

## **Some Thoughts on the Coleman Demonstration Showcase at DLC**

### ***The Coleman Project Retreat***

Center for LifeLong Learning and Design

EGA & HE

6/13/01

### **DLC Location (plans) and existing space**

- L3D Space – we need to think more as to a meaningful division of labor (and integration) between the spaces.
- Adjacent Spaces – the new cave
- Existing areas in the Center as other possible extensions – interior as well as exterior
- Potential linkages
  - State project laboratories - Assistive Technologies (Bodine)
  - BCN community centers ("Joelle Bonnett" [bonnett@bcn.boulder.co.us](mailto:bonnett@bcn.boulder.co.us))
  - The Regional Transportation District, the City of Boulder and the Design Firm (forget the name)

#### **Thoughts:**

- The aim here is not to think of the space in the DLC as the Coleman Showcase, but that the Showcase extends possibly at three levels, the L3D-DLC space, the exterior spaces (within and outside the building), and possibly other settings within the city (Boulder) or region (Coulder Co.).
- An opportunity here is to think about the design and development of “real-life” (full scale) settings where the deployment of technologies can be observed and evaluated “in-use” as we design them, i.e., *design in practice*.

### **Industry’s development categories of assistive technologies for learning disabilities**

- Visual
- Tactaile/mobility
- Hearing
- Communication
- Learning and Cognition
- Ergonomics – design of the actual machines and settings

#### **Thoughts:**

- A major limitation is in their linking to address the population’s disability (Bodine). This limitation is really a great opportunity for the showcase as a place where integration of technologies can be studied in the Showcase.

### **We should think in terms of *home range areas* for assistive technologies**

- School
- Work
- Daily living – home and beyond
- Recreation – Outdoor and Indoor
- Transportation - accessibility

#### **Thoughts:**

- The idea of the showcase is to design and construct a “*kit of elements*” to simulate real life settings at the different *levels* mentioned above, where we will embed the new technological innovations (pursuant of our linking of the virtual and physical worlds, e.g. EDC), or technologies borrowed from Kathy’s ATC for testing in conjunction with others.
- The analogy which we can use is that of “*home range and its integration through mobility for all*”
- This kit will be allow us to design full scale testing and observation settings, e.g., parts of a cooking area as a *home setting*; parts of a bus stop as a *transportation setting*; parts of a classroom as a *school setting*; parts of a supermarket as a *shopping setting*, etc.. which will pursue the analogy of “home range and access.”
- Utilize the problem as a theme for a course in the School of Architecture and Planning

## **Purposes of a demonstration laboratory at the DLC (<http://dlc.colorado.edu/>) for Research and Application**

- Deployment of experimental L3D systems development, e.g.,
  1. Computational systems
  2. Web based environments
  3. Physical-computational, e.g., EDC, Hypergamy, future components for I-Mail
- Deployment of commercial technologies in collaboration with K. Bodine’s Center, e.g.,
  1. research prototypes
  2. market systems and off-the-shelf technology

### **Thoughts:**

- Fundamentally this space is for the *application* and *assessment-in-use* by users – those with the disabilities, as well as those who support them.
- Following our “gift wrapping” concerns, the observation and assessments should not only be of *technological innovations* and *designed built-environments with embeded technologies*, but also about *practices, approaches* or even *theories* of support in learning and living. For example,
  - *Uses in training and assistance* – from production to use
  - *Observation and evaluation of use* to support development of:
    - research systems / toward development of a “tool kit”
    - theoretical concepts
    - applications and uses for populations and settings
    - building communities – practice, interests/expertise

### **Space planning issues to initiate discussion**

#### **1. What *Design Criteria* should we use?**

- flexibility
- adaptability
- accessibility
- connectivity

### **Thoughts:**

- these are concerns which need to be evolved through the design and use of the showcase over time. However, initial thinking for each of them needs to be carried out in order for us to construct seeds for their future development and re-design of the showcase

#### **2. What *User Populations* do we need to discuss and think about in the context space needs?**

- those who help

- those with disabilities
- system researchers
- industry developers
- size of user populations

**Thoughts:**

- We already have an initial identification of these communities. Further research as to constraints and opportunities that each may offer to CLEVER needs to be carried out as an on-going effort but building on the knowledge we have now.

**3. What activities are to be housed in the Showcase for which we need to develop the simulation kits? Which ones should we start with?**

- research applications
- teaching and training
- demonstrations

**Thoughts:**

- I would like to start this Fall with this as a theme for a course in the Department of Planning and Design or in Architecture.

**4. What equipment and technology (indoor and outdoor) should we include to support either on-going projects or new ideas for future development?**

- similar to the CC's notion of a site? Integrating computational and physical artifacts
- Physical-computational Spectrum
- Kiosks and Cave
- EDC type – <http://www.csl.sony.co.jp/person/rekimoto/as/baseball.html> and Hal's EDC2
- Shin'ichi Konomi's I-land work at GMD – movement of information through objects  
<http://www.darmstadt.gmd.de/ambiente/i-land.html>
- Augmented surfaces <http://www.csl.sony.co.jp/person/rekimoto/as/>
- Handheld technology and GPS
- I-mail and portals
- Technologies at K. Bodine's Center
- Others discussed in Hal's presentation and our thoughts for the CISE proposal

**Thoughts for 3 & 4:**

- This can be the basis for the CISE equipment proposal (Hal, Gerhard, Jim, myself)

**Overall Thoughts:**

- Just looking at the issue of the Showcase, it becomes clear that *an overall map* (scenario?) for this project is needed in order to communicate it and the ideas within it in an effective way to others. I still think that some of this thinking can be done in the context of the showcase as an integrating meta-design object.