

Assembling Texts in the Digital University

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Abstract—This paper engages with new research into digital practices in the university ('digital literacies' in academic writing and 'digital scholarship' for research and teaching). It argues that although significant advances have been made in understanding new literacy and media practices, there remains a tendency for research both to reify 'the digital' and to neglect the material dimension of text-making. In response, this paper proposes a model for understanding the mechanics through which academic texts are assembled. Drawing on social semiotics and the material philosophy of Gilles Deleuze, this model employs the concepts of *'interest, semiotics resources, and affordances* in an effort to undo the dichotomies between 'digital'/'non-digital' and 'social'/'material'. The paper concludes by addressing the implications for interventions into literacy in the digital university.

Index Terms—New literacies, academic writing, social semiotics, Deleuze

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INTRODUCTION

Recent years have witnessed a proliferation of research into digital practices in the university. Terms such as 'digital literacy' (Buckingham, 2010) and 'digital scholarship' (Weller, 2011) have become common currency and funding for research into these phenomena, at least in the UK, has escalated. While significant advances have been made in understandings of new literacies and digital practices, with fluid identities replacing fixed identities¹; social practices replacing skills (Lea, 2007; Lankshear and Knobel, 2008; Goodfellow, 2011) and communities replacing networks (Barton and Tusting 2005; Haythornthwaite and Kendal, 2010) there nevertheless remains a tendency for research to reify 'the digital' and neglect the material dimension of text-making. Where attention to materiality is given (for instance in studies which draw on Human-Computer Interaction and Activity Theory) a clear dichotomy tends to be drawn between the social and material components of interaction with 'the material' playing a subordinate role to 'the social'².

In this brief position paper I draw on social semiotics and the material philosophy of Gilles Deleuze to propose a model for understanding the mechanics of academic text-making which attempts to challenge these dichotomies. While not limited to the analysis of *digital* texts, the model might be used to explore how the modal make-up of texts afforded by digital media can challenge and help to redesign traditional academic genres.

¹ See, for example White's recent adaptation of Prensky's 'natives' and 'immigrants' into 'residents' and 'visitors' (White, 2011)

² An expectation here is Actor-Network Theory where the agentive properties of both social and material 'actors' are given equal weighting (see Latour and Woolgar, 1979; Law 2004, Savage et al, 2010)

VIRTUAL-ACTUAL TEXTS

How are different types of text assembled by students and academics in the university? And what is the influence of the social *idea* of academic texts and the 'conditions of possibility'³ set by their material *actualisation* on this assembling process? Philosophers such as Gilles Deleuze have referred to any instance through which social-material matter (such as that of essay preparation) is fixed (into forms such as an undergraduate essay) as 'virtual-actual becoming.' In some of his earlier work⁴ Deleuze argues against Plato's transcendent assumption that life does not rest on an ideal or original model, but rather that all social and physical matter exists on a plane of *difference* and the boundary-setting through which social or material *identities* are defined occurs through discursive practices which act as copying devices (Deleuze, 1994: 38). In this way the real is always *actual-virtual* (Deleuze, 1994: 207-12). An actual thing is produced only from virtual possibilities. There must already be some general image of an undergraduate essay in order to build, recognise and perceive an actual essay. What something *is* (actually) is also its power to *become* (virtually). Virtual potentialities are only recognised once they have been actualised and an actual thing has also a virtual dimension: an essay is not just a text but also an expectation of (amongst other things) a final grade. So while academic standards might result in some measure of what constitutes a particular academic text, there is always evolution and deviation whether this occurs on an individual, institutional or societal level. What then are the mechanics of assembling texts and how might an understanding of such mechanics contribute to interventions in academic literacy?

INTEREST, SEMIOTIC RESOURCES AND AFFORDANCES

According to a social semiotic perspective (Halliday and Hasan, 1985; Hodge and Kress, 1988; Kress and Van Leeuwen, 1996; Van Leeuwen, 2005; Kress, 2010) any text might be understood as *a momentary fixing and framing of semiosis* guided by the *interest*⁵ of the text-maker – the student or academic researcher

³ Latour and Woolgar (1979) Mol (2002) and Law (2004) all adopt the notion of 'conditions of possibility' from Michel Foucault (see for example Foucault 1970 and 1972) who argued that the apparatuses of scientific production sets limits to what is possible. In his earlier work Foucault (1970) argued that these limits (as well as the social practices which set them) are established by historical *epistemes*. Later on he altered his position (see for example Foucault, 1972) insisting that there is endless potential for variation and creative innovation within these limits (Rose, 1999). The notion of 'conditions of possibility' as used by Latour and Woolgar, Mol and Law differs slightly from Foucault's use in that it is drawn on a more modest scale suggesting that "the limits to scientific knowledge and reality are set by *particular and specific sets of inscription devices*" (Law, 2004: 35 emphasis in original) rather than by larger epistemes. It is therefore probably closer to Foucault's later notion (1980) of the *dispositif* (see Savage et al, 2010) which includes an array of material, human and behavioural elements and so extends beyond the discursive reach of the episteme.

⁴ *Bergsonism*, first published 1966; *Difference and Repetition*, first published 1968

⁵ In social semiotics, the notion of the *arbitrary* sign developed by Ferdinand de Saussure is replaced with the *motivated* sign in the design of "semiotic resources both to produce communicative artefacts and events and to interpret them (another form of semiotic production) in the context of specific social situations and practices" (Van Leeuwen, 2005: xi).

and the array of *semiotic resources*⁶ at her or his disposal. To understand the social and material conditions of possibility of meaning making, social semiotics offers the reformulated concept of *affordance*⁷. All instances of communication involve the use of *modes* (such as speech, writing, gaze, gesture). According to van Leeuwen (2005) these modes have a *theoretical* semiotic potential (constituted by all their past uses) and an *actual* semiotic potential (constituted by those past uses that are known to and considered relevant by the users of the mode and by potential uses that might be uncovered by the users according to their specific needs and interests). Since all instances of communication take place in a social context, different contexts may have different rules or best practices that regulate the ways in which specific semiotic resources can be used, or alternatively, leave the users relatively free in their use of the resource (van Leeuwen 2005: 4). So ‘affordance’ in this context is shaped by the different ways in which a mode has been used, what it has been repeatedly used to mean and do, and the social conventions and material possibilities that inform its use in context. In this way the affordance of a mode is related both to materiality and social meaning.

Distinguishing between the notion of ‘affordance’ and Halliday’s similar notion of ‘meaning potential’, van Leeuwen argues that while the latter notion focuses on meanings that have already been introduced into society, ‘affordance’ also includes meanings that have not yet been recognised: “no one can claim to know all the affordances of a given [mode or semiotic resource] yet as semioticians we do not need to restrict ourselves to what is, we can also set out to investigate what *could be...*” (van Leeuwen, 2005: 5) This distinction resonates with Deleuze’s notion of *virtual-actual becoming* discussed above. However, van Leeuwen reminds us that the fact that resources have no objectively fixed meanings does not mean that meaning is a free-for-all: “In social life people constantly try to fix and control the use of semiotic resources – and to justify the rules they make up – although more so in some domains than others.” (van Leeuwen, 2005: 5) The question is, how are these conditions of possibility set in various academic domains (student coursework, doctoral theses, journal submissions etc.) and what are the mapping-affordances (as opposed to the tracing-affordances) for those academics and students engaged in designing and producing texts? As a response, social semiotics provides a set of tools for unpacking textual affordance in two key ways: firstly, by showing how the affordances of a text interact with the process through which texts are assembled; and secondly, by showing how the affordances of a text interact with its content and form.

⁶ Including language but also extending to other communicative tools such as gaze, gesture, illustration etc.

⁷ Jewitt explains that the use of the term by social semioticians evolved from work on cognitive perception by Gibson (1977) and design by Norman (1988, 1990) see Jewitt (2009: 24) though she argues that neither Gibson nor Norman’s notion of affordance adequately acknowledges how tools (conceptual and material objects) are shaped by people’s use of them in specific social situations (Jewitt 2008).

With regards the first set of tools, social semioticians have suggested that texts are assembled through the somewhat sequential stages of rhetorical process, design and production (see Kress, 2010). *Rhetorical processes* occur before (though are also concurrent with and can conceivably follow) the moment of design (when a text is fixed and framed). In these processes the sign maker “makes an assessment of all aspects of the communicational situation: of her or his interest; of the characteristics of the audience; the semiotic requirements of the issue at stake and the resources at stake and the resources available for making an apt representation; together with establishing the best means for its dissemination” (Kress, 2010: 126). In other words, this stage involves an assessment of the virtual and actual affordances of the text to be designed. So before developing a PowerPoint presentation for a conference, presenters will assess the theoretical, methodological, empirical and ideological messages they want to send (negotiating between their own personal interests and what they imagine will be the interests of the conference); the integrity of their data and how best to represent it; and the texts and media into which their messages will be packaged (or the conditions of possibility afforded by the presentation software). The rhetor’s task is therefore a political one, namely “to provoke and produce the rearrangement of social relations by semiotic means.” (ibid p.121) In contrast, the *design stage* involves the transformation of “political intent into semiotic form.” (ibid p.121) So in this stage the presenters start to navigate the virtual affordances of the media of the PowerPoint presentation (in terms of issues like how to condense pages of dense academic writing into a single practitioner-friendly slide and how to order the text as a linear presentation); and the virtual affordances of the conference itself (in terms of issues like how to respond to the timing of the conference, the nature of the audience and the topical focus). And finally, the *production stage* constitutes the stage in which the virtual is actualised (for example, a PowerPoint presentation is created in space and a conference unfolds in time).

To explain the influence of the affordances of a text on its content and form semioticians such as Kress proposes the concept of ‘fixing’ which involves choices about *mode* and of *genre*⁸. According to social semiotic theory, texts are the products of communicative interaction and are multimodal (Kress and van Leeuwen, 2001). This means that there is always a choice of *modes* (or semiotic resources) through which to fix meaning: “Depending on the media involved there are different possibilities: do you wish to realize meaning as image or as gesture, as moving image or as speech or as ensembles of these?” (Kress in Jewitt 2009: 64). Kress shows that the choice of mode or multimodal ensemble in which the text is realised and the *generic* form that the text takes (e.g. a PowerPoint presentation, undergraduate essay or journal article)

⁸ Kress also considers the role of ‘discourse’ which is less to do with the form of the text and more about the content.

matters. “Once particular means of ‘fixing meaning’ have become habituated... it is likely that the world as represented through the affordances of mode and genre will come to seem like this ‘naturally’” (Kress, 2009: 66). So *genre* addresses the semiotic ‘emergence’ of social organisation, practices and interactions. It names and ‘realises’ knowledge of the world as social action and interaction and occurs through participation in events (like academic conferences or PhD defenses) formed of such actions experienced as recognisable practices (like presenting a PowerPoint or defending a PhD).

Together the interrelated concepts of *genre* and *mode* can help show how meaning is fixed. *Genre* answers the question: ‘Who is involved as participants in this world; in what ways; what are the relations between participants in this world?’ and so fixes meaning socially (for instance, as a journal submission where participants are ascribed roles such as ‘author’, ‘reviewer’ and ‘editor’). And *Mode* answers the question: ‘How is the world best represented and how do I aptly represent the things I want to represent in this environment?’ and so fixes meaning materially and ontologically (as a diagram in a PowerPoint presentation, for example) (Kress, 2010: 116-121).

So to summarise, the notions of ‘interest’, ‘semiotic resource’ and virtual-actual, generic-modal ‘affordance’ help to explain the assembling of both digital and non-digital academic texts – with implications for understandings of new academic literacies. This relationship is visualised in **Figure 1** below.

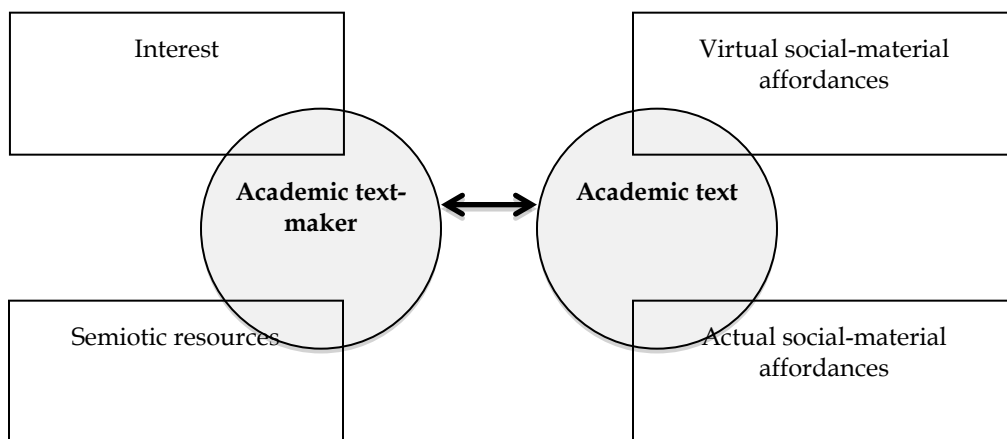


Figure 1: The mechanics of assembling academic texts

CONCLUDING THOUGHTS

The model presented in Figure 1 above might contribute to the field of new academic literacies in two key ways. Firstly, the focus on the academic text-maker allows analysis of interest (both in terms of pre-existing literacy practices and in terms of learning aspirations) while the focus on semiotic resources helps to identify the core competences required for different types of text-making as well as the strategies used to compensate for inadequate resources. Such insight carries important implications for the development of academic literacy interventions. Secondly, the focus on the social-material (generic-modal) affordances of the academic text both within the design process (as a virtual idea) and in its realization (as an actual text) enables exploration into how the modal make-up of texts afforded by different media can challenge and help to redesign traditional academic genres. Elaboration of these implications will be explored in an extended version of this paper.

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