.). Then, we discuss the current practices of the European publishing industry (4.2.), with particular attention to how the publishing industry expanded from traditional publishers (e.g., Harper Collins, Macmillan, Penguin/Random House, etc.) to digital platforms, new formats, refreshing business models, online communities, etc. The traditional gatekeeping -or content curation- role of established publishers has become less relevant due to the rise of online platforms, self-publishing services, and the vast fanfic communities. Turning our focus to the user, we discuss the current user practices (4.3.).

4.1 Value creation in the CCS

4.1.1 Business Models

Since the notion of business model emerged in the late 1990s, several definitions have been provided and used in academic literature.¹⁶ According to Teece, business models can be defined as follows: *“The essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit. It thus reflects management’s hypothesis about what customers want, how*

¹⁶ Osterwalder, A., Pigneur, Y., & Tucci, C. L. (2005). Clarifying Business Models: Origins, Present, and Future of the Concept. Communications of the Association for Information Systems, 16. <https://doi.org/10.17705/1cais.01601>

*they want it, and how the enterprise can organize to best meet those needs, get paid for doing so, and make a profit.*¹⁷

Traditionally, the analysis of a business model is focused on the value creation for a firm. On the other hand, the concept of Business Model Innovation (BMI) inserts a new element into the discussion. Indeed, as reported by Schneider and Spieth, BMI also explores customer value proposition, adopting a methodology to implement management practices to deliver a sustainable performance creating value.^{18 19} This aspect is particularly relevant for the creative and cultural sector. In recent years, literature and practices have explored how the creative and cultural sector (CCS) is facing new business models in order to (1) achieve financial sustainability without losing the not-profit mission, and (2) become crucial stakeholders for cultural activities and providers of social innovation. As reported by Schiuma and Lerro “*Cultural organizations are challenged to develop a more sustainable strategic and operational audience development, financial viability, resource and operations management, with the aim to enhance their value creation capacity as cultural agents in society*”.²⁰

This has been even more central over the last decade due to the digital shift that changed the way in which Cultural and Creative Institutions (CCI) organize their business. For instance, as reported by some scholars “*Cultural and Creative institutions are struggling to invent/adapt new business models to survive to the Internet era and to a different exploitation of media products*”.²¹ Scholars suggest that mainly two directions can be observed. On the one hand CCI stakeholders explore diversification of the sources of income, on the other hand, they implement and adopt participative approaches to audiences/visitors aimed at reaching a wider audience. This last element is particularly relevant for our analysis, as the Möbius project also aims to leverage prosumer engagement data to innovate and reach new potential audiences.

4.1.2 Impact of COVID on value creation in CCS

Over the last year a further element has impacted the way in which the CCS organize its business: the Covid 19 pandemic. As reported by IDEA Consult for CULT Committee, the CCS has been among the most negatively affected sectors by the pandemic.²²

The COVID-19 crisis, as written by IDEA Consult “*has forced many CCS organizations and professionals to restructure and rethink their revenue models. In particular, monetization of*

¹⁷ Teece, D. J. (2010). Business Models, Business Strategy and Innovation. *Long Range Planning*, 43(2–3), 172–194. <https://doi.org/10.1016/j.lrp.2009.07.003>

¹⁸ Schneider, S., & Spieth, P. (2013). Business Model Innovation: Towards an Integrated Future Research Agenda. *International Journal of Innovation Management*, 17(01), 1340001. <https://doi.org/10.1142/s136391961340001x>

¹⁹ Schiuma, G., & Lerro, A. (2017). The business model prism: managing and innovating business models of arts and cultural organisations. *Journal of Open Innovation: Technology, Market, and Complexity*, 3(1). <https://doi.org/10.1186/s40852-017-0066-z>

²⁰ Schiuma, G., & Lerro, A. (2017). The business model prism: managing and innovating business models of arts and cultural organisations. *Journal of Open Innovation: Technology, Market, and Complexity*, 3(1). <https://doi.org/10.1186/s40852-017-0066-z>

²¹ Nikiel, S. (2019). New business models for Cultural and Creative Institutions. *Management*, 23(2), 124–137. <https://doi.org/10.2478/manment-2019-0022>

²² de Voldere, I., Fraioli, M., Blau, A., Lebert, S., & Amann, S. (2021). *Cultural and creative sectors in post- COVID-19 Europe*. CULT. [https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU\(2021\)652242](https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2021)652242)

*digital contents has been crucial. The exploitation of digital income sources has exploded for those sub-sectors that had not yet fully implemented digital strategies in their income models due to the predominant physical/live component, such as performing arts, live music and heritage. On the other hand, the COVID-19 crisis has accelerated intra-CCS collaboration. The acceleration given by the crisis is an emerging opportunity that, if further consolidated, can become an intrinsic sustainable component of the business models of cultural and creative organizations and professionals”.*²³

Another element that has been pushed by the recent pandemic is the connection among organizations and users. IDEA Consult states that *“Some transformative practices are also found in the way that CCS organizations and professionals physically reached their audiences (especially after bans on movement were progressively lifted). Cultural and creative professionals were able to reach their audiences and customers through hybrid formats in which the physical and digital components complemented each other. Although it is still uncertain whether these contingent responses will effectively develop into systemic transformation, they are harbingers of future innovation and have the potential to be scaled up. This innovation is twofold: it deals with new ways of doing business and enriching the value proposition, and it also has a possible aftermath on the social level as it strengthens connections between cultural and creative organizations and local communities”.*²⁴

In the following section, we discuss how the European publishing industry has responded to the COVID crisis and provide an overview of the current state of the European publishing market.

4.2 Current state of the European publishing market

From our desk research and interviews, we gained insights into the current state of the European publishing industry. First, the publishing industry has inevitably also suffered from the covid-19 crisis. The general losses of the European publishing industry during the pandemic were similar to other industries. But revenue losses varied, depending on the country. For example, countries like Norway, Sweden and Austria witnessed losses around 5%. Still, 5% seems reasonable compared the 90% loss in sales (during April 2020) in countries like Spain and Portugal.²⁵

Overall, the physical retailers were affected the most during the lockdowns, whereas digital and online sales increased in countries like the Netherlands (30%) and one third in Norway.²⁶

²³ de Voldere, I., Fraioli, M., Blau, A., Lebert, S., & Amann, S. (2021). *Cultural and creative sectors in post- COVID-19 Europe*. CULT. [https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU\(2021\)652242](https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2021)652242)

²⁴ de Voldere, I., Fraioli, M., Blau, A., Lebert, S., & Amann, S. (2021). *Cultural and creative sectors in post- COVID-19 Europe*. CULT. [https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU\(2021\)652242](https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2021)652242)

²⁵ Federation of European publishers. (2021). *consequences of the covid-19 crisis on the book market*. <https://fep-fee.eu/European-publishing-at-the-time-of>

²⁶ Ibid.

The main question is if the imbalance between online and physical sales will be restored over time?²⁷

4.2.1 General overview of the European publishing sector

In this section we systematically assess the European publishing industry. We first discuss the revenues, and then look at the current state of digital innovations. Finally, we highlight the challenges for digital innovation such as scarcity of data.

Physical and digital format adoption of the European market

The publishing industry's main revenue is still derived from the retail of physical books, which indicates the strength of traditional book consumption.²⁸ Many readers still prefer a physical copy of a book. This is in contrast to audio-visual consumption, where traditional music and video carriers (such as CDs, VHS, DVD) have been replaced by digital alternatives (on-demand and streaming services). Despite the introduction of digital formats (e.g., ebooks and audiobooks) physical books seem to maintain their market position. Particularly in European countries like France and Germany, paper books remain popular. In 2020 in Germany, 58% of the population bought a physical book, versus 10.4% that bought an ebook. In France this is 52.1% versus 7.5% for ebooks.^{29 30} One potential explanation for the continued success of the traditional book is that ebooks offer fewer haptic attributes compared to physical books,³¹ which will be discussed in more detail in the following section. Physical books may still have an edge compared to digital formats, but they do also struggle with certain bottlenecks. For example, the current supply chain problems of worldwide paper shortages, which might harm the potential revenue of both publishers and retailers (see section 4.2.2.)³²

Even though, physical books still remain popular, the increased adoption of digital formats (ebooks and audiobooks) should not be overlooked. First, the growth of audiobooks accelerated in some countries (Italy) during the pandemic and introduced new subscription-based business models via streaming platforms (e.g., Audible).^{33 34 35} Italy is the ideal example, due to the 10% growth of audiobooks consumption between 2019 and May 2021³⁶, which could

²⁷ FEP, interview by Thomas Van Dam, online, June 7, 2021.

²⁸ FEP, interview by Thomas Van Dam, online, June 7, 2021.

²⁹ Richter, F. (2021, August 9). E-Books Still No Match for Printed Books. Statista Infographics. <https://www.statista.com/chart/24709/e-book-and-printed-book-penetration/>

³⁰ Ang, C. (2021, October 16). Print Has Prevailed: The Staying Power of Physical Books. Visual Capitalist. <https://www.visualcapitalist.com/print-books-versus-e-books/>

³¹ Gerlach, J., & Buxmann, P. (2011). < Previous Next > Home > Conferences > ECIS Proceedings > ECIS2011 > 141 ECIS 2011 Proceedings INVESTIGATING THE ACCEPTANCE OF ELECTRONIC BOOKS – THE IMPACT OF HAPTIC DISSONANCE ON INNOVATION ADOPTION. ECIS.

³² Walsh, E. (2021, September 18). Bestsellers may be harder to come by as book sellers struggle with supply chain disruptions. Business Insider. <https://www.businessinsider.com/book-sellers-struggle-with-supply-chain-disruptions-2021-9?international=true&r=US&IR=T>

³³ FEP, interview by Thomas Van Dam, online, June 7, 2021.

³⁴ Federation of European publishers. (2020). Report of activities. FEP. <https://fep-fee.eu/-Publications->

³⁵ Richter, F. (2021, August 9). E-Books Still No Match for Printed Books. Statista Infographics. <https://www.statista.com/chart/24709/e-book-and-printed-book-penetration/>

³⁶ Centro per il libro e la lettura. (2021, July 13). The transformation of reading habits in Italy during the pandemic in 2020. Aldus. <http://www.aldusnet.eu/k-hub/transformation-reading-habits-italy-pandemic-2020/>

relate to Audible's full catalogue streaming business model. Second, ebooks have come a long way but the adoption rate stagnated over the years. Although some countries do witness significantly higher adoption rates compared to other countries. For example, in 2016, 21% of readers in France had consumed an ebook. When we look at the adoption of the devices, FEP mentions a steady adoption in some markets (e.g., France), but an overall decline in sales of ereaders.³⁷ According to FEP, the digital book market shows plenty of opportunities for growth without cannibalizing on physical book sales. Yet, it is important to frame the ebook breakthrough and link it to Amazon's launch of Kindle, with its extensive online catalogue. The Amazon kindle caters to the need for affordable hardware (ereader) and sufficient content (ebooks). Over a decade after the introduction of the Amazon kindle, Amazon still dominates the digital book sales (e.g., in the UK between 80-90% of ebooks are sold via Kindle), creating a disadvantage for European players, according to FEP.³⁸ Still, even with the current stagnation, Statista does expect the market for digital books to grow significantly by 2025.³⁹

From the desk research, we can state that only Germany has taken actions against Amazon, as discussed in [section 4.2.3](#). Lastly, FEP mentions that publishing ebooks is considered a risk in the sense that it is not cheaper compared to publishing physical books, yet ebooks are (in general) priced lower than physical books.⁴⁰

Current adoption of digital tools in the publishing industry

Even though the publishing industry seems traditional and hesitant towards change and innovation, this doesn't necessarily mean that the industry didn't adopt digital tools over the years. First, the editing process is fully digital streamlining the publishing process for the publishers and content creation for authors. Second, marketing transitioned to digital platforms, and therefore, publishers also use social media and other online marketing solutions to promote their products. Third, technology in general reduced the costs of publishing and streamlined the publishing process. Fourth, both online sales (of both ebooks and physical copies) and digital ebook sales are only possible, due to the industry adopting new retail and revenue models.⁴¹ New online stores embraced the sales of digital books, newspapers, magazines, and audiobooks.⁴² Lastly, as discussed in the previous paragraphs, digital formats do exist and are used by publishers. So, in general, we can state that digital innovation is integrated into the daily practices of publishers. Yet, some actors in the ecosystem do seem to struggle with the acceleration of e-commerce and digital formats. Here, we refer to traditional retailers (brick-and-mortar) stores, that struggled during the pandemic (see [section 4.2.2](#)).

³⁷ Federation of European Publishers. (2017a). R2.1 ANALYSIS OF THE STATUS QUO AND OF THE STRATEGIC PROSPECTS WITH REGARD TO THE PUBLISHING SECTOR (DIFFICULTIES, CHALLENGES AND OPPORTUNITIES). <http://www.erasmus-asap.eu>

³⁸ Ibid.

³⁹ Statista. (2021a). eBooks - Worldwide. <https://www.statista.com/outlook/dmo/digital-media/epublishing/ebooks/worldwide>

⁴⁰ Federation of European Publishers. (2017a). R2.1 ANALYSIS OF THE STATUS QUO AND OF THE STRATEGIC PROSPECTS WITH REGARD TO THE PUBLISHING SECTOR (DIFFICULTIES, CHALLENGES AND OPPORTUNITIES). <http://www.erasmus-asap.eu>

⁴¹ Ibid.

⁴² Ibid.

Even though publishers embraced several digital innovations (see example, German market), based on the conducted desk research and interviews, we can conclude that the publishing industry (in general) is resilient and able to adapt new technology.^{43 44} The European industry is working towards innovating the publishing sector via various initiatives. For example, reaching new consumers also relates to the inclusion aspect – to make books accessible to all European citizens and closing the gap between the publishing industry and those who have trouble consuming traditional books. By 2025, all ebooks sold in Europe must be accessible for everyone, with special attention to citizens who experience difficulty.^{45 46 47}

Digital innovation challenges

The lasting popularity of physical books has implications for publishers in terms of market knowledge. Publishers **have limited access to data of their products and users**.⁴⁸ Compared to the advanced analytics that digital media formats (e.g., Netflix, YouTube, Spotify, etc.) can leverage, publishers suffer a disadvantage – preventing the use of data analytics to improve the connection with users, distribution process or even spotting trends. Providing relevant data to publishers could even the playing field and offer new opportunities to increase revenue, publish relevant content and overall improve publishing operations and business models.^{49 50}

The digital shift pushed the relevance of data, and this also for the publishing industry. Yet, as mentioned before, compared to Netflix, YouTube or Amazon, traditional publishers don't have access to endless streams of consumer data. Book publishers have limited knowledge on their consumers: what they like, how often they read, etc., while this is very useful information for them⁵¹ as insights in consumer behaviour and patterns through data has become a crucial resource for any media -or sales-driven industry. As a consequence, the accessibility and use of data is one of the biggest challenges in the industry and for the Möbius project. In addition, from our interviews and the desk research, it seems there are different levels of innovation adoption in the European local markets, and different levels in which data from digital tools and platforms is actively used by publishers and sellers. For Möbius, this can be an opportunity to add value for the European publishers – giving new insights on potential business models, new consumption methods, immersive experiences and data collection tools.

However, it is important to mention that not all European markets are equally traditional or digital. During the interviews we ascertained substantial differences regarding innovations

⁴³ FEP, interview by Thomas Van Dam, online, June 7, 2021.

⁴⁴ MVB, interview by Thomas Van Dam, online, June 11, 2021.

⁴⁵ Kirsi, M. (2020, March 19). The European Accessibility Act and accessibility of e-books. Vastuullinentiede. <https://vastuullinentiede.fi/en/publishing/european-accessibility-act-and-accessibility-e-books>

⁴⁶ FEP, interview by Thomas Van Dam, online, June 7, 2021.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ FEP, interview by Thomas Van Dam, online, June 7, 2021.

⁵⁰ Federation of European Publishers. (2017a). R2.1 ANALYSIS OF THE STATUS QUO AND OF THE STRATEGIC PROSPECTS WITH REGARD TO THE PUBLISHING SECTOR (DIFFICULTIES, CHALLENGES AND OPPORTUNITIES). <http://www.erasmus-asap.eu>

⁵¹ FEP, interview by Thomas Van Dam, online, June 7, 2021.

adoption in different markets and/or certain formats or trends.⁵² For instance, the German market seems to take a pole position on digital infrastructure for the publishing industry, with sector-wide digital tools that can be added to and used by publishers, self-publishers and book sellers.⁵³ In contrast, the Portuguese market is much more fragmented with small independent publishers that have less financial clout to 'go digital'.⁵⁴ These local differences will need to be taken into account during the planning the Möbius pilot phases.

In the following sections, we will look at the challenges and opportunities that arose specifically in a COVID-19 context. Then, we discuss three European markets, namely Germany, Italy and Portugal.

4.2.2 Covid-19 challenges and opportunities

The covid-19 pandemic caused challenges for the publishing industry and especially traditional retailers (or at least those who didn't have online retail channels).⁵⁵ ⁵⁶ But the pandemic also led to several opportunities and accelerated the growth of digital formats (ebooks and audiobooks) and e-commerce. Therefore, we will discuss both the challenges and opportunities that occurred during the pandemic and their influence on the future of the publishing industry.

Supply chain bottlenecks spiked during the first lockdowns, and they still linger on. From electronics (e.g., computer chips) to general construction supplies (e.g., lumber) faced supply and demand challenges, causing prices to inflate.⁵⁷ Also, the publishing industry faced supply bottlenecks, and hereby, book launches got postponed, leading to missed revenue opportunities. For example, due to supply chain issues and the higher demand for lumber, both the US and Europe face paper shortages causing delays, which could extend to 2022, and hereby, lead to missed revenues during the holiday shopping period.⁵⁸ ⁵⁹ ⁶⁰ Yet, physical book sales in the US grew with 18,7% in 2021, compared to 2020. Demand is high, but the supply struggles to meet demand.⁶¹

⁵² FEP, interview by Thomas Van Dam, online, July 7, 2021.

⁵³ MVB, interview by Thomas Van Dam, online, June 11, 2021.

⁵⁴ Associação Portuguesa de Editores e Livreiros, interview by Thomas Van Dam, online, June 28, 2021.

⁵⁵ Ibid.

⁵⁶ Gruppo editoriale Mauri Spagnol, interview by Thomas Van Dam, online, June 29, 2021.

⁵⁷ Kay, G. (2021, October 21). Why the supply chain is in crisis, spurring an "everything shortage." Business Insider. <https://www.businessinsider.com/why-store-shelves-are-empty-supply-chain-crisis-shortages-2021-10?r=US&IR=T>

⁵⁸ Schlozer, R. (2021, September 14). Paper Shortages and Price Increases Cause Turmoil in Germany, Europe, and Elsewhere. WhatTheyThink. <https://whattheythink.com/articles/107535-paper-shortages-price-increases-cause-turmoil-germany-europe-elsewhere/>

⁵⁹ Walsh, E. (2021, September 18). Bestsellers may be harder to come by as book sellers struggle with supply chain disruptions. Business Insider. <https://www.businessinsider.com/book-sellers-struggle-with-supply-chain-disruptions-2021-9?international=true&r=US&IR=T>

⁶⁰ O'Connor, W. (2021, September 19). Shortage of paper pushes up costs for publishers. Independent. <https://www.independent.ie/irish-news/shortage-of-paper-pushes-up-costs-for-publishers-40864918.html>

⁶¹ Walsh, E. (2021, September 18). Bestsellers may be harder to come by as book sellers struggle with supply chain disruptions. Business Insider. <https://www.businessinsider.com/book-sellers-struggle-with-supply-chain-disruptions-2021-9?international=true&r=US&IR=T>

Second, we already discussed the **struggles of brick-and-mortar bookstores**. Still, book sales in general went up during the pandemic, and not all physical bookstores suffered major losses.⁶² Yet, we can't generalize the success of book sales, as discussed before, and in the next sections, we discuss three European markets based on desk research and interviews. Here we witness a grimmer view on the position of physical bookstores.

Besides the challenges accelerated during the pandemic, the publishing sector is confronted with the opportunity of **digital formats and e-commerce**. Digital formats grew strongly in the last two years, which should be embraced by the publishing industry. In a publication of FEP from 2017, the importance of innovation and especially the opportunities regarding ebooks was stressed. The digital formats show potential for both the authors and readers, and for publishers to establish meaningful connections with their consumers. This by implementing innovative concepts (e.g., video, audio or gamification) into the ebook format, will drastically change the way we consume/read digital books. Therefore, the pandemic offers an ideal situation to push new formats to readers, and Möbius could play an important role in renewing the industry.⁶³

4.2.3 German market

If we look at the German publishing industry, we see a strong market, strengthened by several initiatives in favour of the publishers and booksellers. In 2017, Germany had 2,000 publishing houses, which published over 90,000 titles each year.⁶⁴ Physical bookstores still remain the largest retailers (42% sales) even with the 9% decline of sales in 2020. Yet, online retail grew strongly during the pandemic, covering 25% of all book sales. Also, digital formats increased in popularity with ebook downloads increasing by 16,2%, and audiobooks downloads with 24,5%. It is interesting that the demand of ebooks recently increased during the covid-19 pandemic, when in 2015 25% German readers already consumed ebooks.⁶⁵ Overall, the resilience of the German market is the result of strong market competition regulations and innovation.⁶⁶

First, Germany holds a worthy local competitor to Amazon, to combat online book sales. Buchhandel.de is aimed at end-consumers who can easily order books online, delivered at home or at local bookstores. Second, to prevent a price war between domestic and international players, Germany introduced fixed book prices, which prevents big players to dominate the market via low pricing strategies.

⁶² FEP, interview by Thomas Van Dam, online, June 7, 2021.

⁶³ Federation of European Publishers. (2017b). R2.2 ANALYSIS ABOUT HOW DIGITAL BOOKS ARE CHANGING THE READING AND WRITING BEHAVIOURS AND HOW THESE CHANGES IMPACT ON THE PUBLISHING SECTOR. <http://www.erasmus-asap.eu>

⁶⁴ Encyclopedia Britannica. (2017). Germany - Media and publishing. <https://www.britannica.com/place/Germany/Media-and-publishing>

⁶⁵ Federation of European Publishers. (2017b). R2.2 ANALYSIS ABOUT HOW DIGITAL BOOKS ARE CHANGING THE READING AND WRITING BEHAVIOURS AND HOW THESE CHANGES IMPACT ON THE PUBLISHING SECTOR. <http://www.erasmus-asap.eu>

⁶⁶ Anderson, P. (2021b, July 8). Germany's Book Market: The Börsenverein on 2020 and Early 2021 Sales. Publishing Perspectives. <https://publishingperspectives.com/2021/07/germany-book-market-a-tense-situation-the-borsenverein-reports/>

Third, publishers are innovative in several aspects of the publishing process. Examples include innovative products (Tonie audiobooks⁶⁷) or immersive book experiences for children using mobile devices to bring characters to life) and the launch of Verzeichnis Lieferbarer Bücher (VLB), an industry-wide digital portfolio that includes a database of all published books which can be used by booksellers and publishers.

Lastly, German publishers understand the power of social media, prosumers and the self-publishing business model. Several publishers founded new companies to use the potential of social media promotion and involve the consumer in the publishing process.⁶⁸

Even with the numerous positive aspects, the **German industry still faces several challenges** to maintain their relevance. For example, the German industry is still considered conservative in the sense that it is hesitant towards new methods and tools, which can disrupt the current practices of the industry. The aforementioned VLB was received with caution by the industry in fear of reducing jobs. Besides the skepticism to innovate, MVB remarks that mainly the bigger publishers show an interest in innovation, new business models, and consumption methods. Smaller players also see the potential but don't have the financial recourses to experiment with new products in comparison to larger players who can afford to experiment and even take a loss on some experiments.

Finally, Germany experiences a **decline of younger consumer demographics**, which gravitate more towards other entertainment services (e.g., video streaming, gaming, social media, etc.).⁶⁹

4.2.4 Italian market

In general, the Italian publishing industry is doing fairly well, due to steady growth of sales over the last two years. Book sales in 2021 increased with 16,2% compared to 2019, and the total revenue of book sales grew with 28% compared to 2019.⁷⁰ Regarding digital sales, the online market grew strongly during the pandemic, taking up 47% of total sales in 2021, compared to 2019 where online sales made up 34,1% of the total sales.⁷¹ From the interview with the Gruppo editoriale Mauri Spagnol (an Italian publisher group with 20 members) the growth seems to benefit the publishers more compared to the physical booksellers, who suffer losses due to the rise of e-commerce and more specific online book sales.⁷² Still, the publishing industry could be seen as the only traditional media industry which suffered moderate losses compared to the music and traditional print industry (newspaper, magazines, etc.).⁷³

⁶⁷ <https://tonies.com/de-de/>

⁶⁸ MVB, interview by Thomas Van Dam, online, June 11, 2021.

⁶⁹ MVB, interview by Thomas Van Dam, online, June 11, 2021.

⁷⁰ Anderson, P. (2021d, October 7). Italian Publishing Shows More Growth in 2021: Up 29 Percent. Publishing Perspectives. <https://publishingperspectives.com/2021/10/italian-publishing-shows-more-growth-in-2021-up-29-percent-covid19/>

⁷¹ Anderson, P. (2021c, July 14). Italy's Publishers Report 44-Percent Unit Growth, First Half of 2021. Publishing Perspectives. <https://publishingperspectives.com/2021/07/italys-publishers-report-44-percent-unit-growth-first-half-of-2021-covid19/>

⁷² Gruppo editoriale Mauri Spagnol, interview by Thomas Van Dam, online, June 29, 2021

⁷³ Gruppo editoriale Mauri Spagnol, interview by Thomas Van Dam, online, June 29, 2021.

Looking at the digital market, Gruppo editoriale Mauri Spagnol states that we can't speak of a digital breakthrough regarding ebooks. Yet, it is interesting to see how ebook revenues grew with 36,6% and audiobooks with 94% in 2020.⁷⁴ Italy is also the only country that has access to Amazon's Audible complete catalogue via a fixed subscription model instead of Audible's monthly token system.⁷⁵

Still, the Italian sector doesn't have similar market potential in comparison to German or Portuguese markets, due to its smaller market size. Regardless the digital transformation and decline in readers, the Italian industry still maintains its relevance.⁷⁶

4.2.5 Portuguese market

The Portuguese market suffered major losses during the pandemic, causing a decline in sales of 25%. From our interview with Grupo Leya, we learned that it took the Portuguese market over nine years to recover from the economic crisis of 2008. This nine-year economic recovery vanished during the 2020 pandemic. An additional factor is that, in Portugal, reading habits of the general population are in decline, which makes the current situation worse.⁷⁷

Looking at the market structure, the Portuguese publishing sector consists of two major publishers (Grupo Leya and Porto Editora) who control the majority of the market and maintain a conservative approach towards the publishing process. Besides the two main players, the market is fragmented over 300 smaller publishers, who struggle to compete and innovate, due to the market structure. For the retail industry, we conclude that the vast majority of the sales are generated by three players: a supermarket chain, a bookseller, and a multimedia retailer. Although this is challenging and provides a barrier for market entry for small book publishers, the major publishers benefit from the concentrated retail position and have an interest in maintaining the current situation.⁷⁸

Challenges in the Portuguese market include the decline in time spent reading, according to Grupo Leya. Despite the popularity of non-fiction and children's' books, Portugal has a habit of gifting books rather than reading books.

"67% of the books sold every year are around Christmas time. From September onwards, the majority of books that sell are non-fiction. [...] This means that the majority of sales are gifts, not for reading [...]. (Grupo Leya, interview)"⁷⁹

Yet, audio formats show promising potential within the Portuguese speaking communities. Both podcasts and audiobooks are in demand and seem to capture a decent audience. Therefore, a Portuguese streaming based service is in development, offering both podcasts

⁷⁴ Anderson, P. (2021a, March 26). AIE: Italy's Trade Book Publishing Sales Grow 2.4 Percent in 2020. Publishing Perspectives. <https://publishingperspectives.com/2021/01/italy-trade-publishing-sales-grow-2-4-percent-in-2020-covid19/>

⁷⁵ Gruppo editoriale Mauri Spagnol, interview by Thomas Van Dam, online, June 29, 2021.

⁷⁶ Ibid.

⁷⁷ Associação Portuguesa de Editores e Livreiros, interview by Thomas Van Dam, online, June 28, 2021

⁷⁸ Associação Portuguesa de Editores e Livreiros, interview by Thomas Van Dam, online, June 28, 2021

⁷⁹ Ibid.

and audiobooks. This combined with the market segment of over 200 million Portuguese native speakers, could become a hit for audio formats.⁸⁰

The European book publishing industry has evolved over the past years and particularly also had to deal with major challenges due to covid-19. Being a traditional industry mainly focused on physical book sales, publishers have limited insights in user practices. These insights could however be relevant for them on different levels. Some publishers already make use of prosumers in their publication processes.

In the next section we will focus on alternative publishing platforms and consortium partners related to the publishing industry.

4.3 Innovative publishing platforms

As discussed in previous sections, the digital transition has transformed the publishing sector over the last decade introducing serious novelty into the value chain. As reported by FEP “*At the heart of the digital transition of the last 10 years, and as the most visible output of the digital transformation of publishers, lies the e-book, the tangible manifestation of product innovation*”.⁸¹ However, in parallel to the product itself, a huge innovation is to strengthen the relationship between editors and readers. As also emerged from the conversation with the Möbius partners Federation of the European Publishers (FEP) and BookaBook, the engagement of the users is, indeed, the most promising and interesting innovation for the publishing sector over the last years. Such change reshapes the value chain and related business opportunities. In this section, we will discuss several remarkable and reasonably new publishing platforms, which leverage the opportunities of the digital transition and new business models (e.g., crowdfunding and self-publishing). Without dedicated platforms, this shift from passive to active consumers wouldn't be possible.

4.3.1 Crowdfunding models

One way to reshape the publishing business model is through crowdfunding. In this sense, it is possible to mention three models: Bookabook⁸², Unbound⁸³ and Inkshares⁸⁴. Even if with some differences, the three cases rely on large communities⁸⁵ who provide feedback, buy the pre-ordered book and inform the editor on what they like most. In the three cases, the writer submits the book to the editor who launches it on the platform. If the book reaches the interest of the community, it is published. Writers can submit their manuscript through the platform or through dedicated contests, as in the case of Inkshares.

⁸⁰ Ibid.

⁸¹ Federation of European publishers. (2017). R2.1 Analysis of the status quo and of the strategic prospects with regard to the publishing sector (difficulties, challenges and opportunities). FEP. <https://fep-fee.eu/-Publications->

⁸² Bookabook is available here <https://bookabook.it/>

⁸³ Unbound is available at <https://unbound.com/>

⁸⁴ Inkshares is available here <https://www.inkshares.com/>

⁸⁵ Bookabook counts on a community of 60,000 users, Unbound on 290,000 users and Inkshares 100,000 users.

Also the model proposed by Publishizer⁸⁶ is based on crowdfunding. This is similar to the previous ones, as it selects books according to the communities' preferences, but it is more oriented to the match-making between authors and publishers. Once the book is approved by the community, in fact, the platform creates the connection among the author and the interested publisher. As reported on the website "Publishizer queries our acquiring editors at Big Five publishing houses. Authors receive a range of offers, select the best publisher, and receive their funds payment. Authors can choose to self-publish, if preferred, although most authors choose to work with a publisher". In all these cases, the reader can start the process for free, the platform gains the fee according to the amount of copies sold.

4.3.2 Reader driven models

Platforms as Inkitt and Wattpad also leverage the power of communities, but don't have the goal to publish books via crowdfunding campaigns. Inkitt⁸⁷ launched in 2015 and started as an app that allows writers and authors to share parts of their manuscript or the entire book to get the readers' feedback. Thanks to data analytics, the data collected provide information about readers' preferences, hence informing the writer. In 2019, Inkitt developed Galatea, an immersive reading experience. As reported by TechCrunch⁸⁸ "*Inkitt selects the stories that perform the best on its first app — most readers, most often completed reading, best feedback, most recommended, and so on — and its in-house team of editors and developers reformat them for Galatea as short-form, bite-sized "mini episodes" that come with specific effects attuned to each page you read to make the experience more immersive. This includes features like sound, haptic effects like the phone vibrating with crashes and heartbeats, fire spreading across the screen in a burning moment, and a requirement for users to swipe to proceed to the next section*". In this case, the community informs the stories but also the technological elements that become crucial having an impact on the way in which those stories are consumed.

A similar service is provided by Wattpad. The Canadian platform launched in 2006 and offers amateur writers a platform to publish their stories. Compared to fanfic platforms, Wattpad targets writers willing to create original content and as such manufacturing new IP. Wattpad is mostly known for their self-publishing services – reaching a global audience of 90 million users, with 90% of its users being from the Gen Z and Millennial generation.⁸⁹ Wattpad manages to effectively capture one of the most valuable customer demographics and knows how to leverage their skills.

Over the years, Wattpad expanded its services, strengthening its position within the industry. Table 4 describes the different services it offers and the business models behind these services.

⁸⁶ Publishizer is available at <https://publishizer.com/>

⁸⁷ Inkitt is available at <https://www.inkitt.com/>

⁸⁸ Lunden, I. (2019, August 28). *Inkitt raises \$16M led by Kleiner Perkins to publish crowdsourced novels in 'mini-episodes.'* TechCrunch. <https://techcrunch.com/2019/08/28/inkitt-raises-16m-led-by-kleiner-perkins-to-publish-crowdsourced-novels-in-mini-episodes/?guccounter=1>

⁸⁹ Wattpad. (2021a). Wattpad | Wattpad HQ. Company.Wattpad.Com. <https://company.wattpad.com/>

User related	Content
Wattpad Paid Stories ⁹⁰	<ul style="list-style-type: none"> • Writers (verified and selected by Wattpad) can monetize their content • Users (readers) can purchase coins within the Wattpad ecosystem and unlock stories (or chapters) by spending coins
Wattpad Freemium ⁹¹	<ul style="list-style-type: none"> • Users will experience ads
Wattpad Premium ⁹²	<ul style="list-style-type: none"> • No ads • Offline reading • Monthly coins • \$4.99
Wattpad Premium+ ⁹³	<ul style="list-style-type: none"> • No ads • Offline reading • Monthly coins • Two unlock paid stories per month • \$7.49
Wattpad Insights ⁹⁴	<ul style="list-style-type: none"> • AI tool to improve users' writing skills by comparing users' work with successful Wattpad books – offering feedback on the content on grammar, writing, reading time, etc. All combined in one report • \$9.99
Brand related	Content
Wattpad Brand Originals ⁹⁵	<ul style="list-style-type: none"> • Extending Wattpad's IP <ul style="list-style-type: none"> ◦ Wattpad's content transformed into books, series, and film
Wattpad Brand Partnerships ⁹⁶	<ul style="list-style-type: none"> • Wattpad delivers authentic stories and branded entertainment. Giving brands the opportunity to share their story with Gen Z's, through the Wattpad platform.

Table 4 Wattpad revenue models

⁹⁰ Parnell, C. (2020). Mapping the entertainment ecosystem of Wattpad: Platforms, publishing and adaptation. *Convergence: The International Journal of Research into New Media Technologies*, 27(2), 524–538.

⁹¹ Wattpad. (n.d.-a). Wattpad Premium | Supercharge Your Wattpad Experience. Wattpad.Com.

<https://www.wattpad.com/premium/>

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Wattpad. (2019). November 28, 2019 - Introducing Wattpad Story Insights.

⁹⁵ Business Wire. (2021, March 15). Wattpad Brand Partnerships Launches Wattpad Brand Originals, a New Branded Entertainment Offering. Businesswire.com.

⁹⁶ Wattpad. (n.d.-b). Wattpad Brand Partnerships - Where brand stories live. Wattpad.com. <https://brands.wattpad.com/>

Interaction on the platform is rather limited, users can comment on books; hereby communicating with the writers and other readers. Just like several fan fiction platforms, Wattpad has an active Reddit community (r/Wattpad) with 17,400 members.⁹⁷

Lastly, another model to consider is provided by Blinkist. Founded in 2012, Blinkist provides summaries of over 4,500 bestselling non-fiction books, 15-minute reads, known as Blinks or book-in-blinks, and can count on a community of over 19 million users.

In Table 5, we present a brief overview of the platforms discussed with some additional information.

Platform	Users	Access to content
Bookabook	150,000	Crowdfunding
Unbound	290,000	Crowdfunding
Inkshares	100,000	Crowdfunding
Publishizers	60,000	Crowdfunding
Inkitt	2,000,000	Free of charge
Wattpad	90,000,000	Free of charge (for most of the content)
Blinkist	19,000,000	Subscription-based

Table 5 Innovative models for the publishing sector

4.4 Publishing partner activities

This section gives a brief overview of the current activities of the publishing partners collaborating with the Möbius project. We have interviewed each partner to gain insights on their vision concerning new business models and customer engagement within the Möbius project.

4.4.1 Bookabook

Core activities, focus and mission

Bookabook shares various similarities with traditional publishers, but **leverages the power of crowdfunding and community building**. Writers can upload their manuscript, which will be curated by Bookabooks' editorial staff, free of charge. If the manuscript has potential, a

⁹⁷ Reddit. (n.d.-a). Wattpad: Where stories live. • r/Wattpad. <https://www.reddit.com/r/Wattpad/>

crowdfunding campaign will be set up with the goal of reaching 200 backers. At this point, it depends on the readers, who get access to a small portion of the story that will trigger them to support the crowdfunding campaign.^{98 99} Bookabook takes care of all the needed steps: setting up crowdfunding campaigns, editorial assistance, graphic design, printing physical copies, promotion, distribution, etc. Once a project reaches the required number of presales, all the necessary steps will be executed, and the book will be published by Messagerie Libri.

Revenue model

Authors are entitled to 10% of the price of each copy sold during and after the crowdfunding campaign. The other 90% of revenue is reserved for Bookabook.¹⁰⁰ Bookabooks' revenue model is closely linked to the involvements of the readers, who also take the role as prosumers and *backers*, by supporting the crowdfunding campaign.

Prosumer involvement

It is important to stress Bookabooks' vision on involving readers within the publishing process. Besides being the main driver behind the crowdfunding campaigns, readers form (small) communities around the books they funded – giving readers the feeling they are part of the process. This is the distinction between Bookabook and the average publisher that doesn't involve readers during the creative and publishing process.¹⁰¹

Experience with innovations

Bookabook successfully leveraged the lack of innovation from its competitors, by using an alternative digital business model, which combines community building, lower risk financing, digital formats – while still producing both digital and physical books, available online and in traditional bookstores.¹⁰²

Experience with immersive media

Lastly, due to Bookabooks' innovative nature – they are open-minded to experiment with immersive media and new consumption formats. Bookabook already has experience with augmented reality using Instagram overlay filters to enhance users' engagement.¹⁰³

Möbius expectations

Bookabook will benefit from the upcoming Möbius applications, which will deliver new book experiences and user-driven data. Both outcomes can support Bookabook's business and even expand the platform's possibilities. Also, Bookabook will deliver the manuscripts for the Möbius pilot books.

⁹⁸ Bookabook, interview by Thomas Van Dam, online, June 16, 2021.

⁹⁹ Bookabook. (n.d.-a). Che cos'è Bookabook? - Bookabook. <https://bookabook.it/che-cose-bookabook/>

¹⁰⁰ Bookabook. (n.d.-b). FAQ - Bookabook. <https://bookabook.it/domande-frequenti/>

¹⁰¹ Bookabook, interview by Thomas Van Dam, online, June 16, 2021.

¹⁰² Ibid.

¹⁰³ Ibid.

4.4.2 MVB

Core activities, focus and mission

The Marketing and Publishing Services of the book trade (MVB) is a technology- and information-driven association that promotes publishers in domestic and international markets. This by leveraging metadata standards, advertising formats, marketing tools and networking opportunities to gain insights in various markets.¹⁰⁴ It is important to mention that MVB is part of The German Publishers & Booksellers Association, which lobbies for the German book industry - optimizing its political and economic conditions.¹⁰⁵

MVB offers numerous data-driven utilities (based on metadata) widely used by publishers. For example, MVB was closely involved in the development of *Das Verzeichnis Lieferbarer Bücher* (VLB) an online platform aimed at selling book novelties and promotional tools. The VLB platform gives booksellers and publishers access to useful data that can aid in the development of new book catalogues (e.g., booksellers can design new catalogues around specific themes – using VLB to find books that fit the niche).¹⁰⁶

Revenue model

MVB is an independent organization that aims to improve both the national and international position of the German publishers. Over the years, MVB embraced the digital shift and broadened their scope to leverage data in order to provide different services and products for the German publishing sector. Yet, MVB doesn't only serve publishers, but also aims to include services for at related sectors, e.g., bookstores or retailers. The revenue model of MVB is spread over numerous products and services.¹⁰⁷

Prosumer involvement

MVB doesn't have direct interactions with prosumers. Yet, from the interview, we can conclude that MVB defines prosumers broadly, to cover numerous roles such as content creation, consuming, and social media activities.¹⁰⁸

Experience with innovations

As mentioned before, MVB embraced the digital wave and the growth of data collection and analysis. MVB built the largest book and print database of the German market, which consist of metadata (e.g., bio, pictures of authors, pages, etc.) from almost all available German literature. The database dominates both the native German market and other German-speaking markets (Switzerland and Austria). Besides the massive online database, MVB embraces innovation in their marketing services via the VLB platform, which offers promotional tools for publishers and booksellers. Lastly, MVB is also involved in the Creative Shift project¹⁰⁹.

¹⁰⁴ MVB. (n.d.-a). Company - mvb-online.de (en). Mvb-Online. <https://mvb-online.com/about-us/company>

¹⁰⁵ MVB. (n.d.-b). Brands and Products - mvb-online.de (en). Mvb-Online. <https://mvb-online.com/brands-and-products>

¹⁰⁶ MVB, interview by Thomas Van Dam, online, June 11, 2021.

¹⁰⁷ MVB, interview by Thomas Van Dam, online, June 11, 2021.

¹⁰⁸ Ibid.

¹⁰⁹ <https://creativeshift.eu>

in its final phase, which is an experimental intersectoral platform that combines different media formats (e.g., games, video, etc.).¹¹⁰

Experience with immersive media

From the interview, we can conclude that MVB sees an immersive media experience as pushing further than an ebook or audiobook. Both formats can enhance or provide a different experience than traditional print books, but defining them as immersive doesn't seem to fit. Looking at the German market, MVB mentioned that the older reading demographics likely won't use new immersive experiences. Yet, Germany also experiences a drop in readers - looking at the younger demographics, which we must keep in mind. These younger demographics could be a potential and lucrative market, which hold the needed know-how to engage with new consumption formats via smartphones, tablets, or other hardware. Several innovative children's books are already available in the German market, for example, combining book with augmented reality via mobile devices. MVB expects to push further than those existing book experiences. During the interview, it became apparent that for MVB, just adding audio, images or video, will probably not be enough to create a new exiting reading experience.

Lastly, immersive new experiences wouldn't be directly implemented by MVB, but would be used by publishers. MVB would support publishers and take a supporting role for the industry by introducing new methods to track and analyze data.

Möbius expectations

MVB expects a new, immersive reading experience. Besides the immersive aspect, MVB is mostly a data-driven organization. Therefore, the Möbius prosumer intelligence toolkit and the Möbius dashboard show the most potential for MVB services. Publishers would benefit greatly via direct user data, and therefore the data gathering applications could strengthen MVB's services.

4.4.3 FEP

Core activities, focus and mission

The Federation of European Publishers (FEP) is an independent non-commercial umbrella association active within the European Union and acts as the independent voice for 29 European publishers. Its core mission is to represent the interests of the European publishers and stimulate innovation for the whole industry.^{111 112}

Revenue model

As mentioned before, FEP is an independent non-commercial association representing the numerous European publishers. FEP is closely related to the European Union and co-funded

¹¹⁰ MVB, interview by Thomas Van Dam, online, June 11, 2021.

¹¹¹ Federation of European Publishers. (n.d.-a). About FEP. Fep-Fee. <https://fep-fee.eu/-About-FEP->

¹¹² FEP, interview by Thomas Van Dam, online, June 7, 2021.

by European recourses. Therefore, FEPs main goal isn't profit, but solely representing and maintaining the interest of the European publishing industry.¹¹³

Prosumer involvement

FEP isn't directly in contact with prosumers or prosumers related activities. Just like MVB, FEP described prosumers in a broader sense - covering various roles. FEP mentioned a clear distinction between prosumers that write and read, a more passive versus an active approach. Still, prosumers could have a role within digital publishing platforms, as modern marketeers leveraging social media or other channels and communities.¹¹⁴

Experience with immersive media

Immersive media won't play a big role for FEP, but it could create new business models as it allows for new ways for readers to consume content.¹¹⁵

Möbius expectations

The data-analytics potential from the Möbius Prosumer intelligence toolkit will collect enough data points to really understand the readers, especially the younger demographics. Besides data, new and innovative reading experiences will also benefit the European market and could potentially win back younger audiences.¹¹⁶ More specific requirements for the Möbius tools are addressed in [section 5](#) of this deliverable.

In the next section we will focus on current user practices with a specific focus on prosumers and fan fiction communities.

4.5 Current user practices

In this section, we will discuss the current practices of self-publishers, prosumers and fanfic enthusiasts. During the desk research, interviews and the consortium roundtable event, we established how these roles differ and what their position is in the publishing industry. To move forward, it is crucial to share a common perspective on the different roles and how they relate to the publishing industry. In the next section, we will discuss these different user profiles more thoroughly, together with their role in the publishing industry and how we will perceive them within the Möbius project.

4.5.1 Prosumers' and self-publishers' involvement in publishing

Based on the literature review, we defined the role of prosumers in publishing as follows: Prosumers are the merger between consumers and producers, which willingly create added value to products, brands, franchises, or existing content in general. Within the space of cultural products (i.e., literature, film, series, etc.) consumers become prosumers by adding

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

¹¹⁶ FEP, interview by Thomas Van Dam, online, June 7, 2021.

value to existing content via interaction.^{117 118} For example, when a consumer places a comment or likes or shares content, these interactions add value to the original content. The individual action as such adds value to the existing content.¹¹⁹

During our interviews with consortium partners and publishers, we asked how they define prosumers in comparison with self-publishing. Most respondents share the definition above, on **the role of prosumers** as consumers taking an active role during consumption (e.g., interacting, sharing, crowdfunding, etc.). Yet, the relation between prosumers and self-publishing still seems blurry. Defining the line between self-publishers and a prosumer isn't straightforward, but it seems that respondents see a difference between both concepts.^{120 121} First, we can agree that prosumers actively contribute to an existing service or product. But the notion of active contribution is open for discussion and causes different interpretations of what a prosumer is and does. Based on the analysis of the desk research and the individual interviews, prosumers' activities include but are not limited to:

- engaging with content (comments, shares, likes, etc.),
- influencing via social media (for example actively promoting a book),
- contributing to existing content (for example writing an alternative ending).

In general, prosumers play a rather minor and nuanced role during the creative process.^{122 123} For publishers, prosumers could play a supportive role via community building, take up the role as influencers and promote content through social media (e.g., TikTok, Instagram) or create other types of content (blogs or videos).

Secondly, according to the roundtable event, desk research and individual interviews, there is a clear difference between **self-publishers** and prosumers. Self-publishers aspire to become professional writers, creating personal stories instead of contributing to existing content. As such the self-publisher aims to bypass traditional publishers in order to gain more control over his/her intellectual property. For example, someone who writes a short novel in order to self-publish it via Amazon's Kindle is seen as a self-publisher.

We can link the rise of the self-publishing business model to the ebook format and online bookstores (e.g., Kindle). Everyone can write a book and publish it without the need of traditional publishers as intermediaries. The digital shift empowered aspiring authors and reduced the gatekeeping capabilities of publishers. Also, the revenue for self-publishers is higher via online platforms (70% on Kindle), but merely a small percentage of self-publishers

¹¹⁷ du Plesis, C. (2019). Prosumer engagement through story-making in transmedia branding. *International Journal of Cultural Studies*, 22(1), 175–192. <https://journals.sagepub.com/doi/pdf/10.1177/1367877917750445>

¹¹⁸ Olin-Scheller, C., & Wikström, P. (2010). Literary Prosumers: Young People's Reading and Writing. *Education Inquiry*, 1(1), 41–56. <https://doi.org/10.3402/edui.v1i1.21931>

¹¹⁹ Pine, B. J., & Gilmore, J. H. (1998). The experience economy: past, present and future. *Handbook on the Experience Economy*, 21–44. <https://doi.org/10.4337/9781781004227.00007>

¹²⁰ FEP, interview by Thomas Van Dam, online, June 7, 2021.

¹²¹ MVB, interview by Thomas Van Dam, online, June 11, 2021.

¹²² Olin-Scheller, C., & Wikström, P. (2010). Literary Prosumers: Young People's Reading and Writing. *Education Inquiry*, 1(1), 41–56. <https://doi.org/10.3402/edui.v1i1.21931>

¹²³ Consortium round table event, interview by Iris Jennes, June 23, 2021

achieve high revenues, due to high competition. Over time, publishers started to leverage the self-publishing model to scout aspiring authors.¹²⁴

To get back to the difference between self-publishers and prosumers, we make the distinction when, for example, someone (reader) shares the short novel via social media, interacts with the content via e.g., comments -or writes a blog post about the novel - this is seen as a prosumer activity. Here the reader adds additional value to the existing content, without necessarily creating new content.¹²⁵ This also signifies a key distinction from fan fiction writers, who write new content based on existing stories, Table 6 displays the common differences. We will discuss their role in the next section.

Self-publisher	Prosumer	Fanfic enthusiast
Creates unique and new content, bypassing traditional publishers	Interacts with existing content (e.g., likes, shares, comments, blogs, videos, etc.)	Interacts and/or expands on existing content (e.g., writing new stories based on existing franchises)
Empowered by the self-publishing business model and platforms (e.g., Kindle)	Empowered by online platforms, social media, dedicated forums, etc.	Empowered by online platform dedicated to fanfic communities
Financial incentive	(mostly) No financial incentive	No financial incentive

Table 6 Differences between self-publishers, prosumers and fanfic users

4.5.2 Fan fiction in Europe

Fan fiction is a broad term describing various activities - carried out by enthusiastic fans that express their passion for a specific story. The origin of online fan fiction communities can be traced back to the late 90s, more specifically to the website fanfiction.net. Over the years, numerous new websites occurred where fanfic enthusiasts formed fandoms, which are sub-communities tied to a specific universe (e.g., Harry Potter).¹²⁶ Looking at the fanfic-users' demographics, it is hard to find any relevant or recent data. But during the desk research we found interesting demographic data collected by a fanfic enthusiast via Reddit (a major online forum, offering users the option to discuss all sorts of content and form communities about any topic called subreddits). Through the subreddit r/FanFic a fanfic enthusiast posted an open survey and over 500 members active on r/FanFic responded to different questions. In Table 7, we give a brief overview of some interesting facts.¹²⁷

¹²⁴ Federation of European Publishers. (2017b). R2.2 ANALYSIS ABOUT HOW DIGITAL BOOKS ARE CHANGING THE READING AND WRITING BEHAVIOURS AND HOW THESE CHANGES IMPACT ON THE PUBLISHING SECTOR. <http://www.erasmus-asap.eu>

¹²⁵ Consortium round table event, interview by Iris Jennes, June 23, 2021

¹²⁶ Fanfic user, interview by Thomas Van Dam, online, July 3, 2021.

¹²⁷ Reddit. (2020, April 23). Results of the demographic survey! https://www.reddit.com/r/FanFiction/comments/g6mbxt/results_of_the_demographic_survey/

Measured data points	Results
Gender (549 respondents)	<ul style="list-style-type: none"> • 66,8% women • 24,2% men • 7,3% non-binary • 1,6% other
Age (548 respondents)	<ul style="list-style-type: none"> • 18-24y 39,4% • 25-34y 31,6% • -18y 18,6% • 35-44y 7,3% • 45-54 2,0 %
Country of residence (538 responders)	<p>Out of 538, 87 live in Europe</p> <ul style="list-style-type: none"> • UK: 47 • DE: 17 • FR: 10 • SP: 7 • FI: 6

Table 7 Fanfic demographics

Fan fiction is being inspired by existing intellectual property (IP). Fanfic enthusiasts could be seen as a shadow community of the publishing industry, because of its potential copy right infringements and leveraging of existing content. Under EU Copyright law, publishing fanfic works may result in a copyright infringement, but most publishers don't pursue legal actions.¹²⁸ Fanfic content circulates on non-profit websites (platforms) dedicated to fan fiction content and its surrounding communities. Websites like Archive of Our Own (AO3) host hundreds of thousands of fanfic stories based around countless fandoms, followed by communities of readers that interact with the content and connect with like-minded fans.¹²⁹ A selection of most relevant platforms is discussed in [section 4.3](#).

These platforms have proven very popular, with active member numbers exceeding 2.5 million on AO3.¹³⁰ Yet, respondents in the online group discussion noted a **shift in community interaction**, slowly changing over the years. The main content is still centered around platforms like AO3, but discussions on content and on their favorite fandoms shifted from older forums to newer and faster channels. Newer channels, like for example Discord (online web/mobile chat application originally created for gamers) became a widely used tool for fanfic communities for interaction, discussion, sharing content, memes, etc. However, the interaction

¹²⁸ Fanfic user, interview by Thomas Van Dam, online, July 3, 2021.

¹²⁹ Fiesler, C., Morrison, S., & Bruckman, A. S. (2016). An Archive of Their Own. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, 2574–2585. <https://doi.org/10.1145/2858036.2858409>

¹³⁰ Archive of Our Own. (n.d.-a). AO3 Statistics 2020: A Look Behind the Scenes | Archive of Our Own. https://archiveofourown.org/admin_posts/15931

on these newer channels moves faster compared to traditional forums, which leads to some frustration of users who are looking for a slower-paced medium:¹³¹

“Yeah, it’s too fast for me. I miss out on so much. I’m like, in 20 Discords about different fandoms and topics, and I can’t keep up on these forums (Cathy, 20, fanfic group interview).”¹³²

The fanfic community consists of creative and dedicated fans, who want to read as much as possible about their favorite fandoms, and don’t hesitate to look for alternative and/or additional content that satisfies their needs. The respondents also indicated that the **motivation for writing and reading fan fiction** can differ between those involved, from **being invested in a story** and wanting to continue this experience to not accepting certain decisions made by the author and settling the difference by writing their own version of the story.¹³³ Over the years they built strong communities sharing content, opinions, experiences, and much more – with no economic incentive and/or intentions to monetize their hard work. However, this is an upside of the fan fiction community, according to the fan fiction enthusiasts that took part in our discussion. The respondents clearly distinguish the realm of fan fiction from ‘traditional’ books. Here, they mention that they expect fanfic stories to **centre around relationships**, and to be **low in threshold**. Both reading and writing fan fiction should be easily accessible for them.

“[...]readers, like the fan fiction community, because it is so easily accessible and everything, and that is why people like it and why there are so many people who are reading it. (Gaby, 24, fanfic group interview)”¹³⁴

Compared to professionally published books, our respondents expect less ‘quality writing’ but more relationship-oriented storylines that extend a specific books’ universe or character development.

“Although I will say that I think people engage with fan fiction differently than they do with novels and stuff. Like you will read different genres in fanfic than you will in novels, typically. (Cathy, 20, fanfic group interview)”¹³⁵

Mostly, fanfic content consists of -but is not limited to-: (1) building an alternative outcome (e.g., alter the ending of a franchise or major event, altering the storyline of a main character), (2) extending a franchise with new characters, (3) and/ or creating new relationships.¹³⁶

In the next section, we discuss the community driven online platforms that fan fiction readers and writers use-

¹³¹ Fanfic user, interview by Thomas Van Dam, online, July 3, 2021.

¹³² Fanfic users group interview, interview by Iris Jennes, online, September 16, 2021.

¹³³ Fanfic users group interview, interview by Iris Jennes, online, September 16, 2021.

¹³⁴ Fanfic users group interview, interview by Iris Jennes, online, September 16, 2021.

¹³⁵ Ibid.

¹³⁶ Ibid.

4.6 Community driven online platforms

In the following paragraphs, we describe the core activities and specifics of the platforms discussed in the Möbius proposal: Fanfic Reddit communities, AO3, FFN, and Goodreads.

4.6.1 Fanfic reddit communities

First, Reddit is a major online forum, offering users the option to discuss all sorts of content and form communities about any topic (called subreddits).¹³⁷ The r/FanFiction subreddit¹³⁸ is driven by a vast community of fanfic enthusiasts. Members can discuss, seek advice, and connect with like-minded fans. But we need to clarify that r/FanFiction redirects users to other subreddits (r/AO3, r/Wattpad, r/FFN, etc.) for posting their stories.¹³⁹ Both AO3 (Archive of Our Own) and Wattpad use Reddit as an extension where their communities can interact, discuss, give feedback, and share pieces of their work. Most of the fan fiction is archived and available on their website.

Each subreddit has a different purpose and set of rules, defined by its community. Members post various forms of content (i.e., short stories, links to their work, questions, opinions, discussions, rants, etc.) and interact with others through comments, up- or downvotes and gifting awards.¹⁴⁰ By receiving upvotes and awards, members shape their status within the community, which keeps them motivated to engage with others. Besides the members, each subreddit will have several moderators who interfere when rules get violated.

Members or moderators don't earn an income through Reddit. The communities are driven by their members, who reward each other through interaction and awards. Still, Reddit applies several business models to generate revenue and appeal to their users. First, the user-generated content model is the main concept of the platform, users can create communities, write posts, interact with other users, stream content, etc. Because the platform is free to use, users will encounter advertisements on the platform, and therefore Reddit also applies an ad-based model. Yet, users have the option to avoid any advertisements via Reddit Gold, which is a monthly paid subscription, for those who wish an ad-free experience. This is the third business model - offering a premium service.¹⁴¹ ¹⁴² Therefore, Reddit is a mixture of different business models, which seems to work, looking at the popularity of the platform. In Table 8, we give a brief overview of the subreddits of platforms related to the Möbius proposal and fanfic communities.

¹³⁷ Stafford, C. (2016, December 29). Reddit. SearchCIO. <https://searchcio.techtarget.com/definition/Reddit>

¹³⁸ Subreddits are forums dedicated to specific topics

¹³⁹ Reddit. (n.d.-a). FanFiction: Where Magical Ponies battle Imperial Titans • r/FanFiction. <https://www.reddit.com/r/FanFiction/>

¹⁴⁰ The interaction on Reddit is universal for all subreddits.

¹⁴¹ Langelaar, J. (2020, December 15). The business model of Reddit. Business Models Inc. <https://www.businessmodelsinc.com/business-model-reddit/>

¹⁴² Richterich, A. (2014). Karma, precious Karma: 'Karmawhoring' on Reddit and the Front Page 's Econometrisation. Journal of Peer Production, 1–12. <http://peerproduction.net/>

Subreddit	Members	Goals
r/FanFiction ¹⁴³	185,000	discussion, questions, activities, etc.
r/AO3 ¹⁴⁴	14,500	sharing stories, feedback, questions, discussion
r/Wattpad ¹⁴⁵	21,800	sharing stories, feedback, questions, discussion
r/WormFanfic ¹⁴⁶	17,500	sharing stories, feedback, questions, discussion
r/Writers ¹⁴⁷	125,000	sharing stories, feedback, questions, discussion
r/Goodreads ¹⁴⁸	14,400	sharing stories, feedback, questions, discussion

Table 8 Reddit communities

4.6.2 Archive of Our Own (AO3)

AO3 is a non-profit open-source platform dedicated to fanfic - driven by a vast community. The platform was launched in 2008 by the Organization for Transformative Works (OTW) to store personal fanfic content and share it with others. Due to its user-generated content business model, the platform depends on donations and content contributions of its members. Consequently, neither the platform nor its users financially benefit by creating content.¹⁴⁹

In total, the archive consists of over 7,6 million fanfic stories, with new content being uploaded daily. Due to the overload of content, AO3 allows its users to categorize their work under fandoms and label their work with ‘wrangling’ tags¹⁵⁰ (comparable to Google’s keyword system). Fandoms are either existing franchises, alternative universes based on existing franchises, a collaboration between different franchises or wholly new universes created by the community. Currently, AO3 consists of over 40,000 different fandoms, over 3,702,000 users and over 7,634,000 uploaded stories.^{151 152}

Lastly, interaction is an important feature for writers to receive feedback and build a following around their content. AO3 allows users to leave comments and likes (kudos) and bookmark

¹⁴³ Reddit. (n.d.-a). FanFiction: Where Magical Ponies battle Imperial Titans • r/FanFiction. <https://www.reddit.com/r/FanFiction/>

¹⁴⁴ Reddit. (n.d.-b). Archive Of Our Own • r/AO3. <https://www.reddit.com/r/AO3/>

¹⁴⁵ Reddit. (n.d.-c). Wattpad: Where stories live. • r/Wattpad. <https://www.reddit.com/r/Wattpad/>

¹⁴⁶ Reddit. (n.d.-d). Worm Fanfic • r/WormFanfic. <https://www.reddit.com/r/WormFanfic/>

¹⁴⁷ Reddit. (n.d.-e). Writers Helping Writers • r/writers. <https://www.reddit.com/r/writers/>

¹⁴⁸ Reddit. (n.d.-f). Goodreads - For readers • r/goodreads. Reddit.Com. <https://www.reddit.com/r/goodreads/>

¹⁴⁹ Fiesler, C., Morrison, S., & Bruckman, A. S. (2016). An Archive of Their Own. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, 2574–2585. <https://doi.org/10.1145/2858036.2858409>

¹⁵⁰ Wrangling tags are special to AO3 and lookup new tags and add them to existing tags to improve the search and tagging system.

¹⁵¹ The Organization for Transformative Works. (n.d.). Celebrating 40,000 Fandoms on the AO3 – Organization for Transformative Works. <https://www.transformativeworks.org/celebrating-40000-fandoms-on-the-ao3/>

¹⁵² Archive of Our Own. (n.d.-b). Home | Archive of Our Own. <https://archiveofourown.org/>

content from their favorite fanfic authors. Yet, more in-depth discussions take place on platforms like Reddit (r/AO3, see Table 8).

4.6.3 *Fanfiction.net*

Fanfiction.net (FFN) website was created in 1998¹⁵³. Users can create and upload their fanfic content and are able to interact with others. It is important to mention that FFN and other fanfic content platforms find themselves in a legal grey area, due to copyright infringement on existing content and franchises.¹⁵⁴ FFN doesn't have a business model aiming to generate profit from the content posted on their platform. FFN fully operates via the dedication of fanfic enthusiasts that freely share their work and passion – which became clear during the fanfic group interview. Following the literature regarding business modelling, we can state that FFN applies a *user-generated content* business model, where users provide the content (e.g., posting stories, interacting, sharing, etc.) needed to keep the platform engaging.¹⁵⁵ The goodwill and common interest of the users are the main drives of FFN. Lastly, most content, readers and writers migrated to the AO3 website, which is the centre of the fanfic community. The migration to AO3 was due to older platforms being shut down, and AO3's superior tagging system to navigate through the vast catalogue of content.¹⁵⁶

In Table 9 below, we display a brief overview of FFN statistics that was data mined in 2016, which was before most users migrated to AO3.¹⁵⁷

Interaction	Statistics
Stories	5,983,038
Reviews	159,914,877
Authors	1,364,729
Readers	1,438,721
Users in total	2,093,601

Table 9 FFN statistics

4.6.4 *Goodreads*

Goodreads is a social media platform built around the publishing industry. It is the biggest book review website with tens of millions of reviews, ratings, and recommendations. The website

¹⁵³ Fanlore. (n.d.). FanFiction.Net - Fanlore. <https://fanlore.org/wiki/FanFiction.Net>

¹⁵⁴ Black, R. W. (2007). Fanfiction Writing and the Construction of Space. *E-Learning and Digital Media*, 4(4), 384–397. <https://doi.org/10.2304/elea.2007.4.4.384>

¹⁵⁵ Bhasin, H. (2021, October 13). 23 Types of Business Models Examples. *Marketing91*. <https://www.marketing91.com/23-types-of-business-models/>

¹⁵⁶ Fanfic users group interview, interview by Iris Jennes, online, September 16, 2021.

¹⁵⁷ Milli, S., & Bamman, D. (2016). Beyond Canonical Texts: A Computational Analysis of Fanfiction. 2048–2053. <https://aclanthology.org/D16-1218.pdf>

launched in 2007 and was bought by Amazon in 2013 with 40 million active users.¹⁵⁸ In 2019, Goodreads had 90 million users on its platform.¹⁵⁹

Users can create a personal profile, where they can share basic information about themselves. But more importantly, they can share their favourite books, authors, genres, which books they are currently reading and what books they are eagerly awaiting to read. Users can keep track of which books their friends are reading and see their recommendations. On the platform users can form groups and discussion threads about books, franchises, authors, etc. It stimulates members to engage with each other, form friendships, share experiences and be active within the Goodreads community.

The users present on Goodreads consist of different profiles regarding demographics (location, age, gender, interests, etc.). This is due to the wide range of literature genres available on the platform, and therefore widening the range of potential users willing to discuss, recommend or list their favourite books.

As mentioned in the previous paragraph, Amazon acquired Goodreads in 2013 to strengthen its online presence. Goodreads is the ideal data mill for Amazon’s online book platform services, e.g., Kindle. Therefore, Goodreads data-driven business model derives of collecting data from its users, which provide content regarding their favourite authors, interests, social connections, etc. Based on these metrics, Amazon improves its recommendations and can push digital books sales to Goodreads users.¹⁶⁰In the Table 10, we provide an overview of the discussed fanfic platforms and their main characteristics.

Interaction	r/Fanfic	AO3	FFN	Goodreads
Home base + ownership	US-based	US-based	US-based	US-based (Amazon)
Member base	185,000	3,702,000	2,093,601	90,000,000
Business models	User-generated Ad-driven	User-generated	User-generated	Data-driven
Interaction options	- comments - upvote / downvote - create communities (subreddits) - open / join discussions (threads) - share	- comments - kudos (likes) - bookmark stories - share	- comments - follow/favourite - share	- comments - bookmark - connect with other users (friends) - like - create booklists - share

Table 10 Comparison of platforms

In conclusion, the current practices in the European publishing sector, user practices and fan fiction platforms have provided us with the necessary insights to map the benefits,

¹⁵⁸ Thelwall, M., & Kousha, K. (2016). Goodreads: A social network site for book readers. *Journal of the Association for Information Science and Technology*, 68(4), 972–983. <https://doi.org/10.1002/asi.23733>

¹⁵⁹ Statista. (2021b). Goodreads: number of registered members 2011–2019. Statista.com. <https://www.statista.com/statistics/252986/number-of-registered-members-on-goodreadscom/#:%7E:text=Goodreads%3A%20number%20of%20registered%20members%202011%2D2019&text=This%20st atistic%20gives%20information%20on, had%20accumulated%2090%20million%20members.>

¹⁶⁰ Albrechtslund, A. M. B. (2019). Amazon, Kindle, and Goodreads: implications for literary consumption in the digital age. *Consumption Markets & Culture*, 23(6), 553–568. <https://doi.org/10.1080/10253866.2019.1640216>

opportunities, and threats for the Möbius project. These are presented in the benefits, opportunities, and risks analysis in the conclusion. In the following section, we discuss how value can be created in the creative and cultural sector, via relevant business models for the publishing industry in a digital transformation.

5. User requirements

One of the goals of task 2.1, is to gather the user requirements for the Möbius tools. Imec interviewed consortium partners, publishers, and end-users to establish the needs of the Möbius application. All user requirements are thus based on user-driven research (see also [section 3](#)).

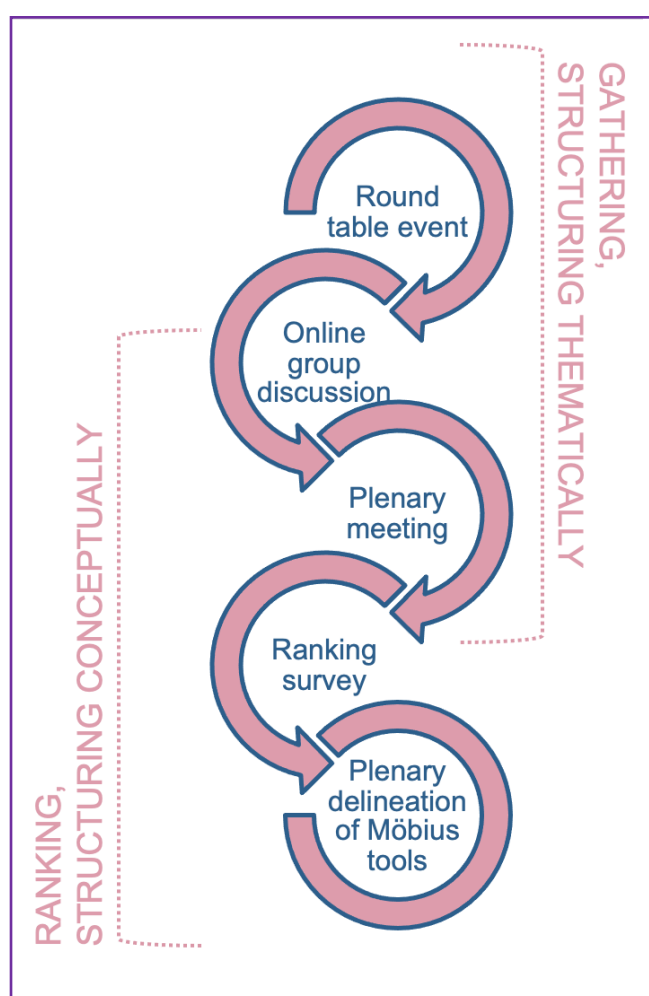


Figure 9 User requirements gathering process

Figure 9 visualizes the six-month iterative process of data gathering and analysis. First, we gathered user requirements via a co-creation session with consortium members (roundtable event). Then, we structured the requirements thematically and asked fan fiction enthusiasts to add to these requirements and to rank them (see [section 3.5](#)). We then discussed the requirement overview in the plenary meeting on 05/10/2021 and provided consortium members with a survey link to rank the requirements as well (see also [section 3.5](#)). Following

the discussion on 09/11/2021, concerning the delineation of the Möbius tools, the presentation of the user requirements was restructured to fit the three Möbius tools that will be developed. First, we present the requirements relevant for the Prosumer Intelligence Toolkit (PIT). Then, we propose the user requirements for the Möbius book (both the creators' toolkit and the player). Because the division of the requirements across Möbius tools happened after the gathering and ranking, some requirements occur in both sections as they were deemed relevant (ex post) for both the PIT and the Möbius book. In each section the presentation of the requirements is complemented with the ranking by end-users and consortium members. This will give us the opportunity to assess and monitor the priorities within the Möbius project.

In the following sections, we present the different user requirements, developed and ranked by our consortium and the end-users (from the end-users group interview). In Table 11, 12 and 13, we display the requirements with their relative score, and **highlight** the top 5 requirements, ranked by both the consortium and the end-users. Lastly, it is important to specify that lower scoring requirements won't be abandoned. Still, the focus will be mostly aimed at the higher ranking requirements.

5.1 User requirements for the Prosumer Intelligence Toolkit (PIT)

Table 11 gives an overview of the requirements relevant for the Prosumer Intelligence Toolkit (Description), which theme each requirement relates to (Category) and how it was ranked by consortium (RC) partners and end-users (RE-U). (1= highest ranking, merged cells with a ranking means these requirements were ranked as one requirement at an earlier stage in the process).

Category	Description	RC	RE-U
Improve publishers' insights in reading and writing habits	Möbius should bring publishers and readers closer together by helping publishers understand readers through data	1	4
	Möbius should help publishers become more responsive to demands of users	2	3
	Möbius should provide publishers with behavioral data on how users engage with content	3	1
	Möbius should provide publishers with behavioral data on what is read	3	
	Möbius should provide publishers with behavioral data on how users prefer to read (device)	4	
	Möbius should provide publishers with insights on self-publishing based on user data (e.g., trends, liked content, used devices, time spent, etc.)	5	2

Discover new content	Möbius should have a feature that recommends content to readers, based on their content	6	5
	Möbius should have a feature that recommends content to readers, based on their community activity	7	7
	Möbius should have a feature that recommends content to readers, based on their interactions	8	6

Table 11 Relevant PIT user requirements

We notice that the ranking by end- users and consortium partners is more or less aligned, with mainly differences in preferences to the type of data that is used to build insights. This is an interesting observation that should be considered in the next phases of the research, specifically when scrutinizing what type of insights the data could generate. It could be related to general level of the input received in the gathering process and therefore making these user requirements more concrete and tangible will be the focus of the first pilot phase, starting month 9.

In addition, it is important to note that the lower ranking by the consortium for the requirements in the category 'Discover new content'. One possible explanation might be that the requirements in the category 'Improve publishers' insights in reading and writing habits' are directly applicable to the PIT. The requirements in the category 'Discover new content' are not directly applicable, as the scope of the PIT is not to provide recommendations to readers directly. However, the requirements were included in this category as their relevance relates to the insights that can be gathered in the PIT which can be valuable in the decision making process for publishers (for example when targeting publications to certain market segments).

5.2 Requirements for the Möbius Book Creators' toolkit

Category	Description	RC	RE-U
Improve publishers' insights in reading and writing habits	Möbius should provide publishers with behavioral data on what is read	2	2
	Möbius should provide publishers with behavioral data on how users prefer to read (device)	3	
Improve the publishing process as a whole	Möbius should help publishers reduce costs by automating conversion to audio	14	11
	Möbius should help publishers go green by improving format and distribution	6	4
Engage users in the publishing process	Möbius should allow publishers to engage prosumers in the publishing process	7	1
	Möbius should help publishers to improve the publishing process by establishing a direct relationship with readers	8	3
Finding the (right) audience & interaction	Möbius should allow users to add tags to content (f.e. 'young adult') so other readers can select stories easily	10	10
	Möbius should allow authors to select which categories of user feedback to display	15	15

Self-promotion	Möbius should support writers to promote their work, by helping them to define useful keywords (SEO, SEA)	5	12
	Möbius should support users willing to use promotional tools (existing tools–or Möbius could create promotional tools)	12	14
	Möbius should allow users to easily share their content (as a package: text, video, audio, etc.)	1	6
Writing skills	Möbius should help users to find existing tools to improve their writing skills	14	13
	Möbius could suggest word and sentence improvements, based on existing popular fiction	16	9
	Möbius should offer a toolkit that improves users' creative writing (based on both fiction genres and audience)	13	5
	Möbius should offer an AI tool that scans fanfic to not interfere with existing IP	9	10
Multimedia	Möbius should allow users to create an immersive multimedia experience, by adding audiovisual content to their text¹⁰²	4	8
	Möbius should support combined reading and listening consumption (like Amazon), the audio could add extra characteristics to the text	2	7

Table 12 Relevant Möbius Book user requirements

For the requirements related to the Möbius Creator Toolkit, we see that the ranking of the consortium is aligned in its focus on creating a tool to create an immersive, multimedia experience through audio. Another priority would be to allow sharing of the content that is created and providing creators with user data and promotional tools.

From a prosumer perspective, the fan fiction enthusiasts that were involved in the online discussion are also interested in getting involved in the publishing process and that would improve the publishing process in an environmentally friendly way. Another interesting outcome is that they would include tools that would help them to improve their writing. This is in line with the comments respondents have made concerning the discrepancy in quality between fan fiction content and professional publications.

5.3 Requirements for the Möbius Book Player

Category	Description	RC	RE-U
Finding the (right) audience & interaction	Möbius should have a network feature that connects writers and readers with similar interests	5	2
	Möbius should allow users to leave feedback just for the author via likes in different categories (such as true to character, plot, style, grammar)	7	3
	Möbius should provide a place where literature (fanfic, prosumer, self-published, etc.) can be discussed in a slow pace (e.g. via traditional forum)	11	/
Writing skills	Möbius should allow users to like (or review) other users' stories and writing skills separately	8	7
	Möbius should allow users to contribute to grammatical corrections as a community	11	8

		Möbius should allow users to disclose their texts for modification by others, to moderate and approve other users make to their texts changes	8	/
Multimedia		Möbius should provide a platform where users can engage with new types of content (not just ebook or audiobook)	4	5
		Möbius should provide an immersive or enhanced experience that is accessible to a large audience (beyond tablet or ebook)	6	4
		Möbius should provide additional content that helps the reader understand or live the story	3	/
		Möbius should allow audio to play while reading a section or chapter	6	/
		Möbius should allow users to link to websites related to fan fiction stories (f.e. clothing, interior, travel...)	9	9
		Möbius should allow users to explore content like videogames (e.g., visit different parts of a room, without following a fixed story line)	10	10
		Möbius should allow users to continue 'reading' a story by switching from reading mode to audiobook	2	11
Discover content	new	Möbius' users (both readers and writers) should be able to indicate the quality of content (e.g., likes, comments, shares, etc.)	1	1
		Möbius should allow authors/writers and users to indicate how close the fan fiction is to the original character(s)	12	6

Table 13 Relevant Möbius Book Player user requirements

Table 13 provides an overview of the requirements relevant for the Möbius book player. The requirements ranking lowest by the consortium (places 7 to 12 in the consortium ranking) were all added to the list during the online discussion with fan fiction enthusiasts. Part of the discrepancy between the consortium and end-user ranking originates from the respondents' misapprehension that also fan fiction could be published via the Möbius creator toolkit. This has been discussed in the consortium during a dedicated meeting on 9/11/2021. In this sense, the requirement gathering process has already contributed to finetuning the scope of the project.

However, consortium members and end-users find common ground in the high rankings for features that are related to finding the (right) audience, multimedia and discovery of new content.

In the next section, we summarize the benefits, opportunities and risks for the Möbius project and add a forward look at the next steps.

6. Conclusion

In this deliverable we provided a framework that puts forward the opportunities, benefits and risks for the Möbius project based on insights in the European publishing industry ([section 4.2.](#)), insights in fan fiction platforms and their usage (see [section 4.5.2.](#) and [4.6.](#)) and a first version of the user requirements for the Möbius tools that will be developed in the project ([section 5](#)). Below, we provide a brief summary of the outcomes.

This deliverable has provided in-depth insights in the current activities of the publishing industry in general, the publishing partners within the project, online communities related to book publishing and fan fiction enthusiasts. It also clarified the technical tools currently used by project partners and provided a framework for BMI in the CCS in general and in publishing industry in particular. To summarize these insights, Table 14 gives an overview of the benefits, opportunities and risk that were identified in the process.

The outcomes of this task will be of relevance to several other work packages and tasks in the Möbius project. The benefits, opportunities and risk analysis will help to steer the consortium through decisions throughout the project. The output will inform decision making at different levels:

- the **practical** level, such as for example determining the appropriate location for living lab activities (WP 4),
- on the **evaluation** level, such as deciding the relevant key performance indicators (task 2.2),
- on the **conceptual** level, such as (re)defining the scope and priorities of the project and assessing the value of the tools in an economic and legal setting.

These requirements will be integrated into the initial design and technology scaffolds of the solutions, and then translated into workable technical requirements that will inform the **blueprint** for the project’s architecture, logic and interfaces (task 2.3). It provides input for the development of the key performance indicators and evaluation framework (task 2.2) and of course for the analysis of the results and validation of the methodology (task 2.4). In addition, the gathering and prioritization of the user requirements has helped to finetune the scope of the project. Further discussion within the consortium and iterations with users within the living lab set-up (WP 4) will help us to add relevant requirements to the list but also to redefine and reorient where necessary. In that sense, the foundations of this deliverable are of relevance for all work packages.

To conclude this deliverable, we provide an overview of the benefits, opportunities and risks we identified for Möbius.

Benefits
Market resilience <ul style="list-style-type: none"> • Physical book sales are the biggest revenue for the publishers • Online book sales are on the rise • Digital formats don’t cannibalize physical book sales • Traditional book retailers are recovering from the pandemic revenue losses (in most countries) • E-commerce increased heavily during the pandemic, forcing both publishers and retailers to adapt
Sales insights <ul style="list-style-type: none"> • Publishers are still perceived as quality label • The Federation of European Publishers actively defends the interests of European publishers • Many readers still prefer a physical copy of a book, because of its tangibility
Opportunities
Growing formats <ul style="list-style-type: none"> • Covid-19 and acceleration of digital adoption

<ul style="list-style-type: none"> ○ Publishers are forced to experiment with new formats due to paper shortage ○ Audiobook adoption is on the rise ○ Ebook adoption is on the rise ● Digital formats could be used in new business models ● The pandemic offers an ideal situation to push new formats to readers, and Möbius could play an important role in renewing the industry
<p>Data</p> <ul style="list-style-type: none"> ● Providing relevant data to publishers could even the playing field and offer new opportunities to increase revenue, publish relevant content and overall improve publishing operations and business models: <ul style="list-style-type: none"> ○ Consumer data, such as: reader preferences, user engagement, audience segmentation, device ... ○ Product data such as: format, genre, , ○ Trends
<p>Prosumers and fanfic</p> <ul style="list-style-type: none"> ● Fan fiction communities could serve as: <ul style="list-style-type: none"> ○ Data sources to help understand user engagement with fictional content ○ Potential Möbius readers and creators ● Prosumers can contribute to the publishing industry (and Möbius) as: <ul style="list-style-type: none"> ○ Active community (comments, sharing, likes, etc.); ○ Marketeers via social media (TikTok, Instagram, etc); ○ Create content about their favorite books (blogs or videos); ○ Create unique content via the Möbius Creative toolkit
<p>Business models</p> <ul style="list-style-type: none"> ● New business models become relevant for the publishing industry <ul style="list-style-type: none"> ○ Crowdfunding ○ Self-publishing ○ Data-driven ○ User-generated content ○ Over-the-top
<p>Risks</p>
<p>Audience and user data</p> <ul style="list-style-type: none"> ● The number of readers in Europe is declining, and especially the younger demographics ● The lack of data puts the publishing market at a disadvantage compared to other media industries (e.g., video, music, etc.) <ul style="list-style-type: none"> ○ lack of consumer data, such as preferences, engagement and segmentation data ○ Lack of product data which formats, genres, devices are popular are trending ● Substantial differences between local European markets regarding adoption of innovation, reading audience, market potential
<p>Increased competition</p> <ul style="list-style-type: none"> ● Increase in direct competition <ul style="list-style-type: none"> ○ Growing adoption of e-commerce is challenging to traditional book retailers ○ The growing influence of international retailers (e.g., Amazon) and their access to data (economies of scale) ○ Competition with OTT business models is challenging for traditional book publishers ● Increase in indirect competition ● Proliferation of media services targeted at a younger audience that compete for the audiences' attention
<p>Innovation stagnation</p> <ul style="list-style-type: none"> ● Publishers lack the means to implement (big) innovations due to <ul style="list-style-type: none"> ○ The lack of data and insight ○ The path dependency of the industry structures and workflow ○ The lack of incentives / benefits to innovate

Table 14 Benefits, opportunities and risk analysis

7. References

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7.1 Research activities conducted by imec

Associação Portuguesa de Editores e Livreiros, interview by Thomas Van Dam, online, June 28, 2021.

Bookabook, interview by Thomas Van Dam, online, June 16, 2021.

Fanfic user, interview by Thomas Van Dam, online, July 3, 2021.

Fanfic users group interview, interview by Iris Jennes, online, September 16, 2021.

FEP, interview by Thomas Van Dam, online, June 7, 2021.

Gruppo editoriale Mauri Spagnol, interview by Thomas Van Dam, online, June 29, 2021.

MVB, interview by Thomas Van Dam, online, June 11, 2021.

8. Annex

8.1 Annex A End-users user requirements total scores (consortium survey)

Category	Requirement	Score
Finding the (right) audience and interaction	Möbius should support users to define their ideal audience, based on their fanfic and interests	99
	Möbius should have a network feature that connects writers and readers with similar interests	96
	Möbius should allow users to add tags to content (e.g. 'young adult') so other readers can select stories easily	95
	Möbius should allow users to leave feedback just for the author via likes in different categories (such as true to character, plot, style, grammar, etc.)	92
	Möbius should allow authors to select which categories of feedback to display	78
	Möbius should provide a place where literature (fanfic, prosumer, self-published, etc.) can be discussed in a slow pace (e.g. via traditional forum)	82
Multimedia	Möbius should allow users to create an immersive multimedia experience, by adding audiovisual content to their text	108
	Möbius should support combined reading and listening consumption (like Amazon), the audio could add extra characteristics to the text	117
	Möbius should provide a platform where users can engage with new types of content (not just ebook or audiobook)	109
	Möbius should provide an immersive or enhanced experience that is accessible to a large audience (beyond tablet or ebook)	111
	Möbius should allow audio to play while reading a section or chapter	94
	Möbius should allow users to link to websites related to fan fiction stories (e.g. clothing, interior, travel...)	89

	Möbius should allow authors/writers to create a multimedia experience by connecting reading, to additional audio and video content, text messages, etc.	114
	Möbius should allow users to explore content like video games (e.g; visit different parts of a room, without following a fixed story line)	86
	Möbius should allow users to continue 'reading' a story by switching from reading mode to audiobook	114
Writing skills	Möbius should help users find existing tools to improve their writing skills	82
	Möbius could suggest word and sentence improvements, based on existing popular fiction	70
	Möbius should offer a toolkit that improves your creative writing (based on both fiction genres and audience – link with previous user requirement)	85
	Möbius should offer an AI tool that scans fanfic to not interfere with existing IP	99
	Möbius should allow users to like (or review) other users' stories and writing skills, separately	91
	Möbius should allow users to contribute to grammatical corrections as a community	82
	Möbius should allow users to disclose their texts for modification by others, to moderate and approve changes other users make to their texts	91
Self-promotion	Möbius should support writers to promote their work, by helping them to define useful keywords (SEO, SEA)	107
	Möbius should support users willing to use promotional tools (existing tools–or Möbius could create promotional tools)	88
	Möbius should allow users to easily share their content (as a package: text, video, audio, etc.)	121
Discovering content new	Möbius' users (both readers and writers) should be able to indicate the quality of content (e.g. likes, comments, shares, etc.)	119
	Möbius should have a feature that recommends content to readers, based on their interactions	102

	Möbius should have a feature that recommends content to readers, based on their content	104
	Möbius should have a feature that recommends content to readers, based on their community activity	103
	Möbius should allow authors/writers and users to indicate how close the fan fiction is to the original character(s)	80

8.2 Annex B Publishers user requirements total scores (consortium survey)

Category	Requirement	Score
Publishers' insights in writing and reading habits	Möbius should bring publishers and readers closer together by helping publishers understand readers through data	125
	Möbius should provide publishers with insights on self-publishing based on user data	107
	Möbius should help publishers become more responsive to demands of users	124
	Möbius should provide publishers with behavioural data on what is read	117
	Möbius should provide publishers with behavioural data on how users prefer to read (device)	110
	Möbius should provide publishers with behavioural data on how users engage with content	117
The publishing process as a whole	Möbius should help publishers reduce costs by automating conversion to audio	82
	Möbius should help publishers go green by improving decisions on format selection and distribution	106
Engaging users in the publishing process	Möbius should allow publishers to engage prosumers in the publishing process	101
	Möbius should help publishers improve the publishing process by establishing a direct relationship with readers	100

8.3 Annex C End-users user requirements total scores (end-users group interview)

Category	Requirement	Score
	Möbius should support users to define their ideal audience, based on their fanfic and interests	19

Finding the audience (right) and interaction	Möbius should have a network feature that connects writers and readers with similar interests	42
	Möbius should allow users to add tags to content (e.g. 'young adult') so other readers can select stories easily	18
	Möbius should allow users to leave feedback just for the author via likes in different categories (such as true to character, plot, style, grammar, etc.)	33
Multimedia	Möbius should allow users to create an immersive multimedia experience, by adding audiovisual content to their text	23
	Möbius should support combined reading and listening consumption (like Amazon), the audio could add extra characteristics to the text	24
	Möbius should provide a platform where users can engage with new types of content (not just ebook or audiobook)	16
	Möbius should provide an immersive or enhanced experience that is accessible to a large audience (beyond tablet or ebook)	17
	Möbius should allow users to link to websites related to fan fiction stories (e.g. clothing, interior, travel...)	2
	Möbius should allow users to explore content like video games (e.g; visit different parts of a room, without following a fixed story line)	1
	Möbius should allow users to continue 'reading' a story by switching from reading mode to audiobook	0
Writing skills	Möbius should help users find existing tools to improve their writing skills	10
	Möbius could suggest word and sentence improvements, based on existing popular fiction	21
	Möbius should offer a toolkit that improves your creative writing (based on both fiction genres and audience – link with previous user requirement)	30
	Möbius should offer an AI tool that scans fanfic to not interfere with existing IP	18
	Möbius should allow users to like (or review) other users' stories and writing skills, separately	12
	Möbius should allow users to contribute to grammatical corrections as a community	9
Self-promotion	Möbius should support writers to promote their work, by helping them to define useful keywords (SEO, SEA)	13
	Möbius should support users willing to use promotional tools (existing tools—or Möbius could create promotional tools)	9
	Möbius should allow users to easily share their content (as a package: text, video, audio, etc.)	26

Discovering content	new	Möbius' users (both readers and writers) should be able to indicate the quality of content (e.g. likes, comments, shares, etc.)	77
		Möbius should have a feature that recommends content to readers, based on: interests, interactions, content, community, etc.	99
		Möbius should have a feature that recommends content to readers, based on their interactions	30
		Möbius should have a feature that recommends content to readers, based on their content	47
		Möbius should have a feature that recommends content to readers, based on their community activity	25
		Möbius should allow authors/writers and users to indicate how close the fan fiction is to the original character(s)	14

8.4 Annex D Publishers user requirements total scores (end-users group interview)

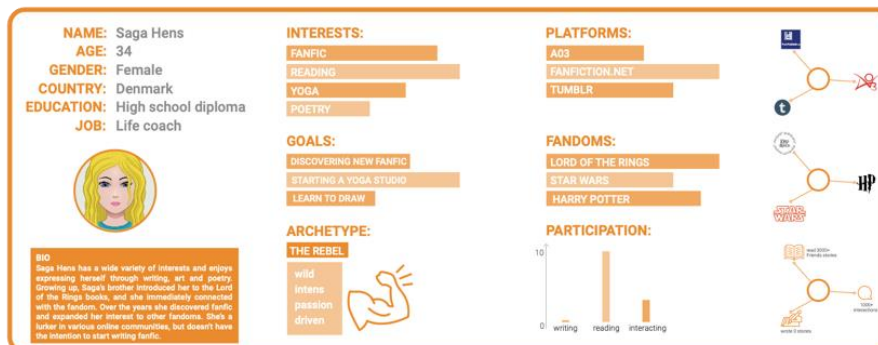
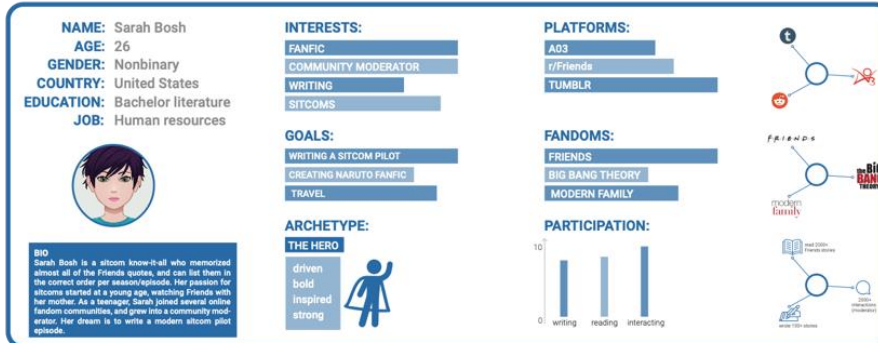
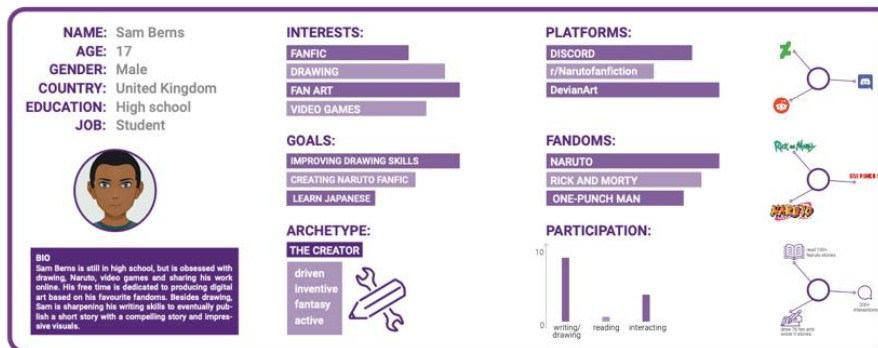
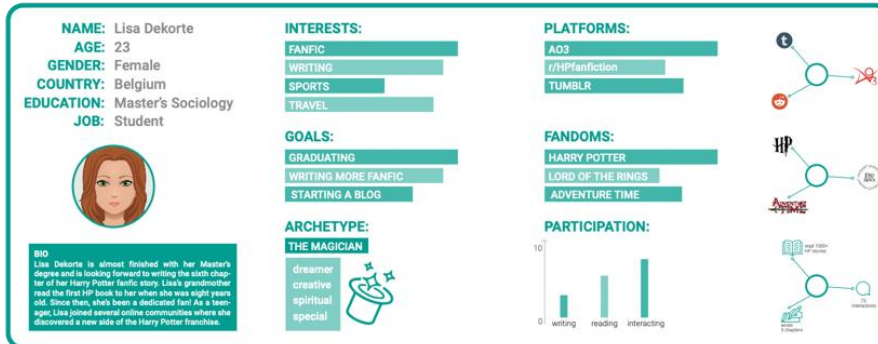
Category	Requirement	Score
Publishers' insights in writing and reading habits	Möbius should bring publishers and readers closer together by helping publishers understand readers through data	45
	Möbius should provide publishers with insights on self-publishing based on user data	105
	Möbius should help publishers become more responsive to demands of users	65
	Möbius should provide publishers with behavioural data on what is read, how users prefer to read (device) and how users engage with content	113
The publishing process as a whole	Möbius should help publishers reduce costs by automating conversion to audio	17
	Möbius should help publishers go green by improving decisions on format selection and distribution	50
Engaging users in the publishing process	Möbius should allow publishers to engage prosumers in the publishing process	120
	Möbius should help publishers improve the publishing process by establishing a direct relationship with readers	85

8.5 Annex E Roundtable event attendees

Organization	Name
imec	Iris Jennes

imec	Thomas Van Dam
KUL	Emircan Karabuga
EUT	Patricia Castillo
EUT	Julian Vicens
EUT	Niklas Reppel
EUT	Adan Garriga
EUT	Mihnea Tufis
FMWC	Clara Pont
FMWC	Natalia Cardona
FMWC	Marjorie Grassler
FEP	Gino Querini
FEP	Enrico Turrin
Bookabook	Tomaso Greco
MVB	Natascha Pattock
DEN	Simona De Rosa
IN2	George Ioannidis
ENoLL	Leidy Enriquez
KKW	Judith Schuster

8.6 Annex F List's personas



8.7 Annex G Survey participants

Partner	Number of participants
KUL	1
FEP	2
MVB	1
Bookabook	1
DEN	1
EUT	3
FMWC	1
ENoLL	1
IN2	1
KKW	2

8.8 Annex H Fanfic end-users interview participants (aliases)

Name	Gender	Age
Ana	Female	36
Sarah	Female	33
Laura	Female	33
Leonie	Female	24
Gaby	Female	24
Cathy	Female	20

8.9 Annex I Desk research platforms and websites

Name	Website
Consortium partners	
Bookabook	https://bookabook.it/
MVB	https://mvp-online.com/
FEP	https://fep-fee.eu/
Fanfic and publishing platforms	
AO3	https://archiveofourown.org/
FFN	https://www.fanfiction.net/
Wattpad	https://www.wattpad.com/?locale=nl_NL
Goodreads	https://www.goodreads.com/
Inkitt	https://www.inkitt.com/
Unbound	https://unbound.com/
Inkshares	https://www.inkshares.com/
Publishizer	https://publishizer.com/
Blinkist	https://www.blinkist.com/
Reddit communities	
r/FanFiction	https://www.reddit.com/r/FanFiction/
r/AO3	https://www.reddit.com/r/AO3/
r/Wattpad	https://www.reddit.com/r/Wattpad/
r/WormFanfic	https://www.reddit.com/r/WormFanfic/
r/Writers	https://www.reddit.com/r/writers/
r/Goodreads	https://www.reddit.com/r/goodreads/