

Prof. Dr. Uwe M. Borghoff

Round Table

Bonn, 12. Juni 2008

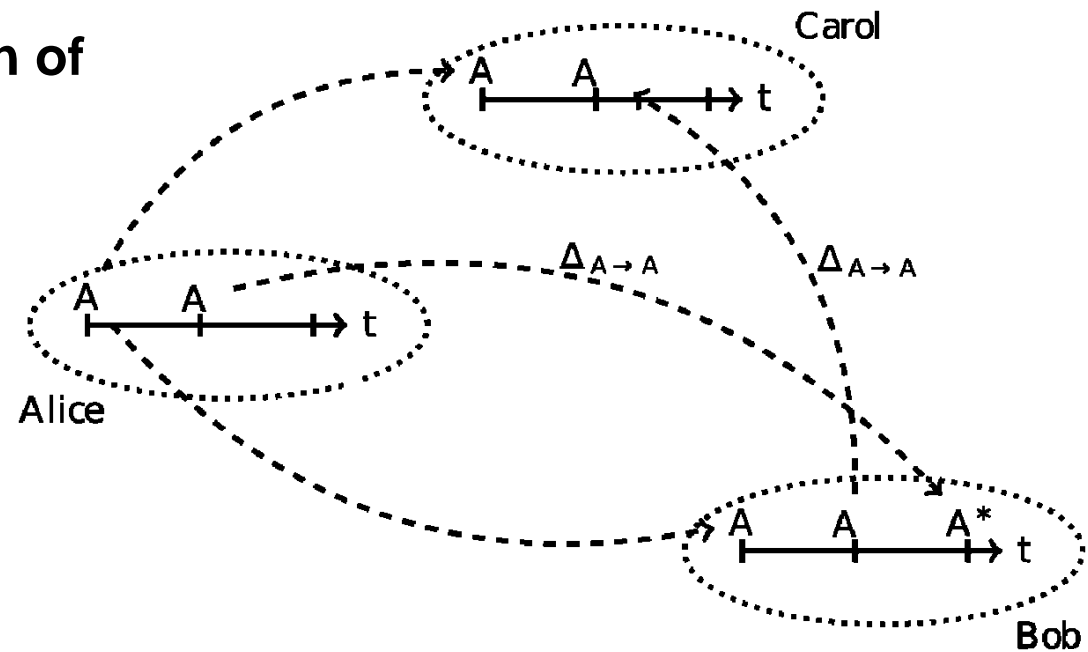
- **What is a Dokument?**

- A document is an abstract container that stores information.
- It may be generated statically or dynamically, it may be transient or persistent, its encoding may be time variant.
- Documents may include static or dynamic hyperlinks, thereby permitting virtual documents, and also making available structured collections of information on which to anchor automated reasoning, such as promoted through the Semantic Web.
- Furthermore, document technologies like XML are having a profound impact on data modeling, in part because of the way these technologies bridge and integrate a variety of paradigms.

- Dynamic Documents
 - Web Pages with generated content
 - Streams
 - Data base access
 - Wrapper techniques
 - Through collaboration

- **Distributed Collaboration**

- No linear time-model
- Ad-hoc propagation of changes
- Changes must be merged frequently

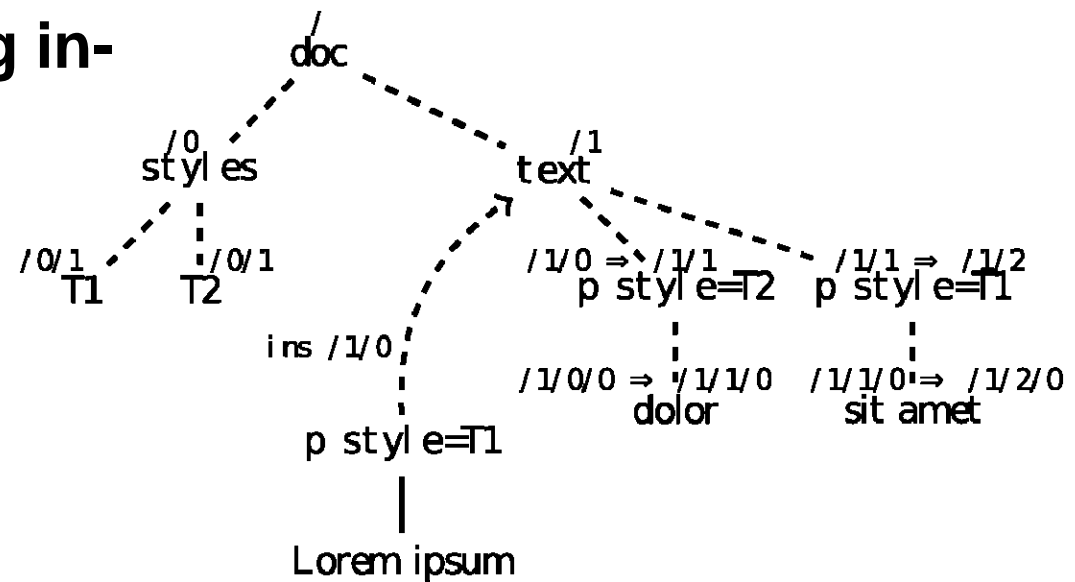


How to find XML nodes moved w.r.t. its stored position?

- **The context of a node is used as reliable source of information**
- **The context can be stored using XML hashing techniques**
- **A weight function measures the quality of a possible match depending on the number of matched nodes**

Tree update problem

- Re-labeling an XML tree is cost-intensive
- It is avoided using in-memory pointer representation



- Problem comparable to Software Engineering
 - Document lifecycle
 - Media breaks
 - Non linear time
 - Partial order
 - Document packaging and archiving issues
 - Dissemination & distribution
 - Access