The Balance Knowledge Management Model – an Approach to Anchor Sustainability in Mass Media by the Web Based Tool B°CON

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Abstract

The research project “balance – sustainability goes mass media” examines, how the admittingness of the concept of sustainable development can be increased in a huge part of the population by placing it in mass media: how can the average consumer inhibitions against a sustainable lifestyle and management be overcome? As major instrument to the transfer of sustainability topics made of science, economics and society into mass media, a knowledge pool was conceived and implemented in shape of a web-based content database. The database B°CON fulfills the function of content providing and represents a platform, on which experts from the sustainability community and representatives of the mass media can come together on a virtual information market, and exchange their knowledge.

1. Why the B°CON tool is not only a theoretical concept

The content database B°CON was conceived and implemented in the context of the research project “balance – sustainability goes mass media” promoted by the German Federal Ministry for Education and Research (BMBF). The project examines, how the admittingness of the concept of sustainable development in broad social classes can be increased by placing it in mass media.

Dealing with editorships of mass media within the balance project context, a surprising aspect was discovered: One reason why there is not much sustainability in mass media is, that editors often don’t have any experience with that topic; by all means there is a will to report about sustainability. Last summer there was a special mini series called “Wunderland Deutschland” on RTL II, produced by the project partner “Welt der Wunder”. The editors asked for sustainability topics, which subsequently were provided by our scientific community. Some examples can be viewed on http://www.balance-f.de. In this context the demand for a new inquiry tool evolved.

2. Technical concept: Methodical approach and results

In the context of the design of the technical concept, an analysis of the editorship structures "Welt der Wunder" was accomplished. The hereby methods used, were observation and depth interview with editors. Therein as relevant instrument to the transfer of sustainability topics made of science, economics and society into the mass media a content database was identified - an additional tool for the inquiry activities for editorships, which waives the entrance barriers to specific contents. One of the most important issues, that all software products have in common, is that the acceptance of the user is crucial.

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4 The TV format “Welt der Wunder” is the pioneer in German TV science magazines. Actually it is broadcasted at the german TV station RTL II. Website: http://www.weltderwunder.de/wdw/BALANCE/
for the success of the system. In accordance with the generic Technology Acceptance Model (TAM) the motivation to use a new technology is affected considerably by two factors: perceived ease of use and perceived usefulness. In case of perceived ease of use it is crucial, to implement a slim and easy to operate system regarding the target group. An affecting aspect with the perceived usefulness is the data quality of the information held ready in the system, in particular in the quality dimensions accuracy and consistency. Both dimensions can be corresponded to, if the own know-how is maintained into the data base system exclusively by an elected circle of knowledge carriers. Besides that the hosting of footage material, in form of picture and video documents, is a critical success factor regarding perceived usefulness. The data base thus fulfils the function of a "contentprovider" and represents a platform, on which experts from the sustainability community and representatives of the mass media come together on a virtual information market. The results from the analysis of "Welt der Wunder" were confirmed in large extent in interviews with editors of other TV formats as well as free editors.

3. The balance knowledge management model

By analysing the structures in the "Welt der Wunder" editorship substantial information deficits on sides of the editorship were identified, while a backlog of information about sustainability insists on expert side.

![Balance Knowledge Management Model](image)

Fig. 1: The balance knowledge management model
(Source: own source following Nonaka/Takeuchi (1995)).

This imbalance is repaired by the balance knowledge management model.

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5 Umarji, Seaman (2005), S.2.
7 Ballou, Pazer (1985), S. 150-162.
On the basis of the transformation (externalization) of the tacit knowledge of the experts into explicit knowledge in the B°CON database, an incremental extension of the knowledge via combination, internalization and socialization (vgl Fig.1.) takes place. The major amount of the knowledge generation process is made by a man-machine dialogue. The produced knowledge is illustrated splitted in the above model in the third dimension: One part for the knowledge used by media, one part for the knowledge used.

In practice an editor needs an extended knowledge access to a topic. This extended access can only be realized by a man-to-man interaction.

Out of the presented model and the analysis in the technical concept, generic requirements are derived to the technical platform: The data base system is a data repository both for topics which concern the sustainability topic itself, and for research projects from the sustainability context. Besides the content, the data base system must also make information available about partners (contacts, experts). There have to be features for the hosting of footage material of all kind.

4. Status quo of the development and perspectives

As a first group of experts the cooperation partners of the “Öko Institut” in Freiburg were trained on the database system. The success of the training settles in a multiplicity of topics, which were maintained into the system by “Öko Institut” Freiburg. These topics were used in a film clip about saving gasoline and on the web pages of the project partner “Welt der Wunder” for example.

Fig. 2: Screenshot of B°CON – editor view on content (Source: own source).
In B°CON several roles are differentiated by an authentication on the startup site: experts, editors and administrators. The view of an editor on a topic that was maintained by an expert is shown in figure 2. The text sleeves of content are structured in heading, insetext and main part. Thus it’s much more easier for the editors to get through the topics. All information which is relevant for the topic search is made available at a glance: Footage, locations, left, contacts and texts. Each topic in B°CON is stored in a logical structure, which is invisible for the editors, by the experts group and is in such a way arranged in the total context of sustainability. The fields within the logical structure have a wide range of variety: Starting with the sustainability rules provided in the Brundland-report “Our common future”, over physical assignments (fire, water, …), via technology (regenerative energy, …) to areas of everyday life (leisure time, work, …). By this structure extended search possibilities can be realized. In the current version from B°CON specific search filter bundles were implemented which were adapted to the structures of the “Welt der Wunder” format. By a content analysis of the enterprise-internal description of the individual themes of categories in one episode, the crucial characteristics of each theme category could be identified and transferred to linkage samples in the logical structure of B°CON. A topic selection of the different theme categories within the episode is hereby callable by the click of a button. Up-to-date there are already maintained over 100 prepared topics in B°CON.

The next technical developments are the refinement of the logic structure behind the topics and the development of collaborative filters. Accompanying with it an enhancement is planned towards the Semantic Web in order to improve both the interaction of editors and B°CON and from B°CON to other systems. Besides an XML interface is going to be implemented for better binding to other portals and search systems. An expansion of the expert circle on other research establishments is planned on the non-technical development side. Parallel to that the expansion of the target group of the editors is pursued.

**Bibliography**


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Berners-Lee, Hendler, Lassila (2001), S. 34ff