

Information Architecture from a Child's Perspective: Designing Web Portals

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Context

Elementary school students use the Web to find information for class projects, but in doing so encounter problems in query formulation, search strategy construction and navigational orientation. One remedy is to design portals that will offer better support than either the regular portals that they typically employ (such as Google, MSN and Yahoo) or the specialized portals designed for children but which children rarely use (such as KidsClick and Yahooigans!). Two intergenerational design teams comprising students from grade six (11 years' old) and grade three (8 years' old), together with three adult researchers, designed two low-tech web portal prototypes specifically targeted at the students' peers. They were subsequently converted into high-tech web portals that can be used to find information in French and English relating to Canadian history. Usability testing of the two web portals was undertaken by students in several elementary schools in both experimental and operational environments.

Innovative Points

- Active involvement of children throughout the design and usability testing process
- Development of subject-specialized, bilingual children's web portals

Poster Mockup: See next pages

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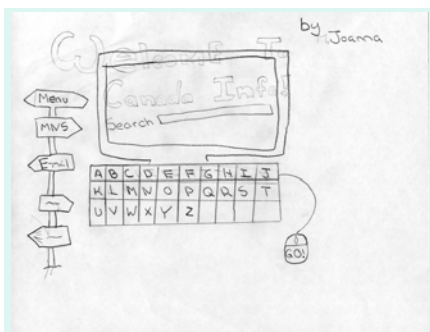
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Research Objectives:

- 1) Elaborate design criteria for children's web portals
- 2) Explore the role that children themselves can play in the design process
- 3) Test an intergenerational approach using Cooperative Inquiry.

Stage 1: Designing the low-tech portals using intergenerational design teams

Grade 3



Drawing by Grade 3 student

- **Methodology:** Cooperative inquiry—kids & adults working together as a team throughout the design process
- **Techniques:** Brainstorming, user surveys conducted by children, viewing portals, drawing, journaling, consensus building activities
- **Setting:** French-immersion elementary school
- **Participants:** G3 team: 3 adults, 6 students; G6 team: 3 adults, 8 students

Grade 6

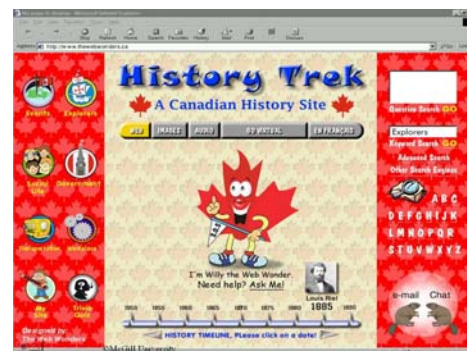


Drawing by Grade 6 student



Grade 3 low-tech prototype

- **Drawings to low-tech prototype:** team interactions with graphic artist



Grade 6 low-tech prototype

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Stage 2: Building the hi-tech portal prototypes

Grade 3



Grade 3 high-tech portal

- Transformation of low-tech to hi-tech working web portal with English and French interfaces
- Building database of links to English and French web pages on Canadian history; construction of specialized hierarchical index
- Retrieval capabilities: searching (natural language, keyword, advanced); browsing (subject directory, alphabetic, timeline)
- Features: personalization, help, spell check, synonym control

Grade 6



Grade 6 high-tech portal

Stage 3: Usability testing

Image of usability testing by Grade 3 students (focus group)

- Small focus groups
- Individual retrieval testing
- Operational testing within a class project environment

Image of usability testing by Grade 6 students (class project group)

Major Findings

- To be added upon completion of usability studies in early 2005