Harnessing Social Media for Food Safety Risk Communication

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The arrival of postindustrial food risks

China has witnessed a series of food safety incidents. It is estimated 200,000 to 400,000 Chinese fell victim to food poisoning annually.

Those foodborne diseases are not due to micro-organisms or environmental pollutants, but due to the illegal use of pesticides and veterinary drugs as well as adulterated materials.

An incomplete list of major food safety incidents in the past few years:

- Melamine-tainted baby formula
- Recycled gutter cooking oil
- Clenbuterol-tainted pork
- Lime-tainted flour
- Nanjing crawfish
- Qingdao formalin-tainted ice fish
- Hebei fake red wine
- Sudan dye-tainted orange
- Nestle baby food
- Shanghai dyed steamed bread
- Beef extract
- Mengniu-tainted milk

Developed countries: UK & US in the 19th century

Public Opinion Poll

PEW GLOBAL ATTITUDES PROJECT: CHINA

ANOTHER CONSUMER SURVEY IN CHINA IN 2012

- Food safety is a very big problem:
  - 2008: 22%
  - 2012: 37%

- The quality of manufactured goods is a very big problem:
  - 2008: 31%
  - 2012: 67%

- Had less confidence in domestic food supplies:
  - 2008: 67%
  - 2012: 31%

- Planned to purchase more imported foods/brands to replace domestic products:
  - 2008: 53%
  - 2012: 31%
Who are using **social media** for food safety risk communication, for **what**?

What are the **implications** for different stakeholders?

**Risk Communication**

Risk communication is “the process of conveying to interested parties the outputs of the various stages of risk analysis and risk management” (Fiksel & Covello, 1987, p. 146).

- Interaction between diverse stakeholders
- Too much emphasis on “risk” and not enough on “communication”

**Traditional Food Safety Risk Communication**

**Top-down pattern**

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Frequency of "shipin anquan" (food safety) in core newspapers, 2000-2011
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The government and corporate have hegemony over information about food safety (Yang, 2013).

**Social Media**

- Social media, especially microblogging services, enable real-time message broadcasting.
- Easy access, timely fashion, and explosive popularity → an ideal tool to communicate risk and crisis
  - Twitter is “a perfect tool for use in emergencies” during the 2008 Mumbai terrorist attack.
- A possible platform for bottom-up risk communication
Food Safety Risk Communication on Social Media

Stakeholders
- Government institutes
- Food producers
- Media professionals
- Food safety experts
- The general public
- Other

Motives
- Dissemination of information
- Expressing opinions
- Surveillance
- Venting negative feelings
- Other

Distribution of stakeholders on Social Media

Distribution of motives on Social Media
Distribution of motives on Social Media

- The general public tends to:
  - express opinions rather than to simply disseminate information;
  - vent more negative feelings;
  - interact with other micro-bloggers more than do government institutions and media professionals.

Misinformation and rumors

- Scientists and food safety experts are absent in most cases.
- Lacking scientific expertise, many of the lay public shared false information based on vague and half-understood information.
  - This lack of clear information leads to the spread of rumors.
- Due to the complexity of food safety incidents, it is likely that many other rumors and cases of false information exist that have not been identified.

The general public: Risk perception & Preventive actions

Information exchange
- Weibo use
- Social Capital
- Social Trust
- Risk Perception

Factual Awareness
- Incident Awareness
- Preventive Action

Education
- Age

Risk Perception
- Emotion
The general public: Counter-measures

Wu Heng’s Website (a graduate student of Fudan University)

http://www.zccw.info/

The power of crowd-sourcing

Guoke’s rumor grinder

The power of online community

Authorities

Followers of CDC: 2500 before the H1N1 outbreak to 370,000 in late June 2009

Figure 1. Social media use by the U.S. CDC and HHS during the H1N1 flu epidemic.
**Authorities**

Followers of CDC: 2500 before the H1N1 outbreak to 370,000 in late June 2009

**Conclusions**

Government

Manufacturer

Experts

Media

The public

**References**


Thanks for your attention!

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