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# Where Is the ‘Like’ Button? Going Beyond Usability when Designing for and with Teens

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**Abstract**

Today’s teenagers do not only present an age group neglected in HCI literature [8]. Current teens have grown up with omnipresent digital media and Internet access and feel very comfortable navigating through social software applications. This imposes challenges on established HCI methods such as usability testing. In our case study, we report on a usability workshop with young apprentices, which we enhanced by co-design methods to acknowledge the teenagers’ expertise in terms of digital media usage.

**Author Keywords**

Design Methods; Teenager; Social Software;  
Participatory Design; Education; Digital Media;

**ACM Classification Keywords**

H.5.2 [Information Interfaces and Presentation]: User Interfaces - User-centered design.

**General Terms**

Design, Human Factors

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### **Educational System in Germany (part 1)**

The German educational system offers two main school graduation possibilities. Students may attend secondary school for 8-9 years and receive a diploma for university. The most common way is to leave secondary school already after 5-6 and apply for an *apprenticeship* at a company. Apprentices receive a dual education, which bases on a practical training on the job approach. They go to work on a daily basis and are regularly exempted from work to attend full time vocational school. Apprenticeships last 2-3 years, are practice based and available for a large variety of professions e.g. construction worker, hairdresser, mechanist, management assistant for office communication, retain salesman.

### **Introduction**

Teenagers are a diverse group, which differ not only by age, but also by contextual factors such as the national secondary education system. In our research, we focus on 15-20 year old apprentices (see side bar for information about the educational apprenticeship system in Germany). Our research is part of the project expertAzubi, which aims to initiate informal learning experiences for teenagers. A social software has been developed enabling apprentices to connect with experts and to exchange experiences. The software was launched at an early development state and has been incrementally developed with the target group since summer 2011. Our goal is to find out, how digital media need to be designed to engage teenagers in informal learning. This has two dimensions: The criteria of the actual social media software and the design process with teenagers itself. In this paper, we focus on the latter and discuss our design process. Our approach is to recognize apprentices as design partners [1] and involve them from the very beginning. Throughout the design and development process we have conducted eight workshops with apprentices where we employed several design and usability methods [4][5].

We soon found that traditional methods combining think aloud [6] and note-taking by researchers did not work for us, because the participants were simply too quick, virtually clicking faster than we could follow them. To respect teenagers as design partners we decided against invasive monitoring methods such as screen-capturing. In half of the time scheduled for the workshop, they had not only explored the functions we had asked them to, but the whole platform. Some performed other activities simultaneously, like browsing online marketplaces. Severe usability issues did not

appear. The participants acted entirely natural, easily navigating through and acting within the web2.0 framework. Compared to our previous experiences in such workshops with adults, the adolescents acted differently in terms of multitasking and media literacy and showed much more confidence in working with a web platform.

Our understanding is that usability is not an issue with this target group of fluent web actors (and contradicts in some issues with [7]). For the next usability workshop we revised our concept to combine a usability session with a paper prototyping method we had successfully applied in earlier design workshops. This paper prototyping method combines dot voting on screen printouts of the website with scribbling and discussion. Our dot voting approach utilizes the Facebook like/dislike metaphor [5].

### **Our Case Study: More Than a Usability Workshop**

In this 2-hours workshop, 8 apprentices (4 female, 4 male) in training to be merchants in wholesale and foreign trade participated. The workshop took place at the company, in their familiar office space. None of the apprentices had used the expertAzubi platform before. The workshop started by an introduction into the goals of the workshop. The researchers intended to establish an informal atmosphere through the following measures: wear casual fashion, gather around a round table, introduce with first names, assure data and comments will be treated highly confidential, make clear this is not an exam situation, there is no right and wrong, explain that the true goal is to challenge our system and value the participants' opinions about it.

### **Educational System in Germany (part 2)**

Apprentices have to write weekly or monthly reports on their work assignments. The reports are besides school tests a mandatory requirement for their final exam and are usually written on paper. Every apprentice is assigned to an instructor to refer to with questions about the apprenticeship. The instructor usually is a superior at work and needs to review and sign the reports. The report functionality part of our system not only allows to write these reports on a computer, but also to add comments and to share it with the instructor online, and to manage their entire collection of reports and their status.

Then, groups of 2-3 apprentices were provided with laptops and were asked to “think aloud” while performing some tasks on the social software, while the researchers remained silent taking notes. The first task was to log in as user role *apprentice* and write a portfolio report about their work assignments during the last month (see left side bar). Afterwards they were asked to share the report with an instructor. Then they changed roles several times: logged in as *instructor* and gave comments on the report of another group, logged in as *apprentice* again to perform revisions, and logged in taking the *instructor* user role again to accept the report.

While doing the tasks, the participants used the software as a normal tool like pen and paper and did not show any discomfort or disorientation. Among the teens, a conversation started about *what* they were writing, and revealed a lot of information about their work, their attitude towards the portfolio reports, their relationship to the instructor. They were very much concerned about writing their reports properly as required for the exam, so *what* to write was more important than *how* to write, the tool was not an obstacle. They also started to explore other areas of the platform, looked for a “like”-button and investigated the functional differences from the user’s “dashboard” to a Facebook wall. After the session, we handed out a standard usability questionnaire (based on [1]) they filled in anonymously.

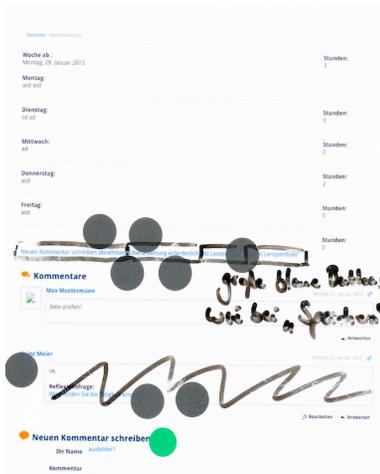
Like in the other usability workshop mentioned in the introduction, the participants acted very quickly and the note takers had trouble following. The positive results of the questionnaire confirmed our observations of the well handling.

After finishing the tasks at the laptops, we initiated a kind of prototyping unit and a round table discussion. Hard copies of the screens showing the interfaces with the portfolio report functionality they had just been using served as a starting point. The participants were asked to put sticky dots of two different colors, representing ‘like’ and ‘dislike’ onto the printouts. A discussion followed about the participants’ opinion and motivation on their choices of sticky dot positions. Suggestions and ideas could be directly drawn onto the hard copies by the apprentices themselves using markers provided (see figure1 and figure 2).

Having the printouts laid out helped facilitating the discussion and reflection on the actual interface. The drawing helped to articulate issues and solution finding. The dot voting provided a very good entry point into engaging with the general task and to develop an opinion, while at the same time drawing on their everyday practice. During the discussion, the apprentices did not only criticize or praise elements and features, but automatically brainstormed interface design ideas to improve functionality and design. They showed extreme familiarity with standard web and interface elements and functionality. However, we also found that certain less recent web2.0 principles and terms were not common knowledge among the target group, e.g. tagging and tagclouds. When discussing the interface for the *instructor* user role, they showed empathy for the older generation and recommended to make adjustments e.g. enlarging some buttons. They also suggested that we should offer a workshop for instructors about the usage of the system because those might not be fluent or comfortable in using web platforms.



**Fig. 1:** Printout of the report overview list with 'like'-dots and annotations by the teenagers.



**Fig. 2:** Printout of the report template with 'dislike'-dots and annotations by the teenagers.

## Conclusions

Our results urge the need to rethink established methods such as usability testing and consider new methods and practices in designing digital media with teenagers. We found that teenagers are very cooperative designers when treated as expert users in digital media, as in fact they *are* experts. Talking in social media terms worked very well, especially

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employing the like/dislike metaphor and the wall concept used in Facebook terminology. We suggest to recognize teenagers as experts of current web habits and—speaking in Druin’s terms [1]—to involve them not only as (usability) testers but as designers and informants. For future research, we consider involving teenagers also in designing new interaction possibilities beyond established ones.

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## Authors’ Biographies

The authors work at the research group Dimeb—Digital Media in Education—lead by Heidi Schelhowe located at Bremen University. Anja Zeising has a background in Computer Science and holds a doctoral degree for her research in the field of embodied interaction in educational informal learning settings since 2011. Her research interests include participatory design methods as well as evaluation methods for children’s and teenager’s learning and tangible interaction. Eva-Sophie Katterfeldt has received a M. Sc. in Digital Media in 2008. Besides the current expertAzubi project, she has worked in projects about children’s learning with construction kits and mobile learning at the workplace. Her research interests include design methods, tools and ways of participation for young people in the design of digital media.