

---

# Volunteers

”... how large groups of people can contribute effectively, via the Internet, to response and relief efforts”.

Information spreads quickly

- How communities react to disasters
  - Disasters in foreign countries are felt world-wide
  - Internet has redefined boundaries
-

---

# Digital volunteering

“Digital volunteering is the practice of volunteer work using digital technologies”

- Almost exclusively involves Internet-connected devices.
    - I.e. source-development, Gutenberg project, ...
  - Typically information-processing
    - Old practice; ICT greatly enhances it
  - **Local digital volunteering:**
    - Capture and process information on the spot
      - Updates frequently and immediately
  - **Remote digital volunteering:**
    - People who read about crises from afar
      - Creates connections, reposts content
      - Not able to witness and assess situations directly, but
    - ...
    - May provide new expertise
-

---

# Organized Digital Volunteering

- Established:
    - Exists before the crisis occurs; fire dept., police dept, ...
  - Extending and expanding:
    - Also exists before the crisis occurs, but ...
      - Deals with tasks they are unaccustomed to, or are unconventional (extending)
      - Involves new members and/or a different org. structure (expanding)
  - Emergent:
    - Formed spontaneously as a consequence of disasters
    - Short-lived, sometimes grows larger (Red Cross)
-

---

# Motivating Volunteers

- A desire to help
  - Understanding why people volunteer → more well-designed systems
  - Underlying reasons ...
    - Values, understanding, enhancement, career, social and protective factors.
      - I.e. Enhancement: “Volunteering makes me feel good about myself”
  - Important to understand volunteer motivations in order to retain volunteers
-

---

# Digital volunteering tasks

- Tends to happen within and/or around social media
  - **Within social media:**
    - Posting, sharing → exposure
    - Upvoting, retweeting → filtering information
  - **Around social media:**
    - Human computation tasks
      - Correcting, categorizing, validating, comparing, ...
  - **Platforms for digital volunteering:**
    - Maintained, developed and operated by established volunteer org.
      - OpenStreetMap → Trace and annotate roads and more
      - Ushahidi → Geocode crisis reports, markers on map
-

---

# Hybrid Systems

- Machine processing and automatic processing elements
  - Imran's framework for *crowdsourcing stream processing* (2013)
    - Example:
      - An automatic processing element acts as a filter, producing a reduced data feed for humans to analyze or validate
      - ... or a crowdsourcing processing element can produce training data for an automatic processing element to learn how to categorize further items
  - To what extent is human intervention necessary?
    - Every social media message, news item, photo, ... ?
-