CROWDPOLICY WHITE PAPER

Crowdsourcing for Ebola

It is widely acknowledged, that the fight against the deadly Ebola virus disease, is taking place on many different fronts as regards to resources limitations, lack of relevant information (e.g. geographic data), the need to efficiently provide training of volunteers and protection for medical personnel treating Ebola patients[1]. It is also true that several initiatives have been started with the involvement of aid workers from agencies such as the American Red Cross and Médecins Sans Frontières/*Doctors Without Borders* (MSF) and volunteers from the Humanitarian OpenStreetMap Team (HOT)[2] who are attempting to map the affected region, especially the worst-hit countries—Guinea, Sierra Leone and Liberia. Online volunteers from more than 80 countries around the world are participating in this battle against the Ebola virus disease, which has killed over 2,400 people in West Africa[3]. Furthermore, many public and private organizations have already developed initiatives to support the fight against Ebola using data to tailor requests to international aid organizations for help in fighting the spread of Ebola[4].

In that prism, the European Commission has taken several initiatives and it is closely working with the EU Member States within the Health Security Committee (HSC) to keep them informed about the latest developments and to coordinate approaches on prevention and preparation for Ebola, in accordance with Decision 1082/2013/EU on serious cross border health threats[5]. Similarly, the United States Agency for International Development (USAID) has turned to ask the world for help. For instance, in partnership with the White

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[1]
http://scopeblog.stanford.edu/2014/04/11/health-workers-use-crowdsourced-maps-to-respond-to-ebola-outbreak-in-guinea/
[2] http://hot.openstreetmap.org
[3]
http://www.pcworld.com/article/2687272/crowdsource-mapping-aids-ebola-fight-in-west-africa.html
[4] http://www.kcra.com/money/ibm-helping-fight-ebola-with-big-data/29360392
[5] http://ec.europa.eu/health/ebola/index_en.htm

House Office of Science and Technology, the Centers for Disease Control and Prevention and Department of Defense, USAID launched a crowdsourcing campaign titled Fighting Ebola: A Grand Challenge for Development. Prizes in the range of $100,000 to $1M will be awarded for innovative designs of Personal Protective Equipment (PPE) to protect and empower healthcare workers dealing with Ebola patients[6]. In that prism, US government offers $1million crowdsourcing prize for best Ebola hazmat suit design asking for help to invent new hazmat suits for doctors and soldiers fighting the Ebola epidemic in Africa and at home[7].

Crowdsourcing constitutes a powerful technique to solve in a rapid and effective way many of the urgent technical problems related to the Ebola pressing problems. The World Health Organization (WHO) for instance, has warned recently "the death rate in the Ebola outbreak has risen to 70 percent and there could be up to 10,000 new cases a week in two months". The urgency and the criticalness of the problem necessitate rapid collection of information to support accurate solutions, as the data from the World Health Organization demonstrate the increasingly rapid rates of infection, particularly in Sierra Leone[8].

Crowdsourcing can support the efforts to tackle those problems in various levels, such as:

- Open and re-usable platform as an online tool that will allow users to provide information and trace map elements from various sources related to the Ebola virus disease, using open source disease management platform;

- Software development assisting community-based organizations with support and services around the management of mutual aid and assistance to populations affected by the Ebola virus disease;

- Knowledge repository with information including imagery of the area, digital maps,

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https://www.linkedin.com/pulse/article/20141015182740-1056097-can-crowdsourcing-beat-ebola
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http://www.dailymail.co.uk/news/article-2788103/america-turns-web-crowdsourcing-fight-ebola-internet-hackers-try-cash-crisis-scam-emails.html
8 http://www.ushahidi.com/2014/08/01/tracking-ebola-west-africa-crisisnet/

topographic maps, pinpointing sources, population centers and distribution;

- Development of digital applications to rapidly and efficiently provide valid and useful relevant information and assist the health workers and other international aid organizations;
- Development of people locator systems with the official registries maintained by government agencies, in collaboration with local government and volunteer organizations that are taking part in the response and recovery efforts;
- Crowdsource "ideas wall" to remotely develop new applications and initiatives to assist the collection and diffusion of relevant knowledge and information;
- Crowdsource multilateral communication systems amongst scientific organizations, health centers, health service providers volunteers and medical personnel on first level information (e.g. medical protocols) with an emphasis on communities contribution;
- Mapping toolkit to build and support community resilience for the Ebola virus disease preparedness in collaboration to "open knowledge communities".

The efforts to combat the deadly virus will be further supported by initiatives exploiting the wisdom of crowds. Knowledge (codified and tacit) constitutes an effective mechanism to productively contribute to the solution related to the tackling of the Ebola epidemic and crowdsourcing initiatives can support the implementation of relevant ideas and applications.

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