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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Application of flood risk modelling in a web-based geospatial decision support tool for coastal adaptation to climate change" *by* P. J. Knight et al.

P. J. Knight et al.

philip.knight@liverpool.ac.uk

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Dear Paul,

Many thanks for finding the time to review this paper, suggesting improvements and for your encouraging comments.

"One of the biggest challenges in deploying DST's such as this is finding the resources needed for website maintenance, local training, periodic data updates, and software enhancements. I would like to ask the authors if they gained any insights as to how these needs might be met in the two areas where the case studies were conducted."

I agree that this is one of the biggest challenges facing developers of research funded web-based tools and portals. In the past I have been part of a team working on a web portal (http://cobs.noc.ac.uk/) which has had its funding cut. The research institute still keeps this portal open with minimal maintenance, however it is slowly becoming out dated and some of the internal systems have started to fail; The front end web code still functions, although some of the complex internal processes have started to fail e.g., real-time data feeds that populate the database, and feed the web pages.

Built into the ARCoES project is a data management plan to archive the data and products within an institutional data centre. Furthermore, it is now common practice to keep research website projects 'live' for a set period of time. This can be achieved by paying for external hosting or providing the hosting within the research organisation of origin. This is adequate for simple web sites, however for complex web sites, and once the researchers have moved on to other projects and perhaps left the organisation, it is always going to be difficult to overcome the challenges described above.

I intend to provide a web resource alongside the DST, which would both be hosted on web space provided by the University of Liverpool. The web resource would contain the source code, scripts, data and detailed information about how to re-construct the DST. This web resource would also be archived within an institutional data centre as part of the data management plan.

As the project has developed, stakeholder groups and project partners (e.g., local government and regional agencies) have been requesting specific requirements for incorporation into the DST; we are hoping that by tailoring the DST a future funding route is more likely to emerge with one of the major partners taking on the DST responsibility. I am also investigating a simplified version (reduced functionality) of the DST that may allow smaller user groups to use the tool on their hosted websites.

I will include some comments within the paper to reflect the steps being taken to increase the longevity of this tool.

“Editorial comments:”

“1) Figure 2 is too small to see the components of the DST’s user interface or the scenarios referred to in the text. One alternative would be to use a single larger screenshot to display the DST’s control panel, then to draft a second composite figure (or figures) to illustrate different scenarios.”

I will address this by re-processing the figures and generally making it clearer.

“2) More explanation is needed for the economic analyses performed at the Fleetwood site, e.g., sources of cost data, scale of analysis. Also,more detail on the cost analysis done according to land-use type would be helpful.”

This is something that one of the other referees has also asked for – I will include more detail about this.

“3)The first paragraph in section 4.1 (lines 10-26) belong in Section 2. A larger figure showing the user interface would go here:”

Good point, I will alter Section 2 to include the DST tool description that is in Section 4.1 (results section). I will also include a larger figure.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 1615, 2015.