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Angaben zur Veröffentlichung / Publication details:

Frenzel-Piasentin, Adeline, Moritz Bruckner, and Christina Wagner. 2023. "A flow-oriented process model of social media services use." In Proceedings of ECIS 2023 - European Conference on Information Systems, Research Papers, Kristiansand, Norway, June 11-16, 2023, edited by Margunn Aanestad, Stefan Klein, Monideepa Tarafdar, Shengnan Han, Sven Laumer, and Isabel Ramos, 414. New York, NY: AISeL. https://aisel.aisnet.org/ecis2023_rp/414/.

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Recommended Citation

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A FLOW-ORIENTED PROCESS MODEL OF SOCIAL MEDIA SERVICES USE

Research Paper

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Abstract

While social media has been a popular subject of prior research, we know little about the conditions and the flows of action of social media use, including staying, discontinuance, and switching behavior. This makes it difficult to understand platform choices and usage patterns of social media services. Based on a flow-oriented theoretical approach, we conduct an exploratory qualitative research study with ten focus groups based on five popular social media services. We conceptualize a multidimensional perspective of social media use behavior. We identify four flows of action – “adjusting”, “coextending”, “fading out”, and “intensifying” – and develop a flow-oriented process model of social media service use. Our findings help to understand the broad spectrum of social media usage behaviors and motives, and provide new avenues for future research. Furthermore, we provide platform providers with insights to better understand the dynamics of social media services.

Keywords: Social media services, Flow of action, Temporality, Process theory, Social media use, Focus groups.

1 Introduction

More than half of the world’s population actively uses social media (4.2 billion users), as recorded in January 2021 (Statista, 2021). The use of social media platforms is not concentrated on a single platform provider, but is spread across a variety of social media services. Social media platform providers (e.g., Meta Platforms, Inc.) are defined as “the individual, firm, or governmental actors that build, operate, maintain, and innovate” (Aral et al., 2013, p. 4) on one or more social media platforms, which describe the infrastructure that provides one or more social media services. Social media services (e.g., Facebook, Instagram, etc.) allow individuals to create public or semi-public profiles, and to connect and communicate with other social media service users (Boyd and Ellison, 2007). Occasionally, a service experiences enormous growth, which could be characterized as a temporary hype (e.g., Clubhouse), while others maintain constant growth over decades (e.g., Facebook). As the fluctuation in the use of social media services affects the use of different platforms (Chen, 2022; Economides, 1996), various forms of use can be observed: from parallel use to single use, from silent observation behavior to active contribution, and from keeping accounts without access to deleting or abandoning social media accounts forever (Hebblethwaite, 2017; Youn, 2021). A complex variety of social media switching behavior emerges, partly due to user behavior and partly due to constantly changing platform features (Gerlach and Cenfetelli, 2020; Karahanna et al., 2018; Maier et al., 2015). Current research started to provide insights into the switching behavior of social media users, but still lacks a conclusive picture of the factors that motivate users to switch or stay on a social media platform.

In fact, studies on social media services include mostly quantitative work that examines very narrow and specific aspects of using social media services. Examples for previous work range from factors that

determine the adoption of new social media services (Oehlhorn et al., 2016; Suarez, 2005), to explanations on their use characteristics (Chen et al., 2014), to observations of the reduction of use (Osatuyi and Turel, 2020). Also, the discontinuance (Bermes et al., 2021; Gundlach et al., 2020; Maier et al., 2015; Turel, 2015), or the switching between social media services (Chang et al., 2014; Maicas et al., 2009; Xu et al., 2014) was considered in previous studies. Others, not focusing on social media use, have investigated the effects of using social media services, particularly technostress and envy (Högberg, 2021; Krasnova et al., 2015; Salo et al., 2019; Tarafdar et al., 2020; Yu et al., 2019).

Summarized, prior studies in information systems (IS) research provide valuable insights that were carefully considered in the preparation of this study. However, current literature relies on variance-based and emergent process approaches that focus on causal interactions and intentional actions of entities and actors that are spatially bound to a finite region of time and space (Mousavi Baygi et al., 2021). These studies lack a perspective of temporal becoming in the field of social media use behavior which disentangles the complex nature of using multiple social media services. Our goal is to use a flow-oriented approach to generate an understanding of the simultaneity and complexity of social media services use in a fast-paced and ever-changing environment. Furthermore, we aim to provide a grounded understanding of flows of actions that lead to switching, continued use, and all other forms of allocation of time and attentionality to social media services. Hence, we investigate the following research question: *How do flows of action shape individuals use of social media services?*

To answer this research question, we refer to a flow-oriented approach (Mousavi Baygi et al., 2021) for the theorizing of our results. Flow-oriented theorizing allows us to capture the ever changing, fluid dynamics of social media use. Methodologically, we conduct an exploratory qualitative research study (Myers, 2020; Walsham, 2006). We collected data from 10 focus groups using grounded theory for the data analysis (Corbin and Strauss, 1990; Martin and Turner, 1986).

Our contribution to academic literature includes the following three aspects: i) we provide a flow-oriented theory on social media use – considering the fluidity of use of different social media services, with their inherent characteristics, embedded in their environment and competing at some level with one another over an individual’s time and attentionality, ii) instead of looking at barriers to switching as means to keep users locked-in with their existing uses, we find that actions of use and non-use appear in cycles which we capture in a flow-theory inspired model, iii) we lay the foundation for further studies diving deeper into this phenomenon. We also contribute to practice, providing advice to platform providers, managers, and users of new and existing social media services for offering and benefiting from unique services.

The remainder of this paper is structured as follows: First, we provide an overview of previous literature and define concepts of social media switching, staying, technostress, and flow-theory specifically. Furthermore, we provide relevant methodological insights. The remainder of our work presents the research results, discussion and limitations including suggestions for future research.

2 Theoretical background

This section aims at providing basic definitions, concepts, and theories of social media services and the current body of knowledge in IS research. In analyzing the behavior of users of a social media service, we try to distinguish the terms usage, discontinuance, and switching. Based on this, we discuss the influence of technostress on usage behavior and highlight existing theories to analyze users’ behavior on social media services.

Literature on social media services usually refers to the term as means of communication with friends, family and colleagues, means to share information, and means to be informed on recent events (i.e., Xu et al. 2014). In a business context, social media services are referred to as enterprise social networks that support communication, coordination and collaboration among employees and allow information sharing and social interactions among employees within organizations (Chen and Wei, 2019). We focus on the private context and conceptualize social media services as both social networking platforms as well as social messenger services directed towards consumers.

The term “use” for social media services refers to the fact that a user first of all agrees to be part of the service. The term also refers to the way in which a user intends to use a social media service (e.g., the interaction with other users). Depending on the type of social media service, users want to stay in touch with friends, update their group of friends about recent life events, or connect with new people on the social media service in private (Chen et al., 2014).

Certain behavioral patterns and users’ experiences can lead to users deciding not to continue using a service. Thus, the term “discontinuance” means that users do not want to be a part of a specific social media service anymore. For them, personal risks, perceived usefulness (e.g., Oehlhorn et al. 2016; Turel 2016), and well-being (e.g., Krasnova et al. 2015) are more important than the advantages of interacting with other users on the service. We differentiate between the action of non-use when users decide not to use any social media services anymore (Bermes et al., 2021) and switching to a new service entirely (Maier et al., 2015). Herein the term “switching” means that users of a social media service substitute one service with another that offers them greater benefits (e.g., connecting with friends who are already on that platform) as well as fewer disadvantages and risks. Additionally, switching from one social media service to another is related to transition-costs (the time and effort associated with switching to a new social media service), and to sunk costs (the investment of time and effort in learning to use the social media service that a user is considering to discontinue) (Polites and Karahanna, 2012).

The prior body of research responds to the need for an explanation of users’ behavior to (dis-)continue using a social media service or to switch to another social media service with multiple behavioral theories: i) The theory of planned behavior explains how humans behave rationally within a social context (Turel, 2016), thus explaining why users decide to discontinue the usage of a social media service; ii) The technology acceptance model shows how the perceived usefulness and perceived ease of use determine whether a person uses a technology or not (Davis et al., 1989); iii) The social cognitive theory analyzes the interaction between personal, environmental, and behavioral factors that lead to a user’s decision to discontinue the usage of a social media service, which is self-regulatory and stems from a user’s own reflections (Turel, 2015); iv) Another stream of research focuses on the implications of network effects on a user’s intention to continue or discontinue the usage of a social media service (e.g., Li and Agarwal 2017; Maicas et al. 2009; McIntyre and Srinivasan 2017). Therein, network effects describe how a person’s individual utility from consuming a good or service can increase if other participants in the network consume the same good. These effects can also be referred to as network externalities, meaning that participants in a network influence others without receiving compensation for doing so (Economides, 1996).

The remainder of this chapter discusses motivations for social media use behavior (e.g., switching, staying). In addition to that, the theorizing perspective is addressed by explaining a flow-oriented research approach.

2.1 Motivations for social media use behavior

When it comes to the question of why users switch to another social media service, previous research found that feelings of exhaustion (Bermes et al., 2021), technology addiction (Osatuyi and Turel, 2020), as well as envy (Krasnova et al., 2015) can act as drivers to discontinue the usage of a social media service and motivate users to look for alternatives. Additionally, if a social media service fails to meet users’ value systems and societal expectations, they can develop feelings of guilt (Turel, 2016). Technological risks can positively influence a user’s decision to switch to another social media service (Salo et al., 2019). Moreover, friends who decide to stop using one social media service or switch to another social media service, can result in other friends to follow (Ferreira et al., 2020). The aforementioned influences can also act as stress creators, which lead to social media service exhaustion that fuels the user’s decision to discontinue or switch a social media service (Maier et al., 2015).

While the above reasons cause users to switch, another stream of research focuses on why users stay with a social media service. First, the costs associated with switching from one service to another (e.g., time spent on old social media services, time needed to setup new profile, informing contacts about

move) influences a user’s intention to switch (Xu et al., 2014). Considering this, the push-pull-mooring framework (PPM) shows that switching costs (consisting of sunk costs, setup costs, and continuity costs) have a negative impact on a user’s intention to switch to another social media service (Chang et al., 2014). Moreover, the integration of an application into a social media service increases the demand for that application compared to solutions of third-party offers, thereby lowering the switching costs for users of the social media service to switch to the solution with the integrated application (Li and Agarwal, 2017).

Second, some users can develop a technology addiction (Tarafdar et al., 2020) that forces them to continue using a social media service, whereas other users show more resilience by positively adapting their usage behavior (Bermes et al., 2021). In case of an addiction, users tend to monitor and self-regulate their social media service use, which is why service providers can equip users with additional features to help them regulate their consumption without having to opt for discontinuing the service (Osatuyi and Turel, 2020). Social media service providers can influence perceptions regarding the decision to discontinue the use of a social media service (Turel, 2016).

2.2 Flow-oriented theorizing

When explaining the roots of social media services usage, most IS scholars apply an actor-centric approach. This means that actors, such as users and organizations, are seen as the most significant origin of transformative developments. Recently, this view has been criticized as being too rigid to capture the complex and fluid nature of continuous digital innovations (Mousavi Baygi et al., 2021). Alternatively, researchers propose a line- or flow-oriented approach that uses flowing lines of action are used to explain socio-technological developments (Ingold, 2015; Ingold, 2016; Mousavi Baygi et al., 2021). Flowing lines of action or *flows of action* are “lines along which growth, movement, and (trans)formation occur” (Mousavi Baygi et al., 2021, p. 430), describing the paths of life lived and thus, the paths along which action flows. This allows to capture how variable and seemingly unimportant confluences of flows of action affect the direction and circumstances of transformation (Mousavi Baygi et al., 2021).

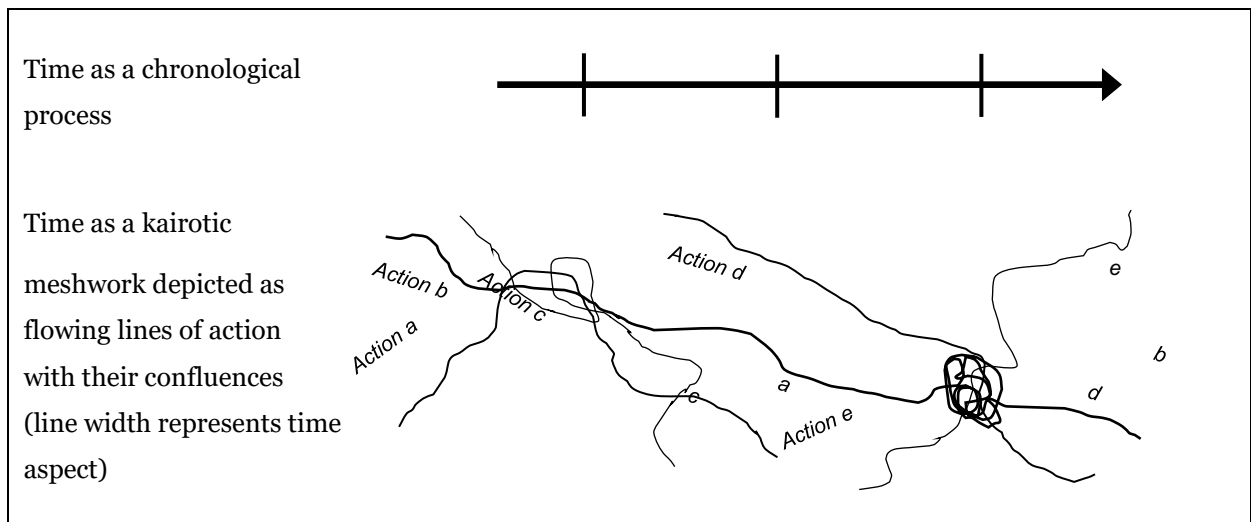


Figure 1. Chronological vs. kairotical time (adopted from Mousavi Baygi et al. 2021).

The original idea of moving away from stationary, spatial thought patterns and turning towards depicting reality as flowing lines stems from the social anthropologist Tim Ingold (Ingold, 2007; Ingold, 2011). He argues that life is not about being in a place, but to be along a path (Ingold, 2011). Mousavi Baygi et al. (2021) adopt this view into IS research by illustrating technological developments as flowing lines and thus constantly evolving. They suggest adjusting theorizing accordingly: First, by shifting from the study of interactions between actors to a focus on correspondences along flowing lines of action (Cloutier and Langley, 2020; Mousavi Baygi et al., 2021). Second, they invite researchers to view time

as a “kairotic meshwork” instead of a chronological progression (see Figure 1) (Ingold, 2015; Mousavi Baygi et al., 2021). Third, the flow-oriented approach suggests treating transformations as an attentional undergoing event rather than outcomes of intentional behaviors of the actors involved. Hence, it invites IS scholars to move away from the widely applied actor-centric focus, where actors are seen as primary origins of action. Rather it recommends situating transformations along the various flowing lines of action that animate actors in the first place (Cloutier and Langley, 2020; Mousavi Baygi et al., 2021). We adopt this theorizing approach in our study in order to gain novel insights into the use of social media services seen as a temporal socio-technological transformation. We argue that applying a flow-oriented approach will help us to better understand the phenomenon of social media beyond the known categories of use, (dis)continuance and switching.

3 Methodology

Current research strongly focuses on identifying particular constructs which influence individuals’ usage behavior of social media services, as presented in the previous section. However, most theoretical models are limited due to investigating linear relationships between certain stressors and usage or discontinuance as an outcome for one single platform. Therefore, we argue that a temporal approach for understanding the simultaneity, flow, and complexity of social media service use is needed. We follow an exploratory qualitative research approach (Myers, 2020; Walsham, 2006) by applying the coding methodology of grounded theory. Grounded theory methodology is a popular and well-suited qualitative research approach in IS (Wiesche et al., 2017) that allows for the discovery of inductive theory, which enables us to develop a theoretical understanding of our phenomenon while grounding the account in empirical data (Martin and Turner, 1986; Urquhart et al., 2010). In line with previous IS studies (e.g., Gerlach and Cenfetelli 2020), we argue that an exploratory approach using grounded theory methodology appropriate to answer our research question.

3.1 Social media service selection and data collection

To select appropriate social media services, we followed existing guidelines (Myers, 2020) and applied purposeful sampling. Since we focus on social media services in general, we chose services that are used by different age groups and that pertain to different functional blocks of social media services, namely *conversations* (C), *identity* (I), *groups* (G), *presence* (P), *relationships* (RS), *reputation* (RP) and *sharing* (S) (Kietzmann et al., 2011). This selection logic helps us to ensure that we cover all relevant functionalities of social media services for our study, which allows us to discover overlapping flows of action that are not only specific to one social media service, but also transferable to other services. Eventually, we selected the following five services which are presented in Table 1 with the main functionality in bold:

Social media service	Founded in	Number of users	Main user groups by age	Functional blocks
Facebook	2004	2.9 billion (as of January 2022)	18-35	RS , C, I, P, RP
WhatsApp	2009	2 billion (as of 2021)	18-44	C , G, RS, S
Instagram	2010	1 billion (as of January 2022)	18-24	RP , I, P, RS, S
Discord	2015	150 million (as of 2021)	18-24	G , P, RS
TikTok	2016	1 billion (as of January 2022)	10-24	S , C, G, RP
Sources: Statista (2022a, 2022b, 2022c, 2022d, 2022e)				

Table 1. Overview of social media services.

In order to reveal shared ideas, reactions, and opinions on the flows of action which produce the usage of social media services, we collected focus group data. Focus group data allows to capture the synergistic effects of group discussions which provide greater insights than the sum of individual interviews (Bélanger, 2012; Fern and Fern, 2001). Compared to other potential data sources (e.g.,

secondary social media data, observations over time, etc.), focus groups “permit the production of more fully articulated accounts, collective sensemaking, and constructing collective views” (Schulze et al., 2023, p. 558), which allowed us to uncover the timing, conditions, and actions for our flow-oriented theorizing. Based on the flow-oriented approach, we prepared a detailed focus group guide in advance which lead through the sessions (sample questions: “What circumstances led you to switch from one service to another?”; “Have you ever taken a break from [service]? If so, could you please describe your experience in detail?”). In total, we conducted ten online focus groups from May to July 2021, following the guidelines proposed by Schulze et al. (2023) and provided to us by the author team in April 2021. For the composition of the focus groups, we ensured homogeneity within each group, while focusing on heterogeneity between groups, based on the main user groups by age (see Table 1), in order to collect different perspectives on the phenomenon. Each focus group lasted 63 minutes on average and had three to five participants. All focus groups included both male and female individuals aged between 16 to 40 years. The focus groups were held in the mother language of the focus group participants (Fern and Fern, 2001), resulting in eight German- and two English-speaking focus groups. A detailed overview on each focus group can be found in Table 2.

Social media services	Focus group ID	Size	Duration	Age	Education / background
Facebook	FB1	5	71 min	18-25	University students
	FB2	5	69 min	26-35	Employees
WhatsApp	WA1	4	70 min	18-25	University students
	WA2	5	61 min	36-49	Employees
Instagram	IG1	4	133 min	18-25	University students
	IG2	4	54 min	under 18	High school students
Discord	DC1	5	76 min	18-25	University students
	DC2	3	25 min	26-35	University students and employees
TikTok	TT1	5	73 min	21-28	University students, employees, self-employed
	TT2	4	80 min	under 18	High school students

Table 2. Overview of focus groups.

3.2 Data analysis

Following grounded theory methodology, all steps in this study are iterative and highly intertwined (Birks et al., 2013; Urquhart et al., 2010) even though the data analysis is described separately from data collection. We adopt the guidelines of Urquhart et al. (2010) for the grounded theory methodology procedure of constant comparison. Each researcher analyzes every response, going back and forth to previous responses, and extending her or his memos in which initial ideas of understanding are described. Next, the memos are discussed and the interview guideline is adapted for the next focus group (e.g., refining questions to understand actions associated with social media services use and their temporality). For the coding process, we use the open, axial and selective coding techniques described by Corbin and Strauss (1990). During open coding, we analyze responses for each question line-by-line. We select the most frequent codes and contrast them against our data. While constantly comparing data and codes, we employ axial coding to move open codes to enriched higher-order categories. We conduct selective coding (Corbin and Strauss, 1990) to foreground the temporal conditions of everyday social media practices and to build a flow-oriented theory of actions (Mousavi Baygi et al., 2021), interrelating the earlier defined categories.

4 Results

In the following, we present the results of our study. We identify four flows of action, namely *adjusting*, *coextending*, *fading out*, and *intensifying*, which explain the temporal becoming of social media

practices. For each flow of action, we unravel the conditions as well as when and under what conditions actions materialize. In Figure 2 below, our coding structure provides a comprehensive way to capture all four flows of action (selective codes), the corresponding conditions of possibility (axial codes), and the timing of when actions materialize (open codes).

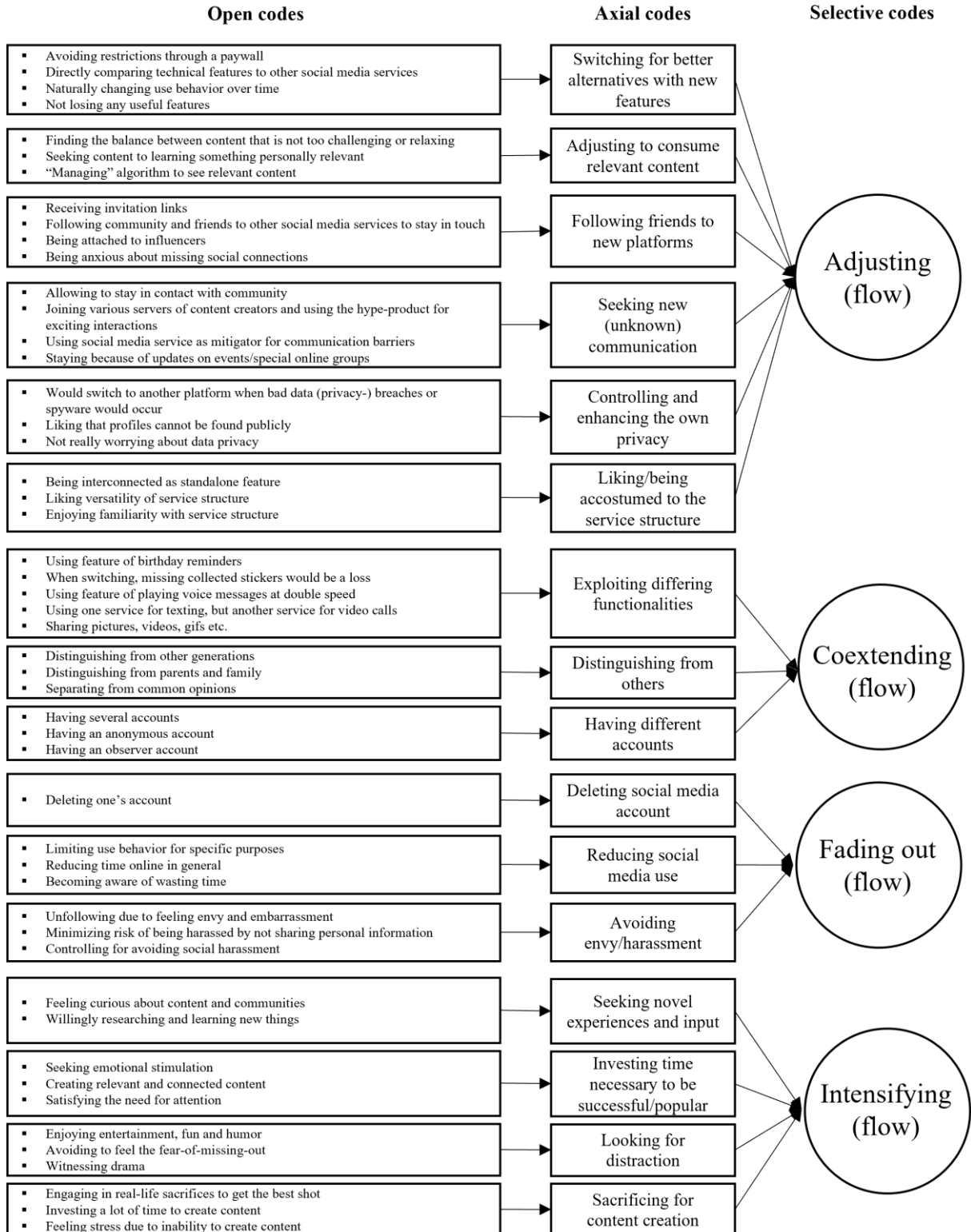


Figure 2. Coding structure.

Social media use evolves over time. Four flows of action describe the development of use over time which range from *adjusting*, *coextending*, *fading out* to *intensifying*. These different flows are enabled by different conditions which will be explained in more detail in the following subsections.

4.1 Adjusting

Adjusting refers to the flow that leads to emerging actions of reiteration and reconfiguration. Existing practices are reconsidered and adapted. Specifically, we identify six conditions which materialize this flow of action: *switching for better alternatives with new features and novelty*, *adjusting to consume relevant content*, *following friends to new platforms*, *seeking new (unknown) communication*, *controlling and enhancing the own privacy*, and *liking and being accustomed to the service structure*.

Switching for better alternatives with new or novel features refers to a constant comparing of features to others or of upcoming social media services. Such benchmarking results in, for example, the avoidance of paywalls, optimizing technical features or naturally adapting to the social media service in a behavioral manner. Not losing useful features is another important aspect that we would categorize under the search for better alternatives. Another way of adjusting use of social media services includes the *adjustments to consume relevant content* and *seeking new (unknown) communication*. Content created and consumed on a social media service can generally be associated with a certain degree of relevance to the consumer. It can range from very basic or unnecessary content to content that is specifically interesting, educational, challenging, or relaxing. Relevance may be manipulated through engaging in online groups or the “manipulation” of algorithms through behavior on the social media service itself. Furthermore, social media services serve the purpose of mitigating communication barriers, like for example enabling communication with contacts abroad. The following quotes capture these conditions:

“I would say, first of all, this insanely good algorithm. The content never stops and is always coordinated. You actually think TikTok knows exactly what you want to see and nothing is ever repeated.” (TT1; translated by the authors)

“[...] a person has deleted WhatsApp and I write with this person on Signal - because this person is very important to me and I want to communicate with him/her.” (WA1; translated by the authors)

The single most important factor to gaining value from social media services are the connections and friends to interact with. For this reason, *following friends to new platforms* is an important condition because the attachment to social relations (e.g. friends, influencers) matter in order not to miss social connections, or simply because switching services is necessary to stay in touch:

„I also got the link from friends for Discord and then joined too.” / “[...] I have noticed that many of my other friends have also switched to Discord and accordingly I now use Discord almost exclusively.” (DC1; translated by the authors)

Another reason for adjusting social media services use is the concern about personal data privacy. For this reason, *controlling and enhancing one’s own privacy* is a common condition of social media practices. Specifically, results reveal that participants would switch services because of data (privacy-) breaches or spyware. Others are not worrying about data privacy at all which appears to be a common coping mechanism. Some worry less because profiles are anonymous or cannot be found publicly.

“[...] if the privacy policy changes so much now and Discord wants to read everything that happens outside of the app on my PC, then I might consider switching to a platform that does [...].” (DC1; translated by the authors)

“[...] on Discord the profiles are rather anonymous [...] you can recognize at most maybe a profile picture and the gender or something. Unlike Facebook, that has public pictures or information [...].” (DC1; translated by the authors)

In the analysis, we recognize a strong pattern of users finding themselves *liking/being accustomed to the service structure*. This leads to continued use with sporadic adjustments. Despite switching being

unlikely for this flow condition, some criteria like continuing unreliability of the social media service structure would cause users to think about leaving the service:

“(On simplicity of using the social media service) - So I thought to myself, oh look at that, even over 80-year-olds can do it.” (WA1; translated by the authors)

“[...] that would be a reason for me, if there are any other or more frequent outages, to switch messenger.” (WA2; translated by the authors)

4.2 Coextending

Coextending describes conditions that lead to splitting actions into concurrent actions. Specifically, this flow was found from various actions of simultaneous use, whether it be the simultaneous use of different features or different social media services. This flow of action consists of three different conditions that materialize this flow of action: *exploiting differing functionalities*, *distinguishing from others*, and *having different accounts*.

The main reason for coextending the use of one social media service by the use of another one is to *exploit differing functionalities* that are offered by different social media services. Nevertheless, as represented in the quote below, users do not internally wish to have differing accounts. If one social media service would offer all functionalities, users would switch and use a single service only. Common functionalities that users seek include birthday reminders, stickers, playing voice message at double speed, or sharing gifs, pictures, and videos. Some may even use different accounts for different apps that offer different features. Therefore, *having different accounts* (anonymous accounts, or observer accounts) are phenomena that can be observed for coextended use.

“[...] for example, I only text on WhatsApp - if I want to call someone I always use FaceTime [...]. I think it works better, too.” (WA1; translated by the authors)

“I would only delete TikTok if Instagram or Facebook copied the app one-to-one so that it was just as good. Then you don't have ten different social media accounts. That's exactly the same reason why I don't use Snapchat anymore. Other apps have implemented the same feature. I don't want to use five different apps, one for this, the other for something else.” (TT1; translated by the authors)

“Well, because I wasn't using it really, [...] after Abitur, no one tagged me in any images anymore. So, it's like, okay. [...] so I only use it to like my mom's art account stuff. [...] so I have deleted it.”
(IG1)

Distinguishing from others is also an inherent characteristic of coextended use. Specifically, distinguishing from other generations, from parents and family, or distinguishing from common opinions are motives that are observed in the focus groups.

“I think the switch from Facebook to Instagram was because Instagram was just younger, because somehow the old people conquered Facebook, Instagram just appeals to younger clientele than Facebook and hasn't been so cluttered with so much advertising.” (FB2; translated by the authors)

4.3 Fading out

Fading out represents the flow of action in which activities on social media services are being continuously narrowed down until they potentially disappear entirely. In the context of social media services, three conditions that materialize this flow of action were identified: *avoiding envy and harassment*, *reducing social media use* and *deleting social media account*.

First, the condition of *avoiding envy and harassment* describes possibilities which encourage a narrowing of social media use. These possibilities encompass the unfollowing of accounts, communities, or contents due to feeling envy and embarrassment, minimizing the risk of being harassed by not sharing personal information, as well as an active controlling in order to avoid social harassment:

“Discord stands out for me because I control a bit when I interact with people and how I interact with people. When I write messages to them, when I come to them in the channel or even when I can leave the channel again if it's too much for me.” (DC2; translated by the authors)

Reducing social media use is the second condition which enables fading out. This condition is enabled by limiting the social media use behavior only for specific purposes, by reducing time spent online in general, and by becoming aware of wasting time while using social media services. An example from our data highlights this aspect:

“[...] because I'm always scared of like, wasting my time, so sometimes when I use Instagram too much I feel like I have to take a break. And also the fact that sometimes on YouTube, you see people, like influencers, being like, I took a break from Instagram, because it was really like, negative or unhealthy for me.” (IG2)

The last condition of fading out can be seen the final action: *deleting the social media account*. Already influenced by the prior two conditions, deleting one's account is as a possibility which has often been considered for a longer time. One participant explains how this possibility came into being:

“I personally once again, don't want to feel left out. So that's the only reason I'm there. I thought a bunch of times about deleting it. And I also did.” (IG1)

4.4 Intensifying

Intensifying describes the conditions under which newly evolving actions on existing platforms spread over time. Our data analysis reveals four differing conditions which lead to an intensifying flow of actions: *Seeking novel experiences and input, investing time necessary to be successful/popular, looking for distraction, sacrificing for content creation*.

The first identified condition for an intensifying flow is *seeking novel experiences and input*. Here, the possibilities to willingly research and learn new things as well to feel curious about novel content and/or communities allow that these actions reinforce themselves:

“I look at a lot of things that interest me and educate me, not even necessarily a lot of funny stuff. I think it's cool that you see things that you would never have Googled or researched directly otherwise. That encourages you to do some research and then you go back on it and find next "nugget" where you're like, Boah awesome, I didn't know that. Then it's a chain where you think to yourself, hey, I'm getting value out of this app, not just funny things.” (TT1; translated by the authors)

In contrast to the first condition, the second one enables to *look for distraction* on social media services. The identified possibilities range from enjoying entertainment, fun and humor, and witnessing drama as distractions to avoiding to feel the fear-of-missing-out (FOMO), which all intensify the action of looking for distraction. One of the focus groups participants describes the possibility of enjoying entertainment as follows:

“The entertainment, the fun, as just said. Through the algorithm, the videos then match the humor in such a way that you really immediately think to yourself: this is actually really funny. Then you can't stop using it.” (TT1; translated by authors)

Another describes how social media services use becomes material by witnessing drama:

“[...] I think I just downloaded it because of the drama, because [...] I'm curious about what's going on in other people's lives.” (IG1)

The third conditions for intensifying focuses on *investing time necessary to be successful/popular*, which applies especially to content creation. Social media services offer possibilities for creating relevant and connected content, for seeking emotional stimulation, as well as for satisfying the need for attention by creating content which is describes in the following quote of an Instagram user:

„And also, because I want people to see that I'm actually doing something with my life. Because I think I mean, I'm sure they've never been interested in what I'm doing. But now on Instagram, they have no choice. Sometimes they'll accidentally click on my story and then they'll see whoa.” (IG1)

Lastly, the fourth condition for the intensifying flow is revealed as *sacrificing for content creations*. Producing and creating content may involve several sacrifices that the content creator has to take in order to produce content. Such sacrifices may be not being able to fully enjoy a moment because they need to focus on documenting it, the time necessary to produce content of a certain quality, or potential stress if for some reason, it is difficult or not possible to create content.

"[...] but I stopped producing videos myself because it just took up way too much time. All the ideas you needed to somehow make videos - you really have to stay on track, so to be successful. Always posting new videos and it just took so much time." (TT2, B1; translated by the authors)

Overall, all four identified flows of action of social media services may become materialized at several points in time and with indefinite re-occurrence. Figure 3 represents this becoming of the four flows of actions and its implications will be discussed in the next section.

5 Discussion

Through conducting an exploratory qualitative study using ground theory methodology, we reveal the temporal conditions that lead to flow of actions of social media practices and to the allocation of time and attentionality to social media services. Based on our flow-oriented view, we come to understand that use and non-use of different social media services are not definite but are constantly evolving and appear in flows – ranging from actions of *adjusting* to *coextending* different social media practices, and to actions of *fading out* other practices whereas again different practices *intensify*. Based on this understanding, we derive a process model (Cloutier and Langley, 2020) which challenges prior actor-centered and variance-oriented understandings of social media service usage by focusing on the flows of actions which actually produce the use.

Taking our flow-oriented theorizing approach, we consider how these different paths of action relate to one another and intertwine temporally on a “kairotic meshwork”. Figure 3 aims at displaying their intertwinement graphically. Different lines represent the materialization of different flows of actions. Each line of action is induced by the conditions displayed in our result section respectively for each flow of action. Where many lines of action come together and form a knot, adjusting is actualized. This strengthening, tightening and adaptation of the knot is represented by the adjusting flow (blue). The more the six conditions (*switching for better alternatives with new features/novelty*, *adjusting to consume relevant content*, *following friends to new platforms*, *seeking new (unknown) communication*, *controlling and enhancing the own privacy*, and *liking/being accustomed to the service structure*) correspond, the more tightly the flow of adjusting materializes.

This connection to different knots from an existing knot is represented by the coextending phase (yellow), describing the conditions that lead to splitting one action into several actions. It materializes when induced by the conditions *exploiting differing functionalities*, *distinguishing from others*, and *having different accounts*.

The slow unknotting and unwinding of the knot representing the usage of a particular social media service is represented by the fading out flow (red). Actions that induce fading out include *avoiding envy and harassment*, *reducing social media use* and *deleting social media account*. Loose ends of the knot may mean the definite deletion of one’s social media account. Other ends may reach further, connecting to different or novel knots.

The intensifying flow (green) is characterized by the creation and strengthening of action flows – the prerequisite of forming a new strong knot where adjustment can take place. It is enabled by the four actions *seeking novel experiences and input*, *investing time necessary to be successful/popular*, *looking for distraction*, and *sacrificing for content creation*.

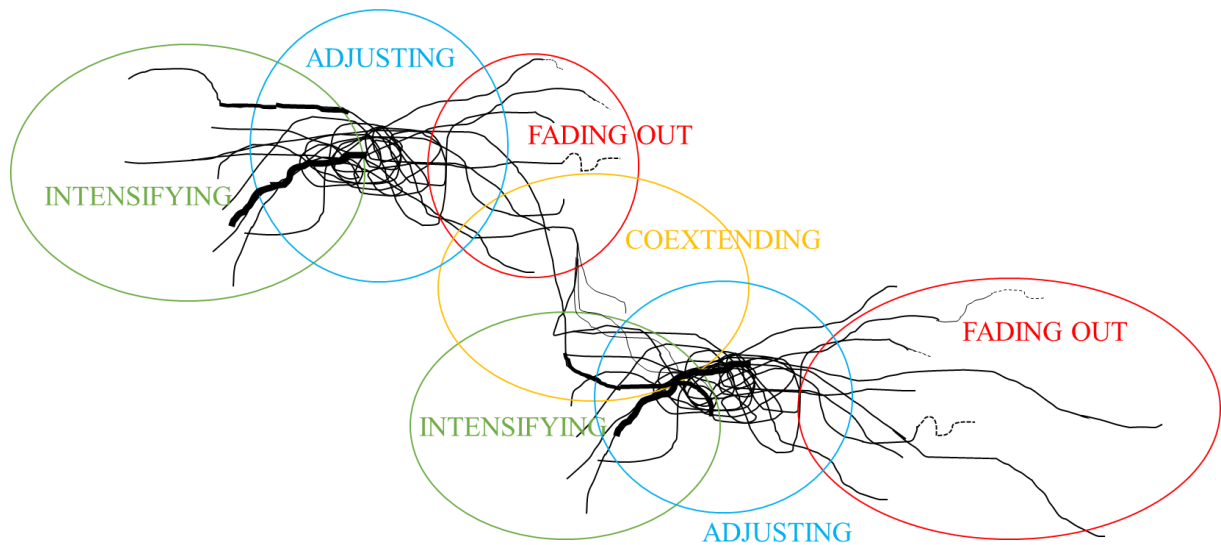


Figure 3. A flow-theoretical model of social media use.

5.1 Theoretical contribution

In light of previous research, our study moves beyond the timely and spatially bounded concepts of (dis)continuance and switching as outcomes of social media service use. Looking at the four identified flows of action individually, we can align them with our understanding of use in previous research. The *fading out* flow aligns with the literature of on discontinuance and reduced use (e.g., Oehlhorn et al. 2016; Turel 2016), but provides a more holistic and detailed view on these concepts of use. The *intensifying* flow is consistent with prior research on users' motivations to adopt social media services, as well as on technostress (e.g., Bermes et al., 2021; Krasnova et al., 2015; Osatuyi and Turel, 2020; Tarafdar et al., 2020), focusing on the conditions under which newly developing actions on existing platforms expand over time. The *adjusting* and *coextending* flows pertain to the generally sparse literature on switching behavior and parallel use (e.g., Maier et al., 2015; Polites and Karahanna, 2012). However, they capture the emergent actions of reconfiguration and reiteration, and the conditions that lead to the splitting actions of social media service use into concurrent actions, thus delineating the motivations for social media use to explain concepts such as switching and parallel use based on the timing of actions.

The theoretical contribution of this work is threefold. First, to the best of our knowledge, we are the first to provide a view of temporal becoming on social media use, based on a flow-oriented process theory. Overall, we explicate the fluidity and simultaneousness of use of different social media services that compete over an individual user's attentionality. Within this process, we view time as "kairotic" rather than chronological (Mousavi Baygi et al., 2021). Thereby, our theorizing differs in that prior work majorly focused on actor-centric variance approaches or spatial processes to explain social media service use (e.g., Maier et al. 2015b; Osatuyi and Turel 2020). Our work does not focus on social media services' users as actors but specifically concentrates on conditions that lead to *intensifying*, *adjusting*, *fading out* and *coextending* flows which open a new opportunity to understand and describe social media service use. Thereby, we contribute to the IS literature on social media service use by explaining the temporal becoming of this phenomenon. Second, in the presentation of social media use flows, we add a different perspective to the body of IS literature as we disentangle the definite states of use vs. non-use, continuance vs. discontinuance, by showing that different conditions create different flows of actions which can correspond in the same moment. We argue that intertwined relations cannot fully be understood through narrowly focusing on one aspect of switching, continuance, or discontinuance but need to be understood as several social media practices that all produce these momentous aspects. Third, we aim to provide avenues and inspiration for future research to apply the flow-oriented process theory in the context of social media service use, and to dive deeper into the subject.

5.2 Practical implications

Social media platform providers can benefit from our findings through a better understanding of the conditions of social media use. By understanding the flows of action, determining different uses of social media services, providers are able to align the provision of social media services with the needs and desires of their users. The identified conditions for the flows of actions can be used to develop strategies to attract new users and to retain existing ones. In particular, by analyzing the conditions for the coextending and the intensifying flow, social media service providers may be able to reveal new trends in user behavior. By employing the blueprint of the four flows, platform providers are given a novel means to assess their attractiveness and develop their market share. In addition, users of social media services (e.g., companies, governments, etc.) can use our results to identify strategies for decision-making (e.g., when to coextend or to intensify the use of a specific social media service) and for leveraging particular social media services to communicate to and with (potential) employees, citizens, etc., under the right conditions at the right timing.

5.3 Limitations and future research

Like any study, this study includes limitations. Despite covering a diverse range of social media services, there are more social media services that we did not yet include in our analysis, and that might add additional depth and complexity to our findings. Furthermore, looking at this phenomenon from a flow-oriented theorizing perspective might disregard important challenges of social media use. For example, external influences on flow dimensions that may exercise relevant influence on the direction of flows in social media service use are disregarded. Nevertheless, we are convinced that in choosing this perspective, we are able to create a first step towards the application of a novel view on the practices of use and non-use of social media services.

Future research may extend our exploratory qualitative study, by applying the theoretical lens to other social media services. Furthermore, the four identified flows may subject to even more in-depth inquiries of temporal becoming. So far, we focused on the relationality and temporality of social media service use. Future studies could focus on the transformation of this phenomenon by investigating attentional undergoings. Moreover, quantitative confirmatory investigations may also derive testable research models from our results, gaining an increased understanding of the directionality of different conditions of the flows of action.

6 Conclusion

This article attempts to explicate social media service use via a flow-oriented process model. For the theoretical foundation of our study, we reviewed previous literature on switching and staying behavior, technostress and considered established guidelines for flow-oriented theorizing. We built our analysis on ten focus groups with a total of 44 participants. The focus groups were conducted with a structured guideline for the discussion on the use of five currently most popular social media services. Our results posit that social media use includes four main flows of action which are namely: *adjusting flow*, *coextending flow*, *fading out flow* and *intensifying flow*.

From a theoretical perspective, the results provide an advanced view on social media service use including adjusting-, coextending, fading-out- and intensifying flows of action. In addition, we provide insights on the cyclic use and non-use of social media services. Similarly, we open up avenues for researchers aiming to contribute to a better understanding on the flow-oriented process of social media service use. From a practical perspective, our results can help managers better understand the economics of social media service use. Specifically, for improved executive decision-making, for the development of features and for the support of communities to stabilize the social media's user base.

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