Evaluating Social Media Interventions

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What is social media?

• “The term social media refers to activities among people gathered online who share information using conversational media that make it easy to create and share content in the form of words, pictures, videos, and audios.”

   (Neiger et al., 2012)
What is social media?

- Social networking sites (e.g., Facebook)
- Creativity works sharing sites:
  - Video (e.g., YouTube)
  - Photos (e.g., Flickr)
  - Music (e.g., Napster)
  - Intellectual property sharing sites (e.g., Creative Commons)
What is social media?

- User-sponsored blogs (e.g., Cnet.com)
- Company-sponsored web-sites
- Company sponsored causes (e.g., Dove’s campaign for Real Beauty)
- Invitation-only social networks networking sites (e.g., Asmallworld.net)
What is social media?

- Business networking sites (LinkedIn)
- Collaborative websites (Wikipedia)
- Virtual Worlds (Second Life)
- Podcasts
- News delivery sites

(see Mangold & Faulds, 2009)
Why is social media unique?

- Offers a low cost delivery modality.
- Allows for ongoing monitoring of the message and how the message is being spread.
- Opens a window into the lives of the target audience.
- It expands the directionality of communication.
Social media and health
Dumb Ways to Die

Published on Nov 14, 2012
Get the new free iPhone / iPad game! Now the lives of those adorably dumb characters are in your hands:
https://itunes.apple.com/app/dumb-way...
Personal Ink (P.INK)
P.INK provides tattoo inspirations, ideas, and artist info to breast cancer survivors. To share or pin your own stories, design ideas, and favorite artists: email help@p-ink.org / tweet: @Personal_Ink

www.p-ink.org • • •

Repins from
- Katherine Whelan
- nd+
- Hilary Lambert
WE'RE STRONGER TOGETHER

Together, take action in defeating breast cancer by inviting your friends to join your circle of strength. Show how you're fighting breast cancer by creating a circle, uploading a photo, or tagging posts on Instagram and Twitter with #BCAstrength.

WATCH THE BCA VIDEO
above the influence
@abovetheinfluence

above the influence is about being yourself and making choices to support who you really are.

Tweets

above the influence @abovetheinfluence 26 Jun 10
its not cool its pointless, its just a cloud you'll live in for a long time, sure you think it feels great but it'll never last forever

Expand ➔ Reply t³ Retweet ★ Favorite ⋯ More

above the influence @abovetheinfluence 25 Jun 10
this twitter account is mostly for teens, so we'd love it if you teens out there would follow :)

Expand ➔ Reply t³ Retweet ★ Favorite ⋯ More

above the influence @abovetheinfluence 24 Jun 10
The consumption of alcohol in this manner results in 1,300 deaths each year, making it the third leading cause of death among teenagers.

Expand ➔ Reply t³ Retweet ★ Favorite ⋯ More
Social Media and Evaluation

“Despite the expanding use of social media, little has been published about its appropriate role in health promotion, and even less has been written about evaluation.”

(Neiger et al 2012)
Can social media be evaluated?

- Yes. Good design principles still apply
  - Awareness is not change
  - Correlation is not causation
  - Views of a Facebook page are not necessarily equated to behavior change.
What are you looking to do?

- Program development
  - Greene and colleagues (2011) used “wall posts” to diabetes Facebook sites to develop a campaign.
- Needs assessment
  - Scanfeld, Scanfeld, & Larson (2010) analyzed Twitter posts to identify inaccurate beliefs associated with use of antibiotics.
What are you looking to do?

- **Process Evaluation**
  - Nguyen et al (2013) assessed relative impact of Facebook site components on participant interactions with a site distributing sexual health info (FaceSpace).

- **Summative Evaluation***
  - Napolitano and colleagues (2013) assessed whether a Facebook page plus texts and feedback lead to greater weight loss than a Facebook page only condition or a control?
What are you looking to change?

- Awareness
- Attitudes
- Interaction
- Behavior
Awareness

- Refers to the number of people who were exposed to social media efforts.
Awareness

• Examples:
  • The goal of the campaign was to promote and increase awareness of LIVESTRONG and the LIVESTRONG navigation services (Justice-Gardiner et al., 2012). They compared print and media campaign to print, media, plus social media.
Awareness

- Evaluating Awareness
  - Traditional Methods
  - New Media Methods
Awareness

• Traditional Methods
  • Interviews
  • Focus Groups
  • Phone Surveys
  • Online Surveys
Awareness

- Traditional Outcomes
  - Ad recall (Broockman & Green, 2013)
  - Awareness (Justice-Gardiner et al., 2012)
Awareness

• New Media Methods
  • Web hits (google analytics)
  • Total visits (Justice-Gardiner et al., 2012).
    • Total page views
    • Total unique visitors
    • Total repeat view
  • Number of video views (George et al., 2013)
  • Twitter followers (Abroms & Lefebvre, 2009)
  • Facebook friends or likes (Alhabash et al., 2013)
  • Demographics of people visiting the websites (Pedrana et al., 2013)
Attitudes

• An evaluative response to a specific stimuli (attitude object).
Attitudes

• Alhabash and colleagues (2013) used status updates for a fictitious anti-cyberbullying organization to assess different messages.
  • Positive messages resulted in more positive message evaluations and stronger anti-cyberbullying attitudes and viral behavioral intentions.
Attitudes

Attitudes, Attitudes, Attitudes:

• Attitudes towards a behavior.
• Attitudes toward a website.
• Attitudes towards a brand.
• Attitudes towards a group of people (e.g., smokers).
Attitudes

- Traditional Methods
  - Interviews
  - Focus Groups
  - Phone Surveys
  - Online Surveys
Attitudes

• Measuring attitudes with surveys
  • Likert-type items (e.g., strongly disagree/strongly agree)
  • Semantic Differential (e.g., good/bad, useful/useless)
  • Open-ended questions
Interaction

- Any communication between a user and the source (social media site) or between a user and another user.
  - “interdependent message exchange”
    (Burgoon et al., 2002)
  - Interaction as a dyadic construct
  - True virtual “conversations” (vs. one-way info)

- Occurs within the social media universe
  - Counts of postings, conversations, shares, re-tweets, etc.
Interaction

• Examples:
  • Nguyen et al (2013) evaluated reach of and engagement with FaceSpace – a sexual health promotion site. Peaks in site interactions (comments and likes) coincided with new video postings.
Interaction

• **Affordances**: Structural aspects of a medium that facilitate interaction (Burgoon et al., 2002)
  
  • Contingency (tailored responses to queries)
  • Participation (active users)
  • Synchronicity (real-time message exchange)
  • Proximity (geographic dispersion)
  • Nonverbal richness (much contextual info)
Interaction (Measures)

- Comments on videos
  - YouTube comments: public library site (Vucovich et al., 2013)

- Posts (Facebook, Pinterest, etc)
  - FaceSpace: sexual health (Nguyen et al., 2013)
  - Blog posts: “heart truth” heart disease & females (Taubenheim et al., 2008)
Interaction (Measures)

• Twitter retweets
  • Retweets – how to measure (Bruns & Burgess, 2012)

• Responses to source’s questions
  • Survey – PA via Facebook (Valle et al., 2013)
  • Measure response (yes/no, frequency, rate) (not content of response)
Interaction (Measures)

• Uploads
  • Upload of non-user-created content (existing)
  • User-generated content
    • Obama campaign: 1,792 user-developed videos compared to 329 videos developed for McCain (Abroms & LeFebvre, 2009)
• Participation in “Private” forums, private messages between users
  • MyBarakObama users interacted to set up own events (Abroms & LeFebvre, 2009)
Interaction - Continuum

• Study of E-Health sites (Bacigalupe & Askari, 2013)

Measure of “collaborative potential”
• Very Low Users only consume content
• Low + Users comment on content
• Mod + Users modify content
• High + Users create content
• Very High + Users develop virtual community (“Prosumers”)
Facebook friend network

(Bull et al., 2012)
Twitter “authority value”

(Cataldi et al., 2010)
Behavior

• Actions targeted for change by the social media outreach/intervention.
  • Example: Web intervention for veteran with problem drinking and PTSD symptoms (Brief et al., 2013).
Behavior

- Program behavior vs. Health behavior
  - Program behavior: Enacting site-sponsored actions, participation in site-sponsored events, etc.
    - Example:

  - Health behavior: Traditional health outcomes targeted by an intervention.
    - Example:
Behavior

- On-line behavior
  - Targeted actions take place on a specific social media site or outside that site (but still online)

- Off-line behavior
  - Targeted actions motivated by a specific social media site but occurring in the real world
Behavior

- On-line behavior
  - MyBarackObama (private site)
    1.5M volunteers, 100,000 user-organized events

- Viral sharing intentions (Alhabash et al., 2013)
  To measure VBI, participants indicated their agreement/disagreement with five statements about whether the status update is worth sharing with others, whether they would recommend it to others, like it, share it, and comment on it on Facebook (1 = strongly disagree; 9 = strongly agree).
Behavior

- Off-line behavior - Program Behavior
  - Participation in program-organized events
    Napolitano et al., 2012 – Weight loss program
    72% - 88% RVSPs to events

- Cavallo et al., 2012 – Physical Activity study
  Participants post PA behavior on wall
Behavior

• Outcome measures:
  • Condom use (Bull et al., 2012)
  • Self-reported physical activity (Cavallo et al., 2012)
  • Reduction in Chlamydia cases (Jones et al., 2012)
  • Number of people recruited (Lohse, 2013)
Design Considerations

• What will you compare?
  • Social Media versus nothing
  • Social media versus comparison
    • Social Media vs. Traditional Campaign
    • Social Media vs. Social Media plus
    • Social Media A vs. Social Media B.
Design Considerations

• How will you compare?
  • True Experiment
    • Pre-test?
  • Quasi-Experiment
    • Pre-test?
    • Multiple Pre-test?
    • Comparison Group?
    • Consistent Intervention Presence?
  • Case Study
Twitter “trend” via keyword (earthquake vs. computer)

(Cataldi et al., 2010)
Design Considerations

- Good design principles still apply
  - Awareness is not change.
  - Correlation is not causation.
  - Views of a social media views are necessarily equated to behavior change.
  - Consider possible confounds.
Summary

• Social media offers exciting possibilities.
• Evaluation of social media offers exciting possibilities as well—particularly for summative evaluation.
• Evaluation of social media is in its infancy.
• Fundamental rules of good design still apply.


References


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