Hypermedia Support for University Activities

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Abstract

Hypermedia has become one of the most dynamically developing and widely pursued fields of computer science. The range of applications of hypermedia systems — in many academic and non-academic areas — is continually growing. This thesis addresses hypermedia support for university activities.

During the last few years, many universities have started to build up a large campus-wide information system (CWIS) based on a networked hypermedia system connected to the Internet. In this thesis a more advanced form of CWIS, the so-called University Transaction, Information, and Communication System (UTICS) is introduced. UTICS is based on the distributed hypermedia system Hyper-G and additional stand-alone hypermedia systems. UTICS was designed to serve as framework for a collection of research efforts, aiming at exploring advanced applications for hypermedia systems in universities.

The research covered in this thesis includes the following areas: (i) advanced hypermedia presentation systems for public relations exercises, including virtual walk/fly-throughs and interactive telewatching, (ii) automated preparation and updating of hypermedia documents, (iii) support for teaching, in particular the authoring and distribution of interactive courseware, (iv) publishing of electronic reference material, (v) hypermedia support for the organization of conferences, and (vi) future evolution of large-scale hypermedia systems.

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