

# Language change and digital media: A review of conceptions and evidence

Jannis Androutsopoulos

*University of Hamburg, Germany*

## INTRODUCTION

While writing this chapter, two personal experiences illustrated language change in computer-mediated communication (CMC): First, I conducted a quick survey among 20 students taking a course on CMC, in which all of them reported using emoticons and around 90 per cent also reported using written prosody and expressive punctuation in their private CMC exchanges. The students reported lower frequencies for these features in public CMC contexts, while differences by gender were rather insignificant. Second, I attended a comic interpretation of *Romeo and Julia* recontextualised in the digital era. The play's dialogues were now carried out on facebook walls, with the protagonists' entries sprinkled with emoticons such as ' :-/ ', laughter acronyms such as *rotfl* ('rolling on the floor laughing'), expressive punctuation, and the like. If a discussion of language change and digital media focused on just features of this kind, we could safely assume that a process of change has largely been completed. These anecdotal observations suggest that certain new features of written language are part of the usage of a generation sometimes called the 'digital natives', and subject to mediatised stylisation and popular representation. But such a narrow view of language change in digital media is unsatisfactory. It lacks embedding into a broader picture of sociolinguistic change, which would consider written language in its own right, deconstruct the very notion of 'language' into various domains of language practice, and distinguish potential trajectories of change within online written usage, from digital to non-digital written language, or to spoken usage.

Questions and scenarios of this kind circulate in the transnational research literature that has emerged in this area since the mid 1980s. Its prototypical empirical domain is variably called CMC, computer-mediated discourse or 'interactive written discourse' (Ferrara, Brunner and Whittemore 1991). In this paper I also use the term 'digital networked writing', a term that emphasises the dialogical and process-oriented character of written language use through technological networks and within social networks (see boyd 2011).

All networked writing is carried out on digital technologies that enable private or public, asynchronous or near-synchronous exchange among individuals and groups on various applications or platforms. While these technologies enable all sorts of written communication (including carefully drafted, subject-oriented and institutionally framed texts), I argue that prototypical networked writing is shaped by four main conditions (Androutsopoulos 2007): (a) it is vernacular, in the sense of non-institutional writing that is located beyond education or professional control; (b) it is interpersonal and relationship-focused rather than subject-oriented; (c) it is unplanned and spontaneous; and (d) it is dialogical and interaction-oriented, carrying expectations of continuous exchange. These properties set the frame for a prototype of new writing, which first materialised in pre-web applications such as personal emails, newsgroups and chat channels, then carrying on to forums, texting and instant messaging. Written language shaped by these properties captured researchers' interest and imagination from early on, and virtually all discussion on language change in and through digital media examine networked writing in the sense outlined here.

However, the reach of CMC has for some time outgrown these conditions, and the relevant literature is full of discrepancies between early and contemporary accounts, visionary scenarios and empirical evidence. An example of the high expectations voiced in early literature is this aphorism by the German linguist Sigurd Wichter from 1991: ‘The history of digital networks cannot be written yet, but it is not improbable that these new developments might reach the consequences of the printing press at the beginning of the modern era or of telecommunications technologies in the beginning of the 20<sup>th</sup> century.’<sup>1</sup> Projections of this kind often surface in public discourse, their frequent dystopian versions motivated by ‘a deeper concern: that Internet language is corrupting the way we craft traditional writing or even speak face-to-face’ (Baron 2008: 176). But they have become less common in the ‘Internet linguistics’ literature nowadays, as exemplified by David Crystal’s recent claim: ‘The phenomenon is so recent (...) that we might expect very little to have happened’ (2011: 57).

This chapter offers a critical synthesis of research literature as a backdrop against which to develop a perspective on digital media as sites of sociolinguistic change.<sup>2</sup> I start by discussing evidence for written-to-spoken and written-to-written effects of CMC language, thereby concluding that findings have been negative, inconclusive, or fairly restricted. Moving to language innovation and change within CMC, three main themes are discussed: the mingling of spoken and written features, strategies of economy, and compensatory means for prosodic and visual cues. The last part of the chapter outlines a broader perspective on digital media and sociolinguistic change, in which literacy (as a differentiated domain of linguistic practice) and written language (as graphic and visual materiality of language) feature in their own right. I argue that digital media enable an expansion of vernacular writing into new domains of practice, and therefore a diversification of writing styles and pluralisation of written language norms. The expansion of digital literacy practices affords vernacular written usage more space, visibility and status than ever before, and vernacular usage itself is diversified in what we might call ‘old vernaculars’, representing locally bound ways of speaking that traditionally didn’t find their way into (public) writing, and ‘new vernaculars’ – new patterns of differentiation from written standards, indexing practices and networks of digital culture. In public discourse, however, new media language is discursively constructed as a homogenous and distinct language variety against the backdrop of a technological determinism ideology.

## FROM CMC TO WHERE? SCENARIOS OF ‘EFFECTS’ AND ‘INFLUENCE’

Public discourse sometimes raises the effects of digital media on ‘a language’ as a whole (Thurlow 2006, 2007; Squires 2010). But from a research viewpoint, ‘when it comes to speech, the potential effects of the Internet (at least as of now) are negligible at best’ (Baron 2008: 180). The occasional appearance of CMC-typical abbreviations or acronyms, such as *LOL*, in spoken language is often anecdotally mentioned, in English or other languages. Apart from that, evidence for effects of CMC on spoken language are restricted to lexis, an area often neglected by researchers in Internet linguistics.

The spread of lexical innovations from the field of information and communication technologies (ICT) in newspaper discourse is well documented (e.g. Shortis 2001, Wichter 1991). In languages other than English, the link between technological innovations and Anglicisation

<sup>1</sup> Original: ‘(D)ie Geschichte der Vernetzung kann noch nicht geschrieben werden, aber es ist nicht unwahrscheinlich, dass die neuen Entwicklungen durchaus die Auswirkungen erreichen können, die dem Buchdruck zu Beginn der Neuzeit oder der Fernübertragungstechnik im Anfang des 20. Jahrhunderts zukommen.’ (Wichter 1991: 89, my translation.). All translations of German excerpts in this chapter are by the author.

<sup>2</sup> The extensive use of German-language literature in this chapter reflects the fact that German scholarship addressed relations of digital communication and language change from early on, and in considerable detail. I integrate it with literature on and in other languages, as my aim is to offer a wider perspective on the vernacularisation of post-standardised (public) written language.

was also made early on (e.g. Königer 1997). In German, for example, English ICT lexis is either morphosyntactically integrated or loan-translated, and variation between these two options may occur. However, these accounts do not specifically distinguish between broader changes and the more specific phenomenon of net neologisms, that is, ‘words that have arisen directly as a result of the Internet’ (Crystal 2011: 58). A methodological challenge here is how to account for the actuation and propagation processes of net neologisms: How can we determine which lexical innovations really emerge in CMC, and what are their paths and trajectories of diffusion across other domains of written usage and modalities of language?

David Crystal’s (2011) approach to net neologisms is to identify areas of technical innovation such as popular platforms and applications and to examine the lexical fields emerging in these areas. He discusses examples of lexical creativity around *twitter* and *blogs*, with cautions as to their persistence: ‘Most of these are likely to have a short linguistic life’ (2011: 59). An alternative procedure for identifying ‘new digital vocabulary’ is described by Smyk-Bhattacharjee (2006) who studied lexical innovation in blogging. She developed a computer-aided analysis comparing blog data with the British National Corpus and the Webster online dictionary, followed by manual verification. This enabled her to identify new terms coined on blogs, such as *blogaholic*, which were neither codified in dictionaries nor attested in large newspaper or spoken language corpora.

Such comparisons can help to understand the spread of lexical innovations across domains of written usage. A German example is the productivity of new prefixed and compound verbs around *google*, such as *ergoogeln*, a verb roughly meaning ‘to google it out for oneself’. A google search yields 216,000 hits for this item (as per 28 July 2011), but a search in the largest corpus of public written German<sup>3</sup> yields only one hit for the infinitive form (set in quotation marks) and seven hits for the participle, *ergoogelt*. This is a clear, if rough, indicator that a net neologism such as *ergoogeln* will be around in public net usage for a while before it hits mainstream newspapers. But it does not solve its cross-mode actuation: did this new word first occur in networked typing, or traditional writing, or maybe in talk among net experts? This question can be raised for each of the numerous net neologisms documented in vernacular lexicography projects such as *Urban Dictionary*.<sup>4</sup> Strictly speaking, the cross-mode actuation of net neologisms is impossible to determine, unless it is done anecdotally or ethnographically for specific items. On the other hand, the modality of actuation does not predict the cross-media propagation of a net neologism, i.e. the paths and trajectories of its spread across domains of spoken and written usage, and the mediatisation chains that might lead to its eventual codification.

Moreover, we need to consider not only lexis that designates new technologies and applications, but also people’s practices with and negotiations of digital media. Consider expressions such as *facebook stalking* (the practice of following someone’s activities on facebook) or the verbs *befriend*, *unfriend*, and *defriend*. The latter two – underlined by my spellchecker as I am writing this, but scoring 3,810,000 and 550,000 Google hits as per 17 July 2011) – lexicalise a digital literacy practice, whereas *befriend* is an older form that gains a new meaning and thus a chance for revival. New lexis of that sort is successful precisely because it lexicalises people’s social practices with digital technology.<sup>5</sup>

The influence of CMC on spoken language seems less of a concern to public discourse and popular imagination than its potential effects on other domains of written language produc-

<sup>3</sup> See <http://www.ids-mannheim.de/cosmas2/>. *Ergoogeln* is also discussed in the forums of the widely used translation dictionary *leo* (<http://www.leo.org/>).

<sup>4</sup> The *Urban Dictionary* features hundreds of word-formation products with *google*, but not all of these can be expected to be in current usage. For example a search for the word *googletowngirl*, which is listed in *Urban Dictionary* as a common noun, produced only a few pages of results, with the word featuring as dictionary entry or user nickname.

<sup>5</sup> *Unfriend* was the New Oxford American Dictionary’s word of the year in America, see Savill 2009. Thanks to Sali Tagliamonte for discussion on these verbs.

tion, especially school writing. The idea that pupils might use ‘netspeak’ or text-message style in their school essays is a widely publicised linguistic myth on CMC (Thurlow 2007). Related is the notion that CMC might foster an uninhibited decline of literacy culture (Beißwenger 2010). Most linguists are very cautious with claims of this sort, but the fact is that robust evidence against them is missing. There is to my knowledge only one large-scale empirical study specifically comparing digital to non-digital writing. Called ‘How youth write’ (Dürscheid and Wagner 2010), it was carried out in German-speaking Swiss schools and compared pupils’ school essays to their out-of-school digital writing, based on 1148 digital texts, 953 school essays, and questionnaires to pupils (N=754) and teachers (N=47). This study draws on a normative conception of salience (*Auffälligkeit*) as deviation from standard written language norms. The digital texts are analysed for ‘salient features’ at the levels of punctuation, orthography, morphosyntax, lexicon, and textual organisation, and compared to the school essays. In addition, the ‘writing portfolios’ of nine pupils from different school types are examined in qualitative case studies. The results suggest that out-of-school digital writing does not have any influence on institutional language production. Out-of-school digital texts contain some features that do not appear in school essays, but features of networked writing are not transferred to school writing. Conversely, an orientation to standard language in informal digital writing does not imply normative writing at school. Some of the case studies confirm what would be expected as the default case: normative writing is used at school and ‘deviant’ writing out of school; but other configurations occur too. Young people’s writing is diverse and quite individualised, but ‘interferences’ from informal to institutional writing are not part of the picture.

A wider perspective is to ask about the spread of CMC features to other domains of private or public writing. The use of emoticons in private hand-written texts is sometimes reported, but there certainly are predecessors to such practice, as personal letters were always subject to multimodal enrichment (see e.g. Kataoka 2003). Anecdotally, I have seen emoticons and other ‘netspeak’ features used in stylisations of ‘digital youth’ in the press; novels on digital crime using ‘leet speak’ (see below) to decorate their covers; and emoticons finding their way into advertisements, especially in representations of young professionals at work. Such purposeful stylisations of CMC landmarks can be understood as instances of language crossing, with CMC features indexing some (positive or negative, affirmative or distanced) orientation to stereotyped digital-media users and practices, thereby drawing on emerging popular ideologies of new media language. However, what constitutes change here is the availability of new resources for the design of public discourse rather than some new, fixed patterns of non-digital written usage.

An even more inclusive approach would centre on the effects of computer-based writing as opposed to earlier forms of written language production. Schmitz (2001: 2170–2171) distinguishes four levels at which the computer as a writing-machine changes the nature of writing: (a) *monologic* (computer-writing enables flexible composition techniques and a ‘less disciplined’ and ‘uninhibited’ writing); (b) *dialogic* (new writing styles emerging in sites of public, anonymous participation, a ‘playful anarchy’ of hybrid, spoken/written patterns); (c) *non-linear* (hypertext as new principle of information structure); and (d) *interactive* (collaborative writing and the fuzzy distinction between author and reader). Clearly, scholarship on language change has concentrated on level (b), to which we now turn.

## INNOVATION AND CHANGE WITHIN DIGITAL WRITTEN LANGUAGE

It seems fair to say that the issues covered so far have often been raised, but rarely systematically studied. What has moved researchers since the mid 1980s was innovation and change in CMC language itself. Early accounts often proceeded on a ‘butterfly collector’ basis, exploring data from various sources and often focusing on a single mode, such as e-mail or Internet

Relay Chat (IRC). They generally belonged to the ‘first wave’ of CMC linguistics scholarship, focusing on the effect of digital technologies on language (Androutsopoulos 2006; Herring 2003).

A key methodological issue in these as well as later studies has been what to compare interactive written discourse with. The most obvious benchmark, as some researchers have pointed out, would be non-digital vernacular writing, such as private letters or note-taking (Elspaß 2004; Quasthoff 1997; Ferrara *et al.* 2001). Others have opted for large corpora of written or spoken language (Yates 1996; Jucker 2006). However, the mainstream approach has been to draw on frameworks that juxtapose typical features of spoken and written language on situational and linguistic parameters. While these frameworks differ by language and country,<sup>6</sup> they share ‘the analytical foundation of a strong distinction between spoken and written language’ (Squires 2010: 462), leading to a certain idealisation (and implicit normativity) of typical spoken and written language properties, setting a benchmark against which CMC could be conceptualised as a blend or hybrid of written and spoken aspects of language.

The main dimensions of innovation in digital written language, as they emerge in research across languages and countries, from early exploratory accounts (e.g. Werry 1996) to later textbooks (e.g. Crystal 2006), can be encapsulated in three themes (Androutsopoulos 2007): *orality*, *compensation*, and *economy*. To offer a brief summary: *conceptual orality* includes all aspects reminiscent of casual spoken language in written discourse. Ulrich Schmitz (2001: 2172) coined the term ‘secondary literacy’ drawing on Walter Ong, and Naomi Baron viewed CMC as part of a ‘general tendency for writing to become a transcription of speech’ (1984: 124). The second theme, the *semiotics of compensation*, includes any ‘attempt to compensate for the absence of facial expressions or intonation patterns’ (Baron 1984: 125) by the standardised means of keyboard and typeface. Compensation devices include emoticons, abbreviations that signify various types of laughter, simulations of expressive prosody by iteration of letters and punctuation. The third theme, *linguistic economy*, includes any strategy of shortening the message form. This theme is most clearly predicated on technology effects, attributed to the necessity of speed in synchronous exchanges, to financial considerations or to constraints on the size of message. Its counterpart, implicit in the preceding two themes, is the economy of expressiveness, the tendency to contextualise exchanges as informal, engaged and jointly accomplished, drawing on means that often run counter to linguistic economy.

These themes are already present in one of the earliest empirical studies in the field, Wichter’s (1991: 62–96) analysis of 1980s mailbox communication. He observes simplifications, conversational ellipses, representations of colloquial pronunciation, expressive iterations of letters and punctuation signs, and a ‘playful relationship between the phonematic and the graphematic level’. He views mailbox dialogues as ‘a complex meeting of media’ that displays both ‘collaboration and antagonism of orality and literacy, as it is characteristic for phases of media shifts’ (p. 89).

A more detailed account of ‘Internet communication and language change’ by Haase *et al.* (1997) featured a classification of grammatical, lexical and discourse innovations from German mailing lists and newsgroups. Although the authors’ classification of Internet language as ‘group-specific special language of internet users’ is obviously outdated now, their classification illustrates the continuity that exists between early observations and contemporary conceptions of ‘typical internet language’. Some of their features directly fit the three themes introduced above. They identify compensatory devices such as emoticons; new means of expressing feelings and affective states, including acronyms such as *rotfl* and bare verb stems (discussed below); and innovations in punctuation and spelling that serve to ‘emulate pros-

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<sup>6</sup> In the English-language literature, the categories used by Crystal are based on Chafe, while Biber’s framework has also been used. In German and Romance literature, Koch and Oesterreicher’s model of conceptual orality and literacy has been influential (see discussion in Androutsopoulos 2007; Haase 1997; Dürscheid and Wagner 2010).

ody'. They also identify economy strategies such as a proliferation of clippings and acronyms, and simplifications in punctuation and orthography, such as lack of noun capitalisation or 'sloppy' punctuation. They further mention spoken-like syntactic constructions such as list-building instead of complete sentences and a frequent use of modal particles.

Beside these Internet language evergreens, their classification includes phenomena that seem ephemeral and restricted from today's viewpoint. They found an overgeneralisation of technical and jargon terms, satirical puns on company and software names, and a so-called 'P convention', that is, the transfer of a programming language command, *p*, to informal networked writing where it is used as interrogative particle. Features like these seem contingent on particular user groups, which at that particular empirical point happened to be among the technology experts that made up a large part of early Internet users. The authors also noted the playful use of 'emulated whispering', i.e. a chat-room command to switch into private chat mode, which was also used in public chat in order to mark a turn as intimate. Such usage again seems characteristic of early Internet users who explored the creative possibilities offered by the reallocation or recontextualisation of particular technology affordances.<sup>7</sup>

A third group of features are best described as *discourse strategies* for new CMC modes and genres. The authors note that new conventions for salutation emerge in newsgroups and chat channels. They discuss new means of textual cohesion, strategies for quoting and addressing in multi-party environments, and strategies for resolving misunderstandings with deixis, e.g. by means of the acronym, *rl* 'real life'. These observations are on new ways of meaning making, creating coherence, and contextualising digitally mediated interaction. They suit an understanding of change that includes genres and literacy practices. Writers use the resources afforded by a given technology in order to build up and sustain dialogical context, create joint deictic anchoring, and develop appropriate framing. That said, the boundaries to lexical innovation are fluid, salutations and farewells being a case in point: in some languages, at least, the strongly expected use of salutation and farewell in emails leads both to diversity and innovation in salutation forms and to a heightened awareness of stylistic choices, their appropriateness and their potential for strategic combination in self-presentation and relationship management (see Kiesendahl 2011).

Haase *et al.* (2007) conclude with the insight that innovation and change in CMC entail contradictory tendencies: a loss of morphosyntactic complexity, largely attributed to technical constraints for language production, is counterbalanced by an increase in pragmatic complexity, as writers attempt to contextualise joint production of discourse and manage relationships among spatially (and temporally) distant interlocutors.

More recently, researchers working with larger corpora have pointed out that contrary to popular perception, the frequency of typical 'netspeak' features can be rather low. Tagliamonte and Denis found that abbreviated forms such as *nvm* 'nevermind' in instant messaging are 'much rarer than the media have led us to believe' (2008: 12), thereby casting a critical light on media fears of 'linguistic ruin'. This discrepancy between metadiscourse and empirical evidence is independently confirmed by Squires (2010). Researchers who compare CMC to earlier vernacular writing, ranging from 19<sup>th</sup> century private letters to contemporary popular culture (Baron 2008; Bergs 2009; Elspaß 2004; Shortis 2009), conclude that the novelty of digital writing is often exaggerated or lacks historical depth. Moreover, there is a striking lack of systematic micro-diachronic studies within CMC. While the implicit assumption seems to be that digital language innovations are here to stay, 'rise and fall' patterns are just as possible.

One recent study pointing to this effect (Henn-Memmesheimer and Eggers 2010) looks at German 'inflectives': bare verb stems used without an inflectional morpheme (e.g. *lach* is the stem of *lachen* 'to laugh'). Originating in US comics translated into German, inflectives

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<sup>7</sup> Another example of this pattern is the use of HTML conventions as a contextualisation cue, or the *Twitter* hashtag <#> as a marker of a thematic unit outside twitter (see also Crystal 2011: 65).

emerged as a feature of youth language in the 1980s, used as exclamations outside the clause structure. In CMC usage, especially in chat channels, they index affective states and perform ‘virtual’ actions, upon which much playful chat discourse unfolds. Inflectives can be reduplicated or abbreviated, and compound verbs or even verb constructions can be turned into an inflective construction (Schlobinski 2001). Henn-Memmesheimer and Eggers (2010) looked at the ‘career’ of one popular inflective, *grins* (verb stem of *grinsen* ‘grin’). Like other popular inflectives, *grins* can be clipped to *g*, which is then again elaborated by iteration, *ggg*, or typographic mark-up, *\*g\**, and expanded through complements, as in *\*frechgrins\** (‘cheeky-grin’, p.19). Based on 24-hour samples from four chat channels and four time slices, from 2002 to 2009, they distinguish three phases in its usage: an early consolidation of chat-specific conventions; then a reorientation toward standard-language usage; and a decline of chat usage. Here, the initial development of a markedly distinctive chat convention is reversed by an orientation to standard norms. This finding seems to echo the sociolinguistic pattern of age grading, in which the linguistic behaviour of young speakers becomes more standard-oriented as they grow older. However, this study lacks an analysis of participant structure and discourse practice in the chat channels. It is therefore not possible to tell whether the decline of inflectives indexes a change of usage by the same writers over time, or a change of activities in the channel, or even a change of participants altogether. Still, the study reminds us of the connection between linguistic change and discourse that lies at the core of grammaticalisation theory. Inflectives are important means of enhancing sociability and indexing engagement in a chat room, and the emergence of new grammatical structure can be expected from linguistic items that are important to the communicative practice of a social network. However, such grammaticalisation may be transient if people grow out of networked writing or particular applications lose their appeal, as this seems to be the case with public, anonymous chat channels.

### **‘GRAPHOSTYLISTICS’, ‘NEOGRAPHY’, ‘RESPELLING’: CONCEPTUALISING VARIABILITY IN SPELLING**

There is agreement across a number of studies that the grapheme structure of written language (Crystal 2011:67 uses the term graphology) gains importance as a level of linguistic variation in CMC. Some authors argue that networked writing breaks with the traditional sociolinguistic assumption that spelling is the most invariant level of linguistic structure (Sebba 2009; Shortis 2007; Androutsopoulos 2007). Some observations to this effect focus on conformity to or deviation from orthographic norms. It has been noted that CMC increases insecurities in spelling, but also tolerance towards typos, which are reinterpreted as outcomes of speedy text production rather than indices of lacking competence (Baron 2008: 177; Königer 1997: 172–177; Quasthoff 1997). Here I argue for a wider perspective on the diversity of spelling practices in this domain of partially regulated (Sebba 2009) or ‘unregimented’ (Shortis 2009) writing.

Variability in spelling is a common denominator to the three themes in innovation and change identified above. In order to represent spoken and vernacular forms, simulate prosody or shorten the message, writers must handle spelling in ways that go beyond normative orthography. Driven by the absence of institutional control as much as by the need to do contextualisation work with the written materiality of language, networked writers explore gaps between standard and non-standard representations, and exploit the polyvalence of grapheme-phoneme correspondences that is inherent in most orthographic systems in playful, evocative or subversive ways. The outcome is a distinctively visual variability, which draws on difference from normative orthography, rather than representation of spoken variation, as a source of indexical meaning. A prime example of such practice in CMC is the remarkably unre-

searched *leet speak* – as Wikipedia informs us, ‘an alternative alphabet for the English language that [...] uses various combinations of ASCII characters to replace Latin letters’.

Terms that have been proposed to account for spelling variability in CMC include ‘graphostylistics’ (a term originating in stylistics), ‘neography’ (a term coined by the late French linguist Jacques Anis), and ‘respelling’. Androutsopoulos (2007) uses graphostylistics as a cover term for spellings that differ from standard orthography without representing spoken language features. Examples include homophonous graph-by-graph substitutions (e.g. <oi> for <eu> in websites by the extreme right in Germany) or word-by-graph substitutions, which at the same time can be analysed as economy strategies, such as <cu> for ‘see you’.

In his work on French CMC, Anis (2007) proposed a ‘typology of neographic transformations’ based on a corpus of French private SMS texts. The three main ‘neographic processes’ are logograms (such as <@> for at, <f> for female, <+> for plus); syllabograms or rebus-like spellings (such as <b4> for before); and phonetic spellings including numerous subcategories: single phonetic spellings such as <qu> to <k> (e.g. *ke* for ‘que’) or <c> to <k> (*komen* for ‘comment’); simplification of digrams and trigrams (e.g. *aussi* > *oci*; *nouveau* > *nouvo*); substitution of digrams (*moi* > *mwa*); deletion of silent letters; and consonantal skeletons, e.g. <vs> for *vous*. These procedures can co-occur in a single message or even within one word. Spelling variants produced through different procedures can occur (e.g. *demain*, *dem1*, *2main* or *2m1*), and polyvalent forms may represent different full variants and are disambiguated in context, as in <t>, which can stand for *tu*, *te* or *tes*.

For Anis, ‘neography is not a standard, but a set of procedures each writer uses in a particular communication situation while writing a specific message, and under the pressure of various constraints’ (2007: 110). These constraints are economic, technological, ‘psychosocial’, communicative or linguistic ones. Anis emphasises that neographic strategies are not determined by digital technologies. Their usage varies by the degree of synchronicity afforded by CMC modes, the social relation between interlocutors, and the genres they engage with. From his observations, neography is marginal in emails or newsgroup postings, and widespread in SMS or chat exchanges, but can also occur in other domains of writing such as advertising.

Like Anis, Shortis views respelling as a resource whose use is subject to a variety of factors, including users’ ‘technoliteracy’, their considerations of audience and purpose, and physical constraints of message production. His notion of respelling is more inclusive, covering all three themes introduced above: respellings may offer ‘a simulation of spoken language’, ‘incorporate graphical and kinaesthetic devices’, are used ‘for economy and text entry reduction’ (2009: 230–231). While respelling ‘remains bound to its relationship with the standard orthographic iteration’ (p. 236), its indexical potential is broader than just linguistic economy. CMC respellings introduce new indexicalities by virtue of their continuity with spelling practices in other domains: popular culture, ICT, trade names, and specialised shorthand. *Leet speak* is a uniquely digital writing style, but other patterns of visual variability have pre-digital forerunners; for example, single letter respellings such as <r> for ‘are’ and <u> for ‘you’ have predecessors ranging from African-American poetry to heavy metal record sleeves, and graph-by-graph substitutions are used by some political subcultures (Sebba 2009, Shortis 2009).

While these accounts have not yet produced a unified theoretical framework, they represent attempts to conceptualise change in spelling at a higher level beyond simple insecurity or normative deviation. For Shortis, the impact of the Internet is not so much that it produced specific new forms of respelling – on the contrary, the techniques themselves were in use before – but that it introduced ‘a looser, more permeable sense of what counts as spelling. Spelling is becoming a deployment of choices from a range of options (...) It is a matter of appropriacy and identity rather than a matter of rectitude and uniformity.’ (2009: 240)



An inclusive account of these diversities of visual language in the digital age needs to include script choices, in particular the practice of Romanised transliteration, which is reported for languages with Arabic, Greek and Cyrillic script (see Androutsopoulos 2009 and papers in Danet and Herring 2007). Romanisation started out as a vernacular response to technological necessity at a time where the Internet was restricted to a small set of Roman-only characters at the exclusion of Roman diacritics and all other scripts, and continues today despite the fact that current CMC enables the representation of (practically) any script. Vernacular Romanisation has been shown to follow different spelling patterns, which vary between transcription (i.e. phonetic representation of native spoken language) and transliteration (i.e. visual representation of native script). Romanisation has been noticed for the language-ideological debates it triggers, whereas its implications for literacy development in diaspora wait to be explored. This is yet another area of change in digital media which goes beyond a 'narrow' conception of language change.

### THE ELABORATION OF VERNACULAR WRITING: TOWARDS AN INCLUSIVE CONCEPTUALISATION OF CHANGE

If we assume that 'the study of media and language change can benefit from CMC research' (Herring 2003: 8), then the implications of this discussion for an adequate conception of language change in digital media must be considered. This discussion suggests, first, that the location of language change in digital media is not so much in the influence of new media language on other domains of written or spoken usage, but in processes of innovation and change within digital written usage. Second, what is new in 'new media language' is not just a number of innovative constructions or structures, but new resources and strategies for written language production and meaning making, from graphology to discourse structure. Third, the impact of the Internet is not primarily an acceleration of processes of language change that are prior to and independent of it; rather, it is the evolution of digital writing as a new domain of communication that is at stake. I therefore argue that networked writing questions the adequacy of the feature-based approach and spoken language bias that have dominated conceptions of language change in sociolinguistics.<sup>8</sup> An alternative and inclusive conceptualisation is needed: one which addresses sociolinguistic rather than linguistic change; which includes processes of repertoire and language-ideological change; and which does not separate language from its materiality and mediation.

One such alternative, I suggest, is to view language change in digital media as an elaboration of vernacular writing. I conclude this chapter with a few building-blocks for a theory of language change and digital media yet to be written. Its elements include: a change of scale in the volume and publicness of vernacular writing; a diversification of old and new vernacular patterns; an extension of written language repertoires, and a concomitant pluralisation of written language norms. These will be briefly discussed in turn.

It seems useful to clarify the notion of elaboration by referring to a related sociolinguistic concept, *Ausbau*. This describes an elaboration of function, by which a language is used for increasingly abstract and technical written prose (see Haarmann 2004 for an overview). The notion of *Ausbau* is useful in that it suggests an extension of written language use into new (institutional) domains. However, the development of networked digital writing differs from a traditional understanding of *Ausbau* in a number of points. Traditionally, *Ausbau* is thought of as part of language standardisation; but networked writing, at least in Europe, is a post-standardisation process, in the sense that it is carried out against the backdrop of fully stan-

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<sup>8</sup> See Sebba (2009) on spoken language bias in sociolinguistics and Coupland (2009: 43–45) for a notion of sociolinguistic change that brings together the concepts of linguistic change and social change.

andardised national languages whose *Ausbau* is already accomplished.<sup>9</sup> *Ausbau* extends the written use of a language beyond the field of ‘everyday prose’; but the elaboration of vernacular writing is located precisely within that field, which is now being extended and reconfigured by means of digital media. The notion of *Ausbau* does not consider the materiality of writing; but the technologisation of writing, that is, its material dependency on hardware and software, is central to all networked writing.

Metaphors of scale (see e.g. Blommaert 2010) are useful in conceptualising the new dimensions of vernacular writing in the digital era. Simply put: more people write, people write more, and unregimented writing goes public. As an outcome of higher literacy rates, more people write than ever before. Arguably, people write more, as digital media extend the opportunities to use writing into social interaction and community-related purposes that were earlier dealt with in face-to-face speech or by phone. Therefore, networked writing is different from ‘traditional views of writing as a non-involved, solitary activity lacking a copresent audience’ (Ferrara *et al.* 1991: 9). CMC created a need to make written language suitable for social interaction, and the three main themes of innovation and change discussed above, i.e. orality, semiotic compensation, and economy, can be viewed as responses to that need. If *Ausbau* increases the capacity of written language for abstraction, vernacular elaboration turns writing into a medium of sociability.

At the same time, vernacular writing experiences an unprecedented scale of publicness. For the first time after the standardisation of national languages, at least in Europe, a massive amount of publicly available written language escapes editorial control (Crystal 2011: 68). Mass media content is of course still subject to editing and correcting. But it now co-exists, and in some cases competes for attention with genres beyond institutional control, such as reader comment, blog entries, customer reviews or forum discussions. Public vernacular writing is thus intertwined with professionally crafted, institutionally framed language (see also Androutsopoulos 2010). As Shortis (2009) argues with regard to spelling, alternative or counter-cultural usage is now transferred much more easily into mainstream public spaces of discourse. These are sociolinguistic manifestations of the intermingling of the private and the public that characterises late modernity.

These changes of scale give vernacular writing unprecedented space and visibility; at the same time, this nexus of digitisation and publicisation brings change to vernacular writing itself. It seems useful to roughly distinguish old from new vernacular written usage. ‘Old’ vernacular writing represents locally bound ways of speaking that traditionally didn’t find their way into public writing, such as regional dialects or other localised nonstandard features represented, notably, through variability in spelling. ‘New’ vernaculars are patterns of difference to elaborated written standards without being rooted in local speech. They too capitalise on spelling variability, albeit of different kind, and are contingent on the affordances of keyboard production. Examples are the hyper-expressive uses of punctuation found on teenage homepages or the typographic play in female Hebrew blogs discussed by Vaisman (2011). Some of these vernacular explorations of visual language remain idiosyncratic and individualised, others develop into distinct writing styles that are tied to particular digital genres and cultures. Consider again *leet speak* or the non-standard usage associated with *Lolcats* (in English) and *Padonki* (in Russian), two quite different net cultures that share a fondness for non-normative experiment with written language form.<sup>10</sup>

With the development of networked writing, written language repertoires at the individual and societal level are extended and reconfigured. CMC users develop distinct styles of writing online and metapragmatic awareness of written style choice. Evidence in support of this comes from research that has shown style differences for genres on the same website, style-

<sup>9</sup> This point would require modification with regard to non-European sociolinguistic contexts.

<sup>10</sup> No published linguistics research on *Lolcats* seems to be available; I thank Robin Queen for her hints on this issue. For *Padonki*, see the volume by Lunde, I. and M. Paulsen (2009). Both terms are explained on Wikipedia.

shifting for contextualisation purposes, and users' awareness of writing styles that are deemed suitable for different modes and genres (consider also the anecdotal survey mentioned in the introduction).<sup>11</sup> It is not obvious whether the outcome of style variation and awareness will be 'new rules', as Baron (2008: 172) puts it ('users are still in the process of settling upon conventions that ostensibly will become the new rules to be followed or broken'). I would rather argue that we are witnessing written language repertoires extending to approximate the stylistic range available in spoken language, at least on the axis of formality. 'New rules', if that term may be used at all, are rather expected at the level of emerging genre conventions like the ones reported for emails, chat or forums, these conventions being themselves socially situated and thus variable not (just) by mode or application but (also) in terms of their socially-situated appropriation.<sup>12</sup>

Repertoire extension implies a reconfiguration of written language norms and the emergence of new indexical regimes. Digital language practices fragment the locus of normative authority. Written language norms are *pluralised* to the extent that different styles of writing can be deemed appropriate in different environments and genres and to different user groups. Visiting a gamer forum or joining the Twitter profile of a rap star will expose a user to quite diverse ways of claiming symbolic capital through language. They are *localised* in the more specific sense of being limited to particular online communities or networks. One chat channel may prohibit the use of foreign languages, the other encourages multilingual play; the lack of noun capitalisation in German is stigmatised in some forums, but commonplace in others. In domains of unregimented writing, stylistic appropriateness is opened up to localised negotiation, for example with regard to spelling and punctuation or the representation of regional dialects (Shortis 2009, Sebba 2009). Elaboration of vernacular writing thus implies a pluralisation of the ways in which written language can index identity or status with regard to a networked audience. In this process, the meaning of vernacular writing extends beyond traditional indexical values of region or class. As elsewhere in late modern mediatised societies (see Couland 2009), 'old' vernaculars are recontextualised to index lifestyles and associated social types, whereas 'new' digital vernaculars may index a range of political, cultural or aesthetic orientations that are simultaneously localised within digital culture and linked to global semiotic and cultural flows (see Shortis 2009 and discussion above).

The elaboration of vernacular writing is linked to processes of destandardisation, a notion with various definitions in sociolinguistics. Auer (1997) distinguishes three potential meanings: the first describes a process by which the standard variety 'descends' or 'slides down' towards dialects, with dialect features finding their way into the standard variety. In a second sense, which Auer discusses in more detail, destandardisation is a process of horizontal convergence between regional dialects from adjacent areas, leading to the emergence of larger-scale regional varieties or dialect *koiné*. In a third sense, which is of interest here, destandardisation describes change of status rather than change of structure: the standard variety loses (some of) its generally-binding normative claim and is replaced in that regard by a number of regional standards, which take on the functions of standard language in formal and official situations. A formal standard still exists, particularly in (orthoepic) pronunciation, but is losing its relevance for most institutional contexts, with educated and professional speakers shifting to supra-regional colloquial standard or to regional standards. This is similar to Coupland's notion of de-standardisation, which he defines as 'a type of value levelling that

<sup>11</sup> A particularly good example for is Beißwenger's (2010) analysis of the representation of colloquial clitisations in expert chat sessions. He finds that the tendency to spell out these allegro forms is lower in the moderated part of the session and higher in the subsequent, non-moderated portions of the same chat session.

<sup>12</sup> An approximation of such a 'new rule' can currently be observed on social network sites, where people perform friendship to relevant others for a networked public. It seems that expressive punctuation with iterative use of <?> or <!> becomes increasingly expected as a default case, whereas 'normal' punctuation is presumably reinterpreted as index of distance or indifference. But empirical research is needed to substantiate this.

washes out status meanings formerly linked to “standard” and “non-standard” varieties’ (2009: 44). De-standardisation is a language-ideological shift, whereby formerly stable indexical meanings are neutralised or reconfigured in particular contexts (p. 44–5).

Neither Auer nor Coupland specifically consider written language; however, a concept of destandardisation focused on status/value change suits well the processes discussed here. The elaboration of vernacular writing does not induce changes in standard language structure, apart from lexical innovations discussed above; in graphology, vernacular spelling conventions do not replace standard orthography nor do they lead to a loss of its prescriptive awareness. However, the normative claim of standardised written language, particularly in orthography and punctuation, is partially replaced by smaller-scale conventions, often limited to particular networked groups and their online platforms. As discussed in this chapter, networked writing brings ample evidence for ‘a more multi-centred sociolinguistic culture’, in which ‘singular value systems (...) are being replaced by more complex and (...) more closely contextualised value-systems’ (Coupland 2009: 45). This process is most obvious in spelling and punctuation, i.e. the written materiality of language online.

We may ask whether destandardisation equals ‘linguistic whateverism’, an attitudinal shift towards written norms diagnosed by Baron (2008) in her discussion of language online. According to Barton, ‘whateverism’ manifests in ‘a marked indifference to the need for consistency in linguistic usage’ (2008: 169). ‘Whateverism’ suits to a certain extent the elaboration of vernacular writing, particularly when said indifference is related to usage across groups rather than intra-writer variation. Indeed, pluralisation of written usage in a post-standardised era presupposes that networked users themselves accept that written language online entails much more variability than standard language ideology is prepared to acknowledge. However, it seems important not to confuse this attitudinal shift with a) the emergence of localised norms or b) public metalinguistic discourse on language online. Indifference (or tolerance) to written language variation does not prevent networked writers from focusing on contextualised norms of limited reach, readjusting their written language repertoire according to their digital media usage. Moreover, whateverism is probably not an adequate label when it comes to public discourse on language online, at least with regard to mainstream media in post-standardised societies.

Media representations of new media language are predominantly shaped by concerns over the future of language, technological determinism, and a narrow view of ‘newness’. As Thurlow (2006, 2007) and Squires (2010) have shown, their discourse is shaped by an ‘exaggeration of difference’ (Thurlow 2007). News reports and other genres construct language online as a distinct language that may be indecipherable, thus raising a need for explanation that can then be served by glossaries and related products. A homogenised perception of ‘new media language’ or ‘netspeak’ is made possible by technological determinism, a view that gives agency to media technologies as shapers of commonalities in usage. Effect and influence scenarios directly follow from that, as they assume media agency on language, separating the two from each other and from discourse practice. The authentication of this construction in media discourse may run counter to empirical evidence, in that features that are rather rare in data are constructed as icons of new media language (Squires 2010). Thus the diversity of networked writing is ‘lost in the translation’ into popular, and perhaps also some expert constructions of new media language. However, it is important not to lose sight of the pluralism of metadiscursive activity on the Internet. Besides stigmatisation of vernacular writing, the Internet offers ample opportunities for what Gorham (2009) calls ‘democratic norm negotiations’, which include folk-linguistic practices that mimic and parody top-down language policies.

I conclude with the observation that the gap between popular and some academic conceptions of new media language is not that wide, at least at the level of metaphorical conceptualisation. Metaphors of ‘effect’ and ‘influence’ have been common in both discourses, and the

aim ‘to understand the way CMC might affect our language’ (Smyk-Bhattacharjee 2006: 69) has been a legitimate scholarly approach. Alternative metaphors may help us move beyond the implicit technological determinism that still shapes much thinking on language and new technologies (Squires 2010; Thurlow 2007; Androutsopoulos 2006). Such an alternative might be a view of digital media not as containers that determine the language they contain, but as resources for social practices, which do constrain, but do not determine the shapes and styles of network writing. This way, the elaboration of vernacular writing can be viewed as a process of change facilitated and enabled by digital media, but materialised and performed by networked writers in late-modern, post-standardised societies.

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