Capturing of Information about Knowledge Document and Learning Resource Usage

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Metadata about learning resources and more so about knowledge documents, like slide presentations, papers or reports, are sparse and – if at all – generated by authors only when the document is created. When changes occur or the document is reused by other authors the metadata are seldom updated accordingly.

Thus, there are various approaches that try to generate metadata automatically. One promising approach is to automatically generate metadata from actions users naturally take on learning resources and knowledge documents including editing, sharing and using. Systems like CAMS (Contextualised Attention Metadata System) do this by tracking and capturing the attention a user gives to different applications and documents. The captured information can then be used to model users or learners and support the retrieval of learning resources and knowledge documents.

However, we think that reuse – a key aspect in the authoring of knowledge documents and learning resources – is underrepresented in existing CAM approaches and the existing CAM scheme. The LIS.KOM framework for capturing, management, and utilization of lifecycle information, developed by members of the Knowledge Media Group at the Multimedia Communications Lab, focuses on capturing relations between documents or resources emerging from reuse processes. Therefore the authoring behaviour in different systems needs to be tracked. Systems currently supported by LIS.KOM include "docendo", an open source learning content authoring and management system, and Microsoft Word and PowerPoint. Since the information captured in the LIS.KOM framework adds nicely to attention metadata captured by other existing approaches, we developed a scheme which is transferable to the Contextualized Attention Metadata scheme.