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GLOSSARY
ENTRY

Non-user

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Abstract: A “non-user,” as the name suggests, refers to an individual who does not use a given product or system. Critical work on non-use elaborates a range of applications for the term we consider here. The variations of non-use under discussion encompass both voluntary and involuntary cases of non-use.

This article belongs to the **Glossary of decentralised technosocial systems**, a special section of *Internet Policy Review*.

Definition

A “non-user,” as the name suggests, refers to an individual who does not use a given product or system. Critical work on non-use elaborates a range of applications for the term we consider here. The variations of non-use under discussion encompass both voluntary and involuntary cases of non-use.

CONTEXT FOR NON-USER DISCOURSE

What broadly comprises “non-user discourse” is derived from user discourse. Commentary about the “user” originated in systems design, which emerged in the United States and Europe as part of a wider effort to advance the development of military technologies. As computing systems evolved, so too did the “user” for whom these technologies were designed.

Early data processing systems originally responded to the needs of information intensive industries. User organisations in both public and private sectors oriented the design of information technologies to enhance the productive capacities of their respective operations (Yates, 1993). It is within the context of user-organisation that innovation studies introduced the concept of “lead users” into user discourse. Research focused on single industries identified the “lead user” as an individual who proposes key innovations from outside the industry (Oudshoorn & Pinch 2003, p. 541; von Hippel, 2007; Graham, 2006). What distinguishes the lead user from ordinary users is a set of skills that exceed the given functions of a particular device (von Hippel, 1976).

As demand for micro-electronics and personal computers surged in the 1980s, “user-centred” design and “user experience” re-oriented the design of systems to accommodate individual consumers (Oudshoorn & Pinch, 2003). With the convergence of information and communication technologies, models of human computer interaction turn their attention from the single user tethered to a single device to multiple users distributed across large networks.

In contrast to their predecessors, these products incorporated the “holistic study of users from the viewpoint of the user” rather than the system (Dervin & Nilan, 1986; & Hartel 2007, p. 2; White & McCain, 1998). Harnessing cognitive psycholo-

gy to improve how systems were designed, the study of “user experience” deepened the existing view of users by taking into account the “emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviours, and accomplishments” (ISO, 2009) that condition human computer interaction (Rheinfrank, 1995).

Research on users in human-machine interaction, information science, and cognitive psychology (Cooper & Bowers, 1995; Kosara et al., 2003; von Hippel, 2005) since then, has provided a basis for critical work in the field of science, technology and society (STS). It is within this context that discourse on non-users takes shape.

VARIATIONS OF NON-USE

From the standpoint of HCI, non-users are a technical designation for “potential users” (Satchel & Dourish, 2012, p. 9). Implicit in HCI’s model of non-use are a set of assumptions that elicit much debate outside the field. Studies in STS identify a range of cases for non-use: resistance, rejection, exclusion, expulsion, lagging adoption, disenchantment, disenfranchisement, displacement and disinterest (Wyatt et al., 2002; Satchell & Dourish, 2009).

This spectrum of negative actions captures what makes non-use particularly difficult to define in positive terms. Because non-use is not observable in the way uses are, the study of it presents a formidable challenge for how scholars approach the topic (Dourish, 2001, p. 56; Treem, 2014). For the purposes of this glossary entry, we organise the different types of non-use into two primary categories. The first encompasses cases of voluntary non-use, while the second circumscribes examples of involuntary non-use.

VOLUNTARY NON-USE

Opting-out of use is a singular action which belies a complex of subjective considerations and varies in relation to economic conditions and ideological commitments (Brubaker, Ananny et al., 2016).

Insofar as voluntary non-use presumes a certain degree of individual choice, it refers to a set of economic conditions specific to market-based capitalism. Non-users who terminate their engagement with one company, for example, may opt into a platform belonging to a competitor. Scholarship on the attention economy (Crary, 2001) expands on the subjective dimensions intrinsic in the economic model of consumer choice. Such scholarship examines how individual attention is

structured by the products and services which compete for it (Crawford, 2015; Davenport, 2001).

Organised boycotts present a collectivised form of voluntary non-use. In these cases, a set of political and ethical commitments lend a social form to the decisions of individual non-users who reject the products of a given entity. This non-use as a form of consumer activism is based on the voluntary rejection of a user technology (Wyatt et al., 2002). The duration and degree to which non-users participate in the boycott varies: some partially and temporarily suspend use, while others may completely and permanently terminate their use of a particular good or service altogether.

Individual cases of non-use that are not principally motivated by political concerns have their origins in nineteenth century bourgeois culture. With the expansion of cities and industrial processes came a rich body of literature that broadly envisioned different means of withdrawal from the increasingly oppressive conditions intrinsic to modernity. Technology's relationship to nature and the rationalisation of society has long preoccupied critics of modernity, who consider the political subjects industrial development reciprocally determines (Marx, 1964; Kracauer, 1924). Risk assessment made on an individual basis underlies more recent examples of voluntary non-use that are motivated by concerns about public health. "Internet addiction" was officially declared a public health issue in China as early as 2008, when an uptick in searches for the term "digital detox" coincided with the launch of the first iPhone (Jiang, 2014). "Digital detox" posits a solution to problems of over-connectivity (Syvertsen & Enli, 2019) that applies the moral rhetoric of contemporary wellness regimes (Madsen, 2015) to the digital age (Syvertsen & Enli, 2019).

INVOLUNTARY NON-USE

Cases of non-use which are involuntary present a much more elusive object of research than the examples of voluntary non-use outlined in the previous section. Nevertheless, secondary literature on compulsory non-use can be subdivided into three different units of analysis: infrastructural, structural, and individual.

Discrepancies in access function as a point of departure for work on involuntary non-use at the infrastructural level. By examining differences in access among various populations, this research shows how historically marginalised populations have been disproportionately affected by lack of internet access. The extent to which race, gender, and class play a role in the distribution of access to digital

technologies is the source of much debate among social scientists (Dewan & Riggins, 2005; DiMaggio et al., 2004).

Lack of access to content and different platforms as a result of mandates is a form of involuntary non-use that takes place at the structural level. These cases tend to presume a centralised structure of authority, such as the corporation or state, which has the capacity to revoke content and prioritise the use of certain systems.

In certain cases, individuals may fall under the category of involuntary non-users because of a gap between their skills and those required to navigate advanced information systems. Without the appropriate skills, these individuals attain non-user status. Debates over digital literacy are of central relevance to users (and non-users) of decentralised systems insofar as their accessibility determines who can and cannot be considered a user. One challenge decentralised computing infrastructures face is the creation of end-user-friendly systems. (Gervais et al., 2014). In prioritising technological design over usability, decentralised systems can be prohibitively difficult to use—even as they impact economic, civic, and social opportunities for users and non-users alike (DiMaggio et al., 2004). Potential users who cannot engage in decentralised platforms may consequently be “left behind,” thus becoming involuntary non-users. Further, users may have difficulty leaving centralised platforms for less mainstream, less easily accessible decentralised alternatives. In other words, digital literacy impacts not only who is able to use decentralised systems, but also, who has the choice to swap their usage of centralised systems for decentralised ones. Here it is important to note that scholars who research digital literacy emphasise the importance of studying population segments, and disaggregating digital literacy and non-use.

ISSUES RELATED TO NON-USE

Voluntary and involuntary cases of non-use present a number of issues that range in practical and theoretical significance.

Where access to user technology is assumed, issues related to non-use take on practical considerations. The transfer of data from centralised platforms to alternative ones for example raises a problem concerning “portability.” Users who opt out of one platform sometimes encounter difficulties with transporting their data as a result of conflicting proprietary arrangements. A solution to this problem may be found in open standards, which considers how user data may be portable, by enabling system interoperability (Barbas et al., 2017).

Determining who counts as a non-user remains largely contingent on how users themselves are defined. In HCI, the question of whether the user assumed in user-centred design can accommodate the diversity of interactions between humans and computers is a source of much debate (Baumer & Brubaker, 2017). One side of it maintains that by flattening the full range of human activity into “systems, interfaces, design practices, and discourse” (Baumer and Brubaker, 2017, p. 6291), user centred design posits an inherently exclusionary model of human computer interaction. Though HCI acknowledges its cultural specificity, certain methods central to the field nevertheless continue to employ a universalist approach which assumes an omniscient creator (Philip et al., 2012).

In calling attention to normative conceptions of user at work in popular narratives about technological development (Oldenziel, 2001; Star, 1991), feminist and post-colonial critiques of technoscience challenged prevailing definitions of the user and non-user by attending to positions which have historically been excluded from these narratives. This discourse focuses on the wider conditions of uneven development that have shaped who designers and engineers assumed to be the user (MacKenzie & Wajcman, 1999; Williams et al., 2005).

Anti-universalist methods which have emerged in response to these debates apply decolonial critiques of knowledge and artefact production to the design of HCI (Johnson, 1998; Suchman, 2002). How the global division of labour is gendered and racialized in the technological imagination is the object of considerable research in STS (Oudshoorn & Pinch, 2003). Expanding the frame of HCI to geographies and peoples beyond the industrial north provincializes dominant narratives about innovation, which have long been weaponized against indigenous movements in newly industrialising countries across the global south (Chakrabarty, 2000; Mignolo, 2007).

Although HCI theoretically recognizes the cultural specificity of designed products, a number of design processes and methods remain universalist in their approach (Philip et al., 2012) by assuming the ability to design for one user at the exclusion of many others. Adapting anthropocenic and decolonial critiques to HCI design, designers have increasingly turned to methods which aim to decentre the human, and attend to subaltern modes of knowledge production (Tunstall, 2020; Schultz, 2018). In centring human agents, user and non-user discourse minimises the non-human agents that shape and are shaped by use. Actor-network theory (ANT) (Latour, 2005) provides one alternative to this human-centred framework through a definition of the user which extends to animals, plants, minerals and cities typically outside the core interaction between human and machines. ANT encompasses

technological deterministic views of user-technology relations and social constructionist approaches to technology, by attending to how agency is distributed among humans, non-humans, and the technologies which mediate their relationship. This conceptualization places the user as an agent within relational networks aligns with anthropocentric debates, and calls for rethinking systems and technological approaches that concentrate the authority over these networks in human agents who comprise only one aspect of them (Light et al., 2017).

CONCLUSION

In conclusion, non-use belies a complex of subjective considerations, which we sort in two primary categories: voluntary and involuntary cases of non-use. Attending to the non-user presents an opportunity to contextualise user agency, and access. Whereas systems design adopted a centralised model of human computer interaction as its basic unit of analysis, non-user discourse accounts for a more diverse range of interactions.

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