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Analogies from Didactics and Moderation/Facilitation Methods: Designing Spaces for Interaction and Experience

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Things you learned in your past form a silent repertoire of knowledge. It awakens unexpectedly if triggered by something familiar or analogous, even though it seemed to be useless for future work. This provides an opportunity to cross borders back onto old ground – or even more – to synthesize the different types of knowledge from disciplined territory.

I am a cross-breed with a background in computer science and pedagogic, specialised in group didactics and moderation/facilitation methods (in particular Theme-Centered Interaction which was developed by Ruth Cohn [Cohn 1975, Kuebel 2002]). The latter used to give me a good background in social and human sciences, easing my studies within HCI and CSCW. The last years I got involved deeper with media evaluation and design, focusing on interaction design and cooperative use of media artefacts. Unexpected to me, this old background helped in explaining some phenomena encountered and to improve systems resp. media artefacts. I believe it to be fruitful to explore analogies between interaction design and group didactics and facilitation methods and will give a rough sketch of some aspects within the next paragraphs.

Interaction design is described metaphorically by some researchers as “*design of spaces for human communication & interaction*“ [Winograd 1999](see also [Crawford 2002]). The analogy is with architects who create spaces which users appropriate and fill with own life, while predetermining feasible adaptation and movement paths. Other researchers define interaction design as creation of experience: „Interaction Design is the art of effectively creating valuable, meaningful, interesting, compelling & empowering information, interactions & experiences for other people“ [Shedroff 2000]. Group didactics and facilitation methods also can be interpreted as design of spaces for interaction and learning, where people (hopefully) make valuable and interesting experiences.

A trivial example for this analogy is how the arrangement of benches in classrooms affects and predetermines possible interaction. A lecture-like classroom with benches facing the lecturer makes group-work difficult, as circles are hard to establish, moving about, changing places or doing gymnastics nearly impossible. The layout of a room creates expectations of what is expected and allowed behaviour. Therefore teachers and facilitators try to change room settings to be consistent with their teaching style or the kind of atmosphere and group processes they want to evolve. In a similar way digital systems provide a structure in which people can move about, which at the same time limits possible movements.

Many researchers stress the action in Inter*activ*ity [Crawford 2002, Shedroff 2000, Svanaes 2000]. We need to ask whether we want to produce passive, “canned” experiences as provided by movies, non-interactive animations (producing the immersion of a rollercoaster ride), or whether we want self-created active experiences. Creative and communicative activities are always experienced as engaging, worthwhile and satisfying [Shedroff 2000], therefore systems enabling creativity and communication often are a success. Reform pedagogic and adult education methods have a long history of experimenting with creative and communicative methods, as these enliven learning and lead to deep learning experiences.

Artefacts and technologies used need not be highly sophisticated. Often artefacts which are easily adaptable and rather rough provide more engaging experience than high-tech tools. It is more important what one can DO with them, not their looks. The same holds for interaction design: [Crawford 2002] pleads for the importance of talking WITH the user instead of talking TO him and the importance of providing verbs to the user. [Svanaes 2000] mentions the dramatic structure of interaction, which is experienced as a process over time. Thus interaction with systems can – just like a novel – be predictable, repetitive and follow a dramatic structure or have rhythm. Didactic or facilitation methods stress designing session structure to invite people in, introduce topics, to provide a variation of quiet and fast paced interaction or of different methods and focus points, and to create an epilogue.

From theme-centered interaction I learned about the interrelation of process, structure and trust. Carefully designed structure fosters good processes. Trust is a kind of mediating variable and also a result in this relationship. There has to be a dynamic balance between structure and free-flowing, evolving process. Too much structure fixates things, pre-structures development, leaving no space for (new) processes to evolve. Missing structure on the other hand makes people uncertain and feel insecure or confused, blocking process as well. Structure also gives group processes a direction (trajectory) by fostering certain kinds of interaction, encouraging specific topics and discouraging others. Thus structures create spaces. Structure overused can close down spaces, but properly designed, it can open spaces. Every game has structure, and we all know that this does not hinder having fun. We only need to trust the structures usefulness and sense. Whenever a group moderator excerpts structure, this is not possible without participants trusting him/her. Trust is something very sensitive. Thus structure should be made visible and its rationales explained. We also need to trust digital systems to some extent (respectively their makers) when interacting with them. If systems excerpt structure over us without us trusting in its sense, we usually do not like this. On the other hand systems that surprise and provoke us can provide an engaging use experience even though we do not necessarily understand them (for example the para-functional objects or un-useless objects of Dunne and Raby from RCA and students). Nevertheless such systems necessitate pre-trust, as we can only experience them once we open up.

Up to now I cannot give many concrete examples, as I started exploring this analogy only recently. Evaluation and re-design of the PitA-Board was the project where I first stumbled across it and where these analogies helped to understand phenomena. The PitA-Board is one variant of the Envisionment and Discovery Colloboratory developed at the Center for Lifelong Learning and Design (L3D), Boulder, Colorado. During a research visit two L3D researchers and me undertook a comparative assessment of two prototype versions of this system, aimed to support a participatory urban planning scenario [Eden, Hornecker, Scharff, 2002]. Two groups tested the systems in a role-play simulating an envisioned use situation of facilitated citizen participation. From assessment many ideas for improvement and re-design resulted. The new version of the PitA-Board was used during two workshops (with role-play) and shown during DIS 2002 as exhibit. Analogies with facilitation methods in this context were especially salient, as the system was to support a facilitated group situation. Nevertheless researchers designing such systems usually do mostly take methods for rational problem solving and classical creativity techniques into account. We found that the system encorporated or embodied facilitation methods in unexpected ways. Seemingly trivial design decisions had high impact on group behaviour, dynamics and the atmosphere of the session.

For example we observed situations where constraints forced people to coordinate actions, and as a result, fostered group awareness and cooperation. Such constraints can consist of

shared and/or restricted resources that must be coordinated or situations that encourage reciprocal helping. From research in group dynamics it is well known that coordinating and helping tend to improve reciprocal liking and group cohesion. Such situations occurred at the very beginning of the group session and thus initiated (content-neutral) cooperation, which may make people more willing to continue cooperating when it affects more important issues. Constraints requiring coordination and sharing of resources thus embody facilitation methods fostering cooperation and structuring group processes. Phases of the role play which we had believed to be mainly important for making people learn to use the system proved to be highly important for the atmosphere of the session. Early playful phases of exploring system behaviour fulfilled the dual role of appropriating system and physical space and producing a lively, curious atmosphere. When such phases were missing, participants seemed hesitant of touching the system, showed short, reduced gestures only, and did not get as deeply involved in the role-play. We also found that groups demonstrated shared ownership of solutions by shared drawing, in our case handing over pens (for sketching on a touch-screen)so that everybody had a turn. This is a feature not supported by many digital tools. We also learned, that privileged access of facilitators to system features (in our case: to drive the role-play and to activate system features) effected the powerplay of the session highly. Privileged access, invisible and unpredictable to participants, made them feel like guests only, not being allowed to "own" the system space and interact freely. In addition these facilitator actions (by mouse and keyboard) were not consistent in interaction style (tangible user interface) with the rest of interaction. When re-designing the PitA-Board, we took these insights into account and e.g. added early playful phases for exploring and appropriating system behaviour and domain representation and eliminated privileged access. Combined with several other improvements, the new version provided a much better experience and atmosphere fostering group dynamics.

How far we can find analogies between designing group sessions and designing interactive systems is not yet clear to me. Perhaps it is at a superficial level only and for certain types of systems (in particular collaborative usage), perhaps there are deeper connections – I'd hope for these to surface once we get more sensitive to such issues.

Literature

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