Chapter 5. The impact of digital reading

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5.1 Setting

A few years ago, I participated in the EU-funded project "E-READ Evolution of Reading in the in the Age of Digitisation," together with almost 200 scholars from 34 different countries. At the end of the project we published the Stavanger Declaration Concerning the Future of Reading (E-READ 2018), which represents a summary of four years of joint efforts to understand the advantages and disadvantages of digital reading. One of our final recommendation is that "Systematic and careful empirical investigation into the conditions under which learning and comprehension are enhanced – and of the circumstances under which they are hindered – in both print and digital environments needs to be conducted." This is because we still need appropriate evidence taking into account the differences between print and digital reading, which is not just a difference in the materiality of the medium. As I stated in chapter 1, the whole cultural apparatus in which digital reading takes place is different and, accordingly, affordances and behaviors vary. The possibility to easily read socially is just one major affordance of digital reading.

Despite the need for more research, we outlined both positive and negative aspects of digital reading. On one hand, "Digital text offers excellent opportunities to tailor text presentation to an individual's preferences and needs. Benefits for comprehension and motivation have been demonstrated where the digital reading environment was carefully designed with the reader in mind." On the other hand, "A meta-study of 54 studies with more than 170.000 participants demonstrates that comprehension of long-form informational text is stronger when reading on paper than on screens, particularly when the reader is under time pressure. No differences were observed on narrative texts (Delgado et al. 2018)."

Personally, one of the most important insights that I maturated during this project is that a change of methodological perspective is needed to understand the potential of digital media and technology to promote reading more broadly and enhance readers' enjoyment and comprehension of literature. Moving from print to the digital, it is not just the medium that changes, the context and the attitude of readers are different, too. Recently, I asked some undergraduate students to comment on a few short stories using Hypothes.is and one of them told me that she approached the activity with the same attitude she has when using social media. I did not indicate any specific way of commenting, so I was perfectly happy with her answer and her light-hearted comments. This is a clear example of how the affordances of digital media, and the

habits we have in using them, can shape the way we read, in both good and bad ways. In this specific case, people who are more inclined to consider social media as a frivolous and distracting tool will blame them for my student's "poor performance." But people who believe that using social media can help improving transmedia literacies and enable distributed social learning will probably think that my student is on the good path to normalize reading fiction as a popular cultural activity, maybe even something that can also help her bond with others. I think both perspectives are important and worth exploring in more detail.

Before delving about the worries and hopes for digital reading, let's clarify a few contextual aspects. All the forms of DSR that I mentioned in the previous chapters – except AO3 – are first and foremost nodes in an economy of "platform capitalism" (Murray 2019; Striphas 2015). The content that users upload and write on the web is a commodity that Google, Amazon, and others index and exploit (*prosumer commodity*), and users themselves are a commodity, too, being sold to advertisers (*audience commodity*) (Fuchs 2011). Of course, we all do this because of the many advantages we have from being connected to others and to a lot of information, but a fairer digital ecosystem would benefit us all. A multitude of community-built, open source, and non-commercial platforms – like AO3 (Minkel 2020) – would probably be the best compromise between fair technology, users' needs, and respectful social interactions, but the risk of an increase in harmful behaviors (bullying, shaming, racism, etc.) is inevitable when online communities grow in size (Reagle 2015).

Anyway, the threat of platform capitalism is mostly hidden to everyday users and readers, and critics of digital reading have been more concerned by the materially observable change in technology and the damages that it can do to our cognitive functions (comprehension and memory, above all), rather than paying attention to the ways in which the changed ecosystem could hurt our freedom, consciences, and societies altogether. This process repeats itself in different epochs and has been aptly termed the "Sisyphean cycle of technology panics" by Amy Orben (Figure 12). In stage one of the cycle (panic creation), psychological and sociological factors lead a society to become worried about a new technology. The motivations for fears related to the use of a specific technology may either be supported by scientific evidence or spread for less rational reasons. When the panic receives enough attention – and usually concerns are raised by influential voices, too – stage two is reached (political outsourcing) and politicians encourage or utilize the technology panic for political gain, while outsourcing to science the search for solutions. "Outsourcing the technological panic to science by funding, commissioning, and referencing research therefore allows

politicians and policy-makers to calm and reassure the population, potentially putting the onus on academics to provide a sense of security through the production of tailored research" (Orben 2020a, 6).

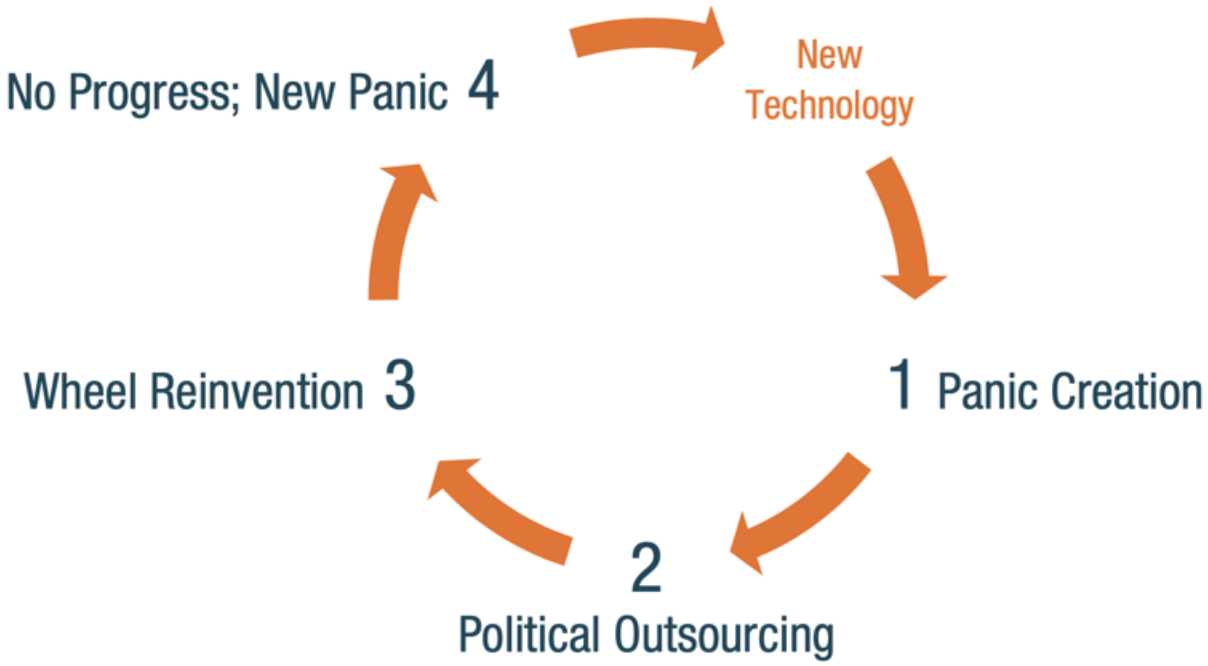

Figure 12: The "Sisyphean cycle of technology panics" (Orben 2020).

In stage three (wheel reinvention), scientists start research about the possible dangers of a new technology but often lack the theoretical and methodological framework needed to efficiently guide their work. This is because the new technology is approached as a practical problem to be solved in the present, without looking at its possible similarities with previous technology, even though in time very similar concerns and questions have been raised for radio, novels, comic books, television, video games, mobile phones, and social media ('Pessimists Archive' 2020). Moreover, researchers treat the new technology "as a unitary entity (e.g., smartphones) and consider it in terms of a general audience (e.g., all children)" (Orben 2020a, 7), without the time and theoretical reflection needed to develop and implement a research plan that would take into account different contexts, users, and purposes. As a consequence, most of the work on new technologies goes through the same basic research questions (Wartella and Reeves 1985; Wartella and Robb 2008), offering little advancement. Almost always, scientific progress turns out to be too slow to guide effective technology policy, and stage four is reached (no progress, new panic). Then

the cycle of technology panic restarts because a new technology gains popularity and garners the attention of the public and of policymakers.

In 2021, the panic for everything digital in relation to reading and education seems over, also because of a global pandemic that made distant learning and working through digital technology a necessity for many people. However, we should not dismiss the previous "panic mode," and the alleged risks associated with digital reading and learning, as something forgettable because of more pressing needs. We should rather address them rationally, evaluating to what extent they are true in order to make more informed decisions about future research, use, and policy.

5.2 Worries

Recurrent criticism of digital reading is mainly of two kinds:

1. The commercial spirit of recommending algorithms and the digital loudness of mediocre readers will make us all read the same low-quality books. The principle is that of conformism, which has a self-reinforcing effect: that which is already popular becomes more popular through mass validation.
2. Digital and social media, with their emphasis on speed and multitasking, encourage a shallower kind of cognitive processing. We are more distracted and our capacity to concentrate on the text, understand, and retain information is limited, if not deteriorated.

Beside these aspects, a third concern is also very serious: digital bullying. It is rarely connected to digital reading because the social dimension of reading is neglected by the majority of researchers working on reading literacy and literature, but it should definitely be taken into account when talking about DSR. Here, I will not explore all the details of these three critical aspects of digital reading, since they are phenomena much broader than the one under discussion. I will rather outline their main arguments – acknowledging the need to consider such criticism, but also pointing out their theoretical and methodological weaknesses – and then give more space to describing some possible benefits of DSR (section 5.2).

5.2.1 Conformism

When I presented the concept of long-tailed niche markets I focused on the availability of a wide variety of books (cf. section 1.3.3), but their other typical characteristic is the popularity of only a small group of items in comparison to the total number of available products. This is technically called a power-law distribution of data. For instance,

Figure 13 shows the popularity of books on Goodreads (measured as the number of ratings received). I grouped books by century of publication to see whether there is any marked difference in the popularity achieved by older and newer books, but the distribution of data looks similar for the last six centuries.

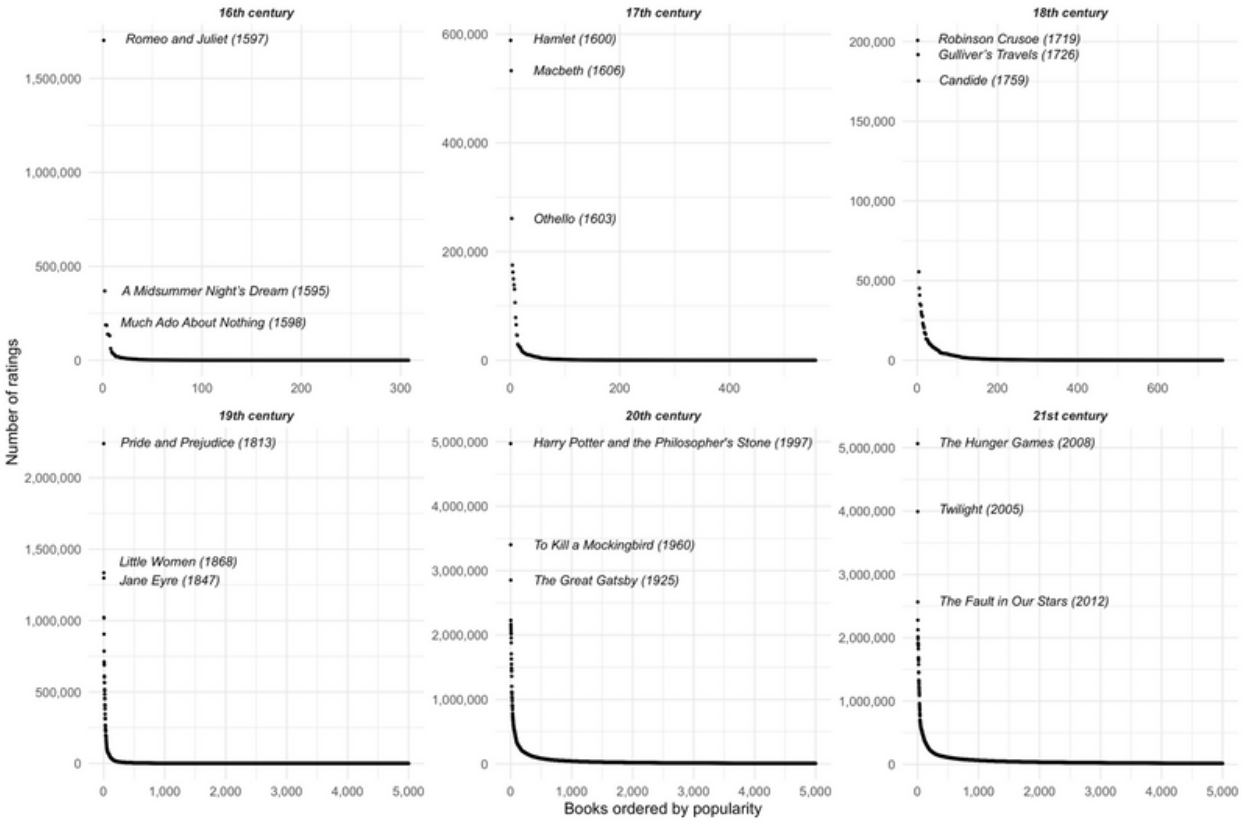

Figure 13: Popularity (measured as the number of ratings received) of books on Goodreads in the year 2017, grouped by century of publication.
For a better legibility of the graphs, I limited the number of books plotted to 5,000 but the long tails go on until 7,500 books for the 19th century, almost 300,000 for the 20th century, and almost 1 million for the 21st century.

Regardless of the date of publication – and the time available for a book to grow in popularity – there is always a very small group of books which are very popular, followed by thousands of books which are rarely read and rated. To better interpret Goodreads data and verify whether the online popularity of books is possibly due to the digital medium, we can compare them with books which are popular in offline contexts, e.g. the books most borrowed from libraries. Libraries normally provide aggregated data about the total number of loans, either of the library or of patrons, so they are not useful to see the proportional popularity of all borrowed books. Luckily, public libraries in Rome (Italy) provide a wealth of open data, including a very detailed

breakdown of book loans (‘Open Data dettaglio movimento prestiti’ 2020). After confirming that the data distribution is the same, regardless of the publication year, I though it can be interesting to check whether there is any effect due to the age of readers (Figure 14).

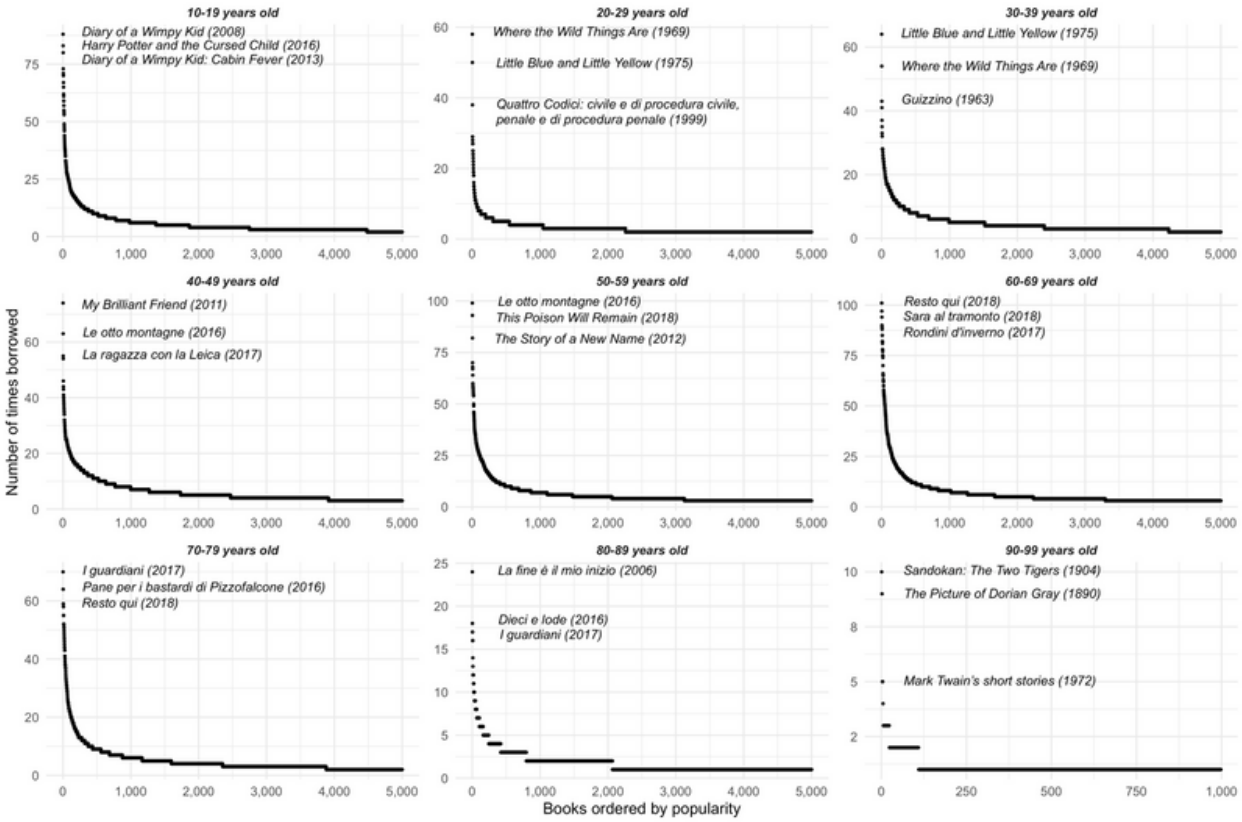

Figure 14: Popularity (measured as the number of times they have been borrowed) of books possessed by all the public libraries of Rome (Italy) in the year 2018.

For a better legibility of the graphs, I limited the number of books plotted to 5,000 but the long tails go on until more than 24,000 books, except for the last two decades. Titles are in English, when books have been translated, and within brackets I reported the date of first publication in Italian.

It is quite clear that the dynamics concerning the popularity of books are not affected by changes in the medium used to look for information about books (Goodreads vs. public libraries). Neither they are affected by a possible diversity in the cultural habits of people (active creators of online content vs. library patrons), nor by the publication year, nor by the age of readers. Therefore, talking about a risk of conformist behavior

related to digital reading is not accurate. The popularity of cultural artefacts does not necessarily imply conformism, it

> can be the result of bare availability: the more examples of an item, the more likely we will encounter it, and the more likely we will become interested in it. […] Distinguishing the respective role of intrinsic quality and social influence with only observational data is a social scientist's nightmare, and, according to many, the effects of social influence have often been overestimated. (Acerbi 2020, 93)

Being conformists means that individuals have a tendency to prefer popular things over less popular ones, namely the tendency to copy the majority with a probability higher than that of randomly picking books from shelves. In most cases, people do not choose their readings in a conformist way, not even if they are frequent Goodreads users. The proportion of popular and less popular books is often similar both online and offline, following a power-law distribution, but which specific books become popular can be due to various causes. I think this is the unspoken core issue for many detractors of digital reading: *which* books become popular when people look for reading suggestions mostly online rather than listening to literary institutions like respectable publishers and literary critics, that is the real problem.

The quality of literary works has traditionally been judged by a restricted group of specialists – publishers and literary critics – who decided which texts deserved to be included in the literary canon, often based on a criterion of originality, i.e. the presence of some rhetorical or stylistic innovation in linguistic expression. Literary studies have sometimes theorized such change as the introduction of formal innovations, for instance, by literary modernism (e.g. stream of consciousness) and postmodernism (e.g. self-reflexivity) (McHale 1987). In terms of cultural evolution, the value and popularity of books have been decided according to their anti-conformism, namely the tendency to adopt the least common traits in the previous generation of books (Mesoudi and Lycett 2009). This kind of institutionalized prestige has often been opposed to the popularity of bestselling fiction (Algee-Hewitt 2017), appreciated by many because of its serial replication of known plot schemes or themes. More broadly, the issue concerns the contrast between a narrow selection of canonized works and the entirety of the archived literary production, which is often ignored, if not inaccessible (Moretti 2000).

For books published up to the 20th century, the most popular ones among Goodreads users are still part of the literary canon, but for books published in the last thirty years the verdict is clear: the Young Adult genre is the most popular one for many readers

(cf. Figure 13). Interestingly, preferences are likely to vary according to age group, as we can see for data about books borrowed from public libraries in Rome, but we cannot verify if this is the case for Goodreads, too. Grouping readers by age enables to see how different factors may be responsible for books popularity: parenthood (children books borrowed by 20-39 years old); attending university and having to consult expensive books (*Quattro codici*); audience fidelity obtained through serial publishing (*I guardiani; Pane per i bastardi di Pizzofalcone; Sara al tramonto; Rondini d'inverno; My Brilliant Friend; The Story of a New Name*); strong narrative effects and emotions (crime novels and romance); and book format (audiobooks for 90-99 years old).

Among Goodreads most popular books (Table 12) there are some of those who are frequently borrowed from libraries, but there is also a discrete variety of other books, ranging from recent bestsellers to literary classics taught in schools.

Table 12. The 50 most popular books on Goodreads in the year 2017

Rank	Publication year	Title	Number of ratings
1	2008	The Hunger Games	5,066,596
2	1997	Harry Potter and the Philosopher's Stone	4,972,886
3	2005	Twilight	3,992,661
4	1960	To Kill a Mockingbird	3,402,363
5	1925	The Great Gatsby	2,852,789
6	2012	The Fault in Our Stars	2,564,656
7	2011	Divergent	2,277,881
8	1813	Pride and Prejudice	2,239,951
9	1937	The Hobbit : or There and Back Again	2,228,361
10	1951	The Catcher in the Rye	2,166,748

11	2000	Angels & Demons	2,126,047
12	1949	Nineteen Eighty-Four	2,125,871
13	1947	The Diary of Anne Franke	2,082,057
14	1945	Animal Farm: A Fairy Story	2,035,585
15	1999	Harry Potter and the Prisoner of Azkaban	2,019,176
16	2009	Catching Fire	2,015,024
17	2005	The Girl with the Dragon Tattoo (Millennium, #1)	1,982,596
18	1998	Harry Potter and the Chamber of Secrets	1,955,144
19	2003	The Kite Runner	1,917,224
20	2000	Harry Potter and the Goblet of Fire	1,912,948
21	2010	Mockingjay	1,897,651
22	2007	Harry Potter and the Deathly Hallows	1,889,600
23	1954	The Fellowship of the Ring	1,880,521
24	2003	Harry Potter and the Order of the Phoenix	1,875,594
25	2005	Harry Potter and the Half-Blood Prince	1,824,878
26	1954	Lord of the Flies	1,707,618

27	1597	An Excellent conceited Tragedie of Romeo and Juliet	1,702,565
28	2002	The Lovely Bones	1,685,957
29	2012	Gone Girl	1,667,157
30	2009	The Help	1,638,864
31	1950	The Lion, the Witch and the Wardrobe	1,629,301
32	2003	The Da Vinci code	1,578,512
33	1937	Of Mice and Men	1,548,748
34	1996	A Game of Thrones	1,487,963
35	2005	The Lightning Thief	1,458,186
36	1988	The Alchemist	1,455,095
37	2011	Fifty Shades of Grey	1,448,482
38	1997	Memoirs of a Geisha	1,439,510
39	1993	The Giver	1,361,154
40	1868	Little Women	1,334,710
41	2003	The Time Traveler's Wife	1,329,358
42	2005	The Book Thief	1,326,169
43	2015	The Girl on the Train	1,301,700
44	1847	Jane Eyre	1,298,327
45	2007	City of Bones	1,271,375

46	2006	Eat, pray, love: one woman's search for everything across Italy, India and Indonesia	1,226,472
47	2006	New Moon (Twilight, #2)	1,212,319
48	1953	Fahrenheit 451	1,203,278
49	2007	Eclipse	1,189,270
50	2002	Eragon	1,150,741

Given that similar books are popular in DSR contexts and in places traditionally deputed to the preservation and transmission of literature, it is very unlikely that digital and social media create conformism or the so-called “echo chambers”, the phenomenon for which we would end up grouping only with people similar to us, reinforcing – if not radicalizing – our opinions, without having access to different perspectives. Even in this case, research showed that the phenomenon is widely overestimated, certainly not occurring more strongly or more frequently online than offline, and it is not caused by social media (Acerbi 2020). There is probably a professional bias in many criticisms to DSR, since traditional literary institutions are likely to see DSR as a threat to their authority and, accordingly, be more hostile towards it. Moreover, as noted by Mizuko Ito, the tension between collective conformism and individual anti-conformism is crucially a preoccupation of Western societies (Jenkins, Ito, and boyd 2015). Overall, it seems like there is not much evidence supporting the validity of this first kind of criticism to DSR.

5.2.2 The shallowing hypothesis

Beside the risk of leveling down our taste for books, DSR and reading on screen have been criticized because they discourage deep and reflective reading practices. The most known advocate of the “shallowing hypothesis” is Nicholas Carr, who, following Marshall McLuhan, warned us that the tools we use often end up “numbing” whatever part of our body they “amplify” (Carr 2014; McLuhan 1964). Carr bases his argumentation on selected secondary evidence, but the validity of many of the cited research has been questioned or weakened, like the thesis that the shift to online academic journals narrowed the number of cited articles (J. A. Evans 2008; cf.

Larivière, Gingras, and Archambault 2009), or the negative effect of offloading cognitive tasks into external tools (van Nimwegen and van Oostendorp 2009; cf. Risko and Gilbert 2016).

In the last decades there has been some research whose results partly support the shallowing hypothesis (Delgado et al. 2018; Mangen, Walgermo, and Brønnick 2013), but there is also evidence that technological affordances make reading on screen worse than reading on paper only with respect to specific cognitive tasks, like the ability to remember where a sentence is spatially located in the text and the temporal order of narrated events (Mangen, Olivier, and Velay 2019). However, this effect may be due to the fact that when using an e-reader we are likely to offload cognitive tasks like short-term memory into the digital device (Risko and Gilbert 2016), because we know that, if needed, such task can be more effectively performed by the "search" function of the device rather than by our brain. Therefore, we are adapting our behavior based on our structural coupling with the environment (Maturana and Varela 1980; Varela, Thompson, and Rosch 1991; A. Clark 2008), and a request to remember something without being able to make use of the affordances of the environment and tools in which we are contradicts our predictive cognitive processes (Hohwy 2013). In brief, this kind of experiments have a low ecological validity, they are not very reliable simulations of how we spontaneously read with digital devices.

More broadly, Carr's arguments are often popping up in conversations among humanities scholars also because they resonate with an attitude (and habitus) traditionally embraced by academics, i.e. quiet reading followed by contemplative thought, akin to what sponsored by the "attention restoration theory" cited by Carr (Kaplan and Kaplan 1989; M. G. Berman, Jonides, and Kaplan 2008). With respect to this, Carr's criticism is misplaced, because he opposes restorative practices induced by the immersion in wild natural environments to the overwhelming amount of stimuli coming from digital media, concluding that digital reading must be bad because it mostly occurs in a distracting and stressful environment. Surely, being able to take some time off in the nature can be restorative – assuming someone is not uncomfortable with their inexperience in the wilderness or afraid of insects – but frenetic lifestyles appeared way before the invention of digital media. As I already mentioned introducing Orben's Sisyphean cycle of technology panic (section 5.1), researcher often rush towards generalization, but there is actually increasing evidence that it is crucial to consider personal differences when assessing the impact of technology use on well-being and learning (Beyens et al. 2020; Lee 2009; George and Odgers 2015; Odgers 2018).

Distraction caused by digital media is something many of us have experienced, but we should also consider that for teenagers mobile phones are a prosthetic tool – perceived more in terms of extended embodiment, rather than as use of an external object (Riva and Mantovani 2014). For this reason, reading on paper can be more distracting than reading on digital devices for them, because of the lack of interaction (Turner, Hicks, and Zucker 2020) or a bodily sense of incompleteness. Moreover, many teenagers grow up in big cities, with very few occasions of getting familiar with wild nature. Accordingly, for them restorative and "optimal" experiences (Csikszentmihalyi 1990; Engeser 2012) may also come in different forms than those enjoyed by people born before the year 2000.

To sum up, digital burnout is a serious risk, but it should be avoided by properly addressing societal aspects that make people stressed and anxious, not stigmatizing the hyper-connectedness of digital and social media. Overall, more and better designed research is needed to understand the nuances of how digital media affect attention and other cognitive skills.

5.2.3 Harm

The third kind of risk related to *digital* social reading is the harm that can come from meeting anonymous people online. Infrastructural choices may facilitate the emergence and spread of harmful behavior and content, e.g. enabling users' anonymity or algorithmically suggesting content without checking whether it is discriminating and offensive (Gin et al. 2017).

Harm should not just be considered as overt offensive and abusive expression, imbalance in social and institutional power can be as harmful as overt prejudice, for instance in perpetrating racism (Bonilla-Silva 2006; So 2020). In DSR platforms – but also in social media in general – the platform's infrastructure, design, and management often have a role in harming historically marginalised communities (Matamoros-Fernández and Farkas 2021). For this reason, it is of utmost importance to critically investigate how racism, sexism, and hate speech are implicitly facilitated and reinforced by the whole DSR apparatus, by each single platform within it, and by their users. It is necessary to be critical even when dealing with the declared good intentions and active anti-harassment efforts of platforms such as Wattpad (Wattpad 2019a), or the seemingly ideal openness of AO3 (Fiesler, Morrison, and Bruckman 2016).

For instance, Wattpad's recent acquisition by the big Korean Internet corporation Naver should make us alert of the possible amplification/silencing of content friendly/critical of Korean culture. This is not a minor event: Korean pop culture is hugely influential all over Asia and it is increasingly spreading in Western countries too, as attested by the popularity of Wattpad stories about K-pop (Pianzola, Rebora, and Lauer 2020), among other things. Misogyny, homophobia, and racism are definitely more rooted in South Korea (J. Kim 2018; Yi and Phillips 2015; S. Kim 2012) than they are in the management and userbase of the multicultural Canadian company Wattpad (Wattpad 2018). We will see whether there will be any interference with respect to aspects related to such themes, like political pressures to remove homoerotic real-person fanfiction as a consequence of a recent petition supported by more than 200,000 Koreans (Szymanska 2021). Something similar already happened in China (Romano 2020). Censorship related to gender, sexual orientation, and homophobia are often overt, but structural racism may be more difficult to be acknowledged and eradicated, even in DSR systems (Stitch 2021a; Pande 2018). All such conditions systemically lead to harmful behavior and oppression of minorities.

Another important aspect of digital culture to keep in mind is how gender affects social dynamics. Online bullying, bully battles, drama, flaming, harassment, and abuse (boyd 2014; Reagle 2015) is mainly perpetrated by cisgender white males (Poland 2016; cf. Ybarra and Mitchell 2004) towards non-heterosexual people and People of Color (Mitchell, Ybarra, and Korchmaros 2014). Accordingly, the more diverse and supportive an online community is in terms of gender, sexual orientation, and ethnicity, the less likely it is that there will be one or more persons who spread toxic behavior. In this respect, Wattpad claims that more than 80% of its users identify as women, and it periodically reports about diversity in the stories hosted on its platform. Similarly, fanfiction communities are quite diverse in terms of gender and sexual orientation (cf. section 3.3).

The fact that women and minorities are often harassed offline might play a role in refraining from potentially offensive behavior – either offline or online – but research also reports that people who have been abused are likely to be abusers themselves (Ybarra and Mitchell 2004). In general, it is worth remembering that bullying occurs offline two times more than online (Levy et al. 2012), and that "offline factors predict negative online experiences and effects" (George and Odgers 2015). Thus, social media can hardly be blamed to worsen this kind of behavior, as attested by a European large-scale research about negative online experiences: "Since more children are going online, and they are doing so from more devices and in more contexts, it is no

surprise that exposure to online risks is increasing; what is surprising is that the proportion of those who are harmed out of those who experienced any risk is not increasing" (Mascheroni and Ólafsson 2014). Online spaces are not more harmful than offline spaces, but the fact that an increasingly higher number of people has access to the internet gives us the impression that this is a growing phenomenon: in the last five years increasingly more people worldwide experienced hate speech (+4%) or discrimination (+5%), and anonymous cyberbullying affected around 20% more people in 2020 than in 2019 (n = 10,780; Microsoft 2021). Inevitably, both readers and authors can also be the target of hostile behavior inflicted by trolls and haters (Reagle 2015; Meadows 2012).

To limit the spreading of harmful situations, we can invest in developing a better media literacy for everybody. However, media literacy does not have to be conceived as a tool to protect oneself from the potentially negative effects of digital media, like it often happens (cf. Potter 2021; 2010). Rather, it should be seen as directed towards achieving a better critical awareness, democratic participation, and enjoyment of the media (Buckingham and Domaille 2009). Unfortunately, the adoption of this attitude is hindered by the Sisyphean cycle of technology panics, which does not help the theoretical reflection and the designing of insightful research; for instance, research able to investigate the directionality of effects between technology, situations, attitudes, and other individual variables (Kowalski et al. 2014). We really still need to do a lot of work to better understand how digital and social media affect our brains and bodies. For the time being, luckily, we can also see some positive effects.

5.3 Hopes

The lack of a satisfactory theoretical reflection on digital reading, combined with the need of "urgent" answers solicited by policy makers, led to research that only partially grasped the implications of digital reading for learning and for the developing brain in general. If reading fiction is a way to build social and emotional skills that are needed when interacting with others or facing intense emotions (Kidd and Castano 2013; 2019; Mar and Oatley 2008; Pianzola et al. 2020; B. Boyd 2009), then digital social reading is a way to integrate a practical exercise into reading. When done socially, reading is not anymore just an embodied-but-simulated learning activity, it becomes a learning-by-doing experience with which readers put into practice – and meta-analyze – what they are learning through fiction. Sharing one's own emotions or discussing a character's behavior is already a way to exercise social and emotional skills, negotiating one's one social reputation and testing how others react to emotionally

engaging situations. This aspect has not been systematically studied by research about the effects of digital reading, therefore we have an incomplete picture of what digital reading does to our brain, because we did not ask all the questions we were supposed to ask (cf. Ito et al. 2020).

Many national reports about reading habits are a clear example of this kind of inadequacy of research. They often rely on market data (AuthorMark Williams 2017; 'Buchkäufer- und Buchleser-Studie' 2015) or collect data from randomized samples of the population, asking directly about reading habits (Feierabend, Rathgeb, and Reutter 2018; Perrin 2016), but only a few of them take into account the changing behavior of young readers by including specific questions about reading non-standard book formats like Wattpad stories (Wennekers et al. 2018). The results in such reports are consistent worldwide: reading is an activity in strong decline after childhood (Feierabend, Rathgeb, and Reutter 2018; Chin Ee and Baoqi 2018; C. Clark and Teravainen 2017; Peters and van Strien 2018; Wennekers, Haan, and Huysmans 2016; Johnsson-Smaragdi and Jönsson 2006). However, the magnitude and the steady increase of DSR activities partly contradicts these data (Pianzola, Rebora, and Lauer 2020; Pianzola, Acerbi, and Rebora 2020). This is a sign that more appropriate methodologies to report about reading need to be developed, in order to take into account the changes of societies in which digital technology is widespread and influences reading habits.

Although we lack enough data to understand the actual social, geographical, and generational extension of digital social reading, I can offer some reflections on what readers and the literary sphere can gain from using DSR systems. When thinking about digital reading, many of us often think about a combination of a written text with a digital medium, that is reading a text on a screen, but the affordances of digital reading are many more. Compared to reading a paper book, by reading on a digital device we can almost immediately do things like consulting a dictionary, read hundreds of reviews of a book, receive recommendations about similar books that we may like, and read comments written by other readers, which could help us, for instance, to better understand the historical background of a story, to learn that people of a different ethnicity interpret the same story in a way we did not think about, or to feel less ashamed of our emotional reaction because other readers had the same intense feelings and recorded them in the margins of the text. There are have been positive voices highlighting these and other benefits of digital reading (McGann 2001; Dowling 2014; Lauer 2020), and in chapter 4 I presented how a new form of learning (distributed social learning) is enabled by DSR systems. In the next sections, I will

focus mainly on two aspects: how reading socially can be beneficial in terms of both reading experience and social exchange; and how the stronger role of readers in the publishing ecosystem can be an advantage for individuals and societies.

5.3.1 Positive sociality

Empirical research found that sensorial experiences are amplified when they are done in the presence of another person who is directing their attention towards the same object. This is true for both pleasant and unpleasant experiences (Boothby, Clark, and Bargh 2014). With respect to reading, we may argue that the traces left by other readers – be they in the form of comments, reviews, or fanfiction – amplify our emotional response to the same text. Interestingly, when we read fiction, another cognitive-emotional process is activated as well, namely the downregulation of emotional response, which is necessary to safely cope with fictional events that are often quite intense and would otherwise require a lot of brain energy to keep ourselves emotionally stable (Mocaiber et al. 2010; Sperduti et al. 2016; 2017). Knowing that other people are undergoing, or previously shared, an emotionally intense experience similar to the one we are living when reading fiction can play a huge role in this process of emotion regulation, since it makes it socially safe to live and share such intense emotions.

The amplification and regulation of emotions influenced by social interaction can then influence psychological states like self-esteem and perceived relational value, which are often at high stakes for children and youth. For instance, a research found that the feeling of social exclusion and negative affect can be significantly diminished by instant messaging with an unfamiliar peer (same age, other gender), compared to engaging in solitary video game play (Gross 2009). Moreover, meeting other like-minded readers thanks to DSR can be a way to create valuable friendship, and it should not be doubted that online interaction is as genuine as friendship built offline. Evidence suggests that core aspects of friendship are present also in online interaction: self-disclosure, validation, companionship, instrumental support, conflict, and conflict resolution (Yau and Reich 2018). Sharing and discussing fiction online may be a way to navigate all such dimensions of valuable social relationships.

Regarding book discussion more closely, it has been argued that “online reading formations work both to diversify as well as simultaneously to rarefy bookish culture. Their ease of use and affordability make them porous groupings with culturally democratising potential to draw in ‘broader constituencies’ than have typically characterised public book discussion” (Murray 2018a, 373). This is possible thanks to

the semi-anonymity granted by digital platforms, where the participants' age, sex, race, appearance, social class, and accent are not immediately visible. The books we read, how we rate them, the ones we wish to read, or the genre of stories we comment the most, say a lot about our interests, ideas, and even sexual orientation, but this is not always in front of us, in contrast to what happens in "resolutely embodied book-discussion settings such as a university seminar or suburban book club where the value of a participant's contribution is inevitably (albeit perhaps subconsciously) filtered through a range of socioeconomic assumptions made by other participants" (Murray 2018a, 372).

One example of the democratizing role of digital media are fanfiction platforms, which can be considered "postcolonial cyberspaces" where readers navigate and negotiate racial and ethnic identities, among other things (Pande 2018; cf. Nakamura 2008). For readers coming from a minority background, reading fanfiction can be one of the few occasions to see a positive representation of someone similar to them, unlike what they got used to see in mainstream media (Stitch 2021b; National Research Group 2020). However, it is important to remember that systemic racism – precisely because it is systemic within many societies – informs fandoms in various ways, as I showed mentioning the *Star Wars* case (cf. section 3.3.2). The issue is much deeper than what I can say here in relation to DSR, but it seems to me that, even with their limitations, fandom spaces are still less debilitating than the whiteness and heteronormativity of the publishing industry (So 2020; Ramdarshan Bold 2019).

Platforms like Wattpad show that social media can favor cosmopolitanism (cf. section 3.2.1), despite the norm often being networking in circles of people with the same interests and opinions, that is a sort of "imaginary cosmopolitanism" (Zuckerman 2013). Being a teenager, reader, and liking romance or young adult fiction does not restrict cultural exchange to like-minded people in a very narrow way. More in-depth studies are needed to corroborate this, but it seems that Wattpad is a relatively safe space; although some incidents have happened, given that in 2020 the company removed the Wattpad Community Forum because of some unspecified form of abuse (Wattpad 2020b). Moreover, a Safety Portal providing advice both to users and their parents is active since 2019 (Wattpad 2019a) and in 2020 an *Empathy Project* was launched to raise awareness about the possible consequences of stories with harmful content (Wattpad 2020a).

In general, one of the biggest opportunities offered by DSR platforms with user-generated tags and also indexing self-published and amatorial stories is the possibility

to find content related to one's own interests, no matter how particular they are. Digital media have greatly increased the availability of culture, making the connection between people who share the same interests much easier (Acerbi 2020). For the purpose of nurturing a passion for reading, finding people who like the same kind of stories that we do can be a game changer, legitimizing cultural and entertainment interests and, possibly, even increasing self-esteem and contributing to identity construction in a positive way.

5.3.2 User-driven multimodal infrastructures

Digital platforms allow not only for more diverse content but also for alternative systems of categorization that overcome traditional paratextual infrastructure informed by systemic racism, sexism, and other types of discrimination. One example is the American Library of Congress classification scheme, whose intrinsic racism and discriminating gaps have been documented by Sanford Berman (1971; cf. Knowlton 2005), but still exist nowadays. For instance, some changes are very recent history: the subject heading "illegal aliens" was replaced with "noncitizens" and "unauthorized immigrants" only in 2016. Another example – among those listed by Berman – is the subheading "controversial literature," used for works that "argue against or express opposition" to religions or religious orders and individuals. Meaning that the "standard" way of writing about religion is being apologetic. Just to list a few, in 2007 there were no headings for "second-wave feminism," "Bollywood films," and "Native American holocaust" (S. Berman 2007). A quick search brought to my attention that "intersectional feminism" is still not present in 2020, neither as heading nor as subheading ('Library of Congress Subject Headings PDF Files' 2020). The worldwide-spread Dewey Decimal System is not less racist than the Library of Congress Subject Headings (Olson 1998; Furner 2007; cf. Noble 2018).

In contrast to centralized cataloguing systems, online platforms allow the use of folksonomies, user-generated tags and personalized names of book lists and bookshelves. AO3 has also implemented an aggregation system based on the distributed knowledge of many volunteer "tag wranglers," who link newly introduced tags, and minor variations of existing tags, to the so-called "canonical tags" (AO3 Admin 2012; McCulloch 2019; Pianzola 2020). This is possible thanks to the specialized knowledge of volunteers who monitor only the specific fandom in which their expertise allows them to easily grasp even minimal allusions to themes, characters, or conventions. This archivistic infrastructure and the front-end interface derived from it allow readers to easily find the stories they want to read with extremely

refined queries regarding genre, topics, featured characters, narrative techniques, length of text, date of publication, etc.

The advantage of folksonomies is undoubtable, but there are many other features that have been introduced in DSR platforms without the same success. Bob Stein started experimenting with digital social reading in 2006, when the Institute for the Future of the Book decided to create CommentPress, a plugin that allows to add comments in the margin of web pages (‘About CommentPress’ 2010; Fitzpatrick 2007). However, despite his enormous influence as a media guru, this and subsequent projects, like SocialBooks, never became really popular. On the other end, platforms with similar DSR functions – like Wattpad or fanfiction websites – saw an increasingly widespread adoption. The reasons behind their success are various and often specific to each platform and its audience. Before discussing them, it is worth to see how professional writers responded to a DSR experiment proposed by Bob Stein in 2008, *The Golden Notebook Project* (If:Book and APT 2008).

Megan Winget (2013) noted that, for the seven female authors who participated in the project,

> constructive criticism focused on three issues: 1) the readers had no specific goal in reading the book, or in some cases, had no prior knowledge of the book; 2) the difficulty of carrying on an extended conversation with people who are not physically present, and with whom the participants had no prior knowledge (i.e., they didn’t know each other before participating in this project); and 3) fear that they were censoring themselves and that the conversation was not organic. (8)

In other words, they felt the need for a common goal or thread guiding the discussion, or some contextual personal information that would have helped to keep the conversation going. Apparently, scattered comments do not qualify as a satisfactory way of interacting when discussing a book; but, in another blog post, one of the participants remarked that the comments were all too formal and “neat” in comparison to casual book conversations – in part because they knew that they were published online (cf. Marshall and Brush 2004) – and she missed the messiness of private annotations on books (Moïse 2008). More than affordances or constrictions of the digital platform, a self-imposed authorial ethos seem to have influenced the tone of *The Golden Notebook Project*, whose comments display a predominant writerly function, in Marshall’s terms (1998; cf. section 2.3 above). People who do not have to worry about publicly showing their professionalism or cultural capital take a very different

approach to DSR: messy and unrelated statements are one of the main traits of Wattpad's comments (Pianzola, Rebora, and Lauer 2020; cf. section 3.2 above).

The key elements that brought Wattpad to be successful are: a very young userbase, no paywall for accessing the stories, excellent usability on mobile phones, authors constantly communicating with their readers, and stories whose characters and events are close to the lives of the readers. All these elements contribute to creating a sense of informality and playfulness that makes young readers comfortable and encourages them to read more. For instance, in some cases, commenting can be just a way to participate in a game about raising the number of comments to a paragraph, with readers just writing the number of the comment they are about to post.

Goodreads's success factors are different, appealing to another kind of readership. The userbase is probably older, the website's appearance has not changed much in a long time, and its core function is to satisfy the collecting impulse that many readers have. Moreover, curating one's own bookshelf is an important part of the users' engagement with the platform, a way of displaying cultural capital, refined taste, or the ability to discover and critically evaluate books unknown to most of the people. By using Wattpad, people grow more as readers; by using Goodreads, they develop more their competence to critically appraise what they read.

In the case of fanfiction, some of the success factors are related to: the chance of continuing to explore a beloved fictional universe thanks to new stories; the verticality of social interaction within fandom communities, rewarding the expertise and growth of both writers and readers; and the sense of belonging and participation enabled by the existence of the fandom.

The features that readers appreciate are different for each DSR platform, and co-evolved with the readership they attracted. Besides the cases discussed in this book, a recent example is the growing popularity of an annotation tool like Hypothesis, which is being adopted by many universities, mostly with general learning purposes not strictly related to reading fiction. In this case the reason behind the adoption of DSR tools is the necessity of distant learning imposed by the Covid-19 pandemic. However, in order to unfold the full potential of DSR, comments, user-generated metadata, and reviews should become an information and learning infrastructure (Kalir and Garcia 2019), linked to the source text but also having its own textual autonomy. In 2017, the World Wide Web Consortium has created a web open standard for annotation, including an ontology that specifies many possible kinds of annotation and their relationship to the source document (W3C 2017). But other information authorities are

not yet ready for this, like the Text Encoding Initiative, which allows the markup of annotation in many different ways, relying a lot on the interpretative work of the encoder (TEI Consortium 2021; Estill 2016).

The adoption of common standards for the representation and organization of DSR-related information does not necessarily entail the realization of a comprehensive collection in a centralized database of human culture, like Google Books or Europeana (Lovink 2011). Such an enterprise would risk to overlook the specificity of the ecosystems within which comments, reviews, and stories are generated, disregarding how medium and format affect content consumption and the response to it (Tenen 2017). An appropriate public infrastructure (e.g. DSR services provided by libraries) and the standardized markup of DSR data will allow to create a network of linked open data, which would enable a much deeper understanding of how people experience and share culture. It would be possible to gather a trove of data about reader response, also preserving contextual information about the various sources of the comments.

Moreover, the advantage of a digital infrastructure is that it can record the mixing and use of a variety of semiotic resources (images, links, videos, etc.), which become part of the interpretation of fiction, something almost impossible to do in traditional, face-to-face discussions (Thoms and Poole 2018). Annotation on print texts is limited by the space in the margins of the page, but with digital annotation tools there is no such limit, allowing readers to comment extensively on a specific part of text. Moreover, there is evidence that being able to link one's own thoughts to the text enables more focused discussion in comparison to discussion forums, where general comments are more frequent (Sun and Gao 2017). And being able to read comments on and conversations about a text directly beside it is a valuable feature that can positively impact learning, offering examples of and stimulating personal reflection about the effects of language and style.

On a larger scale, the growing popularity of DSR platforms affects literature as an evolving cultural system. Increasingly more often, publishers make decisions based on the number of connections a potential author has. This information can be obtained from many sources: proposal forms for academic books asking for possible adoption in university courses, but also for mailing lists and networks plausibly interested in the topic; number of reads and visitors on the author's website; number of followers on social media; etc. Accordingly, a platform like Wattpad is a valuable source for the publishing industry, not because of the showbiz rhetoric of "finding new talents" but because of the power of fandom. Wattpad authors already have many followers, not

just readers, they have fans who are ready to support and work hard to promote the creators of the stories they love. Why should publishers risk to discover new authors outside this consolidated mechanism that will bring them a guaranteed return on investment? And what will be the future of literature if all published authors are selected in this way? Many literary scholars would probably chill at the thought of such a scenario, because they implicitly or explicitly think that some sort of cultural selection has to be controlled by people with a literary taste refined by years of studies and a knowledge of the literary tradition. According to them, the people are not to be trusted regarding the quality of artworks.

But what can happen if we leave to the masses to decide the fate of literature? Stories are a common good that should be widely accessible. In increasingly more educated societies with plenty of new opportunities to find, distribute, and amplify a variety of written stories for free, I believe that readers' preferences will contribute to make the best stories survive. Actually, this is not just my belief, both observational studies and controlled experiments have shown that quality always matters for cultural transmission (Acerbi 2020), so we should trust our fellow readers more.

Anyway, more than saving literature, I think it is important to grant people the right to be saved by the stories they need, either because such stories help them manage anxiety, fear, and uncertainty, or because they help them with their identity and self-esteem (Fiske 1992), showing that being Black, Muslim, queer, poor, disabled, "not cool," or simply young is ok. To paraphrase Safiya U. Noble's words (2018), social inequality will not be solved by digital social reading, but there are many silver linings that can have a positive impact on the lives of many young readers.