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Pre-Consumption of Service Robots

The Role of Narrated Assemblages in Experiential Control

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“It is the near future. You wake in a house warmed by a heat pump that extracts energy from deep below the ground and delivers it to your home. You rise and make yourself a cup of tea – from water boiled on a hydrogen burning kitchen stove. Then you head to work in a robot-driven electric car directed by a central control network to avoid traffic jams.” (The Guardian, Sun 21 Apr 2019)

The concept of ‘re-consumption’ captures how consumers engage with the past to attain ‘experiential control’ over the present (Russell and Levy 2012, 351). This paper proposes a complimentary concept of ‘pre-consumption’ that captures how consumers narrate the future for the same end. We suggest that imaginative engagement with emerging technology before it is fully available (i.e., a pre-consumption activity) allows consumers to navigate the future to attain a similar sense of control over unfolding, risky events in the present. Using the case of service robotics, we argue that pre-consumption draws in imagined assemblages in the narration of the future to facilitate the sense of experiential control in the present (Hoffman and Novak 2018).

A robot is a reprogrammable, multipurpose manipulator for fixed or mobile use (Ivanov, Webster, and Garenko 2018). As a piece of technology, it can be conceptualized as a material artefact (e.g., nuts, bolts, circuitry, appendages) which addresses issues of “science, advanced technique, and mechanistic precision being built into products and services” (Kozinets 2008, 865). To the extent that robots require data collection, storage devices, and statistical and computational techniques, they are contiguous with issues of Consumer Artificial Intelligence (Puntoni et al. 2019). Robots provide a service and can operate partially or fully autonomously to the benefit of humans and other equipment (Wirtz et al. 2018), holding the potential for new business models and ways of relating to customers through market services (Bitner, Brown, and Meuter 2000) or issues of market emergence (Martin and Schouten 2014). This has for instance been explored in medicine (Schommer et al. 2017), elder care (Glende et al. 2015), agriculture (Driessen and Heutinck 2015), and domestic settings (Vaussard et al. 2014).

In theorizing technology, consumer literature increasingly stresses complex, horizontal material configurations of artefacts drawing on assemblage theory and Actor Network Theory (Hoffman and Novak 2018; Martin and Schouten 2014). These approaches better account for material agency of technological objects by stressing a ‘flat ontology,’ where the utility and function appear in wider material and social networks (Latour 2005). For instance, a hammer is merely a stick with a lump of metal on the end. The utility of the hammer only appears in the context of nails and wood. Or, it attains a new utility as a weapon if given to the wrong person in a dark alley. Similarly, ANT suggests that the utility of robots for consumers appears in wider material contexts that determine whether the instrumentality of the robot becomes useful and trustworthy or dangerous and risky.

However, robots also provoke serious concern about prospective human flourishing through issues of unemployment, alienation, social cohesion, agentic and bodily control over the social and material environment (BARA 2017). In turn this evokes issues of trust in engaging robot brands, such as Atlas, Pepper, Nao, Relay, Alice, Amy, Roomba or RoboMow (Fournier 1998). Risk is embedded in what Beck (1992, 135) terms ‘temporal horizons’—an instrumental orientation towards the future typically negotiated in news media consumption within a risk society. According to Beck (1992, 46) “the essential sources of the definitional struggles over the scale, degree and urgency of risk” are located in the media.

Whereas political ideologies have traditionally been carriers of such anticipatory logics through concepts such as utopia and dystopia (Marin 1984, 274), engagement with the future has increasingly been dominated by narratives about technology and “consumer society” (Baudrillard 2002, 33–34). The future has subsequently been presented in what is identified as ‘the cardinal category of that social organisation’, namely the news item (Baudrillard 2002). News is therefore a primary way to objectivize and manipulate needs for profit, and it captures how “everything is spectacularized or, in other words, evoked,

provoked and orchestrated into images, signs, consumable models [of the future]” (Baudrillard 2002, 191). News media narratives about service robotics is therefore a primary context for pre-consumption activities, as exemplified in the opening vignette.

However, for emerging consumer technologies such as service robotics that have not been widely marketed, there is no direct consumer engagement with robots in a natural, flat ontology environment. Rather than merely accounting for the technology of robots as nuts, bolts, circuitry, and appendages, pre-consumption through news establishes imaginary assemblages to frame the prospective usefulness of the technology. The opening vignette, for instance, draws the robot into a context of futuristic middle-class living, involving different and yet strangely recognizable material infrastructures and lifestyles. As with re-consumption, pre-consumption appeals to what Russell and Levy (2012, 355) term “risk-averse individuals,” to whom experiences are “more soothing because of the familiarity they provide.” More specifically, news-narrated, imaginary assemblages of the future provide credibility to the smooth functionality of the technology and hence generate a framework for establishing consumer trust by promising not to radically disrupt their lives.

In conclusion, we propose that the distinction between re-consumption and pre-consumption captures two contrasting but related ideal types of time management practices between which consumers switch to establish orientation in time. While spatial orientation has been shown to be important in market dynamics (Castilhos et al. 2017), retrospective and prospective forms of consumption may lead to a complimentary temporal perspective on market dynamics. Theoretically, in the near future (sic), research should investigate the integration of past and future to establish a cultural theory of temporal market dynamics for emerging technologies. Empirically, consumer researchers could engage in comparative studies of technology media coverage to establish contextual variability of temporal market dynamics (Arnould, Price and Moisio 2006).

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