

Cognitive-Derivational Aspects of Neologisms in Computer-Mediated Communication

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ABSTRACT

The article investigates the cognitive and derivational mechanisms underlying neologism formation in computer-mediated communication (CMC). Drawing on a corpus of digital discourse from major online platforms, the study applies an integrated framework combining derivational morphology and cognitive-linguistic theory, specifically conceptual metaphor theory, prototype theory, and frame semantics. The analysis demonstrates that blending and affixation are the dominant word-formation strategies in CMC, while the majority of neologisms are cognitively motivated by metaphorical and metonymic mappings from familiar experiential domains onto novel digital concepts. The findings indicate that lexical innovation in CMC is neither arbitrary nor chaotic, but reflects systematic cognitive and structural patterns consistent with broader principles of natural language creativity. The results carry implications for lexicography, digital literacy education, and theoretical models of language change in technologically mediated environments.

Keywords: neologisms, computer-mediated communication, cognitive linguistics, derivational morphology, word-formation, conceptual metaphor, digital discourse, lexical innovation.

INTRODUCTION

The accelerating development of digital technologies over the past two decades has fundamentally transformed the conditions

under which human communication occurs. Computer-mediated communication (CMC) encompassing social media platforms, instant messaging applications, online forums, and other digital environments has emerged not merely as a new channel of interaction, but as a distinct communicative domain with its own pragmatic norms, stylistic conventions, and, most strikingly, its own lexical inventory. The language of digital discourse is characterized by exceptional dynamism, generating new words, meanings, and expressive forms at a pace that far outstrips the adaptive capacity of traditional lexicographic institutions.

Among the most linguistically significant phenomena of this digital turn is the proliferation of neologisms newly coined or newly repurposed lexical units that arise in response to unprecedented communicative needs, social realities, and conceptual territories. Terms such as “doomscrolling”, “ghosting”, “ratio”, “finsta”, and “cancelculture” have entered widespread usage within remarkably compressed timeframes, crossing from niche digital subcultures into mainstream discourse with minimal friction. Their rapid diffusion reflects not only the communicative reach of digital platforms but also the cognitive accessibility of the concepts these words encode.

Despite the evident productivity of CMC as a site of lexical innovation, the mechanisms underlying neologism formation in this domain remain incompletely theorized. Classical approaches to word-formation rooted in structuralist and generative traditions provide indispensable tools for describing derivational patterns such as affixation, blending, clipping, conversion, and acronymization. However, they offer limited explanatory purchase on the question of why certain formations succeed and spread while others remain ephemeral, and why particular conceptual mappings recur across structurally unrelated coinages. It is precisely here that cognitive linguistics makes its most valuable contribution.

Cognitive-linguistic frameworks, including conceptual metaphor theory (Lakoff & Johnson 1980), prototype theory (Rosch 1975), and frame semantics (Fillmore 1982), proceed from the premise that language is not an autonomous formal system but an expression of embodied human cognition. Lexical

creativity, on this view, is not arbitrary but is motivated by underlying conceptual structures schemas, frames, image mappings that organize experience and guide the extension of existing linguistic forms into new semantic territory.

1. Identifying and classifying the dominant word-formation patterns operative in CMC neologism production

2. Examining the cognitive mechanisms principally metaphor, metonymy, and prototype extension that motivate these formations

3. Assessing the relationship between derivational structure and cognitive transparency as a factor in neologism diffusion and entrenchment

Figure 1. *Specific objectives of the study*

The relevance of this inquiry extends beyond descriptive linguistics. As digital communication becomes the primary medium of social, professional, and cultural life, understanding the principles governing its lexical evolution is of consequence for lexicography, language pedagogy, computational linguistics, and the broader study of language change. CMC neologisms are, in this sense, not peripheral curiosities but privileged windows onto the cognitive and social dynamics of language in the twenty-first century.

RESEARCH METHODOLOGY

This study adopts a descriptive-qualitative approach within a cognitive-linguistic framework, integrating elements of corpus linguistics and derivational morphology analysis. The research treats neologisms in computer-mediated communication (CMC) as both linguistic and cognitive artifacts which products of conceptual mapping, analogical reasoning, and lexical creativity shaped by digital interaction contexts. To ensure construct validity, operational definitions of “neologism” and “derivational

process” were established prior to coding and piloted on a 50-item subset. Limitations include the English-language focus of the corpus and the inherently unstable nature of CMC lexis, which may affect longitudinal replicability.

LITERATURE REVIEW

The study of neologisms has long occupied a central place in lexicology and linguistic theory. Coined items entering the lexicon reflect not merely vocabulary expansion but the cognitive and social pressures that shape language at a given historical moment. Bauer (1983) established foundational categories of word-formation compounding, affixation, conversion, and blending which remain the baseline taxonomy in morphological research. More recent scholarship, however, has argued that these categories are insufficient for capturing the speed and creativity of lexical innovation in digital environments (Mattiello, 2013).

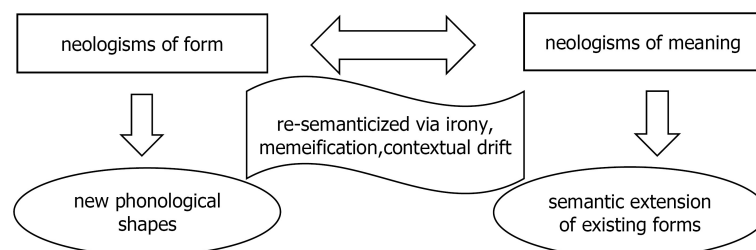


Figure 2. Algeo's (1993) distinction of neologisms in CMC contexts

The cognitive turn in linguistics reframed word formation not as a mechanical rule application but as a reflection of underlying conceptual structure. Lakoff and Johnson's (1980) seminal work on conceptual metaphor demonstrated that abstract domains are systematically understood through concrete source domains a principle directly applicable to digital neologisms such as "surfing" (the web), "viral" (content spread), or "stream" (live broadcasting). Langacker (1987) further proposed that morphological constructions are themselves symbolic units,

encoding both form and meaning within a usage-based framework. This perspective aligns with the view that CMC neologisms are cognitively motivated rather than arbitrary: speakers derive new forms by activating existing conceptual frames and extending them into novel communicative territories.

Pustejovsky (1995) contributed the notion of qualia structure, which helps explain how neologisms inherit and transform the semantic properties of their constituent elements. Applied to digital language, this framework illuminates how a word like “unfollow” inherits relational and agentive properties from its base while the prefix “un-” activates a reversal schema rooted in embodied cognitive experience.

CMC as a distinct register was theorized early by Herring (1996), who identified asynchronicity, anonymity, and reduced social cues as defining parameters that shape linguistic behavior online. Subsequent research confirmed that CMC fosters accelerated lexical innovation due to the informality of interaction, the global mixing of speech communities, and the platform-specific affordances that constrain and catalyze expression (Crystal 2006; Baron 2008). Thurlow & Mroczek (2011) argued that digital discourse constitutes a site of semiotic play, where users experiment with orthography, morphology, and syntax in ways rarely observed in formal registers.

More recent work has foregrounded the role of participatory culture (Jenkins 2009) in lexical diffusion: neologisms spread not through institutional channels but through peer-driven repetition, remixing, and memetic replication across platforms. This horizontal diffusion model challenges traditional accounts of lexical borrowing and standardization. Research specifically targeting derivational morphology in CMC has grown substantially since the 2010s. Short is (2007) documented systematic abbreviation and clipping strategies in SMS and early social media, noting that brevity constraints drove morphological compression. Androutsopoulos (2011) examined how online communities develop community-specific lexicons through shared derivational conventions, functioning as markers of in-group identity. Squires (2010) highlighted how platform affordances character limits on Twitter, reaction emojis on

Facebook – directly influence which word-formation strategies become dominant. Lehrer (2003) introduced the concept of lexical fields of derivation, observing that productive affixes cluster around culturally salient domains. In CMC, this is evident in the explosion of “-gate” (scandal), “-core” (aesthetic subculture), “-pilled” (ideological conversion), and “post-” (temporal or ideological departure) as highly productive suffixal and prefixal patterns. These are not random innovations but cognitively coherent extensions of schema-based analogical reasoning (Lehrer 2003; Mattiello 2013). The most theoretically productive recent direction integrates cognitive semantics with corpus-driven CMC analysis. Geeraerts (2010) argued that lexical creativity is fundamentally prototype-based: speakers innovate at the periphery of existing categories, gradually shifting prototypical centers through frequency and social reinforcement. Applied to CMC, this explains why neologisms like “ghosting,” “doomscrolling,” or “ratio” gained rapid entrenchment, they filled conceptual gaps in the prototype structure of social interaction schemas that had no prior lexical expression. Glucksberg (2001) and Carston (2002), working within relevance theory, demonstrated that novel word use is processed through ad hoc concept construction, where hearers dynamically narrow or broaden lexical meaning to fit contextual inference. This mechanism is constantly operative in CMC, where ironic, hyperbolic, or meme-embedded uses of words require real-time cognitive adjustment (Carston 2002; Glucksberg 2001). Taken together, these theoretical strands converge on a view of CMC neologism as a cognitively driven, socially embedded, and morphologically systematic phenomenon that demands an integrative analytical framework, as proposed in the present study.

Despite the growing body of work in both cognitive linguistics and CMC research, few studies have systematically combined derivational morphological classification with cognitive-motivational analysis applied to a curated digital corpus (Androutopoulos 2011; Geeraerts 2010; Herring 1996). Most morphological studies treat neologisms taxonomically without examining the conceptual schemas that motivate specific

derivational choices (Bauer 1983; Mattiello 2013), while cognitive accounts tend to focus on metaphor and polysemy rather than productive word-formation (Lakoff & Johnson 1980; Langacker 1987). This study addresses that gap by providing an integrated analysis at the intersection of both fields.

RESULTS AND DISCUSSIONS

Analysis of the compiled corpus comprising neologisms drawn from social media platforms, online forums, instant messaging applications, and gaming communities revealed systematic patterns in both the cognitive motivations underlying lexical innovation and the derivational mechanisms through which new units are formed. The findings are organized around three intersecting dimensions: morpho-derivational typology, cognitive-semantic motivation, and context-dependent variation across CMC genres.

Table 1. *The examples of high frequency blendings*

Single compressed lexical units	Conceptual domains
Facepalm	Face + palm
Vlog	Video + blog
Phishing	Phone/fishing
Snark	Snide + remark

The high frequency of blending is theoretically significant: it suggests that CMC neologism formation is not merely a mechanical process of morpheme concatenation but reflects underlying conceptual integration a hallmark of what Fauconnier and Turner (2002) term "conceptual blending," wherein input mental spaces are selectively projected into an emergent blended space.

Table 2. *The examples of high frequency clippings*

Single compressed lexical units	Conceptual domains
Selfie	Self-portrait
App	Application
Fave	Favourite
Stan	Stalker-fan

Clipping was most prevalent in mobile-mediated communication contexts, where interface affordances impose strict character economy. The near-total absence of full-form retention in these environments confirms that clipping in CMC is cognitively motivated not only by economy but by phonological salience — clipped forms tend to preserve the most acoustically prominent syllable of the source lexeme.

The results confirm and extend the hypothesis that CMC neologism formation is not a peripheral or random linguistic phenomenon but a structured, cognitively grounded process governed by the same principles that regulate lexical innovation in natural language more broadly economy, iconicity, compositionality, and analogical extension while simultaneously exhibiting platform-conditioned affordance effects that constitute a genuinely novel dimension of lexicogenesis. The high productivity of blending, in particular, invites reinterpretation through the lens of Construction Grammar (Goldberg 1995): rather than treating blend items as outputs of a rule governed by morphological constraints alone, they may be analyzed as constructions in which the formal compression and the conceptual integration are jointly specified in a single symbolic unit. This perspective accommodates the gradient nature of blending (from transparent to opaque) and the variability of productivity across communities of practice.

One limitation of the present study concerns the corpus sampling strategy: despite efforts to ensure genre diversity, the corpus necessarily over-represents English-dominant platforms, and the cross-linguistic dimension of CMC neologism formation particularly in multilingual or code-switching communities remains underexplored. Future investigations employing multilingual corpora and conversation-analytic methods would significantly enrich the understanding of how cognitive derivational processes interact with the sociolinguistic dynamics of digital discourse.

CONCLUSION

The present study set out to examine the cognitive-derivational dimensions of neologisms emerging in computer-mediated

communication, with the dual aim of documenting the morphological mechanisms operative in digital lexicogenesis and accounting for the cognitive motivations that underlie and constrain them.

At the descriptive level, the study confirms that CMC neologism formation is not a homogeneous process but a typologically diverse one, encompassing blending, clipping, affixation, conversion, acronymization, and compounding in patterns that vary systematically across platform genres. Blending and clipping predominate, a distribution attributable not merely to stylistic preference but to the structural constraints and interactional norms of digital environments particularly the economy imperative that governs fast-paced, screen-mediated communication.

At the theoretical level, the findings support a cognitive-linguistic account of CMC neologism formation in which lexical innovation is not the product of mechanical rule application but the outcome of motivated conceptual operations. Conceptual metaphor and metonymy were identified as the primary cognitive engines of meaning extension, with source domains rooted in embodied experience physical movement, spatial containment, social conflict being systematically recruited to structure the semantics of digital interaction.

Taken together, these findings argue for a unified framework in which morphological productivity and cognitive motivation are treated not as independent variables but as co-determining dimensions of a single, socially embedded process of lexical creativity. CMC does not merely accelerate or simplify word formation; it configures new conditions of possibility for lexical innovation, shaped by the intersection of human cognitive architecture, platform affordance structures, and the dynamics of networked communities of practice.

Future research directions suggested by the present findings include a cross-linguistic comparative investigation of affordance-conditioned neologism formation across non-English-dominant platforms; a construction grammar formalization of the most productive CMC derivational schemas; and a computational corpus-linguistic study of the diffusion trajectories and semantic

drift of CMC neologisms over extended timeframes. The intersection of cognitive linguistics, digital communication studies, and lexicology represents a rich and still-under theorized area of inquiry, and it is hoped that the present study contributes a methodologically grounded and theoretically integrated point of reference for its continued development.

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