

MULTIMEDIA UNPLUGGED: A WORKSHOP ON LEARNING DESIGNS AT THE NEOMUSEUM, JAPAN

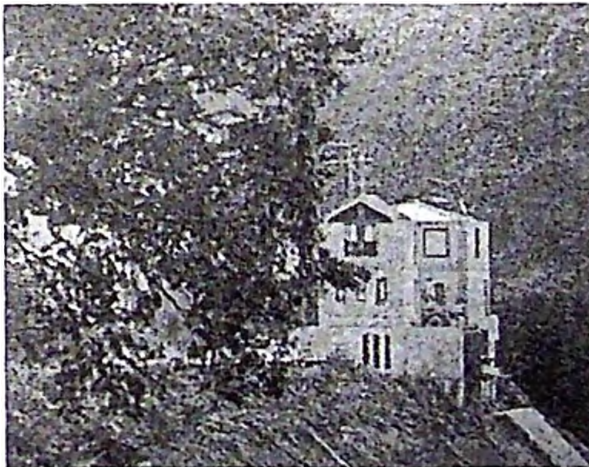
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Abstract: In Japan, we have a growing field called 'Information Education,' but people are paying too much attention to computers and the internet. That's why I am proposing unplugging the computer and thinking about the more essential aspects of learning and information design. 'Unplugged' means that technology and multimedia need not be limited to digital forms. Pencil-and-paper and traditional 'by hand' media also have important roles to play.

In the Multimedia Unplugged workshop, participants use different forms of expression and media, including paper and styrofoam cubes, freeform construction kits and a wide variety of everyday objects, like bamboo leaves and post-it papers. Through this workshop, participants can understand that each medium has its own constraints and opportunities, and have a change to rethink the roles of multimedia from new perspectives. They can then replug and thus be able to choose appropriate media-digital or physical or both-to express their ideas.

In this paper, I start with the chronological description of the two events of the multimedia unplugged workshop, and then move to focusing on the key concepts which are critical in designing learning environments.



neoMuseum

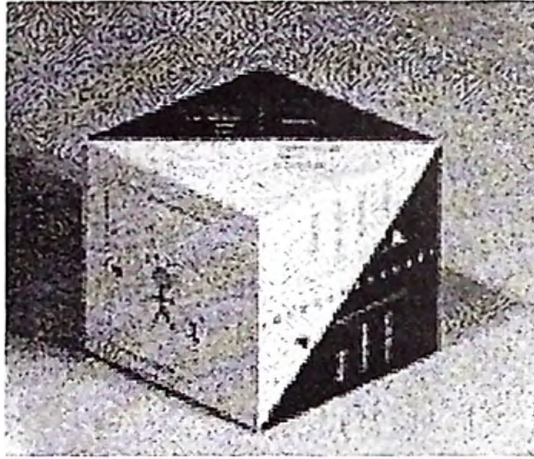
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Multimedia Unplugged Workshop

The entire Multimedia Unplugged had two main events: design atelier/workshop and exhibition. On February 6th and 7th, 1998, the atelier/workshop was held at the neoMuseum in Yoshino, Nara, Japan.

At this first event, we asked participants to reflect and express by using various and diverse media—from clay to computers— how they interplay with concepts like Learning, Media, and Design. Specifically, we invited them to consider the special relationships that they—as designers—have with materials and these concepts.

For this workshop we chose a Cube as a representation metaphor, and we asked participants to use the cube as a way to think about and project their ideas.

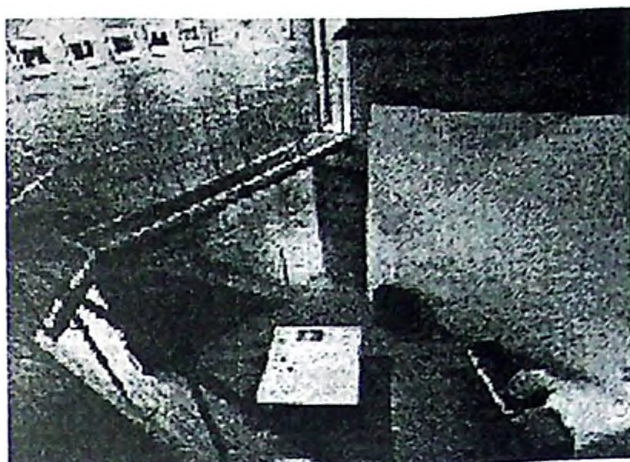


cube

At the second event—the exhibition—atelier participants displayed their work, presenting their cube construction projects to invited guests. They collaborated with and received feedback from an expanded community; and they reflected on what and how they had learned by participating in the atelier. The exhibition revealed the participants' understanding of 'learning by design'. It highlighted the opportunities and limitations of using the cube as a metaphor for learning, and it made transparent the role of the self in design.

Learning Meets Layered Space

The atelier/exhibit space at the neoMuseum serves as a 'technology of place,' a spatial metaphor for thinking and learning. The downstairs floor is the experience level—a busy place where activity happens. The upstairs balcony is the reflective level, a quieter zone for thinking and metacognition, or "thinking about thinking". As participants enter the atelier space, they are encouraged – by the design of the physical environment – to reflect on their own learning strategies and ways of thinking. The entire atelier/exhibit space is a 7m x 7m x 7m cube.



technology of place

Learning Meets Tangible Media

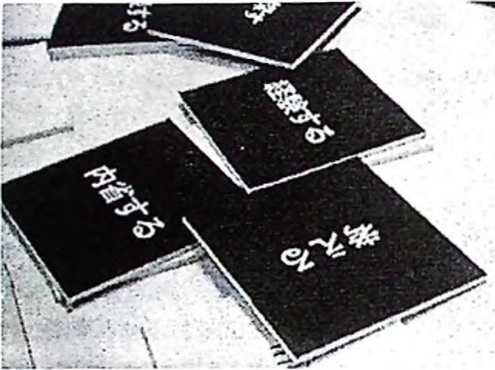
"Unplugged" means that multimedia need not be limited to digital media. Pencil-and-paper and traditional 'by hand' media also have important roles to play in learning. In the multimedia unplugged workshop participants use different forms of expression and media, including paper and styrofoam cubes, the freeform construction kit 'Toobers and Zots,' and a wide variety of everyday objects, like bamboo leaves, post-it papers, and markers. Designers of future multimedia—understanding that each medium has its own constraints and opportunities—will be able to choose appropriate media—digital or physical or both—to express their message.



media unplugged

Learning Meets Inspirational Concepts

Previously prepared kits are used as opening ice-breakers. Each kit contains items of diverse media– objects to think with: oil paints, film, floppy disks, and 'key concept words'. Using the media kits, participants work together to begin their initial exploration of the relations of media, design, and learning. The media kits encourage dialogue, self-expression, community, and reflection. Participants manipulate the concepts and objects in the media kit to build a collage for display by the end of the workshop, and later at the exhibition.



playful words

Learning Meets Metaphorical Thinking

By the end of the ice-breaker, participants are aware of the opportunities as well as the constraints of the design object. They are now ready to begin their individual design project, using the cube as a representation metaphor.

The cube was selected as a simple and highly constrained representation for learning. In the experience level, atelier participants project ideas about the relations of Learning, Media, and Design onto the simple form of a cube. Then they use their cubes to explain and exchange ideas with other participants. Next they reconstruct their cubes, based on what they have learned by interacting with other members of the community.

Learning Meets Social Construction

People learn through experience – learning by doing. We use the cube and media kits to reinforce experiential learning which has been the cornerstone of our workshop at the neoMuseum. The multimedia unplugged workshop includes spaces for experiential learning. Three kinds of activity take place at the experience level: making and building, community discussion and feedback, and display of results. The atelier also provides three metaphors of space. In



cube reconstructed

the main atelier people make things; in the media café they discuss and get feedback regarding their cubes and their projects; and in the theater they present their ideas and projects after developing them.

Learning Meets Reflective Experience

Activity with thought can lead to meaningful experience. Throughout the workshop, participants reflect on what they have been doing. However, there is also a spatial metaphor for thinking about their ideas. The formal place for reflection is the upper level of the neoMuseum. Here participants can take an overview of the activities on the experience level, and reflect on their own work as well as on the work of others. Following Schön's theory of 'reflection in action', reflection takes place at times of breakdown in a complex cognitive process. When participants are at a loss for what to do, they can move both literally and metaphorically to the reflection level and consider their next move.



learning by doing



reflection in action

Learning Meets Convivial Community

A primary goal of the atelier/workshop is to bring together a community of learners around the theme 'learning, media, and design'. At the atelier event, they collaborate, communicate, learn, and reflect by being together. They combine the new concepts they have explored with their individual and collective knowledge, experience, and stories; they weave a tapestry from the colorful threads of their diverse backgrounds and interests. They engage their collective creative potential and their understanding of their environment.

Learning Meets Virtual Participation

During the atelier/workshop a direct mail (DM) invitation is designed, and copies are printed and sent. Tee-shirt transfers are printed on a color printer, and participants iron the transfers onto tee-shirts. They wear the tee-shirts during the workshop. Some participants build the multimedia unplugged WWW website. Other atelier sites around the world can engage in virtual participation. They contribute their own multimedia images transmitted digitally to the neoMuseum site, where they are reviewed, printed out and posted. Virtual participants also link to the multimedia unplugged website. These methods help people learn and understand, and enlarge and enrich the community of learners.

Learning Meets Virtual Studio

The World Wide Web offers the possibility for both extending the experience and the reflective levels to a wider community that collaborates through the

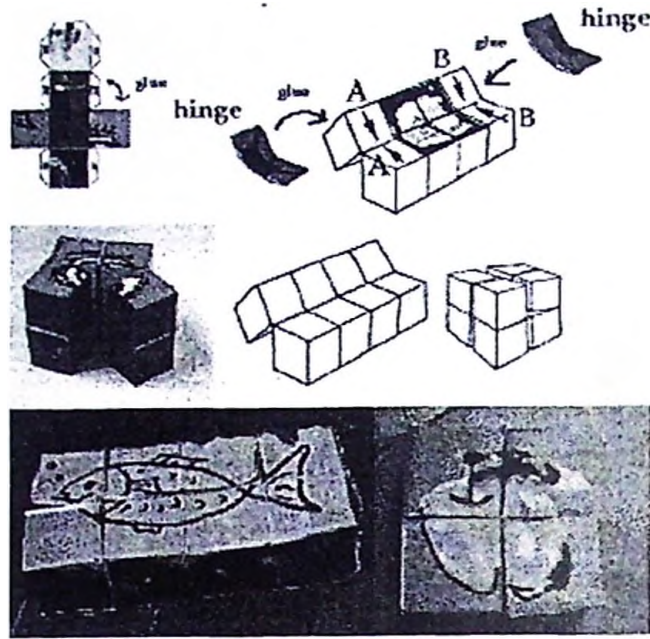


community of talk

internet. Designers at the Sundance Laboratory for Computing in Design and Planning at the University of Colorado responded to an invitation to participate in the atelier. They used the internet to send a 'folding and unfolding cube' that was printed out and assembled at the atelier, and they created a website for



inviting technology



folding and unfolding cube

their contribution that was linked to the main atelier website. The International Media Research Foundation in Tokyo contributed a digital sound responsive cube program (designed by Masahiko Furukata) called 'I wanna be a cube'. The virtual design studio concept offers the opportunity, not only to share design artifacts, but also to comment on projects and ideas.

Learning Meets Transformation

We believe in learning as a transformational process. Learning is not only a means to knowledge, but also to understanding one's individual, social, and cultural identity in the world, a way of gaining power and control over one's world. Very little attention is given to this in most learning environments today. However, participants in multimedia unplugged gained understanding of their own learning strategies by participating in their own design activities. By creating their own stories through these learning activities, all who took part were greatly empowered!

Books That Inspired Me:

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folding and unfolding cube

- Papert S. *The Connected Family*. Longstreet Press. 1996.
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- Sundance Laboratory for Computing in Design and Planning, College of Architecture and Planning, University of Colorado, Boulder, Colorado
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