

## Drug, Demon, or Donut?

### Theorizing the Relationship Between Social Media Use, Digital well-being and Digital Disconnection

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## **Abstract**

Social media overuse is a central concern in discussions over digital well-being. Digital disconnection is often presented as a solution to this problem, but mixed evidence on its effectiveness suggests we lack understanding of why, how and when disconnection works. Drawing from three recurrent social media metaphors - the drug, demon and donut metaphor - this article aims to advance understanding of social media disconnection by developing a classification of disconnective mechanisms in accordance with three conceptual approaches to social media overuse. This classification provides theory-driven support for differing social media disconnection mechanisms. We discuss its implications for practice and future research.

*Keywords:* digital wellbeing; digital well-being; social media; overuse; attention economy; diet; balance; drug; addiction; metaphor; digital harm; digital ill-being

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#### **1. Introduction**

Digital well-being is a novel concept referring to the benefits and drawbacks of 24/7 digital connectivity that people experience in their everyday life [1]. The concept gained recent popularity, in parallel with growing attention on ‘digital disconnection’—the placement of temporary limits to digital connectivity [2]. Social media are central to public debates over digital well-being and disconnection, as social media overuse is identified as a primary problem resulting from being permanently online [3]. Individuals increasingly address this problem with disconnection, such as taking breaks from social media or using apps to limit social media access (e.g., [4,5]). To date, however, evidence concerning its effectiveness is inconclusive [6], suggesting that we lack understanding of how, when, and why it works.

This article aims to advance the nascent field of digital well-being and disconnection research by structuring disconnection mechanisms in accordance with three conceptual approaches to the problem of social media overuse. To achieve this, we first conceptualize social media overuse and discuss recent evidence on the effectiveness of social media disconnection for mitigating adverse effects on well-being. Next, we introduce three metaphors for social media - social media as a drug, demon, and donut - and explain how each metaphor represents a conceptual approach to understanding the problem of overuse, from which relevant social media disconnection mechanisms can be deduced. We conclude by discussing the implications for practice and future research.

## 2. Social media overuse and social media disconnection

### 2.1. Social media overuse

We define social media as “computer-mediated communication channels that allow users to engage in social interaction with broad and narrow audiences in real time or asynchronously” [7, p. 316]. Social media are the most frequently used applications on smartphones, taking up most of our smartphone screen time [8]. Despite the various benefits associated with their use, however, people often villainize their constant presence in life [3]. A dominant theme is *social media overuse*, or the experience of using social media too much. This experience is common in Western, industrialized societies: In the US, 51% percent of teens and 23% of their parents find that they spend too much time on social media [9]. In the UK, a majority of teens (about 73%) find that social media distracts them from their homework and 54% indicate that these platforms interfere with their social interactions [10]. In Flanders, Belgium, 63% of adults indicate that social media use takes up too much time [11]. These experiences exemplify that concerns about the *quantity*, that is, the duration and frequency of social media use, are not a fringe phenomenon. Experiences of time displacement, interference, and overload represent a real problem that people experience in relation to the constant presence of social media in their lives.

### 2.2. Social media disconnection

Given the above experiences, it is unsurprising that digital disconnection is suggested as a way to address social media overuse (e.g., [4,5,12,13]). As for its effectiveness, however, the evidence is mixed. A recent systematic literature review of 12 randomized controlled trials (RCTs) found positive, negative, and null effects of disconnection social media interventions on subjective well-being [6]. Additional studies corroborate these findings, revealing both non-significant [14,15] and positive [16,17,18] effects of social media disconnection. As Radtke et al. [6] conclude, the great variety in interventions, ranging from

short to multi-week digital detoxes (e.g., [14]), to disabling notifications [19] and setting daily screen time limits on the most time consuming apps (e.g., [15]) makes it difficult to evaluate the available evidence. After all, it remains unclear which mechanisms these interventions speak to, and how they approach the problem of social media overuse.

### 3. The Drug, Demon, and Donut Metaphor

To uncover how, why, and when different social media disconnection interventions affect well-being, we need to identify the mechanisms on which they are based. A theoretically informed classification of disconnection practices and how they approach the problem of social media overuse may be of help. To organize our classification, we present three metaphors for social media - as a drug, demon, and donut - that appear in public discourse and academic literature and approach each metaphor with three questions:

- (1) What is the root cause of social media overuse?
- (2) What does this cause reveal about ‘user agency’?
- (3) How might social media disconnection address this cause?

We use these questions as building blocks to classify the diverse concepts that have been used to study and describe instances of social media overuse (e.g., social media addiction, social media fatigue) and practices of disconnection. Table 1 summarizes our classification, while Table 2 unpacks different problems in relation to social media overuse and the suggested digital disconnection mitigation strategies.

[Insert Table 1 and 2 about here]

#### 3.1. Social Media as a Drug

The drug metaphor dominates discourse that approaches the problem of social media overuse as a problem of ‘addiction’. In this discourse, social media are compared to drugs<sup>1</sup>

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<sup>1</sup> We should note that addiction researchers consider technology addictions *behavioral* rather than *substance* addictions. Both theoretically and practically, it would therefore be more valid to compare social media to gambling. Nonetheless, in public and popular scientific discourse, the drug analogy is highly prevalent, presumably at least partly because of the similar conceptualization of behavioral and substance addictions.

because they get our brains “hooked on the neurotransmitter associated with pleasure”, namely dopamine [20]. The drug metaphor points towards neuro-behaviorist models to explain why individuals lose control over technology use [21]: The human brain’s capacity for behavioral inhibition fails, mainly because of deficits in decision making processes (e.g., [22]). The root cause of social media overuse is thus a impairment that may ultimately develop into a social media disorder—with symptoms indicative of a behavioral addiction, such as *preoccupation, tolerance, withdrawal, persistence, escape, problems, deception, displacement, and conflict* [23]. This is distinct from “passionate use” (where individuals may use social media more than they expected to), yet aligns with other concepts such as *problematic use* (maladaptive cognitions and behaviors related to social media use resulting in significant negative consequences) and addiction - an official pathological condition recognized the American Psychiatric Association where issues pertaining to etiology, comorbidity, and treatment are clear (see also Table 1; [23, 24]).

The drug metaphor’s emphasis on neuro-biology limits the agency of individual users, as it comes with an implicit assumption that some people suffer from executive control deficits that simply make them more at risk (cf. [25]). These potentially innate susceptibilities can be detected and therefore serve as markers with which populations or persons-at-risk can be identified (e.g., [26,27]). For instance, research hints towards impulsivity [23] and low inhibitory control [28] as risk factors.

In terms of digital disconnection, this ‘differential susceptibility approach’ (cf. [29]) to social media overuse implies that users need to counteract their deficiencies. Similar to drug or alcohol abstinence, longer-term digital detox interventions are touted as a key solution [6], assuming that they allow the brain to “reset its dopamine balance” [20]. However, social media detoxes show limited effects [14]. In a recent RCT, Turel [30] found that a brief period of abstinence from social media is only effective in restoring (perceived)

agency over social media use among users with high cognitive reflection tendencies, suggesting that the very susceptibilities that may lead social media overuse limit the success of detox interventions. An alternative are treatments that focus on retraining the brain in an attempt to remedy executive functioning deficits, for example, by strengthening individuals through cognitive behavioral therapy (e.g., [31,32,33]). However, such treatment methods are also in doubt as a recent meta-analysis finds them largely ineffective [34].

### **3.2. Social Media as a Demon**

A second metaphor compares social media to a ‘demon’ or ‘monster’ that needs to be ‘tamed’ or ‘fought’ (e.g., Ben Spring’s webinar “[Taming social media - Before it eats us alive](#)”). The demon metaphor emphasizes social media platforms’ addictive design, which constantly draws users’ attention and keeps them engaged. The root cause of social media overuse is thus the persuasive design of these digital environments, which ‘enslaves’ us by eliciting patterns of habituation over which we no longer have conscious control [1]. Research based on this understanding has studied social media overuse as impulse-response behavior, visible in concepts such as habitual social media use (for an overview, see Table 1).

In terms of user agency, the demon metaphor makes social media platforms complicit to social media overuse: They are agentic in the sense that they capitalize on human weaknesses. Support for this hypothesis can be found, among others, in experimental research showing that the mere visibility of a smartphone elicits experiences of vigilance and distraction, especially when paired with receiving notifications [35], and that - irrespective of their predispositions - users show spontaneous approach reactions to social media cues [36].

From the perspective of the demon metaphor, there is a strong emphasis on the need to re-claim agency over their social media use, which opinion leaders such as Eyal [37] even frame as ‘our responsibility’. Successful digital disconnection, then, requires ‘taming’ the technology, a process that involves a combined action: Users can adjust their technological

environment to remove or incapacitate ‘addictive features’ like smartphone notifications (e.g., [38, 39]). On the other hand, they can implement alternative technologies and features: screen time apps, for example, offer support by setting limits to which social media applications can be used when, and for how long [40,41,42]. Recent survey research suggests their use is beneficial in preventing harmful effects on well-being [43]. Conversely, experimental research indicates that while these tools are appreciated for raising awareness and are effective for cutting back time spent on targeted apps [44], effects on longer-term behavior change and on well-being are limited (e.g., [15,45,46]).

### **3.3. Social Media as a Donut**

Finally, the ‘digital diet’ metaphor, draws analogies between (social) media and (unhealthy) foods, such as donuts (e.g., <https://digitalcitizenacademy.org/social-media-diet/>). Akin to how food choices are evaluated against characteristics of the person and the situational context, the ‘digital diet’ metaphor emphasizes that social media *overuse* occurs when the behavior is inadequate (i.e., quality) and disproportional (i.e., quantity) to the person and the context. The diet metaphor thus invokes a shift from understanding social media overuse as an experience that can be measured in absolute terms of quantity and quality [47] to one that needs to be understood and evaluated situationally [1,48], while also accounting for person-specific mechanisms and manifestations [49,50,51]. The situatedness implies that social media overuse experiences may manifest momentarily, in the form of cognitive, affective and behavioral states such as social media fatigue [52] and digital stress [53,54] that depend on person-, technology- and context-specific factors. For example, users may experience social demands, such as the expectation of others to be available via social media [55]. Whether these lead to experiences of availability pressure and availability stress is assumed to depend on people’s internalization of the availability norm and their *situational*



*coping resources* [53,56]. An overview of concepts that approach social media overuse from this contextual point of view can be found in Table 1.

This approach recognizes that users' agency to make adequate choices depends not only on their capacity to regulate and navigate social media use in line with their individual dispositions (e.g., to experience enjoyment during social media use; [51]), but also on their capacity to manage the situational, social, and institutional contexts in which their social media use is embedded. For instance, users need to balance short-term benefits of using social media and perceived availability demands with potential longer-term drawbacks of neglecting other goals ([56,57]); otherwise they risk perceiving their social media use as self-control failure, which can trigger feelings of guilt [58,59].

With respect to digital disconnection, the analogy between social media and food implies that within-person processes, situational appraisals, and coping resources of individuals are brought into focus. For instance, in recognition of the fact that different social contexts carry different norms, we see locative disconnection practices where technology non-use is linked to a physical place, for instance a smartphone ban in school buildings [60]. Also, mindfulness trainings are suggested to help raise awareness about (person-specific) challenges arising in the context of social media use, such as receiving many smartphone notifications, and how to cope with them [61,62,63].

#### **4. Conclusion**

The drug, demon, and donut metaphor shed light on how social media overuse is approached in public and scholarly debates, each drawing emphasis to particular areas of consideration. While the drug metaphor alludes to individual susceptibilities and deficits, the demon metaphor emphasizes the design of social media platforms, and the diet metaphor points to temporal, geographic, and socio-cultural contexts.

We argue that each of these approaches to the problem of social media overuse is useful: The drug metaphor is directly relevant to users who have severe and persistent problems controlling their social media use - sometimes to the extent that they require a clinical intervention. Validated scales for assessing social media disorders, for instance, offer these users and their social environments clear diagnostic criteria and can reveal susceptibilities. But the metaphor is also theoretically and practically relevant beyond this group, as many users experience some impairment in their agency over their social media use. After all, navigating through media-saturated environments constantly reminds individuals of the opportunity to use social media [64]. The demon metaphor helps to explore how users can reduce or overcome such social media temptations in their daily lives, using technical and non-technological solutions that impact on impulse-response behavior. Finally, the donut metaphor provides an even broader picture of challenges that social media users face by taking into account the personal nature and situatedness of social media use and overuse. This implies that there is no “one-size-fits-all” recommendation for disconnection. Rather, person-specificity and situational influences must be assessed in a methodologically appropriate way (e.g., using diary or experience sampling methods [66,52], which are increasingly - but still too rarely - implemented (e.g., [49,66,67])).

Combined, the metaphors reveal how understandings of social media overuse are grounded in different, yet concurrent underlying assumptions about root causes of the problem, which may in turn explain which disconnective solutions are effective. We hope that our classification not only systematizes previous research, but also provides a foundation for future research on digital well-being and disconnection. Our classification may advance the nascent field of digital well-being and disconnection research by serving as a basis for hypothesis-driven research that teases apart which interventions activate which mechanisms, and how effective they are for mitigating problems of social media overuse. The use of

innovative (computational) social science methods may be relevant in that regard to engender new theories through quantification of individuals' use of social media [68] that account for the person-specific and situated nature of media behavior.

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**Table 1**

*Illustrative (non-exhaustive) overview of concepts used to study and define social media overuse*

<b>‘Social media overuse’ concepts</b>	<b>Definitions</b>
<i>Problem use concepts (drug metaphor)</i>	
Social media disorder	Disordered use of social media [23]
Problematic social media use	Addictive tendencies to use social network services, encompassing compulsive use and experiencing negative consequences [24]
Social media addiction	Addiction to social media use (e.g., Facebook; [68])
<i>Impulse-response concepts (demon metaphor)</i>	
Checking habit	Tendency to automatically check the smartphone [48] or specifically social media [71]
Social media distraction	Difficulty maintaining attention and staying focused related to social media use [69]
Automatic social media use	Behavioral schema that unconsciously guides individuals to use social media when they are confronted with social media cues like a Facebook logo [36]
<i>Contextual overuse concepts (donut metaphor)</i>	
Social media fatigue	“a user’s tendency to back away from social media participation when s/he becomes overwhelmed with information” [52, p. 148]
Digital stress	“stress resulting from a strong and perhaps almost permanent use of information and communication technology [...] triggered by permanent access to an inconceivable amount and diversity of (social) content” [72, p. 237]; Steele et al. [54] specified four components of digital stress, namely availability stress, approval anxiety, fear of missing out, and connection overload
Social media self-control failure	Conflicts between social media use and other goals or values [70,71]

Messaging guilt

Guilt that arises when users evaluate incongruence between their messaging behavior and their personal goals or norms [58]

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Table 2:

Overview of three different problems in relation to social media overuse and the suggested digital disconnection mechanisms that may mitigate them

	Social Media as a Drug	Social Media as a Demon	Social Media as a Donut
<i>What is at stake?</i>	Addiction/health	Distraction	Well-being
<i>Root cause of problem</i>	Individual susceptibility	Addictive design	Inadequate fit
<i>User agency</i>	Agency is limited due to innate susceptibilities	Agency needs to be reclaimed from social media platforms	User has agency, but it is challenged by person-, technology- and context-specific elements
<i>Focus of disconnection</i>	Complete abstinence, re-training of the 'faulty brain' to break the dopamine link	Removing/weakening the distracting potential of tech, using persuasive design to support exerting social media self-control	Disconnection interventions tailored to persons and/or contexts to 'optimize the balance' between benefits and drawbacks of connectivity, mindful use
<i>Digital disconnection examples</i>	Digital detox, cognitive behavioral therapy	Muting phone, disabling notifications, putting phone in grey-scale, using apps that reward abstinence (e.g., Forest)	Locative disconnection, disconnection apps that extensive tailoring to persons and contexts, mindfulness training