Visualizing Dynamic Data: New Representations and Interactive Controls
Special Issue of Information Visualization

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The greatly growing sources of dynamic data amplify the need for new representations and interactive controls to support efficient visual exploration. These multivariate, hierarchical, and network data streams come from vital applications in finance, social media platforms, electronic health records, Internet of things, tracking of animals/machines, and other data sources. Voluminous data streams with ordinal, categorical, spatial, and textual information provide rich opportunities for discoveries that would lower costs, improve healthcare, promote safety, and combat fake news, election manipulation, and cybercrime. New visual representations and interactive controls would enable analysts to explore and understand this information, leading to insights into the underlying processes.

For this special issue of Information Visualization, we solicit submissions describing new ways to visualise dynamic information using methods that support the mental maps of the analysts, enabling them to detect rapid and gradual changes, identify islands of stability, or compare patterns of change across groups. We invite human-centred evaluations to measure the effectiveness of these approaches, in-depth case studies of usage, and novel user controls to support interactive exploration. Domain specific and more general representations of dynamic information are of interest.

1. New representations and algorithms for visualising dynamic information.
2. New representations and algorithms for visualising streaming data.
3. Methods for dynamic data applied to areas of data science.
5. Domain specific representations for dynamic data (e.g. biological, social, and geospatial networks), including semantics and context information that go beyond the input data under investigation.

7. User studies and experiments to evaluate the effectiveness of stable representations of dynamic information.

8. Investigation of the scalability and granularity of mental map preservation, for example, when the size or complexity of the data changes by orders of magnitude or when there are different levels of mental map preservation required.

**Deadlines.**

- **Extended Submission Deadline:** April 15th, 2019

You can submit your paper to: [https://mc.manuscriptcentral.com/iv](https://mc.manuscriptcentral.com/iv)