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INTRODUCTION



Special issue: Social media as semiotic technology

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Introduction

Social media technology has become ubiquitous in modern life. Take as an example, the role of social media in the mundane routine of waiting for the bus. People may take a picture of a funny bird and snapchat it to a friend, make afternoon plans with some colleagues at Messenger, open Tinder and swipe left, and continue the waiting. Go on to open Instagram and glance at the photos in their stream – small quadrats showing delicately colored gourmet food, historical photographs, art, and nature, accompanied by profile names, hashtags and comments. Continue the way. They may go on to “like” a friend’s selfie by double-tapping the screen, write a birthday greeting to their uncle, and check the news on Twitter. If it is a beautiful morning they might take a few photos of the morning sky, select the best one, try out different filters, and add a comment (“Late bus, lovely morning! :) #morning #buswait #love”), and post it on Instagram, and wait for likes, comments – and the bus. Firstly, as this example illustrates, social media is integrated into our everyday *social practices*, such as waiting for the bus, socializing with colleagues, or scheduling a date. Secondly, it shows how these digital technologies provide us with semiotic resources that we co-orchestrate into multimodal meaning potentials on the social media screen displays, such as individual Instagram posts, or the successive unfolding of meaning in Messenger polylogues through written text, photos, emojis, and gifs. Thirdly, the example demonstrates how the *technology* of social media provide us with socially regulated preselected action potentials, such as taking photos with our phones, adding filters to photographs and sharing them online, or chatting with a group of people. While social media practices and multimodal texts have been well-studied in social semiotic multimodality studies, the dimension of technology is still underdeveloped. Research within this field has explored how multimodal texts of great complexity are made and shared in an unprecedented number, and faster than ever before. Likewise, studies have to a large extent documented how (the use of) social media change our behavior, routines, and interactions. Yet, the same research gives us sparse knowledge of how the technical aspects of social media structure the ways we do things. Surprisingly little attention has been given to how social software enable meaning-making and how much the introduction of social media technology changes semiotic practices.

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This special issue sets out to explore the complex relationships between these dimensions by conceptualizing social media as semiotic technologies i.e. as technologically mediated resources for social meaning-making in semiotic practices. The digital technologies we have come to refer to as social media now play a powerful role in shaping and transforming a variety of social practices. Intensified social semiotic research on social media is therefore timely and necessary, in particular investigations and critiques that map out the complex relationships between social media software, multimodal social media texts, and the social practices that digital media technologies and social media texts are part and parcel of.

Previous social semiotic studies of social media and semiotic technology

Previous social semiotic research on social media investigates various texts and practices such as selfie photography (e.g. Zappavigna 2016; Zhao and Zappavigna 2018; Veum, Victoria, and Undrum 2018), the expression and negotiation of identity (e.g. Bouvier 2012; Adami 2014; Page et al. 2014) and the linguistic and multimodal representations of people and places (e.g. Hunt 2015; Buscemi 2017). However, few social semiotic studies of social media have, so far, focused on the technology itself and asked how particular social media technologies restructure the activities and practices that make up social communication (existing studies with this focus include e.g. Jones 2009, Eisenlauer 2014, Zappavigna 2018, Poulsen *in press*). Such approaches are not limited to analysis of the meaning potentials of multimodal social media texts (e.g. layouts, posts or comments), nor to analysis of types of social media usage for specific purposes (e.g. identity construction or political agitation), but combine this with analysis of the possibilities and constraints of the technologies themselves and the semiotic work they allow for and invite. It is often claimed that social media provides particular features (Jensen 2015) and comes with characteristics that set them apart from other media (for an overview, see Herring 2007; Kaplan and Haenlein 2012; Ouardi et al. 2014; Carr and Hayes 2015); the study of social media as semiotic technologies intends to expand on and challenge these claims by bringing together semiotic, social and technological dimensions of social media in systematic and detailed analysis.

Digital technologies play an increasingly important role in society and have therefore also become increasingly important in social semiotics. This has led to the emergence of the subfield of *semiotic technology* within social semiotics, which investigates how social and semiotic assumptions and norms are inscribed in software and other kinds of technology, and realized in social practices that use the technology. The semiotic technology approach can therefore “de-naturalize” (Machin and Mayr 2012) common understandings of technology as neutral tools, and invites a social critique of the ways that technology as a material-discursive artefact structures the lives of human beings (Agamben 2009).

Types of semiotic technology so far addressed by semiotic technology scholars include websites (Djonov 2007), PowerPoint (Djonov and van Leeuwen 2011, 2012, 2013, 2014; van Leeuwen, Djonov, and O’Halloran 2013; Zhao, Djonov, and van Leeuwen 2014), Word (Kvåle 2016a), and a variety of digital technologies used in education (Jewitt 2006; O’Halloran 2009; Price, Jewitt, and Crescenzib 2015; Zhao and Unsworth 2016; Kvåle 2016b). Several of these studies take a critical perspective by confronting software’s “built-in ‘semiotic regimes’” (Djonov and van Leeuwen 2018).

The social semiotic notion of “semiotic technology” was coined in the late 00s in a research project on Microsoft PowerPoint called *Towards a social theory of semiotic technology: Exploring PowerPoint’s design and its use in higher education and corporate settings* (2009–2011), led by Theo van Leeuwen, Emilia Djonov and Kay O’Halloran. The theoretical framing and analytic perspectives of the PowerPoint project are transferrable to studies of other semiotic technologies, and the contributions of this special issue on social media are strongly inspired by this project. PowerPoint was originally developed for pitching ideas in businesses, but has since been imported to and contributed to changing other social practices, most importantly education. It offers users a preselected palette of semiotic resources and templates, and is embedded in normative discourses on PowerPoint use. These studies have therefore investigated the semiotic resources provided by PowerPoint, including the historical development of resources for texture (Djonov and van Leeuwen 2011) and layout Djonov and van Leeuwen (2013). From a critical perspective, Djonov and van Leeuwen (2014) have addressed PowerPoint bullet points as part of the marketization of discourse, while van Leeuwen, Djonov, and O’Halloran (2013) have investigated David Byrne’s innovative artistic explorations of the resources of PowerPoint. Other studies have focused on how PowerPoint is integrated in university classrooms practices (Zhao and van Leeuwen 2014).

Several of these studies propose an analytical separation between two sets of semiotic artefacts – the PowerPoint software, and the PowerPoint slideshow – and between three dimensions of PowerPoint: (1) the design of the software, (2) the composition of the slides, and (3) the slideshow-supported presentations (Zhao, Djonov, and van Leeuwen 2014; Zhao and van Leeuwen 2014). PowerPoint design is thus seen as involving three sets of designers: (i) The software designer, whose design is re-used by (ii) the slideshow composer, whose design is re-used by (iii) the slideshow presenter. Their work is shaped by and shaping different social practices; the design practices and principles for the software designer, and established practices and communicative purposes within the respective fields of the slideshow composer and the presenter. This approach to the study of the relationship between semiotic technology and social practices is highly relevant for the study of social media.

In addition to PowerPoint, several other social semiotic studies have engaged with the relationship between technology and semiotic work, with education as a particularly prominent field of application. Kay O’Halloran (2009) has investigated the role of technology in the history of mathematics, while Kvåle (2016a) has addressed how Microsoft Word contributes to shaping and constraining how knowledge can be expressed multimodally. In a pioneering work, Carey Jewitt (2006) investigated relationships between technology, literacy and learning in school classrooms in the UK. Commenting on a study by Mäkitalo, Carlsson, and Sälljö (2009) on Swedish engraving practices, she emphasizes how technological change is not a simple progression from manual to digital tools: “Changes in technologies are, as their study shows, interconnected with changes in the identity of a sign-maker (i.e. the engraver as craft person, artist, machinist or graphic designer), the status and circulation of products (e.g. high-status individual art objects, or mass production), the practices and the character of the process of making, the labor involved and its division, and the community of practice that the sign-maker belongs to” (Jewitt 2009, 95–96). The complexity of technology described in the quote carries over to social media practices: changes in the landscapes of social media technology are connected to changes in identity, social status,

the nature of the semiotic work, and the communities that the social media sign-makers are engaged in.

Social semiotic approaches traditionally investigate semiotic systems and resources in culture, and the way they are used and socially regulated in multimodal text composition in various social practices (van Leeuwen 2005). These basic assumptions of social semiotics are in a semiotic technology perspective extended to and underscoring technology, in particular digital technologies. The notion of semiotic technology thus signals an interest in technology as integral to multimodal meaning making and as an integrated part of social practices. Digital technologies, including social media, are therefore treated not merely as “tools”, or as technological “carriers” of semiotic displays, but as social and semiotic artefacts in themselves. A combined interest for multimodal texts, digital technology, and social practices is thus at the core of a semiotic technology perspective.

In this special issue, we are interested in *social media as semiotic technologies*. Semiotic technologies refer to the whole array of technologies people use to make meaning as part of specific social practices, such writing and drawing on a blackboard with chalk in mathematical lessons in schools, photographing beaches and mountains for image bank stock photos, or taking a selfie and uploading it on Instagram for sharing with friends and acquaintances. Social media provides people with digital environments of preselected semiotic resources and more abstract semiotic principles for carrying out social and semiotic work, thereby contributing to shaping how we make, enact, and manage meaning in social practice (Volosinov 1973[1929]).

The special issue

This special issue is based on papers presented at two international symposia on social media as semiotic technology in Odense, Denmark, 22-23 September 2016, and in Slagelse, Denmark, 2 June 2017, and presents research from leading researchers in the field. It takes as its starting point the assumption that social media are never neutral physical and electronic products and processes, but historically developed social, cultural and semiotic constructs imbued with social values and norms, and that they can play a crucial role in changing social practices and creating new ones.

The papers included in the special issue investigate how and why specific social media technologies contribute to the structuring of knowledge, discourses, activities and practices and how various social media environments enable people to make, manage and share meanings across social practices. More particularly, they focus on the intersections and interdependences between the design and use of social media, showing how social media provide users with pre-designed templates, filters, and designs for communicating and meaning-making and exploring the social interests that have guided the development of these resources.

The special issue also pays attention to what is *social* about social media by theoretically and methodologically connecting analysis of the semiotic potentials of technology with social, cultural, economic, and material considerations, and showing how technology is inscribed with sociality in codes, algorithms, templates, and designs. Studies in the volume thus provide social descriptions and critiques of the technology itself and contribute to demonstrating and specifying the interdependencies between social media technologies and the social practices in which they are used. The contributions aim to

bridge these two dimensions and map out interrelations and intersections between semiotic technology and sociality which hitherto have not been studied in the humanities and social sciences but are crucial for gaining insight into the relationship between human beings, their culture and society, and their technologies.

Presentation of contributions in this volume

Most contributions to this special issue adopt a *social semiotic approach* to social media as semiotic technology. Social semiotics originally developed from Michael Halliday's systemic-functional linguistics (Halliday 1978), and it is within this framework that the notion of "semiotic technology" has emerged.

The special issue starts out with Elisabetta Adami's critical exploration of the way digital platforms as semiotic technologies influence the relationship between online self-expression, semiotic regulation and the social construction of taste. Using a personal blogging site on WordPress as a case, she demonstrates how the semiotic regimes of web design styles on WordPress regulate the use of resources for identity expression and contribute to the objectifying and technologizing of hegemonic semiotic preferences.

In the following article and from the same thematic point of departure, Ilaria Moschini addresses the necessity to integrate the semiotic analysis of front-end texts on social media platforms with an analysis of the underlying application layers that provide the medial ecosystem for webservices. For this purpose, she proposes a multi-layered model that combines social semiotics and Platform Studies. The model's explanatory power is demonstrated with an analysis of the Facebook Login Service.

In the next article, Emilia Djonov and Theo van Leeuwen address how social media as semiotic technologies not only provide sets of semiotic resources and media for making texts, but also function as platforms for the transformation of social practices. Extending their model for analysis of semiotic technologies, by incorporating in it van Leeuwen's framework for discourse analysis, they demonstrate how ResearchGate as a social media tool contributes to transforming the practice of peer-reviewing.

In the next contribution, Sumin Zhao and Michele Zappavigna investigate the role of social media technology in selfie practices. They show how such practices include social media like Instagram along with other digital technologies that simultaneously afford and constrain the construction of selfies. The design and use of technology enable the generating of various perspectives – that of the selfie maker, the represented visual participant, and the viewer – which make up this unique visual genre.

Following this, Danica Jovanovic and Theo van Leeuwen ask how the design of social media technology affects social interaction – both in its structure and its multimodal realization. Using the semiotic key term of "dialogue" as an analytic entry point, they map out the ways that digitally mediated interactions across various forms of social media unfold, and show how these semiotic practices involve both interaction between users themselves as well as between user and system.

Finally, Søren Vigild Poulsen and Gunhild Kvåle investigate how social media as semiotic technology can be explored from the perspective of social semiotic multimodality. They do so by arguing that these semiotic artefacts require an approach which draws on insights from previous social semiotic studies and simultaneously necessitates elaboration, and in some cases revision, of key social semiotic concepts for the description of social

media technology. They propose a model of seven dimensions and demonstrate its use by applying it to Instagram.

In sum, this special shows how social media are far more than technological tools with practical functionalities. Rather, it seeks to explore social media as historically developed social, cultural and semiotic constructs embedded in social practices and loaded with social values and norms (Kress 2005). The volume presents a diverse range of social semiotic methods and approaches for studying social media technology. What these have in common is an interest for how social media appears as semiotic surfaces, how the technology is shaped by and shaping the semiotic and social interaction, and what roles social media technologies play in social practices.

Thus, with this special issue, we hope to demonstrate the continuous relevance and need for social semiotic research of social media technology, and to invite further research into these semiotic artefacts that we all use on a daily basis in our professional and personal lives, and that make up a constitutive part of the contemporary semiotic landscape.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Søren Vigild Poulsen is PhD and Assistant Professor in Multimodality at the University of Southern Denmark, Slagelse. His research focuses on digital media and social media, websites, social semiotic and cognitive approaches to multimodal analysis. His teaching includes digital communication and marketing as well as web design. He is the organizer (along with G. Kvåle and T. van Leeuwen) of seminars, a PhD workshop and masterclass, and symposiums on social media technology. He has given several papers on Instagram, which are in preparation for publication. Other publications include “Modeling Ideal-Real: A social semiotic-cognitive approach” (2013), “Analyzing websites as multimodal texts” (2014), and “The Same meaning across Modes – some reflections on transduction as translation” (2017).

Gunhild Kvåle is PhD and Associate Professor in language studies at the University of Agder, Norway. Her research interests revolve around multimodality, digital technology, critical discourse analysis, and literacy. Her recent publications include articles on various kinds of digital semiotic technologies, such as MS Word, Photo Story, and blog software. She has also edited books on multimodality (Fagbokforlaget 2015, in Norwegian) and on literacy in higher education (Universitetsforlaget 2016, in Norwegian).

Theo van Leeuwen worked as a film and television producer in his native Holland and Australia. Later, he studied linguistics in Sydney and Paris, and variously taught film production, media studies and semiotics at Macquarie University, the London College of Printing and Cardiff University. Between 2005 and 2013, he was Dean of the Faculty of Arts and Social Sciences at the University of Technology, Sydney, and since September 2013, he has been Professor of Language and Communication at the University of Southern Denmark in Odense, Honorary Professor at Lancaster University and the University of New South Wales, Sydney, and Visiting Professor at the Institute of Education, London. He has published widely in the areas of social semiotics, critical discourse analysis and multimodality, and is a founding editor of *Visual Communication*.

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