

**Fifth International Conference on Multimodality (5ICOM)**

**University of Technology Sydney (UTS), 1-3 December 2010**

**Colloquium Proposal**

**Author:** Multimodal Analysis Lab Team, Director Kay O'Halloran

**Affiliation:** National University of Singapore

**Contact email:** kay.ohalloran@nus.edu.sg

**Colloquium Title:** Challenges and Approaches to Multimodal Studies

**Presenters:** Session 1: Kay L. O'HALLORAN (Chair), Bradley A. SMITH, Alexey PODLASOV, Stefano FASCIANI and Sabine TAN; Session 2: FENG Dezheng, Victor LIM Fei, LIU Yu and ZHANG Yiqiong

**Abstract**

An increasing range of multimodal studies, and an increasingly sophisticated range of techniques for multimodal analysis, bring to multimodal studies a wealth of new material to consider, both descriptive and theoretical, and challenges to our practice of multimodal study. Increasingly sophisticated frameworks and descriptions, and the increase in analytical detail and scope afforded by contemporary technological (particularly software) resources, raise questions such as, 'which aspects does/should one study?', and 'from what analytical perspective?'. That is, multimodal studies in general, and digital technology in particular, increase the analytical potential of researchers; but then the issue of choice, and motivated choice, becomes crucial. In general, the range of theoretical approaches, models, descriptions and techniques available for the study of multimodal discourse problematises the idea that there could be any one privileged analytical perspective on a text, sufficient to account for that text.

In addition to the continuing expansion of our repertoire of descriptions of multimodal phenomena, the need for developing more sophisticated approaches sensitive to multimodal phenomena is ever more evident. In the same way that multimodal studies has problematised an insistent focus on single monomodal semiotic resources (particularly language) within texts, multimodal studies problematises an analytical reliance upon monomodal techniques and resources used for the study of multimodality. In this colloquium we explore what it means to do multimodal study, and the challenges which confront the multimodal analyst: e.g. different types of media, levels of analytical detail and complexity, methodological and publishing constraints; and the variety of approaches (theoretical, methodological, technical, multimodal) potentially available for the analysis of any text or corpus. Each of the presentations engages with a particular area of multimodal study while presenting different ways of addressing the challenges that arise from such studies.

## **SESSION 1**

### *Presentation One*

**Author:** Kay L. O'HALLORAN (Chair), Bradley A. SMITH, Alexey PODLASOV and Stefano FASCIANI

**Affiliation:** Multimodal Analysis Lab, Interactive Digital Media Institute, National University of Singapore

**E-mail Address:** kay.ohalloran@nus.edu.sg; semiosmith@gmail.com;  
idmpa@nus.edu.sg; stefano17@nus.edu.sg

**Presentation Title:** Modelling Multimodality: Interactive Digital Resources and Techniques

### **Abstract**

The development and use of interactive digital resources and associated techniques for multimodal study raises and addresses many core issues in multimodal studies. For example, there is the issue of analytical access to the wide variety of media and modes involved in contemporary multimodal discourse practice: dynamic audiovisual, and hypertextual documents, for example, have both presented difficulties for page-based analysis. Similar constraints tend to act in the development and particularly the application of theories and models. Models of multimodal theory and conceptual frameworks for use in application to analysis of discourse have tended to work within and reflect the constraints of the printed page. Otherwise, important concepts relevant to multimodal study, as for example between categorical and parametric description (van Leeuwen 2009) and between typological and topological perspectives (e.g. Lemke 1999) do not readily translate into appropriate page-based techniques for analysis.

In the present discussion we explore the development of interactive digital (software) resources and associated techniques for multimodal studies. Techniques for analyzing visual and aural phenomena are presented, as well as the integration of various analyses within empirically-based holistic views on multimodal text. We show how digital resources enable and encourage the application, calibration and integration of different theoretical perspectives and techniques, including cross-disciplinary perspectives from mathematics, social semiotics and computer science. We discuss how theory and its application to multimodal discourse analysis (MDA – see for example, O'Halloran in press) meet via the development of computational design models capable of implementing and applying theoretical concepts and frameworks; and also address issues of inter-disciplinary collaboration.

## **References**

- Lemke, J. (1999). Typological and Topological Meaning in Diagnostic Discourse. *Discourse Processes* (2): 173-185.
- O'Halloran, K. L. (in press). Multimodal Discourse Analysis. In K. Hyland and B. Paltridge (eds), *Companion to Discourse Analysis*. London: Continuum.

Van Leeuwen (2009). Parametric Systems: The Case of Voice Quality. In C. Jewitt (ed), *The Routledge Handbook of Multimodality*, pp. 68–77. London & New York: Routledge.

### ***Presentation Two***

**Author:** Sabine TAN

**Affiliation:** Multimodal Analysis Lab, Interactive Digital Media Institute,  
National University of Singapore

**E-mail Address:** sabinetan@nus.edu.sg

**Presentation Title:** Using Software for Visualizing Multimodal Patterns in  
Representations of Multimodal Corpora

### **Abstract**

Combining discourse analysis, social semiotics, and other interdisciplinary approaches and methodologies, this paper offers a view of the affordances and constraints of using generic and specialized software for the exploration of patterns in multimodal corpora.

In addressing the question of how business news events are mediated on the internet by popular business news networks such as Bloomberg, CNBC, FOX Business, and Reuters, or more specifically, in trying to bring to light the complexities of how identities and social relationships are constructed and represented in different modes and media through multiple juxtapositions of verbiage, graphic images, digitized photographs, audio and video streams, this presentation explores how multimodal discourse analysis can be complemented by low- and mid-level software analytical techniques in identifying trends in annotated linguistic, visual, and dialogic data.

In this context, the paper will demonstrate how generic histograms, scatter and bubble plots, relative frequency distributions, area graphs, etc., can offer additional insights into representations of mediated social interaction. The paper will then explore how such low-level graphic representations can be further correlated with mid-level

computational visualization techniques, such as afforded by word-frequency tag cloud generators and graph network tools for visualizing large-scale interaction networks and pathways, by integrating these with annotations and other state data, to obtain more holistic and coordinated views of the various process types and categories that may be drawn upon to represent events, social actors, social constructs, and mediated social (inter)actions in a particular mode or medium by particular business news networks.

Apart from the opportunities that these software may afford as regards to the identification of complex patterns in multimodal corpora, the paper will also consider the challenges that these techniques may pose to the analyst in organizing, storing, searching, retrieving, and redeploying such information to facilitate meaningful interpretations of the visualized data.

## **SESSION 2**

### ***Presentation Three***

**Author:** FENG Dezheng

**Affiliation:** Multimodal Analysis Lab, Interactive Digital Media Institute,  
National University of Singapore

**E-mail Address:** fengdezheng@nus.edu.sg

**Presentation Title:** Modeling Appraisal in Film

### **Abstract**

Appraisal has been widely studied in various types of discourse and researchers have also started to investigate the evaluative resources in non-linguistic modalities. Continuing these research endeavors, the research reported on here aims at a comprehensive exploration of appraisal at the levels of lexico-grammar, discourse semantics and context in complex multimodal discourse. Using film discourse as data, we examine the multimodal construction of appraisal, the interaction among different attitudes and the patterns of attitude distribution and development.

This presentation focuses on the levels of discourse semantics and context. We explore how the distribution of attitudes contributes to the construction of the genre of Roman epics, how the logogenetic development of attitudes engages viewers' emotion and interest, and how attitude in film reveals the cultural values and ideology of contemporary society.

For the above objectives, multimodal annotation software and methods of visual modeling will be used to manage the complexity of multimodal dynamic discourse. Opportunities and challenges of using the software will be discussed. The possibilities offered by system network, statistical tools (e.g. line graphs) and new techniques of visualization for modeling attitude interaction and prosody in film will also be explored.

#### ***Presentation Four***

**Author:** Victor LIM Fei

**Affiliation:** Multimodal Analysis Lab, Interactive Digital Media Institute,  
National University of Singapore

**Email Contact:** victorlimfei@yahoo.com

**Presentation Title:** Mapping Space & Movement in the Classroom

#### **Abstract**

Pedagogy is, in some aspect, realised spatially through the movement and positioning of the teacher. Specific spaces in the classroom take on certain meanings because of the nature of the pedagogic discourse that occurs on the site as well as through the positioning and distance of the site relative to the students and the teaching resources such as the whiteboard and screen. Ideationally, the space is the site where activities are carried out and ideas are represented. Interpersonally, Hall (1966) and Matthiessen (2009) have argued that material distance realises semiotic distance and enacts social

relations. Textually, the site functions as the physical space for the organisation and realisation of the meanings made through the orchestration of semiotic resources.

The challenge in analysis, in part, is in the mapping of the space and movement of the teacher across the semiogenesis of the entire lesson. This presentation discusses a possible approach for annotating the teacher's use of space and movement as well as the productivity of visualising this annotation through digital graphical methods. The pedagogical style of the teacher as realised through the patterns in the frequency of positioning and tendency in the directionality of movement as well as the intersemiotic correspondences in the use of space and movement with other resources are discussed through data analysis of two teachers conducting similar lessons but with apparently different pedagogical styles.

## **References**

- Matthiessen, C.I.M. (2009) 'Multisemiosis and Context-Based Register Typology'. In E. Ventola and A. J. M. Guijarro (eds.) *The World Told and The World Shown, Multisemiotic Issues*. London: Palgrave Macmillan, 11-38.
- Hall, E.T. (1966) *The Hidden Dimension*. New York: Doubleday.

## ***Presentation Five***

- Author:** LIU Yu
- Affiliation:** Multimodal Analysis Lab, Interactive Digital Media Institute,  
National University of Singapore
- E-mail Address:** liu.yu@nus.edu.sg
- Presentation Title:** Scientific Literacy in Post-Secondary Chemistry Lessons: A  
Multimodal Perspective

## **Abstract**

This study takes a social semiotic view of multimodality and its challenge to scientific literacy in chemistry education. Drawing on the logo-genetic view of classroom

discourse, I attempt to trace the growth of scientific literacy in the overall organization of two science lessons collected from a post-secondary school in Singapore. To facilitate the investigation, five episodes at different stages of the curriculum activity are selected for multimodal analysis.

The purpose of the analysis is twofold. Firstly, it investigates how the curricular content of each episode is shaped through orchestrations of different semiotic choices (for example, semiotic material can be moved from a set of modes including language and real life photographs, to another set of modes including language and symbolic formulas). Secondly, the analysis explores meaning expansions during the unfolding of the teaching-learning cycle. It is argued that achieving scientific literacy in post-secondary school chemistry entails a crucial semantic shift from macroscopic meaning to submicroscopic meaning realized through the process of resemioticization.

### ***Presentation Six***

**Author:** ZHANG Yiqiong

**Affiliation:** Multimodal Analysis Lab, Interactive Digital Media Institute,  
National University of Singapore

**E-mail Address:** zhangyiqiong@nus.edu.sg

**Presentation Title:** Functions of Images in Online Science Popularization: A  
Multimodal Study

### **Abstract**

Science popularization, broadly defined as the re-presenting of scientific research for the general public, is witnessing a shift from verbal texts to multimodal representations in the digital era. Despite the fact that multi-semiotic resources are increasingly applied to popularize science, existing studies of science popularization have focused overwhelmingly on verbal texts in print media. This study explores the functions of images in a consortium website run by leading American, Britain and

Canadian universities, adopting a social semiotic approach (Halliday, 1978; van Leeuwen, 2005). As the website evolves, it applies an increasing number of images from image banks such as *iStockphoto*, which provide accessible collections of images that represent concepts symbolically rather than capturing events and objects in documentary form. The generic images from image banks interact with verbal texts to construe meanings in a very different way from the specific images showing actors, objects or actions involved in the production or consumption of the scientific knowledge. The functions of the images from different sources will be discussed in terms of their ideational, interpersonal and textual metafunctions (Halliday, 1994). Implications will be drawn from the discussion with regards to the impact of visual representational practices of science news advanced by technology on science popularization.

## **References**

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- Halliday, M. A. K. (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Edward Arnold.
- van Leeuwen, T. (2005). *Introducing Social Semiotics*. London and New York: Routledge.