

- Despret, V. (2020b) “Inhabiting the phonocene with birds”, in Latour, B and Weibel, P. (eds.), in *Critical Zones. The Science and Politics of Landing on Earth*, Cambridge, the MIT Press, pp. 254-259.
- Granjou C. and Mauz I. (2009) *Quand l'identité de l'objet-frontière se construit chemin faisant. Le cas de l'estimation de l'effectif de la population de loups en France*, in “Revue d'anthropologie des connaissances”, 3(1), pp. 29-49.
- Haraway, D. (2008) *When species meet*, Minneapolis, University of Minnesota Press.
- Law, J. and Lynch, M. (1988) *Lists, field guides, and the descriptive organization of seeing: birdwatching as an exemplary observational activity*, in “Human studies”, 11(2/3), pp. 271-303.
- Law, J. and Lien, M. E. (2012) *Slippery: Field notes in empirical ontology*, in “Social Studies of Science”, 43(3), pp. 363-378.
- Singleton, V. (2012) *When contexts meet: Feminism and accountability in uk, cattle farming*, in “Science, Technology, & Human Values”, 37(4), pp. 404-433.

* * *

Juliane Jarke

Co-creating Digital Public Services for an Ageing Society. Evidence for User-centric Design, Cham, Springer, 2021, pp. 228

Linda Tonolli *Università di Trento*

In recent years the Science and Technology Studies (STS) debate about how ageing, technology and society are intertwined is rapidly emerging, as living conditions improve and life expectancy increases, especially in wealthy countries. The growing importance of this phenomenon is extensively supported by EU and national fundings that promote projects to design new technologies and services for the aging society. These research trajectories lay on normative narratives that describe ageing as a problem to fix, and so they lead to an extensive development of assistive technologies that strongly focus only on a medicalized, individual dimension of aging (Cozza et al. 2017). These approaches picture humans as isolated biological machines, forgetting that humans are also (and especially) social beings, made by their relationships with others and the context they live (and age) in. In this context, STS researchers have been fruitful in highlighting two aspects of the phenomenon of active ageing technologies. The first aspect is that STS scholars analyzed how behind the apparent healthy and

positive attitude of the “active ageing” policy concept lay neo-liberal economic logics, of which the “silver economy” represents their intent of capital exploitation towards a specific tailored social group (e.g.: Peine and Neven 2019). The second aspect is that STS analyze design as a phenomenon and designers as key agents in the construction of new collective imaginaries. For example, Lucy Suchman (2007) reminds us that information technologies are “sociomaterial configurations” that join together social imaginaries and materialities. From these two starting points, STS critical scholars such as Juliane Jarke stand for re-configuring the engagement with technology design for older adults (and our older selves). Inspiring social gerontology and human-computer interaction (HCI), these scholars question the representations of “age” that are often scripted into technologies and call attention to the risky consequences of their use, such as the reinforcement of negative ageing stereotypes and social discrimination. Involving older adults at the very beginning of a design process, allows to re-configure implicit stereotypes, negotiating together with the older participants the “rules of the game”, setting common goals and agendas and inspiring enthusiasm, desirability and sense of ownership in respect of the design process and outcome. Designing alternatives to the traditional system design approach of service provider-client opens up to meaningful ways of “success”. This is one reason why interdisciplinary research, which includes fields such as design, social sciences and computer science, adopts more collaborative and inclusive approaches to design. In fact, the aim of these research approaches is to co-create strategies and artifacts (digital and not) together with the people that will use them. These projects are grounded in the tradition of field studies, in which ethnographic intents combine with design purposes.

It is the case of Juliane Jarke’s book, *Co-creating Digital Public Services for an Ageing Society. Evidence for User-centric Design*. Coming from a very interdisciplinary background (that includes STS studies, Media studies, Informatics and Philosophy), Juliane Jarke has been working since 2014 as senior researcher at Bremen University, where she is also associated with the Institute for Information Management (ifib) and the Centre for Media, Communication and Information Research (ZeMKI). Her research focuses on public sector innovation, digital (in)equalities and participatory design. From 2016 to 2019, she led a work package on Participatory Design in Civic Tech and Open Data in the EU-funded project MobileAge. In this action research project, her research group studied effective methods for co-creating digital public services with and for senior citizens. Her book is at the cutting-edge between STS and co-design, offering an uncommon in-depth account of three co-design projects which are part of MobileAge. Project after project, she builds an incremental narrative of learning outcomes that can serve as guidelines and advice for researchers and practitioners with similar design intents.

The aim of the book is to address the lack of engagement of older adults

in co-design projects, both on a theoretical and on a practical level. Therefore, the book opens with an in-depth literature review that frames the ageing phenomenon through an interdisciplinary prism (first chapter, *Ageing Societies and Technological Innovation*). From unfolding concepts such as Ageing Society and Old Age, Jarke outlines the intimate relationship between ageing identities as socio-cultural constructs and information technologies, and how they shape each other, underlining the performative power of technology design and use. In particular, the author's perspective considers ageing as "a material-discursive practice", adopting Karen Barad's perspective, and supporting the concept of "media generation" (Bolin 2017) in order to distinguish across generations – i.e. every generation grows up sharing experience through media that shape that particular generation in unique ways. Therefore, there is not a unique definition or meaning of ageing, because it is a phenomenon that depends on the context (as design is, as it will be shown in the project chapters). Among the policy responses to ageing societies, the author focuses her work on the World Health Organization initiative "Age-friendly cities and communities". Jarke depicts the complexity of digitalization under different aspects, underlining that the WHO model does not address technology enough to support people's later life.

In the second chapter, *Co-creating Digital Public Services*, the author articulates her proposal to fill the gap in an ideal inclusive process of digital transformation: through co-design. In fact, if social inclusion is also a matter of digital inclusion, in order to achieve digital inclusion, a design process needs to allow digital participation. The design approaches to do this vary, and Jarke outlines them using Arnstein's notorious *Ladder for Participation* essay to explain the different types of participation and how they are translated into design approaches, such as system design, user-centred design, co-design and participatory design. The author also shows how in the design history of digital public services, the tendency to move from an "administration centric" to a "customer-driven" approach should become predominant. Like in the first chapter, where she was pointing out the lack of involvement of older adults in the design of technologies, in this chapter Jarke documents the lack of citizens involvement in the design of digital public services, standing for a more inclusive and democratic design.

Moving to the more "practical" chapters, the chapters from the third to the sixth are dedicated to three projects that were part of the MobileAge EU project. All the projects share common topics such as mapping, the use of municipality open data and building friendly neighborhoods. The first two projects described in the fourth and fifth chapters, *Co-creation in Practice I: Co-creating a Digital Neighbourhood Guide (Bremen Osterholz)* and Chapter 5 *Co-Creation in Practice II: Co-creating a Digital Walking Guide (Bremen Hemelingen)*, were conducted by the author and her research group, in Bremen (Germany). Instead, the third project based in Zaragoza (Spain) and described in the sixth chapter, *Co-creation in*

Practice III: Co-creating Ageing-Friendly Routes (Zaragoza) has been included by the author for its comparative interest, even though she did not conduct the project, but participated to its planning and evaluation.

Jarke's book examines the MobileAge EU project under three aspects of analysis, evaluation and comparison: the politics of participation (which actors participate in the projects and how), sharing expertise (initial users become co-creators), enabling change (on a personal, social and digital level). These aspects highlight how power dynamics and interdependencies between stakeholders play in design processes, and need to be taken carefully into consideration when planning a co-design process.

In conclusion, this book is for those who have just begun research in the field of design, ageing and technology and look for a good companion to navigate the state of art and to study examples of well-tailored co-design projects. In fact, the first two chapters offer a robust theoretical frame of the main research and design issues in this field, while the following ones provide extensive descriptions of projects the author was involved in. Similarly, this book is a precious resource also for senior researchers and co-design practitioners, since the projects accounts (from the third to the sixth chapter), that constitute the main body of the book, offer in-depth details of the design processes that STS researchers, designers, stakeholders, computer scientists, can find informative and inspiring.

References

- Arnstein, S.R. (1969) *A ladder of citizen participation*, in "Journal of the American Institute of Planners", 35 (4), pp. 216-224.
- Bolin, G. (2019) *Media generations: experience, identity and mediatised social change*, London, Routledge.
- Cozza, M., De Angeli, A., and Tonolli, L. (2017) *Ubiquitous technologies for older people*, in "Personal and Ubiquitous Computing", 21 (3), pp. 607-619.
- Peine, A. and Neven, L. (2019) *From intervention to co-constitution: new directions in theorizing about aging and technology*, in "The Gerontologist", 59 (1), pp. 15-21.
- Suchman, L. A. (2007) *Human-machine reconfigurations: Plans and situated actions*. Cambridge; New York: Cambridge University Press.