

Griesemer to the taxonomists, bioinformaticians and molecular biologists followed by Waterton, Ellis and Wynne at London Natural History Museum.

In the end, the need for classification and standardization of knowledge is a *master* or *grand narrative* of science and goes hand in hand with the resilience of infrastructures of and for science. Forms and networks which comply with this need can be very diverse. This diversity is vital for knowledge infrastructures, as much as biodiversity for life survival and development. But more often than not, “what are really continuities in practice can appear and be claimed as dramatic innovations” (p. 39).

This infrastructural inversion a la Bowker goes straight to the book final concerns about knowledge ethics and politics. These concerns substantiate the call for a modest, responsible and relational thinking on technoscience, based on the awareness that the shifting boundaries and apparent inconsistencies of genomic taxonomy can serve - and become - different technoscientific articulations. These can functionally enroll scientists and their disciplinary scientific communities, but also embrace and enable public “poetic sensibilities” (p. 177) towards the crucial and ambivalent relevance of ‘treating’ and ‘caring’ about global biodiversity.

Indeed, the book final reflections go far beyond taxonomy and genomics, or genomic taxonomy: the current hype on ‘Big Data’ infrastructures ‘in an age of consistency and coherence loss’ (to suggest an echo of the book subtitle) makes even more urgent the quest for new sensibilities, to see contradictions embedded in the making, use and maintenance of emergent sociotechnical arrays devoted to archiving and using myriad of sensitive information set.

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Jonas Löwgren and Bo Reimer

Collaborative Media. Production, Consumption, and Design Interventions
Cambridge MA: The Mit Press, 2013, pp. 198

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This book is based on the fifteen-year collaboration between an interaction designer (Löwgren) and a media scholar (Reimer) at the School of Arts and Communication and the Medea Collaborative Media initiative at Malmö University in Sweden. Combining interaction design with media and communication studies, Löwgren and Reimer’s approach draws connections back to the main assumptions of cultural studies about cultural artifacts, and to Stuart Hall in particular, while showing an affinity with the recent materialist turn of social sciences and its interest in the generativity

of matter and the materiality of information.

All media are social media. However, collaborative media can be defined as action-oriented social media, or mediated cultural forms, that enhance collaboration in the first instance. Here, action is intended as the particular form of mediated interaction that links human and humans but also humans and machines inside a mediated environment. If the notion of affordance proposed by Gibson and extended by Norman partially addresses this concept, action, so intended, is more similar to the notion of inscription proposed by Actor-Network Theory (ANT). In fact this theoretical framework not only foregrounds the ways in which artifacts can be encoded with context-specific meanings, i.e. 'inscripted'; it also brings forth the links that relate human and non-human actors in ways that produce action and change at the social level, while also making the social context 'happen', so to speak (thus overcoming the system-actor distinction).

The recurrent aspects of collaborative media that Löwgren and Reimer identify are: collaborative media are above all forms of practice; they make possible three forms of practice, production, consumption and design; such forms of practice "prioritize collaboration"; collaborative media should be read like frameworks rather than containers or vehicles in which the elements can be differently appropriated and combined; infrastructures and texts are always interlinked in collaborative media; this is also what makes collaborative media more and more 'material' as well as cross-medial.

As it has already been highlighted in media and communication studies, with the emergence, diffusion and increasing availability of new media technologies, the relationship between production and consumption has radically changed: while acknowledging the importance of concepts like pro-am (professional-amateur), produsage (production and usage) or prosumption (production and consumption), however, the authors prefer to maintain the distinction between production and consumption. Actually, if these practices can happen simultaneously, it does not mean that they completely overlap, and a third important moment, that of the design of the infrastructure, clearly characterizes collaborative media practices, according to the authors. Löwgren and Reimer specifically attribute the latter to the characteristics of those media in which the producer/consumer distinction is becoming less clear than it was in mass media like television, since collaborative media are decisively more open to modification and sharing than other media, thanks, for example, to open source software and platforms as well as easily mixable components. Additionally, the three moments of production, consumption and design are not only not necessarily sequential, according to the authors, since the process of collaboration can be initiated at any moment; each moment is also linked to the others and also contains them, so that, for instance, there can be moments of design-in-production or design-in-consumption, an aspect which is valid for each part of the process. Paramount to understanding such interchanges is the concept of infrastructuring, which, as Löwgren and Reimer explain, stresses the socio-material linkages between different social actors and the role of the design-

er as facilitator (what in ANT terms would be called a ‘mediator’).

Actually, focusing on the importance of participatory design, a term with which the authors “do not mean the design of an artifact or an infrastructure, but the design of the situation making practices and collaborations possible”, they prefer to speak of interventions rather than actions, combining the particular situation that requires that certain conditions of interventions are designed (metadesign) with more conventional forms of design aimed at producing things, but always according to a participatory approach that prioritizes expression and communication rather than the mere resolution of problems.

The first part of the book focuses on what characterizes collaborative media as a cultural form that enables new practices, and on the possibility of adopting a trans-disciplinary approach that, following the approach initiated in the recent field of digital humanities, combines the study of technologies and societies and includes the practice-based approach assumed in the field of interaction design inside collaborative media research: this involves non-academic actors and relies on real-life experiments (the Living Lab) to support theoretical assumptions and to take action at a social level. The second part collects the examples of ten case studies that have personally involved the authors as researchers in the past years, and takes into account collaborative media practices at a social, institutional and “tribal” level.

The “Social Section” includes examples that show how collaborative media contain the potential for (which does not mean that always lead to) social change that relies on grassroots activism and bottom-up governance. The Avatopia project, an attempt by Swedish Television (SVT) to experiment with cross-media formats brings together different social actors, from students and activists to researchers; Bambuser, a mobile-first live video stream service based in Sweden also linked with an online archive, massively downloaded and accessed by worldwide users and also remediated by broadcast media for the coverage of critical events such as, the Arab spring in 2011; Parapolis, a project of participatory urban planning of Malmö’s city administration that asks citizens with the collaboration of architects and graphic designers, among others, to envision future urban developments by means of an augmented reality device, the Parascope, that overlays imagined cityscapes on existing ones.

The institutional case studies account for the ways in which collaborative media engage with institutionalized media or other institutional sectors of society. So, for example, in MyNewsMyWay, whose long term effects are taken into account in the following section, with the analysis of the complementary OurNewsOurWay project, the innovative aspects of on-demand media are experimentally assumed by Swedish institutional television to take advantage of the increasing collaborative merging of the producer and the consumer; Substrate is a collaborative platform showing the positive effects of collaborative media on the production and diffusion of technical information, particularly business-to-consumer (B2C) technical

information, that are the instructions traditionally contained in a manual and increasingly replaced by Internet searches and peer advice today; Kliv is a sort of video-tagging of medical equipment made by the intensive care unit of the Malmö Hospital, in order to share one's practical knowledge so as to enable others to be familiar with the work environment; Hacktivism, explores fashion as a form of social activism according to Otto von Busch, a fashion designer whose work is an example of the way fashion can also be used as a form of collaborative media to facilitate collaboration through the horizontal distribution of skills and tools and through practices of re-combination.

In the end, focusing on "tribes", Löwgren and Reimer analyze what happens with collaborative media in small communities characterized by a very high level of cohesion and reciprocity, using them as a magnifier to better highlight some specific traits of collaborative media practices. After opening with the OurNewsOurWay project, the central part of the section analyzes the renowned Arduino project, focusing on the potentialities of open source hardware and software for their design-in-consumption aspects in particular, and its connections with the principles of hacker culture, play, hobbyism and artistic as well as amateurish creativity. The last case discussed is the Malmö City Symphony, carried out at the School of Arts and Communication in Malmö to put together a landscape of video clips of the city with the collaboration of both professionals and amateurs, and the aid of a P2P platform (The Pirate Bay) for their open archiving, distribution and further modification.

The book ends with a section of insights and conclusions, which is by far the most interesting, since the authors, after summarizing the specificities of collaborative media in what they devise as six major "recurrent themes", already introduced at the beginning of this review, nonetheless maintain their focus on the differences among practices. They restate the importance of situated methodologies and practical interventions at the level of research. At the same time, they deal with the most common critiques advanced against collaborative media, trying all the while to escape the binarism between what they call "bright-side" and the "dark-side" perspectives. In fact, even when they recognize that some open issues actually exist in collaborative media, for example the blurring between professionalism and amateurism and the loss of competencies, the question of intellectual property, the difficulty of using traditional categories such as quality or originality to assess the value of collaborative media products, or the risk of exploitation of free labour and corporate control, they problematize each conceptual node, indicating the importance of adopting specific, situated, nontrivial perspectives for each criticality that they examine.