

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

Arnaud Sallaberry, Aveline Guillaume, Guy Melançon

► **To cite this version:**

Arnaud Sallaberry, Aveline Guillaume, Guy Melançon. InfoVis for the Masses: Easy Navigation and Interactive Browsing of a Digital Catalog. IV: Information Visualisation, 2009, Barcelone, Spain. <lirmm-01275401>

**HAL Id: lirmm-01275401**

**<https://hal-lirmm.ccsd.cnrs.fr/lirmm-01275401>**

Submitted on 17 Feb 2016

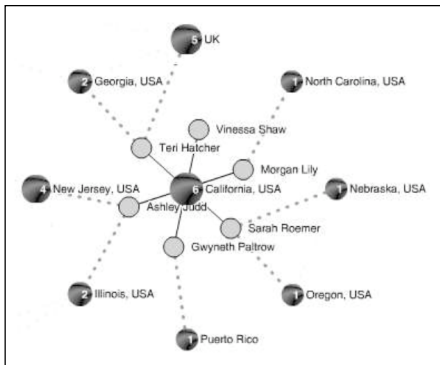
**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

## 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](http://www.cite-sciences.fr) and look for InnoVaNews).

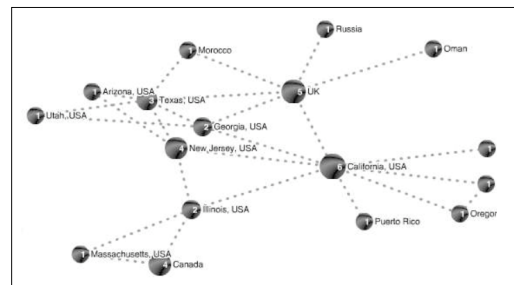


Contact: [Guy.Melancon@inria.fr](mailto:Guy.Melancon@inria.fr),  
[Arnaud.Sallaberry@pikko-software.com](mailto:Arnaud.Sallaberry@pikko-software.com)

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.

### **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.



GRAVITÉ is a joint INRIA, CNRS,  
and Université de Bordeaux project.



INSTITUT NATIONAL  
DE RECHERCHE  
EN INFORMATIQUE  
ET EN AUTOMATIQUE

