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### JOIN THE COMMUNITY!

This project is open to new community participants. You can join one or more of six working groups of interest: data mining, data management, perception and cognition, spatio-temporal analysis, visual analytics infrastructure and evaluation.

If you are interested in joining the European Visual Analytics community, please send an E-mail to Jörn Kohlhammer!

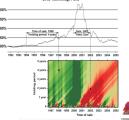
# VisMaster Visual Analytics = Mastering the Information Age

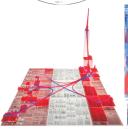
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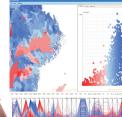




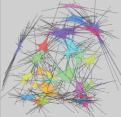






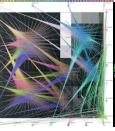


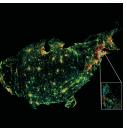


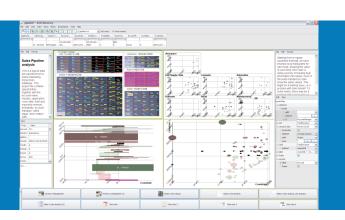


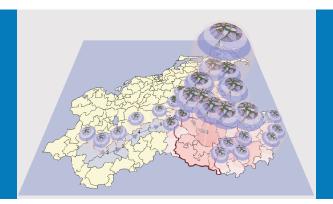












## Visual Analytics

One of the most important challenges of the emerging Information Age is to effectively utilise the immense wealth of information and data acquired, computed and stored by modern information systems.

On the one hand, the appropriate use of available information volumes offers large potential to realize technological progress and business success. On the other hand, there exists the severe danger that users and analysts easily get lost in irrelevant, or inappropriately processed or presented information, a problem which is generally called the information overload problem.

Visual Analytics is an emerging research discipline developing technology to make the best possible use of huge information loads in a wide variety of applications. The basic idea is to appropriately combine the strengths of intelligent automatic data analysis with the visual perception and analysis capabilities of the human user.

### **Objectives**

The main strategic goal of this Coordination Action is the shaping of a new research community for the field of Visual Analytics. Researchers from different scientific fields will work together to define the common future Visual Analytics Roadmap.

Future research directions will emerge from the combination of different research fields. This roadmap will consider the requirements pushed by future (mid-term) developments independent of Visual Analytics research, and their implications to the scientific challenges in the mentioned disciplines.

The shaping of the community will be accompanied by scientific expert groups, which act as a contact point for people interested in Visual Analytics during the project lifetime and beyond.

### Contribution

A strong European Visual Analytics community will be established, which will promote the adoption of Visual Analytics Research and Technology in Academia and Industry. The network will peer with other national and international Visual Analytics communities. Researchers of the different areas who are involved in Visual Analytics will be brought together by interdisciplinary workshops and symposia.

A European perspective on Visual Analytics in form of a roadmap will be formulated, defining the goals and suggesting solutions for successful development of Visual Analytics applications. The most relevant research trends and state-of-theart technologies developed in the related fields will be identified and promoted for adoption in advanced Visual Analytics research.

The foundations for a **European Visual Analytics Research Agenda** will be prepared by writing strategic research papers on the various identified fields. Book chapters and survey articles will be disseminated into the appropriate communities.

The preparation and establishment of follow-up large-scale Visual Analytics **national and EU funding proposals** will be supported.

**Establishing cross-community contacts** between the visualization community on one hand, and the data mining, data management, perception and spatio-temporal analysis communities on the other hand, will benefit all communities.

The **awareness of Visual Analytics** will be increased by disseminating results to **decision makers**, especially politicians and EU agencies (Environment, Statistics, Economics, etc.).

# **Application Areas**

Visual Analytics is a highly application oriented discipline driven by practical requirements in important domains.

In the **Engineering domain**, Visual Analytics can contribute to speed-up development time for products, materials, tools and production methods by offering more effective, intelligent access to the wealth of complex information.

**Financial Analysis** is a prototypical promising application area for Visual Analytics. Analysts in this domain are confronted with streams of heterogeneous information from different sources available at high update rates, and of varying reliability.

A modern society can be regarded as a complex system of interrelationships between **political decisions** and economic, cultural and demographic effects. Analysis and visualization of these interrelationships is promising in developing a better understandings of these **socio-economic phenomena**, and to arrive at better political decisions.

Public Safety & Security is another important application area where Visual Analytics may contribute. Analysts need to constantly monitor huge amounts of heterogeneous information streams, correlating information of varying degrees of abstraction and reliability, assessing the current level of public safety, triggering alert in case of alarming situations being detected.

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