



Center for
**LifeLong
Learning
& Design**

University of Colorado at Boulder

**Wisdom is not the product of schooling
but the lifelong attempt to acquire it.
- Albert Einstein**

Digital Bauhaus and Interesting Websites

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Digital Bauhaus

Source: Pelle Ehn(1998) "Manifesto for a Digital Bauhaus,"
Digital Creativity, 9(4), pp. 207-216.

- **objective: a third culture** → a new meeting between the two cultures of art and science, between the “soft” and the ‘hard’ side
- **beyond the modern praise of new technologies** → critical and creative aesthetic-technical production orientation uniting modern information and communication technology with design, art, culture, and society
- **Scandinavian design** → **participatory design (see EDC)**
 - democratic perspective
 - open dialogue
 - active user participation
- **pedagogy at the School in Malmö:**
 - students have to take responsibility for their own learning
 - reflective practice: a dialogue between coach and student
 - design of digital media requires: teamwork and different competencies

The Bauhaus in Weimar

- **The tension around 1920:**

Industrial revolution, assembly lines, and poverty due to World War I → crafts and productive industries only fabricated functional and effective artifacts without major demands on aesthetic appearance

On the other end of this development many artists pursued art for its own sake. Both, arts and crafts had lost their commitment to everyday problems of society

- **consequence of these developments: the Bauhaus in Weimar comes 1919 into existence**

- **the theme of the movement: to bridge between dualism in modern society between**

production	↔	life
art	↔	technology
craft work	↔	industrialization (standardized mass production)
individuals	↔	society
the spiritual	↔	the material

- **Walter Gropius:** ‘...Let us therefore form a new guild of craftsmen without the socially divisive presumptuousness that would erect a wall of arrogance between craftsmen and artists...’

Parallel to Today's Situation

- **claims:**

today's computer systems and technology based communication media do not reflect other human needs than functional and cognitive factors

these factors only are not enough to attract people without technological background

- things that think → things that makes us smart

- Don Norman "Turning the Page on the New Millennium → <http://mitpress.mit.edu/Cover/2000/01/norman.html>

- the past:

- the technology of the 20th century has been mind numbing
- it was at the forefront, rapidly advancing, rapidly changing, and for us who were supposed to benefit, a continual pain
- for the average citizen, most of the century seems to have been one long painful learning experience
- stability was out, change was in

Norman: Turning the Page on the New Millennium

- **the future:**

- time for technology to be quieter, calmer, and less visible
- time to hide the technology → to let it all become invisible — just as the sewers and water pipes of the homes are invisible, yet still essential; or just as the electric wiring and electric motors throughout the home or office are ever present but beneath conscious awareness
- let the computer technology become an enabling infrastructure: invisible, out of sight, out of mind, but ever more powerful

- **novel activities:**

- geographical location will be less important, although paradoxically, geographical proximity may become even more essential
- the workplace can transform from a place to an activity, where location no longer matters (but time zone does).
- education can be always present, just-in-time, when and where needed, throughout life

How to Put the Bauhaus Approach into Work

- vocabulary from computer science scares often artists and human scientists off
- removal of classical barriers between experts of different disciplines and to improve mutual acceptance.
- critical examination of the use of complex communication systems and its components, resulting in suggestions and realisations to modify systems and components in respect of innovations
- use the systems we develop in our everyday work → self-application
- establish a new cross-cultural communication:
 - people with mainly technical background need to learn about arts, philosophy and the human sciences → to provide technology which serves the human
 - an attempt by artists, philosophers, and other human sciences to better understand technology → to be able to advice technicians how to build a new class of communication technology

Websites

- **L3D:** <http://www.cs.colorado.edu/~l3d/>
- MIT Media Lab: <http://www.media.mit.edu/>
- Stanford Learning Lab: <http://learninglab.stanford.edu/index.shtml>
- Malmö University's School of Art and Communication: <http://www.kk.mah.se/>

Arts and Computers — Examples of L3D Projects

Systems	Authors / Users	Objectives
Schemepaint	Mike Eisenberg, Silke Haarer	direct manipulation and programming
Hypergami	Mike and Ann Eisenberg	computational crafts, integration of physical and computational worlds
ArtPals	Jim Ambach, Alex Repenning, Jim Johnson	active tools (---> ArtDwarfs; Frieder Nake et. al.)
eMMA	Kumiyo Nakakoji	color critiquing
LEGOsheets	Andri Ioannidou and Alexander Repenning	active, self-directed learning
Envisionment and Discovery Collaboratory	Ernie Arias, Gerhard Fischer, Hal Eden, Eric Scharff, Andy Gorman	integration of physical and computational worlds, open systems, contextualized information

