Coordinated Graph Visualization

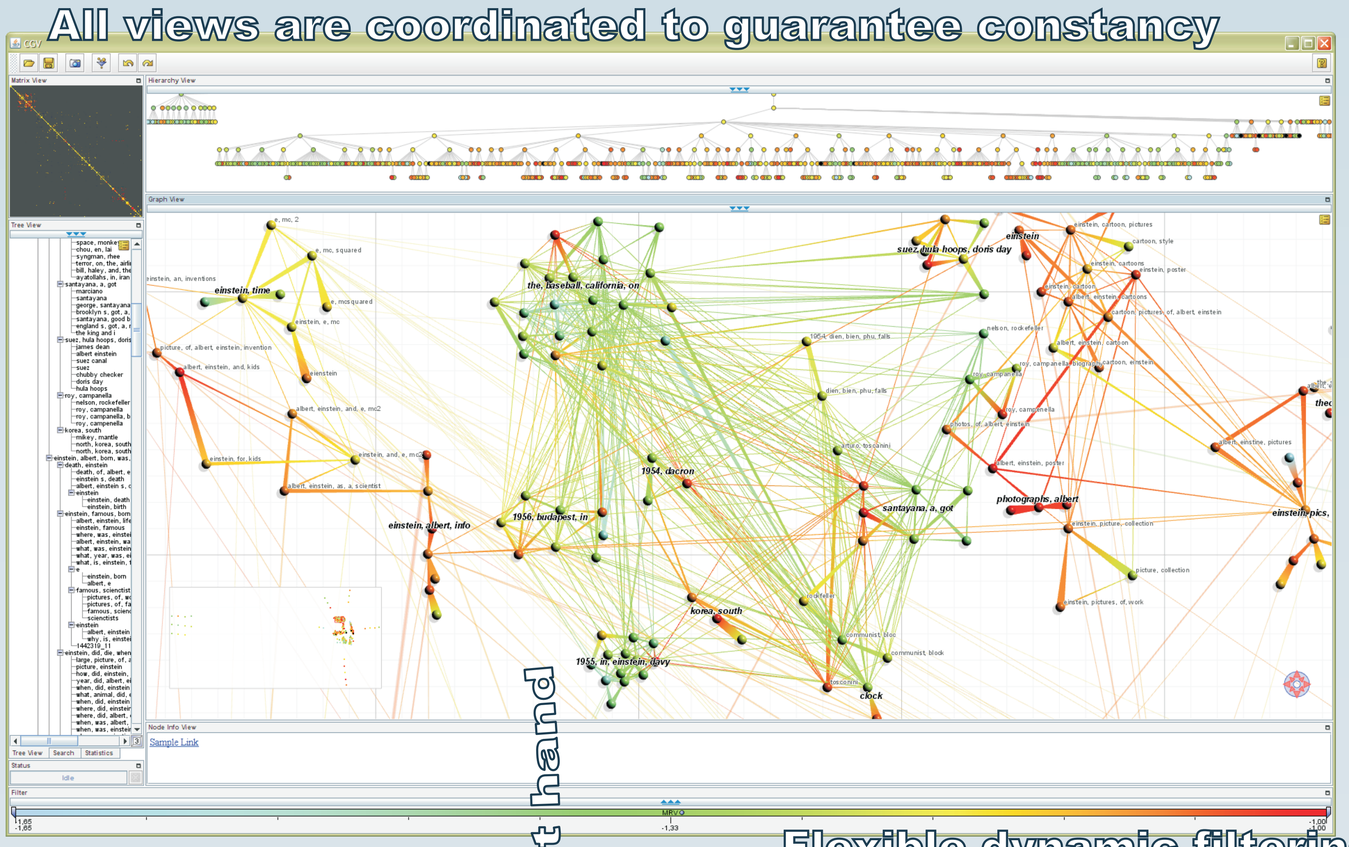
Goal: *Visualization of large graphs*

Challenges:
① Scalability
② Flexibility
③ Interactivity

Presented Approach: *Application of Model-View-Controller (MVC) concept*

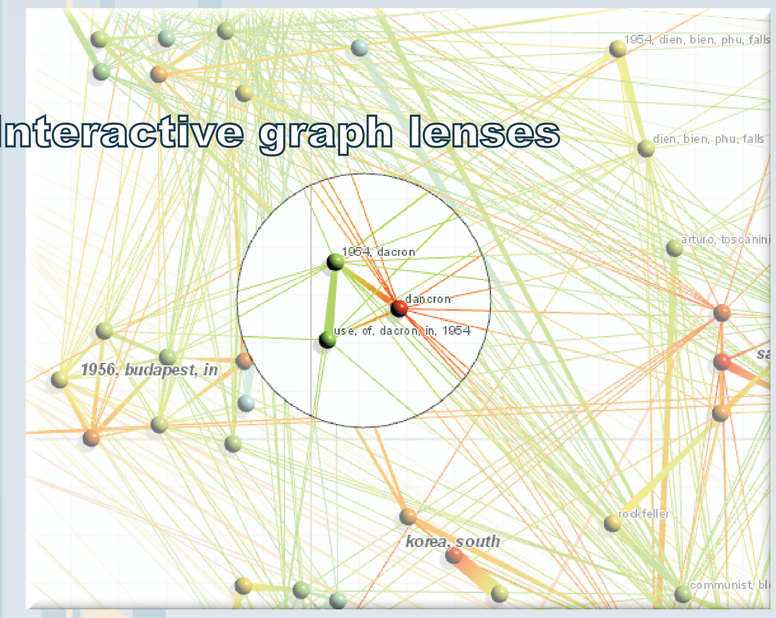
❶ (M) Hierarchized graph
❷ (V) Multiple coordinated dockable views
❸ (C) Rich set of interaction techniques

All views are coordinated to guarantee constancy

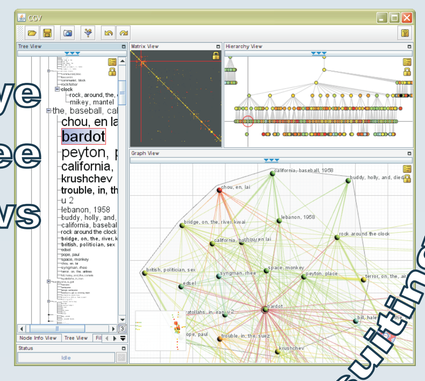


Flexible dynamic filtering

Interactive graph lenses

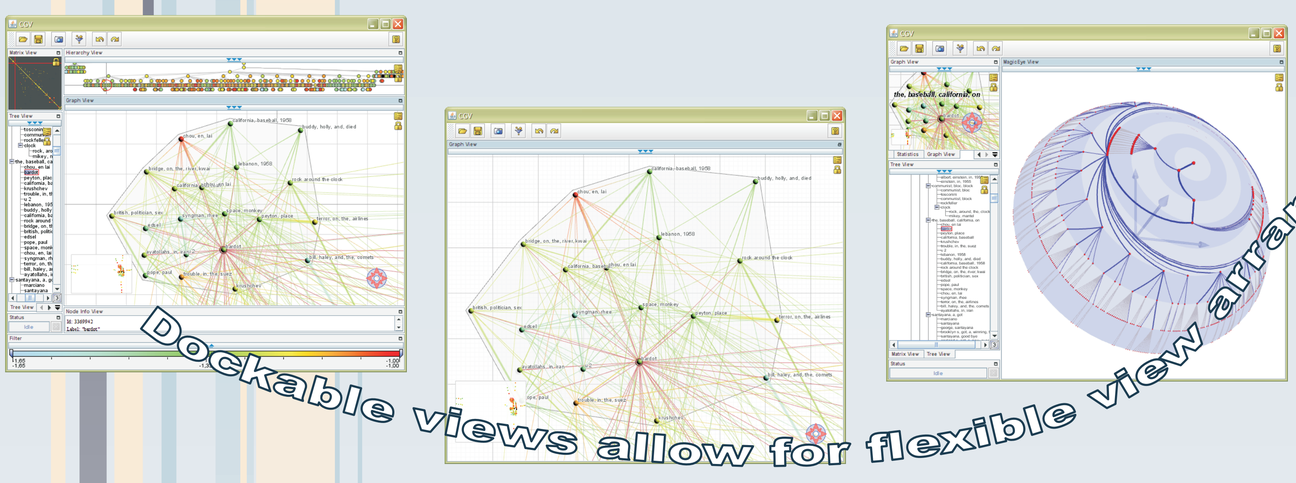


Fisheye tree views



Supporting the task at hand

Dockable views allow for flexible view arrangements suiting



❶ -Model- Hierarchized graph

- *Large graphs* are processed according to (Abello et al., 2006)
- Result: *data structure* that integrates underlying graph, hierarchy tree, abstractions of graph (i.e., anti-chains), and associated (multi-variate) data

❷ -View- Multiple coordinated dockable views

- *Multiple views* help to convey the different aspects of the data: hierarchy tree, abstractions of graph, data associated with nodes and edges, labels, meta data
- By *coordination* it is guaranteed that all views are consistent
- View *docking* allows for highly flexible arrangement of views, which can be stored and reused

❸ -Controller- Rich set of interaction techniques

- *Interaction* is key to successfully gaining insight into the data
- Easy view navigation based on *edge traveling*
- *Graph lenses* for locally confined analysis tasks
- Flexible *dynamic filtering* mechanism

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