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7 LANGUAGE & TECHNOLOGY

Professor Angela Goddard

1. Introduction

The topic of language and technology is not about technology. That is, it's not about being a 'techie'. You don't have to know how aspects of technology work, such as knowing how computers function or how phones process text messages. Of course, that kind of knowledge is useful, particularly if you are thinking about a career in the communications industry. But the study of language and technology is really about language.

What does help to build a good foundation for this area is an interest in how people communicate, and how new forms of communication shape their language choices. For example, how does it change the way we write when we know we can only use a limited number of words, or when we have to send a message in a real hurry? It helps to have some experience yourself of modern communication systems – but these are now so embedded in our everyday lives that it would be odd if you didn't.

This topic is not just about how we communicate. It's also about our attitudes towards communication, and the public issues that surround its use. Almost every day there is a news item about how new forms of communication are affecting our lives. Sometimes these are hopeful, happy stories – for example, long-lost relatives who rediscover each other via the internet. On other occasions the stories are full of fear and hurt, such as cyberbullying and online fraud. Often, you can find the same technology written up both positively and negatively, depending on the political standpoint of the writer. One example of this is the way mobile phones were implicated both in the public disorder in UK cities in the summer of 2011 (where phones were seen as a bad thing) and in the struggles for change in the Middle East in the 'Arab Spring' in that same year (where phones were seen as a good thing).

You might feel that sending your friend a text message or updating your status on a social media site is a bit different from global politics. But what links them together is language use. When you use language, you are representing yourself in a certain way, creating a story about yourself; and the same process of storytelling is involved when journalists or

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advertisers or writers of novels present accounts involving new types of communication. Studying this area therefore encompasses personal, social and political perspectives, so you have lots of choice about where to focus.

2. Why the topic is worth studying

This is a fascinating topic because it's all about our everyday behaviour and therefore is easy to relate to. It's an important topic because it helps us to stand back and take a critical view of language, so that we are better able to see how language can be manipulated. On a more pragmatic level, the topic affects all the other dimensions of language that are required study for English Language A Level and beyond, into undergraduate study. The paragraphs that follow will set out some of those connections.

Children are familiar with new forms of communication at a very young age, so it's impossible to study language acquisition without taking account of new communication technologies. Adults are also experiencing a type of language acquisition, because we are all constantly learning how to use new tools as new gadgets come onto the market and we are persuaded to buy them. In an interesting reversal, there are now many situations where younger members of communities are helping older participants to acquire new communication skills.

New technologies also have a significant role in language change, and this has been true through the ages. Technological advances regularly produce brand new artefacts that need a name, and sometimes this results in a wholly new word. An example of this is the *telephone*, which was created from Greek roots meaning 'distant' (*tele*) and 'sound' (*phone*). At other times, existing words are applied to new contexts, in a metaphorical extension: for example, the terms *posting* and *mailing* as used in digital contexts were 'borrowed' from the idea of the traditional postal service. These are small examples of much larger discourses that surround all our new technological experiences and activities. Changes in discourse provoke strong attitudes, triggering many language debates in the press and elsewhere where descriptive and prescriptive approaches clash.

There is no such thing as a single type of communication that cuts across all new communication contexts, so the area exemplifies different varieties of language use. New tools are bought and sold, resulting in a strong strand of persuasive language that can be studied for aspects of representation. New forms of communication are often seen as having characteristics of both speech and writing, so ideas about mode are prevalent in any data analysis.

Variety is also evident in how people express themselves online, with both individuals and groups creating their identities by their language choices. The distance in time and space that's often part of digital communication can be a factor in miscommunication, but can also generate creative play and humour as participants find ways to reach out to each other.

Finally, studying language and technology quickly brings us to some quite philosophical questions about language, questions which have pre-occupied thinkers for centuries, long before new technologies came on the scene. For example, is language the same as behaviour? When we say something, is it the same as doing something, or is it simply an abstract representation? So is the internet 'just words' or a world where language use has the same real consequences as in 'real life'? There are no easy answers to these questions but the area offers many genuine opportunities for language investigations and productions.

3. A historical overview of the key thinking in this field

The previous section focused particularly on new technologies, such as **computer-mediated communication (CMC)**. But the phrase 'new technologies' itself needs a bit more scrutiny.

The term *technology* is derived from Greek roots meaning 'the study of art, craft, or skill'. In other words, the *tech* bit of technology has quite a broad scope and doesn't just refer to electronic communication or, indeed, to communication at all. Any application of a tool of some kind, from the earliest cave flints of pre-history, can be considered a technology. However, researchers in the field of language and technology will have a particular interest in the technologies that are connected with communication, and that enable new sorts of communication to take place.

There is, of course, no technology that remains 'new' for all time, as what we consider new now will soon become familiar, and a new 'new technology' will take its place. The history of different communication technologies, and how they were understood when first introduced, is an interesting subject in its own right. For example, early users of the first telephones in the late nineteenth century were offered advice on how to make a phone call – both how to hold the receiver, and what to say (Goddard & Geesin 2011: 3).

Technologies can look very different from each other across the centuries – quills and parchment seem a world away from keyboards and whiteboards – but the issues and debates they generate can be surprisingly similar. For example, the great 'new technology' for the philosopher Aristotle, in the

Greece of fifth century B.C., was writing itself. He saw this new technology as a dangerous invention which would interfere with human thinking and memory – something that has recently been suggested of computers.

It isn't possible here to go through the history of every new communication technology, but it is worth thinking about some former inventions that radically changed the way people communicated. When William Caxton set up the first printing press in England in 1476, it meant that writing could be duplicated and broadcast to multiple audiences for the first time. After Alexander Graham Bell's first phone call in Ontario in 1876, and Marconi's first radio transmission from Cornwall to Newfoundland in 1901, the human voice stopped being something you could only hear if you were within earshot. The idea of broadcasting communication across time and space was at the heart of these older technologies and this same crossing of physical barriers is also one of the key features of our modern digital communication systems. Changing the parameters of time and space in communication contexts has a powerfully shaping effect on the nature of language use and therefore is a major focus for language research.

The internet was originally a network called 'Arpanet', named after the US military's Advanced Research Projects Agency, which developed it in the late 1960s. But it wasn't until the 1990s that internet service providers offered private households the ability to access online networks. Since that time, however, the speed of technological change has been phenomenal, with researchers now looking back at the history of earlier stages of web development and charting significant points of change within what is really quite a short timespan.

One of the biggest changes registered by researchers has become known as 'Web 2.0'. This refers to the change from the web as a medium where people could only read webpages provided for them ('Web 1.0'), often by official outlets and commercial corporations, to one where anyone can compose pages as well as read them. Personal authorship has been made possible by many factors coming together, including the development of broadband communication with faster and bigger download possibilities, new templates requiring little skill for the construction of webpages, cheap or free software, and the merging of technologies so that material can be both multimedia and mobile.

All this means that we are now constant producers of communication as well as consumers. Sometimes you see a blended term – *prosumers* – used, to signal this new role. This term, coined by Alvin Toffler (1980: 37), was intended to suggest that new communication technologies were likely to generate a new kind of society where information is bought and sold

much as other kinds of 'produce' had been traded in former times. In this process, we produce the same things that we consume.

If the above seems rather abstract, and also divorced from language issues, then think in practical terms of what you or your friends may do on social media sites, such as (at the time of writing) Facebook. You are producers of communication and also you 'consume' others' products. These products are information about yourselves – what you've been doing, what you like and dislike, your personal information. The language you choose creates an online persona, rather as an author creates a narrator to tell a story in a novel. You are also a reader of others' online presentations of themselves and, as you read, you interpret their language use in particular ways. See Goddard (2003) for a comparison between the language strategies used in online 'chat' and those used in literary texts.

Language choices online were – and still are – seen as constructing an identity for the user. Identities are not fixed: Chandler (2006) talks of our identities being constantly 'under construction' as we choose, subconsciously or otherwise, how to present ourselves online. Working at the point where ordinary individuals were starting to create their own personal homepages, Chandler (2006) devised a checklist-style framework for analysing homepages which he termed a 'Bricoleur's Webkit'. The term 'bricoleur', from the sociologist Claude Levi-Strauss, refers to a kind of creative tinkering, and the idea of the webkit was to offer some simple but important starting points for analysing the way people endlessly 'tinker' with their online identities. The webkit asks the researcher to focus on what types of material have been included by the author of the page, what has been left out, what is being alluded to indirectly, how the material has been arranged, and so on.

Homepages created by private individuals marked a shift from advertising created by commercial companies to promote their products towards advertising created by individuals to promote themselves. However, while commercial companies are constantly looking for ways to segment their market so that they can target specific groups, individual users of the internet face a much broader potential audience of unknown others who might be reading and interpreting them. In that respect, online communication can be seen as less like the certainty of face-to-face situations, and more like the ambiguous contexts of published writing, where meaning is negotiated somewhere between the writer's use of language and the reader's interpretation of it.

As the internet has developed, researchers' ideas about the nature of language use within it has changed considerably. Early commentaries on

internet communication tended to have a rather utopian view of language and human behaviour, thinking that because we couldn't see who we were communicating with, this might remove some of the social stereotyping associated with language differences – for example, regional and foreign accents, speech impairments, and so on – and that, as a result, we would be much nicer to each other. Haraway (1990) talked of the idea of a 'cyborg' body, having a kind of free-floating consciousness that allowed people to move beyond physical markers of difference such as gender, race and disability. However, it soon became clear that, rather than feeling liberated by leaving all our identity markers behind, an absence of information could increase people's efforts to mark their identities. For example, Hall's research on gender suggested that computer-mediated communication leads not to 'cyborgs' but to 'goddesses and ogres':

Rather than neutralising gender, the electronic medium encourages its intensification. In the absence of the physical, network users exaggerate societal notions of femininity and masculinity in an attempt to gender themselves (Hall 1996: 167).

More recently, we have the phenomenon of 'trolling', where anonymous individuals deliberately disrupt online communities by creating malicious identities (see Hardaker 2010).

Hall's early research was focused on situations where complete strangers were communicating with each other; and this is clearly still possible, as Hardaker's research shows. But Susan Herring (2001; 2004) noted at quite an early stage that our internet interactions were becoming much more embedded in our everyday lives, and involving people that we already knew. Soon, the idea of a cyberspace 'out there' and a real world 'in here' evolved into our current situation, where we are not simply 'online' or 'offline' but where aspects of electronic communication are threaded through our lives. To test this idea, try writing a 'day in the life' for yourself, focusing on your communication during a typical day, noting particularly where and how communication technologies feature in your routines.

So far we have discussed the fact that changes in the nature of web developments have allowed much more participation by all of us in electronic interactions; that language is a key factor in how our identities are expressed; and that identities are very much 'work in progress'. For language researchers, these topics are very relevant but they are not the end of the story. There are also important questions about the nature of electronic language itself.

Early researchers discussed computer-mediated communication as if it

were one type of language, and tended to give it a single label: for example, Crystal (2001) termed it 'netspeak'. As time has passed, it has become clear that we should be thinking not about a single genre of communication, but about a range of types, and work continues on how these different types should be described.

Language researchers continue to be particularly interested in ideas of mode – that is, in the relationship between our traditional notions of spoken and written language, and the new communication tools we use. CMC was quickly labelled as a 'hybrid' form of communication, where elements of spoken and written features combine. For example, real-time writing such as instant messaging was thought to resemble writing because it is composed at the keyboard using written symbols, but also thought to resemble speech in being synchronous (i.e. occurring in real time). However, our traditional concepts of speech and writing are themselves not particularly clear. For example, speech doesn't always occur in real time: think of a formal speech which has been recorded and broadcast. At the same time, writing can be a joint, informal, face-to-face activity: think about working with a friend to get some wording right on a birthday card. See Goddard (2004) for more discussion of our ideas about speech and writing.

One approach to analysing the characteristics of different types of electronic text – or 'outputs', as Crystal (2011) terms them – is to consider their 'affordances' (what the communication tool allows users to do) and their limitations (drawbacks, or aspects that limit what it's possible to do). This approach was used by Sellen and Harper (2002) in looking at the functions of paper and of electronic communication, in an office setting.

A further, more detailed approach is Herring's (2007) use of 'facets', or dimensions of variation between different CMC genres. Her framework splits analysis into aspects of the tool being used (for example, whether it's synchronous or asynchronous) and aspects of the social context (for example, whether you are chatting with friends or planning a work project with colleagues). Herring's classifications mirror the earlier work of Erving Goffman, who was writing about communication and language long before the development of the internet. Goffman's (1981) view of communication was that it could be split into 'system constraints' (the nature of any technology used) and 'ritual constraints' (the conventions of the language community in question). The idea that lies behind the work of both the scholars mentioned above is that the available technology does shape our language use, but so does the communication context – who we are communicating with, why we are communicating, and so on. The technology alone doesn't determine how we use language: you can email

a friend with a message full of abbreviations, errors, in-jokes and general playfulness, but the same communication tool can also convey your CV in a formal job application. You would be a poor communicator if you used the same language in both these contexts. In that sense, there is no single 'language of email', or of any other communication tool.

Having said that, researchers have recognised that there are certain features of language use that occur in more than one digital context. This transfer of language practices from one environment to another is hardly surprising, if you think about the way different tools have converged in a single apparatus: for example, many mobile phones have texting and email functions, as well as web applications. In addition, built-in cameras allow phone owners to attach images and even video to messages and sites, producing multimodal communication that is not simply a 'hybrid' of speech and writing but an intertwining of several modes at once.

While social scientists were researching new communication environments some time ago, it took a while for linguists to start doing the same. The language of texting (or txtng, as it is sometimes spelt, in order to differentiate SMS outputs from 'texts' in general) was particularly overlooked for a while. One of the first serious treatments of this new language practice was by Thurlow (2003), who offered what he called some 'sociolinguistic maxims' that might lie behind certain language choices. His maxims included the need for speed and brevity, but also the need for the writer to communicate some of the non-verbal and prosodic aspects that are missing in written texts – such as facial expression, and vocal contours such as volume and intonation. Later, Shortis (2007) discussed the creativity of txt spelling, which he likens to some older forms of language play; Goddard (2011a) explored how 'cries' such as laughter and other expressive noises are conveyed both in real-time and asynchronous writing; while Crystal (2009) tackled the way txtng has been represented in the media.

The various ideas above about brevity, speed, and the linguistic creativity of writers to simulate vocal effects can be a useful starting point for thinking about why authors in many different electronic genres, such as emails, blogs, Twitter and other social media sites use particular language strategies. For a more detailed account of Thurlow's maxims, see Goddard (2009). Thurlow et al (2004) offers further analyses of CMC.

Language is not simply used; it is also represented. Representation is all about how things seem to be, what seems to be the case. Earlier in this chapter there was some discussion of how a person's construction of identity was not simply about what that person produces, but also about how that product – their language – is understood and interpreted. On

a wider scale, we also have many public debates about language and technology. Crystal's (2009) discussion of views about txtng is a good example of this area; Goddard and Geesin (2011) collected many press reports over time about views not just of txtng but also about CMC and other technologies. There are also many new types of interactive text, such as online advertising, that are offering us new kinds of representations that can be analysed for their persuasive language strategies.

Issues surrounding different technologies are wide-ranging. While the issues themselves – such as surveillance, or archiving – may go beyond the expertise of language researchers to explore thoroughly, it is still possible to consider some of the consequences for language use. For example, how might online learners use language differently if they are being observed, say, for purposes of assessment? What difference does it make when online learners can see all the results of their previous communication, so that there are data trails of their language use (Geesin & Gilroy 2010)? Language remains at the heart of some bigger social questions about new technologies, as well as providing the raw material for our everyday electronic encounters.

4. Possible limitations of some of these approaches

Language and technology is a big area and it's tempting therefore to ask 'big' questions, such as how all the communication tools we are using today will change aspects of the language we use. Unfortunately, we have no way of knowing the answer to such a question, which would require a god-like perspective on global communications. Within this large area, therefore, there is a need to think small, as with other aspects of language research, and arrive at do-able investigations with a modest scope and as sharp a focus as possible on a limited range of things.

While bearing in mind the warning above, there are problems with aspects of the research tradition as it has developed so far in that it has had a very Western focus. Sometimes there's an assumption that the whole world has networked computers, which is far from the case; at other times, there's an assumption that the rest of the world will simply 'catch up' with Western societies and go through the same stages of technical development in exactly the same way. This is a bit like expecting every country to have had a version of the UK's Industrial Revolution. The reality is that different technologies have developed in different ways across the world, and even within Western societies a lot of variation is apparent. For example, some areas of the USA don't have broadband because of the vast distances between settlements. In some parts of Africa, mobile telephony is much more common than computer use, and this could be seen as a more

advanced stage of development than the fixed terminals that many Western users are still connected to. In short, there needs to be more research in different cultures around the world, in order to give us a better picture of how different technologies are used in specific contexts.

A further problem in some studies results from the difficulty of capturing the original communication process. If we liken real-time writing to the speech context, we are aware that spoken language in its original form is different from a transcript of it. In the same way, a chatlog of an interaction is different from the original experience of it, where a participant's line may have ended up in a different place on the screen from where they intended it to go. Also, interactive writing such as MSN unfolds in real time, so users experience each new piece of writing as a new occurrence; when we read a transcript or chatlog, we can see the end of the text. Researchers therefore have to think about how to get back to the original communication and not regard the recording as the thing itself. The idea of real-time writing as a physical, material experience is discussed in Goddard (2011b).

Although there are always research concerns about the objectivity of any analysis, it doesn't help when analysing CMC to have no experience of it. Good studies often arise from an understanding of a particular online community, rather than ignorance of it. However, being part of a community then involves particular responsibilities for ethical behaviour on the part of researchers. In general terms, any site that involves password protection is considered a private space and permission needs to be obtained for use of data.

5. What people are researching now

While we need more information about how new technologies are used in different parts of the world, we also need more information about how intercultural communication works online. The ability to communicate with people in different parts of the world is an exciting and fascinating aspect of our new communication tools. International communication in the early years of the internet tended to consist of playful explorations, but it is now serious business: many workplaces are global corporations employing an international workforce, with expectations that employees communicate with each other successfully from remote locations. So what language strategies do successful online communicators employ?

New technologies have also transformed teaching and learning, with educational establishments of all kinds having their own virtual learning environments. However, we still have much to learn about how new technologies work in educational contexts, and particularly how to

assess the communication skills we are trying to develop. New sources of information are now available to learners, involving new ways of reading. Older ideas of paper-based literacy are being challenged (Kress 2003) and notions of individual creativity re-examined (Carter 2004). Very young learners are of particular interest because they are growing up with new technologies from the outset: see, for example, the toy mobile phones pictured in Goddard and Geesin (2011).

And we still have no real answers to the more philosophical questions about language use, particularly to what extent we can be held to account for 'just words'. For example, at the time of writing, Paul Chambers from Doncaster was appealing against his conviction for 'menacing use of a public communication system'. When he found Robin Hood airport closed because of heavy snow in 2010, he tweeted that if the airport didn't open in a week, he'd 'blow it sky high'. Chambers claimed his tweet was 'a joke, a jest, a parody'. The magistrates' court didn't agree – they saw his language as a menacing act, fining him £1,000. He subsequently lost his job (Booth 2012). However, by the time this chapter had got to proof stage, Chambers had won his appeal, proving that even the law courts are in two minds.

6. Looking to the future

The first wave of computer use in the UK in the 1980s involved humans learning a new language in order to send commands to their machines. Users had to learn which keyboard keys corresponded with particular commands. Webpages had to be constructed using html (hypertext mark-up language, a complex set of codes). As time passed, the situation reversed: manufacturers recognised that in order to sell computers to a mass audience, people had to feel that computers 'spoke their language'. Desktops have acquired icons which we just need to pick and click; we can interact in writing with software ('bots') which anticipates our needs, and the language we might use to explain them; voice recognition tools enable us to speak our choices from a range of options. While we are still busy researching how humans communicate with each other via computers, we are also increasingly focusing on how humans interact with computers. And research is already underway on Web 3.0, termed 'the Semantic Web' by Tim Berners-Lee, the inventor of the web. This involves the language that computers use to communicate with each other, and a search for a 'common language' so that interactions can happen more easily. Berners-Lee's vision is of a world where a web of data is processed by machines, database linking with database, freeing humans from routine tasks. As with every other new technology, Web 3.0 will undoubtedly have its advocates and also its detractors. Or it may simply be an impossible fantasy.

7. Key ideas to consider

- How many different communication technologies have you had to learn so far? How did you learn the new conventions associated with each one?
- What differences do you observe about the different social groups you participate in, and how they use new communication tools? For example, are there age or gender differences in the language you see?
- Do you know people who appear very different online compared with their face-to-face identity? How are they different?
- Start a collection of stories you see in the press and elsewhere, about new technologies. Can you classify the themes that recur? How do you explain some of the public attitudes to language and technology?
- How aware are people that their communication on social media sites is owned by the site and acts as a 'product' which is sold to advertisers?
- How important are new technologies to our need for play and pleasure?
- Try to find out about new technologies in other countries and cultures. For example, Ito (2006) offers an account of mobile phone use in Japan.

References

- BOOTH, R., 2012. Twitter joke case reaches High Court. *The Guardian*, 8th February. Available from <http://www.guardian.co.uk/law/2012/feb/08/twitter-joke-case-court-appeal> [accessed 18.2.12].
- CARTER, R., 2004. *Language and creativity: the art of common talk*. London: Routledge.
- CHANDLER, D., 2006. Identities under construction. In J. Maybin, ed., *The Art of English*. Maidenhead: Open University Press.
- CRYSTAL, D., 2009. *Txtng: the gr8 db8*. Oxford: OUP.
- CRYSTAL, D., 2001. *Language and the internet*. Cambridge: Cambridge University Press.
- CRYSTAL, D., 2011. *Internet linguistics: a student guide*. London: Routledge.

GEESIN, B. & H. Gilroy, 2010. Archival education: data trails and the culture of learning. In ALJAS, A. R. Kelomees, M. Laak, P. Pruilmann-Vengerfeldt et al., eds., *Transforming culture in the digital age* (Conference ebook). Available from http://dspace.utlib.ee/dspace/bitstream/10062/14768/1/transform_book.pdf 247-252. [accessed 20.2.12].

GODDARD, A. 2003. 'Is there anybody out there?': creative language play and literariness in internet relay chat (IRC). In SCHORR, A., B. Campbell and M. Schenk, eds., *Communication research and media science in Europe*. Berlin: Mouton De Gruyter. 325-343.

GODDARD, A. 2004. 'The way to write a phone call': multimodality in novices' use and perceptions of interactive written discourse. In SCOLLON R. & P. Levine, eds., *Discourse and technology: multimodal discourse analysis*. Washington, USA: Georgetown University Press. 34-46.

GODDARD, A. 2009. Language and new technologies. In MALMKJAER, K., ed. *The linguistics encyclopedia*. London: Routledge.

GODDARD, A. 2011a. 'Type you soon!' A stylistic approach to language use in a virtual learning environment. *Language and Literature*, 20/3: 184-200.

GODDARD, A. 2011b. . look im over here Creativity, materiality and representation in new communication technologies. In CARTER, R., R. Pope, & J. Swann, eds., *Creativity in language and literature: the state of the art*. Houndmills, Basingstoke: Palgrave Macmillan.

GODDARD, A. & B. Geesin, 2011. *Language and technology*. London: Routledge.

GOFFMAN, E., 1981. *Forms of talk*. Oxford: Blackwell.

HALL, K., 1996. Cyberfeminism. In S. Herring, ed. 147-170.

HARAWAY, D. 1990. A manifesto for cyborgs: science, technology and socialist feminism in the 1980s. In HANSEN, K.V. & I. J. Philipson, eds., *Women, class, and the feminist imagination*. Philadelphia: Temple University Press. 580-617.

HARDAKER, C., 2010. Trolling in asynchronous computer-mediated communication: From user discussions to academic definitions. *Journal of Politeness Research* 6. 215-242.