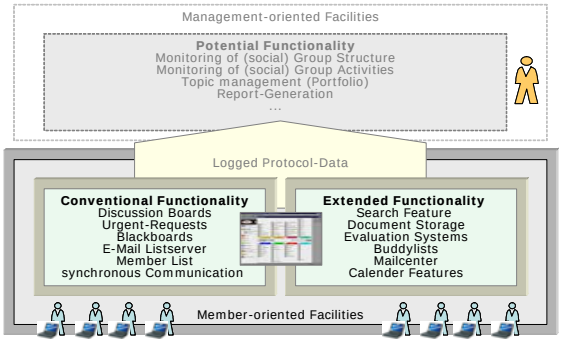
Technical Description

Standalone Add-on for Community Software Applications. For the support of large and geographically separated groups, Community Software usually offers a compilation of features. Traditional features are discussion boards, urgent request facilities, blackboards, e-mail listservers, or membership directories. Advanced Applications may additionally offer synchronous communication spaces like chats (text or video-based), document storage, evaluation systems, buddylists, alert agents, mailcenters, and calendars. What is missing is transparency about the actual structures and properties of these groups. To answer this need, the Commetrix Project develops an application, which is able to connect to common sources of eletronic communication (networks). The rich archives are imported and analyzed using statistical analysis, social network analysis, and text-based analysis. For the moderator, researcher or member of a knowledge community, Commetrix provides manipulatable 2D and 3D visualizations which are based on graph visualization algorithms like 3D weighted Fruchterman-Reingold etc. Various filters allow for visualizing EGO-networks (limited set of authors), topical sections etc. over time !

A set of metrics is developed which allows analyzing the properties of the communication network, like how diversified or dynamic it is, who the most important network positions are etc.



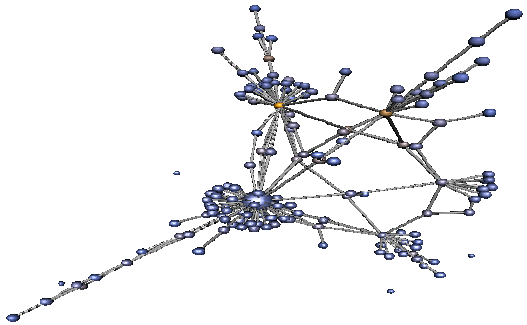
Standalone Add-on
for current Community Software

Benefits for Moderators

- Identify active people or experts
- Identify hot topics and areas of extensive discussions
- Create relationship networks with tight connections and transparent visibility of members within the network
- Foster and Maintain participation & valuable feedback
- Analyse Contents and follow meaningful Dialogues
- Integrate isolated Participants
- Discover and Improve inefficient parts of the network

COMMETRIX

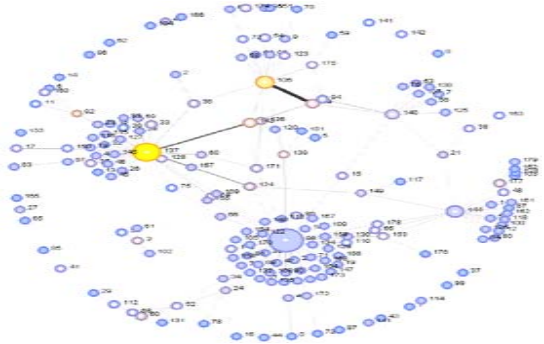
Visualizing Virtual Communities



What is it? Commetrix is a software application to support Community Moderators, Members, and Researchers. The functionality covers the

- Import of existing virtual communication over the Internet
- Extraction of underlying electronic communication networks and knowledge communities
- Visualization of community properties, structures and dynamic behaviour
- Evaluation of important properties using a qualitative and quantitative measurement system.

www.commetrix.de



Features

- Supports individual Connectors to virtually any electronic communication net
- Imports NNTP-based standard Newsgroups
- Imports MBOX-based Unix E-Mail Archives
- Updating existing Imports with new data
- Extracts Keywords from Discourses
- Calculating Network Analysis Measures
- Adds editable Author and Relationship Properties (like Affiliation, Evaluation)
- Allows for Content Coding and Visualization
- Renders 2D and 3D Networks of Communication
- Rotates and Zooms the Network Graphs
- Allows for time-based observation of growth of the network
- Clusters your network into groups
- Picks Authors to observe their Author Properties
- Allows for limiting Visible Authors to generate EGOnets and partial networks

Related Research Papers

Trier, M. (2005): IT-supported Visualization of Knowledge Community Structures. Published in the Proceedings of 38th IEEE Hawaii International Conference of Systems Sciences HICCS38, Hawaii, USA, Jan 2005. PDF online.

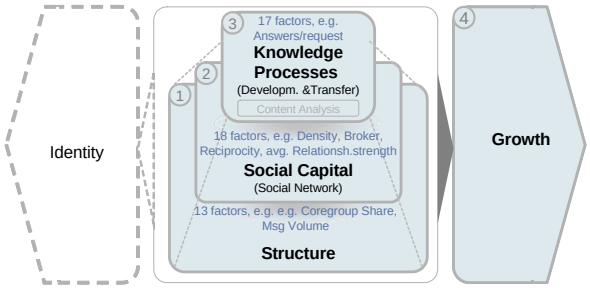
Trier, M.(2005): A Tool for IT-supported Visualization and Analysis of virtual Knowledge Communities. Published in the Proceedings of WI 2005, Bamberg, Feb 2005.

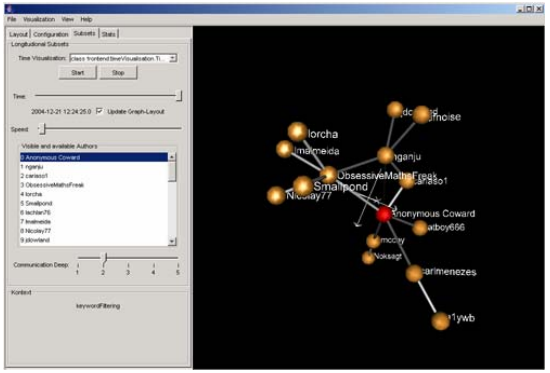
Trier, M. (2004): IT-Supported Monitoring and Analysis of Social Networks in Virtual Knowledge Communities. In: Proceedings Sunbelt XXIV Conference, Portoroz, Slovene 2004. Abstract online.

Measure and Evaluate

We are developing a measurement system for indicating social capital, knowledge processes and growth.

Overview about Measur ement System





The User Interface

Commetrix is an ongoing project. If you should have some inspiring idea of how to extend the tool or if you want to simply apply the tool to investigate an electronic community, please contact....

Contact

Matthias Trier
trier@sysedv.cs.tu-berlin.de
Technical University Berlin , Germany
Institute for Business Informatics

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