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OBJECTIFYING THE PLATFORM SOCIETY: INVESTIGATING USERS' PERCEPTION OF SMART SPEAKERS' ALGORITHMIC SUGGESTIONS AND DATA PROCESSING

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Theoretical framework

Smart speakers are devices that connect people with computing systems through voice to perform several activities and tasks (Bentley et al., 2018). They are one of the latest products of platforms such as Google or Amazon and have the capability to quickly connect platforms, algorithms, people, and households together. The transformative power of platforms into society has been extensively studied in the frameworks of *platform society* (Van Dijck, Poell, & De Waal, 2018) and *platformization* (Helmond, 2015; Van Dijck et al., 2018) and recognized to affect technological, social, and economic processes in several sectors (Nieborg & Poell, 2018; Van Dijck et al., 2018). The fast diffusion of smart speakers (Bentley et al., 2018) brought platforms' and algorithms' logics into everyday life to the point that researchers speak of "platformed households" with implications regarding surveillance and privacy (Pridmore et al., 2019). There is, thus, a strong need of investigating smart speakers' diffusion and their socio-cultural impact also in other countries than the United States where they diffused and were researched first. The added value of the research here presented is to shed light into the adoption process of smart speakers in Italy under several respects among which the users' perception of algorithmic suggestions, algorithms' "social power" (Beer, 2017), privacy, and data processing.

Method and context

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The research was done by the Department of Communication and Performing Arts of Università Cattolica del Sacro Cuore of Milan (Italy)¹ and financed by a communication agency (researchers had autonomy and independence in the research process). The interest about investigating smart speakers' diffusion in Italy was generated by the scarcity of local research, as the literary review showed, and the fast diffusion of smart speakers in Italy during the initial phase. The main player, Google Home and Amazon Echo, were released respectively in March 2018 and in October 2018 and during 2019 8% of the Italian population owned a smart speaker (BVADoxa, 2020).

The research had the aim to explore the social representations and domestication (Silverstone & Hirsch, 1992) of smart speakers. It was done between November and December 2019. It adopted a multi-sited methodology composed of: the content analysis of platforms' (Google and Amazon) online communication strategies about their devices; online articles from online newspapers, blogs, and online magazines with related news; four focus groups with users belonging to different generations (19-24 and 46-64 years old) and that owned a Google or Amazon device activated only with vocal commands (without any display); the netnographic analysis of three thematic Italian Facebook groups (ethically conducted according to the AoIR's ethical guidelines).

User's perception of algorithmic suggestions and data processing

The research showed different speeds of diffusion of smart speakers among different targets, with techno-enthusiasts first, driven by the aura of curiosity around the devices, the hype of promotion and communication discourses, and the affordable prices.

The research results indicate that general information about simple and quick questions (e.g. recipes, trivia, traffic news, weather) were well accepted, and their sources or selection was not questioned. Some of these requests (like weather or traffic news) became part of a new daily routine that incorporated the smart speaker.

Users liked music selection and personalization according to their tastes and perceived it as time-saving (versus manual search). On the contrary, users liked less or even disliked news customization for the fear of losing important information and of being limited in their freedom of choice. Users tried also to avoid or resist to algorithmic customization, for example doing multiple searches or personalizing the devices' settings.

Vocal searches for purchases were seen as critical for the paucity of the results, the difficulty to distinguish between organic and paid ones, the opacity of algorithmic selection, and the potential interference of platform's economic interests. Users seemed to be more confident when they could check and confront different results like on a device with a display. They suffered also from the absence of reviews and ratings that help the products comparison. Other concerns regarded personal data: if, on the one side, users accepted some use of data, on the other one, they were worried about the kind of data taken and their treatment. One of the most sensitive topics was the potential "continuous listening" of the devices that evoked risks like surveillance,

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hacking, fraud or unauthorized purchases. Users were little aware of the devices' privacy settings, but some of them adopted "radical" measures such as turning the microphone off or changing the smart speaker's room when talking about sensitive topics.

Platforms' influence perception appeared to be almost in the background. Google seemed to be perceived as more reliable and objective for search results. Amazon's good reputation seemed to be based on the trust built up over the years as an e-commerce website and on its independence from other operating systems. Its nature of e-commerce leader was however felt as limiting for the fear of commercial pressure into search results.

Results discussion and conclusions

The research pinpointed the role of smart speakers in reproducing the power of algorithms and of platforms and in diffusing it into households. We can argue that smart speakers can be conceptualized as devices that objectify the logics of platform society connecting users with the platforms' operating systems and with other platforms or subjects through their skills or actions. This process is done through two interrelated and interdependent fluxes of data both regulated and curated by algorithms: one is represented by the data coming from user's behavior that let to customize their experience, the other one is represented by the data provided by the platforms (i.e. the answers given). The research evidenced that users are partially aware of platforms' and algorithms' pervasiveness, on the one side, taking them for granted and do not questioning them, but, on the other side, being conscious of them and trying to avoid or limit them. This nuanced approach confirms the influence of culture and context in the users' perception of algorithmic suggestions and data treatment (Pridmore et al., 2019), making it necessary to broaden cross-cultural research.

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