Visual Storytelling for Earth Sciences

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Visual Analysis is often a very useful tool in data exploration, especially if the data exceeds the human capacity for understanding through manual inspection. This is often the case in the Earth Sciences, as the number of grid points, the total amount of vectors, or the multi-band nature of this data can be quite overwhelming. What is however often forgotten or neglected is that the process of analysis by visual inspection is a tool of scientific discovery in its own right, and the actions of the human interfacing with the visualization are therefore not recorded.

With the system we are developing, we aim to allow any web-based visualization to store the successive human interactions in an accessible and browse-able format, so that these actions can be explored in an of itself, reversed where deemed necessary, and to serve as input for a visual storytelling experience. This promotes collaboration, education, and also reproducibility of results.

At our poster or talk we will show an early demo of our provenance recording software and visual storytelling tools, and we hope to promote the discussion on provenance in visual data exploration and to meet others interested in this topic to collaborate on joint systems which will make visual storytelling in the Earth Sciences a possibility.