Extending Children's Informal Learning through Interactive Design

A case study of MetroParkland

Catalina Naranjo-Bock
naranjo.5@osu.edu

The Ohio State University
Department of Design
Columbus, Ohio
USA

WELCOME

to MetroParkland!

keywords

Informal learning multi- age design, post-visit, interactive media and children.

Visits to informal learning institutions are successful in initiating **learning** cycles while providing **enjoyable and meaningful** sensory experiences.

However, these visits are unsuccessful in supporting **long-term community learning needs** and inquiry + skill building.

Current post-visit activities:
- Limited research
- Inconsistency between age, design,content and onsite exhibitions.

Is more research needed? Do visitors have post-visit needs ? If so, how can design be part of the solution?

**Definition:** Learning module for parents and children, who wish to extend learning beyond onsite museum visits.

context

Preliminar research showed *the Internet as users' preferred media*. Developed with the Metropolitan Parks (Metro Parks) of Central Ohio, USA. Based on the onsite program for children "Turkeys are Wild".

A user-centered design approach was taken: research tools were designed to involve users and stakeholders in all project stages.
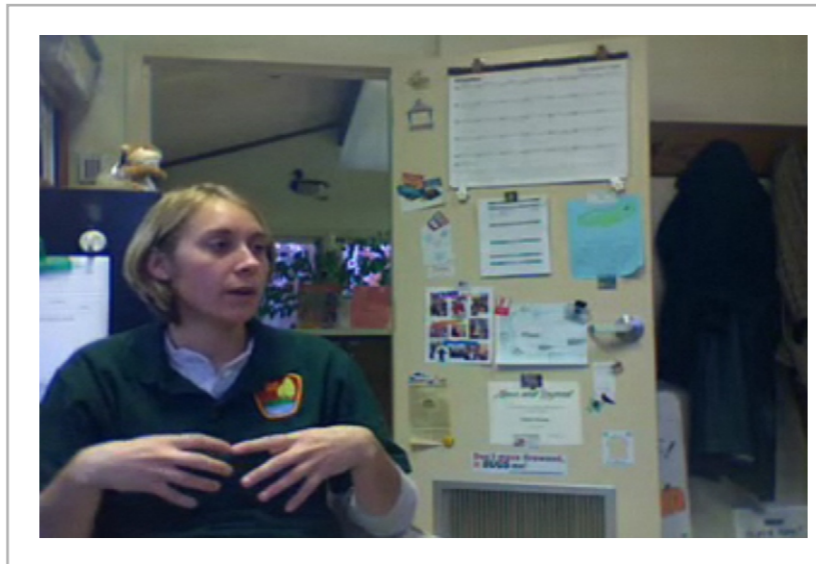
**Fig.1:** Interviews with education specialists and naturalists at the Metro Parks.
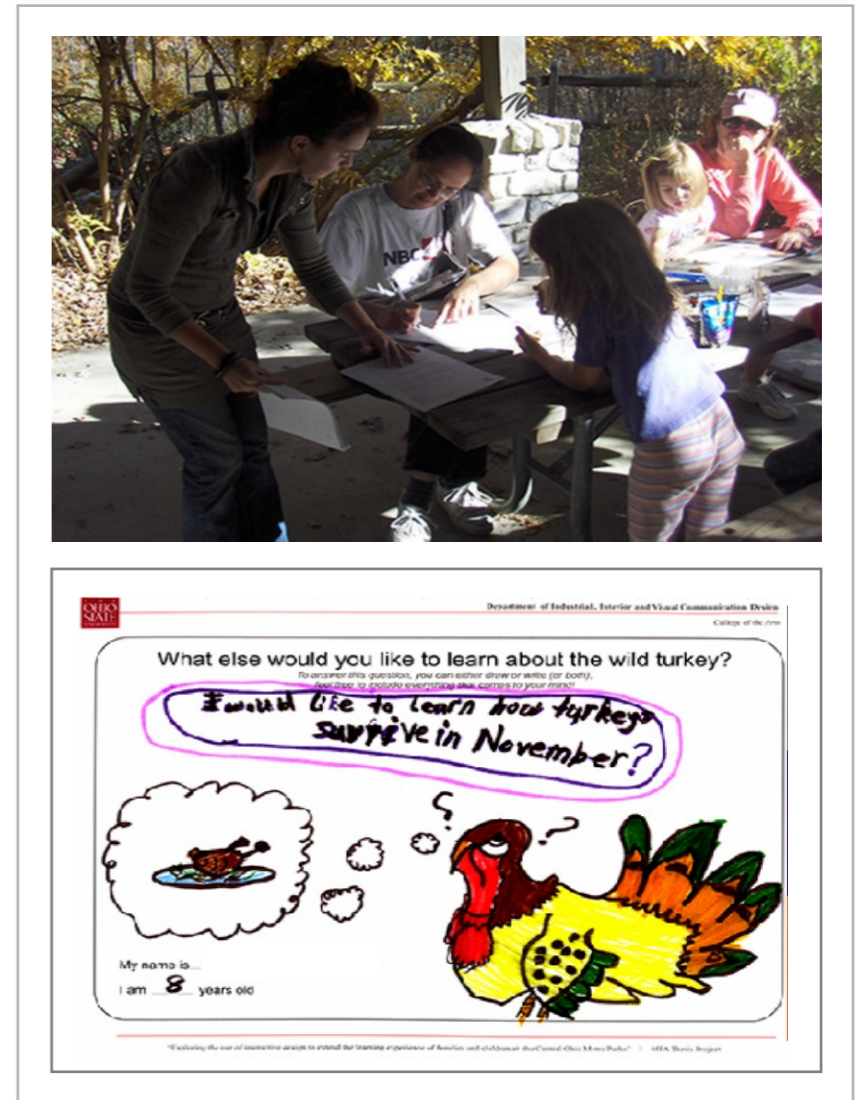
Fig.2: Traditional research methods and participatory/ generative research tools were used with parents and children.

character design

Fig.3: The creation of **the** characters in Metroparkland aims to develop familiarity between children and the naturalists. The naturalists at Metroparkland talk to the kids, guiding them through the virtual experience.

section for parents
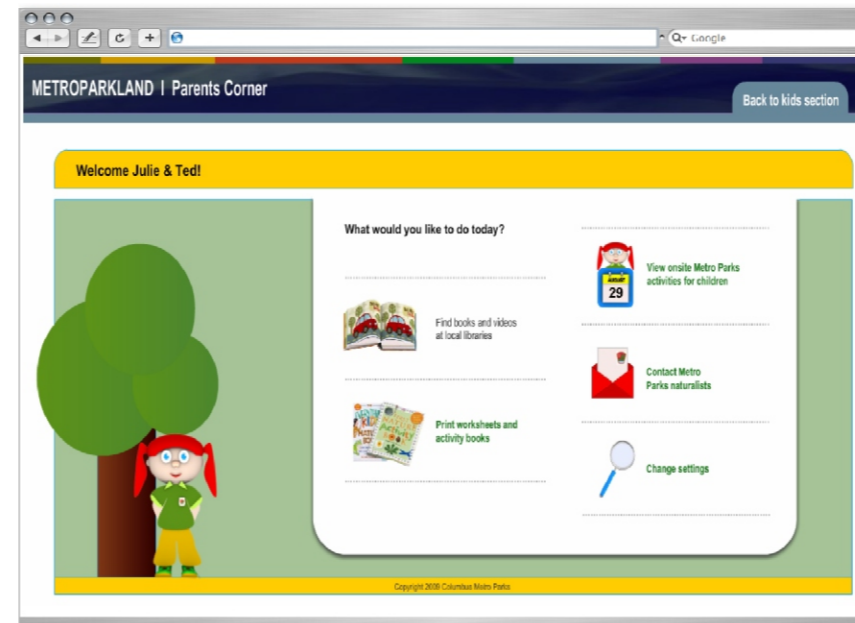
Fig.4: Parents section home page. The design relates to the playful theme of the kids section, but with a simpler interface that can be easily accessed by adults. In this area, parents find activities and resources that are related to the topics covered at the park.
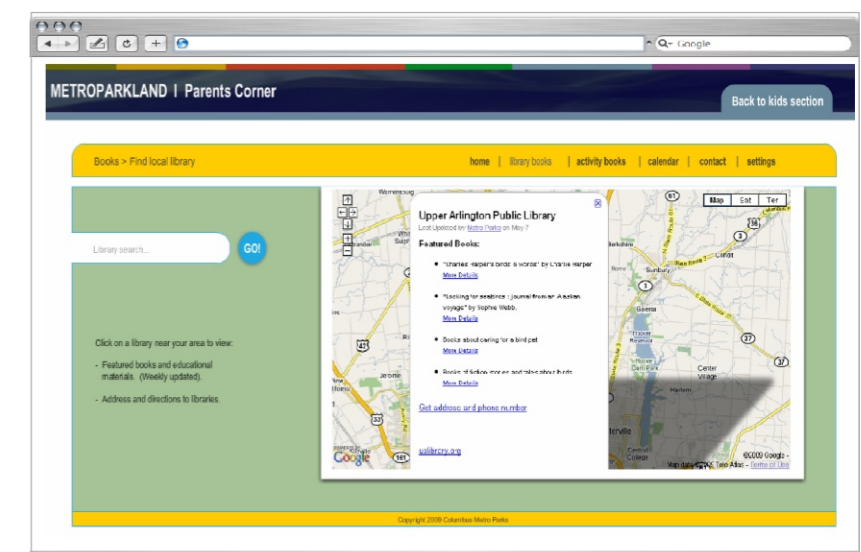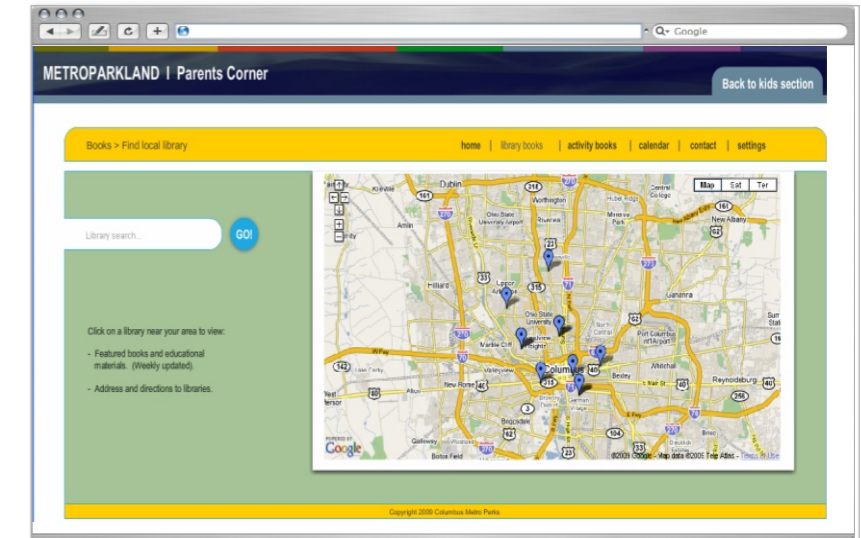
**Fig.5:** Searching for related books in local libraries.

section for children between 6 and 7 years old and/or younger

Fig.6: The design instills curiosity and desire to explore the interface, as one explores the park. In this case, the exploration is straight forward because of the young audience it is targeted for. This section of the park is used by children with help of parents.

Fig.7: Metroparkland is customized to the interests and desires of each family, therefore some interfaces will exhibit the full range of activities that are offered and some will just display the activities chosen by the user at the moment of customization
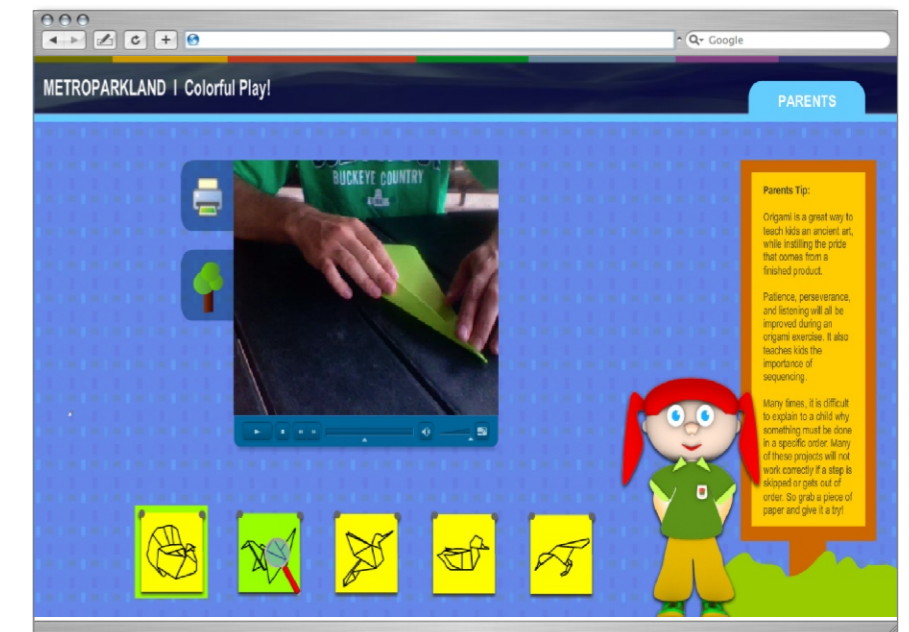
Fig.8: The links are big enough for a child to click on without difficulty, and have audio hover states. The naturalist gives audio instructions. Parents' tips in relation to what can be learned from the activity are displayed on the right.

section for children between 8 and 9 years old and/or older

Fig.9: The Metroparkland: Enchanted Forest design concept is mysterious, darker and generates expectations in terms of what can be found in the park. On page load, crickets and water audio start playing, making the experience even more environmental.

Fig.10: The experience is more interactive and game-like by enabling the user to explore and look for hidden treasures (or activities).

Fig.11: Studio Room. **I**f kids want to ask a question**s** to the naturalists, or communicate with others or simply recreate what they learned at the park by drawing or using other tools, they can use the studio room.

testing sessions

Conducted with children that attend public schools, home-schoolers, naturalists and education specialists.

Users confirmed their interest in follow-up activities and the use of this module at home.

Ages 6-7 and younger: Successful in educational activities, and interface design.

Ages 8-9 and older: Had a good start, graphical interface and treasure hunt were very successful, but it was not engaging enough as children got bored fast.

Section for parents: Resources, easy use and connection to other institutions were highly valued.

Lessons learned: Need of reinforcing onsite learning, partnering with kids in the design process, design for multi-age users, accessibility issues.

acknowledgement

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