



**Selected Papers of #AoIR2025:
The 26th Annual Conference of the
Association of Internet Researchers**
Niterói, Brazil / 15 – 18 Oct 2025

A TAXONOMY FOR RAPIDLY CHANGING SOCIAL MEDIA PLATFORMS

Ankolika De
The Pennsylvania State University

Kelley Cotter
The Pennsylvania State University

Introduction

Social media platforms (SMPs) evolve rapidly, generating new affordances that reshape user experiences and policies, in turn, altering societal dynamics—redefining how individuals interact, communicate, and even organize within various social, political, and economic contexts (DeVito, 2021; van Dijck et al., 2018). It is challenging to study social implications of SMPs without considering how they themselves change. While scholars have studied technological change broadly from organizational and innovation perspectives (Anderson & Tushman, 1991), SMPs exhibit unique business models, systems, and logics that warrant a more specific framework. Research has primarily focused on their policy changes, often on a case-by-case basis (see, for example, Barrett & Kreiss, 2019; de Keulenaar et al., 2023; Katzenbach, 2021). However, as SMPs grow in relevance (Nielsen et al., 2022), it becomes important to develop language for documenting and analyzing their changes as they continue to play an integral role in shaping society (van Dijck et al., 2018). In this work, we present preliminary work on a more comprehensive taxonomy of SMP change, developed through a review of literature on technological and platform evolution, alongside an analysis of documentation from Meta, YouTube, X, and TikTok.

Background and Study Design

As SMPs evolve, they bring in updates not just in response to user feedback, global technological changes, the demand for improved functionality and new features (Acker & Beaton, 2016; Feenberg, 2009) -- but also in their underlying epistemologies, influenced by and influencing broader ideological nuances. Unlike other technologies, SMPs have become integral to society, evolving beyond their original functions through user appropriation to become central infrastructures for broader digital ecosystems (Plantin et al., 2016). Likewise, SMP governance now intersects with political interests

Suggested Citation (APA): De, A. and Cotter, K. (2025, October). *A Taxonomy For Rapidly Changing Social Media Platforms*. Paper presented at AoIR2025: The 26th Annual Conference of the Association of Internet Researchers. Niterói, Brazil: AoIR. Retrieved from <http://spir.aoir.org>.

(Törnberg, 2023). Consequently, public perceptions of SMPs have become more nuanced over time, from unilateral praise for their democratizing potential to criticism for exacerbating the marginalization of disadvantaged groups (Hoang et al., 2020). Prior research has noted that contemporary digital technologies aspire to be perceived as invisible, obscuring underlying complexities (Norman, 1998). For SMPs, this emphasis obscures their algorithmic nature, leaving them "opaque in their mechanisms" (Gillespie, 2014, p. 189). With backend mechanisms unclear, SMPs are not confined to a singular role but are manifested through various appropriations (De, 2025), some of which contribute to social good. However, their motives often conflict with user interests and broader impact, as SMPs remain inherently political (Gillespie, 2010).

This study thematically analyzes communications documents released by Meta, TikTok, X, and YouTube, collected between December 2022 and January 2025. The data primarily focuses on platform updates (e.g., feature announcements), company communications (e.g., press releases), user-directed messages (e.g., privacy updates), and statements from platform management (e.g., executive comments on policy changes). Inductive thematic analysis (Braun & Clarke, 2021) was used to identify categories and select facets of discourse analysis (Wood & Kroger, 2000) were employed to further interpret power dynamics and social implications. Additionally, the analysis also considers sensitizing topics (Bowen, 2019) such as opaque algorithmizing of platforms and the politics embedded in platform governance, especially in relation to the ideals of the Californian Ideology (Barbrook & Cameron, 1996)—as it relates to permissionless innovation (Thierer, 2014).

Type of Change	Meaning	Example
Material Change	Tangible shifts in a platform's features, design, or operations	Instagram: Adding the <i>Replies</i> feature for real-time conversations on Broadcasts.
Ideological Change	Shifts in the values, priorities, or beliefs that influence a platform's governance and policies	X (formerly Twitter) prioritizing "free speech" over strict content moderation.

Table 1: Taxonomy of Social Media Platform Change

Preliminary Taxonomy

Our preliminary analyses organize SMP change into material and ideological dimensions (see table 1). We see that these categories are not mutually exclusive; rather, they are often interdependent and interact with one another.

Material changes of social media platforms (SMPs) refer to modifications that affect the platform's structure or functionality. These changes include new features, interface updates, system enhancements, and algorithmic adjustments. Each type of material change shapes how users interact with the platform, often aiming to increase engagement, make experiences more seamless, or embed the platform into daily routines. For example, Instagram's December 2024 Replies feature and Meta's April 2024 Messenger updates represent feature and interface changes that directly enhance user interactivity, such as real-time influencer-follower communication or improved photo sharing. Algorithmic changes form another type of material change. These modify the rules SMPs use to recommend and generate content, subtly shaping user

experiences without being directly observable. TikTok's November 13, 2023, statement that its algorithm does not "take sides" on Israel-Hamas content, and YouTube's 2024 U.S. election anti-misinformation measures, exemplify how algorithmic modifications operate behind the scenes, creating perceptions of neutrality. By encompassing both visible and hidden modifications, material changes strategically position SMPs as essential tools for communication, content consumption, and daily social interaction.

Ideological changes on SMPs primarily manifest through shifts in platform governance, driven by evolving societal norms and political ideologies. These changes are not merely reactions to external political pressures; they also emerge in platform design, affordances, and algorithms. A notable example occurred in 2022 when X introduced a 'crisis misinformation policy' to combat false information during societal upheavals, but by November 2023, under Elon Musk's ownership, it shifted to prioritizing 'free speech', not necessarily removing all inaccurate information. Although framed as a material shift, this reflected an ideological decision shaped by Musk's views and the broader rise of conservative ideologies in the United States. Consequently, governance became a contested space where corporate interests and political ideologies converge, shaping broader trends such as the rise of 'censorship-free' discourse.

Discussions

Studying changes in SMPs is essential for developing a language to analyze these shifts and for explicating, interpreting, and addressing the harms they create. Our preliminary analyses introduces *changecraft*--- as a lens to look at how platforms manage this change through discourses—maintaining trust, managing crises, and shaping what users and stakeholders expect over time. Through visible updates, narratives that frame change as part of ongoing progress, and small fixes that justify larger shifts, platforms use changecraft to make transformation feel normal and necessary. In doing so, they are actively shaping and normalizing particular visions of the future.

We draw heavily on Norman (1998), who argued that technologies become "invisible" when they align with user needs, enabling users to focus on the seamlessness of their experiences rather than the underlying product--- a concept also reflected in Borgmann's (1984) design paradigm. This invisibility is crucial in the attention economy, where platforms profit by algorithmic structures (Boyd, 2023) to incite continual engagement (Thayne, 2012). Furthermore, while algorithms provide recommendations, their complexity often makes them difficult to understand, exacerbating the gap between what is happening and what is perceived or communicated to users. Finally, the convergence of SMP power and state interests requires a critical reassessment of priorities, as changes are often framed as normative, similar to permissionless innovation, which prioritizes unchecked progress over responsibility (Thierer, 2014), obscuring power dynamics (Nieborg et al., 2022) and reinforcing economic interests (Flew, 2021; Saetra, 2023). Likewise, SMPs need to be investigated as infrastructures for various actors and stakeholders, critically examining their changes as they shape both individual experiences and broader societal structures.

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