InfoVis for the Masses: Easy Navigation and Interactive Browsing of a Digital Catalog
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InfoVis for the Masses: Easy Navigation and Interactive Browsing of a Digital Catalog

Interactive graphics can turn raw data into intuitive graphical pieces that make information understandable for millions of readers/users. Graphs and charts can have a decisive impact and convince users about complex issues. Designing Information Visualization for the masses relentlessly calls for a trade-off between communicating complex data and packaging it in ways that a large number of people will be able to read and manipulate. We propose a visualization targeted at large audiences and public open spaces. Intuitive layout equipped with basic interaction makes the whole system suitable for a touch screen display. The system is currently being used in a public setting at the InnovaNews exhibit taking place at “La cité des sciences” in Paris (www.cite-sciences.fr and look for InnovaNews).

Browsing an e-catalog through an interactive visual interface

The visualization is designed to browse through categorized data. Lower level information is organized into categories and sub-categories, a map showing links between categories helps users dig into more details. A network showing links between categories is initially displayed based on a force-directed layout. After a category has been selected, it moves towards the center of the screen. Neighbor categories are kept visible while all others fade away.

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Links are induced from items belonging to more than one category, in turn inducing links between (sub)-categories. Reduction of edge crossings follows a multi-circular sifting heuristic, somehow extending the greedy-switch algorithm to radial layout and improving over the two layer barycentric approach. InnovaNews also offers geographic map, a TreeMap and a timeline.

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