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Re-conceptualizing social research in the "digital era". Issues of scholarships, methods, and epistemologies

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Re-conceptualizing social research in the "digital era". Issues of scholarships, methods, and epistemologies.　The article discusses an emerging area of sociology that has come to be called "Digital Sociology" starting from the experience of a research project that provided a group of social scientists with the opportunity to experiment with a wide range of digital technologies, devices, and platforms for academic work. A literature review of recent contributions is put into a dialog with the empirical materials collected during the project, leading to the identification of a tentative research agenda to contribute to the development of this area of inquiry.

KEYWORDS: digital sociology; digital methods; scholarship; epistemology.

Repensar a investigação social na "era digital". Questões de trabalho académico, metodologia e epistemologia.　O artigo discute uma área emergente da sociologia que veio a ser chamada de "sociologia digital" a partir da experiência de um projeto de investigação durante o qual um grupo de cientistas sociais teve a oportunidade de experimentar uma ampla gama de tecnologias digitais, dispositivos e plataformas para o trabalho académico. Uma revisão da literatura recente é colocada em diálogo com os materiais empíricos coletados durante o projeto, levando à identificação de uma agenda experimental de pesquisa que contribui para o desenvolvimento desta área disciplinar.

PALAVRAS-CHAVE: sociologia digital; métodos digitais; trabalho académico; epistemologia.

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INTRODUCTION

Almost all that social scientists have been traditionally interested in – identity and embodiment, power and inequalities, social structures and institutions, collective action – are today inevitably and inextricably connected to the "digital", a term commonly used to address the "expanding array of material that has been rendered into digital formats and the technologies, devices and media that use these formats" (Lupton, 2014, p. 12). The expression "digital sociology"[1] has now come to identify – and progressively to replace other names used in the social sciences domain – an emerging area of sociology that examines many aspects of digital society (Lupton, 2014). According to Lupton (2014, pp. 15-16) this emerging sub-discipline – or, better, community of practice – tends to position itself around four main research topics: professional digital practices (the use of digital tools in professional practice); analysis of digital technology use (configuring/performing the self, social relations, institutions, collective action); digital data analysis; and critical digital sociology (reflexive analysis of digital technologies informed by social and cultural theory). Noortje Marres has argued that what defines digital sociology is not primarily its methods and techniques and the opportunities for researching society opened up by digital data, but the changing relationships between social life – as an object of research – and social analysis. She defines digital sociology as "a digitally aware form of social inquiry, one which does not seek to bracket the influence of digital technology in the doing of social life and social research" (Carrigan, 2014a).

In this respect, Mark Carrigan (2014b) has suggested that the reflection on the transformations (anticipated or actual) of sociological practice favoured by

1   Jessie Daniels' (2016a; 2016b) and Mark Carrigan's (2016) works are also helpful to navigate the topic.

or happening through "the digital" plays an important role in digital sociology, establishing a dialog with other contemporary calls for reinvigorating sociological imagination and practices such as "Live Sociology" (Back and Puwar, 2012) and "Punk Sociology" (Beer, 2014). On the same line, Orton-Johnson, Prior, and Gregory (2015) suggest that we should think of digital sociology as "an opportunity to step outside 'normal science' for a moment, to address the big concerns of the discipline" and as "a reflexive moment in sociological thinking — a moment that asks us to interrogate taken-for-granted presumptions of who or what constitutes the 'social'".

This reflexive exercise about social research in the digital era calls into question issues of scholarship, methodology, and epistemology. With this article we contribute to two specific issues that are frequently discussed among researchers in the field for their impact on both the practices and the scope of social research.

The first one, which can be addressed as a *political* question, could be summarized as: is digital scholarship a luxury for the few? It calls into question the need to contextualize the supposed democratic potential of digital technology in the processes of knowledge production and circulation. The second issue, which can be framed as *epistemological*, can be formulated exactly as Kirsch (2014) did: "does the digital give us new ways to think or only ways to illustrate what we already know?". It refers to the opportunities that "the digital" can offer for rethinking social knowledge and methods.

After describing the context in which this article has been developed and the methodology adopted, the central sections present scientific contributions discussing the political and the epistemological issues connected to digital social research in articulation with the original empirical material. For each of the two arguments, the section is organized presenting a brief literature review and then putting it into a dialog with the relevant empirical evidence collected. The concluding section summarizes the main points emerging from the central sections, highlighting possible future lines of research.

BACKGROUND AND METHODOLOGY

This article originates from the research experience of the project "The importance of being digital: exploring digital academic practices and methods", funded by the Portuguese Fundation for Science and Technology (FCT), which ran between spring 2014 and summer 2015.[2]

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2   The research blog https://bedigital.hypotheses.org/ provides further information about the projects and the research activities.

The project, involving a small research team from the Science and Technology Studies, Anthropology, Communication and New Media, developed around two main aims. A first aim was exploring the role of digital technologies and social media in the academic profession and, in this respect, objects of investigation were both the actual transformation of research practices and the researchers' perceptions associated with the use of digital media in their work. A second aim related to the new and fast-growing area of the digital methods: a set of tools and methods allowing for research on a wide range of phenomena exploiting "natively digital" objects such as hyperlinks, threads, tags, etc. In terms of the research strategy, the project funded two distinct sets of training activities in Portugal – one about Digital Scholarship and the other about Digital Methods – involving leading scholars of the fields as instructors.

The "Digital Scholarship Workshop"[3] (DSW) was organized in two editions (one in Coimbra and one in Lisbon) in June 2014 to give to 30 early stage researchers and tenured faculty the opportunity to learn how to use digital media in a more effective way to produce and disseminate research. Sessions were conducted by Martin Weller, researcher at the Open University (UK) specialized in the area of online publishing, academic digital identity, writing for non-academics, and engagement with social media.

The "Oficinas Digital Methods"[4] (ODM) took place in October and November 2014 and involved a group of 15 researchers (some of which had already participated in the DSW). The sessions were conducted by a group of researchers (Tommaso Venturini, Paul Girard, and Benjamin Ooghe Tabanou) based at the Medialab-SciencePo in Paris, who presented a set of digital tools and platforms for social research and guided the group in experimenting with them by applying them to a wide set of research questions.

Both training activities had the twofold aims of enhancing participants' skills (with respect to the two different topics) and of creating the practical conditions to engage in our research a group of scholars in the social sciences and humanities. The empirical material informing this article and collected throught these events includes five focus groups, ten interviews, as well as observations (fieldnotes) and transcripts from the two above-mentioned training activities.

The five focus groups were organized at the end of each of the two sessions of the DSW. The setting of the focus group was the following: the participants in each workshop were randomly divided into groups (two in Lisbon and three in Coimbra), each group with one/two moderators from the research team.

3   See http://bedigital.hypotheses.org/273 for further details.
4   See http://bedigital.hypotheses.org/432 for further details.

A voice-recorder was placed in each group (trascriptions of the conversations were later realized) and moderators were in charge of taking notes of the impressions about the interactions. The role of the moderators was to propose a series of suggestions for discussion – with the help of some "cards" containing keywords[5] prepared before the sessions – and then let people discuss freely. Participants were not requested to take in consideration every card, as these were just meant to break the ice for the discussion.

Discussion in the groups was sometimes in Portuguese and sometimes in English, according to the composition of the groups. Discussions took place for about 30 minutes; some time was allocated afterwards to let people from each table share with the rest of the group the main outcomes of the discussion.

In each table the suggestions for the discussion were organized in three steps. A first step was engaging people in an exercise of imagination about the future (next 10 years) of academic research. After having negotiated the "future of academia" in each table, the following step was proposing another exercise of imagination about the future (next 10 years) of their own career in academia. Finally, the last step was discussing what would be the role of the digital technologies with respect to the two scenarios previously sketched (future academia and future careers).

TABLE 1
Interviews realized during the project

Code	Gender	Position/area
JD	Male	Science Communication officer
FV	Male	Research fellow, Anthropology
SR	Female	Doctoral candidate, Education
MMB	Female	Lecturer, Information Science
BD	Female	Doctoral candidate, Social Sciences
ST	Male	Research fellow, Geography and Planning
MJC	Female	Library Coordinator
FF	Male	Doctoral candidate, Social sciences
PS	Female	Doctoral candidate, History
XP	Female	Doctoral candidate, Social sciences

5   The cards contained the buzzwords used in research policy and evaluation, such as "publish or perish"; "interdisciplinary"; "openness"; "flexibility"; "networking".

The ten interviews (see Table 1) were realized during Autumn 2014 and Winter 2015: these were open, in-depth conversations with an average duration of 60 minutes each.

Topics discussed during the interviews included: the background career and perspectives for the future, the understandings of "digital scholarship" and how/if the workshops changed these understandings and the related practices, the possibilities offered by digital technologies for academic work – for instance in terms of scientific collaborations, interdisciplinarity, research management/organization, data collection, data analysis, dissemination – the impact of "the digital" in their "communities of practice" and epistemic cultures.

THE DEMOCRATIZING POTENTIAL
OF DIGITAL TECHNOLOGIES AND SPACES

Researchers in all disciplines today have at their disposal a growing digital toolkit including tools, platforms, and applications supporting the accomplishment of almost every kind of research activity[6]; if the integration of digital technologies in scholarly practices has proven indispensable in many cases (consider, as example, the tools for collaborative writing), a whole range of new possibilities have been opened up with respect to publishing models and ways of communicating. In this respect, as Martin Weller (2011, p. 348) contends, it is not the digital *per se* that is significant for the change of practices, but rather it is the combination of digital content with global networks and open approaches. Academic blogging and other forms of writing on digital platforms are beginning to reinvent scholarly publishing models, with scholarly journals that now incorporate blogs, multimedia, or open-access repositories and emerging new digital modes of publication (Lupton, 2014, p. 77).

The advent of a wide variety of online publishing platforms and tools connects to the possibility of extending conversions beyond academia, i.e. the possibility to reach and engage with new audiences, complementary to the institutional one. With respect to blogging, for example, several authors describe it as "conversational scholarship", a means by which academics can attempt to loosen their formal style of writing as part of communicating to a wider audience (Lupton, 2014; Gregg, 2006). It is argued that the practice of blogging forces academics to think about their research and writing in new ways, bearing in mind the multiplicity of potential audiences and the ways readers can respond to the material presented (Kitchin, 2014; Kitchin et al.,

6   See, as examples the tools listed on http://dirtdirectory.org/ or http://connectedresearchers.com/online-tools-for-researchers/.

2013). Some bloggers use their writing as a way of developing ideas and seeking engagement with others before they formalize their ideas into a more traditional academic piece (Estes, 2012; Gregg, 2006). The argument that the intrinsic democratic character of digital and on-line spaces offers new opportunities to scholars to engage in intellectual activism within and beyond academia has become quite popular. According to Carrigan (2014b) for example: "[…] digital engagement […] offers opportunities to circumvent constraints of work within the academy, facilitating an open and engaged scholarship that avoids the axiomatic opposition of *commitment* and *scholarship* that was critiqued by Bourdieu, leading to greater participation within public life and collaboration with groups pursuing agendas of social amelioration outside the academy". Exploring the opportunities that digital devices offer for creating and communicating sociological knowledge differently and performing what can be defined a *digital* "public sociology" (Burawoy, 2005) is, according to some scholars, the authentic meaning of what being a scholar in the digital age is. According to Weller: "digital scholarship is more than just using information and communication technologies to research, teach and collaborate; it also includes embracing the open values, ideology and potential of technologies born of peer-to-peer networking and wiki ways of working in order to benefit both the academy and society" (Weller, 2011, p. 50). This way of framing scholarship in the "digital era" resonates with the popular discourse of *openness*, a concept that has gained centrality in public debates and that emphasizes questions of access to knowledge, participation, and collaboration through the co-production and co-design of educational programs and of knowledge and the sharing, reuse, and modification of resources.

Embracing "openess" as researchers, however, is not the only reason for academic blogging. Mewburn and Thomson (2013), analyzing 100 academic blogs, have pointed out that often blogging appears to offer academics an alternative to resistance, compliance, or pragmatism in the face of managerialism in higher education (Teelken, 2011), a site where "speaking back to power" is achieved by criticizing academic workplace practices and managerial modes of organization (Mewburn and Thomson, 2013, p. 1111). To be sure, in many Western universities blogging and other social media activities have become themselves part of "academic capitalism" (Slaughter and Leslie, 1997), with many universities encouraging academics to blog to showcase their research or hosting a central blog in order to promote departments. Tressie McMillan Cottom (2015) warns that "academic capitalism promotes engaged academics as an empirical measure of a university's reputational currency", rebranding public engagement as academic "microcelebrity", a notion that refers to the economics of attention (measured in likes, shares, follows, comments, and

so on) in which academics are being encouraged, mostly through normative pressure, to brand their academic knowledge for mass consumption. Equally alarming are the cases of academics censured or admonished for statements made on social media (Lupton, 2014), with some universities, especially in the Anglo-Saxon world, entering into the process of drafting social media policies to regulate the activities of "their" academics online.

Literature has advised academics that openness of digital and on-line spaces implies the need to think carefully about how best to manage their private and public *personae* (Lupton, 2014; Barbour and Marshall, 2012). There is not only an issue of managing a "multiphrenic" identity (Gergan, 2000) – an identity performed and presented through a variety of media – but also a significant challenge in terms of the blurring of the boundaries between "the personal" and "the professional", since the realization of a strong online identity involves sharing aspects of personal life on social networks. It is the same professional identity as *academic* that is challenged: traditionally we have tended to think of scholars as being academics, usually employed by universities. Digital scholarship, however, broadens this focus, since in a digital, networked, and open world the – at least partial – democratization of online spaces opens up scholarship to a wider group, that is it opens also for a process of democratization of specialized knowledge. In this respect, some scholars suggest that it becomes possible to imagine researchers in the digital era as being less defined by the institution to which they belong and more by the network and online identity they establish (Weller, 2011).

During several activities of the project both the participants and the same members of the research team, were exposed to these arguments, which stimulated debates and critical commentaries. In general terms, these raised mixed feelings: one the one hand, the expectation that digital technologies and media can be a driver of a more open academic culture, potentially producing research that has a greater impact on society and in political decisions, but also, on the other hand, the concern that they could instead somehow exasperate the hyper-competitive dynamics currently dominating academia. Contemporary academia is depicted as imbued with a tension between openness and collaboration on one hand and closure and competitiveness on the other. Institutional and systemic incentives in these two opposite directions co-exist and researchers feel the pressure to navigate an unstable, and sometimes confusing, context. This exchange during one of the focus groups clearly articulates this point:

> Participant: "(…) the whole process of evaluation is competition-oriented. We feel this, nowadays (…) Researchers are encouraged to apply for competitive grants and within these

grants there is an incentive to create collaborative networks. And so here there is a great tension between competition between centres and collaboration between people…".

Other participant: "(…) in fact, today I think that even collaboration, being collaborative, is a competition in itself. The more collaborative, the more we are in the "storefront", so to speak, the more competitive we are" [participants in focus group 1 Coimbra, our translation from Portuguese of the transcripts].

The approach to open platform such as "Academia.edu", allowing for the publication of various kind of research products also exemplifies these mixed feelings. This platform has been addressed by participant researchers as allowing for a wider circulation of researchers' production and for network-building but also, at the same time, as potentially fostering unethical practices such as plagiarism, with several researchers expressing concerns with regard to the protection of their ideas and products in an "open" environment.

The need to get more visibility for academic work is accompanied by some discomfort in approaching these digital tools as a way to marketing research. The notion of "success", with respect to the use of digital tools, has been often understood in quantitative terms: number of followers, of subscribers, of comments and replies, with the metrics and statistics offered by some of the digital platforms as the pragmatic way to measure success. However, some participants expressed different understandings of success, related for example to the establishment of new professional relationships (leading to the invitation to participate in a research project or other forms of collaboration) or to the possibility to challenge traditional and formalized academic writing while communicating research.

While several researchers showed interests and curiosity with respect to the possibilities that digital platforms and media offer for publication, the majority of them (notably those at the early stage of their career) expressed the awareness that career progression crucially depends on publishing in traditional academic journals. If the majority of them manifested critical opinions about the current academic publishing system (in focus group 2 in Coimbra one participant stated that "we are stuck doing impact factor selling knowledge as commodity"), when asked about their practices they revealed a pragmatic and cautious approach, aligned with existing evaluation schemes. This perspective was clearly articulated by SR:

People […] have to be pragmatic in terms of how they spend their time and also *shape* themselves according to the evaluation criteria of the funders. And something such as a blog could be very well seen, I do not know, or even well evaluated in terms of the CV in

the UK. One person competes with FCT here and the blog is not on the evaluation grid. It is not there. […] No one will advance in his/her career by having a blog. You may have more citations because you shared an article and so on, but in practical terms, it will not [advance the career]! [SR, interview, our translation from Portuguese].

Researchers involved seemed quite aware of the "rules of the game" that need to be followed in each given national and/or disciplinary academic community to try to secure an academic career.

[A researcher] can be a "star of the blogsphere" but when it comes to getting a job, what counts are the rules of the academia… And the rules of the academia nowadays – unfortunately I've come to realize it quite late – are these: books, in English if you want to pursue an international career, and of course, the CV, the "record" of published articles, possibly also in English [FV, interview, our translation from Portuguese].

In the context of our project, digital dissemination and communication have been framed mostly as mere addenda to the traditional academic activities of publishing in the recognized peer-reviewed journals of each area, suggesting that maybe less conventional, not to mention experimental, practices could be luxuries that only established academics can afford. The capabilities and possibilities that digital technologies can offer in terms of challenging established academic practices have often been underlined but at the same time there have been mentioned important contextual and environmental factors shrinking the possibility of a really "open" academia.

A first factor is the dominance of English language in digital platforms favoring native speakers and, generally speaking, scholars working in the Anglo-saxon academia.

[…] I did a lot of work with people in other countries and working as an English speaker in Portugal I am reminded of how much longer it takes to do things, it takes… if you're working on a second language, it takes… and most of the people here are working in their second or their third language for this talk today, and it takes ten times longer to do things. […] [participant in DSW-Coimbra, transcripts from the session].

A second factor mentioned beyond the hegemony of English language, is the unequal distribution of digital infrastructures around the globe:

We must clarify that this happens within a certain context in the western world but it's not full democratization of access because in our world the communication, in Europe and the United States, is easily done but once we go into other countries we have serious issues and

as a librarian I deal with that. I have researchers who are in Angola and in Mozambique and I want to share some information with them, so I download all the information and send to them and then it takes two weeks for them to be able to open the Internet. So, democratic, I would say, between quotes [participant in DSW-Coimbra, transcripts from the session].

This need for contextualization when talking about digital technologies' potentialities has often been raised by researchers during our project's activities. One participant in focus group 1 in Coimbra stated that "there are several worlds inside the same country": considering Portugal, this participant mentioned that institutional incentives to openness may vary between big or small institutions, universities or polytechnic, public and private universities.

During our project a quite cautious approach therefore emerged toward the argument that "the digital" entails a potential in terms of democratization of the academic spaces and practices. Some researchers involved mentioned that digital technologies and platforms might "dilute academic hierarchical structure" (focus group 3 in Coimbra) by offering to the individual researcher the infrastructure to promote his/her work independently from institutional support. However digital spaces are perceived as not "democratic" in themselves. On the contrary, as some participants highlighted, there is a potential of "polarization" (focus group 1 in Lisbon), not just related to language and infrastructure, but also to the increasing relevance of communication skills in digital media, which may eventually become more important than other types of skills (e. g. analytical ones), more traditionally associated with the researcher's profession.

THE AFFORDANCES OF THE DIGITAL FOR RETHINKING SOCIAL KNOWLEDGE

The challenges and opportunities that digital technologies and cultures offer to scholars go far beyond dissemination, accessibility, and recognition of scholarship. One of the main contentions of several social scientists who are engaging in contributing to digital sociology is that the same research practice of social sciences can extend in new and exciting directions (Lupton, 2014, p. 42). This does not mean that traditional research methods and topics need to be discarded but, rather, that social scientists could both investigate the emerging approaches that can be adopted for digital social research (delving into how these various approaches contribute to the production, shaping and interpretation of *the social*) and continue to interrogate, possibly to innovate, the traditional methods and their ability to respond to digital societies. In some respect, this calls into question the need for not simply learning how to use new technologies and devices, but also to think with them (Noortje Marres,

in Carrigan, 2014a), in order to approach "the digital" not as a neutral or free-floating technological abstraction but as relational, social, and embedded (Orton-Johnson, Prior and Gregory, 2015).

Ruppert, Law, and Savage (2013) suggest: "in relation to digital devices […] we need to *get our hands dirty* and explore their affordances: how it is that they collect, store and transmit numerical, textual, aural or visual signals; how they work with respect to standard social science techniques such as sampling; and how they relate to social and political institutions" (Ruppert, Law and Savage, 2013, p. 32, our italics). Marres (2012) proposes to approach digital social research as an open-ended process of redistribution of methods among a diverse set of agents, acknowledging the contributions of digital devices, practices and subjects to the enactment of social research. In this perspective, in which digital methods are shaped by the social and, at the same time, they "do" the social, techniques of digital research – such as scraping (Marres and Weltevrede, 2013) – are not merely instrumental tools, but analytical practices.

Richard Rogers, author of one the most influential book-length works on digital methods (Rogers, 2013) and initiator of the Digital Methods' research agenda[7], focuses on the methodological and epistemological affordances of the dominant devices on the web and points at taking advantage of them for social research. He suggests *repurposing the methods of the medium* for social research: learning how the dominant devices treat natively digital objects (hyperlinks, tags etc.), which techniques are employed in authoring and ordering information, knowledge, and sociality and then thinking along with those devices and treatments so as to recombine or build on top of them (Rogers, 2013, p. 37, our italics). A key notion elaborated by Rogers is that of "online groundedness", referring to a research practice that follows the medium, captures its dynamics, and makes grounded claims about cultural and societal change (Rogers, 2013, p. 23). Digital methods elaborate and analyze *digital data* instead of *digitized data*, that is objects, content, devices, and environments (hyperlinks, blog posts, search engines, websites…) that are "born" in the new medium rather than those that have simply "migrated" to it (Rogers, 2013, p. 19).

Digital technologies and tools have also provided inspiration for rethinking traditional issues of social theory. Following the "rediscovering" in the

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7   The expression "Digital Methods" refers to a specific research agenda and community of practices in the broader context of digital social research whose approach can be explored by looking at the work developed in particular in two research centers: the Digital Method Initiative, located in Amsterdam (https://wiki.digitalmethods.net/Dmi/WebHome) and the Medialab-SciencesPo, located in Paris (http://www.medialab.sciences-po.fr/); see Carrozza and Pereira (2015) for an analysis.

social sciences of the intellectual legacy of the French sociologist Gabriel Tarde (Candea, 2010), coeval of Émile Durkheim, Bruno Latour has been particularly interested in recent years in exploring the "materialization" of Actor-Network Theory (ANT) allowed by digital techniques and, especially in reflecting on how digital traces left by actors inside newly available datasets might help the reformulation of classical questions of social order (Latour et al., 2012), toward a social science inspired by Tarde's monadological principle, at the same time empirical and quantitative without losing the necessary stress on particulars (Latour et al., 2012, p. 613). Latour's project of investigating how digital technologies can contribute to materializing a network mode of inquiry – how they can be useful in testing the theoretical idea that collective phenomena are best described in terms of relationships rather than in terms of substance (Venturini, Munk, and Jacomy, forthcoming) – has led to the establishment of the research center Medialab-SciencesPo.[8] This experiment calls into question the need to navigate through analytical and methodological traditions only apparently close, such as Actor-Network Theory (ANT) and Social Network Analysis (SNA), both inspired by the same relational thinking, but in different ways. Venturini, Munk, and Jacomy (ibid.) have proposed a reflection on the ambiguities surrounding the word "network": they remind us that digital technologies do not just trace, but also translate, the interaction supported (ibid.): this awareness urges the constant questioning of what "digital traces" means and how they have been produced. These kinds of epistemological concerns run through the work of several scholars engaged with revitalizing rather than discarding the intellectual tradition of social sciences in the digital era and also identify a sort of "boundary work" (Gieryn, 1999) with respect to other approaches inhabiting the variagated field of "digital studies", in particular those relying on the exploitation of large datasets, popularly called Big Data (Carrozza and Santos Pereira, 2015). Part of this boundary work is the tension toward advocating for different ways of performing digital social sciences and practicing digital methods. In this respect, several authors underline that their great novelty does not simply lie in the technical possibility of gathering new kinds of data or data on a different scale, but also in a paradigmatic shift enabling the *reinvention* of social research (Marres, 2017).

The arguments related to the methodological and epistemological affordances of digital technologies, tools, and platforms, according to which these are providing inspiration for rethinking traditional issues of social theory and the same nature of social sciences research, have been widely discussed during our project, both during the workshop sessions and the interviews.

8   This center was involved in the project "Being Digital", see methodological section.

According to some of the participants, digital technologies, tools, and platforms are fostering a real paradigmatic change in several disciplines. One participant (ST, interview) working in the area of Geography, Urban Studies, and Planning for example, where maps are often used and produced, suggested that research without Google Maps or Google Earth or other open source tools for collaborative mapping such as OpenStreetMap (where users collaborate to create and improve the web mapping experience) seems today impossible to even conceive.

For PS (interview), from History, and for MMB (interview), from Information Science, in the broader area of the Humanities the changes are so irreversible that soon the same expressions "Digital Humanities" and "Digital History" will cease to have meaning, suggesting that in the future the word *digital* would become substantive rather than just adjective for the Humanities. They mentioned that the movement toward the digitization of texts and materials from libraries, museums, and archives was crucial not simply because of the powerful quantitative analysis that became possible, but also because the digitalization of the cultural heritage enables new possibilities and new creative ways to engage with material culture.

> […] one of the fundamental differences lies in the relation that the public can have with the works of art […] that are in museums and libraries, because until now, when we went to libraries and museums we could see but we could not touch or change, we could not transform that work. And now with the digital […] we can let the public interact much more directly with the works, for example the Rijksmuseum in Amsterdam, they have been closed for a long time for works. So during that time they decided to create a page on Facebook and Twitter to try to keep the public and to get new public… they made available the digitization of works in high resolution to the people, it is in 'public domain', anyone can go there download a work, print a curtain, for example, and sell it, so also new business models come up (…) they encourage people to make these *remixes* [PS, interview, our translation from Portuguese, our emphasis].

In this respect, digital technologies seem to dilute the usual or established categorizations, as in the case of one digital project mentioned by MMB[9] (interview):

> […] a mathematical demonstration, which had been done in 3D, because it was a concept difficult to understand for the students, and therefore, a 3D simulation had been done, and this 3D simulation was presented at the biggest event of art in the United States, where it won a prize. So it is interesting to see how a mathematical demonstration in the area of

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9   In the following quotation the initials AG stand for the interviewer, Andrea Gaspar.

science, is not, ends up fitting into a strand where science joins aesthetics, isn't it? Through technology, digital technology. […]

G: Oh, okay. So this was a work of cyber-art?

MMB: Exactly. But it fits both into cyber-art and e-science. And what I found interesting was just that, was that in fact, we have technology diluting these compartments that sometimes we do, don't we? [MMB, interview, our translation from Portuguese].

Among the impacts of digital technologies on established categorizations in the social research domain, those of *qualitative-quantitative* and of *micro-macro*, have been widely discussed by the research team and the researchers involved in terms of the epistemological affordances of digital technologies, which one member of the research team (AG) framed in these terms:

Does [technology] also transform the way you produce data? That is, the fact that I know that I have other potentialities in relation to the dissemination, in relation to the means to communicate this information that I am going to produce, or the knowledge that I am going to produce. Does this also have an influence on how I see these data and collect them? [AG, during one of the interviews, our translation from Portuguese].

Telling us about her experience during the workshops about digital methods, BD (interview) mentioned that it did not involve a real *eureka moment*: she described her engagement as the visual confirmation of something she was somehow expecting ("I expected it could appear somehow but in the map it was quite clear"). She claimed that she got the feeling that is really crucial to "have the bigger picture" before engaging with digital methods and a clear idea of what you want to get from the data you have collected. In a way, she frames digital tools and methods as instrumental to more or less given research questions rather than suitable for heuristic exploration.

Contrarily, other respondents expressed the idea that the mediation of digital technologies will irreversibly change the "way we know".

[…] these new methods allow us to see things that we could not see with the naked eye, that is, I see the new technologies not as a hammer that is merely an instrument but more like a microscope, which had a great influence and that completely changed the way of doing science… [PS, interview, our translation from Portuguese].

These changes are connected to the technical possibilities offered by digital software since they do not simply help with organizing and storing data, but allow for a different exploration of these data exactly because of the flexibility allowed by digital technologies. In the case of content analysis or textual

analysis for example, even if the rationale of the categorization processes is homologous, with the use of digital tools it became extremely simple to implement a research strategy of the type *trial and error*, which can promote the generation of new ideas:

> I always give the example of […] categorizations. If we change our minds, this is something that always happens during the qualitative analysis process, and we are going to do hundreds of categorizations, it is probably very easy for us to update the results with the software, go back, change our minds… [FF, interview, our translation from Portuguese].

In this respect these tools allow for the approximation, rather than the dilution, between the micro and the macro level of analysis. In line with the framing proposed by Medialab researchers during the workshops about digital methods, the same researcher explained that:

> […] we are working at a macro level – an example that we have seen in the case of the analysis of the textual changes of the French Parliament [referring to the project The Law Factory http://www.medialab.sciences-po.fr/projets/the-law-factory/ presented during the ODM] – and then quickly we are working at the micro level, to interpret what a certain actor did, said. And, in fact, we navigate between the two different levels […] [FF, interview, our translation from Portuguese].

In other words, digital methods seem to allow for a constant interaction between different kinds of rationales in research, that of quantification – finding regularities – and that of interpretation – finding meanings. In this respect, while for some respondents the dichotomies between quantitative and qualitative and micro and macro still hold and are not really questioned by digital methods, for others, the same dichotomies are becoming less and less useful to discuss research methodology. A clear example of this point has been made for the use of maps as research outputs and *mapping* as practice of research, which are both associated with digital research. ST (interview), for example, mentioned that in geography and planning areas the maps have always been something that cannot be easily classified as either qualitative or quantitative, and now that research is more and more done and expressed through maps, the appropriateness of this dichotomy becomes at least questionable.

CONCLUSION: RESEARCH AGENDA FOR FUTURE WORK

In this article we presented two clusters of arguments widely discussed in the emerging area of "digital sociology". The first cluster of arguments claims

that a democratizing potential is inherent to "technologies born of peer-to-peer networking and wiki ways of working" (Weller, 2011, p. 50) and suggests that it could benefit both the academy (blogging seen as a practice that fosters reflexivity with respect to academic work and as a site to articulate resistance to managerialism in higher education) and society (making it possible to reach and engage new audiences, complementary to the institutional one, in extended conversations). This potential is expressed in terms of the "democratization of specialized knowledge" and the "facilitation of an open and engaged scholarship". The second cluster of arguments refers to the methodological and epistemological affordances of digital technologies, tools and platforms: for some authors these are enabling a reconceptualization of the same research process, suggesting the need for not simply learning how to use new technologies and devices, but also "to think with them", investigating them as analytical practices.

The project "The importance of Being Digital" has provided an opportunity to explore these two clusters of arguments with a group of scholars in the social sciences and the humanities based in Portuguese research institutions.

As for the first issue, we ended up questioning if digital scholarship is just a luxury for the few. Our research activities call for contextualizing the supposed democratic potential of digital technology into the geopolitics of knowledge and the political economy of contemporary academia. During the project, as mentioned before, concerns were raised about the polarization dynamics connected to the hegemony of English language in social networks and digital platforms as well as to the unequal distribution of digital infrastructures around the globe. Moreover, the research team was reminded several times about the need to contextualize the notion of digital scholarship not simply in terms of disciplinary communities but also of different national higher education and research systems. At the same time, the idea also emerged that scholars operate under a framework that shows some convergent trends, such as the long-term decreasing funding to research – particularly in humanities and social sciences – and the increasing casualization of academic labor that affects junior academics especially. This raises the need to anylize digital practices with respect to different stages of the academic career. The push toward demonstrating that social sciences matter in decision-making and society and the constant pressure toward securing the next funding opportunity make academic visibility – dissemination, accessibility, and recognition of scholarship – crucial, as it emerges as a criterion for evaluation and promotion in academic careers. In this context, a critical question that was debated in the project is whether the practices associated with digital scholarship do not end up as "the same game in a different form", eventually feeding the same dynamics of competitiveness

and commodification of knowledge characterizing contemporary academia. To be sure, scholars such as Weller (2011) have pointed out that as for digital research practices the innovators seem to be the senior scholars rather than junior ones because of the existing relationship of power in current academia: "new entrants are encouraged to be conservative while the reinterpretation of practice and exploration is left to established practitioners" (Weller, 2011, p. 53). The investigation of what "digital scholarship" might mean in different academic contexts and latitudes of the world, as well as the tension between existing and new practice associated with digital technologies in academia may exemplify important lines of analysis related to the first issue. In this respect, digital sociology could be a site to develop discussions about the role of digital technologies, tools, and platforms in the political economy of Higher Education: "where careers and reputations are made, where tweets and retweets are complicit in metrics-driven agendas, where corporate and state-backed funding streams are opened, and where younger scholars are struggling to find a position in the academy" (Orton-Johnson, Prior and Gregory, 2015).

As for the second issue, whether "the digital gives us new ways to think or only ways to illustrate what we already know?" (Kirsch, 2014) has been a crucial question during our project. Debates among the members of the team and the wider community of researchers involved in its reseach process were permeated by a constant oscillation between the idea of digital technology as an enhancer, as something that increases and empowers our ability to produce knowledge and the idea of digital technology as something that changes, also from the qualitative point of view, the same processes of knowledge production and the way we approach the notion of data. As the empirical materials showed, this remains an open issue for our small research community, deserving further investigation. Rather than toward confirming or disconfirming the usefulness of the traditional dchotomies such as micro-macro or qualitative-quantitative, we suggest for these investigations take a more "engaged" route, one in which social scientists are not afraid of *getting their hands dirty* (Ruppert, Law and Savage, 2013, cit.) with digital devices and data in order to investigate *how* "the digital" mediates social research. This process of investigation, which is marked out by a tentative and explorative style of inquiry, might bring some frustrations related to the need to contaminate the typical social sciences expertise with elements of distant fields of knowledge such as computer science, math, and engineering. One possible way to walk this path can be to reverse the traditional relationship between method and research questions.[10] Instead of putting digital methods at the service of ready-to-test

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10   See Carrozza and Gaspar (2016) for an example of this research strategy.

research questions, research questions can instead become instrumental to explore the methods, in order to see where these are able to take our sociological imagination (Mills, 1959).

REFERENCES

BACK, L., PUWAR, N. (eds.) (2012), *Live Methods*, London, Wiley-Blackwell.

BARBOUR, K., MARSHALL, D. (2012), "The academic online: constructing persona through the World Wide Web". First Monday, 9. Accessed January 23, 2017. Available from: http://first-monday.org/ojs/index.php/fm/article/view/3969/3292

BEER, D. (2014), *Punk Sociology*, London, Springer. DOI: 10.1057/9781137371218

BURAWOY, M. (2005), "For public sociology". *American Sociological Review*, 70 (1), pp. 4-28.

CANDEA, M. (Ed.), (2010), *The Social after Gabriel Tarde: Debates and Assessments*, London, Routledge.

CARRIGAN, M. (2014a), "Noortje Marres: technology and culture are becoming more and more entangled", blogpost on "The Impact Blog", December 3, 2014. Accessed January 23, 2017. Available at: http://blogs.lse.ac.uk/impactofsocialsciences/2014/12/03/philosophy-of-data-science-noortje-marres/

CARRIGAN, M. (2014b), "An agenda for digital sociology", blogpost, November 30 2014. Accessed January 23, 2017. Available at: http://markcarrigan.net/2014/11/30/an-agenda-for-digital-sociology/?utm_content=bufferba597&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

CARRIGAN, M. (2016), *Social Media for Academics*, London, Sage.

CARROZZA, C., GASPAR, A. (2016), "Performing digital ways of knowing: epistemic walks with methods-as-prototypes". *Graduate Journal of Social Science*, 12 (2), pp. 58-76.

CARROZZA, C., SANTOS PEREIRA, T. (2015), "Mapping digital methods: where science and technology studies and communication studies meet?". *In* A. Gradim, C. Moura (eds.), *Communicating and Evaluating Science*, Universidade da Beira Interior, LabCom, pp. 207-235.

DANIELS, J. (2016a), *Being a Scholar in the Digital Era: Transforming Scholarly Practice for the Public Good*, London, Policy Press.

DANIELS, J. (2016b), *Digital Sociologies*, London, Policy Press.

ESTES, H. (2012), "Blogging and academic identity". *Literature Compass*, 9 (12), pp. 974-982.

GERGAN, K. J. (2000), "The saturated self". *In* A. Branaman (ed.), *Self and Society*, London, Blackwell, pp. 265-281.

GIERYN, T. F. (1999), *Cultural Boundaries of Science*, Chicago, The University of Chicago Press.

GREGG, M. (2006), "Feeling ordinary: blogging as conversational scholarship". *Continuum*, 20 (2), pp. 147-160.

KIRSCH, A. (2014), "Technology is taking over English Departments: the false promise of the Digital Humanities". *New Republic*. Accessed January 23, 2017. Available at: http://www.newrepublic.com/article/117428/limits-digital-humanities-adam-kirsch

KITCHIN, R. (2014), "Engaging publics: writing as praxis". *Cultural Geographies*, 21 (1), pp. 153-157.

KITCHIN, R. et al. (2013), "Public geographies through social media". *Dialogues in Human Geography*, 3 (1), pp. 56-72.

LATOUR, B. et al. (2012), "The whole is always smaller than its parts: a digital test of Gabriel Tarde's monads". *British Journal of Sociology*, 63 (4), pp. 590-615.

LUPTON, D. (2014), *Digital Sociology*, London and New York, Routledge.

MARRES, N. (2012), "The redistribution of methods: on intervention in digital social research, broadly conceived". *The Sociological Review*, 60 (s1), pp. 139-165.

MARRES, N. (2017), *Digital Sociology: The Reinvention of Social Research*, John Wiley & Sons.

MARRES, N., WELTEVREDE, E. (2013), "Scraping the social? Issues in live social research". *Journal of Cultural Economy*, 6 (3), pp. 313-335.

MCMILLAN COTTOM, T. (2015), "Who do you think you are? When marginality meets academic microcelebrity". *Ada: A Journal of Gender*, New Media, and Technology, 7. DOI: 10.7264/N3319T5T.

MEWBURN, I., THOMSON, P. (2013), "Why do academics blog? An analysis of audiences, purposes and challenges". *Studies in Higher Education*, 38 (8), pp. 1105-1119.

MILLS, C. W. (1959), *The Sociological Imagination*, Oxford, Oxford University Press.

ORTON-JOHNSON, K., PRIOR, N., GREGORY, K. (2015), "Sociological imagination: digital sociology and the future of the discipline", blogpost on "The Sociological Review". Accessed January 23, 2017; available at: http://www.thesociologicalreview.com/blog/sociological-imagination-digital-sociology-and-the-future-of-the-discipline.html?utm_content=buffer653e6&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

ROGERS, R. (2013), *Digital Methods*, Cambridge (MA), MIT Press.

RUPPERT, E., LAW, J., SAVAGE, M. (2013), "Reassembling social science methods: the challenge of digital devices". *Theory & Culture & Society*, 30 (4), pp. 22-46.

SLAUGHTER, S., LESLIE, L. L. (1997), *Academic Capitalism: Politics, Policies, and the Entrepreneurial University*, Baltimore, The Johns Hopkins University Press.

TEELKEN, C. (2011), "Compliance or pragmatism: how do academics deal with managerialism in higher education? A comparative study in three countries". *Studies in Higher Education*, 37 (3), pp. 271-290.

VENTURINI, T., MUNK, A., JACOMY, M. (forthcoming), "Actor-network vs network analysis vs digital networks are we talking about the same networks?". *In* D. Ribes, J. Vertesi (eds.), *Digital STS: A Handbook and Fieldguide*. Available at http://www.tommasoventurini.it/wp/wp-content/uploads/2015/05/Venturini-Munk_Jacomy_ANT-vs-SNA-vs-NET.pdf

WELLER, M. (2011), *The Digital Scholar: How Technology is Transforming Scholarly Practice*, London, Bloomsbury Academic.

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