ICT For Disaster Respons

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Outline

- Latar Belakang
  - Peranan ICT pada saat Bencana
  - Case Study
  - Kebijakan ICT for Disaster Disaster Respons dari UN
  - Informasi “update” terkait ICT Disaster Respon

Latar Belakang

- Periode Respon ¶ periode tersulit dari bencana yang membutuhkan penanganan cepat & tepat
- Kehilangan orang yang dicintai, terluka, trauma, pemenuhan kebutuhan yang tidak mencukupi terjadi pada fase ini
- Berada dalam pengungsian, membutuhkan penanganan medis & sanitasi lingkungan yang kurang memadai sehingga rawan penularan penyakit

Peranan ICT pada Saat Bencana

- Penyebar an informasi tentang kejadian bencana
- Media penyajian dan interpretasi data
- Media pelaporan kepada pihak pengambil kebijakan (stakeholder)
- Membantu kerja2 penanganan bencana spt:
  - Mendeteksi korban maupun properti (orang hilang, terluka, meninggal, kerugian harta benda, kerugian infrastruktur dll),
  - Media komunikasi saat penanganan bencana
  - Mengkoordinir kelompok donor/bantuan kemanusiaan

Case Study

- **Sahana Disaster Management System in the Aftermath of the Indian Ocean Tsunami in 2004 and Pakistani Earthquake in 2005**
  - a free and open source software (FOSS)-based system developed
  - is a suite of web-based applications - provides solutions to the problems arising in a post-disaster situation
  - One objective of Sahana connecting with their families and friends as soon as possible

Case Study

- **Sahana Disaster Management System in the Aftermath of the Indian Ocean Tsunami in 2004 and Pakistani Earthquake in 2005**
  - Sahana's Missing Person Registry ▪ an electronic version of a bulletin board of missing and found people ▪ thus increasing their chance of reuniting
    - can capture information the people missing
    - can capture information who seek details about the missing

Case Study

- **Sahana Disaster Management System in the Aftermath of the Indian Ocean Tsunami in 2004 and Pakistani Earthquake in 2005**
  - organization registry developed by sahana
    - keeps track of all the relief organizations and civil society groups working in the disaster region
    - captures information on both the places where they are active and the range of services they are providing in each area to ensure that there is no overlap

Case Study

- **Use of Internet in the Aftermath of the 1999 Earthquake in Turkey**
  - During the Izmit earthquake, telecommunications infrastructure was so extensively damaged that it was impossible to access emergency services
  - The use of public phones was almost impossible, while mobile phone networks were operating with reduced bandwidth
  - many of the microwave repeaters mounted on apartment buildings had been damaged during the quake
  - Due to system disruption, donors often found themselves acting as the distributors of aid as well, thus, the Internet proved a valuable resource

Case Study

- **Use of Internet in the Aftermath of the 1999 Earthquake in Turkey**

- Internet was also used to provide information regarding the whereabouts of missing family members

Case Study

- **UNOSAT's Role in Disaster Response During the 2004 Indian Ocean Tsunami**

- UNOSAT provides services on:
  - Image processing;
  - Map production;
  - Methodological guidance;
  - Technical assistance; and
  - Training

- When the Indian Ocean tsunami struck on 26 December 2004, UNOSAT provided an immediate overview of the situation prior to triggering the International Charter Space and Major Disasters the day after. UNOSAT immediately created regional maps of potential impact and more focused maps of the areas reported to be heavily affected in the first days after the disaster

Case Study

- **UNOSAT's Role in Disaster Response During the 2004 Indian Ocean Tsunami**
  - Satellite image analyses and map production provided UN colleagues and the international humanitarian community with regional and local damage assessment maps using a wide range of satellite sensors

Kebijakan terbaru dari “United Nation”

John Crowley, head of the Harvard Humanitarian Initiative, said the Harvard team, which was tasked with writing the study, found during the study six core challenges in technology-related emergency response, including the following:

- Mobile technologies and satellite communications are bringing everyone—humanitarian organizations, international institutions, volunteer technical communities, and the affected populations—ever closer together. More often than not, victims of disasters and conflicts have cell phones and can communicate via SMS in real time. The headquarters of various agencies are ever more closely connected to the operations in the field. And thousands of volunteers who until recently would have sent donations are now contributing mapping and crowdsourcing services.
- As a result, information flows are accelerating, raising expectations around increasing the tempo of information management and coordination in emergency operations.

Kebijakan terbaru dari “United Nation”

- At the same time, the methods for data and information exchange are moving from document-based systems to flows of structured data via web services. This movement from the narration of ongoing events in long stretches of unstructured prose to streams of data in short, semi-structured formats require humanitarian staff to perform double duty. They are simultaneously working within an existing system based on the exchange of situation reports while filtering and analyzing high volumes of short reports arriving via SMS and web services.
- Information Management in the humanitarian system is not tooled to compile, translate, and analyze the increased messaging from an affected population, the VTCs, or the demands of headquarters. For field staff who are working in difficult circumstances in technology-hostile environments, the sense of information overload is unprecedented and increasing.

Kebijakan terbaru dari “United Nation”

- Field staff and their managers are saying that the best method for integrating non-traditional information flows with humanitarian information management practices is to link new data flows into existing workflows and shared data standards. Adding new work flows will break the system.
- As a result, stakeholders are calling for an interface between the humanitarian system and its cluster coordination mechanism and the various new sources of information—from the disaster affected community and the volunteer/humanitarian technologists.

Informasi terbaru terkait Disaster Respon

- International ICT / disaster response agreement
- Tue, 15 Mar 2011 15:31
- Days before the devastating earthquake and tsunamis hit Japan, the United Nations and GVF, the non-profit association of the global satellite industry, signed a Memorandum of Understanding to facilitate more effective use of Information Communication Technologies (ICTs) to support the humanitarian community before, during, and after disasters.
- During a meeting held in New York City on 15 March, the Secretary General of GVF and the United Nations Secretariat, acting through the Technical Coordination and Partnerships Unit (TCPU) of the Office for the Coordination of Humanitarian Affairs (OCHA), reached a landmark agreement to co-ordinate satellite-based support for humanitarian organisations.
- Central to the agreement is implementation of the "*GVF Disaster Preparedness Registry*", an online platform that will facilitate humanitarian organisations' efforts to sustainably leverage satellite-based systems, services, and personnel for relief efforts, as well as for medium and long-term development programs that are conducted following disasters.

Informasi terbaru terkait Disaster Respon

- "This agreement will enable us to exchange vital information on new and existing technologies and applications that can improve the overall effectiveness of emergency telecommunications services delivered by the humanitarian community," said Chérif Ghaly, Chief of UN-OCHA's TCPU.
- "We are committed to expanding our work with the humanitarian community through this agreement, which builds upon 15 years of collaboration between GVF and UN-OCHA," said David Hartshorn, Secretary General of GVF. "The satellite industry has already begun confirming their participation in the *Disaster Preparedness Registry*, which will be available for use in the coming weeks.
- The *Disaster Preparedness Registry*, which is also being launched in co-ordination with non-government organisations (NGOs) and other stakeholder groups, will enable first responders to more effectively draw upon rapidly deployable communications solutions, as well as systems and services that are already operating in close proximity to disasters.
- UN-OCHA and GVF's collaboration will be conducted with continuing involvement of the UN Working group on Emergency Telecommunication (WGET). Mr. Hartshorn and Mr. Birnbaum were GVF's representatives during signing of the MoU, which took place during a WGET meeting held on 7-8 March at UNICEF's offices in New York City.

Daftar Pustaka

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