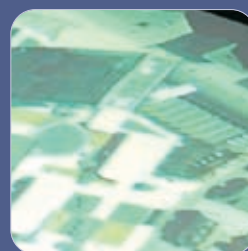
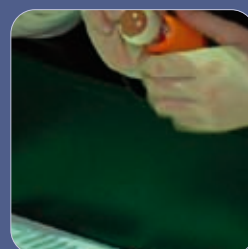
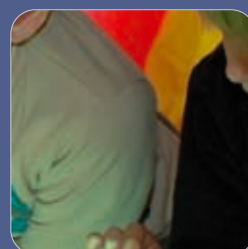
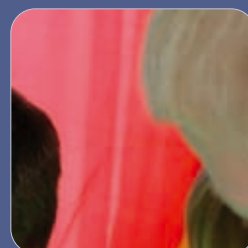
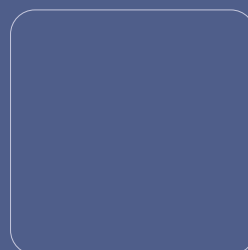
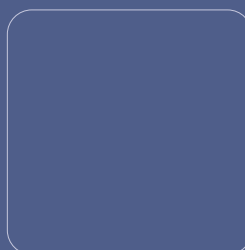


Inspiration

Strategies and Prototypes for the Future

Abstract from Children's Interactive Library Project 2004-2006



Contents

Publications about the project	3
Preface	4
Interactive Exhibition	5
Chapter 1: Prototypes from the Children's Interactive Library	5
Story Surfer	7
BibPhone	9
Sliding Titles	11
I-Land, The Interactive City	11
Library Profile	13
The Egg	13
Chapter 2: Other Installations at the Exhibition	13
Storyteller Hats and Luna Chair	15
Word-puzzler	15
Garage Band	15
Listening Posts	17
Audio Post	17
Audio Post	17
The Piano of Kaj and Andrea	19
M-Disc with "Puzzle-table"	19
Dome Boy	19
BOOK – 3D pop-up-book	21
Block – A digital construction site	21
Wayfinder – find your way at the Main Library	23
The Rocking Sheep – Digital Rocking Horse	23
Read Creatures – Skrot-læse-dyr	25
The Interactive Staircase	25
A Sand Box for books!	27
The Moving Library	27
Yellow Arrows	27
Storvask - The Laundry	29
RFID-an-animal	29
Moblog	31
Interactive PictureLab for Children	31
InfoGallery	33
Chapter 3: About the Project	34
Chapter 4: Conclusion	35
Prototypes of the project	36
Dissemination of knowledge	37
Appendix: Names and web-addresses	38

Colophon

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Publications about the project

Børnebiblioteket som læringsrum: kultur, kommunikation og transformation,

Kirsten Drotner, Heidi Jørgensen og Lotte Nyboe. Århus : Århus Kommunes Biblioteker, 2006. - 81 sider : ill. i sort/hvid

www.aakb.dk/graphics/portal/bibliotekerne/laeringsrum-web.pdf

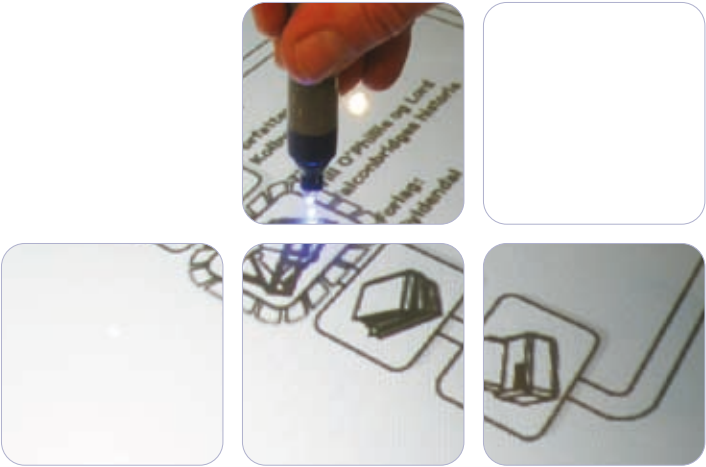
Transformationer : ny ladning af børnebiblioteket: perspektivering af "Det interaktive Børnebibliotek" ved Århus Kommunes Biblioteker, august 2006

Bente Buchhave. Århus : Århus Kommunes Biblioteker, 2006. - 25 sider

www.aakb.dk/graphics/portal/bibliotekerne/transformationer-web.pdf

Inspiration - Strategies and Prototypes for the Future: Abstract from The Children's Interactive Library Project 2004-2006

Red Jannik Mulvad, Knud Schulz & Lotte Duwe Nielsen. Århus : Århus Kommunes Biblioteker, 2007.



Preface

This publication is intended for everyone who takes an interest in the development of children's libraries and who wishes to enhance the ways we engage and communicate with children – now and in the future.

This publication is one of the three final documents from the project "The Children's Interactive Library".

From 2004 to 2006 the Main Library in Aarhus, Denmark managed the project "The Children's Interactive Library" focusing on two major issues of children's libraries of the future: new designs of spaces and innovative ways of engaging and communicating.

During the two years of the project six concepts for installations were developed, two of which were produced as working prototypes. As part of the project both an exhibition and an international conference was carried out in April and May 2006. The project has already published two reports in Danish with thorough descriptions of the project's conclusions and recommendations.

This publication is meant as a short introduction, presentation and summary of the installations, the project and its experiences. The publication shows an inspiring selection of installations having the potential of becoming part of a future interactive library for children. The six concepts developed during the project are described at the beginning of the catalogue. The other installations described were all borrowed nationally or internationally as part of the exhibition in Aarhus.

The installations visualises numerous possibilities regarding technology and communicative interaction that incorporate children's ways of using information technology and of acquiring knowledge. The purpose is to acknowledge and support children's need for social learning environments.

In the future, some of the concepts and ideas behind these installations might grow and involve larger spaces and environments that support and motivate children's learning. Environments that could create even more engaging opportunities in a future interactive library for children.

Manager of The Main Library, Aarhus

Knud Schulz

Interactive Exhibition

Installations from all over the world

From 24th of April to 6th of May 2006 at the Main Library of Aarhus

The exhibition gathered a lot of different installations that generate knowledge – each in its own way. The exhibition displayed alternate ways of stimulating senses and intelligences, turning the children's library of the future into an inspiring, fascinating and engaging place.

The intention was not to suggest a complete design concept for the children's future library. Through a mix of prototypes, art installations and commercial products the ambition was to initiate ideas and stimulate discussions that could lead towards innovative thinking when designing a future children's library.





Story Surfer in action

Story Surfer

“Inspiration browser” for children’s literature.

Use your feet to step on the buttons on the large interactive floor and send the book of your choice to the table.

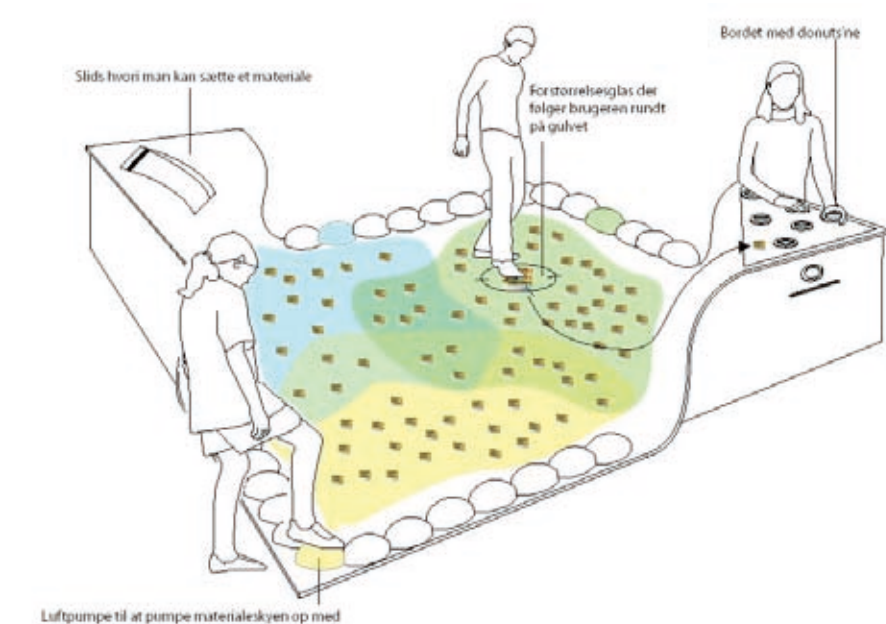
The Story Surfer was an installation enabling children to gather inspiration from library materials in an untraditional way.

The Story Surfer was not as much a tool for browsing the library collections as it was a way of discovering what the library can offer – a real eye-opener. The Story Surfer integrated theories on tangible design, pervasive computing and children’s natural urge to explore and it endorsed the use of multiple intelligences. The Story Surfer encouraged children to engage in collaborative search sessions by using their body.

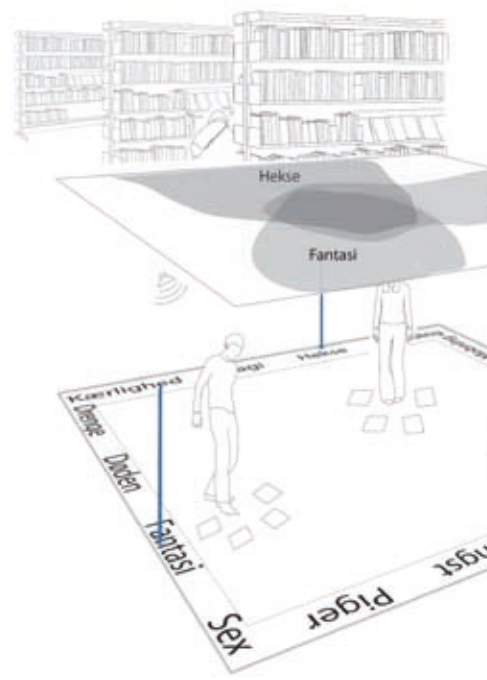
By integrating pervasive computing, the searching of materials became detached from the traditional keyboard and computer screen. Instead the Story Surfer used physical objects to use – objects with which children could search, investigate and play. The technology in itself was of secondary importance – the central points are user driven design, user experience, playing and the concept of an inclusive library service.

Target group: 9-14 years of age.

Interactive Spaces, the Main Library in Aarhus and the project – The Children’s Interactive Library.

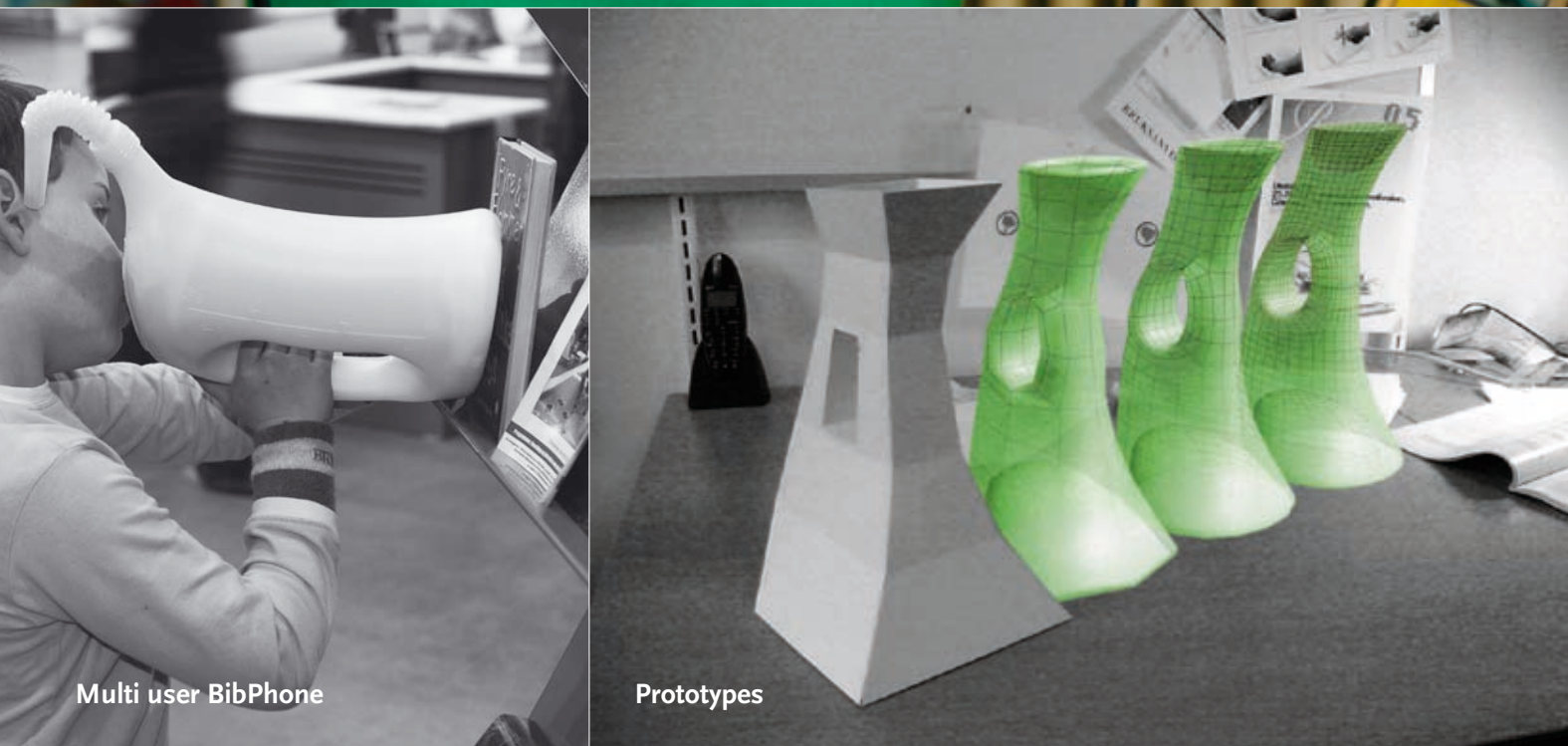


ry, Århus





Single user BibPhone



Multi user BibPhone

Prototypes

BibPhone

A “phone” that allows you to talk to books and listen to what other people have already told them! This is a new and funny way of reviewing, commenting or even hiding secret messages in books. The messages are stored in the particular book allowing the next person to listen to it.

The BibPhone concept enables children to annotate physical material with digital recordings; children are able to speak into the books by placing the bibPhone over a RFID tag on the book. By using the BibPhone as listening device previous recordings are revealed to the user.

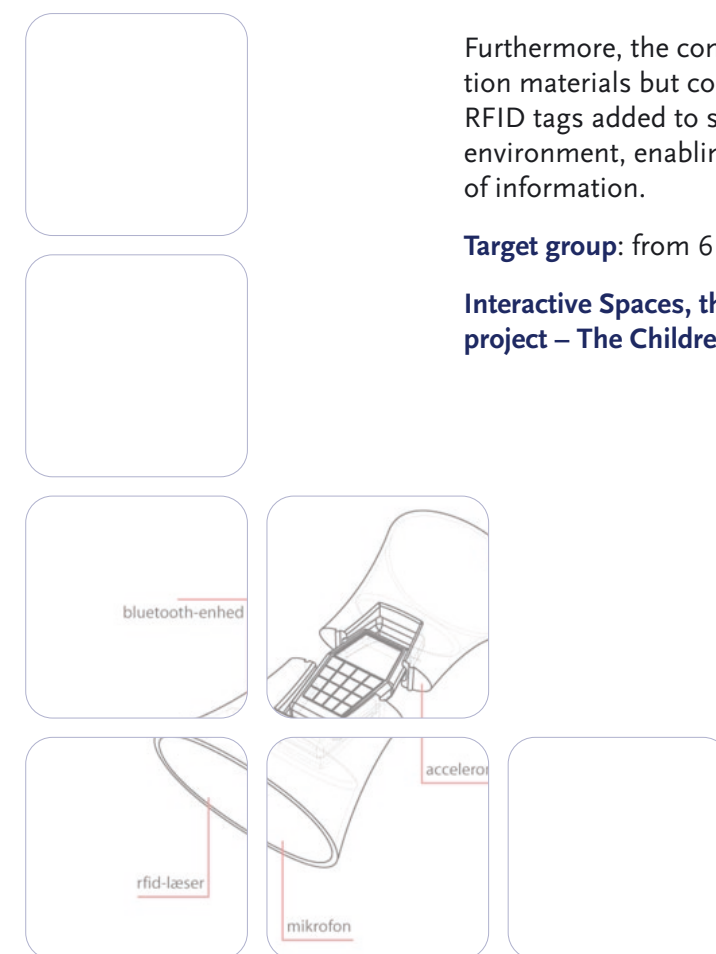
The concept originated from children’s reluctance of performing written reviews, and the fact that more and more libraries are applying RFID technology to information materials.

The BibPhone can be used for “treasure hunting” for messages in books. A secret layer of information for children attached to selected books is also an imaginable scenario.

Furthermore, the concept is not restrained to information materials but could also be used in relation with RFID tags added to specific elements in the physical environment, enabling new forms of play and exchange of information.

Target group: from 6 years of age.

Interactive Spaces, the Main Library in Aarhus and the project – The Children’s Interactive Library.





Sliding Titles



I-Land

Sliding Titles

Around the library shelves books are idly gathering dust. Over the years librarians have used the “sales trick” to exhibit the book covers instead of the backs. Not surprisingly the trick seems to work. But the process is both time and space consuming and could be improved by using technology.

The fact that a number of libraries are putting RFID tags on their materials provides new opportunities for tracking and displaying books. The idea of Sliding Titles is to create a bookshelf that shows the books on the shelves in random order decided by the user.

The user makes a virtual reader slide through the books displaying the cover of choice on a screen at the end of the bookshelf. When not in use it randomly displays books for the inspiring library users passing by. The Sliding Titles could be combined with the Story Surfer creating a link between the Story Surfer where the user chooses the material and the shelf where the actual book is placed.

Target group: from 6 years of age.

Interactive Spaces, the Main Library in Aarhus and the project – The Children’s Interactive Library.

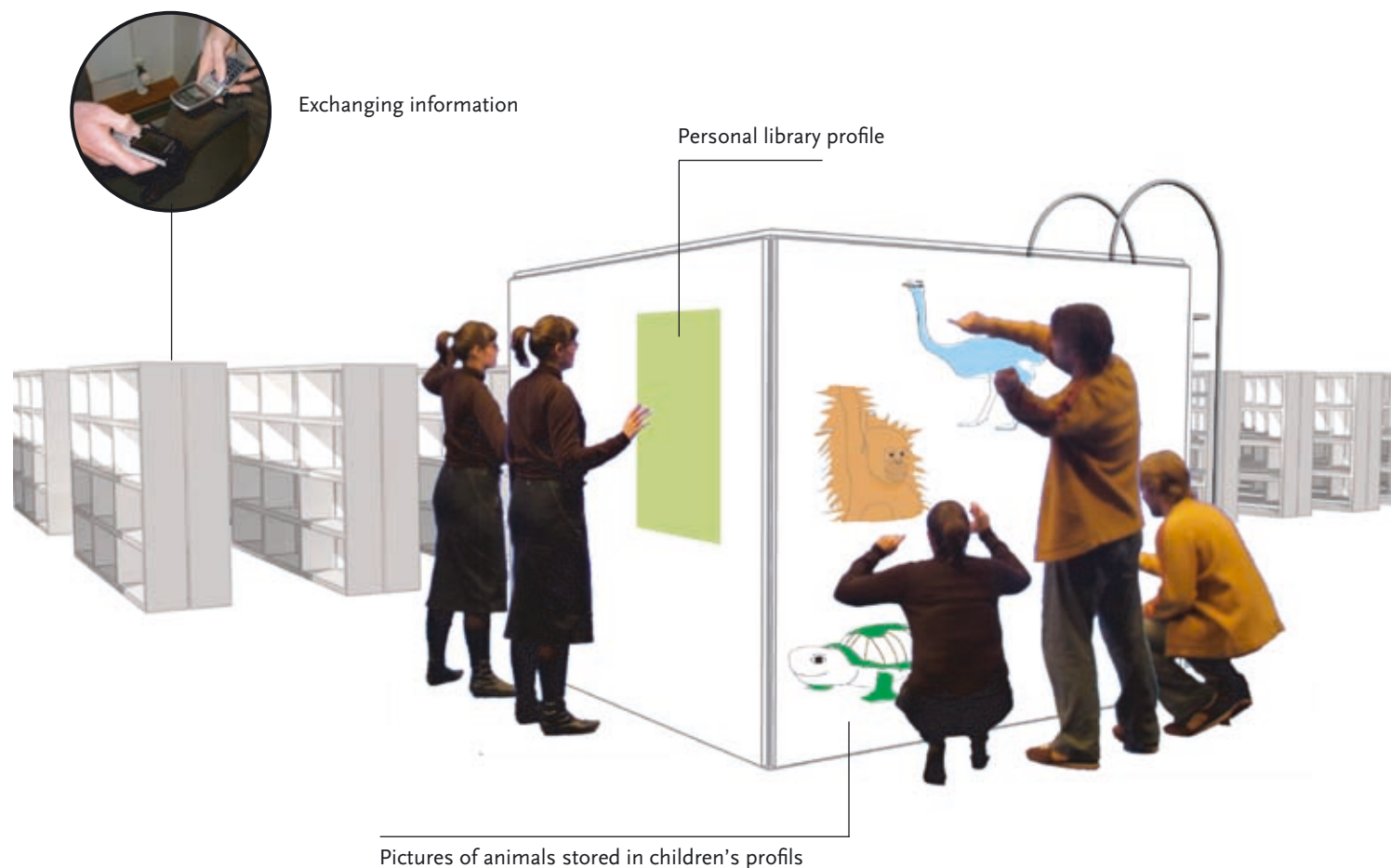
I-Land, The Interactive City

A table where children (and grown-ups) can travel in a balloon over the city of Aarhus and watch historical film clips. The children use balloons and figurines to navigate around the table. Basically the I-Land is a RFID enabled table prepared to exhibit any material. The table consists of an interactive screen with RFID equipment. It is activated by moving physical objects around the table thereby creating audiovisual effects on the table. Another larger installation of a similar kind has been created displaying a safari theme with wild animals on the savannah.

Now a permanent installation at the Main Library in Aarhus: www.aakb.dk/sw97068.asp

Target group: from 4 years of age.

Cordura and the Main Library in Aarhus



Library Profile

To provide the user with the opportunity to save information retrieved at the library is an intriguing idea to most libraries. The information could come in many shapes - the results of internet browsing, borrowed books, interesting links or the level reached in a game.

A personalised Library Profile could allow the library to push targeted information to its users – with the appropriate permission of course.

Another intriguing idea is to include Bluetooth technology in the Library Profile. The Bluetooth would register the presence of any given user visiting the library and could display his or her presence on a screen in a central place of the library. This screen could also be the place, where the user has access to working with the contents of his or her profile and share it with others.

Target group: from 6 years of age.

Interactive Spaces, the Main Library of Aarhus and the Project – The Children's Interactive Library.

The Egg

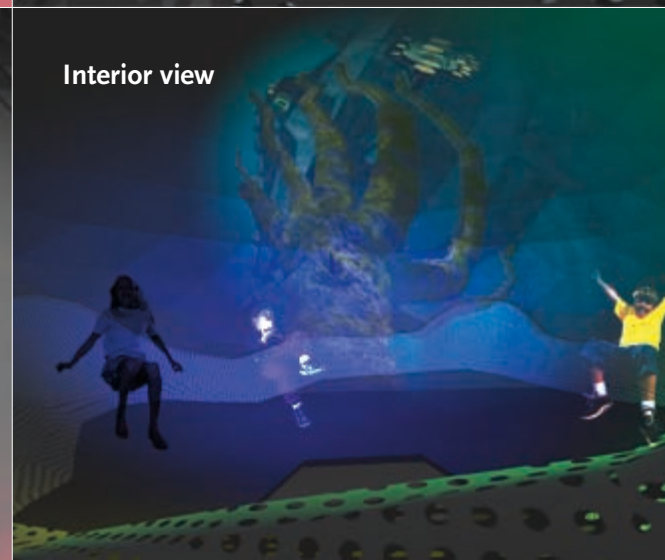
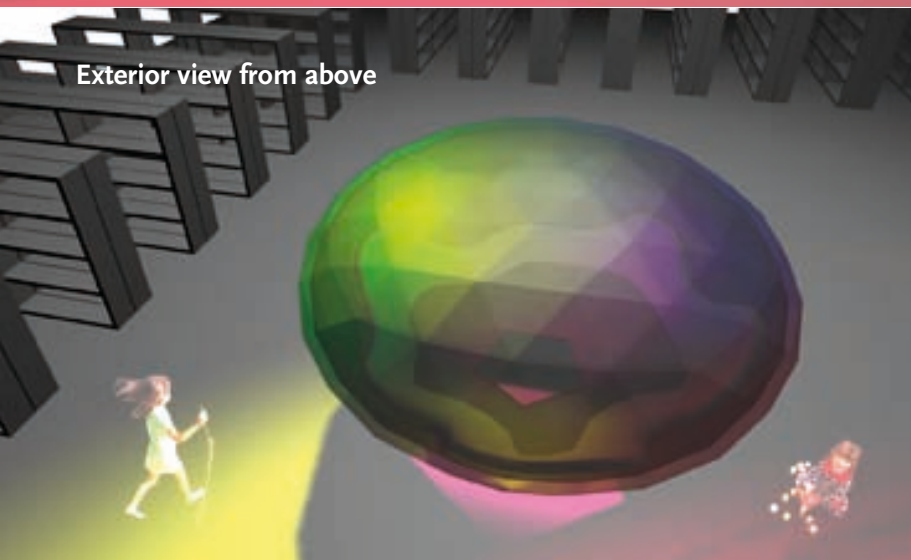
A space within a space.

Today libraries are usually quite large and filled with book shelves. They often lack secluded spaces for retiring into peace and concentration.

The idea of the Egg is to create a library space for chosen solitude. But at the same time it should be a space providing multiple possibilities. This space is designed to stimulate the senses using ambient elements such as sound, light, air (smell), temperature, movements or pictures. Ambient elements that users activate in various ways - either explicitly by using handles or knobs or simply by bringing a book into the Egg. The RFID tag in the book would then activate the appropriate functions or moods inside the Egg.

Target group: from 3 years of age.

Interactive Spaces, the Main Library in Aarhus and the project – The Children's Interactive Library.





Three children wearing Storyteller Hats



Luna Chair



Word-puzzler

Storyteller Hats and Luna Chair

The Storyteller Hat and the Luna Chair are two different ways of changing the library space into a narrative universe. The hats are mobile units that tell different stories depending on location.

The Lunar Chair is a stationary installation with embedded speakers. With its special shape it closes around the user who can listen to music or a story without being disturbed by outside noises.

Hats

Target group: depending on content.

Cordura and the Main Library of Aarhus

Chair

Target group: from 5 years of age.

BCI Eurobib

Word-puzzler

An installation that evokes children's curiosity – words, letters and pictures are combined in surprising and amusing ways.

AV Natura and Frederikshavn Public Libraries

Garage Band

Record your own music with "GarageBand".

Listen to or make your own music. Play, make or exchange music. You can play in groups or individually.

Target group: from 9 years of age.

Apple



10 CD Audio Post



Selecting a song



1 CD Audio Post

Listening Posts

Various listening posts – both traditional types and more artistic ones – were tested at the exhibition. The traditional ones fit perfectly at the library of today and the more artistic ones could be used to evoke surprise and wonder.

Audio Post

Audio post with 10 CDs

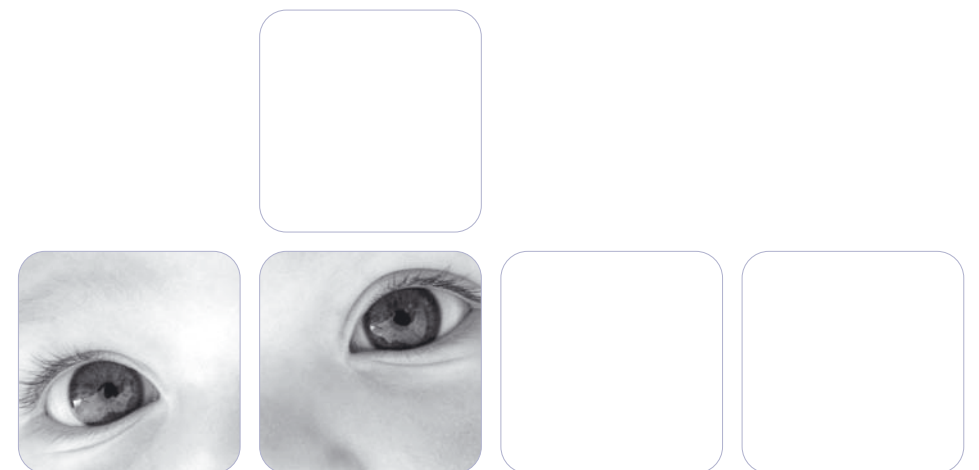
Target group: depending on content.

SUND SOUND ApS

Audio Post

Audio post with 1 CD

SUND SOUND ApS





M-Disc with "Puzzle-table"

A small table for younger children. Music, sound or storytelling for groups gathering around the table.

Target group: pre-school children.

M-Disc: SUND SOUND ApS

"Puzzle-table": BCI

Dome Boy

Dome Boy, targeted sound

Target group: depending on content.

SUND SOUND ApS

The Piano of Kaj and Andrea

Listening post in an old piano. Two people can simultaneously listen to 10 different CDs.

Target group: depending on content.

SUND SOUND ApS in co-operation with The Main Library of Aarhus.



BOOK - 3D pop-up-book



Block - a digital construction site

BOOK – 3D pop-up-book

Interactive illustrations in a book with 3D pop-up-effects. A book that mixes text and pictures of printed media with living pictures and sound. The animated 3D character - Captain Okay - tells and visualises a story about the city of the future.

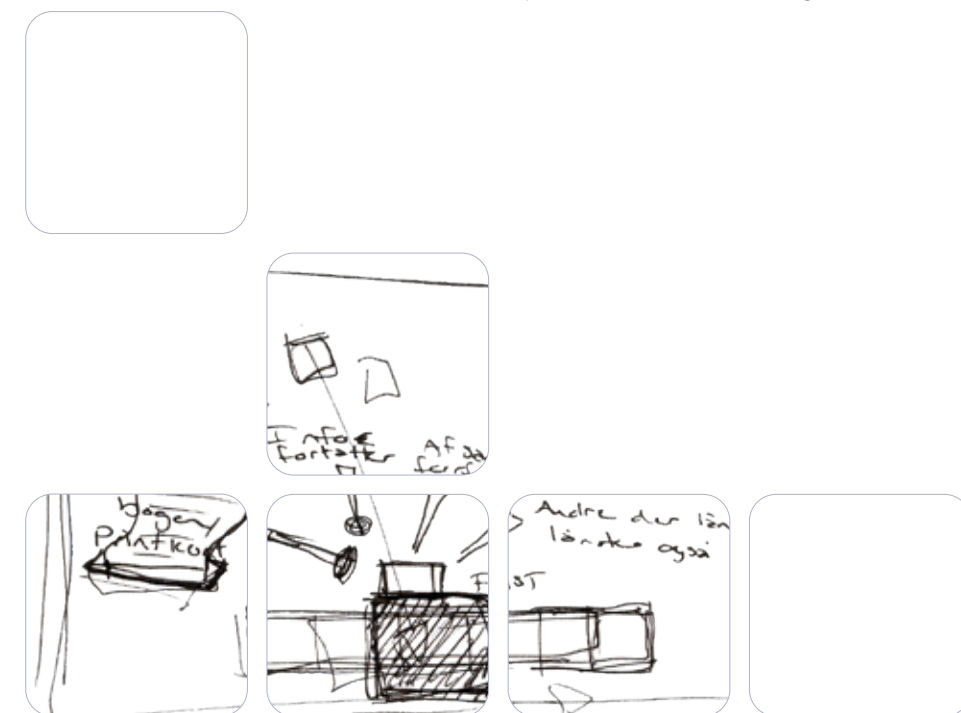
The pages of the book contain visual patterns that are continuously filmed by a web camera. In this way the screen shows 3D models and stories in interaction with the physical book.

Target group: 5-99 years of age.

Kollision

Block – A digital construction site

A digital 3D construction site and playground where the player through the use of simple tools is able to construct, combine and change the colour of the digital building bricks. The installation is based on visual patterns filmed by a web camera. A screen shows the filmed reality combined with the digital 3D building bricks.





The Rocking Sheep

The Rocking Sheep – Digital Rocking Horse

As a new way of gaming the rocking sheep is used to move a virtual sheep around the green fields. A traditional item combined with pervasive technology that stimulates physical activity and playfulness.

Target group: 2-7 years of age.

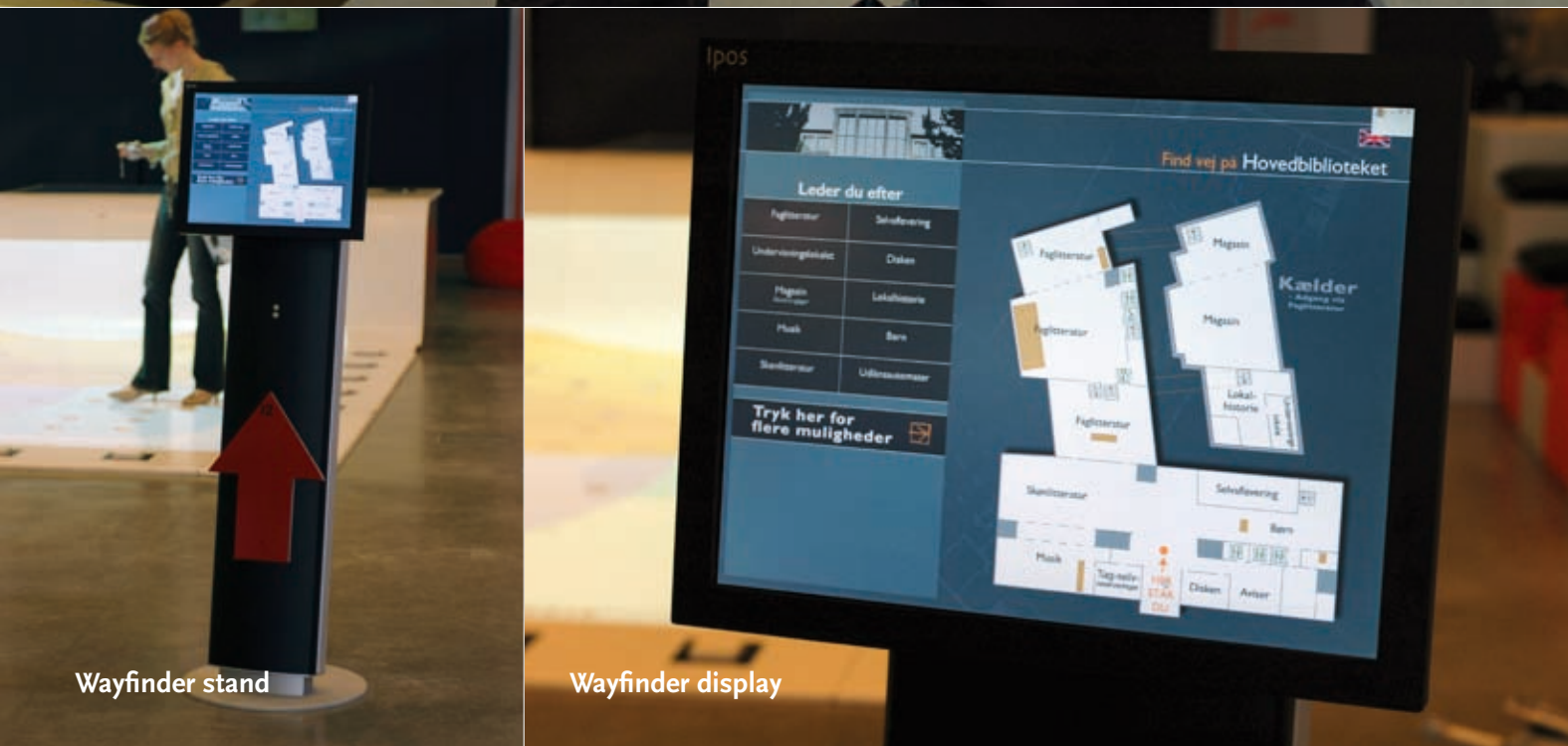
Enees - Steven Mieszelewicz

Wayfinder – find your way at the Main Library

A new interactive system that guides users around the library.

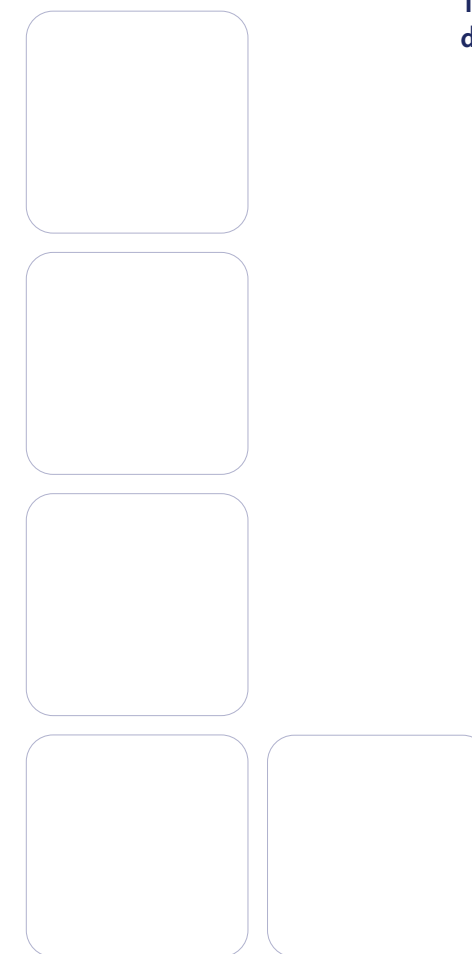
Target group: everybody. **Displays:** I-pos

Technique and graphics: Agilator.dk and Jensen på hovedet



Wayfinder stand

Wayfinder display





Read Creatures - Skrot-læse-dyre



Read Creatures - Skrot-læse-dyre

The Interactive Staircase

Read Creatures – Skrot-læse-dyr

The three animals are made from bits of scrap from urban spaces and the “book shelf tail” is made from discarded books. The Creatures can be used for sitting, as book shelves, as pets or just as an item of curiosity.

Target group: 3-7 years of age.

Pomp - Gitte Nissen Schelde

The Interactive Staircase

This staircase is unique – created especially for the Main Library in Aarhus. You can climb onto the staircase – sit, read, talk and work on it. The staircase also contains a “cave” where you can hide or meditate. The contents in the small spaces of the staircase change frequently – so you might want to take a look every time you visit the library.

Target group: everybody.

The project “Frirummet” was part of the project TransformationLab run by the Main Library in Aarhus.

More information: www.aakb.dk/sw4335.asp



The Moving Library



A Sand Box for Books



Yellow Arrows



Diving deeper into the Sand Box

A Sand Box for books!

Dive into an unusual Sand Box and try to catch the book you want. A low tech installation that puzzles and challenges the children.

Target group: pre-school children.

AV-Natura and Frederikshavn Public Library

The Moving Library

Bookshelves on wheels. A mobile piece of furniture for children's books.

Target group: from 4 years of age.

Mogens Thorbjørn Holm

Yellow Arrows

"Yellow Arrow" is a global artistic project where ordinary people use yellow arrow stickers to point at places throughout the cityscape that carries special significance to them. In the exhibition they were used to allow the teddy bears in the staircase to share their thoughts. To receive the message you text message the arrow and then receive the story embedded in the particular arrow.

Target group: anybody who can use a cell phone.

Counts Media <http://yellowarrow.net>



Storvask - The Laundry



RFID-an-animal



RFID-an-animal

Storvask - The Laundry

An interactive game-based film

The film/game is set in a laundry, in a washing machine and on the clothes line.

The clothes speak with the voices of children and come alive through animation techniques and special effects. On their way through the washing and drying process the clothes illustrate children's conflicts: anger, teasing, friendship and limitations. The clothes go through water, wind, cold, rain, heat and fire and the player has to guide it safely through the various incidents.

Target group: 3-7 years of age.

Kassandra Wellendorff.

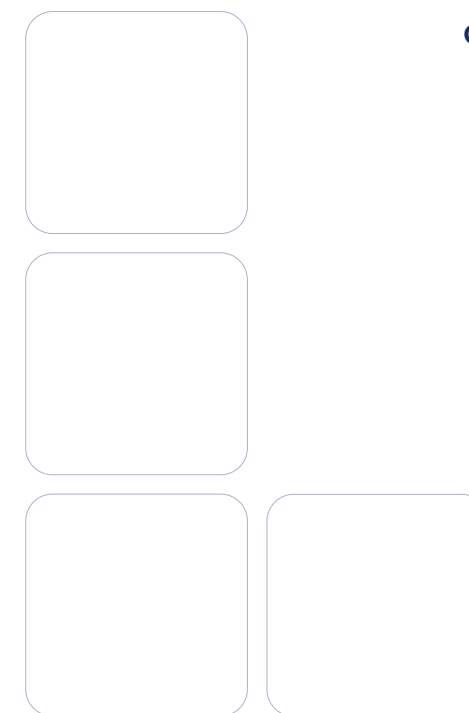
Articles in Danish: www.dfi.dk/tidsskriftetfilm/28/konflikt-terikogevask.htm

RFID-an-animal

Get facts and information about animals on a PDA using RFID technology.

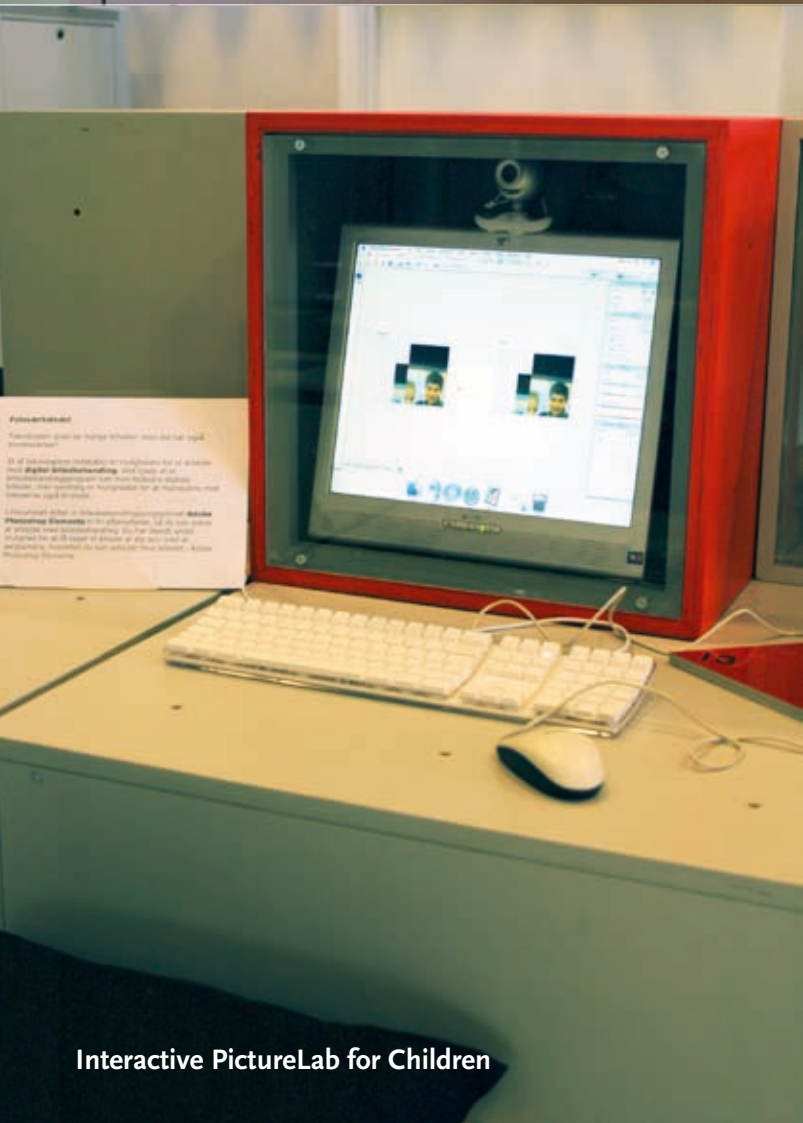
Target group: from 7 years of age.

Cordura and the Museum of Natural History in Aarhus.





Moblog



Interactive PictureLab for Children



Moblog

Moblog

MMS your story to the library moblog. A moblog – like the weblog – is an online media available to everybody. The moblog consists mainly of pictures taken with cell phones and uploaded directly to the internet.

Target group: anybody who can use a cell phone

Software: Albino Gorilla

Interactive PictureLab for Children

Take a picture of yourself and change it. See what you look like with a moustache, glasses, a blue nose or green ears.

Target group: from 9 years of age.

Software: Adobe Photoshop Elements





His Royal Highness, Crown Prince Frederik inspects InfoGallery

Title: 'Mainly for Children'

InfoGallery

InfoGallery is a new media for enriching the physical library space with exhibitions of digital library material and other relevant information such as events and announcements.

InfoGallery presents information in an aesthetically attractive manner on a variety of surfaces in the library, including cylindrical displays and floors.

The InfoGallery makes digital content visible in a new way. By using the simple InfoGallery Editor the librarian can send contents to displays in the physical library, and the information can be changed easily and endlessly.

The graphical interface of the displays differentiates from the traditional way of presenting information by being exciting and explorable.

The InfoGallery can be used as a digital poster board, but it is also an interactive medium where the users can discover the universes and have a closer look at the contents of interest.

The user can pick up references to information found in the serendipitous search among objects being exhibited on the displays. Picking up references to resources may be supported in several ways, such as Bluetooth pick-up, SMS, or e-mail.

The present edition of the Info-gallery was launched on March 15th 2006. The Info-gallery is used by "Litteratur-siden.dk" (Literature web) and several public institutions in the Aarhus area.

Target group: from 7 years of age.

Alexandra Institute A/S in co-operation with Aarhus Public Libraries and the Royal Library

About the Project The Children's Interactive Library

The Children's Interactive Library 2004-2006 was an un-traditional and interdisciplinary research and innovation project exploring the children's library of the future.

With this project Aarhus Public Libraries joined forces with IT-City of ISIS Katrinebjerg, The University of Southern Denmark, four private companies and the public libraries of Hjørring, Odder, Silkeborg and Vejle. The purpose was to develop systematic research and to collect empirical knowledge about children's use of interactive means within the framework of children's libraries. The project was supported by the Danish National Library Authority.

The project development was based on children's needs, culture and cultural experiences, and the research will be put to use in the shaping of a concept for the interior of a future interactive library for children. A library where IT-services based on pervasive computing, broadband network, 3D visualisation and interactivity constitute some of the tools for playful interaction and communication.

The objective was to create spaces for children in the library that offer new experiences, impressions and physical activity, acknowledging the library's unique place where children come in order to learn and knowledge.



Conclusion

The project 'Interactive Children's Library' has worked with radical innovation of the libraries' offers for children. The challenge of the project was to investigate the possibilities for developing the library space and elements of this space based on library values: reading, learning, experience, inspiration, play, dialogue and meeting place with the user at the centre. The project has developed ideas for new technology that can support these values and new images of the library, where children can communicate interactively with the room and elements in the library.

The project has studied how the future interactive children's library best supports children's learning processes and information competences, as well for groups as for individuals. Which new digital facilities can be implemented? What remodelling processes must the physical space undergo? What roles must the children's library assume in the society of the future? What direction must the role of librarians take in areas related to children?

Professional involvement of children as users in design processes resulted in completely new ideas for prototypes and gave a valuable contribution to the library's knowledge about the children's media culture and library needs. The users – children between 9 and 14 – showed incredible interest in the development of the prototypes of the project. The children contributed with ideas, feedback and unique insight in children's media culture, which the project could not have achieved in other ways.

Children and young people are eager to be involved and they gladly share their visions and ideas. When working with user-driven innovation it is important to continuously keep the users informed about the development. It is essential to acknowledge the users' participation and continuously present them with results of their involvement. This is particularly true when the users are children and young people.

Prototypes of the project

StorySurfer, BibPhone and I-Land have both as artefacts and visual presentation acted as catalyst for interaction between the users and the library staff and dialogue and interaction between the users. The prototype installations have provoked new ideas about the library space – what it can be used for, how users act in the space and how the librarian fills his or her roles as disseminator, mediator and initiator of new activities.

The installations changed the users' and the librarians' focus markedly from the traditional dialogue on children's literature to joint exploration and learning dialogue about content and use of the new technologies.

"The professional service should take as its starting point the digitalisation of the media technology with its opportunity for increased technological convergence and multimodality in expression"

('Børnebiblioteket som læringsrum': kultur, kommunikation og transformation (Children's library as learning centre': Culture, communication and transformation) by Kirsten Drotner, Heidi Jørgensen and Lotte Nyboe.)

The project and prototypes have contributed to a development of the children's library space towards supporting children's multimodal learning processes – not merely in the static instantaneous development but also in the continuous development through the meeting with library and librarian.

The project acted as test lab for ways of transforming the library space from a place, where users seek answers and find information to a place where children are astonished and find questions and the staff initiates and facilitates the children's multimodal learning processes.

The project has created a manifold and interdisciplinary development environment consisting of researchers, librarians and users and has involved more than 35 experts and 80 children. The project has proven that open and innovative cooperation between researchers from various professions and public libraries of varying size has been worth the effort. Variety in ideas, interests, educational profession and age proved to be an optimum melting pot for incredible creativity and unusual idea development.

Dissemination of knowledge and ideas about the future library offers for children

The interest in the project's visions, prototypes and concepts about the future library offers for children has been overwhelming, nationally as well as internationally. The same is true of the project's research results. Interactive Spaces / IT Katrinebjerg has contributed research on user interaction, design and pervasive computing to the project, and University of Southern Denmark / Institute for Literature, Culture and Media has contributed research on children and young people's media culture. Finally, Bente Buchhave contributed the collecting of the project's library professional perspectives and strategies in a report.

The research-based knowledge together with the practice-oriented library professional knowledge generated during the project can be utilized in continued professional development and innovation of library offers for children.



Names and web-addresses

Agilator

www.Agilator.dk

Alexandra A/S

www.alexandra.dk/uk/about/index.htm

Apple

www.apple.com/ilife/garageband/

AV-Natura

www.avnatura.dk

BCI Eurobib

www.bci.dk

Børnebiblioteket som eksperimentarium

www.eksp.dk/

Children's Interactive Library – Det interactive Børnebibliotek

www.aakb.dk/sw4120.asp

Cordura

www.cordura.dk

Enees

www.eness.com.au/folio/p4.html

Frederikshavn Kommunes Biblioteker - Frederikshavn Public Libraries – Det runde rum

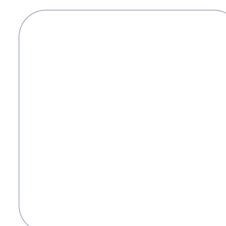
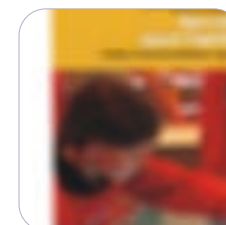
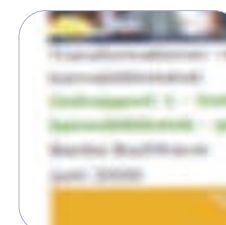
bibl.frederikshavn.dk/index.php?id=65

Holm, Mogens Thorbjørn

mogensthor@hotmail.com

I-pos

www.ipos.dk



InfoGallery:

www.infogalleri.net

Interactive Spaces

www.interactivespaces.net

Jensen på hovedet

www.jensenph.dk

Kollision

www.kollision.dk/nwol

Natural History Museum Aarhus

www.naturhistoriskmuseum.dk/uk/info/infoUK.htm

Pomp

www.pomp.dk

Storvask (Laundry – interactive film)

www.dfi.dk/tidsskriftetfilm/28/konflikterikogevask.htm

SUND SOUND ApS

www.sundsound.dk

Syddansk Universitet

www.sdu.dk/

Yellow arrow

<http://yellowarrow.net>

Aarhus Public Libraries

www.aakb.dk

