

Multimodal Semiotics in the Digital Age

Kay O'Halloran, Alexey Podlasov, Sabine Tan and Bradley Smith

Multimodal Analysis Lab
Interactive & Digital Media Institute (IDMI)
9 Prince George's Park
National University of Singapore
Singapore 118408
<http://www.multimodal-analysis-lab.org/>

Phone: (+65) 6516 5913

Fax: (+65) 6774 2647

Email: kay.ohalloran@nus.edu.sg

We begin with the observation that interactive digital technology is multimodal semiotic technology: that is, increasingly diverse and powerful digital technologies make possible an increasing range of semiotic resources for both communication, and the study of communication within the semiotics sciences. We thus explore: multimodal semiosis, communication which utilizes multiple semiotic modes and resources within unified but complex semiotic acts (for example, in a film, the interaction of gesture, gaze, intonation, camera angle, and music); and multimodal (digital) semiotics, the potential of software to record, playback and analyse semiotic phenomena. Our Multimodal Analysis Lab team from the Interactive & Digital Media Institute (IDMI) at the National University of Singapore, consisting of researchers from semiotics, mathematics and computer science, are working on a large project to develop interactive digital media to advance existing theories and approaches to multimedia semiotic analysis.

We first discuss the need for our multimodal analysis software, and demonstrate the (present and potential) functions and design of the software application; and then show through the analysis of a multimodal text how the use of digital technology represents both a new resource and a challenge to the field of semiotics. The chief functions of the software are: access to multimedia data (video, websites, etc); the capacity to analyse (categorical and gradient annotations, as well as automated techniques) and store these analyses in a database for retrieval and export; the application of a variety of

visualizations to one's data and analyses that are resources for showing significant aspects of semiotic activity, otherwise often not accessible to the analyst.

Our starting point for analysis is Barthes' famous discussion of the mythic sign in a static image, the cover of a Paris Match magazine, in his 1957 article 'Myth today'. We apply Barthes' techniques to the analysis of a dynamic audiovisual text, a HSBC television advertisement. Our text shows an array of interesting patterns of a variety of denotative and connotative signs. Digital software allows the analyst to analyse these signs in relation to the dynamic source text via a range of analytical strips and nodes positioned along the timeline, within which the analyses are performed in terms of the relations of signifier and signified and in their relations to one another synchronically and diachronically.

In our HSBC text various intertextual references invoke the narrative and themes of the 1960s film 'Easy Rider' film, and the myth of 'freedom', of the global traveler who explores and effortlessly integrates into cultures of the 'Other' in remote locations. We show through a variety of different types of analyses how the advert uses the construction of a mythical discourse to construct a satire on the bank's competitors who, symbolized by the 'Easy Rider' character in the advert, neglect to learn sufficiently the local cultures of the countries around the world with which they wish to do business. The use at a strategic point in the text of a denotative discourse to construct a narrative (the biker uses a gesture-sign which throughout South America means 'everything is OK but within Brazil, is 'rather rude' – and suffers the consequences of its misuse) masks a further mythical discourse: that of HSBC as the 'world's local bank' who really understands local cultures. The interplay of different types of sign, in sound and vision, forms a complex text that nevertheless reveals a unitary message.

The provision of user-defined categorical and gradient analysis systems, as well as written text and graphic overlay resources, means that the interactive (multimodal) digital environment is one in which multiple analytical and theoretical perspectives may be applied and compared, presenting both opportunities and challenges to semiotic sciences.

One challenge for semioticians is to exploit such resources to correlate different analytical perspectives so as to reveal higher-level signs and their meanings; and to test and compare different theoretical approaches, visualizing the results of such analyses via colour and other (for example 3D; mathematical) visualization techniques.

We discuss issues in the use of interactive digital media, and raise questions for the field of semiotics to consider, such as:

- does the use of annotations automatically lead to or represent reductionism?
- what does it mean to observe a phenomenon (e.g. music) as a process separate from one's analytical process, and to transpose data from one mode into another (e.g. aural (music) into visual (score, or other annotation schema)?
- how can the digital uses of visual (and aural) metaphor aid semiotics enquiry?
- what are the publishing and copyright issues for multimedia data?

Our presentation actively seeks to explore how semiotic science can aid the understanding and application of interactive digital technology, and vice versa.