

Chapter 28

Multimodal Mapping of a University's Formal and Informal Online Brand: Using NodeXL to Extract Social Network Data in Tweets, Digital Contents, and Relational Ties

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ABSTRACT

With the popularization of the Social Web (or Read-Write Web) and millions of participants in these interactive spaces, institutions of higher education have found it necessary to create online presences to promote their university brands, presence, and reputation. An important aspect of that engagement involves being aware of how their brand is represented informally (and formally) on social media platforms. Universities have traditionally maintained thin channels of formalized communications through official media channels, but in this participatory new media age, the user-generated contents and communications are created independent of the formal public relations offices. The university brand is evolving independently of official controls. Ex-post interventions to protect university reputation and brand may be too little, too late, and much of the contents are beyond the purview of the formal university. Various offices and clubs have institutional accounts on Facebook as well as wide representation of their faculty, staff, administrators, and students online. There are various microblogging accounts on Twitter. Various photo and video contents related to the institution may be found on photo- and video-sharing sites, like Flickr, and there are video channels on YouTube. All this digital content is widely available and may serve as points-of-contact for the close-in to more distal stakeholders and publics related to the institution. A recently available open-source tool enhances the capability for crawling (extracting data) these various social media platforms (through their Application Programming Interfaces or “APIs”) and enables the capture, analysis, and social network visualization of broadly available public information. Further, this tool enables the analysis of previously hidden information. This chapter introduces the application of Network Overview, Discovery and Exploration for Excel (NodeXL) to the empirical and multimodal analysis of a university's electronic presence on various social media platforms and offers some initial ideas for the analytical value of such an approach.

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INTRODUCTION

Web 2.0, the so-called Read-Write Web, has been lauded as a major vector for human connectivity. This social Web has enabled mediated connections between people regardless of distance, nationality, social backgrounds, or languages. Social media platforms are online spaces designed for human social interactions, and many of them attract different user bases. These include social networks, multimedia (photo-, video-, slideshow- and other) sharing sites, blogging sites, microblogging sites, wikis, discussion forums, virtual worlds, and mash-ups of various functionalities of the above. The sites all have different functionalities, vetting of human identities, interface designs, and terms of agreement (end user license agreement or EULAs). Currently, sites like Facebook and Twitter are some of the most trafficked Websites in the world, accessible on a range of mobile and other computing devices.

Ideally, socio-technical systems, which are designed for human interactions and engagement, should be designed to enhance human actualization and social support for others (Lanier, 2010). For all the efforts at proper management of such sites, there are examples of anti-social behavior: content pollution, self-promotion, malicious content, copyright infringements, pornography, and spam. There are attempts to game the system or compromise information. Further, not all accounts are humans; rather, there are accounts set up for robots ('bots'), cyborgs (people and robots posting contents together), and humans.

The social connections that arise through social media platforms have been described in various ways. For many, these are "loose ties," with light connections between people who are essentially strangers. There are instances of "weak cooperation" between individuals who express themselves through videos and photos, often without direct awareness of each other until certain digital artifacts are published and shared. Others are sparked by social media to participate in mass

events like flash mobs. Strangers play augmented reality games on their mobile devices and interact with each other within the rules of the game. The movement of peoples en masse to social media platforms has been a distinct phenomenon among youth, many of whom are university students. This means that universities that want to engage their students in electronic spaces would benefit from being aware of where their students are engaging and knowing how to teach them.

Data extractions (or crawls) from social media sites may shed light on these various online communities, their structures, and their functions. This knowledge may support university outreach and (formal and informal) branding endeavors.

A REVIEW OF THE LITERATURE

To offer a brief overview: research into social networks started in the early 20th century within sociology. Researchers started to create quantitative measures of network relationships in the 1930s with sociometry. Psychologists contributed to this work in the 1940s by formally defining cliques (or subnetworks). In the 1950s and 1960s, anthropologists started applying social network analysis to their work. Some researchers integrated elements of game theory and economics into their social network analyses—for a highly multidisciplinary approach. Various researchers have since contributed rich research and theorizing about social networks. In the 2000s, the computing sciences offered ways to analyze and visualize social networks.

To contextualize, there are some basic governing logics and underlying assumptions. One central concept is that much of human endeavor occurs in social groupings and fairly stable human relationships (defined by social roles, bureaucratic structures, social practices, and others). Human groups tend to be fairly hierarchical, and those with power accrue much more than others in terms of decision-making, power,

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