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Digital Romance: Meaning-making in the Trajectories of Online Relationships

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Abstract

This paper examines how people make sense of their experiences of technology-mediated romantic relationships. While research shows that people increasingly and effectively use technology to meet their relationship needs, concerns about its negative impact on intimate and social lives persist, underscoring the importance of studying this phenomenon from the person's perspective. To address this contradiction, we adopt a sociocultural and developmental approach to analyze how relationships evolve and are experienced in the context of interactions with partners, technology, and broader social discourses. The study, which interviewed thirteen young to middle-aged individuals about their online relationships, shows that the meanings attributed to technology change as relationships progress. These changes are further shaped by the technology's characteristics and the social narratives surrounding it. The analysis highlights the dynamic interplay between technology, relationships, and societal expectations, providing insights into how people navigate their romantic lives in the digital age.

Keywords: online relationships, online dating, relationship trajectories, life course, transitions

Introduction

With over two-thirds of the world's population now using the Internet and a continuous rise in social media users (Datareportal, 2024), technology has transformed how we form and maintain our relationships. For young people, aged 16-24, connecting with friends and family is the primary reason for internet use, while it remains the second or third most common reason across all age groups. Social networks, chat, and messaging apps are the top types of websites and apps used across all demographics (Datareportal, 2024). Beyond maintaining connections, people also use technology to initiate new relationships. Despite earlier studies finding that most people preferred to meet others in person (Rumbough, 2001), recent reports by Statista (2024) show that the number of online dating app users has grown dramatically, surpassing 380 million, with Tinder and Bumble leading the way, changing how couples meet.

Whether our relationships began online or in person, or whether we have adopted or avoided online dating, most of our relationships today include an online component. Given the modern lifestyle and migration patterns, many maintain essential connections with individuals in geographically distant locations. Additionally, most of our relationship maintenance and everyday communication now occur online.

Interestingly, according to Statista (2024), only about 50% of dating platform users feel safe online, with concerns primarily centered on issues such as people lying about their identities and the fear of being scammed. Research also shows that individuals who use technology to meet romantic partners tend to be viewed more negatively compared to couples who met through traditional ways (Sharabi, 2024). A persistent belief is that long-distance relationships are destined to fail (Crystal & Hancock, 2013). However, contrary to this prevailing bias, empirical studies consistently demonstrate that the quality of long-

distance relationships is comparable to that of their geographically proximate counterparts (Kelmer et al., 2013), with higher satisfaction levels and quicker progression from online dating to marriage (Rosenfield, 2017). These observations suggest that people might have a many-sided relationship with technology, particularly within interpersonal relationships, highlighting the complexity and potential biases inherent in conducting relationships online. This contradiction between practice and perceptions highlights the importance of understanding how individuals forge meaning in the context of technology-mediated relationships.

Numerous studies have provided insights into users' specific characteristics (Valkenburg & Peter, 2007), self-presentation online (Ellison, 2006), risks associated with online dating (Bonilla-Zorita et al., 2021), and the benefits and disadvantages of technology use for close relationships (Murray & Campbell, 2015). These findings and research on user experiences have informed the development of new media and design requirements (Hassenzahl et al., 2013). Given the extensive knowledge about the characteristics of online dating and maintaining relationships over distance, it is essential to delve deeper into the meaning people attribute to their online relationships. This understanding could shed light on the contradictions between representations of online dating and technology in relationships and actual practices, particularly in light of increased usage and positive outcomes. By incorporating a developmental perspective, we could further explore how the meaning of online relationships evolves over time and across different stages, acknowledging the dynamic nature of relational processes. This approach can deepen our understanding of the interplay between technological practices and individuals' changing needs and goals in relationships.

Before delving into the topic, we will explore perspectives on relationship development stages. Then, we will introduce sociocultural and life course perspectives as an analytical framework that aims to go beyond the objectified linear relationship stages in explaining how individuals forge unique meanings in their technology-mediated romantic relationships. Ultimately, we will utilize this framework to explore how individuals construct meaning from their online relationships.

A stage model approach to relationships

Relationship scholars have developed various stage models to understand how relationships evolve dynamically, changing toward greater or lower levels of intimacy. One of the most recognized and extensively adopted models is Knapp's (1978) relationship dual-stage model, which delineates five stages of coming together and five stages of coming apart.

The first stage of Knapp's (1978) Stages of Relational Development is the initiation, where prospective partners evaluate each other's attractiveness and decide whether to start communication. In the experimenting stage, often the farthest point beyond which very few relationships progress, individuals begin to get to know each other by asking questions and discovering common characteristics and interests. If interest persists, the relationship moves to the intensifying stage, marked by greater intimacy and increased self-disclosure. During the subsequent integration stage, partners become increasingly interdependent and display signs of intimacy. Finally, the bonding stage involves a long-term commitment, whether through formal union or cohabitation, making the relationship more challenging to break.

While this and similar models have been widely used and have found solid empirical support, they have also been subject to criticism, particularly regarding their

linearity and unifying approach. Some relationship theorists (e.g., Rodrigue, 2023) have argued against studying relationships as a single, linear trajectory that unfolds over time, calling for an approach that captures the more fluid nature of relationships. They suggest that such a model would illustrate how relationships can take multiple forms throughout their course, ranging from friendships to becoming friends-with-benefits, becoming a committed couple, or reverting to friendships.

Additionally, these models suggest that there are two primary ways in which a relationship can develop: towards greater intimacy and closeness, or separation and disconnection. This bi-directional approach might overshadow the complex nature of real-life relationships, which can change direction and meaning multiple times and in various directions throughout their never-finalized course. Cultural and media stories often emphasize the idea of happily ever after or dramatic endings, suggesting that these approaches are tied to cultural representations that researchers and laypeople alike have about relationships.

There is still merit, however, in analyzing relationship trajectories through different phases. Unique and discernible features characterize each phase and can be understood about previous stages, past relationship trajectories, and anticipated future developments.

Technology-mediated relationship trajectories

When exploring its influence on relationships, researchers have examined how technology influences specific stages of relationships, ranging from initiation to break up (i.e. Brody et al., 2020; Fox & Tokunaga, 2015), as well as how romantic relationships evolve (e.g., Brody et al., 2016; Fox et al., 2014; Sharabi, 2024), or dissolve online (Fox & Tokunaga, 2015; Brody et al., 2016). These phenomena have been mainly explored through technological lenses, focusing on the implications of the affordances of social

networking sites, such as searchability, visibility, anonymity, connectivity (e.g. Brody et al., 2020; Goldberg, 2022), and the relational behaviors they allow (e.g. Fox et al., 2014) on dynamics of romantic relationships.

Research shows that technology impacts different stages and relationship progression in various ways. The initiation phase has received significant attention, likely because it might differ significantly in an online context. Technology impacts this phase in two key ways: by shaping the processes involved in self-presentation and by altering how individuals select and approach others online.

First, self-presentation strategies, crucial for determining whether the other person will pursue a relationship, are especially pronounced in online dating, where individuals compete with a high number of different subscribers (Toma et al., 2008). Online, individuals have more control over their self-presentation due to fewer non-linguistic cues, relative anonymity, and the ability to edit information (Walther, 2007).

While this possibility has inspired public beliefs and academic discourses about greater deception online (Joinson & Dietz-Uhler, 2002) or the development of fantastical identities (Turkle, 1999), numerous empirical findings suggest that individuals aspire to present themselves quite accurately, especially if they seek to develop a romantic relationship (Ellison, 2006). This is not to say that self-presentation online is not curated; however, contrary to popular belief, most deception in online dating apps is slight and likely similar to that identified in traditional forms of dating (Cunningham & Barbee, 2008).

Second, technology has transformed partner selection via social media and dating apps, increasing exogamy by encouraging relationships across different social groups.

Contrary to the belief that people tend to choose similar partners, online couples exhibit

greater variability in traits such as education, religion, and ethnicity (Thomas, 2019). Additionally, individuals can gather information or evaluate profiles before interacting, unlike in face-to-face contexts (LeFebvre, 2018).

In-person meetings are considered a significant turning point for relationships that originated online. Studies focusing on predicting first-date success have shown positive outcomes for relationships that progress quickly offline (Sharabi & Caughlin, 2017), but unfavorable consequences for those who wait longer before meeting in person.

After the initial meeting, whether online or in person, individuals typically use social networking sites and messaging apps further to facilitate communication, information-seeking, and disclosure processes. In this way, the uncertainty that characterizes the early stages of relationship development can be reduced (LeFebvre, 2018; Fox et al., 2014).

Relationships often evolve through the interconnection of online and offline interactions, with offline meetings crucial for bonding (Goldberg et al., 2022). As they progress, couples use social media to display their relationship publicly, shifting focus from self-presentation to managing impressions about the relationship itself (Sharabi & Hopkins, 2021). Public acts, such as going official on Facebook, sharing photos, and tagging each other, are key symbols of commitment (Fox et al., 2014). While social media can aid in relationship maintenance and foster togetherness (Goldberg et al., 2022), it can also introduce challenges, such as pressure for constant contact or partner monitoring (Su, 2016; Fox et al., 2014).

Finally, the resolution process is characterized by increased uncertainty again (Fox & Tokunaga, 2015), during which partners need to manage their digital ties and

possessions, update their relationship statuses, and delete photos and relational symbols online (Brody et al., 2020; Fox et al., 2014).

In summary, communication technologies and social media play a significant role in romantic relationships. Much of the research has applied offline relationship development concepts to online contexts, demonstrating how relationships evolve across different stages with the use of technology. This approach, however, also applies an objectified perspective to human relationships, which does not recognize individual trajectories and discontinuities in relationship paths, perhaps contributing to our apprehension about the use of technology for different relational purposes.

Alternatively, focusing on how individuals make meaning of their technology use at different stages of a relationship could help us better understand why we still hold negative biases towards technology, despite its opportunities and positive outcomes.

A sociocultural life-course perspective to relationship trajectories

We propose moving beyond the universal, linear paths of relationship development and examining them through subjective lenses, recognizing the role of technological and social contexts in constructing meaning. To do this, we will use both the life course and sociocultural perspectives.

First, the life course perspective acknowledges that human lives (and their relationships) unfold in irreversible time (Valsiner, 1994), creating unique trajectories (Zittoun, 2012). The routines of everyday life are disrupted by events that challenge what is taken for granted, requiring significant adaptations and redefinitions of meaning (Zittoun, 2012). Thus, socially affirmed transitions may not be experienced as crucial by the individual, while other, less recognized events may be experienced as ruptures. For instance, in relationships, socially acknowledged turning points, such as moving in

together or getting married, might not hold significant meaning for a couple. In contrast, other events, such as changing jobs or returning to college as an adult learner, can significantly change the couple's dynamic and create a rupture. Therefore, we propose focusing on how individuals make sense of their relational trajectories rather than adhering to normative stages.

Second, the sociocultural perspective emphasizes that tools, signs, and symbols are central to shaping a person's activity and subjective experience (Vygotsky, 1978; Wertsch, 1998). Tools are appropriated through social interactions (Vygotsky, 1978) and come with inherent meanings that shape the person's sense of self and interaction with the world (Poulsen et al., 2018). For example, using Tinder and swiping on available individuals has become a cultural practice imbued with meaning beyond online dating.

The triangular metaphor of mediation (Vygotsky, 1978), which includes the person, the other, and the object, has been expanded by adding the dimension of time to capture the past, present, and future of sense meanings (Bauer & Gaskell, 1999) and the Generalized Other, which refers to the collective cultural representations, norms, and values that individuals internalize (Zittoun, 2008).

Our analytical framework begins with a triangle that draws from cultural psychology and mediated action theories. At the core of this model is a triadic relationship among the Person, the mediated communication Tool, and the relational Other. This structure captures how individuals engage with others through the mediating influence of a technological tool.

To account for the broader cultural context that shapes and reflects this process, we incorporate the element of the Generalized Other and expand the triangle into a semiotic prism (Zittoun, 2008). This dimension encompasses shared meanings and representations

around technology, commonly understood as cultural narratives, values, norms, and public discourses. These discourses around relationships and online dating circulate through media, culture, social groups, and interpersonal exchanges, influencing how individuals interpret their interactions and experiences. For example, cultural messages about dating apps being superficial or unsafe might be drawn upon when users reflect on their own experiences. In this sense, the Person's meaning-making is structured through their direct interactions, experiences with technology, as well as their broader cultural understanding of technology-mediated relationships.

Finally, to understand how these meanings and experiences dynamically unfold and evolve, we incorporate the time dimension, highlighting how meaning-making progresses across different stages of relationships and past experiences (de Saint-Laurent & Zittoun, 2017). Individuals draw on past experiences – mediated by tools and social discourses – to interpret their current position and imagine where they would like to progress in the future with the relationship.

Applying this framework helps explain the discrepancy between the representation of technology and its actual use in relationships. This contradiction may stem from social representations of technology or specific aspects of the tool that create friction for users. The imagined perspective of the Generalized Other may account for some of these discrepancies, particularly if certain stages, such as initiation, are more strongly associated with online relationships, thereby influencing people's perceptions of those moments more than others. Additionally, specific characteristics of the tool, such as limited visibility or increased access to other people, can facilitate relationship development at certain stages while acting as barriers in different phases.

We will utilize this analytical framework in our study, which examines how young to middle-aged people in Ireland make sense of online relationships.

Methods

Procedure and sampling

This study included 13 participants, 6 males and 7 females, aged 21-45, all of whom were residing in the Republic of Ireland at the time of the interviews, except for one American participant who lives part-time in Ireland. The sample consisted primarily of heterosexual individuals, with two identifying as gay. Participants were working professionals from diverse educational and occupational backgrounds. While racial or ethnic identity was not formally recorded, the majority of participants were white and of European origin. The sample also included one participant from North America, one of Indian background, and one from Latin America.

Participants were recruited through social media posts, online forums, and posters at Maynooth University, Ireland, and the local community. We sought to recruit individuals who were considerably relying on technology to maintain their romantic relationships or to initiate new ones.

The first author conducted 13 in-depth, semi-structured interviews in person, each lasting 45-90 minutes, with individuals about their experiences in long-distance romantic relationships, meeting partners online, using online dating, and their experiences with technology in their relationships.

The interviews were conducted during the second half of 2022, were audio recorded, and transcribed verbatim. Ethical approval for the study was granted by the Human Research Ethics Committee at the National University of Ireland, Maynooth, prior

to data collection. Interviews were anonymized, with all personal and identifying details changed to ensure participant anonymity.

Data Analysis

The data analysis involved a combination of inductive, 'bottom-up' (Braun & Clarke, 2006) and theoretical, 'top-down' approaches (Boyatzis, 1998). In the first stage, we employed an inductive approach using NVivo for open coding, allowing themes to emerge organically from the data (Braun & Clarke, 2006). This stage involved semantic, close-to-text coding and identifying expressions that appeared intriguing or significant for our research purposes, as well as latent level analysis aimed to identify patterns and themes that were not immediately obvious but were implicit in the participants' responses (Braun & Clarke, 2006). We generated 114 codes and grouped them into 7 broader themes and 5 subthemes (e.g. self-presentation, confidence, technology – affordances, apps, authenticity – self and other, relationship development, etc.). Subsequently, we organized the themes around the poles of the semiotic prism to understand the relationships between Self, Other, Tool, and Generalized Other. Simultaneously, the themes were categorized into different stages of relationship development (e.g., initiation, bonding online, maintenance). Although this process occurred concurrently, it is presented in a linear sequential order for simplicity (Billig, 2013). This was achieved through an iterative process of revisiting the codes and refining the themes multiple times. This analysis builds on our previous work, where the same interviews were analyzed using a dialogical tensions framework (Pilek & de Saint-Laurent, 2024).

Refer to Table 1 for an illustration of this hybrid inductive-deductive process.

Table 1 *Illustrative Inductive and Deductive Themes in Hybrid Thematic Analysis*

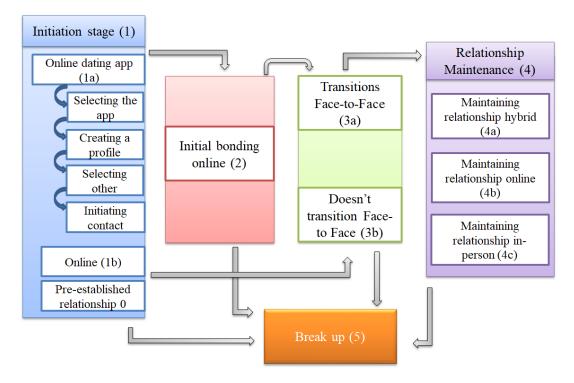
Codes	Themes & Subthemes	Semiotic
		prism
Insecurity	Self-confidence	
Shyness		Self
Creating a profile	Self-presentation	
Self-description		
Anonymity	Technology - affordances	
Connectivity		Tool
Asynchronous	Technology-mediated	
communication	communication	
Excitement	Feelings for other	Relational Other
Mutual disclosure	Relationship	
	development	
Judgement		Generalised Other
Norms	Societal Voices	

Progressing from left to right, the first and second columns provide examples of codes and the corresponding themes. The third column shows the reorganization of these inductive themes into a deductive semiotic prism framework.

Figure 1 presents the different stages of a relationship. Though inspired by Knapp's (1978) five stages of relationship development, the stage model presents four stages, as participants' discourses did not clearly distinguish between the stages of maintaining and developing a fully committed relationship.

Figure 1

Map of the relationship development stages



This figure represents relationship moments grouped into broader relationship stages; each analyzed through the semiotic prism.

For the analysis, we selected five stages based on the significance participants gave to them and/or their underrepresentation in the literature. By applying the semiotic prism alongside the relationship stage model, we recognized that different aspects of relationships evolve uniquely at each stage, rather than in a linear progression. The semiotic prism offers insight into how individuals construct meaning in their relationships

through the interaction of tools and societal discourses, which intersect across various relationship stages. Thus, the findings are presented by the relationship stage and within each stage by the semiotic prism, although these analyses were conducted simultaneously.

Findings

The findings are structured around the poles of the semiotic prism: Self, Relational Other, Tool, and Generalized Other. Although these poles are present in all relationship stages and themes, the findings focus on only the most significant or pronounced ones.

These will be explored through five stages of a relationship: initiation, bonding online, transitioning, the absence of transitioning to face-to-face, and the technology-enabled maintenance of the relationship (hybrid).

Initiation

In the initiation phase, two parallel processes unfold, depending on whether the relationship started on online dating apps or through a shared activity or online community. Consequently, the meanings individuals derive in these two contexts differ, and will be discussed separately.

Online dating app-initiated relationship (1a)

Self

Participants felt pressured to present themselves well on dating apps, as first impressions from profiles and brief interactions often dictate whether contact continues. Female participants, receiving more messages, struggled to filter meaningful connections, while male participants felt the need to stand out among numerous other (invisible) competitors. For example, David (34), shares the challenges in getting attention from women on dating apps:

Because the top women are only going to want the top men who are earning loads of money and they're great looking, generally. So then what happens is the men's ego is dented and they say, 'Oh, hang on a minute, wait, why didn't they respond to me when in real life they would. [...]So, that's why you cannot take it personally, because, you're going to be seriously impacted by online dating.

The pressure to compete for attention and not receiving desired responses from others while presenting one's best self negatively affected participants' self-esteem. On the other hand, receiving matches, messages, and opportunities to date boosted their self-confidence.

The challenges around self-presentation and affordances were also interwoven with questions of authenticity. Participants grappled with the desire to be genuine and truthful, alongside the pressure and possibilities of portraying themselves in a positive light.

Medium

Dating apps served as a gateway for meeting people, offering an easy way to initiate contact by removing the initial discomfort of approaching someone. As one participant mentioned, individuals may already be acquainted with each other but feel uncertain about approaching them in person. In such cases, dating apps acted as a signal or permission to make a move.

The design of dating apps is often entertaining, particularly in the early stages of relationships. Swiping through an almost unlimited number of profiles, colorful interface, images of couples and mobile phone notifications after the first messages arrive created a highly engaging experience for participants. This gamified approach can be addictive and

enjoyable, allowing individuals to explore new possibilities and spark their imagination.

As David (34) described:

Oh my God. So initially, yeah, for the first couple of weeks, I would check it quite regularly when I signed up because it was like a new toy, I wanted to see what was going on. So I would look at it. I could spend maybe two or three hours a day at that, when I first started.

One distinct feature of this gamifying process is the abundance of choices among available individuals seeking to date. However, this plethora of options also presented a challenge, as individuals felt overwhelmed by the sheer number of choices, which only sometimes lead to desired outcomes, such as high-quality dates or meaningful relationships. As Amelie (29) noted:

In Tinder, I had a match all the time, like I was being there, like for two minutes and there was a ton of matches with a very, very little amount of conversation. [...]

Oh, I haven't met anyone and stuff. But then actually, I met so many people.

Doesn't mean it's a success each time.

Participants also had a pervasive sense that there was always someone potentially better out there, which made them less willing to commit to another person. Related to this, individuals often turned to apps with a smaller user base as they have a greater chance of meeting someone more compatible with their preferences. This reflects the need to manage options and available choices to optimize the experience.

Relational other

In their interactions with potential partners, participants described the process as one filled with imagination, envisioning what potential connections could emerge from these interactions. This initial excitement can, however, result in disappointment or in

pressure to live up to someone's perceived or real expectations. As Anne (38) emphasized, "You build someone in your head, a picture of someone and a relationship that is not real". And as Benjamin (29) reflected: "They expect the best, they expect to be wowed. They expect a spark."

This process of imagining others and relationships is largely fueled by what participants read on others' profiles. However, they also understand that these profiles are often embellished, offering only snippets of the best moments and lacking depth or authenticity. As Amelie (29) said: "It's just like a false advertisement. It's like an enhanced profile of them."

As individuals attempted to gauge the other person, they assessed factors such as the potential for engaging in respectful conversation and tried to foresee how they would feel around the person. The importance of judging the other person lies in ensuring mutual compatibility and protecting safety. Individuals recognize that they do not fully know the other person, which can present potential risks. Women, in particular, expressed concerns about safety and made efforts to assess the trustworthiness of potential partners. Some noted that finding common social connections made this process easier.

Generalized other

Participants' experiences were shaped by imagined others and widespread public discourses surrounding online dating and dating apps. Many felt curiosity, or pressure to join the online dating scene, steered by the perception that "everyone is doing it." As Anne said: "I missed out on that whole thing. I didn't really know; you hear your friends talking about Tinder."

Factors such as friends' experiences, depictions in media and movies, and the notion of finding "the one" played a role in shaping online dating experiences.

This perhaps contributed to some participants feeling of a predetermined course in dating, with expectations set for a certain number of dates or specific milestones, leading to a lack of spontaneity. The norms around online dating differ from those in face-to-face interactions, with new ways of interacting emerging. Individuals reported about being more direct in their interaction, skipping the initial circumventing about one's availability and relational preferences. As Anne (38) shared:

It's like a way to establish what somebody wants. When you meet someone in person, you might kind of wait before asking them certain questions; you're not going to say 'What are you looking for?' You kind of have to wait and see, whereas when you text someone, it's the norm to figure out, because some people will only stay up for casual sex, and so it's completely a valid question to ask somebody what's their expectations.

The lack of visibility and asynchronicity online also made it easier to discontinue communication.

Despite its widespread use, online dating still carries a significant stigma.

Participants reported about encountering the same individuals across different apps or over time, which carries judgement, as Anne (38) noted:

If someone was on Tinder and didn't have any luck, then, you know I felt like [laughs], it was like... I felt like if someone had to try lots of different dating apps, then you know there's a reason why maybe.

Participants also shared concerns about colleagues seeing them using dating apps, possibly due to self-consciousness about the process of looking for a partner.

This is a stage in relationships where participants often found themselves multiple times. It was common to go through phases of bonding and meeting someone, followed by

breakups and returning to dating apps. Some individuals reported deleting the apps altogether due to unmet expectations and repetitive outcomes.

Online medium initiated relationship (1b)

This section explores the experiences of individuals who initiated relationships through online forums and communities such as gaming, hobbies, creative writing and work. This way of meeting people is less frequent, offering a smaller pool of potential partners and opportunities for developing relationships. However, it did occur to some of our participants.

Self

Compared to their experiences on online dating apps, individuals felt less pressure to manage their self-presentation and authenticity in these other online social contexts.

Here, participants focused on their interests, work, hobbies, and means of fulfilling them.

The lower risk of social judgment allows them to further explore themselves, as Marianne (24) noted: "For me, online relationships have been like kind of a very key point of exploring my sexuality and understanding it."

Some participants faced greater acceptance and self-confidence in online connections. For instance, Sarah (24) described how online platforms can alleviate insecurities while developing connections: "They can actually get to know you first. You remain anonymous until you otherwise want to. [...] You know, anxiety is rising. It's the social pressures and whatever. Technology's kind of like a getaway."

Increased control over exposure and the pacing of interactions helped participants build self-confidence and feel more comfortable in these online spaces.

At this stage, the medium was not primarily used for developing specific relationships, which made it more transparent and valued as a social or leisure tool without

as many relational constraints. Unlike dating apps, where meeting a person is often the ultimate goal, here it is one of many possible activities.

Relational other

Participants appreciated the choice and the ability to connect with interesting and diverse individuals, including those from niche communities, based on mutual interests, passions, and hobbies.

These relationships, on the other hand, often involved long distances between individuals, lower rates of transitioning to in-person meetings, and the risk of the partner disappearing. The likelihood of finding a romantic partner and forming a lasting relationship in this context is also lower due to the smaller pool of available partners.

Generalized Other

Even though participants viewed this way of meeting others differently, reactions from their friends and families still carried some judgement. However, participants did not internalize it as much, possibly because the serendipity of meeting a partner this way is much closer to that experienced in face-to-face contexts.

Initial bonding online (2)

This phase explores experiences from the earlier stages of connection development to the formation of stronger bonds. Individuals may remain in this stage for several days, months, or even years before transitioning the relationship to an in-person meeting or ending it. At this stage, self-reflection shifted from focusing on identity and self-presentation to examining past relationships. Individuals sought to understand how previous experiences shaped their current relationships and potential future outcomes.

Medium

The medium becomes transparent here, serving as an enabler of deeper connections. Participants felt that technology expanded the possibilities of meeting compatible partners, even those located far away on different continents. Marianne (24), from Ireland, describes establishing an exclusively online romantic relationship with someone living in the United States:

Technology makes you feel, it kind of opens up that idea of a person that would suit you; or one of your soul mates, or maybe your soul mate could be on a different continent. And, at least now we have the technology to find them.

Additionally, participants discussed the differences in the nature of their relationships based on the platforms they used. Those who met online through mutual interests or activities judged their relationships as more organic than those who met through dating apps.

The richness of communication is crucial here, particularly with digital media such as pictures, messages, and videos, which help establish connections and strengthen bonds. Matthew (45) described how he fell in love with his current wife through technology: "Phone conversation. FaceTime and texting were also available. So it became this big ball of everything."

This integration of various communication forms enhances the feeling of closeness and helps build a stronger foundation for the relationship.

Relational other

At this stage, individuals were actively trying to get to know each other better.

While they recognized the limited access or exposure to the other person, they often exhibited a level of trust. Concerns around authenticity were generally lower, as one

participant noted: "They are not just an online persona once you get to know them." However, these concerns persist to some extent.

Imagination played a key role as individuals, lacking complete information about their partner and relationship, filled the gaps by envisioning potential outcomes and activities (Walther, 2007). This created a sense of excitement but also led to disappointment when reality didn't meet these imagined scenarios. For example, Rahul (36) imagined what he wanted to do with his online girlfriend:

It would be great to kiss you. I could be great to hold you... but you cannot actually do it...when the call ends, then it plays it even more. I wish I could do this. [...] And there is one spot in between two cities, which is very beautiful, with lakes and everything. So we thought we will meet there. It's very romantic. But it just didn't materialize.

As participants developed their relationships, they went through a sequence of envisioning desired futures for their relationships and comparing them with present realities.

Generalized other

Social discourses and cultural stories about online relationships encompass a spectrum of experiences, ranging from catfishing, scams, and exploitations to heartwarming accounts about true love found through online media. Participants referred to these stories to make sense of or judge the feasibility of their online relationships. For example, Matthew (45) used cultural references to position his then-only online relationship: "I mean movies have been done about this type of stuff. There was a French movie called The Untouchables, Right Guy in a wheelchair who wrote letters to a woman constantly."

These social discourses also question whether online relationships can be truly deep and meaningful.

Transitioning face-to-face (3a)

The central question for participants was when and how to shift their relationship from online to in-person. Delaying the transition too long raised fears of developing a false bond, while transitioning prematurely brought up concerns about comfort and safety.

Self

Unlike in the bonding phase, when individuals did not focus so much on themselves or their confidence, in this stage, questions of confidence, authenticity, and experiences of self resurfaced strongly.

As participants transitioned their relationships to in-person, they felt exposed and pressured to meet the standards they've set for themselves and their relationships. For example, Anthony (31) shared his insecurities around transitioning to in-person after two months of being online:

And I spoke to this person for over two months and worried that I wouldn't live up to their expectations. Am I going to live up to his expectations? I didn't even think to myself, like, is he going to live up to mine?

Relationships that did not survive the transition to face-to-face interactions had implications for participants' self-esteem and confidence. For example, Anne (38) discussed the impact of in-person rejection after developing a bond with someone online:

When you text someone for that long as well, obviously, you can tell that they like your personality. And when you go and meet them, and they don't like you, it's very disappointing, and it's a hard rejection. Because you're thinking, 'Okay, I'm

not pretty enough, or I'm too fat,' or you know. I would have terrible thoughts in my head.

Participants also reflected on their own authenticity, grappling with how their online persona aligned with their true selves. For example, David (34) is reflecting on his self-presentation online and in person: "When you meet me in person, I'm still pretty much the same person. I still have the same sense of humor. I'm not arrogant. I'm nice." On the other hand, Amelie (29) judged herself as being less authentic online:

I think like with. If I get engaged in long texting, I will show my bright side. I will try to be a bit playful, make games and things like that. But it's not really who I am. That's a bit annoying.

The transition from online to face-to-face interaction brought out the challenges individuals face in maintaining their self-confidence and authenticity. Social discourses often emphasize the importance of being authentic and true to oneself online, which can complicate the reality that we all behave slightly differently online, often adapting to the nature of the online medium.

Relational other

As individuals transition to in-person interactions with their relational partners, they experience strong feelings marked by both positive excitement and apprehension due to the uncertainty. As Sarah (24) expressed: "Oh, I'm finally meeting this person that I was talking to for a whole year. You get these, like I said, like emotions, adrenaline."

Even if individuals were not overly enthusiastic about their online partner, they hold onto the hope that they would either experience a better match or have a more fulfilling experience in person.

In their first face-to-face meetings, individuals evaluated the authenticity of others, assessing whether their impressions formed online align with the reality observed in person. For example, Anne (38) reflected on her experience with online dating:

I've learned that just because you can see someone in a picture and you could say that person looks like my type, or they look attractive, and then you can meet them... and their essence just comes out the minute you see him, you know the vibrancy, and it's like, and it could be a completely different thing.

The question of authenticity has pervaded since the early stages of bonding and it is tied to safety risks, especially for female participants. The level of risk depended on individuals' perception of how well they knew their potential partners and on previous experiences.

In making these decisions, individuals relied on social discourses and advice about how long to wait before meeting, what to do on the first date, and how long to stay.

Existing norms around relationships were questioned or negotiated, as these situations involved meeting someone for the first time who already felt familiar.

Does not transition to face-to-face (3b)

In our data, there were two cases where individuals developed a significant bond and maintained a relationship for several months or even years without transitioning to face-to-face meetings. These rare instances involved significant, committed, and monogamous relationships with future plans, yet the expectation of transitioning the relationship to in-person was broken.

Through these experiences, participants realized aspects of themselves they hadn't known before by redefining their stance toward online relationships and understanding

themselves as relational beings within these contexts.

Rahul, whose relationships did not survive due to the online component, re-evaluated the meanings of online relationships and concluded that they could not work. On the other hand, for Marianne (24), who wished to maintain her relationship online because she could not envision being with anyone else but her partner, there was a shift in how she conceptualized relationships:

Oh, you know, but is that a real relationship? This is where my insecurity comes from because I would have thought that about a friend who had a girlfriend online once [...] It's taught me to be very open-minded about people's relationships.

The meaning of the medium is dual here; it alternates between feeling deeply connected, where it seems to fade into the background during shared activities and moments of intimacy and becoming acutely aware of the technology's presence, which changes the nature of interactions. Like Rahul (36) said:

When you are facing a camera, you will always be conscious. Even if you were lying in your bed, on your couch, as comfortable as you can, because you are holding a phone or a laptop, you are facing the camera.

The medium acted as an enabler in the case of Marianne (24) who decided to stay in the relationship. Marianne employed various strategies to create proximity, such as sending gifts or using wearables: "When I send a vibration, I feel like she gets it. I hope she knows that I'm thinking of her."

Distance and the absence of meetings in person cause friction and significant conflicts between partners following the re-evaluation of the relationship. Like Marianne said:

It was a real point of tension in the relationship with Shalyn because I'd be coming to her and being like, 'Oh, you know, like my friends this, my friends that'. And we and I would have multiple fights [...] We're really strong and content now.

In another case, the inability to transition to face-to-face interaction resulted in the termination of the relationship and feelings of disappointment.

When reflecting on the depth and validity of their relationships, individuals referred to societal voices and opinions, underscoring the importance of social recognition for their relationships.

Participants felt self-conscious and concerned about how others perceived their online relationships. As Marianne (24) shared: "I feel very self-conscious. I'd be very concerned about people seeing my relationship as less than and not feeling like that because it means so much to me and it feels so real." Similarly, Rahul experienced significant judgment from both his parents and friends regarding his online romantic relationship, leading to the termination of the relationship.

Maintaining relationship – Hybrid (4a)

After the initial bonding phase, participants' relationships typically transitioned and further developed in-person, or broke-up, both of which fall outside the scope of this study. Here, we analyze hybrid types of relationships where, after the relationship is established, a significant proportion of interactions occur online with occasional face-to-face meetings.

At this stage, the focus shifts from the self to relationship plans and how individuals balance their career aspirations with romantic relationships. For those maintaining long-distance relationships, making life decisions and integrating their relationship into their overall life trajectory becomes important.

Medium

Once individuals have met in person, the medium becomes less transparent with participants recognizing the clear difference between online and in-person experiences. As one participant noted, in-person interactions involve dates and intimacy, whereas online communication merely sustains the feeling of connection.

Medium also symbolized separation and distance, causing frustration and dissatisfaction with the relationship dynamics. For example, Alejandro (25) says:

I can't think of anything positive about having to be in an online relationship. [...] The transition from online to in-person was for the better. But going back to online, it has obviously, I mean, not damaged, but it has made things much more difficult.

Long-distance partners employed various strategies to create feelings of closeness and intimacy. Video calls allowed them to see each other while texting remains accessible and ubiquitous. Engaging in activities together online also helped maintain a sense of closeness. The medium acts as a buffer, balancing feelings of closeness and separation; however, once participants met their partner in person, it brought a rush of happiness and excitement.

Relationships with clear plans for the future and higher levels of commitment tended to experience fewer difficulties with separation and conflicts around the distance.

Societal voices and discourses were not as salient at this point, likely because many relationships have become hybrid and thus normalized. Instead, individuals focus on the viability of maintaining long-distance relationships.

Discussion

This study aimed to investigate how the meaning attributed to a relationship expressed through the online medium changes across different relationship stages, using a life course and sociocultural perspective. Applying the semiotic prism, we represented its poles at various relationship stages, leading to several key discussion points for each pole.

Self

Participants demonstrated high levels of self-reflection and introspection, likely higher than in relationships in general. This indicates how merging technology with our lives and relationships provokes deep contemplation and underscores the merit of this method for studying online relationships to access the richness of this experience.

We showed how the experience of Self transitions throughout the stages, from a strong focus on Self, self-presentation, and authenticity in earlier stages of a relationship to a more Self-less or fused-with-other experience as the relationship progresses. These shifts are more pronounced when technology is being (re)introduced or removed from the relationship. Even in later stages of relationships, characterized by commitment and stability, the meaning of oneself as a relational being is continually redefined and negotiated with the fluctuating presence of technology.

Relational other

Similarly to the dynamic experience of the Self, the ways participants experience their relational partner online change from initial questions of authenticity to more relationship-focused concerns. In the early stages of online contact and bonding, especially in online dating, doubts about the other person's authenticity are prevalent. Over time, as the tension around who the other person is diminishes, individuals seek greater closeness. Once the relationship is established or experienced in person and the

online medium is reintroduced, individuals strive to create a sense of proximity and closeness with their partner. Communication becomes essential not just for conveying information but for maintaining the relationship. Conversely, in relationships that do not transition from online to in-person, the relational partner may be perceived as a fantasy, leading to conflict, re-evaluation, or termination of the relationship.

Tool

In the early stages, relationships may benefit from the relative anonymity and limited visibility provided by communication tools acting as gateways to others. These affordances reduce the fear of social judgment and the risks associated with self-disclosure, facilitating initial connections. Conversely, as relationships develop, these affordances may present new challenges and create a sense of constraint in the desire to reach a deeper level of (physical) intimacy.

The desire for more information about their partners encourages individuals to employ additional communication modalities (Monberg, 2005). The nature of the relationship itself often guides the selection of appropriate media, ensuring alignment with the desired level of intimacy, engagement, and communication style. For instance, participants appreciate the richness of video communication, but they tend to opt for it when they feel more confident in themselves and their relationships. Likewise, transitioning communication from more public media, such as Facebook or dating apps, to more selective or private apps, like WhatsApp, served as a symbol of relationship development.

Previous studies and theoretical approaches have often overestimated the medium's role in shaping relationships, focusing primarily on bandwidth and limitations (Lea & Spears, 1995; Walther, 1996). However, considering the person's intent, need, and

the meaning they assign to these tools shows that affordances are not static; they evolve and hold different significance at different times. For example, anonymity or limited visibility might facilitate approaching others or discussing sensitive topics online, while in other cases, they may hinder closeness. Thus, the perception of these and other online media characteristics—shaped by one's needs, goals, and broader social prescriptions of romantic relationships—can shift the medium's role from a transparent enabler of connection to a source of separation and distance. For a more detailed discussion on how perceptions of tools enable and constrain relationships, see Pilek and de Saint-Laurent (2024).

Online dating apps evoke powerful and contradictory meanings. While these apps facilitate approaching other individuals, they make selecting, getting to know others meaningfully, and establishing lasting connections difficult and frustrating for many. The ease of swiping and matching often questions the complexity and effort required to develop genuine relationships.

Generalized other

While numerous rules and norms have always governed dating, coupling, and marrying, these dynamics are further shaped by our representations of the continuous development of technology and dating apps. Despite increased social acceptance, negative perceptions and judgment persist around online dating and romance. The social discourse shifts from the initial promise and prescriptions surrounding finding a perfect match online to skepticism about the authenticity, safety, and longevity of online relationships.

Particularly, strong social judgment exists against relationships that do not transition to face-to-face contexts. Individuals whose relationships remain online often

face disapproval from close friends and family, which can strain their offline friendships or even lead to the dissolution of their online relationships.

In addition, social discourses extend beyond online relationships to encompass technology itself, often highlighting its perceived adverse effects —a pattern that is not unique to recent technological developments. Emerging social technologies are often perceived as reducing the frequency and quality of time spent in face-to-face interactions, ultimately leading to increased loneliness (e.g., Dunbar, 2016). However, evidence for these causal claims is lacking. Studies consistently report positive effects of online media, such as removing obstacles to personal disclosure (Valkenburg & Peter, 2009) and increasing social contacts when opportunities to connect are limited (Ramirez et al., 2017). Social media and technologies do not offer easy solutions to relational and psychological needs, particularly for vulnerable people, but they are far from solely responsible for isolation and loneliness.

Conclusion

Our study provides insights into the meaning assigned to technology use in romantic relationships and the contradictions between positive experiences and negative judgments of technology, which could be further explored through quantitative analysis.

First, individuals' experience of the Self and their relationships change with their choices and methods of using media. This shift ranges from initial concerns about authenticity to a stage where the relationship itself takes precedence over concerns about authenticity.

Second, the role of media shifts from being a transparent facilitator and valuable access point in the early stages of a relationship to becoming a visible barrier to achieving

desired intimacy later or in hybrid contexts. Additionally, characteristics of tools, such as the abundance of choices or gamified designs standard in dating apps, can create tension between using the tool for entertainment and perceiving relationships in a non-human or commodified manner.

Third, individuals' experiences of navigating their online relationships are shaped by social discourses of imagined or real others, whose voices influence what is considered a legitimate or feasible relationship.

Another significant observation, likely influenced by generations of social representations about media, is the intense ambivalence toward technology use in romantic relationships and society as a whole. Media can be viewed positively as enhancing relationships and providing enjoyment, but it can be seen as threatening genuine connections, societal cohesion, and overall well-being.

These findings help us better understand the discrepancies between increased technology use, reported benefits, and negative perceptions. We observed moments where technology both helps and causes friction in achieving desired intimacies and relationships, as well as the dynamic positioning against often critical and judgmental social discourses in making sense of the role of technology in romantic relationships.

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