This article aims to contribute to a better understanding of the impact of the Internet on distributed creativity. While the social mechanisms that are fundamental for creative expression are not radically different online, and while we want to avoid overly romanticizing the role of the Internet or falling prey to technological determinism, we argue that there are, nevertheless, significant shifts that must be acknowledged and examined. In order to achieve a more nuanced and analytical account, we suggest a simple framework centred around five questions - who, when, where, how and why - that allow for a differentiated understanding of the range of changes in creative expression in the Internet age. To model the application of this framework, we use the example of crowdsourced art (participatory online art) as a creative practice that illustrates some of these key shifts. In thinking about creativity in online spaces, we suggest that the consideration of actors (who), times (when), places (where), processes (how) and motives (why) facilitates a valuable multidimensional understanding of these significant and complex changes.

A paradigm shift is currently underway in both lay conceptions of creativity and scientific theory. It is a shift from individual-based to social-based understandings of this phenomenon, from inner attributes to social interaction and communication, from a view of creators fighting the culture of their time to working from within society and culture. It has long been recognised that creativity emerged as a modern value (Mason, 2003) and gained prominence in today’s world, in the West and then globally, in close connection with the ideology of individualism (Hanchett Hanson, 2015). It is this ideological orientation that underpins our historical fascination with (men of) genius and today’s discourse about fostering the ‘creative potential’ of students or employees. In this way, creativity becomes not only an individual trait but an individual responsibility - everyone is required to cultivate his or her own creativity. Why is fostering creativity such an important personal and societal imperative? Mainly because this process, defined
in psychology as leading to the generation of new and useful outcomes (Sternberg & Lubart, 1999), is also at the heart of economies oriented towards the production and consumption of goods and services. Being creative means, in this context, having a competitive advantage over others in a world dominated by the need to achieve and accumulate.

There are, however, alternative understandings of both creativity and society (see, for instance, Glăveanu, Tanggaard, & Wegener, 2016), and they relate to the paradigmatic shift mentioned above. Creativity is not, and should not be, defined primarily in terms of personal qualities and outcomes developed in order to better compete with others. In the emerging social paradigm (the We-paradigm; Glăveanu, 2010), creativity is defined in terms of communication and interaction and developed through collaborative relations. These two views are not mutually exclusive; on the contrary, the social paradigm can and does include individual-based theories as part of the creativity complex (Glăveanu, 2015a) and competition is a specific type of self-other relationship that can play a part in creative expression. It is important to note that the paradigm shift we refer to here finds its origins not in scientific research (where social or systemic accounts of creating were formulated as early as the 1980s without ever becoming dominant; see Amabile, 1983; Csikszentmihalyi, 1988), but in the transformation of society within high or late modernity (Giddens, 1991).

The emergence, development and widespread use of the Internet and digital media are key markers within this broader transformation. Online participation is associated with heightened connectivity and an unprecedented potential for sharing information, connecting people and ideas usually kept apart, and facilitating collaboration both within the digital world and beyond it. These features not only impact creativity as a phenomenon but essentially redefine it, as the processes of creatively collaborating with others find themselves mediated by technological means. The social paradigm of creativity, also known as the paradigm of distributed creativity (Glăveanu, 2014), stems from this basic premise: that to create means much more than an isolated mind producing ideas. It refers to acting in the world in relation to others with the symbolic and materials means of culture. The Internet is a fundamental part of today’s global culture. Much more than a simple tool or medium, it effectively shapes the very processes that define culture such as communication, meaning-making and institutionalisation. What is the impact, then, of the online medium on creativity?

This is the basic question we start from in this article. At the same time, since it is an extremely complex question, we can only attempt to provide a tentative answer here, based on a few empirical illustrations. The main assumption we begin with, briefly explained above, is that our current conceptions and practices of creativity are shaped by the digital environment and its new affordances. At the same time, we do not hypothesise a total transformation of creativity in the digital age. In other words, we don’t assume that...
the social processes of creativity are radically different - they are, rather, enhanced, accelerated and diversified. This can, indeed, lead at times to the qualitative transformation of creative activities and their outcomes, from the emergence of new types of creative products (such as Internet memes) to the increased quality and speed of exchanges within creative teams. However, the social mechanisms fundamental for creativity, such as knowledge sharing and perspective-taking (Glăveanu, 2015b), remain the same and serve functions they served before the age of the Internet. As such, in discussing the link between creativity and the online medium we don’t want to fall prey to either romanticism (believing the advent of the Internet brought only positive changes) or technological determinism (believing that new technologies lead necessarily to completely new phenomena). In order to achieve a more nuanced and analytical account, we suggest a simple framework centred around five questions - who, when, where, how and why - that allow for a differentiated understanding of the range of changes in creative expression in the Internet age.

As a way to illustrate the application of this framework, we use the example of crowdsourced art: the practice of using the Internet as a participatory platform to directly engage the public in the creation of artwork (Literat, 2012). Crowdsourced art is a complex example of online distributed creativity and an emerging trend in the cultural sphere, as more and more artists embrace online technologies as a means of facilitating creative participation on a wider scale. We believe that crowdsourced art is a valuable case study to anchor our analysis, because it models - as we will argue below - the potential of Internet-facilitated creativity, but also some of the pitfalls or challenges that may be involved. In addition, given the long tradition of offline participatory art (from surrealism to performance art to community art), crowdsourced art is a powerful example in this case because it allows us to make valuable connections between pre- and post-Internet creativity. Thus, relying on this case study helps us illustrate our analysis on a practical and not just a theoretical level. Considering actors (who), times (when), places (where), processes (how) and motives (why), we are better equipped to answer our title question: is distributed creativity in the digital age more of the same or different? And, if it is indeed different, how can we identify and understand this evolution?

WHO

A key feature of the online medium - and one that appears most prominently in popular discourse around the Internet - is its potential to facilitate greater and wider participation. As the online embodiment of participatory art, crowdsourced art is a manifestation of this potential within a seemingly closed and exclusive art world. In its purest and most idealistic form, crowdsourced art promises nothing less than to democratize creative participa-
As previously mentioned, this impulse is not new: there has always been a desire to open up the creative process and invite collaborators (artists and non-artists alike) to participate in the production of art. The Internet, however, is facilitating the realization of this desire on a significantly wider scale.

The invitation to participate in crowdsourced art is, in theory, open to anyone. Indeed, the very concept of crowdsourcing involves an invitation to contribute being distributed to “an undefined (and generally large) network of people in the form of an open call” (Howe, 2006). In practice, however, participation - in crowdsourced art, but also, more generally, in online spaces - is not as universally open, inclusive and egalitarian as we would like to think. Therefore it is vital to resist the tendency to romanticize or idealize online participation. The participation gap (Jenkins et al., 2006) remains an important obstacle and goes beyond mere access to technological tools to also include, significantly, the social and cultural skills needed for full participation in today’s media environments. And beyond access and skills, there are other exclusionary mechanisms at work: in crowdsourced art, a crucial one is the issue of cultural capital, which strongly conditions participation in such projects (Literat, 2012). Thus, while few can argue that the Internet does indeed widen participation, another vital question to consider, in relation to these exclusionary systems, is whether it also significantly diversifies participation. Empirical research on crowdsourcing in commercial contexts indicates that there is much less diversity than we would like to assume and that online participants are not necessarily the heterogeneous gathering of amateurs that we like to imagine them as (Brabham, 2010, 2011). Therefore, it is important to note that the “who” in this proposed framework is about both quantity and quality, both numbers and diversity.

From a psychological perspective, the question of who participates in distributed creative activities is fundamental. This is because different participants bring in new types of knowledge and expertise, a form of diversity that is often conducive for creativity (see for example Gassmann, 2001). However, difference and diversity are necessary but not sufficient conditions for creativity to occur (Glăveanu & Gillespie, 2015). This is because there are many different types of diversity at play when collaborating with others and there are different processes through which heterogeneity fosters creative work (the “where”, “when” and especially “how” factors we consider next). Provisionally, we can conclude that the use of digital media offers a strong premise for increasing diversity and this can, in turn, facilitate creativity; nonetheless, challenges related to how diverse groups really become or how diverse people collaborate remain relevant. In this sense, the Internet enhances a key premise of creativity without overcoming fully its offline limitations.
Distributed creativity in online environments can take place everywhere and at any time as compared to special times and places for creativity. The “where” is particularly important in crowdsourced art because, before the advent of the Internet, public participation in art projects most often occurred within the physical context of the museum or gallery (with the important exception of site-specific art). Looking at the history of participatory art, the most groundbreaking and renowned of such projects - like Rirkit Tiravanija’s culinary experiments or Marina Abramovic’s *The Artist Is Present* - all took place within the confines of these institutional structures. Even Yoko Ono’s *Wish Tree*, which invites participants to write down their desires and hang them onto the branches of a live tree, is separated from the natural environment and brought inside the museum.

*Figure 1. Yoko Ono, *Wish Tree* (1996/2004) at the Guggenheim Bilbao*
Figure 2. Marina Abramovic, *The Artist Is Present* (2010) at the Museum of Modern Art (MoMA), New York

Figure 3. Rirkrit Tiravanija, *Untitled (Pad See Ew)* (1990/2002) at SFMOMA
These institutional contexts matter, both in terms of accessibility but also, importantly, in terms of the symbolic associations that museums and galleries carry, especially in relation to cultural hierarchies and elitism. In addition, on a practical level, not everyone has the ability to attend events in such spaces, which are usually located in major urban centres. From this perspective then, the fact that participation is not tied to physical presence has the potential of widening and diversifying participation - though the caveats mentioned above remain relevant.

Finally, in terms of the ‘where’ of our encounter with creativity, moving the aesthetic experience outside of the museum or gallery context has important implications with regard to the legitimization process as well. Museums, galleries and other formal artistic institutions perform a crucial role in legitimizing art as “art” and endorsing its cultural value (Duncan, 2005; Shiner, 2001); this becomes an interesting challenge for crowdsourced art and other creative endeavours that can only exist in online spaces. In conclusion, a brief consideration of the ‘where’ of creativity shows that the Internet undoubtedly expands our possibilities to participate in creative projects and, importantly, gives us a sense of empowerment by breaking down some of the formal arrangements traditionally associated with creative work (e.g., locating it within the walls of museums, galleries, innovation labs, and so on). However, whether and in what ways this expansion changes the creative process (the “how”) remains an important question to be addressed.

WHEN

The online medium also carries significant implications for the timing of creative participation. Looking again at the example of participatory art, offline participatory art events are usually framed as scheduled events (see, for instance, Tiravanija and Abramovic’s work, mentioned above, which were scheduled to occur at a given time, and promoted as such). Although most - but not all - crowdsourced art projects also operate within a specific time frame (i.e., the project is made available online on a certain date and contributions are accepted for a given period), this time frame is generally much longer than in offline projects and contributors can participate asynchronously, at their convenience, rather than at a scheduled time. Both of these features should, theoretically, widen and diversify participation.

An interesting exception is online creative projects that are not time-bound. For instance, The Johnny Cash Project, a crowdsourced music video created by Aaron Koblin and Chris Milk in 2010, is designed to be an ongoing tribute to the beloved artist. Participants can contribute to the artwork by drawing single frames, which are then woven together in a collectively animated music video. As more and more people add their contributions on the project website (Fig. 4), the resulting video is ever changing. The Johnny
Cash Project, seen today, will look and feel different than it did a year or even a week ago. This is consistent with the intentions of its creators, who, according to the project description, wanted to create a “living, moving and ever changing portrait of the Man in Black”, who can, in a sense, live on through the collective creativity of his fans.

In terms of the “when” of creative work, the Internet certainly contributes again to an expansion of the temporal horizon and it also problematizes the old distinction between process and product by effectively fostering ongoing creative work.

HOW

Creativity as a social psychological process involves knowledge exchanges through communication and perspective taking through the symbolic (and/or material) repositioning of actors in relation to each other (see the theory of position exchange; Gillespie & Martin, 2014). These processes can be accelerated (when it comes to knowledge exchanges) or enhanced (when it comes to perspective-taking) in online environments but not fundamentally transformed. However, using the Internet does have a considerable impact on the creative process, which makes the “how” a particularly interesting and important question to answer.

As a first and necessary step, examining the relevant structures that are involved in online creative participation is important for a better understanding of the “how.” Taking crowdsourced art again as a case study, we notice two types of structures that are inextricably interlinked: “the conceptual or aesthetic structure of the project itself, and the technological structure of the Internet as a facilitating platform” (Literat, 2012, p. 2979). Both of these merit further enquiry.
The conceptual structure of a creative project matters, cautioning us against assuming that there is a singular “how” of participation. There is a need to distinguish between different modes or levels or degrees of participation - in crowdsourced art and beyond - because the depth of engagement has crucial implications for creative agency. Online creative participation should not be used as a blanket term; previous research has suggested a more nuanced model of understanding the various levels of engagement, which implies a breakdown of this concept into receptive, executoy and structural modes of participation (Literat, 2012). But perhaps of greater importance for our discussion of the online transformation of creativity is examining the second form of structure in online creative practice: the role of the Internet itself as a facilitator. As Giddens (1976) has famously argued, structures are both enabling and constraining. As we have argued in this article, this is very true when applied to the interactive web as a technological structure: while the online medium does indeed enable creative participation in many ways (especially in terms of our first three questions: who, where and when), there are important obstacles that remain relevant. The critical investigation of these opportunities and challenges remains an important theme for further reflection, as technology progresses and as the nature of online engagement evolves.

WHY

The question of “why” people participate in online creative endeavours is perhaps the most difficult one to answer. Online creativity does not just “happen”; rather, it rests on a deliberate sets of choices, as illustrated by the example of crowdsourced art. Whereas in offline participatory art, the incentive to participate is dependent on one’s physical presence at the site of the art project (often serendipitously, without prior knowledge of the artist's plans or even the existence of a project), in crowdsourced art, the contributors' participation is necessarily deliberate. For example, if you want to participate in The Johnny Cash Project, you need to find out about it, navigate to the website, sign up to draw a frame and commit to spending the necessary time to complete and submit the drawing.

Of particular interest is the issue of whether motivations for offline and, respectively, online creative participation are largely the same, or whether, conversely, the online medium engenders new reasons for creative engagement. The literature on online participation has identified five main motivations for Internet use: interpersonal utility, passing time, information seeking, convenience and entertainment (Papacharissi & Rubin, 2000). Empirical studies have also suggested that the motivations for online participation might differ based on personality types (Amiel & Sargent, 2004).
However, there is a need for more research with regard to the motivations of Internet users in the specific contexts of creative online engagement. In a qualitative study of the community at Threadless.com - an online community of artists and designers - Brabham (2010) identified four primary motivations that drive creative participation: the opportunity to make money, the opportunity to develop one’s creative skills, the potential to take up freelance work, and the love of community at Threadless. Surveying the participants in a crowdsourced children’s book project on Mechanical Turk, Literat (2015) found, based on 2268 responses, that the primary motivation that drove participants to contribute to the creative project was a desire to have fun (42%), which is closely related to the second most popular response: the enjoyment of creative tasks (17%) (see Fig. 5 below). This suggests that intrinsic motivations are more powerful than extrinsic stimuli like financial rewards or recognition - an interesting conclusion, especially given that the project took place on a micro-labour site where participants sign up in order to earn money. This conclusion also converges with a long-standing ‘principle’ in creativity studies - that of intrinsic motivation (Amabile, 1988) - suggesting that, at least at the level of “why”, there might be great similarities when it comes to online and offline creativity.

*Figure 5. Participants’ self-stated motivations in a crowdsourced children’s book project (Literat, 2015)*

**CONCLUSION**

We began this article by arguing for a social paradigm of creativity, one that places collaboration, distribution and co-creation at the core of creative work. This relatively new paradigm is both epitomised and supported by the rapid increase in the use of digital media and the Internet, which makes today’s world significantly more interconnected, dynamic and (at least potentially) more innovative than before. The consequences of this radically different environment for creativity are significant and far-reaching; however, more research is needed in order to reach a nuanced account of how digital media shapes the way we think about creativity and work creatively in interaction with others.
Crowdsourced art represents a good case study for starting to understand this impact and, as we briefly argued above, the conclusions that emerge are complex and resist oversimplification. On the one hand, creating in the 21st century with the technological means we have today cannot possibly be “more of the same”. The use of computers, and particularly of the Internet, changes not only how we do things but also how we think and act on a daily basis, including our sense of self (Evans, 2012). As we have seen from the examples above, it is not just the tools of creativity that are different, but also who we can create with, when and where we collaborate, and so forth. However, the processes of creating, we argue, are not fundamentally different either. They can be expanded, enhanced and diversified, and there might be some new processes that emerge with the use of digital media - a fruitful topic for further research - but, on the whole, the “how” and “why” of creativity seem to have deep resonances with offline creative activities. Moreover, we should avoid romanticising the impact of the Internet and we should acknowledge, as some of its most fierce critics do (see Keen, 2015), that this impact is not always positive. We can be in contact with more people and can exchange information faster than ever before, but at the same time, we can also get more easily distracted, less selective, and become unaware of the fact that power relations and structural constraints are still in place in the digital world. A careful analysis is needed with regard to the exclusionary structures conditioning online creative participation, the stakes of participation in terms of power and agency, and the recognition of creative merit.

So is our answer simply that the Internet makes creative activity be “more of the same but different”? Perhaps, but it is the study of what is the “same” and what is “different” that concerns us. Provisionally, we end by proposing a continuum view of how digital media impacts creative work, an impact whose outcomes range from similarity to, at times, radical difference. Importantly though, we argue that this continuum needs to be studied in light of (at least) five considerations: who (participants), where (spaces), when (times), how (processes) and why (motives). The five questions framework proposed here can be a useful analytical grid that can help us move beyond a “same but different” generic answer. The idea of a continuum helps us understand changes in creative activity as complex and interrelated developments, rather than black-and-white, all-or-nothing, absolute transformations. Moreover, just as creativity is largely domain-specific (Kaufman & Baer, 2004), so should our consideration of continuums in digital forms of creativity be; therefore, the conclusions we draw from studying crowdsourced art might be different from the creativity involved in producing Internet memes, for example. Together, the five questions and domain-based approach ensure nuance and variability in assessing the impact of the digital world on creativity and they also offer solid foundations for future research in this area.
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