Eliciting and Retrieving the Feedback-Loop. Exploring Elicitation Interview Techniques for Detecting Algorithmic Feedback on Social Media and Cultural Consumption

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Abstract

This article introduces elicitative interviewing techniques in the context of algorithmic feedback detection on social media about cultural consumption. This article presents elicitation interviewing methods to identify algorithmic feedback concerning cultural consumption on social media. The initial section will clarify the notion of influence in algorithm-driven consumption decisions on these platforms. The second part will underscore the necessity for finely nuanced qualitative methodologies to dissect the conceptual facets essential for analysis within such contexts of influence and dynamics. The main interviewing techniques for finalizing data collection with this intent will then be reviewed. The third part will present an example of a survey instrument that uses the elicitation component to achieve the essence of the feedback-loop between algorithms and cultural consumption choices that underlie the PRIN ALGOFEED survey. Finally, this detection phase's placement within the project and its role as an enhancer of the preceding collection and analysis stages will be elucidated, emphasizing the benefits of this decision and the potential pitfalls that necessitate proper attention and scrutiny.

Keywords: *Algofeed; Algorithmic Recommendations; Feedback-loop; Qualitative digital research; Elicitative interview*

1. Introduction: Algorithmic Feedback on Social Media and Cultural Consumption

In the context of contemporary sociological studies, it is observed that the digital scenario has exerted an incisive transformation on how individuals structure their daily existence, articulate the expression of personal identity, and participate in the production, dissemination, and reception of belief systems, bodies of knowledge and preferential orientations. In this context, the influence exerted by social media, distinguished by its ability to facilitate interactions, promote integration and achieve synchronization with various media formats, emerges with preponderance (Weingartner, 2021). This capacity has progressively given social platforms a pivotal role in aggregating and researching interests manifested through cultural consumption practices. Searching, viewing, and sharing activities on social media catalyse processes and dynamics that focus discovery, critical analysis, and debate on cinematic, literary, musical, and other manifestations of the cultural landscape, thereby reconfiguring how culture is consumed, interpreted, and negotiated in the digital age as well as the generative modes of tastes, fashions, and trends.

Social researchers have been exploring various realms of inquiry extensively. Consider, for instance, the contextualization of digital cognitive spaces where interactions take place (Boccia Artieri, 2012; Bennato, 2021), the mechanisms of content mediation and remediation (Couldry, 2013), or contemporary art forms that are either transposed or directly originated online (De Seriis, 2008). The current focus of social research is the complex structures of digital ecosystems that are no longer configured solely through user-generated content (UGC), but are also characterized by sociotechnical artifacts that operate according to algorithmic logic. The latter plays a crucial role in digital platforms' filtering and stratification procedures in content distribution. This dynamic highlights a significant evolution in digital media's information and communication architecture, marking a shift from a predominantly participatory model to one structurally mediated by algorithmic systems. These systems influence not only the visibility and accessibility of information but also the construction of hierarchies of relevance and meaning within the digital space, thus affecting the formation of public opinion and cultural consumption practices.

Contemporary sociological reflection in recent years aims to analyze the repercussions of algorithmic mechanisms on society, focusing on their ability to influence how social interaction, the configuration of cultural identities, and the modulation of power dynamics within the current media ecosystem are affected. This highlights how algorithmic architectures are not neutral but act as active mediators that can foster, limit or direct the visibility of specific content, narratives or voices, reflecting and potentially reinforcing pre-existing power structures and social inequalities.

In the context of technologically mediated sociocultural dynamics, it is observed that algorithms act as catalysts in broadening consumers' horizons, subjecting them to a curated set of content consonant with their prior tastes (Airoldi & Rokka, 2022). In parallel, making use of the digital traces left by consumers, machine learning mechanisms iteratively elaborate their output strategies, pursuing the goal of synchronizing future proposals with the perspectives and expectations of recipients (Brinckmann, 2023). This continuous feedback and adjustment process between algorithms and human behavior highlights a co-evolution of technological systems and consumption practices, in which individual and collective preferences are simultaneously reflected and shaped through interaction with advanced information systems.

Algorithmic feedback can significantly impact online users' behavior and perceptions, influencing what content is viewed, what other users interact with, and what information is assimilated. However, debate persists regarding the ethical and social implications of algorithmic feedback, including privacy, manipulation of public opinion, the creation of information echo chambers, and guiding consumer choices. The fundamental explanation is that the algorithmic feedback chain is powered by factors such as those who instigate specific behaviors, including consumption behaviors, by targeting sponsored elements and by users' recursive decisions. Once integrated into the system, discerning who influences what and to what extent within the generated vortex becomes challenging. Does this align with the feedback-loop concept introduced by Airoldi (2021), and who is the focus of our discussion

Digital pervasiveness in the daily lives of every segment of society over the past 20 years has been a turning point. Therefore social research, too, has yet to be caught unprepared, facing multiple reflections on methodological opportunities helpful in understanding how to adapt research actions and techniques (Punziano & Delli Paoli, 2021). It is crucial to move beyond applying a single method based on quantitative approaches and a standardized view of the phenomenon to better understand social platforms' impact on cultural consumption. To obtain a comprehensive view of cultural consumption processes, it is relevant to go beyond the need for retrievable information that can refer to all types of users (such as time spent online, amount of connections with other users, main content searched, etc.). It may be helpful to investigate the emotions, perceptions, and experiences that users are addressing. In light of this, qualitative methods may be the most suitable option, in a mixed methods research framework. Building upon these premises, this article aims to delve into the methodological construction of the elicitation interview technique, namely the qualitative detection of algorithmic feedback on social media platforms, specifically TikTok and YouTube, within the framework of the PRIN 2022 project "Algofeed". It highlights the construction of the elicitation instrument as the third phase of the mixed methodological approach and explores its potential implications on the outcomes of the Algofeed research. The subsequent sections will elucidate the methodological approach, focusing on elucidative interviewing techniques, and exemplify their application in uncovering the dynamics of algorithmic feedback loops.

2. The qualitative approach on complex digital phenomena: eliciting, solicit, request

Qualitative digital research refers to the use of qualitative research methods within the context of digital environments. It involves studying human behaviour, attitudes, and experiences online using various digital tools and platforms. Qualitative research focuses on in-depth understanding of individuals' perceptions, motivations, and behaviours. This involves interviews, focus groups, participant observation, and content analysis. In the digital environment, qualitative digital research takes place within scenarios such as social media platforms, online communities, forums, websites, mobile apps, and digital communication channels where essentially researchers collect data from digital sources, which may include user-generated content, social media posts, comments, messages, multimedia content (such as images and videos), and interactions within online communities. Researchers use qualitative analysis techniques in analyzing these materials to make sense of the digital data collected. This may involve coding, thematic analysis, discourse analysis, and other qualitative data analysis methods to identify patterns, themes, and insights. Of fundamental importance is the contextual understanding, for which qualitative digital research emphasizes understanding the context in which digital interactions occur, fully assuming the non-neutrality of the digital scenario (Rogers, 2009). This includes considering factors such as the online platform's features, the social dynamics of online communities, and the cultural norms shaping digital behaviours. In this research path, researchers must address ethical considerations specific to digital research, such as privacy concerns, informed consent, data security, and the implications of studying online communities and individuals in digital spaces. An interdisciplinary approach is often involved, drawing on fields such as sociology, psychology, anthropology, communication studies, information science, and digital humanities to provide a comprehensive understanding of digital phenomena but more importantly to have at their disposal mining skills, data collection, and interpretive sensitivity that are unlikely to be the assets of individual scholars. So much so that the application areas for qualitative digital research can be passed through various domains, including but not limited to consumer behavior analysis, social media studies, online community research, digital ethnography, and user experience (UX) research. Overall, qualitative digital research offers valuable insights into the complex interactions and behaviours within digital environments, contributing to our understanding of the digital world and its impact on society (Bryda & Costa, 2023).

But how can the field of algorithmic feedback investigation benefit in the study of the influence of social media on in cultural consumption? Among recent analytical frontiers, there has been a flood of literature regarding a specific approach to get to the heart of the ontology of the consumption choices of users embedded in social networks, and that is the field of elicitation interviewing. An elicitative interview is a qualitative research method used to gather information from participants by prompting them to share their experiences, perspectives, and insights in a

structured yet open-ended manner. The term elicitative refers to drawing out or eliciting responses from participants using open-ended questions and prompts that encourage participants to provide detailed and spontaneous responses. Unlike structured interviews with fixed questions, elicitative interviews allow for flexibility and exploration of participants' thoughts and experiences. Elicitation aims to enrich conventional methodological approaches and has its foundations in anthropology and visual sociology. Within this framework, elicit interviews are not merely limited to the collection of data considered in a sense as objective, but rather aspire to grant the researcher the opportunity to penetrate layers of meaning and interpretation that transcend what is manifest on the surface. In parallel, such interviews offer respondents the privilege of articulating their thoughts, opinions and perceptions comprehensively and contextually relevantly. This approach fosters a co-construction of data through interaction, as highlighted by Salvini (2015), assuming that the researcher has a keen understanding of relational dynamics and communicative strategies for effective implementation. Essentially, the elicitation technique finds its foundation in the production of discourse from artifacts, usually through dialogic interaction between participants and the researcher, centered around one or more elements that often take the form of visual representations, in the context of empirical information generation and, more traditionally, in the context of qualitative interviewing (Giorgi et al., 2021). The primary goal of elicitative interviews is to explore participants' perspectives, beliefs, attitudes, and experiences related to a specific topic or research question. Researchers seek to understand the richness and complexity of participants' viewpoints through probing and follow-up questions. This kind of interview prioritize the participant's viewpoint and experience, so are defined participant-centered. Researchers aim to create a comfortable, non-threatening environment encouraging participants to share openly and honestly. This may involve building rapport, active listening, and demonstrating empathy and respect for participants' perspectives. On the side of the data collection, elicitative interviews are a form of qualitative data collection that generate rich, in-depth data that can provide insights into individuals' motivations, behaviours, and perceptions identified by the researchers in the shape of patterns, themes, and key findings. This specific instrument allows for flexibility and adaptability in the interview process. Researchers may adjust their approach based on the participant's responses, probing further into areas of interest or exploration. This flexibility enables researchers to uncover unexpected insights and nuances. Among the most common elicitation techniques are photography (Harper, 2002) and photovoice (Wang, 1999) delineating these tools as effective strategies in promoting a process of incorporation. In this sense, through the mediation of visual sensory stimuli, it is possible to facilitate access to symbolic and material constructs related to personal identity and lived experiences, allowing for decoding them in symbolic and concrete keys (Vacchelli, 2018). On and through the digital, conducting these kinds of interviews and administering these kinds of stimuli is most benefited by the mediation of the screen on which images and audiovisual materials can pass easily. Another type of elicitative interview technique used is the semi-structured interview enriched with perceptual

stimuli. This approach allows interviewers to have a fluid interaction that is not strictly composed of a series of questions and topics to be addressed to which is combined with the use of constructed stimuli such as questions or visual and audiovisual graphic stimuli aimed at transporting the interview into the vital way it is intended to be explored. However, it leaves room for flexibility and spontaneity during the interaction. This allows interviewees to express themselves freely, without feeling constrained by a rigid schema, and for researchers to delve into themes that emerge during the conversation. The respondent is prompted to question his or her choices critically, allowing a deep understanding of the dynamics underlying decision-making in complex algorithmically mediated contexts. The elicitation interview is also not infrequently associated with the phenomenological interview. This concerns exploring participants' lived experiences, channeling attention to the perceptions, emotions and meanings individuals attribute to their social media interactions in relation to cultural consumption. This approach is based on the theoretical assumption that understanding social phenomena requires an immersion into the inner perspectives of subjects in order to unravel the essential structures of lived experience (Husserl, 1931). Following Moustakas (1994), the primary objective of the phenomenological interview is thus to access the "pure consciousness" of the participants, allowing researchers to grasp the richness and complexity of individual experience in an unmediated manner. Through this lens, the phenomenon of cultural consumption on social media is investigated not only in its outward manifestation but, more importantly, in its intrinsic and experiential dimensions, emphasizing the importance of contextualising individual experiences within their specific plots of meaning. The use of the phenomenological interview technique in the context of social sciences allows for the exploration and elucidation of the complex dynamics underlying cultural consumption behaviors, thus providing meaningful insights for deciphering practices in digital environments (Van Manen, 1990). Adherence to ethical principles is a cornerstone in sociological research, especially in contexts that involve direct interaction with participants as is precisely the case with elicitative and phenomenological interviews. Informed consent, privacy protection, and personal data protection emerge not only as legal obligations but as fundamental moral imperatives that uphold the integrity of the research process (Bryman, 2016). Furthermore, ethical management of research requires an empathetic and sensitive approach on the part of the researcher, who must strive to build a safe and welcoming environment that facilitates the free expression of participants, while ensuring that their experiences and perceptions are treated with the utmost respect and consideration (Ellis, 2007). To enrich the final goals of the research, in this field researchers typically use purposeful sampling techniques to select participants who can provide relevant and diverse perspectives on the research topic. This ensures that the data collected during elicitative interviews are representative and meaningful. In other cases, this type of interviewing is used in mixed methods projects where interviews are conducted as qualitative follow-ups on respondent/user/subject profiles deducted from previous quantitative research phases (as well as a survey or an experiment). The individuals selected will correspond exactly to the identified

profiles and will be representative of them, although they will be chosen incidentally from all the individuals who fall into that specific profile. As will be seen in the next paragraph, this is precisely the mode of use described in our research example. The elicit interviews require the researchers to reflect on their own biases, assumptions, and positionality throughout the research process. Practicing reflexivity helps researchers acknowledge their influence on the interview process and interpret participants' responses in context (Giorgi et al., 2021).

3. Qualitative detection of the loop: an example of elicitative interview

In the context of the PRIN 2022 project financed by *European Union – Next Generation EU*" – "Feedback culture: assessing the effects of algorithmic recommendations on platformized consumption – ALGOFEED", whom the main objective is to explore the sociocultural effects of feedback loops based on digital platforms (particularly TikTok and YouTube) it was utilized a prototype of elicitation interview. The methodological approach, mixed at the basis, involves two preparatory phases before conducting interviews: a preliminary survey on user perception of the algorithmic component in the cultural consumption choices and a self-tracking to detect the effective recommendation paths and user profiles. These stages are preparatory to using of semi-structured interviews, which are useful for achieving various purposes, such as a greater focus on the proposed subject (Bichi, 2007).

The key dimensions structured for the creation of the interview guide, as illustrated in Figure 1, include 1) platforms and cultural consumption; 2) content filtering; 3) automated decision-making processes; 4) algorithmic persuasion, referring to the awareness of the potential of algorithms in shaping users' behavioural choices and content consumption patterns. Finally, 5) human-algorithmic interaction, focusing on the analysis of the dynamic interaction between individuals and algorithms in digital contexts. These conceptual dimensions are fundamental for delineating the research scope and guiding the formulation of survey questions in the context of the ALGOFEED project.

To explore the dimension related to understanding and individual reactions towards content filtering, it is helpful to consider the interviewees' awareness of using algorithms in content personalization and their reflections on the dynamics of this personalization. , In this phase, elicitation is structured through a dynamic interaction between the researcher and the interviewee and is based on the generation of words that arise from visual sensory stimuli and access representations of one's identity or experience. Specifically, in this work, both engage in viewing the first 10 videos that appear in the respondent's TikTok feed and the first 6 video suggestions that appear on YouTube.

In this way, it is possible to discuss the respondents' algorithmic awareness, the customisation of the recommended content according to the interactions that take place online. In fact,

following an outline of a detailed account of their daily routine, highlighting the specific moments when interaction with the YouTube and TikTok platforms occurs.

In an attempt to further explore the relationship between digital platforms and users' cultural consumption, we make use of the elicitative interview technique. The latter aims to explore participants' daily habits and their interaction with platforms such as YouTube and TikTok and allow us to investigate our objective, which is related to understanding how these platforms are integrated into the everyday cultural context, influencing it and shaping its dynamics.

This will allow the identification of consumption patterns, usage frequency, specific contexts of use, and how recommendation algorithms intertwine with individuals' daily lives, shaping their cultural choices and preferences. These will be just some of the elicitation techniques aimed at facilitating dynamic exchange between the researcher and the interviewee, thereby promoting the acquisition of in-depth knowledge.

4. The dimensions of the elicitation interview. Methodological notes and insights

The tool's framework addresses five dimensions of the digital sphere concerning algorithmic awareness, adopting the perspective of the elicitation technique, which involves the use of stimuli that allow the respondent to anchor themselves to the object of research. In our case, the use of digital content such as TikTok and YouTube videos - and hence their related recommendation outputs - represents an innovative approach enabling the simulation of contexts where the algorithmic element could intervene significantly. Particularly, as shown by the visual model proposed (Figure 1), the interview outline encompasses specific information. The first dimension concerns platforms and cultural consumption, while the second focuses on content filtering. The former pertains the type and frequency of digital platforms usage; the latter dimension is particularly associated with awareness regarding algorithm usage to personalize content recommendations based on online data. Both dimensions are explored through the elicitation of "scrolling", during which the researcher prompts the respondent to examine together the first 10 videos viewed on TikTok and the first 6 video recommendations on YouTube. This approach encourages reflection on the visual material observed and initiates discussion on the frequency of certain types of videos.

In this context, the interview's elicitation aims to incorporate elements of innovation, creativity and depth. This is enabled using digital audiovisual stimuli to immerse the interviewee in realistic situations and thus capture their perceptions in real time. Secondly, stimulating contexts where algorithmic recommendations are evident helps the interviewer to understand the perceived influence of the algorithm on cultural consumption.

This initial exploratory research phase of elicitation thus helps the researcher obtain valuable initial frameworks useful for discerning how the feedback loop effect is shaped. This involves

detecting the types of content reaching users based on their individual browsing patterns and online presence. Consequently, it is important to delve deeper to understand whether, and if so how, users are aware of the dynamics and processes that lead to such recommendations. The involvement of interviewees in envisioning practical and realistic scenarios, such as making decisions based on online content or assessing the reliability of reviews when shopping, leads to the third dimension of the interview related to the automated decision-making processes. It investigates whether the respondent has ever made decisions based on online content, engaging them in potentially relevant scenarios and practices adopted online, such as planning trips or discovering new recipes due to consumed digital platform content, or the importance of leaving online reviews when shopping and other online research practices.

The elicitation support, which prompts personal experiences of the interviewees, is similarly observed in the fourth dimension. Relying on personal experiences allows the exploration of the respondent's emotional and cognitive reactions in similar situations, shedding light about the algorithmic persuasion, i.e. whether there is awareness of algorithms potentially influencing users' behavior and choices. This, evidence emerging from this interview segment partially clarifies the dynamics of the feedback loop and how it is processed and developed.

The fourth dimension pertains to algorithmic persuasion, addressing whether there is awareness that algorithms may or may not influence users' behaviour and choices. Both dimensions are supported by the elicitation of reference to personal experiences by the researcher to stimulate discussion. Lastly, the fifth dimension of the interview aims to illuminate users' awareness of the feedback loop effect. It focuses on human-algorithm interaction. It involves asking if the interviewee has ever read the terms of use of online platforms and whether they found it useful. Discussion also delves into the feelings evoked by online content, such as emotions and personal reactions.

5. Conclusion

The paper aimed to outline the key technical phases involved in constructing the elicitation interview. This technique represents the final step of a broader national research project and serves as a cohesive element with two other quantitative stages within a fully mixed-methods framework. This research phase has introduced several innovative elements. Although the technique used belongs to the broader family of interviews - widely used techniques in the humanities and social sciences - the elicitation tool, as observed, has generated methodological innovation that aligns well not only with the short-term objectives of this third phase - namely, a deep understanding of the relationship between the user and algorithmic recommendation - but also with the long-term objectives of the entire research project. In this case, the elicitation interview has been a fundamental tool for delving into the experiences involving cultural
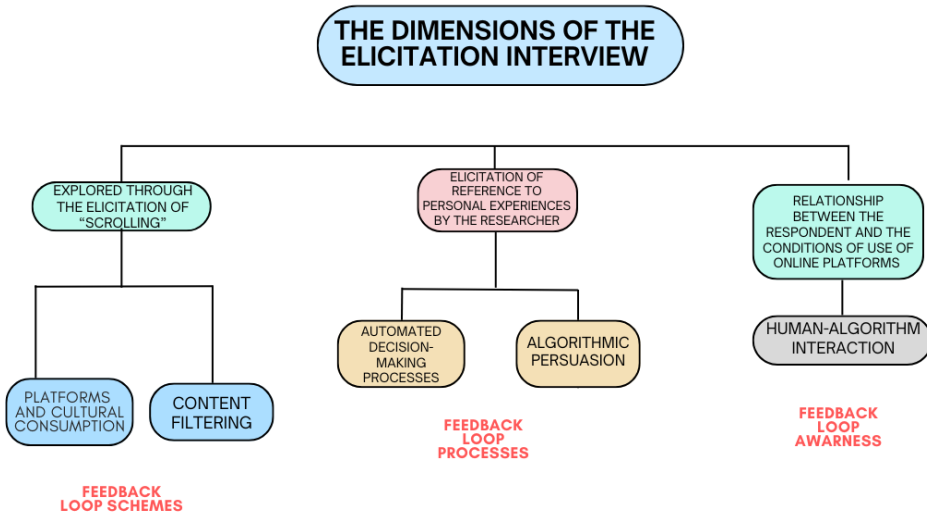
Figure 1. Visual model of interview dimensions and the chosen elicitation

consumption and how it fuels, and is fueled by, the automated processes of the Network. Indeed, "scrolling", the researcher's personal experiences, and the deepening of the conditions of use of the platforms under investigation have represented three very effective strategies for bringing to light the interviewee's digital experiences and investigating their action patterns in heavily "algorithmized" contexts, and whether these are somehow oriented by default recommended patterns. However, several challenges loom in the realm of data collection and analysis, including managing process disparities, drawing accurate insights, conducting qualitative aspects reliant on researchers' skills, and navigating various operational, analytical, and interpretative languages, necessitating robust team cohesion and clarity of objectives. Addressing these challenges falls upon the application phase, where they will be further problematized and examined.

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