

ICT (Information and Communication Technologies) challenges for post-disaster activities in Japan

July 25, 2011

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The worst disaster in Japan since WW II

- The earthquake, 4 waves compound: M9.0
- Tsunami: 10 - 30 meters, 3 times higher than experts anticipated
 - Washed away everything: 30+ cities and towns
- Fukushima Nuclear Station
- Death: 16,058, Missing: 7,781
- Total: 23,839 – so far

After four months

- Things are not getting better, some parts **worse**
- **Natural Disaster** turning out to be **Social Disaster**
- With all due respect, not capable of handling problems
- Many people are suffering - even those who moved from shelters to “temporal houses”
 - rooms too narrow, rain leaks, ants coming in, flies from dead fish etc.
 - no reconstruction plan yet announced from central gov’nt
- According to previous experiences of Kobe, many more problems will surface



I lost my voice -couldn't say anything



This was a 3-story building





from where I stayed







Waves in society at large

- Shortage of goods: gas, water, food, batteries etc.
- Fukushima Nuke station – serious chain of troubles
- Rotating power cuts in Tokyo suburbs
- One large bank network halted to function
- Waves of information spreading, but only outside the areas hit badly
 - Twitter, SMS, SNS ... partially effective
 - Mass media – provided lots of info, some are helpful and others are too sensational

Initial observations

- No communication & information:
 - “blankets, food, oil, please help!!”
- One week to three weeks – just idling
 - Background – unlearned lessons from Kobe
- ICT has become part of core infrastructure, Command and Control – yet
- Insufficient capabilities of existing mechanisms
 - Government (central & local), Industry...

What can ICT/Internet do for them?

- There were little Emergency Preparedness among Internet/ICT community
- *Informational gap* was the source of wider problem – ineffective logistics, relief and support works
- Started “pro bono” platform for information support based on individual capacity – another trials & errors

Information Support *Pro bono* Platform (iSPP) established

- Multi-stakeholder platform to address info-gaps
- Individuals from gov, industry, NGOs and academia
- Projects and coordination beginning

iSPP aimed at

- Lateral collaboration
- among relief information providers such as Yahoo, Google, Amazon, Shinsai-info, Tasukeai Japan, Save MLAK etc.)
- among relief ICT providers
- Vertical collaboration
- between devastated areas and relief providers outside
- Project Management – platform and system being proposed for longer term activities

Projects underway

1. Provide ICT solutions (packages) to **recovery** works – sending machines and people
2. Common API for Informational Support
3. Information matching for relief works (goods and people)
4. NPO ▪ NGO Coordination
5. Visits to local governments who need more support - coordinate with Prefectural & Central Governments
6. Survey on people's informational behaviors

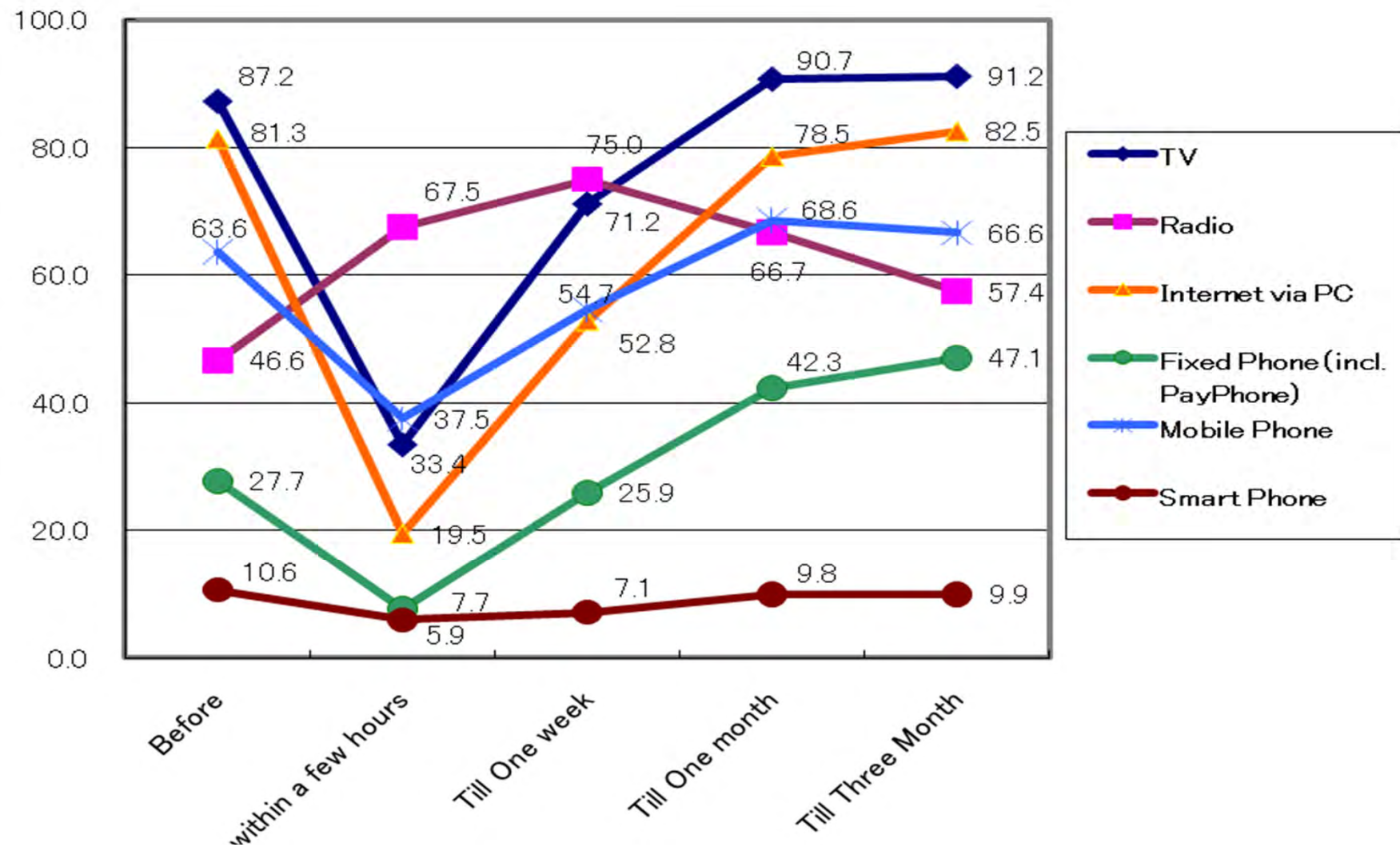
Survey on people's informational behaviors

- Personal interviews
 - 200+ people in the devastated areas
 - By people in the same region
 - Easier to share stories
- Online questionnaire
 - 2,815 samples in the devastated areas
 - Mostly ICT literate
- Conducted in early July
- First of its kind in scale
- Funded by Telcos, supported by Govn't

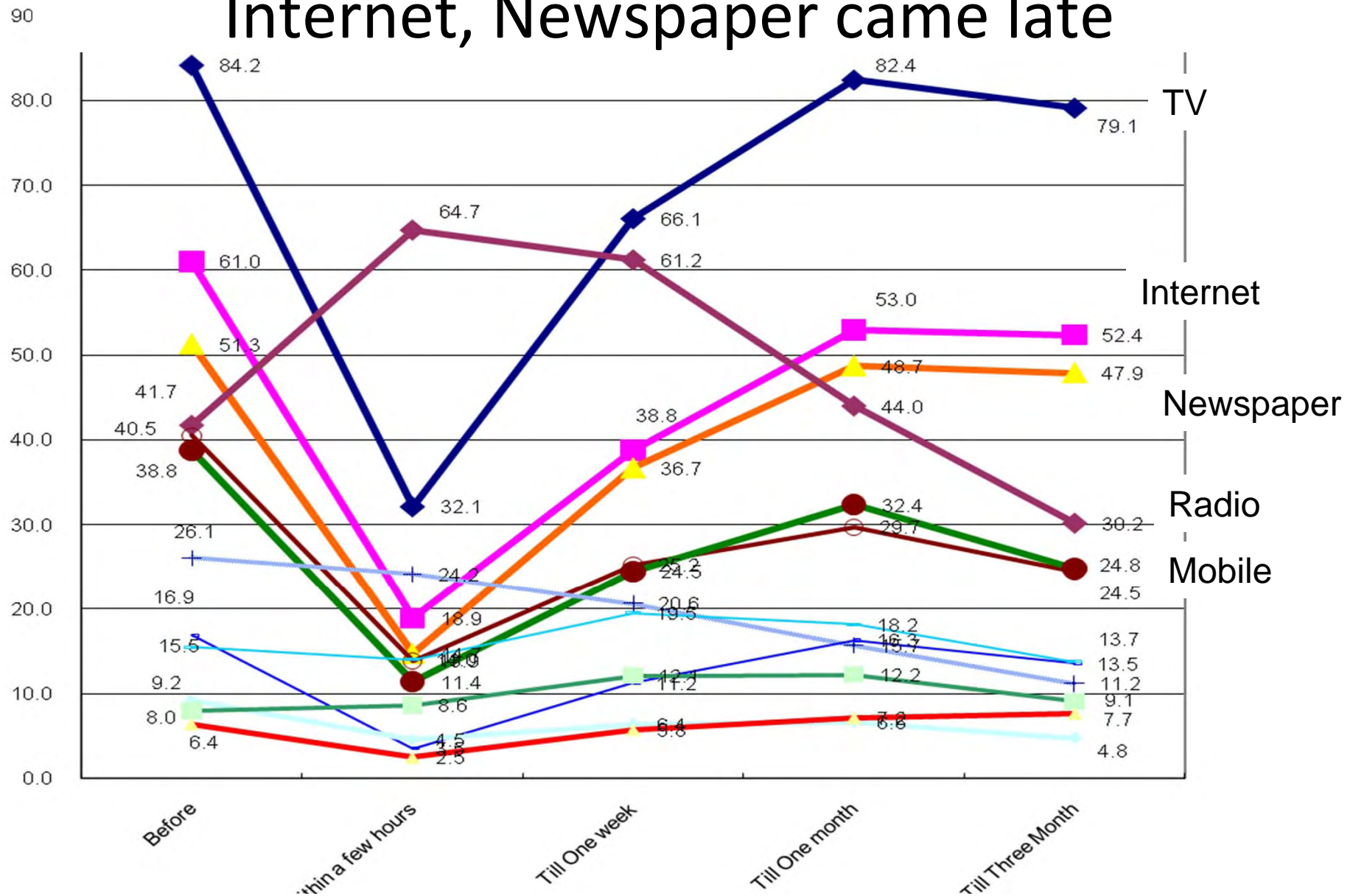
Questions:

- Which tool and media were useful? Which are not?
- How devastated people relied on which info resources?
- Any difference in chronological order and locale?
- Was Internet or twitter really useful?
- What kind of lessons can we draw from?

Devices that worked: Radio, Mobile, TV, Internet...
all but Radio dropped at Day 1
Fixed phones much popular after one month



Useful info sources: radio, TV, mobile-TV for Day 1 Internet, Newspaper came late



Tsunami area and Inland

- Not much difference in devices between Tsunami-hit areas and inland for the Day 1
- After 1 week, Tsunami areas showed little recovery in use of Internet, TV, mobile and fixed phones – indicates slow recovery of power supply, communication infrastructure

Multi-stakeholder came, naturally

- Traditional government structure does not work sufficiently for such emergency
- Industry and Civil Society must work together with Central and Local governments
- But how? - complementarily
- No official recognition made (yet)

Thank you

For your help and support

This could happen to you

Let's learn the lessons and be prepared

***We shall build new and better society
together***