

## SOCIAL MEDIA ANALYSIS: METHODS AND ETHICS

### SPEAKERS AND ABSTRACTS

**Dr Maria Economou**

*Lecturer in Museum Studies, Humanities Advanced Technology and Information Institute (HATII), Glasgow University*

**Studying the use of social media for cultural heritage organisations through teaching**

As part of the 'Heritage and Cultural Informatics' Honours and MSc in Museum Studies course, we examined the use of social media in different types of cultural heritage organisations (museums, libraries, archives). The students carried out an exercise using the Hunterian as a case study making recommendations about its use of social media. A second step of their research would involve them setting up and evaluating different social media platforms. This raises interesting ethical and methodological questions and issues of whose voice should be portrayed in the social media sphere. It also impacts on the organisation's strategy, the type of communication it wants to encourage with different types of visitors, as well as how this relates to the teaching and learning experience.

**Ann Gow**

*Resource Development Officer, Humanities Advanced Technology and Information Institute (HATII), Glasgow University*

**Social Media Knowledge Exchange**

The AHRC Social Media Knowledge Exchange (SMKE) is a collaborative project which gave postgraduate students and early career researchers in the Arts and Humanities opportunities for knowledge exchange with social media practitioners in academia, museums, archives and libraries, and the voluntary sector. Through a scholarship scheme, workshops and a conference, the Social Media Knowledge Exchange helped postgraduate students and early career researchers to develop skills to build their networks, reputation and esteem as researchers at a point when this is critically important to their careers, and provided them with structured opportunities to learn about social media practice outside their own discipline and institution, and in a wide variety of sectors beyond academia. As a partner in SMKE, I'll discuss the project, highlighting Scholar's Projects which typified the exploration of social media practice outside a research context, for example "Organizing a Revolution: Egyptian Crisis Management and Social Media".

**Lyndsay Miller and Jonathan Sellar**

*EFL Student Welfare, School of Modern Languages and Cultures, Glasgow University*

**Social Media Honeycombs: An Analysis of Social Media in HE**

This presentation is an interactive, visual case study of social media use for international students on the 2012 Pre-sessional English course at the University of Glasgow, which received special mention in the BALEAP Accreditation Report in July 2012. A social media honeycomb, composed primarily of Facebook, Twitter, YouTube and Wordpress, was used as a succinct and encompassing means of communicating regularly with 573 students. In this presentation we will show how we devised and implemented the social media honeycomb. We will explicate how a social media honeycomb can be used as a means of mass communication, to enhance international student experience and international recruitment and retention.

**Dr Christa Roodt**

*Lecturer in Art, Law and Business, School of Culture and Creative Arts, Glasgow University*

**Nazi looted art and restitution: co-ordinating initiatives emanating from state departments, business and non-profit organisations**

The impact of WW2 on the movement and subsequent location of many pieces of fine art qualifies as Europe's 'unfinished business'. The Internet now offers tools by which to identify the location of looted artworks, which clarifies provenance and enable claims to be brought. The project considers what can be done to improve co-ordination of online databases for purposes of facilitating provenance research. Research ethics require full disclosure of the intentions of the researcher, who is expected to seek and incorporate feedback for informants. What would motivate those who manage online databases and their use to co-operate with the researcher?

**Dr Philip Habel**

*Lecturer in Political Communication, School of Social and Political Sciences, Glasgow University*

**Who Influences Whom? Examining Opinion Leadership and the Dissemination of Information through Social Media**

A long-standing research topic in political science and communications has focused on opinion leadership among producers of the news. However, the evidence for such "opinion leadership" to-date has been hampered by a lack of systematic, empirical study. Due to the advent of new social media technologies and software tools to analyse them, it is now possible to study information flows systematically. This project will address the question of who influences whom among national and international news producers by analysing the nature of the ties among media companies and media elites on Twitter, and the flow of information across these networks. The project will provide social network analysis and related diagnostics, mapping who follows whom among media companies and elites, and why.

**Professor Sarah Birch**

*Professor of Comparative Politics, School of Social and Political Sciences, Glasgow University*

**Analysis of social media content on incidents of electoral violence**

The aim of this project is to develop conceptual, methodological and practical tools to facilitate an enhanced understanding of electoral violence and the strategies best suited to preventing it. The project will involve developing two databases of electoral violence and making these data available to those involved in electoral assistance, electoral administration and electoral observation as well as academic and other researchers. The project will also use the resulting data to develop and test a series of theoretically-driven propositions about the causes and effects of electoral violence and to assess a range of strategies designed to prevent this practice. Finally, the project will generate an online electoral violence assessment tool that will provide relevant information about current electoral risks.

**Professor Kathryn Crameri**

*Stevenson Chair of Hispanic Studies, Head of School of Modern Languages and Cultures, Glasgow University*

**Social media use by civil pro-independence groups in Catalonia**

Civil pro-independence groups in Catalonia have become increasingly sophisticated in their use of Web 2.0 technologies. Not only are these vital in the organisation of demonstrations and other activities – and to ensure publicity before and after the event – they also create far-reaching networks of influence that intersect with the Catalan traditional media, and bring popular action into contact with the pro-independence cultural and political elites. There is an obvious need to analyse in depth the role of social media in creating and maintaining these multidimensional power networks, but as an expert in Catalan nationalism rather than social media analysis what approaches might be available to me? In this paper I will outline the reasons for my search for a relevant methodology and what I would hope to achieve by applying this.

**Michael Cromerford**

*PhD Researcher, School of Computing Science, University of Glasgow*

**Analysing Twitter Data in the Context of the Scottish Independence Referendum**

The Scottish independence referendum is an opportunity to observe and interpret public debate in a unique set of political circumstances. The increasing use of social media provides a rich source of data. By analysing data from Twitter the aim of this research is to show how such a platform is used during a political campaign, and what are the dynamics and evolution of the referendum debate. In this short presentation we will give an overview of our work so far and discuss future plans.

**Dr Stephen Tagg**

*Reader, Deputy Head, Department of Marketing, Chair IT Strategy Group, Strathclyde University*

**Scottish Independence Social Media Analyses - some R tm analyses**

This paper describes work done as part of a small ESRC project coding forum contributions and tweets. The R tm analyses have extended the hand coding using sentiment analysis and general inquirer tag codes, and have explored ways of automatically coding pro-independence and pro-union attitudes in tweets. Future developments may allow the identification of tweet bots, to discover the relative usage by the yes and no campaigns.

**Justine Gangneux**

*Phd Student, Department of Sociology, School of Social and Political Sciences, Glasgow University*

**Enabling Surveillance: Young people's uses and understandings of mobile technologies**

This research explores young people's uses and understandings of Surveillance Enabling Technologies (SET); i.e. technologies that were not originally designed for surveillance but can be used for these ends (e.g. GPS aware applications, social network websites). Utilising an ethnographic approach and online methods, the case-study of real time location applications such as Foursquare or Facebook, facilitates examination of how SETs are used as a resource in the construction of identity (self presentation) as well as their contribution to particular forms of sociability (peer surveillance). The presentation draws on methodological and ethical issues raised by the research and its design.

**Jemma Lennox**

*PhD Student, MRC/CSO Social & Public Health Sciences Unit, Glasgow University*

**'Facebook is your social life': Conducting Research into Young Adults' Alcohol Identities Online**

Alcohol consumption is a key aspect of identity construction for many young adults. Rising social network site use has seen alcohol-based identity construction move on-line, with sites such as Facebook being used to plan, record and share drinking events, stories and photographs. However, research into how young adults navigate such environments or use alcohol to construct identities on-line is lacking. This project investigates young adults' alcohol use in identity construction on-line. Qualitative data were obtained from friendship groups and individual interviews which used participants' Facebook profile content as discussion prompts. This paper describes the methods employed, ethical considerations and lessons learned from fieldwork.

**Selina Doran**

*Doctoral candidate,  
Scottish Centre for Crime  
and Justice Research,  
Glasgow University*

**Reactions to school shootings on YouTube**

I assessed YouTube comments taken from June 2012-June 2013 to examine people's reactions to school shootings, looking at: feelings of fear around the possibility of an attack occurring; factors blamed for these incidents; support for and against carrying guns to higher education institutions for protection against an attack. Since YouTube is a 'content community' allowing for discussion around specific comments (Coombs, 2012: 24), it provisions more debates around school shootings to unfold and multiplicities of competing viewpoints to be 'heard' (McRobbie and Thornton 1995) and widens the availability of understandings available. YouTube comments offer a 'snapshot' into people's perceptions in contemporary society.

**Dr Filippo Trevisan**

*Postdoctoral Research  
Associate, MRC/CSO Social  
& Public Health Sciences  
Unit, Glasgow University*

**Challenging conventions: Towards 'discipline-grounded' ethical reflexivity in new media research**

In this talk, I will reflect on my experience of studying online disability dissent networks in order to review some widely held conventions about research in sensitive areas such as the notion of 'vulnerable groups:' are these approaches effective in protecting participants in digital research? In addressing this issue, I will look also at innovative strategies for data presentation with a view to promoting ethical awareness throughout the entire research process, from the design stage to the dissemination of results. In light of these considerations, my talk will advocate in favour of the development of strong links between discipline-specific ethos and ethical strategies in new media research.

**Dr Shona Hilton**

*Programme Leader  
(Understandings and Uses  
of Public Health Research),  
MRC/CSO Social & Public  
Health Sciences Unit,  
Glasgow University*

**Could content analysis be used to analyse dynamic social media data?**

First there was the telegraph, then the radio, newspapers, magazines, television and now the internet. Over the past 50 years as mass media technology has advanced so too has the media's influence in shaping public opinion on health matters. Stories about health are a daily feature of life, telling us what's important and what risks we should be aware of. Analysing static news reporting such as newspaper coverage or radio transcripts has its challenges, but sound methodologies such as content analysis have been developed. Could content analysis be used to analyse dynamic social media data?

**Richard McCreadie**

*Research Assistant, School of Computing Science, University of Glasgow*

**Automatic Real-time Information Retrieval from Big Social Streams: Event Detection, Tracking and Summarisation**

Classical information retrieval (IR, the science of search engines) has focused on answering questions like 'how do I get a US visa' using big static datasets, such as the Web. However, IR is currently in a transition period where new big social streams, such as Twitter, can be used to answer exciting new real-time information needs such as 'what is happening right now?' or 'what do people think about the Chicago blizzard?'. Tackling such time-sensitive information needs require a profound shift from batch to stream processing. This raises new challenges with respect to the development of systems that answer such information needs effectively in real-time; can scale robustly to high throughput streams; and the evaluation of such stream processing systems. In this talk, I will describe two recent projects, CROSS & ReDiTeS, in which we investigated how to perform real-time and scalable event detection, tracking and summarisation from the Twitter stream. I will detail the different IR components that comprised the projects (event detection, real-time search and event summarisation), the methodologies we used to tackle each and highlight some tools and techniques that are useful for processing big social streams.

**David Maxwell**

*PhD Student, School of Computing Science, Glasgow University*

**Crisees: Real-Time Monitoring of Social Media Streams to Support Crisis Event Management**

Social media streams provide access to unprecedented amounts of information describing events as they unfold. Tapping into these real-time sources could provide authorities and agencies dealing with crisis events with valuable information, helping to improve their situational awareness of said events. While social media can provide valuable operational intelligence, there are obvious and numerous problems that must be tackled in order to manage information from social media effectively. This talk introduces the Crisees demonstrator (a portmanteau of 'crisis' and 'see'), developed as my Honours year Computing Science project in 2011-2012. The demonstrator allows for the collection of social media content from various sources (e.g. Twitter, Facebook, YouTube) and displays content relevant to an event on the screen. While I am no longer actively developing Crisees, I hope this talk can shed some light on the usefulness of social media in crisis events, and will provide some insight into the challenges that computer scientists face when dealing with unprecedented volumes of information.

**James McMinn**

*PhD Student, School of Computing Science, Glasgow University*

**Making Sense of Social Streams: Using Twitter to Monitor Events in Real-time**

Twitter offers a unique view into events as they happen around the world, and a number of approaches have been proposed which are able to detect and track them in real-time. In this talk, I will give an overview of event detection on Twitter and the issues involved in working with Twitter data. I will also describe the work I have done as a part of my PhD and discuss the areas which I feel are the future of research on Twitter.

**Professor Mike Thelwall**

*Professor of Information Science, Statistical Cybermetrics Research Group, University of Wolverhampton*

**Twitter Analysis for the Social Sciences and Humanities**

This talk will describe how to download and analyse tweets using the free software Mozdeh. Mozdeh allows users to enter a set of queries and then collects tweets matching these queries for as long as needed. Once the collection period is complete, Mozdeh offers a range of different quantitative analysis methods, from simple to complex. These methods include graphs of changes over time, sentiment analysis, simple gender analysis and various types of word frequency analysis. Together, the methods can quickly identify themes within the tweets and compare the content of different topics within them. The talk will demonstrate Mozdeh, describe its main analysis methods and give examples of Twitter investigations.

**Professor Ben O'Loughlin**

*Professor of International Relations and Co-Director of New Political Communication Unit, Royal Holloway, University of London*

**Semantic Polling: The 2010 UK General Election and the Ethics of Social Media Monitoring**

Focusing on the 2010 UK general election, I examine how social media monitoring techniques are used in political news coverage and equated to public opinion. Analysis of election media coverage finds that social media data is being linked to the public and public opinion in a number of ways. These include new big data methods employing natural language processing - in politics called semantic polling - used to quantify and give meaning to a divided public. However, interviews with opinion pollsters and social media researchers found very different ideas as the usefulness of these techniques. Pollsters rejected them for being yielding data unrepresentative of the electorate and of little predictive use, while the analytics professionals saw the fluidity and speed of the data gathered as useful for understanding influence and how public opinion forms and shifts. I conclude by (i) theorising the idea of semantic polling and public opinion as divergent from the opinion polling paradigm, drawing on older and distinctive definitions of public opinion offered by James Bryce and Herbert Blumer; and (ii) drawing out the ethical and political implications of the growing use of these techniques.

**Louis Reynolds**

*Research Associate, Centre for the Analysis of Social Media (CASM), Demos*

**Application of the ESRC's principles of ethical research to the evolution of social media analytics tool Method 51**

The rapid rise of social media science, with its ballooning applications and increasing technical sophistication, has left ethical guidelines struggling to keep up. At the same time, social media covers a large span of sites and platforms, often with very varied uses, available data, multiple privacy settings, and multiple possible modes of access and analysis. This brings with it a series of ethical challenges, most principally how to apply the existing ethical frameworks to this new space. This talk will cover how we have applied the ESRC's principles of ethical research to our evolving social media analytics tool, Method 51.

**Dr Francesco D'Orazio**

*Chief Innovation Officer,  
FACE, and VP Product,  
Pulsar*

**Making Sense of Social Data**

Social media has changed the way we understand audiences and interact with them. However the analysis of social media has often reduced the complexity and the depth of social data to fairly shallow analytics. In this talk we will focus on how to extract value and insights from social media data providing an overview of the types of data and metadata that can be accessed, how to access them and how to analyse them using some of the key research methods available including Topic Tracking, Audience Mapping, Content Diffusion and Influence Mapping.

**Professor Andy Miah**

*Chair of Ethics and  
Emerging Technologies  
and Director of Creative  
Futures Institute,  
University of the West of  
Scotland*

**Mobile Media & Morality: Cultivating Ethical Practice in Social Media Research**

This talk outlines some of the key ethical debates surrounding research that involves mobile media. It will provide an overview of the distinct challenges with ensuring research meets ethical standards in mobile sociology. Furthermore, it explores different models of ethical oversight, while also talking more broadly about how people negotiate moral concerns online. Focused largely on the researcher's approach to ensuring research meets ethical expectations, the talk also explains different systems of verification, beyond conventional ethics committees and structures.