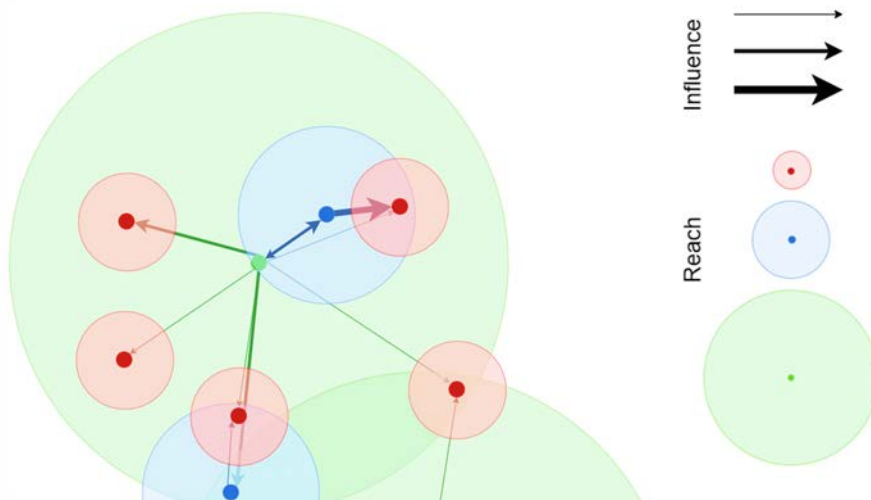# Estimating Influence

Determining influence in large scale social networks

Virginia Commonwealth University researchers have developed a means to quickly and accurately determine the reach and influence users have on the spread of media through large complex social networks. Business and political marketing campaigns can harness this novel information to strategically advertise to specific influential individuals who can organically spread the message. The technology not only identifies influential parties, but it also identifies the type of content parties are more likely to share. This is accomplished through an algorithm that continuously summarizes network data using a unique mathematical approach to prevent the loss of key details. VCU is seeking market insights on commercialization of this new technology. We welcome interest from potential producers, users, and licensees.

The technology

The technology is an algorithm developed to improve on social network analysis calculations. The new summarization algorithm is specifically designed to prevent loss of essential data and reduce the total amount of stored data, resulting in more accuracy and faster calculations compared to traditional methods. The technology displays a 110-400% smaller error than current algorithms. Where traditional methods cannot continuously update the model and require a new calculation for each type of media this technology can progressively update the existing model and extrapolate to different types of media at once. The technology can be leveraged by companies or political campaigns to gain insights in their target population and identify marketing targets.

Benefits

» Indirect marketing for organic flow
» Competitive advantage
» Improved communication efficacy
» Quickly capture market landscape
» Stronger customer bonds
» Increased brand awareness
» Focused target segmentations

Applications

» Brand power
» Market penetration
» Political campaign
» Outreach campaigns
» Political propaganda analysis

Patent status:
  Patent issued: U.S. and foreign rights are available.
  16/487,134 and EP18757983.4

License status:
  This technology is available for licensing to industry for further development and commercialization.

Category:
  Software and Informatics

VCU Tech #:
  17-013

Investigators:
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External resources:
  Nguyen, H. T., et al. (2017)

Contact us about this technology

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Figure 1. *Diagram illustrating both social network reach and influence between target representatives. Though a party may be within the range of influence they may have stronger or weaker influence due to unknown factors.*