

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

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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: 15,799, Missing: 4,053
- Total: 19,852 – so far

After six 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’n’t
- According to previous experiences of Kobe, many more problems will surface



I lost my voice -couldn't say anything



from where I stayed





After three weeks,
no rescue team came here yet

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 information behaviors

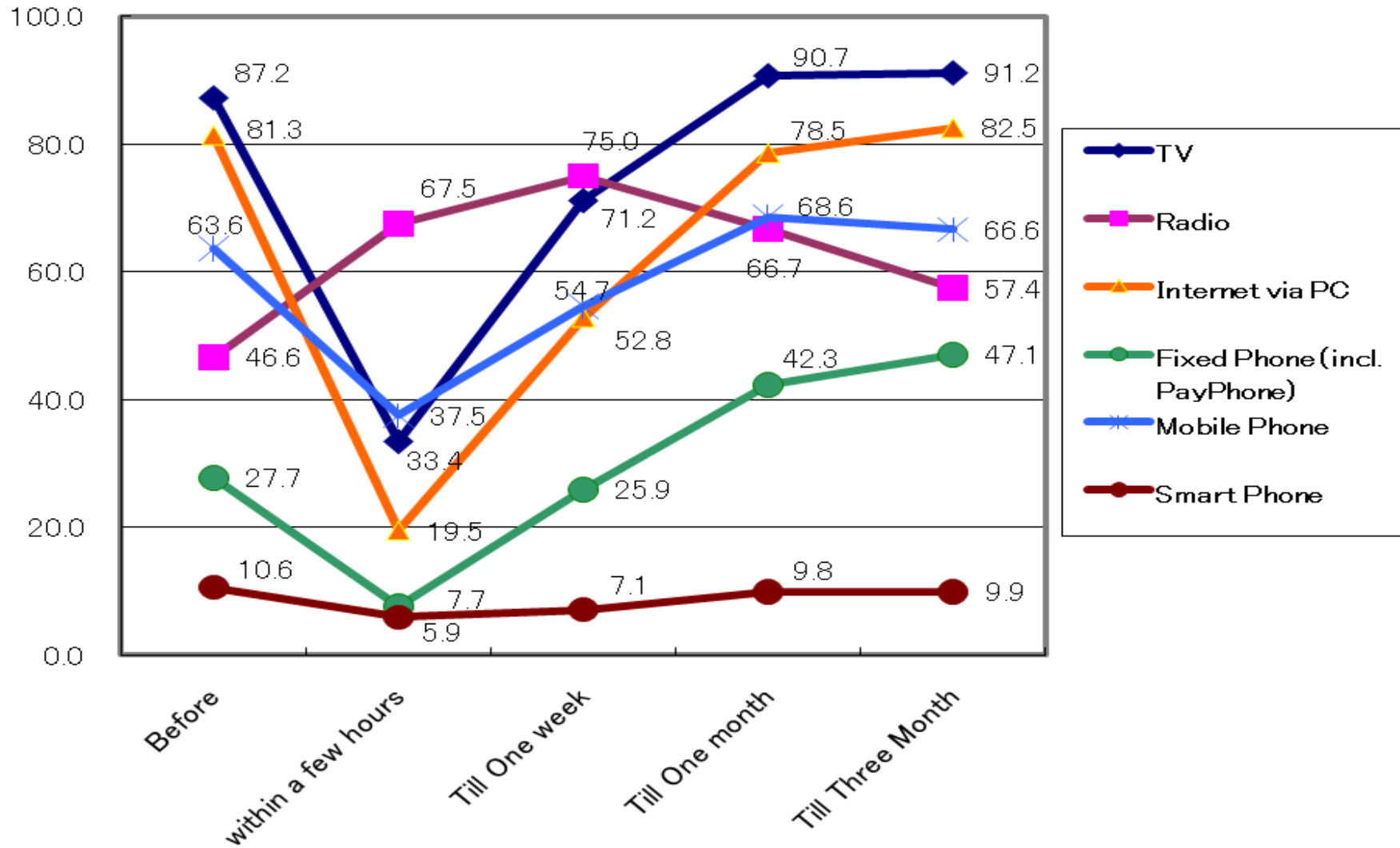
Survey on people's informational behaviors

- Field interview
 - 186 people in the devastated areas
 - Interview 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

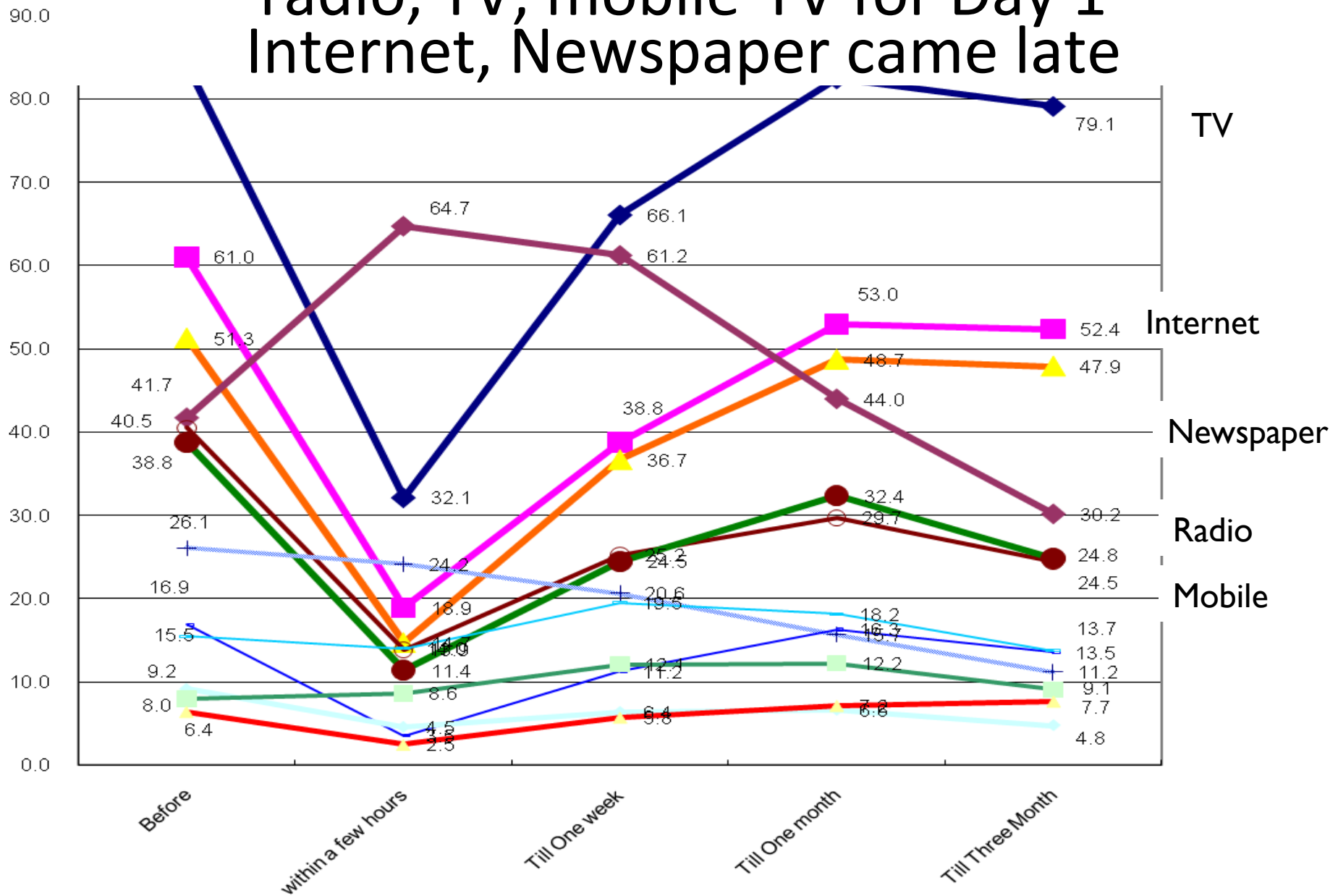
Questions:

- 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



Situation was so different by area and timeline

- People in Iwate and Miyagi prefectures faced large-scale power cut right after the quake (for a few days); people relied on Radio & Word of mouth. TV, Internet and mobile were almost useless in the early hours.
- Radio was largely available, but the content was not so satisfactory.
- Internet, twitter and other SNS used where power and access are available. They have limited use, but found to be useful by these people. Very different picture from that of Metropolitan Tokyo.

From people's comments:

- Mobile phones were primary source of confirming family and friends
 - Yet it became primary target of frustrations
- Power loss was the biggest cause of information black box
 - Radio and “one-seg” mobile broadcast was useful
 - New devices needed
- twitter was useful to find local information such as food and gas supply – *as long as there was connection*
- Special dial/Internet services were not used

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)

Lessons learned (tentative)

1. Mobile network should be robust enough
2. Power supply be seriously considered, especially for rescue and relief operation
3. Flexible collaboration framework be placed
4. Disaster management needs new understanding for latest ICT services
5. ICT people should establish new emergency preparedness team – which did not exist before
6. Establish ICT recovery support for local governments

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

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iSPP