Human Factors in Design, Engineering, and Computing, Vol. 238, 2026, 207–217
https://doi.org/10.54941/ahfe1008255

Exploring User Perceptions of Their Role in Personalization on YouTube

Mohammed Muheeb Faizan Ghori, Arman Dehpanah, and Bamshad Mobasher

DePaul University, Chicago, IL 60614, USA

ABSTRACT

Recommender systems (RS) increasingly rely on user behavior and feedback to provide personalized recommendations, positioning users as participants in the personalization process. However, users may differ substantially in how they understand their role in this process and the extent to which they believe they can influence recommendation outcomes. Despite users' growing involvement in personalization, little is known about how they perceive their role and what factors influence these perceptions. Using a content analysis of semi-structured interviews with 21 YouTube users, we explore how users perceive their role in personalization on YouTube. Our Analysis revealed four distinct perceived user roles in personalization, including Active Trainers, Contributors, Collaborators and Passive Consumers. Participants' perceptions of these roles were shaped by differences in their understanding of personalization and control mechanisms, reliance on recommendations, and beliefs about responsibility for personalization. By identifying distinct perceived user roles and the factors that shape them, this work provides insights into how users understand and participate in personalization. Based on our findings, we discuss implications for designing recommender systems that support diverse levels of user involvement and more transparent forms of user control.

Keywords: Recommender systems, Personalization, User agency, Perceived user roles, YouTube.

INTRODUCTION

Recommender systems (RS) have gained widespread adoption across major streaming platforms such as YouTube, Netflix, and Spotify (Ko et al., 2014). These systems rely significantly on user interactions to provide personalized content, positioning users as participants in the recommendation process rather than solely as recipients of recommendations. However, users may differ substantially in how they understand their role in this process and the extent to which they believe their actions influence recommendation outcomes. Moreover, users' ability to exercise agency is shaped by system transparency, available control mechanisms, and their understanding of how recommender systems operate (Kulesza et al., 2012; Sinha and Swearingen, 2002; Ghori et al., 2025).

Prior research suggests that users differ in the extent to which they participate in personalization, ranging from active participants in shaping recommendations to more passive consumers (Thornson and Wells, 2016;

Received September 26, 2026; Revised October 29, 2026; Accepted November 4, 2026; Available online December 1, 2026

© 2026 The Authors. This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 License.
For more information, see https://creativecommons.org/licenses/by-nc-nd/4.0/

Rezk et al., 2024). While some users intentionally attempt to influence recommendations through feedback, search behavior, or interaction strategies, others remain uncertain about how recommendations are generated or how their actions affect recommendation outcomes. This uncertainty is often compounded by limited transparency into how recommender systems operate and trade-offs between personalization benefits and concerns about privacy (Wadle et al., 2019). Consequently, users may desire greater agency yet remain hesitant or unable to actively exercise control over their recommendations (Monzer et al., 2020).

In this work, we focus on YouTube as a relevant context for examining users' perceived roles in personalization, as users interact with its recommender system through a range of behavioral and explicit signals (Burgess, 2018). While these interactions provide opportunities to influence recommendations, users may differ in how they understand their participation and perceive the effectiveness of their actions. Despite growing research on user control and agency in RS, less attention has been given to how users conceptualize their own role in the personalization process and what factors shape these perceptions. Understanding these perceived roles can provide insight into how users participate in personalization, exercise available forms of control, and interpret their relationship with RS.

Through semi-structured interviews with 21 YouTube users, we examine how users conceptualize their role in personalization and the factors that influence these perceptions. Specifically, we address the following research questions:

RQ1) How do users perceive their role in the personalization process on YouTube?
RQ2) What factors influence users' perceptions of their role in the personalization process?

Our findings provide empirical insights into how users understand their participation in the personalization process and perceive their ability to influence recommendation outcomes. These insights have implications for designing recommender systems that better support diverse forms of user involvement while providing greater transparency and meaningful opportunities for user control.

RELATED WORK

There has been a growing interest in enhancing user agency in the context of algorithmic-based RS (Moeller et al., 2023; Rezk et al., 2024). User agency refers to the ability of users to take intentional, goal-directed actions to shape their experience, such as modifying their watch history to influence future recommendations (Dijck, 2009). Prior research distinguishes between explicit agency, where users intentionally provide preferences or use available controls, and implicit personalization, where systems infer preferences from users' behavioral signals (Van den Bulck and Moe, 2018). Users may also intentionally adjust their behavior with the expectation that these signals will influence subsequent recommendations (Lee et al., 2019).

Prior research suggests that users' ability to exercise agency depends not only on the availability of control mechanisms but also on how they understand and engage with RS. Moeller et al. (2023) found that although explicit control mechanisms increased perceived control, participants rarely used them, and greater control did not necessarily improve satisfaction. These findings suggest that providing control alone may be insufficient if users do not perceive their actions as having a meaningful effect on personalization. Sankaran and Markopoulos (2021) found that users' sense of autonomy was shaped by their understanding of system behavior and their ability to meaningfully control or override system decisions. Similarly, Kulesza et al. (2012) showed that a sound understanding of a RS reasoning supported more effective personalization, with participants who developed better mental models more likely to personalize the system to their satisfaction. These studies highlight the importance of both meaningful control and users' understanding in shaping how they exercise agency in RS.

Similarly, research has shown that users differ in how they understand their participation in personalization. Rezk et al. (2024) examined how users perceive and exercise agency in personalized news curation. They identified a behavior-intention gap, where participants desired agency but were reluctant to actively engage in personalization. The findings showed that motivations for agency included identity alignment, and exploration of alternative viewpoints, while reluctance stemmed from concerns about cognitive burden, responsibility, and negative consumption patterns. However, less attention has been given to how users conceptualize their own role in personalization and the factors that shape these perceptions. Our study addresses this gap by examining perceived user roles and the factors influencing these perceptions in the context of YouTube.

METHODOLOGY

We conducted semi-structured interviews with 21 YouTube users to examine how users perceive their role in personalization and the factors that shape these perceptions. The interviews were analyzed using qualitative content analysis, combining inductive and deductive coding to identify recurring patterns in participants' accounts (Elo and Kyngäs, 2008).

Data Collection. A total of 21 participants (10 male, 11 female; ages 18–64) were recruited for this study through Reddit communities (Medvedev et al., 2017). Participants were eligible if they were at least 18 years old, resided in the United States, and used YouTube at least once per week. Participants represented a range of ages, educational backgrounds, and experiences with YouTube. Each participant received a $20 Amazon e-gift card as compensation.

Interviews were conducted via Zoom and lasted approximately 30–45 minutes (Archibald et al., 2019). Interview questions explored participants' perceptions of their role in personalization, understanding of how YouTube recommendations are generated, experiences with personalization and control mechanisms, and factors influencing their sense of agency. Interviews were audio-recorded with participants' consent, transcribed verbatim, and

anonymized prior to analysis. The study was approved by DePaul University's Institutional Review Board (IRB).

Data Analysis. Interview transcripts were analyzed using qualitative content analysis that combined inductive and deductive coding. Analysis began with open coding to identify meaningful units related to participants' perceived roles, understanding of recommendation mechanisms, experiences of agency and control, and interactions with YouTube's RS. Next, codes were compared across transcripts and iteratively refined, merged and organized into broader categories. A deductive component was then used to organize these categories in relation to the research questions. Analytic memos were used to document coding decisions, emerging interpretations, and relationships across categories. To enhance analytic rigor, the first and second authors independently reviewed transcripts, codes, and category definitions, resolving differences through discussion and refinement of the coding framework.

RESULTS

Analysis of the interview data revealed four distinct ways participants perceived their role in personalization on YouTube, including Active Trainers, Contributors, Collaborators, and Passive Consumers. These roles reflected differences in how participants understood their involvement in personalization, the influence they attributed to their actions, and the relative responsibility they assigned to themselves and YouTube for personalization. The following themes describe the perceived user roles identified across the interviews.

Users as Active Trainers. Participants expressing this role viewed themselves as actively shaping YouTube's recommendations through their behavior and interactions. They perceived recommendation outcomes as largely driven by their own actions and choices, positioning users as primary drivers of personalization Participants often described themselves as "teaching," "training," or "shaping" the system through continued interaction with YouTube. P4 summarized this perception, *"I would describe [my role] as very important because my actions guide what the platform shows me. What I watch, search for, like, comment on, skip and the channels I subscribe to all influence the future recommendations. As a user, I'm not just receiving content. I'm also teaching YouTube what I prefer through my behavior."* A defining characteristic of this role was the belief that recommendations are largely a consequence of user behavior. P6 similarly described personalization as something users gradually develop through their interactions, explaining, *"You could not just sign in on YouTube and get those recommendations directly, you have to build your algorithms with time."*

This role was associated with a relatively strong sense of agency and responsibility for personalization. Participants believed they could deliberately influence recommendations by modifying their viewing behavior, searching for different topics, subscribing to channels, or using available control mechanisms. For example, P14 described using the *"Not interested"* feature to refine recommendations, noting that it allowed them to *"chip down on*

the content I don't like" and *"find the content that I do like*." Participants perceived a strong connection between their actions and subsequent recommendations. Active Trainers therefore understood personalization as a process they could intentionally shape and refine through continued interaction with the platform.

Users as Contributors. Participants expressing this role viewed themselves as providing behavioral signals and feedback that influence personalization, while YouTube retained responsibility for interpreting these inputs and determining recommendation outcomes. User behaviors such as watching, searching, liking videos, subscribing, and using feedback mechanisms were viewed as ways of communicating preferences to the system. A defining characteristic of this role was the distinction between influencing and directly controlling recommendations.

Participants viewed their actions as inputs that could guide the system rather than determine its outcomes, reflecting greater decision-making authority attributed to YouTube. Their influence was perceived as indirect, gradual, and sometimes inconsistent. As P8 explained, *"I can influence what I see [through] what I watch, click on, using options like, Not interested, Don't recommend channel. But over time those actions do shape my recommendations in a noticeable way. However, you know, I don't feel like I can directly control the system in a precise way. So it's more of indirect and like gradual [control] and sometimes I still get content that doesn't match my preferences even after I've like tried to adjust it. So, I think I can guide it but I can't fully detect or customize it exactly how I want it to be."*

Participants also recognized that the processes translating their inputs into recommendations remained largely opaque. P11 noted that users *"contribute to the recommendations that are being fed,"* but explained, *"I think it's purposely proprietary. I feel like they have algorithms that are confidential that they wouldn't tell users how they're making those decisions."* Thus, Contributors perceived their agency as the ability to guide personalization through their interactions, while YouTube retained greater authority over recommendation outcomes.

Users as Collaborators. Some participants perceived themselves as collaborators with YouTube's recommender system. Rather than viewing recommendations as entirely controlled by either the user or the platform, participants viewed personalization as a shared process in which users communicate preferences through their behavior and feedback, while YouTube interprets these signals and adapts recommendations accordingly. As P18 explained, *"I think I'm collaborating a bit with YouTube because I'm viewing videos and then expecting to get similar videos as recommendations, and then I'm sharing my feedback by marking videos as not interested. So I think it's a collaborative thing because the feedback is helping YouTube recommend me more videos of my interest."*

Feedback mechanisms were deemed central to how participants maintained this collaborative relationship. Participants described using features such as *"Not interested,"* clearing search history, and *"New to you"* to communicate preferences and improve subsequent recommendations. They viewed

recommendation quality as partly dependent on their participation, with personalization emerging through mutual adaptation between user feedback and YouTube's responses. For example, P10 observed that after indicating disinterest in certain content, "*the content of that particular sort were just minimized from me doing it.*" Participants therefore expressed moderate levels of perceived control and agency, recognizing that their actions could influence and guide recommendations but not directly determine them. Participants expressing this role viewed personalization as a shared process where both users and YouTube contribute to shaping recommendation outcomes.

Users as Passive Consumers. Participants expressing this role viewed themselves primarily as recipients of recommendations, with YouTube assuming greater responsibility for selecting and presenting personalized content. Rather than actively shaping recommendations, these participants generally expected personalization to occur with minimal effort on their part. As P15 explained, "*I would say there's some user input, but not full control. But also if you're asking for recommendations, maybe you don't want full control because then why would you want a recommendation? You wouldn't know what you wanted. That would be like me going to the doctor and being like, I already know what I have. So why am I gonna come see you and waste your time?*"

Participants expressed limited motivation to manage their recommendations, often relying on search, subscriptions, or browsing when seeking specific content. When asked whether they had tried to influence recommendations, P11 responded, "*No, because I don't feel like I give it that much weight.*" Although participants recognized that their behavior could contribute to personalization, some had limited awareness of available controls or were reluctant to repeatedly use them. As P13 explained, "*I shouldn't have to feel like it's on my end to click on I don't want to see this, I'm not interested. I don't want to do that all the time.*"

These participants therefore expected YouTube to learn their preferences with relatively little intervention and placed greater responsibility for personalization on the platform. Their agency was expressed primarily through deciding whether to watch, ignore, or seek alternative content rather than intentionally shaping future recommendations. Passive Consumers thus understood their role as primarily responding to recommendations, while YouTube remained responsible for determining and adapting recommendations.

RQ2: Factors Influencing Perceived User Roles

We identified four factors that influenced how participants perceived roles, including users' understanding of personalization and available control mechanisms, perceived effectiveness of their actions, reliance on YouTube recommendations, and beliefs about division of responsibility for personalization.

Understanding of Personalization and Control Mechanisms. Participants' perceived roles were shaped by their understanding of how recommendations

are generated and their awareness of available control mechanisms. Those with greater understanding commonly associated recommendation outcomes with viewing history, searches, subscriptions, likes, watch time, and other interactions. As P16 explained, *"If I search for something, I'll see videos related to that and if I watch those videos, I'll see more videos that might interest me."* Users' awareness and understanding of control mechanisms was also associated with more active perceived roles. P12 noted that users can *"control what you don't wanna see"* and that *"all sorts of interactions"* affect recommendations.

In contrast, participants who were uncertain about recommendation processes or available controls tended to perceive a less active role and attribute greater influence to YouTube. P11 described recommendation decisions as being driven by *"algorithms that are confidential,"* while P13 suggested that some controls may exist but are *"hidden"* from users. This uncertainty and limited awareness were associated with more passive perceived roles, whereas greater understanding of personalization and available controls was associated with more active roles and higher perceived agency.

Perceived Effectiveness of User Agency. Perceived user roles were also shaped by whether participants believed their actions effectively influenced RS behavior. Participants who perceived a strong connection between their actions and recommendation outcomes generally described more active roles. P14 stated that recommendations were *"solely based on my activity, my watch history and my subscriptions,"* while P12 described themselves as *"the main influencer of the types of content"* they receive. These participants viewed recommendations as responsive to their actions and themselves as active contributors to personalization.

In contrast, participants who perceived their influence as limited or indirect described less active roles. P2 explained that *"my actions tell the algorithm what I want,"* but recommendation decisions are ultimately *"left to the algorithm to choose,"* while P8 stated that users can influence recommendations but *"can't fully direct or customize it."* Participants also described their influence as sometimes gradual or unpredictable. P2 noted that *"you could sometimes predict"* recommendations based on prior actions, but *"sometimes it doesn't work that way."* Overall, participants who perceived their actions as effective assumed more active roles, whereas those who experienced their influence as indirect, inconsistent, or unpredictable perceived more limited agency.

Reliance on YouTube Recommendations. Participants' perceived roles were also shaped by how they consumed content, particularly their reliance on recommendations, search, and subscriptions. Those who frequently used recommendations for content discovery attributed a greater role to YouTube in shaping what they watched. P12 reported relying on recommendations *"eight out of ten"* times, while P17 described using them *"just maybe to be exposed to other content that maybe I wasn't aware of."* These participants viewed YouTube as an important source of discovery and perceived their role as more collaborative or recipient-oriented.

In contrast, participants who searched for specific content, followed subscriptions or established interests, or used YouTube for specific viewing goals perceived a more active role in directing their viewing experience. As P11 explained, *"Usually if I'm going to YouTube, I'm looking for something specific and I'm gonna search."* For these participants, content selection was driven more by intentional choices than recommendations, with YouTube serving primarily as a tool for accessing desired content. Overall, participants who relied more on recommendations tended to perceive themselves as recipients or collaborators, whereas those who relied on search, subscriptions, and specific interests perceived a more active role in directing their own viewing experience.

Division of Responsibility for Personalization. Participants' perceived roles were also shaped by how they believed responsibility for personalization should be shared between users and YouTube. Some viewed recommendation quality as dependent on active user participation through viewing behavior, searches, subscriptions, and feedback, while others believed YouTube should assume greater responsibility for learning preferences and delivering relevant content.

Participants also differed in how much involvement they believed users should have in personalization. P13 resisted the expectation of continuously managing recommendations, stating, *"I shouldn't have to feel like it's on my end to click on I don't want to see this, I'm not interested. I don't want to do that all the time."* Similarly, P15 questioned the desirability of complete control, explaining, *"there's some user input, but not full control. But also if you're asking for recommendations, maybe you don't want full control because then why would you want a recommendation?"* P17 emphasized the value of platform-driven discovery, describing their goal as *"just maybe to be exposed to other content that maybe I wasn't aware of."* Overall, participants who assigned greater responsibility to users perceived more active roles, whereas those who placed greater responsibility on YouTube perceived more collaborative or recipient-oriented roles. Thus, perceived roles reflected not only participants' understanding of how personalization works, but also their expectations about how responsibility for recommendation outcomes should be distributed between users and YouTube.

DISCUSSION & CONCLUSION

Our findings demonstrate that users do not perceive their role in personalization uniformly. Participants described themselves as Active Trainers, Contributors, Collaborators, or Passive Consumers, reflecting differences in their perceived participation, influence, and responsibility in personalization. These findings align with Rezk et al. (2024), who found variation in how users perceive and exercise agency in personalized news curation. Our findings extend this work by characterizing distinct ways users conceptualize their role in personalization and identifying factors that shape these perceptions in the context of YouTube.

Participants' understanding of personalization and available controls was particularly important in shaping perceived roles. Those who understood

how behavioral signals contributed to recommendations and were familiar with available controls perceived more active roles, whereas uncertainty and limited awareness were associated with more passive roles. This finding is consistent with Kulesza et al. (2012), who showed that stronger mental models of a recommender system's reasoning supported more effective personalization, and Sankaran and Markopoulos (2021), who found that intelligibility and meaningful control shape users' experiences of autonomy. Our findings further demonstrate how such understanding relates to users' perceptions of their own role in personalization.

Perceived effectiveness also shaped participants' sense of agency. Participants who observed a clear connection between their actions and recommendation outcomes perceived more active roles, whereas indirect, inconsistent, or unpredictable effects were associated with limited agency. This finding complements Moeller et al. (2023), who found that providing explicit controls increased perceived control but did not necessarily result in greater use or satisfaction. Our findings suggest that the presence of controls alone may be insufficient, users must also perceive that their actions produce meaningful and understandable effects on recommendations.

Lastly, greater user involvement was not universally desired. Participants who relied on recommendations for discovery perceived more collaborative or recipient-oriented roles, whereas those who relied on search, subscriptions, and specific interests perceived more active roles in directing their viewing habits. Participants also differed in how much responsibility they believed users should assume for personalization; some viewed active participation as necessary, while others expected YouTube to learn their preferences without requiring continuous intervention. These findings show that preferences for agency vary with users' desired level of involvement and expectations about how responsibility for personalization should be shared with the platform.

These findings highlight several implications for recommender system design.

- **Support different levels of participation.** Participants differed in how actively they wanted to engage in personalization. While some preferred deliberately shaping recommendations, others expected YouTube to manage personalization with minimal intervention. Recommender systems should therefore support different levels of user involvement rather than assume a single model of participation.
- **Improving Transparency around User Influence.** Providing controls alone may be insufficient when users are uncertain about how their actions affect recommendations. Consistent with Moeller et al. (2023), controls should produce effects that users can recognize and understand. Making the relationship between an action and its consequences clearer may strengthen users' perceived ability to shape recommendation outcomes.
- **Moving Beyond Active versus Passive Users.** Participants perceived qualitatively different roles in personalization, differing in perceived influence, responsibility, and forms of participation. Future research should therefore move beyond conceptualizing agency through an

active-passive distinction to examine diverse user roles and how they shape agency, engagement, and expectations of personalization.

- **Aligning Personalization with Users' Perceived Roles.** Users' expectations of personalization were closely tied to their perceived roles. Mismatches between these expectations and system behavior could lead to frustration and reduced perceived agency. Adapting interaction mechanisms, explanations, and control features to users' perceived roles may better align system behavior with user expectations, fostering greater trust, more effective participation, and a stronger sense of agency.

By identifying distinct perceived user roles and the factors that shape them, this study provides a more nuanced understanding of user agency and offers a framework for designing personalization that better reflects how users understand and participate in the recommendation process.

REFERENCES

Archibald, M.M., Ambagtsheer, R.C., Casey, M.G. and Lawless, M., 2019. Using zoom videoconferencing for qualitative data collection: Perceptions and experiences of researchers and participants. *International journal of qualitative methods*, *18*, p. 1609406919874596.

Burgess, J. and Green, J., 2018. *YouTube: Online video and participatory culture*. John Wiley & Sons.

Elo, S. and Kyngäs, H., 2008. The qualitative content analysis process. *Journal of advanced nursing*, *62*(1), pp. 107–115.

Ghori, M.F., Dehpanah, A., Gemmell, J. and Mobasher, B., 2025, June. " They Only Offer the Illusion of Choice": Exploring User Perceptions of Control and Agency on YouTube. In *Adjunct Proceedings of the 33rd ACM Conference on User Modeling, Adaptation and Personalization* (pp. 214–218).

Ko, H., Lee, S., Park, Y. and Choi, A., 2022. A survey of recommendation systems: recommendation models, techniques, and application fields. *Electronics*, *11*(1), p. 141.

Kulesza, T., Stumpf, S., Burnett, M. and Kwan, I., 2012, May. Tell me more? The effects of mental model soundness on personalizing an intelligent agent. In *Proceedings of the sigchi conference on human factors in computing systems* (pp. 1–10).

Lee, F.L., Chan, M.C.M., Chen, H.T., Nielsen, R. and Fletcher, R., 2019. Consumptive news feed curation on social media as proactive personalization: A study of six East Asian markets. *Journalism Studies*, *20*(15), pp. 2277–2292.

Medvedev, A.N., Lambiotte, R. and Delvenne, J.C., 2017. The anatomy of Reddit: An overview of academic research. *Dynamics on and of Complex Networks*, pp. 183–204.

Moeller, J., Löecherbach, F., Möller, J. and Helberger, N., 2023. Out of control?: Using interactive testing to understand user agency in news recommendation systems. In *News quality in the digital age* (pp. 117–133). Routledge.

Monzer, C., Moeller, J., Helberger, N. and Eskens, S., 2020. User perspectives on the news personalisation process: Agency, trust and utility as building blocks. *Digital Journalism*, *8*(9), pp. 1142–1162.

Rezk, A.M., Simkute, A., Luger, E., Vines, J., Elsden, C., Evans, M. and Jones, R., 2024, May. Agency Aspirations: Understanding Users' Preferences And Perceptions Of Their Role In Personalised News Curation. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems* (pp. 1–16).

Sankaran, S. and Markopoulos, P., 2021. "It's like a puppet master": User perceptions of personal autonomy when interacting with intelligent technologies [Internet].

Sinha, R. and Swearingen, K., 2002, April. The role of transparency in recommender systems. In *CHI'02 extended abstracts on Human factors in computing systems* (pp. 830–831).

Thorson, K. and Wells, C., 2016. Curated flows: A framework for mapping media exposure in the digital age. *Communication theory*, *26*(3), pp. 309–328.

Van Dijck, J., 2009. Users like you? Theorizing agency in user-generated content. *Media, culture & society*, *31*(1), pp. 41–58.

Van den Bulck, H. and Moe, H., 2018. Public service media, universality and personalisation through algorithms: Mapping strategies and exploring dilemmas. *Media, culture & society*, *40*(6), pp. 875–892.

Wadle, L.M., Martin, N. and Ziegler, D., 2019, June. Privacy and personalization: The trade-off between data disclosure and personalization benefit. In *Adjunct publication of the 27th conference on user modeling, adaptation and personalization* (pp. 319–324).