**Summary**

Digital communications between individuals have resulted in large, multi-layered social networks that evolve from moment to moment. Although methods exist for analysing and modelling static networks, recent trends in communications, transport and energy have highlighted the need for methods that are appropriate for dynamic, evolving networks.

**Background**

Social media networks, in which connections between individuals change over time, are an ever-more important opportunity for online advertising. Until recently, however, measuring the Return on Investment (RoI) of marketing campaigns has been difficult, if not impossible.

**How is University of Reading research contributing?**

Researchers in the Centre for the Mathematics of Human Behaviour at the University of Reading developed a novel approach for real-time monitoring of evolving social networks. The research was implemented in collaboration with Bloom Agency via the development of a new tool that gave Bloom’s clients a better understanding of the impacts of social media campaigns. Initially, the researchers assisted Bloom to develop a proof of concept that communicability could be used effectively to measure social media marketing campaigns. Ultimately this led to the creation of Whisper, a world-class platform for analysing Twitter and other social media data feeds. Whisper is marketed by Bloom as an entirely new planning tool allowing their clients to monitor the opinions, stories, emotions and affinities of social media communities discussing topics that resonate with their clients’ products or values. In doing so, Bloom can quickly and easily assess huge volumes of social media data and identify key influencers within these communities, thereby giving Bloom’s clients real insight into their customers’ brand affinity, mood, device use and location. A key aim for Bloom was to provide their clients with clear evidence of Return on Investment (RoI) for social marketing activities, something not then possible for social media campaigns.

**What impact has our research had?**

Implementation of Whisper has enabled Bloom’s clients to gain greater value from their marketing activities and an improved understanding of their customers, leading to better targeting and changes in their digital marketing approach. The unique insight provided by Whisper enabled Bloom to develop substantial new business opportunities and a range of new clients, whilst doubling their annual revenue. As a result Bloom now lead the field in this area, allowing them to attract major new clients and grow their business.