Abstract

Report on Open Research Hackathon Event ‘Exploring the Relationship between Crowds, Safety and Crime’.

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Crowded environments can be unsafe for pedestrians, but their relationships with safety and crime are not well known. Whilst open data can be exploited for research on this topic, it would also be possible for such research to adapt a format of Open Research: multidisciplinary open collaboration on the internet. This article reports our Hackathon event on ‘Exploring the Relationship between Crowds, Safety and Crime’ run by Methods at Manchester with support from International Association of Traffic Safety Sciences, but also explores the possibility of the format for wider use.

The 2-day event, which was fully online due to the Covid-19 pandemic, took place in December 2020 and was attended by 20 participants, who were recruited using the organiser’s mailing lists and other channels. The participants consisted of doctoral students and postdocs but also included secondary school students as well as those from other countries. They were unpaid, but small prizes (amazon vouchers) were given at the end of the event. In addition to lab sessions (where participants analysed the data) and opening and concluding talks, the programme consisted of short courses on basic programming and data handling skills as well as special lectures by subject experts to keep participants engaged throughout the programme. We also allocated one facilitator for each of the three participant groups. To assist the data analysis, the organisers had collected open data for potential use before the event, but the participants could choose other datasets as well.

The outputs of the three teams were all at a good level. Two teams investigated the relationship between attendance and crime at Major League Baseball games, while the other modelled the relationship between footfall counts and vehicle crime over the course of a typical day. They were shared between the participants and were made available for further investigations by any party.

We believe that this Open Research format could be used widely. Use of open data as well as collaborative working on the internet would remove barriers attached to traditional collaborative research.