



## Sharing insights on the impact of natural disasters using Twitter

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CATDAT is a large global natural disaster database that contains detailed information about natural disasters and the social and the economic impacts of these. There is public interest in data of this kind, but finding interesting patterns and sharing these with others is not easy. We describe a case study in which we supply a dataset of the social and economic impacts of earthquakes, floods and volcanic eruptions, software that can be used to generate graphical views of the data and a mechanism for sharing these and insights generated using Twitter or similar blogging infrastructures. Participants were recruited through the Earthquake-Report website (<http://www.earthquake-report.com/>), a website that aims to raise public awareness about the impact of natural disasters.

We provided the Hierarchical Data Explorer (HiDE) software (<http://www.gicentre.org/hide/>) as the means for visually exploring the data, generating insights and sharing the results through Twitter.

HiDE lets users build data graphics using hierarchy, order, size, colour and layout to depict aspects of the data, which is described using a text-based HiVE expression (<http://gicentre.org/hive/>). When a user finds an interesting view of the data, they can "tweet" an image of the view, the HiVE expression and a comment describing why they have chosen the view. This appears in their Twitter feed. Since HiVE describes the configuration of the graphical, anyone with HiDE and the dataset can copy/paste the HiVE expression from the Twitter feed into HiDE to recreate the view. They are then free to tweet a response or modify the graphic and then tweet a response. More details about this mechanism can be found at <http://gicentre.org/vizTweets/>.

Our case study demonstrates the power of graphics for sharing and discussing insights into interesting datasets. In particular, we show that providing the easy means of generating graphics from data, sharing these through an open infrastructure and allowing these to be recreated can help engage the public in these important datasets.