# How do Health Agencies use Instagram for Crisis and Emergency Communication?

Aqdas Malik

*Postdoctoral Researcher, Department of Computer Science, Aalto University*

*CS-E4002: Human-Centred Research and Design in Crisis (July 07, 2020)*

# Agenda

- Brief bio

- Social media and emergency/crisis communication

- Instagram & photos

- CERC framework

- Study on Health organizations, Instagram, and COVID-19

- Q&A

# Brief bio

- DSc. (Tech.), MSc. (IS), MBA (IT)

- New media Communication/Informatics, Human-Computer Interaction

- Teaching: HCI, Interaction Design, Usability Evaluation, Social Media Research Methods, Social Media Analytics

- Research: Social media (uses and gratifications, privacy, activism, education, public health surveillance)

- Published in: IJMI, AJHB, IJHCI, Telematics and Informatics, Human IT, JICES, UAIS

# Social media and emergency/crisis communication

- Influence of mainstream media (radio, TV, print) dwindles

- Affordances beyond entertainment (reach, connectivity, information)

- First stop for youth to seek health-related information

- Comfort-zone for many (stigma, resources, effort in face to face support)

- Highly active community support groups

- Access to diverse (and underrepresented/ inaccessible) cohorts of society

- Rich (volume & velocity) data

- Real-time and over time monitoring

- Effective, faster, & cheaper than traditional medium

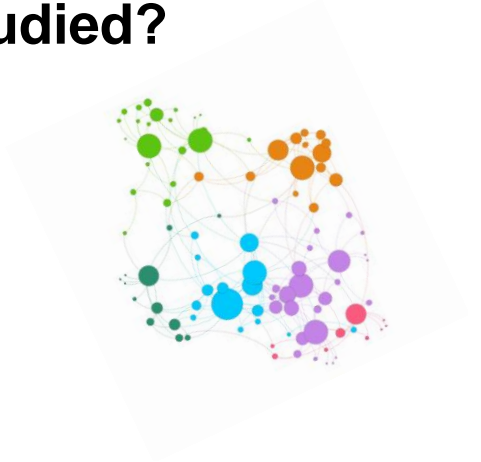**A?** Aalto University
School of Science

# BIG data

## What users generate?

- Posts
- Likes/Favorites
- Comments
- Friends
- Followers
- Tags
- Ratings
- Sharing
- Downloads
- Audio/video/photos/text
- Links

## What can be studied?

- User groups
- Practices
- Influence
- Networks
- Sentiments
- Interactions
- Information flow
- Events
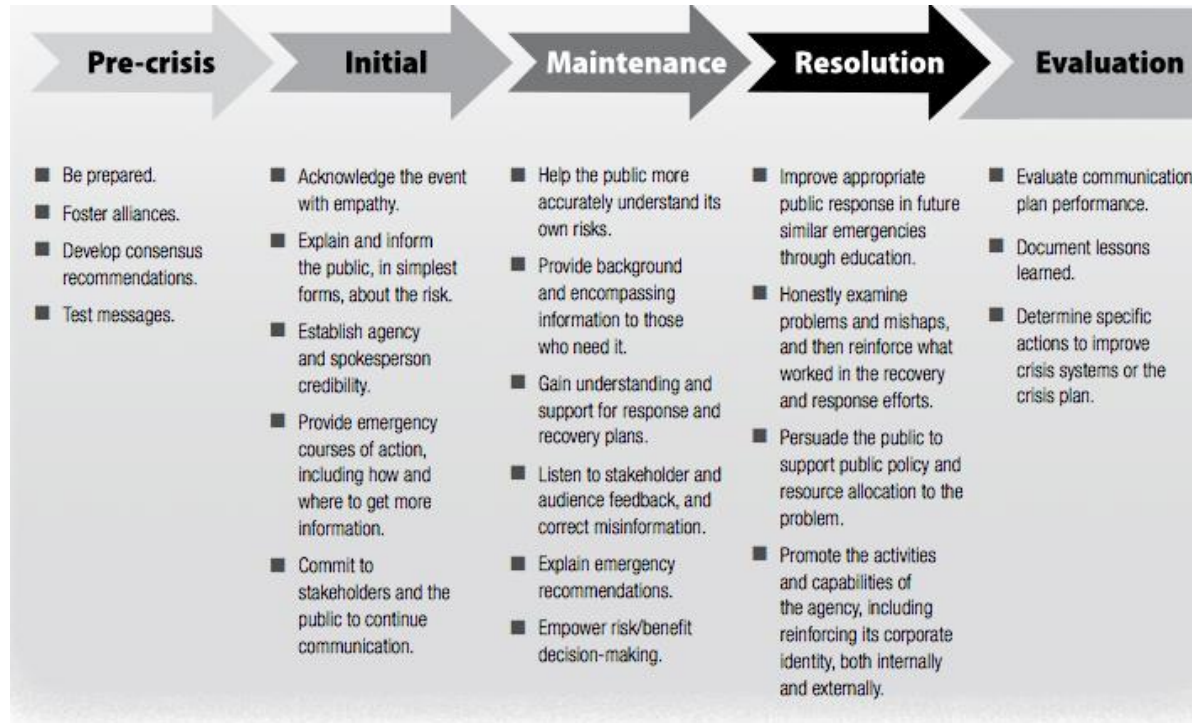- Predictions

# Instagram & photos

- Photo & video sharing SNS

- Share content, geotag, hashtags, stories, InstaLive

- Follow other users' feeds

- Exceptional representation of youth/young adults - 71% are under 35 years old*

- Adoption among celebrities, influencers, advertisers

- Over 1 billion active monthly users*

- Over 70% of U.S. businesses use Instagram*

- Higher engagement than Facebook

- Prevalence, gratifications, engagement, and recall capabilities of photos

# CERC (Crisis & Emergency Risk Communication)

- Developed by CDC (Centers for Disease Control and Prevention)

- Aimed for emergency responders, health communicators, & leadership

- A framework and best practices to communicate during a public health emergency

- Foundations in communication & psychological sciences, issues management, and learnings from emergency responses

- Six principles (Be first, Be right, Be credible, Express empathy, Promote action, Show respect)

# Phases of CERC



| Pre-crisis | Initial | Maintenance | Resolution | Evaluation |
|---|---|---|---|---|
| ■ Be prepared. <br> ■ Foster alliances. <br> ■ Develop consensus recommendations. <br> ■ Test messages. | ■ Acknowledge the event with empathy. <br> ■ Explain and inform the public, in simplest forms, about the risk. <br> ■ Establish agency and spokesperson credibility. <br> ■ Provide emergency courses of action, including how and where to get more information. <br> ■ Commit to stakeholders and the public to continue communication. | ■ Help the public more accurately understand its own risks. <br> ■ Provide background and encompassing information to those who need it. <br> ■ Gain understanding and support for response and recovery plans. <br> ■ Listen to stakeholder and audience feedback, and correct misinformation. <br> ■ Explain emergency recommendations. <br> ■ Empower risk/benefit decision-making. | ■ Improve appropriate public response in future similar emergencies through education. <br> ■ Honestly examine problems and mishaps, and then reinforce what worked in the recovery and response efforts. <br> ■ Persuade the public to support public policy and resource allocation to the problem. <br> ■ Promote the activities and capabilities of the agency, including reinforcing its corporate identity, both internally and externally. | ■ Evaluate communication plan performance. <br> ■ Document lessons learned. <br> ■ Determine specific actions to improve crisis systems or the crisis plan. |

*Reynolds, B., Seeger, M., & Palenchar, M. (2012).* Crisis and Emergency Risk Communication: 2012 Edition. Atlanta, GA: Centers for Disease Control and Prevention.

# Instagram use by Health organizations: Malik, Khan, Quan-Haase

- How major health organizations used Instagram to publicly communicate about COVID-19?

- Types of messages disseminated via Instagram

- Assess different characteristics associated with the posted content, such as gender depiction, human-subject portrayal, and image type

- Examine the level of engagement

# Methodology – selecting accounts

- International Association of National Public Health Institutes – COVID-19 resources

- Presence on Instagram assessed

- Inclusion criteria: English content, number of followers (at least 20,000), number of posts since the account was created (at least 200), number of posts related to COVID-19 (at least 20)

- 4 accounts selected (WHO, CDC, IFRC, NHS)

# Methodology – choosing analytical sample

▪ All the posts (images with associated captions) shared on Instagram between January 1, 2020 and April 30, 2020

▪ Collected engagement indices (number of likes and comments)

▪ Focused on analyzing still images and excluded videos

▪ Final sample comprised 269 image posts

# Methodology - Coding dimensions

**Theme**
- Pandemic intelligence
- Symptoms & transmission
- Personal preventive measures & mitigation
- Social/common responsibility & empathy
- Inquisitive messaging
- Clarification
- Events, campaigns & activities
- Contributions request
- Showing gratitude or reassurance
- Risk groups
- General advisory and vigilance

**Gender depiction**
- Male(s)
- Female(s)
- Both
- None

**Human-subject portrayal**
- Frontline worker(s)
- Ordinary individual(s)
- Celebrity
- None

**Image type**
- Photograph
- Infographic

**Aalto University School of Science**

# Accounts and analytical posts

| | Account details | | Posts about COVID-19 (January 1, 2020 to April 30, 2020) | | |
|---|---|---|---|---|---|
| Username | Total posts | Number of followers | Total posts (n=269) | Number of comments (n=109,757) | Number of likes (n=4,507,404) |
| **@WHO** | 2,193 | 5.2m | 53 | 90,554 | 382,3164 |
| **@CDCGOV** | 2,510 | 872k | 103 | 16,399 | 484,983 |
| **@IFRC** | 1,336 | 76.3k | 84 | 828 | 118,729 |
| **@NHSEnglandldn** | 491 | 41.8k | 29 | 1,976 | 80,528 |

# Findings

- Prominence of WHO and CDC (number of posts, followers, and engagement)

- Most posts about "personal preventive measures and mitigation", "general advisory and vigilance", "showing gratitude or resilience", and "social/common responsibility & empathy"

- Few posts on "symptoms and transmission", "requests for contribution", and "clarification"

# Findings

- Over 60% of the images did not portray person(s)
- Compared to male(s), female(s) have higher representation
- Slightly more infographics than photographs
- Photographs depict frontline workers, and ordinary individuals

# Findings

- Photos without human subjects were far more engaging

- Depictions of frontline workers gained higher engagement

- Celebrity posts (n=2), received highest level of engagement

- Infographics much more engaging than photographs

- Posts bearing "clarification", "inquisitive messaging", and "personal preventive measures & mitigation" received higher engagement

# Findings

- COVID-19, a sudden shock for organizations

- Took time to communicate through Instagram

- Communication strategies differ and map to specific organizational goals

- WHO and CDC cover the majority of the CERC principles

- Critical gaps in communication strategy through Instagram:
  - Missed youth messaging
  - No post/information about credibility as professional, reputable, and scientific health organizations
  - Limited focus on addressing rumors, misunderstandings, and unclear facts

**A?** Aalto University
School of Science

# Implications

- Instagram can be an effective tool for health organizations to convey their messages, in particular through infographics, engaging influencers, and dispelling misinformation

- The identified gaps provide a roadmap for strengthening the strategic social media communications of health organizations during pandemics and other emergencies

# Conclusions

- Know the nature of the platform

- Must be timely and factual

- Combat misinformation

- Simple answers to common questions

- Develop and maintain credibility and trust

- Exploit multiple sources

- Launch campaigns

- Partner with influencers

- Monitor users, usage, and engagement

**A?** Aalto University
School of Science

# Thank you

# Q&A