NID: A new powerful tool for information and communication

NID is the abbreviation for Networked Interactive Digital Material. NIDs (or: NID-Books) are files (PDF, Word, PPT, Text ...) saved in a common international format, which allow easy reading but also interaction with the material presented. This is done by adding additions only for yourself, for a defined user group or for all other users. Communication with other users, experts or the management group who makes digital materials available is possible. The digital materials can be supplemented or replaced by new versions at any time. The supplements added by the user can be links to anywhere on the Internet, or pieces of text, images, clips, maps, etc.

Some of the possibilities of the NID books

--- NID is a completely new approach: So far, digitized documents and books have remained isolated objects without the possibility to add to them at will, add notes, ask questions, point out problems (anonymously if desired) or share content with other users and experts in to communicate a discussion (which can consist of just a question and an answer).

--- With NID, all material that is on the Internet can be seamlessly integrated. In an NID library, documents can be linked to other documents or their parts, creating a network of interactive resources from a static collection.

--- Whoever provides information can find out what users think, what they want or what problems they have with certain aspects. The usual FAQs (more than 80% of which do not provide the answer to the question one is looking for) are replaced by explicit questions with answers: an overview of the relevant "dialogues" is listed.

--- When using NIDs in lessons, any existing e-learning modules, tests, etc. can be integrated. The users can support each other or point out important aspects. It is possible to make information visible only to a certain group. Certain aspects can only be discussed with familiar people or questions can only be asked to a specific group.

--- NID documents are searchable in full text. They can also be combined in groups and are then all searchable with full text at the same time.

--- There are two ways to use NID:

(a) In the case of very large stocks, the documents are installed on a separate NID server, using PDF or other file types (possibly also obtained by scanning with subsequent OCR) as a starting point.

(b) When using information for members of an organization or for customers, you can use an external server, as with other cloud services, and you have nothing to do with the hardware or with the installation of any software. The institution can upload documents itself, or the operator of the external NID server can do this. All information is protected by a password system so that only authorized persons have access to certain information, annotations and discussions.

--- Each NID document or each NID page can be assigned keywords (metadata) that can be used for the search.

--- The links inserted in an NID document are indicated by colored outlines. They enable practically unlimited "wanderings" through the digital world and today's digital knowledge.

Some more features of the NID system

--- A table of contents can be created for each document or a group of documents so that it can be called up at any point in the document.

--- It is possible to change the appearance of a page (brightness, colors, enlargement or reduction, moving a section of the page, etc.) as required.

--- One extract any part of any page, for example to send it by e-mail.

--- One can put two pages from documents in the international IIIF standard (also from other servers if they are based on IIIF) next to each other

--- In contrast to images in PDF documents, images of any resolution can be integrated and therefore zoomed in deeply: this is e.g. often necessary for technical drawings or maps.

--- Links and comments can be pointed out with a border of your choice in color and thickness. Areas marked in this way show information with "mouse-over", e.g. images, texts or links to any Internet content, including videos, audio files or interactive applications.

--- NID documents can also be made searchable for image elements (!). If you then search e.g. for "tie" you get all pages where a person with a tie is visible.

--- In preparation is the possibility to save books in such a way that pages with concise phrases automatically (!) refer to pages in other books with similar phrases. This and the aforementioned property is made possible by the use of artificial intelligence methods that are further refined over time.

--- Operators of digital servers repeatedly regret that they do not receive any feedback from users, but in the best case only know how often and for how long a page was accessed. With NID, users can send messages (even anonymously), point out errors or additions, or invite a discussion on every page.

--- NID can be used for documents and book collections of any size. NID can serve to improve the flow of information within the company, but it can also complement or even replace distance learning, whereby special tools such as different types of quizzes are available for this purpose: quizzes that point out that and which additional material should be studied, but also quizzes that test understanding and are therefore can b used to evaluate the performance participants.

--- A test run with NID is easy and inexpensive. If there is a server that can be accessed via the Internet (a better PC is sufficient), NID installs the software and up to 30 documents, which can also be large books or manuals, at low cost. Of course, you don't need your own server for the aforementioned cloud service.

--- For demos, see a mini-discussion page, for example
 https://nid.iicm.tugraz.at/Home/ViewBook/230/8/view
 or https://nid.iicm.tugraz.at/Home/BookDetail/243   or a small library at https://nid.iicm.tugraz.at/

--- Further additions are in preparation. Contact: hmaurer@iicm.edu.