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From CMC to DMC: Digital writing beyond the keyboard

1 Terminology

The prevalent terminology for denoting interpersonal communication facilitated by digital media is, at the time of writing, ‘Computer-Mediated Communication’ (CMC), a term that gained prominence in the 1980s, supplanting the earlier descriptor, “computerized conferencing,” initially introduced in 1978 (see Hiltz and Turoff 1978/1993: xix). CMC was adopted to encompass “any system that uses the computer to mediate communication among human beings”. The initialism CMC became widely used as informal digital communication methods like online message boards emerged. Nevertheless, since the mid-2000s, scholars have contested the appropriateness of the term CMC for at least three reasons:

1. Microprocessor-based communication has evolved beyond traditional keyboard-centric interactions. It now encompasses a diverse array of modalities, including auditory, visual, and audio-visual means. Moreover, contemporary communication often integrates multiple modes and media, employing combinations of text, images, and audio elements (see Jucker and Dürscheid 2012: 4–8). Additionally, haptic feedback, characterized by vibrations, has become an integral component of this communicative paradigm.
2. The scope of CMC practices has expanded beyond what is considered as a ‘computer’. A variety of devices such as mobile phones, tablets, and wearable technology are all used to communicate, redefining the conventional understanding of computing in this context (see Carr 2020).
3. Linguistic features traditionally associated with CMC extend beyond computer and internet devices. Instances of such features are evident in non-computer, non-internet communication, exemplified by activities like sending SMS using a mobile phone (see Herring 2007).

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Authors have attempted to reconcile these discrepancies by expanding the definition of CMC or suggesting alternative terms. For example, Herring (2007) defined CMC as “text-based human-human interaction mediated by networked computers or mobile telephony”,¹ but the focus on text-based communication in this definition excludes the other modes mentioned in point 1, such as audio-based technology. Other suggestions for new terminology have included “electronic language” (Collot and Belmore 1996: 13), “electronically-mediated communication” (Baron 2008: xii), “internet-mediated communication” (Yus 2011), and “electronic communication” (Herring 2012), and even simply “Mediated Communication” (Carr 2020).

According to Carr (2020: 10), the term Computer-Mediated Communication (CMC) poses a broader epistemological challenge due to the widespread mediation of communicative experiences by “omnipresent digital tools”. Carr suggests that any terminological framework should be inclusive of the extensive array of communication devices, moving beyond the historical association of “technology tethered to a desk by a cord” (Carr 2020: 10). The proposition of “Mediated Communication” (MC) by Carr serves to de-emphasise the centrality of computers and underscores the importance of the mediation process itself, suggesting a “technology-agnostic approach” (Carr 2020: 17), assuming a detachability of language from the medium. However, this perspective may encounter challenges as human-to-human interaction exhibits variations even among similar platforms (e.g., WhatsApp vs Telegram), not to mention sites with differing communicative motivations (e.g., WhatsApp vs YouTube), thereby questioning the effectiveness of this approach.

Another term which instead refers to the environments and platforms where CMC occurs is *Social Media*. Unlike CMC, the term is also used outside linguistics. Cann et al. (2011: 7) define social media as “Internet services where the online content is generated by the users of the service”. In the subsequent explanations they name two features which we also regard as defining:

Firstly, social media services emerged in the first decade of the 21st century following technological advances that allowed the easy and dynamic exchange of user-generated content, including platforms like MySpace and Facebook, referred to as “Web 2.0”. Before that, to publish content online (i.e., Web 1.0), an individual would need knowledge of HTML, to have access to a web server and to be able to deploy files on it, something that was possible only for a few private individuals.

Secondly, social media serve one or more of the following three functions: communication (such as in blogs and chat messengers), collaboration (e.g., wikis, google docs), or the sharing and consuming of multimedia content (e.g., YouTube, Insta-

¹ Some definitions of CMC also include human-machine interaction (HMI), although in this paper, we focus on human-human interaction.

gram). Similarly Kaplan and Haenlein (2010) defined social media as a “group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content”. As social media are based on the World Wide Web i.e. built on HTML and HTTP, the term excludes earlier genres of CMC that relied on other internet protocols such as Internet Relay Chat (IRC), Usenet News, or email – or SMS, which is not based on the internet at all but on mobile telephony.

Personal homepages, business and institutional websites, or platforms with a focus on transactions such as the trading of products are also excluded from classification as social media as their primary focus is not on communication, collaboration and content sharing. Although these other web genres might offer components with social media functions such as commenting or reviewing, this is neither their main focus nor a defining feature.

While there may be some generalisable linguistic characteristics across various communicative technologies, the specific platform often remains a crucial consideration for any linguistic analysis. The term ‘Mediated Communication’ presents a potentially more future-proof alternative compared to a mere substitution of ‘computer’ with a technologically specific term like ‘microprocessor,’ as ongoing technological advancements may also render such descriptors obsolete. However, the term ‘Mediated Communication’ is inherently broad, encompassing mediums like air, water, and copper coil through which communication occurs, leading to a potential lack of precision and reduced utility. As per the title of this collection and in this chapter, we suggest the term ‘Digitally Mediated Communication’ (DMC) (see Yao and Ling 2020), akin to the German expression “digital vermittelte Kommunikation” (Androutsopoulos and Busch 2020: 137). This term is characterized by its device-agnostic nature and explicitly highlights the technologically-mediated nature of communication, unlike the similar phrase “digital communication” (Tagg 2015; Georgakopoulou and Spilioti 2016).

2 The development of DMC

Novel linguistic practices have been a central focus of DMC scholarship from the very beginning of the field in the late 1970s. For example, Carey (1980), identified emergent graphemic methods of communicating emotion when using “computer conferencing systems”, such as “vocal spelling” (the repetition of graphemes to represent prosody). However, these novel practices have not been limited to graphemic features, developments have occurred in almost all aspects of language, including grammar and interaction, particularly following the increased access to digital communication methods in the late 1990s and early 2000s, which saw a huge increase in Digital Writing by ordinary users.

2.1 Interaction in DMC

One of the earliest frameworks designed for the analysis of interactive facets within DMC was introduced by Collot and Belmore (1996: 15–18). This framework applied the multidimensional-multi-feature model (MD-MF), initially formulated by Biber (1988), to scrutinize discourse and interaction in digital “speech situations”. Notably, research on DMC interaction has frequently drawn upon methodologies from Conversation Analysis (e.g., Schegloff and Sacks 1973; Hutchby and Wooffitt 1998). These studies often concentrate on various aspects including turn-taking (Herring 1999; Riva 2002; Kessler 2008; Bou-Franch et al. 2012; Androutsopoulos and Tereick 2016; Meredith 2019), examinations of openings and closings (Kessler 2008; Meredith 2019) and topic structure and shift (Herring 1999; Herring et al. 2013; Dowell et al. 2017).

2.1.1 Styles and modes of DMC

From very early on in DMC scholarship, it was acknowledged that different modes of DMC (e.g. email, chat) produced not just different linguistic features, but also different interactive styles, as noted in Werry (1996), often related to the synchronicity of the mode of communication (Frehner 2008: 168). More synchronous communication has been characterised as more dialogical with rapid alternation of turns (Crystal 2008), containing more topic shift (Herring 1999; Herring et al. 2013), as well as lexical features that represent openings and closings (e.g. “hi”) (Kessler 2008). Within German and English-language DMC, Siever et al. (2005), Wirth (2005), and Kessler (2008) have suggested that more synchronous situations encourage language economisation and the representation and approximation of spoken features in a written form (sometimes referred to in German-language work as conceptual orality, see Section 3.2).

However, there is also evidence that the link between the synchronicity of a DMC mode and the choice of certain linguistic and interactive features is not this straightforward. Dürscheid (2005) and Gibson (2008) both demonstrated that openings and closings, characteristic of synchronous communication, were also widely used in both email and Virtual Learning Environments (VLEs), which had been considered asynchronous. Similarly, Androutsopoulos (2015) demonstrated that communication between participants on *Facebook* (on a user’s profile page, or ‘wall’) can exhibit qualities of both asynchronous and synchronous communication, in that posts may be responded to almost immediately, after several hours or after days, yet the comments, regardless of the time gap, contain examples of features characteristic of synchronous communication, such as ellipsis, see Figure 1:

Dee: Sitze jetzt in der schön warmen bahn & wünsche mein schwesterherz @ M weiterhin einen schönen schlaf & süße träume♥

Dee: Am now sitting in the warm train & wishing my dear sister @ M a lovely sleep & sweet dreams♥

Figure 1: Facebook status update, adapted from Androutsopoulos (2015: 194).

2.1.2 Identity in DMC

In addition to research on the structural aspects of DMC interaction, a significant proportion of scholarship also deals with social aspects of interaction features, especially concerning user identity (or anonymity) and the construction of online communities (for a discussion of anonymity, pseudonymity, and online identity, see Döring 2010). Herring (2019: 31–32) notes that the first online communities were interest-based and this is discussed in early scholarship, which examined, for example, newsgroups for political discussion (Gruber 1997; Jones 1998; Papacharissi 2004), mailing lists for hobbies and interests (Bell and Hübler 2001; Dresner and Herring 2010; Erickson 1999), and MUDs for role-playing games (Danet 1998; Kendall 1998; Nakamura 2002; Utz 2000). Despite the popular hope that the new-found online anonymity might lead to a socially equal space (Herring 1996a), research found that it often resulted in “uninhibited verbal behavior,” characterized by swearing, insults, name-calling, and hostile comments (Kiesler et al. 1984: 1129). This behaviour was identified as indicative of masculine posturing (Jones 1998: 59). Notably, the “pre-web” period of DMC (1983–1993) was primarily populated by white men from the USA and the UK, although a noticeable “increase in female users” was observed from the early 1990s (Herring 2019: 39).

The perceived rise in female users prompted a focus on the socially gendered aspects of DMC, becoming a prominent theme in 1990s scholarship and continuing as an essential topic. Scholars applied developments in offline sociolinguistic research to analyse discourses in online communication. Studies explored tendencies of men to use assertive language, swearing, and sarcasm, while women were found to employ cooperative language, hedges, apologies, and questions (e.g., Herring 1992 1996b 1996a; Savicki et al. 1996; Schwartz et al. 2013). Additionally, researchers examined potential gendered differences in DMC-specific linguistic features. Some proposed that emoticons, like < :) >, and punctuation marks were characteristic of women’s language in DMC (Baron 2004; Parkins 2012; Schwartz et al. 2013; Waseleski 2006; Witmer and Katzman 1997; Wolf 2000). However, Huffaker and Calvert (2005), in a study of blogs, found no gender-based differences in lexical choice, and

noted that (young) men used more emoticons than women. Furthermore, Hilde et al. (2020) suggested that age may play a more crucial role in determining the emotional expressiveness of DMC texts, with younger individuals using more expressive features.

2.1.3 Gender in DMC

The increased availability of substantial DMC data since the mid-2010s has facilitated more sophisticated approaches to analysing emoticons and emoji, among other linguistic features. For instance, Fladrich and Imo (2020) utilized the *MoCoDa2* corpus of German-language *WhatsApp* conversations to investigate the use of specific emoji as indicators of gender identity.² Figure 2 presents an example of emoji usage in a male group chat.

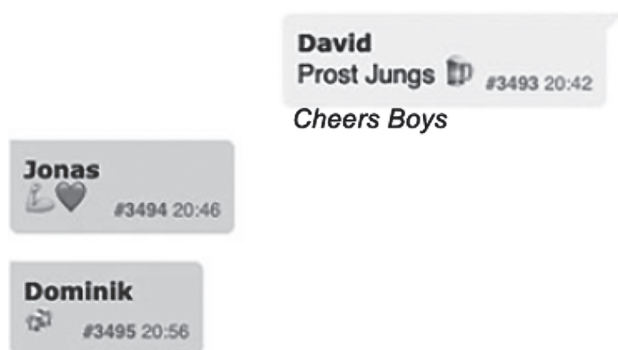


Figure 2: *MoCoDa2 WhatsApp* chat, adapted from Fladrich and Imo (2020: 113).

The study revealed significant differences in the top 20 emoji used by women and men in both mixed and single-gender settings. A growing body of research has adopted larger-scale computational linguistic methodologies, such as machine learning algorithms, to explore emoji use with the objective of discerning the gender identity of users (e.g., Chen et al. 2018; Jaeger et al. 2018; T. Koch et al. 2020). However, these analyses predominantly operate within the framework of a binary understanding of gender, potentially reflecting limitations in the technical features

² https://www.reddit.com/r/funny/comments/1buvwm4/you_had_one_job_calendar_makers (last accessed 14 February 2025).

of the data sources, such as Twitter or *WhatsApp*, which may not provide mechanisms for users to express non-binary gender identities.

The increase of research on gender led to an expansion in the late 2000s of analyses of other social dimensions of identity. This included investigations into how language is employed to construct and sustain communities, as well as explore sexual, regional, and ethnic identities. Such online communities have been termed “speech communities” following Gumperz’ (2009: 66) definition as “any human aggregate characterized by regular and frequent interaction by means of a shared body of verbal signs”. Alternatively, Gruzdt et al. (2011) favoured the term “imagined communities” (from B. Anderson 1983), describing groups with shared interests or identity who may not necessarily interact directly. Varis and van Nuenen (2017: 478) noted that online communities do not necessitate “temporal and spatial co-presence,” challenging established notions of community, instead describing online communities as “translocal”.

2.1.4 Sociolinguistics of DMC

In the late 2000s, there was a shift from generalized linguistic variation research, such as binary gender language differences, towards analysing the active construction of identities in online contexts, although the earliest research on this topic stems from Turkle (1995). The concept of ‘doing’ identity originates from gender research by West and Zimmerman (1987: 125), which posits that gender is “a routine accomplishment embedded in every interaction,” implying that it is not an inherent, unchangeable property but a socially constructed and “performed” aspect (Butler 2006: 187). This conceptualization of gender has been extended to other social identities, such as ethnicity (i.e., “acts of identity” Le Page and Tabouret-Keller 1985; “ethnifying” Lytra 2016) and youth (“doing youth” Neuland 2003; Walther 2018).

In the field of sociolinguistics, this approach to language and identity aligns with what Eckert (2012) has termed “Third Wave Variationist” sociolinguistics. This entails examining how language variation is employed to construct meaning, identity, and style, recognizing these aspects as inherently “mutable” (Eckert 2012: 94). Within DMC scholarship, researchers such as Blashki and Nichol (2005), Milani and Jonsson (2011), and Heritage and Koller (2020) have analysed linguistic features in online men’s communities, investigating how language is used to shape heterosexual masculinities. This includes the creation of a ‘geek’ identity and the promotion of discourses involving sexism and misogyny.

Other studies, such as Dmitrow-Devold (2017) on the gendered performances of teenaged girls in blogs, Mackenzie (2018) on the performance of motherhood in

online forums, and Willem et al. (2019) on sexist and classist language expressing sexualized stereotypes of women, delve into diverse facets of identity construction through language.

Other sociolinguistic investigations in DMC have explored the role of language to perform ethnicity. For instance, E. Chun and Walters (2011) investigated the use of humor to construct Arab and East Asian identities, while E. W. Chun (2013) explored the use of stereotypically ‘Black’ language as part of Asian-American identities. Multilingualism has also been a focal point in DMC scholarship on language and ethnicity, particularly in studies of online diasporic websites (e.g. Lo 1999; Androutopoulos 2006; Paolillo 2011; Wiese 2015; Hinrichs 2018). This includes phenomena like “codeswitching” between the language of the country of residence and ‘heritage’ languages. More recently, research has examined the use of multiple linguistic resources within the same communicative act, referred to as “translanguaging” (García and Li 2014). Alternative terms for similar concepts have included “codemeshing” (Canagarajah 2011) and “metrolingualism” (Pennycook and Otsuji 2015).

2.2 Beyond “written orality”

The early research perspective portrayed DMC as “neither simply speech-like nor simply written-like” (Yates 1996: 46), with language forms in DMC analysed as representing or emulating spoken language. Common terms for this style of writing included “typed conversations” (Storrer 2001), “typed dialogue” (Dürscheid and Brommer 2016) or “written colloquial speech” (Kilian 2001). This discourse often employed the framework of “orality” and “literality” (*Mündlichkeit* and *Schriftlichkeit*), which explores the interplay between spoken and written language (P. Koch and Oesterreicher 1985; Ong 1982; see Söll and Hausmann 1980). The influential *Nähe-Distanz Modell* (‘Proximity-Distance model’), developed by Koch and Oesterreicher (1985) and later refined in Koch and Oesterreicher (2007), is depicted in Figure 3 and has served as a cornerstone since the 1990s for analyzing DMC (Beißwenger and Pappert 2020; e.g., Günther and Wyss 1996; Schlobinski 2005).

The model posits a spectrum where spoken (oral) and literal (graphic) language reside at opposite ends, each associated with distinct characteristics that define their ‘conception.’ Conceptually, ‘oral’ language is characterized as dialogical, expressive, and spontaneous, while ‘literal’ language is seen as monological, objective, and reflective. Importantly, the ‘conception’ is independent of the medium, whether the language is produced orally or graphically.

Despite the typical association of oral features with oral language production and literal features with written language, the model acknowledges that conceptu-

ally oral features can manifest in written language, and vice versa. Table 1 illustrates examples of each of the four combinations between concept and medium. Given the prevalence of conceptually oral features in Digital Writing, DMC was widely perceived to occupy a middle ground between “literality and orality” (Bader 2002).

Kommunikationsbedingungen:

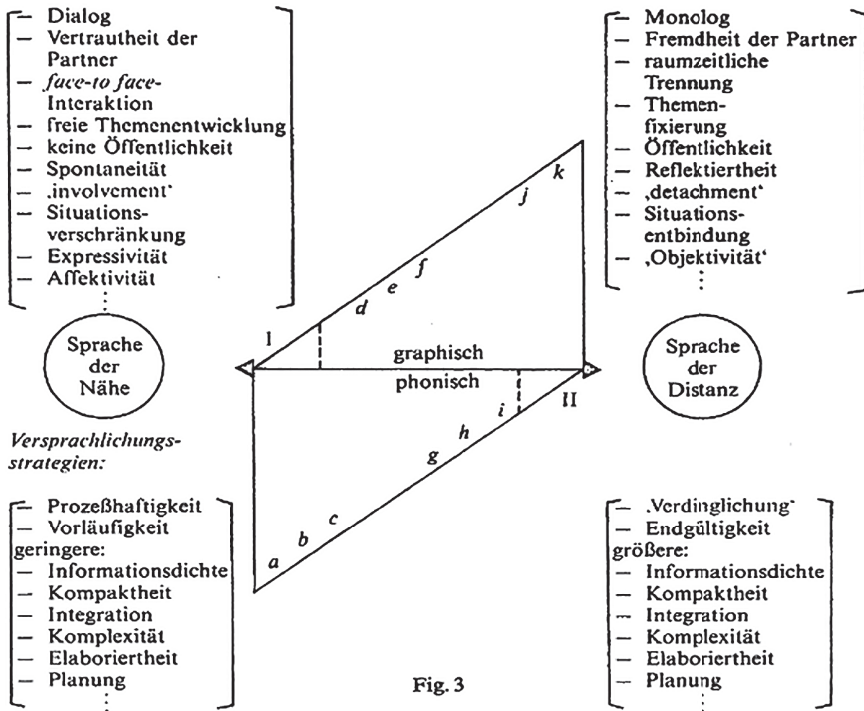


Figure 3: The Proximity-Distance model (Koch and Oesterreicher 1985: 23).

Table 1: Examples of the combinations between conception and medium based on the Proximity-Distance model, adapted from Kilian (2010 [2001]: 69).

		Medium	Medium
		Graphic	Phonic
Conception	<i>Oral</i>	< nehmen wir mal an >	[ne:mwema'an]
Conception	<i>Literal</i>	< nehmen wir einmal an >	[ne:mənʷɛənməlan]

Since the initial publication of the *Nähe-Distanz Modell*, there has been extensive discourse regarding its application to DMC, leading to several proposed revisions (e.g. Dürscheid 2003; Ägel and Hennig 2006; Schlobinski 2006a; Landert and Jucker 2011; for a fuller analysis of the revisions see Cotgrove 2024), each trying to account for the rapid communicative developments in DMC in this period (i.e., the transition from Web 1.0 to Web 2.0). Koch and Oesterreicher (2007: 351) even adapted their own model to account for the criticism, and integrated their original conditions and strategies into a unified group of ten pairs termed “communicative parameters,” as presented in Table 2. This consolidation aimed to provide a more coherent framework for understanding the nuanced interplay between *Nähe* and *Distanz* in communicative acts.

Table 2: Updated communicative parameters of the Proximity-Distance model, adapted from Koch and Oesterreicher (2007: 351).

Proximity	Distance
Private	Public
Familiarity with conversational partner	Unfamiliarity with conversational partner
Strong emotional involvement	Low emotional involvement
Influenced by situation and/or actions	Disassociation from situation and/or actions
Referential proximity	Referential distance
Spatio-temporal proximity (face-to-face)	Spatio-temporal distance
Communicative cooperation	No communicative cooperation
Dialogicity	Monologicity
Spontaneity	Reflectedness
Unrestricted evolution of topic/theme	Fixed topic/theme

However, Koch and Oesterreicher’s update, as well as some of the suggested revisions, have been criticised by Androutsopoulos (2007), who contended that many of the stylistic distinctions between spoken and written language were determined by (a lack of) technology. For instance, any email exchange, while asynchronous, can function quasi-synchronously due to technological advancements in internet speed and text input capabilities. Similarly, Storrer (2013: 354) argued that “characteristic stylistic features are not tied to the medium [...] or a particular social network” and emphasized that “writers adapt their writing style to the respective communicative setting and the appropriate linguistic conventions”.

2.2.1 Towards a new literacy

These critiques reflect a growing body of scholarly recognition that the *Nähe-Distanz* model is just one of many potential frameworks for analysing specific features of Digitally Mediated Communication (DMC). Androutsopoulos (2007) advocated for terms like “neue Schriftlichkeit” (‘new literacy’), initially coined by Haase et al. (1997: 81), and later “digitale Schriftlichkeit” (‘digital literacy’). As DMC ceased to be considered ‘new,’ these terms were introduced to acknowledge potential distinctions between digital and traditional forms of writing, although the ubiquity and volume of DMC also calls the usefulness of such distinctions into question. However, these new terms provide a reframed analysis of digital features that transcends the constraints of the *Nähe-Distanz* model, which, as noted by Dürscheid (2016b: 386), “was never designed for this purpose [the analysis of Digital Writing]”. Dürscheid (2016b: 386) went on to argue that the “new communicative forms, particularly chat,” make it almost impossible to integrate DMC “within the continuum of *Nähe* and *Distanz*”.

Echoing this sentiment, Androutsopoulos (2007) and later Saxalber and Micheluzzi (2018) concurred that the linguistic features of DMC cannot simply be treated as “a medial transposition of the aspects of spoken language” (Androutsopoulos 2007: 81). This perspective contrasts with much of the older research, which viewed Digital Writing as an “emulated” form of spoken language (see Siever et al. 2005: 7). Moreover, even if certain linguistic themes and features are common across DMC, the diverse array of online platforms and communication opportunities introduces significant linguistic variations within and across platforms, including the differing modalities to which users respond, e.g. a picture or video, and the surrounding text, such as in Figures 4 and 5, with Reddit and YouTube. These linguistic features are dynamic, evolving, diverging, and converging, necessitating ongoing research (Androutsopoulos 2011). While the *Nähe-Distanz* model contains a list of useful dimensions and characteristics that can be used to analyse communicative situations, it falls short as a comprehensive solution for DMC, and certainly not as an over-generalised, one-dimensional model.



Figure 4: Youtube comment section (extract) taken from the Channel “The Dodo”.³

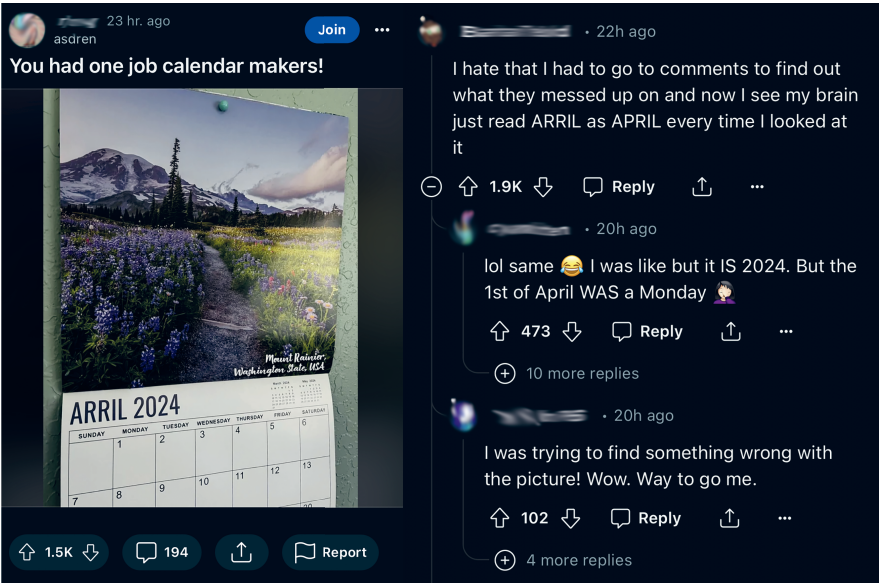


Figure 5: Reddit comment section (extract) taken from the posting “You had one job calendar makers!”⁴ in the Subreddit “r/funny”.

3 <https://www.tiktok.com/@ristoripa/video/7344349526293024033> (last accessed 14 February 2025).

4 <https://www.tiktok.com/@ristoripa/video/7344349526293024033> (last accessed 14 February 2025).

An initial attempt to move away from conceptual orality was made by Androutsopoulos (2003, 2007, 2011), who reframed the interpretation of shouting capitals and the repetition of graphemes as “compensation practices” for face-to-face communication, which is more than just orality. Another set of features that resists easy classification is the use of emoji and emoticons. Initially interpreted as compensation for facial expressions in face-to-face communication, as they represent human faces (Beck 2010; Beißwenger and Pappert 2019; Dresner and Herring 2010; Hilde et al. 2019; Hougaard and Rathje 2018; Kavanagh 2019; see Miyake 2007; Thompson and Filik 2016), the functions of emoji and emoticons remain a subject of significant debate within DMC scholarship. According to Albert (2015: 3), “emoticons in written language today cannot be described as a compensation strategy”; instead, they “have evolved into abstract, symbolic signs” used to modify how a message should be received, i.e. modifying the illocutionary force of a message (see Cotgrove 2024). Similarly, Herring (2013: 8) argues that emoji and emoticons are not solely compensatory but can also be employed ludically as part of “language play”.

2.3.1 Graphostylistics

In addition to conceptual orality and compensation, Androutsopoulos (2007: 81–83) posited two additional frameworks for analyzing linguistic features within Digital Writing: “graphostylistics,” building on prior work by Sassen (2000) and Schlobinski (2001); and “language economisation” (see Siever 2006). Graphostylistics, also known as “graphic variation” (Spitzmüller 2013) or “graphomatic microvariation” (Dürscheid 2016a), involves the “manipulation of visually represented language without correspondence to phonics,” i.e., stylizing writing in a visual and often playful manner (Androutsopoulos 2007: 83). This can include phonetic spellings, e.g., < kul > for < cool > (Dürscheid 2016a: 496), alternating upper and lower case letters (e.g., < aWeSoMe >, for *awesome*) to communicate irony; and grapheme substitution, e.g., < gr8 > to represent < great > and < cu > for < see you >. Such stylization has been utilized by commenters as a graphemic strategy to express aspects of their identity within their Digital Writing.

Stylisations like < gr8 > and < cu > are also often categorized as ‘language economisation’, representing the use of graphemic strategies to “shorten a message form” in response to technological and financial barriers (Androutsopoulos 2011: 149; also see Ferrara et al. 1991: 19; Schlobinski 2006b; Siever 2006).

In Digital Writing, scholars have classified ellipsis and the use of phonetic and colloquial spellings as language economisation strategies (Crystal 2008; Dürscheid 2005; Kessler 2008; e.g., Siever et al. 2005; Wirth 2005), wherein specific linguistic features are intentionally omitted or abbreviated to save time, space, and some-

times money (as in the case of SMS exchanges where users are charged per 160-character text). With the proliferation of smartphones and more affordable data packages, SMS exchange in Europe has significantly decreased, replaced using messaging clients such as *WhatsApp* and *Facebook Messenger*. Consequently, the financial and spatial constraints of fitting a message into as few characters as possible have largely vanished, although some language economisation features, along with other non-standard graphemic practices, persist in more recent communication channels as stylistic choices. For example, the phonetic respelling of < u > for < you > (Rotne 2018: 900), referred to by Berg (2020) as a “democratisation of orthography”. However, discussions often arise regarding whether children’s use of such forms negatively impacts their writing ability or is a conscious stylistic choice (Androutsopoulos and Busch 2021; see Kleinberger Günther and Spiegel 2006).

2.3.2 Metacommunication

One area of DMC that is not as widely researched is the examination of the paralinguistic or metacommunicative functions conveyed by non-lexical signs – conventions that express emotion or tone or signify certain sociocultural information between interlocutors. While Androutsopoulos’s framework, as elaborated earlier, has proven valuable for a holistic analysis of digital writing, it requires adaptation for studying the metacommunicative functions of graphemic features in digital writing.

For instance, studies on “digital punctuation” by young German speakers explored how punctuation marks can serve metacommunicative functions (Androutsopoulos and Busch 2021; Rinas and Uhrová 2016), including the indexing of specific identities (Androutsopoulos 2018, 2020). In Figure 7, a planned expansion can be interpreted by the usage of elliptical points in the initial position, which can be interpreted as a cohesive device.

Luisa: Ach Quatsch stört mich nie :)
‘Oh that [if your place is a mess] doesn’t bother me at all :)’

Luisa: ... bei anderen :D in meiner wg treibt mich das zur Weißglut aber das ist ein anderes Thema 😊 *‘... as long as it’s not my place :D the mess in my dorm drives me crazy but that’s a different issue 😊’*

Figure 7: Self-selection strategy in WhatsApp, imitating floor keeping strategies from spoken conversation, adapted from Beißwenger et al. (2023: 35).

Metacommunicative devices and other functions have also been explored within emoji usage in digital writing, as demonstrated by the “Face with Tears of Joy” emoji in Figure 8 in a TikTok comment which here modifies the illocutionary force of the proposition. Emoji use in metacommunication has seen a dramatic uptake since 2015 (see Pavalanathan and Eisenstein 2015; Ljubešić and Fišer 2016; Evans 2017; Beißwenger and Pappert 2019; Dainas and Herring 2020).



Figure 8: TikTok comment section of video “pov: trying to play it cool while waiting for your takeaway”.⁵



Figure 9: Variation of animoji (top two rows) and memoji (bottom two rows), adapted from Herring, Dainas, Lopez Long et al. (2020).



Figure 10: The “kappa” Twitch emote, one of the most popular emotes, signalling irony (Cotgrove 2025: 232).

⁵ <https://www.tiktok.com/@ristoripa/video/7344349526293024033> (last accessed 14 February 2025).

A further current research area relates to the investigation of graphical features specific to various platforms, such as personalized bitmoji on *SnapChat* (Danesi 2016: 60–61), augmented-reality animoji on iOS, see Figure 9 (Herring, Dainas, Lopez Long et al. 2020; Herring, Dainas, Long et al. 2020), and emotes on *Twitch*, see Figure 10 (Barbieri et al. 2017).

The ubiquitous yet rapidly-developing nature of DMC means that even attempts to generalise communicative practices across digital spaces are short-lived, let alone attempts to establish comparisons with oral language practices. Instead, fine-grained approaches to specific aspects, platforms or modes of DMC can be more useful for future research, as they analyse digital linguistic practices within their specific contexts. Corpus-based approaches, such as the 19 chapters in this edited collection, are particularly beneficial for providing these contexts, as they are based on authentic data, and highlight the diverse and complex practices within DMC.

3 What to expect from this volume

Five chapters in this edited collection focus specifically on different linguistic features and phenomena in digitally mediated communication (DMC). They offer linguistic perspectives from Turkish, English, German and Chinese and cover different sites of DMC, including YouTube, Reddit, WhatsApp and other web texts.

The chapter “Utilizing Text Dispersion Keyword Analysis on Informational Description and Opinion Web Registers of Turkish” by Selcen Erten and Veronika Laippala examines the linguistic differences between different web registers in Turkish, with a particular focus on the information description and opinion registers. The research questions are how these registers differ linguistically and what insights these differences provide into the linguistic landscape of the Turkish web. The study uses the *Turkish Corpus of Online Registers* (TurCORE) and applies Text Dispersion Keyword Analysis (TDK) to examine 481 informational texts and 215 opinion texts, analysing keyword dispersion to identify distinctive linguistic features across these registers.

Staying within generalised web corpora, the chapter titled “‘Also ehrlich’ – From adjectival use to interactive discourse marker” by Lothar Lemnitzer and Antonia Hamdi examines the evolving use of the German word *ehrlich* from its traditional adjectival meaning (“honest”) to its function as an interactive discourse marker. The research questions focus on identifying the specific function of *ehrlich* in its non-traditional use and the contexts that trigger this function. The study uses various corpora, including the *Digitales Wörterbuch der deutschen Sprache* (DWDS) and the *Deutsches Referenzkorpus* (DEREKO), and applies both quantitative and

qualitative analyses to explore the linguistic patterns of *ehrllich* in different modes of communication, from written texts to spoken dialogues.

Also focusing on a particular feature of DMC is “Digital Punctuation from a Contrastive Perspective: Corpus-based Investigations of Ellipsis Points in German and Chinese Messaging Interactions” by Michael Beißwenger, Sarah Steinsiek and Yinglei Zang, which examines the use of ellipsis points in German and Chinese messaging interactions. The chapter looks at how ellipsis points function in digital communication and whether these functions are consistent across languages. The research questions focus on the pragmatic functions of ellipsis points in WhatsApp and WeChat messages and their origins in written traditions. The authors adopt a corpus-based approach, analysing randomised samples from the *MoCoDa2* corpus for German and a dataset of WeChat interactions for Chinese.

A further study of the variation of DMC features is provided in the chapter “A Multivariate Register Perspective on Reddit”: Exploring Lexicogrammatical Variation in Online Communities” by Florian Frenken, which investigates linguistic variation within Reddit’s subcommunities, called subreddits, using a geometric multivariate approach. The research questions focus on whether subreddits exhibit distinct lexicogrammatical features that qualify them as subregisters of Reddit, and how these features align with their contextual and functional differences. The study uses systemic functional theory to analyse 42 lexicogrammatical features across texts from 33 subreddits, revealing overlapping clusters that reflect contextual similarities and differences. This approach aims to improve our understanding of linguistic variation in online communities and the wider internet landscape.

An analysis of features beyond lexicogrammatical processes can be found in the chapter “Novel Methods of Intensification in Young People’s Digitally-Mediated Communication” by Louis Cotgrove, which examines creative intensification strategies in German YouTube comments written by young people. It explores how these strategies modify the quality of elements in sentences. The research questions focus on identifying and classifying novel methods of intensification in youth DMC outside of traditional lexicogrammatical categories. The chapter uses data from the *NottDeuYTSch* corpus, a collection of 33 million tokens from YouTube comments. Methods include categorising intensification into morphological, syntactic, graphemic and typographic strategies, revealing how digital communication creatively develops linguistic conventions.

Five chapters deal with the construction of DMC corpora, from data collection via legal and representational issues to converting and preparing corpora for exchange and for use in corpus analysis systems to distributing corpora via corpus analysis platforms or repositories. They cover such diverse DMC sources as twitter, instant messaging/private chat data, multimodal human-robot interaction, SUD datasets, and audio data extracted from video sharing sites.

In the first chapter in this group, entitled “Collecting minority language data from Twitter (X): a case study of Karelian”, Ilia Moshnikov and Eugenia Rykova introduce a Karelian Twitter (meanwhile known as X) corpus as a first DMC corpus of Karelian and as a case study of data collection for an endangered minority language. Karelian is a finno-ugric language closely related to Finnish and nowadays spoken by some 20,000 to 25,000 speakers in Russia and Finland. The authors describe their methods for identifying tweets in Karelian which is erroneously classified as Finnish by many LID systems and scraping them from the web. Tweets in the resulting corpus are also tagged for one of four Karelian dialects using the recent HeLi-OTS tool. The 2,625 Twitter posts of the corpus are also characterised according to the most prolific users and accordings to the most prominent topics discussed in them. The contribution showcases data collection and linguistic annotation for a DMC corpus of an endangered and underresourced language.

Aris Xanthos, Lliana Doudot, Prakhar Gupta introduce a corpus of instant messages in their chapter “What’s new Switzerland? Collecting and sharing half a million WhatsApp message in French”. This novel corpus builds on the famed What’s up Switzerland project, the French part of which it continues temporally for the years since 2015, while also improving on the methods and procedures developed in the former project. The chapter describes the collection, preparation, and publishing of the data with special focus on the improved anonymisation (de-identifying) method for chat messages. The resulting corpus contains over 500,000 messages and more than 3,2 million tokens and is one of the few current efforts to construct corpora of private chat or instant messaging.

The third chapter in this group by Anne Ferger, André Frank Krause and Karola Pitsch is entitled “A Workflow for Creating, Harmonizing, and Analyzing Multimodal Interaction”. It is based on the authors’ experiences in the MoMoCorp project (Data reuse of multimodal and multisensorial corpora) and its data of human-robot interaction in a museum. MuMuCorp shares many features with DMC, but additionally produced audio-visual data, robot log files from speech recognition and synthesis, and sensor data with motion captures. The authors present their corpus construction workflow with linguistic annotation, quality assurance using GitLab continuous integration tests (CI) and further consistency checks, and TEI export based on the ISO 24624-2016 standard for transcription of speech and CMC-core, as well as export to R dataframes.

The fourth chapter in this group, by Dimitri Niaouri, Bruno Machado Carneiro, Michele Linardi and Julien Longhi is dedicated to online SUD deduction and entitled “Machine Learning is heading to the SUD (Socially Unacceptable Discourse) analysis: from Shallow Learning to Large Language Models to the rescue, where do we stand?”. The authors constructed a unified SUD corpus from 13 publicly available datasets to fine-tune and evaluate pre-trained LLMs. They performed an exten-

sive evaluation of 12 SOTA models and provide a comparative analysis of three model families, namely Shallow Learning Models (SLMs), Masked Language Models (MLMs), and Causal Language Models (CLMs). Finally, they enhance model explainability by employing certain visualisation techniques to the top performing models.

The final chapter in this group is “An Automatic Pipeline for Processing Streamed Content: New Horizons for Corpus Linguistics and Phonetics” by Steven Coats. It introduces the novel, notebook-based Video Phonetics Pipeline (ViPP) which facilitates the extraction and analysis of audio and transcript data from video and streaming platforms such as YouTube or TikTok using the python library yt-dlp, the Montreal Forced Aligner, Praat-Parselmouth and other python libraries. The utility of the pipeline is demonstrated by a consideration of diphthong trajectories in contemporary North American English.

Three chapters focus on digital identities and linguistic variation in online interactions. The chapter “Incel Data Archive: A Multimodal Comparable Corpus for Exploring Extremist Dynamics in Online Interaction”, Selenia Anastasi, Tim Fischer, Florian Schneider and Chris Biemann examine the dynamics of extremist discourse within incel communities, focusing on their migration from mainstream social networks into independent ecosystems. The research questions address the contextualisation of online violent behaviour and the influence of local culture on the dissemination of extremist narratives. The authors use a multimodal and bilingual corpus in Italian and English and draw on Computer Mediated Discourse research to analyse forum-based interactions. The study aims to provide insights into the construction of incel ideology and cross-cultural differences in extremist discourse.

Another analysis of negative behaviour, albeit in a completely different context, is “Not an expert, but not a fan either: A corpus-based study of negative self-identification as epistemic index in web forum interaction” by Eva Triebbl, which examines the linguistic micro-management of identity in online contexts through corpus-based pragmatic analyses of negative self-identifiers (NSIs) in British web discussion forums. The research questions focus on the categories of identification, the co-texts in which NSIs are used, and their implications for identity performance in informal web forum interactions. The study uses qualitative and quantitative analyses of 936 instances of NSIs collected from publicly available English language UK web forums to explore their forms, functions and contextual uses.

“Individual Linguistic Variation in Social Media” by Tatjana Scheffler, explores the impact of various factors on individual linguistic variation in DMC. The research questions focus on how topic, register and individual user characteristics interact with the medium of social media to influence linguistic expression. The chapter adopts a case study approach, constructing a DMC corpus to analyse linguistic variation across different social media platforms within the same group of

authors. Methods include the collection and analysis of large-scale DMC corpora, highlighting the importance of controlling for factors to accurately study intra-author variation.

A further three chapters in this edited collection focus specifically on different features and phenomena of the linguistics of inclusion and discrimination. Firstly, the chapter “Computer-Mediated Communication to Facilitate Inclusion: Digital Corpus Analysis on Disability Diversity on Social Media” by Annamária Fábián and Igor Trost outlines a study that focuses on digital language use related to disability and inclusion, specifically on social media. This research analyses a Twitter corpus of 2,559 German tweets containing 61,249 tokens using the hashtags *#Behinderung* (‘disability’) and *#Inklusion* (‘inclusion’) from December 2020. The study explores the lexicon and co-occurrences of words related to disability and inclusion, aiming to provide insights into how these concepts are discussed online. The paper also discusses how data-mining tools like *AntConc* and *SentiStrength* can be used for lexicon and sentiment analysis.

Secondly, in the study “The representation of the Jew as enemy in French public Telegram channels within an identitarian-conspiratorial milieu” by Laura Gärtner, the author examines antisemitic conspiracy theories that gained traction during the Covid-19 pandemic, portraying Jews as manipulative puppet-masters controlling global events. The study focuses on the spread of these ideas through the internet and social networks, particularly within conspiracy and identitarian movements. A corpus of 90,000 messages from ten Telegram channels, collected between January 2018 and May 2022, is analyzed to detect linguistic patterns used to describe Jews in conspiratorial narratives. The analysis is grounded in the frameworks of Construction Grammar (CxG) and discourse formulae, integrating approaches from both fields, which have previously been developed independently.

Finally, the study by Rachel McCullough, Daniel Drylie, Mindi Barta, Cass Dykeman, and Daniel Smith titled “CoDEC-M: The multi-lingual manosphere subcorpus of the Corpus of Digital Extremism and Conspiracies”. This chapter addresses the spread of extremist ideas between English- and Russian-speaking communities against the backdrop of a movement defined by loneliness and isolation: the incel (‘involuntary celibate’) movement. The study introduces *CoDEC-M*, a subcorpus of the larger *Corpus of Digital Extremism and Conspiracies* (CoDEC), which focuses on language used in non-English manosphere communities. Using *Sketch Engine*, the authors compare the top twenty keywords and bigrams in the English and Russian sections of *CoDEC-M*.

In the last of the thematic groups, two chapters investigate patterns of online interaction using Wikipedia’s talk pages as a database. Talk pages offer a rich, multi-lingual, and freely accessible source of data for studying online interactions on a large scale.

The chapter “The negotiation of pronominal address on talk pages of the German, French, and Italian Wikipedia” by Carolina Flinz, Eva Gredel, and Laura Herzberg explores the use of social deixis, specifically pronominal address, in the context of DMC, with a focus on the German, French, and Italian versions of Wikipedia. The study examines two types of Wikipedia talk pages: article talk pages, where encyclopedic content is discussed, and user talk pages, where individual contributors’ actions are reviewed. Using multilingual corpora from the Leibniz Institute for the German Language, the authors investigate how users negotiate formal and informal address pronouns (e.g., German *Sie* vs. *du*, French *vous* vs. *tu*, Italian *L/lei* vs. *tu*) in these discussions, showcasing the complexity, fluidity and variation of pronominal address in DMC.

The study “Investigating extreme cases in Wikipedia talk pages: some insights on user behaviours” by Ludovic Tanguy, Céline Poudat, and Lydia-Mai Ho-Dac focuses on extreme and marginal behaviors observed on Wikipedia talk pages. Using a dataset of 4 million threads from the English and French Wikipedia, the authors analyze structural aspects of the discussions on the one hand, and subsets of extreme cases for closer analysis on the other hand. By developing a typology, containing features such as highly prolific users, excessively long threads (measured by duration, number of posts, or participant count), and monologues, of these extreme cases, the authors aim to uncover patterns that shed light on both expected and unexpected interactions between Wikipedia contributors.

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