KNOWLEDGE IN HUMANITARIAN EMERGENCIES:
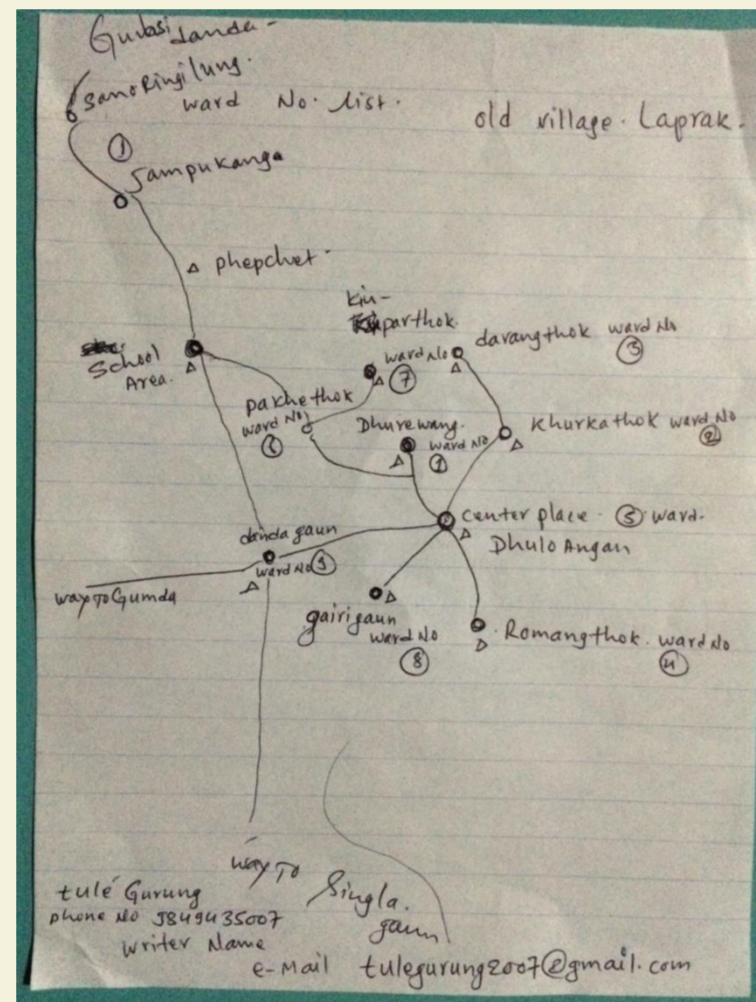## a case study of the 2015 Nepal earthquake

Obtaining reliable information is crucial for humanitarian workers who aim to respond to a catastrophic situation. In this context, there are many possible sources of information (e.g., local population, journalists, authorities), but only a limited time to gather data, analyze them and respond to the situation. This project examines the characteristics of data collection and treatment in humanitarian emergencies from a social epistemology (SE) perspective.

CLASSICAL HUMANITARIAN

Traditionally, information is obtained by specialists who perform an emergency assessment in the field.

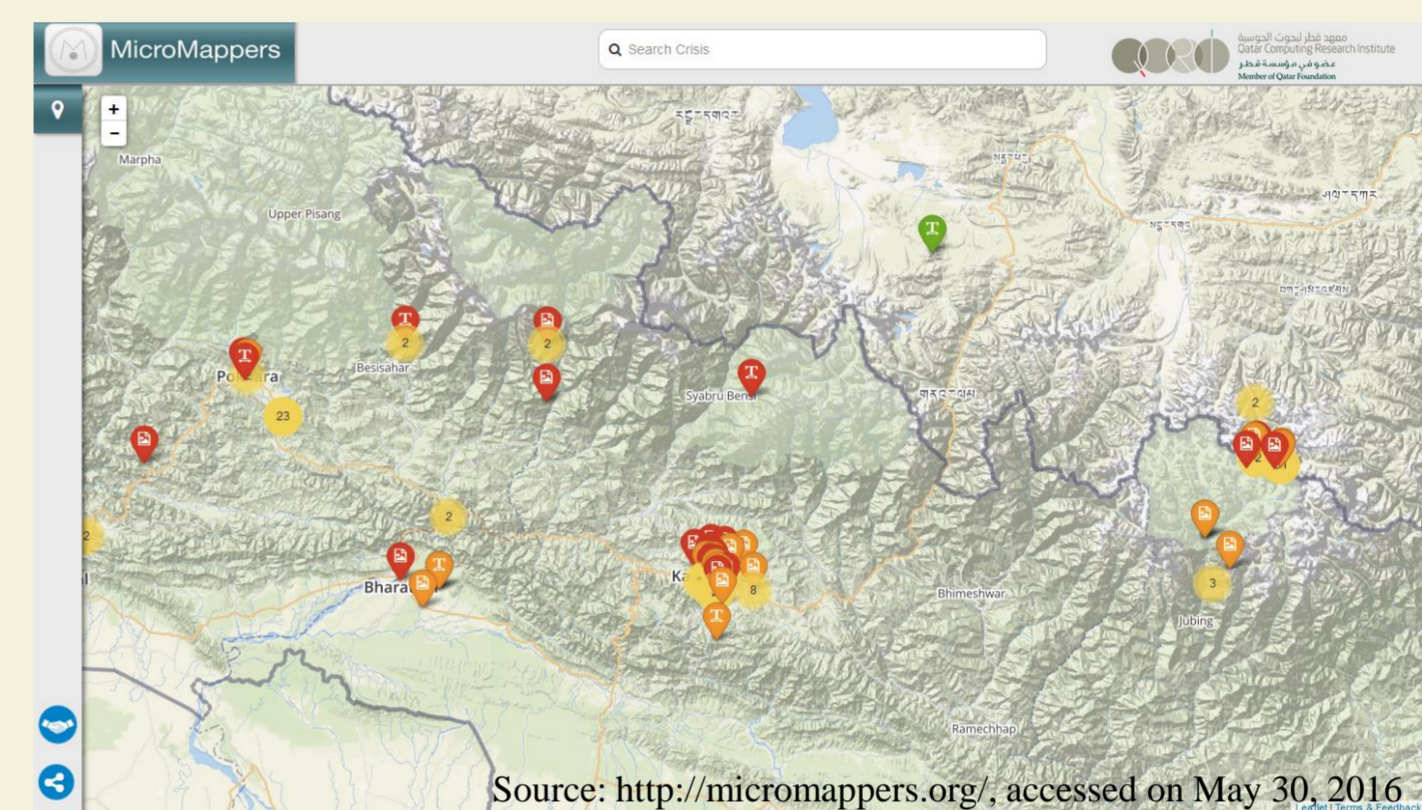Photo Credit: Jean-François Dubé

Types of data
Direct testimony and non-testimonial (direct observations)

Treatment
Team amalgamation and classical statistics

DIGITAL HUMANITARIAN

In the last five years, a new way of gathering data has emerged called the digital humanitarian approach. It uses social media information from people directly affected and therefore requires no specialist in the field.

Source: http://micromappers.org/, accessed on May 30, 2016

Types of data
Crowdsourced through technologies and non-testimonial (satellites images, pictures, video, etc.)

Treatment
Machine learning, big data algorithms, crowdsourcing

RESEARCH QUESTION

Are these two approaches generating the same results about the same event (e.g. how many houses destroyed and where)? If it is not the case, from a social epistemology perspective, which approach has an epistemic superiority?

OBJECTIVES

1-Identify specific epistemic strengths and weaknesses from traditional and emerging practices for data gathering.
2- Start a reflection on how to combine these approaches.

METHODS

Guidelines study
Characterize both approaches using guidelines provided by organizations

Case Study
Performance over information
A-Get the map MSF and Micromappers had one month after the earthquake
B-Use a complete map obtained after a final survey of the situation to compare performance

Time efficiency of information gathering
A-Design a timeline about when information was available to MSF and Micromappers
B-Compare performance about whom had quality information prior to the other

Philosophical Work
Reflection on epistemic strengths and weaknesses of the two approaches using social epistemology tools.

Social epistemology is a field in philosophy "[…] concerned with the organization of communities of knowers and with the processes that occur among knowers within such communities that promote both the collective and the individual acquisition of true belief." (Kitcher 2002, in Wray [ed], *Knowledge and Inquiry: Readings in Epistemology*)

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