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An Intimate Relationship – Exploring Users' Feelings and Frustrations Towards Digital Technology Using the Love and Breakup Letter Method

Abstract. Mapping emotions related to online technology in terms of digital well-being and technology stressors show the ambivalence that connects users to online platforms and technology. However, there is little empirical research about users' motivations and frustrations. Using the Love and breakup letter method provides the opportunity to explore personal feelings and experiences in order to gain access to the ambivalent feelings. Thirty-nine letters were written in three focus groups. Focused on the feelings towards technology, participants' motivations and frustrations, despite the overall positive attitude, the presence of many social media stressors and the near complete lack of coping strategies are revealed.

Keywords: digital well-being; self-determination theory; social media stressors

> Nowadays, in the age of extensive, ubiquitous digital devices and media technology and the affective economy, more than ever before they repeatedly touch, feel, hold, carry, caress, press, thumb, drop, scratch, protect, steal, remember and forget these things.
> (Garde-Hansen & Gorton, 2013, p. 42)

Introduction

Living within the complexities of our information and media ecosystem is increasingly challenging for many people, not only at the technological level, but in terms of emotions and attitudes also. "The Paradox of technology" refers to the duality that these devices and systems provide previously unimaginable freedom on one hand, but they can result in overuse, addiction and many other digital harms (Barnes et

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al., 2019; Mick & Fournier, 1998); supports autonomy by its omnipresence, and, at the same time, challenges it by distracting users' attention (Vanden Abeele, 2021). Users hardly disconnect, and often feel a constant online presence as a burden, and the relation to digital devices and content is ambivalent (Ytre-Arne et al., 2020). The same affordances that make digital devices and platforms attractive to users are what leads to stress, frustrations and loss of control (Jansson, 2018).

The aim of the study is to reveal the ambivalence users feel by using digital technology, with a focus on the concept of digital well-being, collecting users' motivations and frustrations by a qualitative research method.

Theoretical background

The balance of advantages and disadvantages, benefits and harms that people experience in connection with a continuous, twenty-four-hour online presence can be expressed with the concept of digital well-being (Vanden Abeele, 2021). A unique and particularly important feature of that concept is that it regards both the advantages and disadvantages of time and activity spent online, in contrast to previous approaches that mainly focused on harms or negative effects, as digital technology was often characterized as a phenomenon inherently dangerous (Orben, 2020). This neutrality appears even in the earliest definition of digital well-being: "the impact of technologies and digital services on a person's physical, mental and emotional health" (Betham, 2015).

Accepting the positive effects does not ignore or diminish the significance of the harms caused by digital technologies. That is why digital well-being is described as a complex phenomenon, that considers basic emotions (such as happiness or anger), satisfaction with certain areas (e.g. their relationships or work) and their general life satisfaction in a social environment, which is characterized by a constant abundance of digital media use opportunities (Büchi, 2021). However, digital well-being is not reduced to the problem of the excessive use of digital media, rather, it "recognizes that we live in a deeply mediatized world" (Vanden Abeele, 2021, p. 939.) The concept of digital well-being is not connected to clinical evidence of "ill-being" (Vansteenkiste & Ryan, 2013). On the contrary, the continuous presence of digital media changes the way people live, and this media reliance seems normal (Fast, 2021).

In order to outline a possible connection between digital technology and user's well-being, self-determination theory is frequently used (Peters et al., 2018; Peters, 2022). Self-determination theory describes a set of requirements related to well-being with the presence or absence of the three basic needs (competence, autonomy, relatedness) (Ryan & Deci, 2000, 2017). According to self-determination theory, it is crucial to treat need satisfaction and need frustration separately, which helps reveal and investigate ambivalences: in a certain life situation, one can experience both

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satisfaction and frustration at the same time. The reason for treating frustration as a separate concept is that it involves the active threat of psychological needs (rather than the mere lack of need satisfaction). Frustration always comes from the environment, which actively prevents, blocks the satisfaction of needs (Chen et al., 2015).

In order to understand how and when digital technology use leads to well-being, various digital media frameworks were recently created (Vanden Aabele, 2021; Büchi, 2021; Peters, 2022; Schneider et al., 2022.). The Model of Mobile Media Use and Need Experiences (Schneider et al., 2022) places the main emphasis on basic needs and frustrations, in connection to given mobile media demands (device- or media content related stimuli). The sense of well-being according to the model is moderated by a person's individual orientation, what they describe with the concept of sense of coherence (mindfulness, self-control, meaningfulness), which helps people cope with the possibly frustrating media stimuli (such as information overload, the need of constant online presence, the frustrating errors occurring while using technology).

In order to examine digital well-being, a dynamic framework is needed (Vanden Abeele, 2021), regarding different (person, device, and context-specific) factors. The exact nature of digital well-being practices can vary among individuals (Gui et al., 2017), as it depends on who we are, how we live, think, behave while using online technology. That is why the core of this research is the examination of person-specific factors: need satisfactions and frustrations, and states directly related to digital well-being experiences (affective appraisals of digital connectivity).

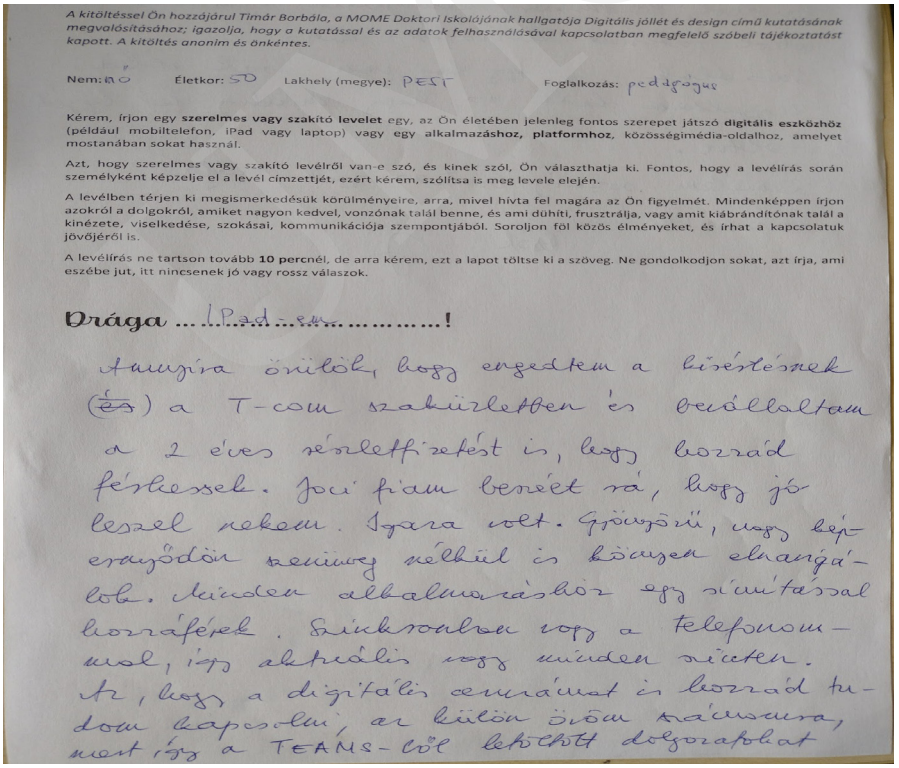
Materials and methods

The love/breakup letter method was created in 2009 by a design consulting company called Smart Design (Martin & Hanington, 2012). The essence of the method is to ask participants to imagine a device or service as a person and write a love or breakup letter to it. In the UX research, this method is used to understand what participants like/dislike about a website or a digital device or application, to understand user's choices, develop user engagement and brand royalty. The method is used for example, to map young women with diabetes type A's attitude towards medical devices (McCarthy et al., 2017), or to understand translators' technology acceptance and the obstacles using digital tools (Ruokonen & Koskinen, 2017), or about medical education (Laughey et al., 2021). The differences before and after the COVID-19 pandemic in people's relation to their mobile phones was examined using the love and breakup letter method (Terzimehić et al., 2022), with a human-computer interaction approach in order to identify users' emotional relation to different smartphone roles.

Using UX research methods seems meaningful in order to observe user's relations to digital technology in a general way. User's relation to digital media devices is often very close, even intimate. The love and breakup letter method plays with these feelings

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while users personalize the object of the letter. Using pen and paper help participants keep a distance, and focus on their general feelings through their own "love story". Letting participants write a love letter to their smartphone is a relatively open form of collecting qualitative data that is enriched with people's personal experiences and feelings (Martin & Hannington, 2012). They also add that the method is especially useful for usability research, where it reveals the kind of emotional relationship people have with their technological device. This method enables the researcher to receive an in-depth description of emotional experiences. Also, it allows open qualitative data collection and thus provides rich data for this exploratory research. As feelings are not expressed in the context of interaction with the researcher, so they can more honestly express their positive or negative feelings (McCarthy et al., 2017). Asking about the user's experience on "behaviour", "communication" and "knowledge sharing" helped participants put themselves in the role of the lovesick or disappointed lover.



A kitöltéssel Ön hozzájárul Timár Borbála, a MOME Doktori Iskolájának hallgatója Digitális jóllét és design című kutatásának megvalósításához; igazolja, hogy a kutatással és az adatok felhasználásával kapcsolatban megfelelő szóbeli tájékoztatást kapott. A kitöltés anonim és önkéntes.

Nem: ~~Nő~~ Életkor: 50 Lakhely (megye): PEST Foglalkozás: pedagógus

Kérem, írjon egy **szerelmes vagy szakító levelet** egy, az Ön életében jelenleg fontos szerepet játszó **digitális eszközhöz** (például mobiltelefon, iPad vagy laptop) vagy egy **alkalmazáshoz, platformhoz**, közösségimédia-oldalhoz, amelyet mostanában sokat használ.

Azt, hogy szerelmes vagy szakító levélről van-e szó, és kinek szól, Ön választhatja ki. Fontos, hogy a levélírás során személyként képzelje el a levél címzettjét, ezért kérem, szólítsa is meg levele elején.

A levélben térjen ki megismerkedésük körülményeire, arra, mivel hívta fel magára az Ön figyelmét. Mindenképpen írjon azokról a dolgokról, amiket nagyon kedvel, vonzónak talál benne, és ami dühíti, frusztrálja, vagy amit kiábrándítónak talál a kinézete, viselkedése, szokásai, kommunikációja szempontjából. Soroljon föl közös élményeket, és írhat a kapcsolatuk jövőjéről is.

A levélírás ne tartson tovább **10 perc**nél, de arra kérem, ezt a lapot töltse ki a szöveg. Ne gondolkodjon sokat, azt írja, ami eszébe jut, itt nincsenek jó vagy rossz válaszok.

Drága ...IPad-em.....!

Annyira örülök, hogy engedtem a biztatásnak (~~és~~) a T-com szaküzletben és beváltottam a 2 éves részletfizetést is, hogy boldog féléveket. Jani fiam beszélt rá, hogy jó lesz velem. Igaza volt. Gyönyörű, vagy képernyőd nélkül is hihetetlen elhanyagolt. Minden alkalmazáshoz egy számítással hozzáférek. Szinkronban vagy a telefonommal, így aktuális vagy minden percben. Az, hogy a digitális emlékeket is boldog tudom kapcsolni az életem számára, mert így a TEAMS-ből lehívott dolgozatokat

Figure 1. Love letter manuscript

Source: Author's photo.

The data collection took place in person, in three focus groups, on paper, based on verbal instructions and a detailed description printed, followed by a place for the

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letter, starting with a salutation. During the session, after a short conversation about media use, the participants prepared the written material taking roughly twenty minutes. Live presence and using a paper and a pen instead of online participation gave the opportunity for keeping a distance and self-reflection.

The detailed instructions highlighted that participants were free to choose any device or platform whether they wrote a love letter or a break-up letter. Pilot research revealed that, regardless of the title and direction, the participants actually describe their multifaceted interactions with the digital media environment in these texts, which thus offer a suitable basis for the analysis. Even love letters contain imprints of negative feelings and frustrations, while breakup letters emphasize positive aspects also. In both cases, hidden and often contradictory feelings were revealed. Participants were asked to write about their experience on "behavior", "communication" and "knowledge sharing", in order to help them personify the subject, also, to keep in line the content.

Certainly, it is unclear whether the final letters actually represented the participants' true thoughts and feelings, or the amount of the elements of fiction. However, even if the narratives of the participants are fictional, they seem to have a real core, as the stories should be seen as reactions to real life events and facts. Using fiction in order to observe lived experience seems to have relevance: "social processes not easily studied in their natural settings or in the laboratory may be more readily observed through fiction" (Gaenslen, 1982, p. 340, as cited by Hemmings, 2018, p. 2); even if narratives are fictional, they have a true core, thus the stories should be interpreted as reactions to real life experiences (Polkinghorne, 2007).

Results

A total of 39 evaluable texts were created in the three groups, from three lines to almost one page. The sample was formed of three different occupation groups: primary school (5–8th grade) teachers, foster parents (as fulltime job), and social care workers (working with seniors). Participants form a group that is similar in terms of gender, age, education, income and the level of digital literacy. They are mostly women (37 out of 39), 45–60 years old (32; 4 younger, 3 older). Based on their profession, many of the participant had no higher than secondary education. All these jobs are low-paying. Socio-economic status (education, employment, income) has a significant impact on Internet use, and people with lower level of socio-economic status use it in a more general, less productive way (Van Deursen & Van Dijk, 2014). According to the open database of the Hungarian Census from 2022, digital media activities (watching videos or reading texts online, communication online, shopping and transactions online, or the use of text editing programs) decrease by age and education level. This could explain a common characteristic of the participants; that they spend relatively little

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time on online platforms, and online administration, shopping or banking as an online activity do not appear in the texts. For them, these interfaces are not interesting; online technology does not play a central role in their lives as revealed by their texts and the discussions in the writing sessions. As it turned out, some of the participants were not even used to expressing their thoughts in writing, so these texts were often very short and not structured, however, all texts eventually provided information.

Typically, more people chose a "neutral" or symbolic platform like Myvip, which is a Hungarian social media platform, most popular in 2006–2009, not been used for years, the "internet" itself, or "Esemes", that refers to the Hungarian pronunciation of SMS, that in this case symbolized all digital media (written in the style of a game of words).

Love and breakup letters are roughly equally distributed, but overall positive attitude is higher, as a separate category was formed of "replace" letters, where the breakup with a specific object (mobile phone, laptop) is broken up in order to replace it with a new one, or Facebook was changed to Instagram.

Table 1. Distribution of letter types

love	18
breakup	15
replace	6

Source: Author's own study.

It does not make any difference what device or platform love letters or breakups are designed for, the distribution is almost balanced.

Table 2. Distribution of letter types and subjects

	Love	Breakup	Replace
laptop	2	1	1
Facebook	4	3	1
Angry Birds		1	
mobile phone	9	6	4
tablet/iPhone	2		1
MyVIP		1	
Instagram		1	
"Esemes"	1		
internet		1	

Source: Author's own study.

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Participants completed the task with a sense of humor and imagination, keeping the formulas of a love letter (salutation, farewell, declaration of love and announcement of breakup.)

In these confessions, importance of the physical, intimate, sensorial, tactical relation to digital devices appears. Letters mention "curvy forms", caress, "trembling fingers", even a *rendez-vous* in the evening on the sofa in the living room. Mentioning intimacy is important, because in a human-computer interaction, especially with laptops and touch screen devices, the user receives feedback on these devices mainly by touching them, which evokes these intimate figures of speech (Garde-Hansen & Gorton, 2013.)

In terms of basic feelings and concepts related to the connection to the chosen device or platform, the most frequent quote formulated the realization that the device or platform is a *partner* (20 mentions) who provides *support* (14 mentions). The most common positive feeling was *gratitude* (10 mentions), of the recipient's availability, help in organizing the writer's life, or finding a new hobby, giving information, supporting personality development, participation in important life events (e.g. partying). Most frequent negative feelings beyond different types of frustrations were *annoyance* (6 mentions) and *anger* (5 mentions), mostly because of the device not functioning properly. These feelings are highly connected to techno-tension which seemed the most frequent type of frustration. *Ambivalence* (9 mentions) appeared in terms of fun and anger, gain and waste of time, love and annoyance about important news and irrelevant advertisements, or focus and distraction.

Although most of the texts focused on the feelings that the digital technology evokes in users, basic psychological need satisfaction and frustration that many people feel while facing technology also appeared.

Table 3. Mentions of basic psychological need satisfactions and frustrations

relatedness satisfaction	20 mentions
autonomy frustration	14 mentions
competence satisfaction	9 mentions
connectedness frustration	9 mentions
competence frustration	7 mentions
autonomy satisfaction	0 mentions

Source: Author's own study.

Relatedness satisfaction seems the main motivation of using these technologies, along with competence satisfaction that mostly refers to how technology makes life easier, in connection to most frequent positive mentions: partnership, support and gratitude. What frustrates participants the most, is the loss of their autonomy, especially in connection with the advertisements, ever-changing newsfeed, constant updates and notifications that distract the user. Notably, autonomy-satisfaction was

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not present at all. Relatedness frustration also appeared revealing the paradox of online connections that cannot replace real-life connections.

Observing technology-related frustrations, the concept of technostress was used, which refers to a negative psychological state associated with the use of new technologies which leads to anxiety, mental fatigue, skepticism and a sense of ineffectiveness (Brivio et al., 2018; Salanova et al., 2014; Szondy, 2019). All three subdimensions of technostress could be identified. *Techno-anxiety* refers to the fear related to the use of various technological devices, due to uncertain outcomes. In the love stories, techno-anxiety appeared in the users' first steps to engage with new technology (3 mentions). *Techno-addiction* (8 mentions) is the inability to detach from technological devices. Participants easily connected this feeling to love, talking about how they cannot wait to see each other again; two of them used the metaphor of slavery. From the three subdimensions, *techno-tension* appeared most often (11 mentions); the stress related to the use of new technologies was one of the main reasons for "breakup". Participants reported about small internal memory, no connection, charging issues, loss of data, and slow loading speed.

Through these device-related stress factors, previous literature review identified nine social media stressors (affective appraisals of digital connectivity) (Alutaybi et al., 2020; Colliot, 2022; Freytag et al., 2021; Hall et al., 2021; LaRose et al., 2014; Reinecke et al., 2017; Talwar et al., 2019; Walsh et al., 2018; Wolfers & Utz, 2022); all of them appeared in the texts, as main reasons for "breakup".

Table 4. Register of social media stressors with examples

Digital distraction	use of digital technology interferes with an individual's ability to concentrate on a particular task, may causes decrease of concentration	10 mentions	"But I would prefer to leave you because of your constant, intrusive presence"
Information overload / Social media fatigue	mental fatigue and loss of interest due to too much available information and data	6 mentions	"I'm less and less interested in your news feed"
Attention overload	mental fatigue caused by too many stimuli, manifests in a decrease of attention and concentration	6 mentions	"The number of people I knew just grew, and with them grew the number of the posted Sauerkrauts, and the burdensome, every-minute, unsolicited never-ending appearances"
Connection overload	social media presence, receiving information online, messages, and updates create internal demands that lead to anxiety	9 mentions	"I don't have a minute to spare, I keep getting some voice mail or notification"

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Approval anxiety	the increased need for self-representation in social media can create uncertainty in the individual about how others reactions, acceptance, and possible reactions	5 mentions	"You took away my self-confidence, because the constant posts of others who are better than me, I now think that no one needs me"
Nomophobia	abbreviation for "no mobile phone phobia", anxiety and pathological fear of losing, draining or breaking the mobile phone	3 mentions	"Now we've gotten to the point where if you're not with me or I can't find you, I start to fear what will happen if I need you!"
FOMO	fear of missing out refers to the worry of not being able to see and respond the online content and other people's interactions in time	5 mentions	"You no longer show me the cute things of my friends, except very rarely"
Online vigilance	the special importance of the stimuli available through online technology, the individual's mind is always on online happenings and events, and reacts to them immediately	4 mentions	"I check my phone every minute"
Availability stress	the need for constant availability, the expectation some online platform users place on themselves	3 mentions	"At the beginning of our relationship, I loved hearing your voice, but now when I hear it, hair stand up on my back"

Source: Author's own study based on (Alutaybi et al., 2020; Colliot, 2022; Freytag et al., 2021; Hall et al., 2021; LaRose et al., 2014; Reinecke et al., 2017; Talwar et al., 2019; Walsh et al., 2018; Wolfers & Utz, 2022; research data).

The texts also provided information on what kind of coping strategies individuals use (sometimes in an unconscious way) in order to reduce stress and anxiety caused by technology. Four strategies were identified, previously known form literature, such as digital detox (Radtke et al., 2021) – the expression itself was no mentioned, only the goal of being a bit apart, take a break, and participatory reluctance (Cassidy, 2016) as personal understanding of media ambivalence and the lack of choices, but only few participants even mentioned them. Awareness as a coping strategy involves deeper understanding of digital media's effects on a person, higher emphasis on being offline even if it is harder to communicate with others, and reducing media use to meaningful interactions. No new, previously unknown method of coping was revealed.

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Table 5. Coping strategies with examples

Digital detox	a kind of periodic deprivation, a "fast", in order to reduce the individual's stress level related to technology	4 mentions	"I'm gonna have to learn to get along without you for a while"
Participatory reluctance	the ambivalence users feeling online; (users' relationship with certain technologies is more complicated than simply abandoning it if they find it inconvenient)	2 mentions	"I love you, although it often annoys me that you display different content and advertisements after a spoken, memorized sentence, but I forgive you, because my love is eternal for you"
Awareness	recognizing illusions related to social media, keeping a conscious distance, lessons learnt	3 mentions	"I faced many challenges, sometimes negative ones, which I stored as lessons"
Offline activities	Introducing new, offline activities into everyday life, connecting to people offline	6 mentions	"I decided to end our relationship nicely and to focus on reading and coloring. Good bye!"

Source: Author's own study based on (Radtke, et al., 2021; Cassidy, 2016; research data).

Conclusions

Asking users' relations to online technology in terms of digital well-being and technology stressors shows the ambivalence that connects users to online platforms and technology.

The balanced ratio of love and breakup letters, and of positive feelings and frustrations also explain why there is a lack of effective personal interventions and coping strategies against online harms. Using a broader concept of reluctant behavior (Westin & Chiasson, 2021) explains why it is hard to convince people to break up with "bad habits", or using preserving technologies or methods. Ambivalence has to be acknowledged: the problems experienced while using digital technology are inherent. Digital well-being is a matter of "optimizing ambivalence"; the ability to achieve the greatest possible amount of pleasure, in a controlled way, with the greatest possible functional support (benefits); accompanied by minimal loss of control and the effective use of functions (Vanden Abeele, 2021).

Regarding the high amount of positive feelings, it is important to understand why some people suffer less from the same effects of digital technology. Digital media need satisfactions and frustrations depend on person-related factors. The previously mentioned Model of Mobile Media Use and Need Experiences Framework (Schneider et al., 2022) uses a version of SOC (Sense of Coherence) as factors that help build up "resistance". Their three factors: mindfulness, self-control and meaningfulness were presented in these "love letters"; the main difference between love and breakup letters' description of media use was that the love letter writers mostly use their device for practical reasons,

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they are not faced with challenges of self-control as they do not feel dependent, and the online activities they talk about, always seems meaningful in terms of offering help in everyday situations, enjoyment and the opportunity of online connections.

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