

## Usability Matters

### Software development and the balancing act between design and usability

By Jörn Bodemann

Marketing departments – especially in IT – like to speak in the modern lingo about a product's innovative "Look and Feel". While "Look" refers to the design of the solution, "Feel" means usability, the quality of use. Developers of Content Management Systems and other enterprise IT solutions have to walk a fine line to meet the exacting demands of users in both areas. But in recent years a clear trend has become apparent: There is a drive towards the modern, "cool" product design where at a minimum usability takes a back seat, often to its detriment.

One example will suffice to illustrate this trend: Apple sets the standard in the design area and others follow. Microsoft, for example, redesigned its shut-down procedure in Windows to more closely resemble the Mac OS with the result that now even on Windows computers instead of a drop-down window you get a complete list of all your menu options:



Usability takes a back seat to flashy design: Windows, following Apple's lead (left), replaces the old drop-down menu (right) with a new menu window (center) for shutting down the computer

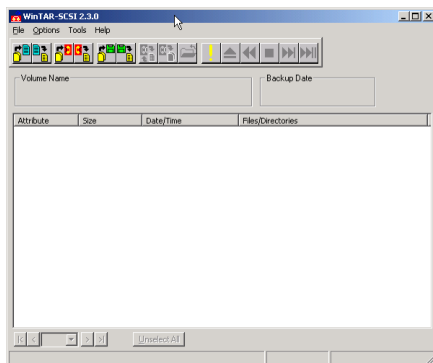
What at first appears to be an improvement in functionality – a more organized layout – turns out on closer inspection to be an improvement of design at the expense of functionality. This is because the "uncool" drop-down menu previously used by Windows users to shut down the PC would always "remember" the last action selected and suggest it to the user at the next startup – since the average user will always want to do the same thing here, in this case shut down the computer, and thus all they had to do was confirm their previous choice. For the average user it is not necessary - and makes little sense - to have to view all the available options lined up all at once side by side. In this case, the drop-down menu is much more user-friendly than the new window, which is generally perceived to be "prettier" but where you have to enter a selection each time.

### User experience = Design + Usability

What does the example reveal? Based on the design, users make instant decisions about functionality and judge the quality of a product based on the visual impression it makes. They mix together the areas of design and usability. Users of software therefore equate old-fashioned design, a user interface for example, with old technology. The result: People don't buy the product, because they're put off by the antiquated appearance, even if the

solution in question is in fact highly functional. Users act as though the design is more important than usability, and this has negative effects on the level of usability they actually end up with.

Conclusion: Developers and system integrators must always take into account the fact that the user experience is the result of the interaction of design and usability. They must be able to recognize during the design- and implementation process where there is a danger that one will be neglected at the expense of the other, so that they can make the necessary adjustments.



Old design = old technology? Old-fashioned user interfaces are equated with poor quality.

### **Influence factor: time**

In launching a new software product, a Content Management System (CMS) for example, which a company wishes to use to run its Internet and intranet site, including portal integration, there are many factors that will affect the degree of usability that is ultimately achieved. But neither the proposed designs nor the selection of an implementation partner are ultimately the decisive factors. The greatest influencing factor on usability is time. If the project plans are unrealistic, then the pressure to meet deadlines will ultimately outweigh quality of use in the interaction with the system. Faced with intense time pressure, developers and project teams can easily lose sight of usability for the editors who will actually be working with the CMS. The online editors for their part cannot judge how much or little time will be required to noticeably simplify or optimize work processes in the system for them because they don't have the specific technical training. To find out where the usability deficiencies are, it thus make sense to have the project tested by usability experts four to six weeks after launch and analyze how the editors work with the CMS. This way it becomes clear where an adjustment to a template, e.g. through a useful preselection- and default setting here or there, might be able to improve user-friendliness and thus efficiency.

### **Limits to greater user-friendliness**

Usability is user-specific. The users have to understand the concepts that enable user-friendliness in order to be able to adopt them and use them. However, the skill and knowledge of users vary greatly from person to person and for that reason users will also often judge the usability of a system very differently – while some users will get up to speed very quickly, others will be dissatisfied and find the system hard to understand, in which case they will

not be able to understand what the correct procedures are nor the full extent of functionalities available to them which might simplify their work and help them reach their objectives more quickly. In other words, they lack the necessary conceptual knowledge.

A simple example: The familiar isosceles triangle with one tip pointing to the right which adorns the start buttons on so many technical devices: ▶. Implied is the concept of playing a tape device, which originates from the days when there were tape recorders and where the physical device actually played in the direction indicated. This concept of the play direction is associated with the triangle and is so deeply internalized that even in other situations far removed from the original context it is generally recognized as a start symbol - even when the device in question does not play a reel from left to right, an MP3 player for example. The fact that the symbol is used in such widely different contexts - as with modern ovens, for example, where the control panel is activated using the triangle start button - suggests that manufacturers take it as a given that the symbol is well known and that users will be able to make the connection and know how to start the oven. But someone who is unfamiliar with the symbol, perhaps because of having little experience in using leisure electronic devices, will not know how to operate the oven or other devices with this type of start symbol. Such a user must first learn the concept. This results in the following: The usability of a system or product can only develop as quickly as the users are able to grasp concepts.



Play-button used in different context: oven instead of iPod.

### **As simple as possible**

But what are the implications of this for the usability of CMS solutions? As a manufacturer of user-friendly Content Management Systems, we're required to make the solution as simple as possible. But no simpler either. We make sure that our product makes the work of editors as intuitive as possible, but there are limits to how intuitive a professional solution can really be. The CMS handles highly complex processes and is deeply integrated in the IT infrastructure consisting of enterprise portal, multiple databases, online shopping systems, CRM solutions, etc. It manages content for many thousands of pages in countless languages and publishes content that is personalized and adapted to suit the needs of specific countries, all the while observing company-wide corporate design requirements. In other words, there is a point beyond which the system simply cannot be simplified without

compromising functionality and performance. A certain level of conceptual knowledge is thus required of users in order to use a professional CMS – even if the solution is highly intuitive. Without learning the concepts, a software program can even seem counter-intuitive. In training sessions, users - editors, template designers, integrators - are thus trained to use the system efficiently.

Extensive product documentation also conveys the basic conceptual knowledge. It is also important to read the documentation thoroughly – which many users do not do, because they assume that as "pros" they already understand all the functions or can grasp them intuitively. And if they can't figure the system out, they can always blame the software for the poor usability. But if they have read the documentation and still don't understand the system, they might themselves to blame.

### **Conclusion: Usability does matter!**

Particularly in view of the fact that users increasingly place design considerations ahead of quality of use and/or see the two areas as the same, manufacturers and implementation partners of software solutions must constantly reflect on what is really the usability value when considering prospective designs and they need to analyze how they can achieve maximum user-friendliness without neglecting the "look". Likewise, providers cannot ignore the conceptual knowledge of users - innovations that are based on new concepts must be taught and must be learned so that users are able to recognize improvements in usability and thus benefit from them.

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### **About the Author**

Jörn Bodemann is cofounder and CEO of e-Spirit, the manufacturer of the high-end content management system FirstSpirit. As Chairman of the Board, the qualified computer scientist's areas of responsibility include sales, marketing and PR, professional services and product and business development.

### **About e-Spirit**

e-Spirit is the manufacturer of FirstSpirit<sup>TM</sup>, a high-end content management system (CMS) for companies with high expectations of their solutions. e-Spirit is a reputable, internationally-oriented product supplier with global brands in all sectors. International clients such as Pentland, Airbus, Trelleborg Sealing Solutions, Commerzbank, OTTO and the Schaeffler Group are all using FirstSpirit<sup>TM</sup> as a CMS platform within their IT infrastructure. FirstSpirit<sup>TM</sup> is increasingly becoming the integration platform of choice, replacing existing content management technologies in large businesses.

e-Spirit was founded by former members of the Fraunhofer Institute for Software and System Technology (FhG ISST) in 1999. e-Spirit is headquartered in Dortmund with branch offices in Europe located in London, Zurich, Vienna, Berlin, Cologne, Hamburg, Munich and Frankfurt.