Workshop on Language Processing and Crisis Information (LPCI) 2013
Organization

- **Organizers:**
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  - Hideto Kazawa (Google Japan)
  - Graham Neubig (NAIST)
  - Masao Utiyama (NICT)

- **Program Committee/Reviewers:**
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  - Kiyonori Ohtake (NICT)
  - Kate Starbird (University of Washington)
  - Irina Temnikova (Bulgarian Academy of Sciences)
  - Kentaro Torisawa (NICT)
History of Workshop

- **2011-3**: Great East Japan Earthquake
  - Projects, including the ANPI_NLP Project
- **2012-3**: Crisis Information Theme Session at Japanese Society for NLP
- **2012-9**: Great East Japan Earthquake Big Data Workshop
- **2013-3**: Second Theme Session at JNLP
- **2013-10**: LPCI 2013
Other Organizations/Workshops

• International Association for Information Systems for Crisis Response and Management (ISCRAM)
  http://www.iscramlive.org/portal/

• Social Media and Semantic Technology in Emergency Response (SMERST)
  http://www.disaster20.eu/smerst-2013/

• Social Media and Linked Data for Emergency Response (SMILE)
  http://oak.dcs.shef.ac.uk/smile/
NLP Crisis Response Roadmap
Timeline for NLP Crisis Response

1. Preparation
2. Response at Crisis Time
3. Support after Crisis Time
1. Preparation

● **Tasks**
  - Creation of resources/tools
    - Best: ones that can be used in non-crisis situations!
  - Creation of shared tasks
  - Creation of links between crisis response professionals (local/national governments), other academic societies
  - International cooperation

● **Challenges**
  - How can we ensure that efforts continue?
  - How can we organize our efforts?
1. Preparation

- **Tasks**
  - Creation of resources/tools
    - Best: ones that can be used in non-crisis situations!
  - Creation of shared tasks
  - Creation of links between crisis response professionals (local/national governments, other academic societies, etc.)
  - International cooperation

- **Challenges**
  - How can we ensure that efforts continue?
  - How can we organize our efforts?

"The NICT Disaster Information Analysis System" Torisawa & Ohtake

"An Evidence Based Earthquake Detector using Twitter" Robinson et al.

"BahaBa: A Route Generator System for Mobile Devices" Regaldo et al.

"A Framework and Tool for Collaborative Extraction of Reliable Information." Neubig et al.
1. Preparation

- **Tasks**
  - Creation of resources/tools
    - Best: ones that can be used in non-crisis situations!
  - Creation of shared tasks
  - Creation of links between crisis response professionals (local/national governments), other academic societies
  - International cooperation

- **Challenges**

  “Rescue Activity for the Great East Japan Earthquake Based on a Website that Extracts Rescue Requests from the Net”
  Aida et al.
2. Crisis Response

- **Tasks**
  - Extraction of disaster related information
  - Aggregation and delivery of information
    - Including multi-lingual delivery
  - Reliability checks

- **Challenges**
  - How to connect useful tools with users?
  - Organization is even more difficult?
  - How to manage information other than Twitter?
  - How to deliver information *to* affected people?
2. Crisis Response

- **Tasks**
  - Extraction of disaster related information
  - Aggregation and delivery of information
    - Including multi-lingual delivery
  - Reliability checks

- **Challenges**

  - "Computer-assisted Structuring of Emergency Management Information: A Project Note" Watanabe et al.
  - "Extracting and Aggregating False Information from Microblogs" Okazaki et al.
3. After-Crisis Support

- **Tasks**
  - ???
  - Helping those in disaster-affected areas convey their information to the outside.
  - Analysis, figuring out what we can do better.

- **Challenges**

> “Returning-Home Analysis in Tokyo Metropolitan Area at the time of the Great East Japan Earthquake using Twitter Data”
> Yusuke Hara
3. After-Crisis Support

- **Tasks**
  - ???
  - Helping those in disaster-affected areas convey their information to the outside.
  - Analysis, figuring out what we can do better.

- **Challenges**
  - What more can NLP do here?
Is There Ever a “Non-Crisis Time”?

Global Disasters in 2013

- Floods, Colorado USA
- Earthquake, Lushan China
- Typhoon, Kyoto Japan
- Wildfires, Tasmania Australia
Keynote Address
NICT Disaster Information Analysis System
Kentaro Torisawa and Kiyonori Ohtake
(NICT)