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Call for Papers - Abstract Submission for the stream dealing with “how to integrate intelligent technologies into existing social constructs and legal frameworks”

Audio-Visual Requirements: data projector

Preventing Information Overload in Computer-Assisted Legal Research: Ranking Austrian Supreme Court Cases According to Legal Relevance

The progress of Computer-Assisted Legal Research (CALR) services like **Westlaw and LexisNexis** has brought about an **ironic situation**: More legal texts are available to researchers today than ever before, but at the same time those researchers are constantly in danger of “**information overload**”: Without **ranking mechanisms for relevance**, the bulk of potentially relevant texts can make effectively selecting information and accurately using it impossible.

The **developments in Web search** since the late 1990s provide the jumping-off place for this paper, because in Web search efficient ways of supporting users in making the necessary information selections have been found. Today, the “**scale-free**” **network structure of the World Wide Web (WWW)** provides the basis for **ranking algorithms** which use the **link structure** of the Web to assign a relevance score to each indexed website.

Compiling and processing only **freely available data** from the Legal Information System of the Republic of Austria (RIS), I construct a network of all **Austrian Supreme Court cases since 1985** (more than **100,000 decision full-text and headnote documents**). I show – for the first time - that this network is a scale-free one, which by itself already suggests further looking into the possibility of using Web search ranking algorithms in CALR.

I then turn to **traditional indications** of impact concerning (Supreme) Court cases, including their publication in an **official legal reporter** or high citation counts in **annotated codes**. As there is a skewed distribution of traditionally identified high-impact cases within the network, I prove the **general feasibility of using Web ranking algorithms in CALR**. Put differently, network analysis of free sources makes it possible to **automatically** relevance-rank Austrian Supreme Court cases in a way that is in line with traditional **paid-for legal research**.