

Typologies of Sexual Interaction in Digital Contexts



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Keywords

Cybersexuality · Digital intimacy · Digital sexuality · Online sexual activities (OSA) · Sexual technology · Technology-mediated sexual interactions (TMSI)

Definition

Sexual interaction in digital contexts is an umbrella term covering various types of sexual activities that occur across a range of digital environments (Döring et al., 2021). These sexual behaviours include, but are not limited to, the consumption of sexually explicit material, the use of sexuality education resources, and the involvement in sexual contacts. The digital contexts include Internet-connected devices such as computers, tablets, and smartphones; social media platforms; mobile applications; and emerging technologies such as virtual reality (VR) systems, social robots, and artificial intelligence (AI) tools. Sexual engagement in these settings can involve both human–human interactions (e.g. maintaining a sexual relationship with a human partner

through digital sexual messaging) and human–technology interactions (e.g. maintaining a parasexual relationship with an AI chatbot through digital sexual messaging). As digital technologies continue to evolve, the spectrum of digitally enabled and mediated sexual activities expands accordingly, underscoring the need for meaningful umbrella terms, classifications, and typologies to address, categorize, and analyse these diverse practices.

Introduction

In the digital age, individuals across generations and world regions use digital technologies for a wide range of purposes related to work and leisure—among which sexual uses play a significant role (e.g. Ballester-Arnal et al., 2021; Döring et al., 2017; UNESCO, 2020). At the same time, concerns are growing about the psychological and social implications of digital sexuality. Both experts and laypeople discuss whether sexual interactions in digital contexts promote sexual and overall health and well-being or pose risks by contributing to issues such as dependence, addiction, interpersonal alienation, loneliness, infidelity, fraud, mis- and disinformation, harassment, and sexual violence.

To investigate experiences with, and effects of sexual interaction in digital contexts, it is important to differentiate between the various types of

sexual engagement with digital technologies among different user groups. For example, using digital sexuality education resources can be helpful for a person with a non-mainstream sexual orientation to better understand and accept their identity. At the same time, using sexually explicit online material can be harmful to a person with untreated mental health issues, who might, in an attempt to self-medicate their depression, develop problematic pornography use.

In both public and academic discourses, a range of umbrella terms, classifications, and typologies are used to address sexual interaction in digital contexts. The aim of this article is to present the main concepts in a structured manner and to provide background information for their application.

Umbrella Terms

To capture the full range of current—and potentially future—forms of sexual interaction in digital contexts, academic literature employs a variety of broad umbrella terms. These terms typically combine “sexuality” (or related concepts) with “digital technology” (or its synonyms), such as the following (in alphabetical order; Döring et al., 2021):

- Cyberintimacy
- Cybersexuality (short: Cybersex)
- Digital Erotic Practices
- Digital Intimacy
- Digital Sexual Interaction
- Digital Sexuality (short: DigiSexuality)
- Digital Sexual Practices
- Mediated Sexuality
- Online Sexual Activities (short: OSA)
- Online Sexual Behaviour
- Sexual Interaction in Digital Contexts (short: SIDC)
- Sexuality in Digital Contexts
- Sexual Technology (short: SexTech) Practices
- Technology-Based Sexuality and
- Technology-Mediated Sexual Interaction (short: TMSI)

While broad umbrella terms are—by definition—not very precise and may lead to over-generalizations or vague claims, they can be useful when attempting to address or structure emerging fields of research, highlight shared characteristics across diverse phenomena, or provide an inclusive framework for interdisciplinary dialogue. They offer a starting point for mapping complex and evolving behaviours, and can facilitate the integration of findings from different methodological and disciplinary perspectives or historical periods. For example, one could argue that in the late 1980s and early 1990s, digital sexuality in general was more often viewed as a problematic niche phenomenon, whereas today, it is increasingly normalized, and a focus on health risks is more frequently accompanied by attention to health-related opportunities (Arthur & Twist, 2017).

Working with broad umbrella concepts can be fruitful, especially when a study is interested in the general relevance, occurrence, or attitudes towards digital sexual interaction. In such cases, it may be sufficient to ask interview or survey participants about any involvement in digital sexual practices, without differentiating between specific types of activities. Broader questions shorten the interview or survey and reduce the burden on both participants and researchers. When asking generally about involvement in “digital sexual practices” (or any other umbrella term), it is helpful to provide a brief definition of the concept and, if appropriate, a few examples to ensure participants understand what the questions refer to.

Classifications

To acknowledge the variety of different types of digital sexual interaction, several classification dimensions are used to group digital sexual practices into clearly defined, mutually exclusive, and collectively exhaustive subcategories. Simple classifications rely on a single main classification dimension, while more complex systems integrate multiple dimensions. Some classification dimensions focus on the characteristics of the sexual activities (e.g. sexual consent: consensual versus

non-consensual sexual interactions via messaging platforms). Others focus on the characteristics of the involved technologies (e.g. technological modality: interaction with video pornography versus virtual reality pornography). While a wide range of classification dimensions may be applicable, research projects must make a well-reasoned decision—based on theory and/or previous research—about which classification dimensions are most relevant to the research aim at hand.

Often, it makes sense to first clarify the scope of digital technologies a research project seeks to include in its investigation of digital sexuality. The research field typically differentiates technologies based on devices or services. Therefore, separate research strands focus on, for example, interpersonal sexual interactions via text (chat sex), audio (phone sex), image (sexting in the sense of exchanging nude selfies), or video (webcam sex; Courtice & Shaughnessy, 2017). Separate research lines also investigate engagement with pornography in 2-dimensional video or 3-dimensional VR formats (Evans, 2023). Further research strands explore sexual interactions with AI chatbots (Döring et al., 2025) and embodied sex robots (Döring et al., 2020) or partnered engagement with Internet-connected smart sex toys (Power et al., 2024).

This technology-focused lens is meaningful, as each technology offers distinct functions, modalities, and affordances that encourage (or discourage) specific forms of sexual engagement. To understand these technology-specific sexual experiences, researchers often conduct inter-technology comparisons (e.g. video pornography versus VR pornography) as well as offline–online or human–technology comparisons (e.g. sexual counselling provided by a human professional versus an AI chatbot). Within the chosen technology context, researchers can then determine which categories of sexual activities to examine. Such decisions can be based on established classification dimensions (see Table 1).

The relevance of classification dimensions for digital sexual interaction varies depending on the specific research or professional context. Clinical settings benefit from focusing on arousal,

frequency, and functionality to identify compulsive behaviour or maladaptive coping strategies. Forensic and legal contexts prioritize consent, legality, and intention to assess criminal responsibility, inform policy, and address offences such as non-consensual image sharing or online grooming. In relationship counselling, dimensions such as sociality, behaviour, and role are particularly relevant for understanding how digital sexual practices affect intimacy, trust, and relational boundaries. Media and communication psychology research often emphasizes commerce, motivation, and parasociality to explore how platform design, user goals, and human–technology interaction shape digital sexuality. Selecting appropriate dimensions requires alignment with the research question, target population, and theoretical frameworks of the respective field.

Typologies

While classifications are usually built on separate, clearly defined classification dimensions—such as frequency, arousal, or consent (see Table 1)—typologies operate with more integrated and complex constructs. Rather than isolating individual features, typologies seek to identify recurring patterns or prototypes that combine multiple characteristics into meaningful and ideal types. In the case of digital sexuality, typologies may describe distinct user profiles (e.g. the curious explorer, the compulsive user, the romantic seeker), usage patterns (e.g. solitary leisure use vs socially integrated partnered use), or interaction types (e.g. educational, recreational, commercial, or relational digital sexual practices). These types are not mutually exclusive categories in the strict sense but rather serve as analytical models that reflect the multidimensional, fluid, and context-dependent nature of digital sexual engagement. Two established typologies are the following:

- **Digisexualities of the first and second wave:** The digisexuality typology (Arthur & Twist, 2017) contrasts first-wave digisexualities that mainly enable mediated human–human sexual interactions (e.g. sexual interactions via text-

Typologies of Sexual Interaction in Digital Contexts, Table 1 Overview of 12 classification dimensions for digital sexual interactions, presented in alphabetical order. (Source: Author-generated)

Classification dimensions	Subcategories	Examples
1. Arousal	Arousing vs. non-arousing	Engagement in digital sexual interaction may involve sexually arousing activities (e.g. using online pornography) or sexually non-arousing activities (e.g. using online sexuality education resources; Bélanger Lejars et al., 2020).
2. Behaviour	Six types of sexual behaviours	Engagement in digital sexual interaction may involve: (1) sexual information/counselling/education, (2) sexual entertainment/stimulation, (3) sexual contacts/relationships, (4) sexual (minority) communities, (5) sexual products, or (6) sexual services/sex work (Döring et al., 2017).
3. Commerce	Commercial vs. non-commercial	Engagement in digital sexual interactions may involve commercial practices (e.g. online sex work via webcam between provider and customer) or non-commercial practices (e.g. private webcam sex between partners; Döring et al., 2021).
4. Consent	Consensual vs. non-consensual	Engagement in digital sexual interaction may involve consensual practices (e.g. mutual exchange of nude selfies between partners = sexting) or non-consensual practices (e.g. unsolicited “dick pic” from a stranger = online sexual harassment; Döring et al., 2021).
5. Frequency	Frequent vs. infrequent	Engagement in digital sexual interaction may occur frequently or infrequently, with frequent engagement more often correlated with problematic use (Chen et al., 2022).
6. Functionality	Problematic vs. non-problematic	Engagement in digital sexual interaction may be functional and goal-oriented (= non-problematic) or dysfunctional in the sense of excessive or compulsive use (= problematic; Ballester-Arnal et al., 2021; Wéry & Billieux, 2017).
7. Intention	Intentional vs. non-intentional	Engagement in digital sexual interaction may involve intentional use (e.g. actively searching for online pornography) or non-intentional exposure (e.g. through peers or pop-up ads; Minihan et al., 2025).
8. Legality	Legal vs. illegal	Engagement in digital sexual interaction may involve legal practices (e.g. viewing legal pornography produced and disseminated consensually by adult performers) or illegal ones (e.g. accessing illegal pornography, such as child sexual exploitation material, or CSEM; Döring et al., 2021).
9. Motivation	Seven types of motives	Engagement in digital sexual interaction may be motivated by (1) technology features, (2) curiosity/sexual education, (3) social motives, (4) arousal/pleasure seeking, (5) sexuality enhancement, (6) anonymous fantasizing, or (7) mood management (Castro-Calvo et al., 2018).
10. Parasociality	Human–human vs. human-technology	Engagement in digital sexual interaction may involve interpersonal interaction (e.g. live chat with a human partner) or parasocial interaction (e.g. live chat with an AI chatbot; Döring et al., 2021, 2025).
11. Role	User vs. creator	Engagement in digital sexual interaction may involve acting as a user/consumer/customer or as a creator/performer/service provider (Döring et al., 2021).
12. Sociality	Solitary vs. partnered	Engagement in digital sexual interaction may occur alone (e.g. solitary pornography use) or with others (e.g. partnered pornography use; Bélanger Lejars et al., 2020).

chat, webcam, dating-app, or with video pornography) with the now upcoming second-wave digisexualities that shift the sexual experience more towards parasocial

human-technology interactions (e.g. sexual interactions with VR avatars, AI chatbots, and embodied sex robots). Authors expect that both first and second wave digisexualities may lead

to the emergence of a digisexual identity in the sense that people acknowledge their sexual involvement with technology as identity-building. Authors predict more benefits than risks of digisexualities in the future but still encourage clinicians to diagnose and treat problematic digisexualities, for example, in couple and family therapy.

- **Sexual interactions through, via, and with digital technologies:** The sexual interaction in digital contexts (SIDC) typology (Döring et al., 2021) differentiates three types of SIDC: (1) The sexual interaction *THROUGH* digital technologies type focuses on the face-to-face sexual encounter and how it is enabled or shaped through digital technology use (e.g. two people match on a dating app, then meet in person for a face-to-face sexual encounter). (2) The sexual interaction *VIA* digital technologies type focuses on technology-mediated interpersonal sexual encounters (e.g. two people meet via webcam and engage in a mediated live sexual interaction by talking and performing sexual acts in front of the camera such as stripping and masturbating). (3) The sexual interaction *WITH* digital technologies type focuses on parasocial interactions with technology artefacts (e.g. a person engages in verbal sexual interaction with an AI chatbot). Authors demonstrate, based on previous research, that all three types of SIDC are associated with both positive and negative outcomes, depending on context factors such as characteristics of the person (s) involved and situational variables.

Conclusion

There is no single best way to conceptualize and measure sexual interaction in digital contexts; rather, the theoretical and methodological approach must align with the respective research goal. In some cases, it may be appropriate to work with broad umbrella concepts of digital sexuality. In others, established classification dimensions can help differentiate key subcategories of sexual interaction in digital contexts to better address the

research aim. Alternatively, a full typology may be applied or developed to explore experiences of digital sexuality in a more nuanced manner. Researchers may draw on existing studies and instrument overviews (e.g. Eleuteri et al., 2014; Bélanger Lejars et al., 2020) to guide data collection, but they may also need to develop new interview questions, survey items, or scales to account for evolving technology and terminology.

Cross-References

- [Online Dating: The What, How and Why](#)
- [Online Infidelity: An Old Problem Moves Online](#)
- [Online Pornography: Impacts and Perceptions on Self and Others](#)
- [Sex Education Through the Internet](#)
- [Sex Work Online](#)
- [Sexting, Cybersex, and Technology-Mediated Sex](#)

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