Managing Influenza Outbreaks Through Social Interaction on Social Media: Research Transformation Through an Engaged Scholarship Approach

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Agenda

- Introduction;
- Dealing With Outbreaks and the Potential of Social Media;
- Project Aims and Objectives;
- Proposed Research Approach and Outcomes; and
- Conclusions.
Introduction

- Annual influenza epidemics are 3-5 million cases (global estimate);
- 250,000-500,000 result in premature death - mainly high risk categories (global estimate);
- Annual economic burden $3.2 billion healthcare system impact and $8 billion indirect costs (US estimate); and
- Australia estimated annual 3,500 deaths, 18,000 hospitalizations, 300,000 GP consultations ($848 million p.a.)
Our Project

Engaged scholarship research approach bringing together key stakeholders to collaboratively:

- Identify and understand the scope of influenza impact to the community;
- Work on effective social and behavioural strategies and solutions to combat influenza transmission; and
- Use these strategies to enable more effective and better managed health crisis communication approaches (social media) to help contain influenza outbreaks.
Dealing With and Modelling Influenza Outbreaks

- Vaccination preferred way to deal with outbreaks (not always available, affordable, easily administered or efficacious);
- Treatment with antibiotics doesn’t work/causes other health issues (bacterial resistance);
- Protective measures (hand-washing and limiting exposure) not universally followed;
- Influenza often misdiagnosed;
- Most modelling relies on information supplied by labs; and
- Modelling therefore focusses on tracking the disease and how it is managed by practitioners.
Research Gap

How a pandemic can be managed as a set of:

- Social interactions i.e. ways that individuals, groups and communities interact and organize;
- Essential individual and group activities i.e. economic and social activities such as work and looking after families; and
- Prevailing attitudes and expectations (general public and health agencies and professionals) towards treatment regimens (vaccinations, antibiotics and antibacterial medicines).
Addressing the Gap (Social Media Communications)

Social media influences:
1) Social interactions; 2) Individual and group activities; and
3) Prevailing attitudes.

Smart phones have lowered cost of using social media (ubiquitous and pervasive) but information is shared in an ad hoc manner.

How does this impact crisis communications around an influenza epidemic?
- Communication around the disease – research still in early stages and limited by most current analytics approaches; and
- Surveillance of the disease – research more mature but analytics are also limited (due to mis-diagnosis).
Project Aims

To develop an understanding of:

- Public social interactions, activities, attitudes and behaviours during influenza outbreaks (includes an analysis of social media communications during an influenza “event”);
- The current role of public health agencies and health professionals in managing these outbreaks; and
- Strategies, frameworks and approaches to the potential role and use of social media platforms to assist in the management of influenza outbreaks (short and long term impact).
Engaged Scholarship “Health Systems” Approach

Co-creation of project objectives, research problems and solutions to develop:

- The right mix of suitably qualified project team members/research participants (many health professionals are qualified researchers and practitioners and the general public are not often consulted);
- A deep understanding of the key role public health agencies and health professionals play in managing and influencing and influenza scenario i.e. knowledge of the current techniques, strategies and approaches that are deployed by them during these outbreaks; and
- A deep understanding of the current and emerging role of social media platforms in communications (influential “actors”, sources of trusted information, impact on convergence behaviour).

“We also believe that diffracting academic and professional expertise contributes to each other’s development and can contribute to generating innovative ideas” Elbanna et al. (2019)
Research “Live” Methods

A series of workshops - co-production and framing of research agenda, problem focus and solution set.

“No field is superior to any other” Elbanna et al. (2019)

Focus on:

– Surfacing the key issues in influenza scenarios;
– Health sector roles and responsibilities and identification of interactions, activities, attitudes and behaviours (potential to be influenced by social media communications); and
– Effective communications strategies.

Using: 1) imprography; 2) collaboration; and 3) creativity without fear of failure.
Anticipated Project Outcomes

- Co-production of model of public social interactions, activities, attitudes and behaviours (influenza outbreak);
- Documentation of a typical influenza epidemic “event scenario” using variety of research methods i.e. soft systems methodology (SSM); rich picture techniques; hermeneutic analysis; and actor network mapping etc.; and
- Development of strategies and approaches to increase the potential of social media platforms to support public health agencies in influenza scenarios to limit contagion.
Research Approach Justification

Different from existing workshop methods.

Our approach:

- Aims for the co-creation and reframing of problems and solutions by all workshop participants;
- Is not limited to simply analysing existing knowledge and modes of thought;
- Allows for new thinking about and deep understanding of the research area that participants develop through workshop participation; and
- Presents and re-presents the research agenda, problems and solutions in real-time, as participants work through cycles of discovery, framing and co-creation throughout a workshop.
Conclusion

- Use of engaged scholarship approach to raise general public knowledge and awareness about influenza outbreaks, spread and consequences of poor scenario management and ineffective subsequent treatments;
- Innovative “health systems” project approach to the development of a translational solution to this problem; and
- Serves as a model for improved containment of outbreaks caused by other infectious agents transmitted between humans (and animals).
The Elephant in the Room….

Top 5 distrust drivers (Australia):
- Fake News / manipulation of the truth;
- False statistics / audience measurement;
- Personal information stolen & distributed;
- Anyone can make claims without any evidence; and
- News is sensationalised / becomes entertainment.

Roy Morgan Research (2018)
Thank you and questions ?