Case Study

Design a communication system/device to build closeness/trust between people

'People to People, from close friends to strangers'

Part One

Interdisciplinary Team

Team:

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Design Process

- . Problem Statement
 - . Understanding the problem worldview
 - . User Study inquiry
 - . Conceptual Model
 - . Early Concepts
 - . Final Concept
 - . Scenario
 - . Product Development
 - . Interface Design
 - . User Feedback



User Group



Who are Children?

Under 16?

Over 2?

Teen, pre-teens, children, toddlers, infants

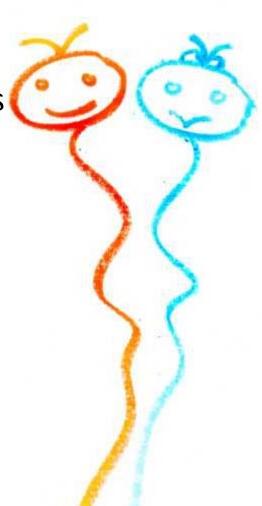
Cognitive classification - Piaget

Sensory-motor stage (Birth - 2 years)

Pre-operational stage (2 - 7 years)

Concrete-operational stage (7 - 12 years)

Formal-operational stage (12 -15)



Why Children?

- . Designing products for children is fun & difficult
- . They posses an unpolluted ready to learn mind
- . No specific communication device for children is available
- . Children are the future

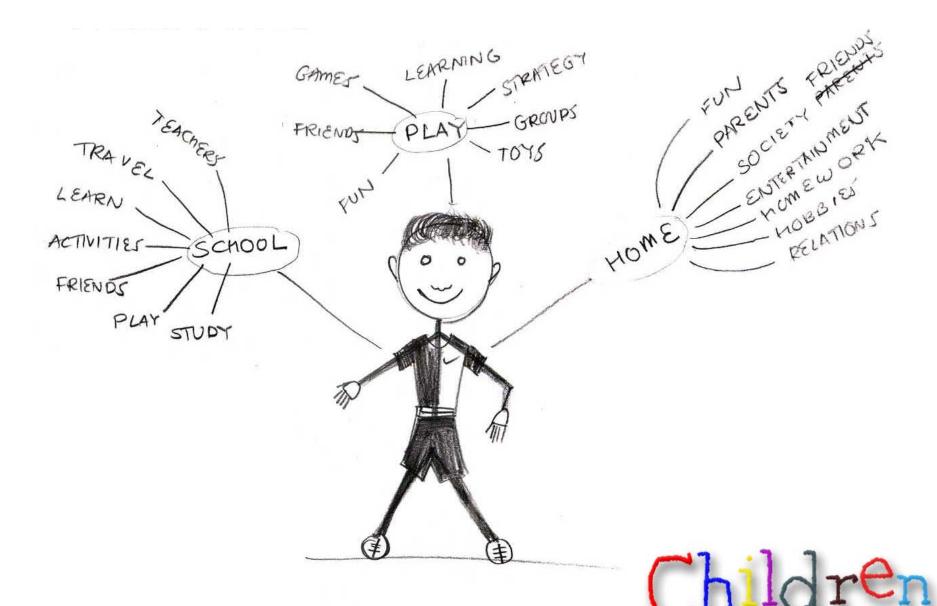




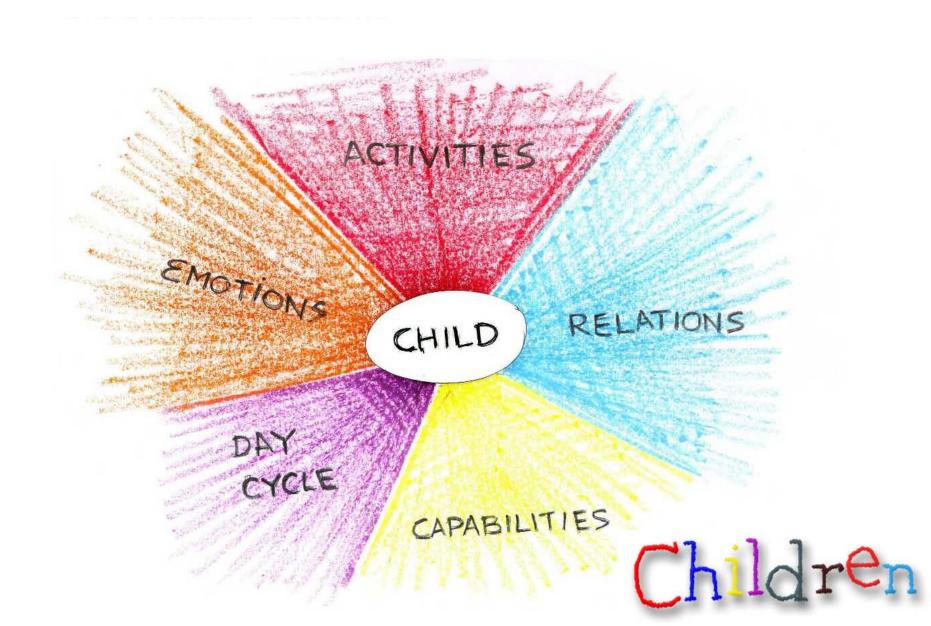
World-view

Brainstorming

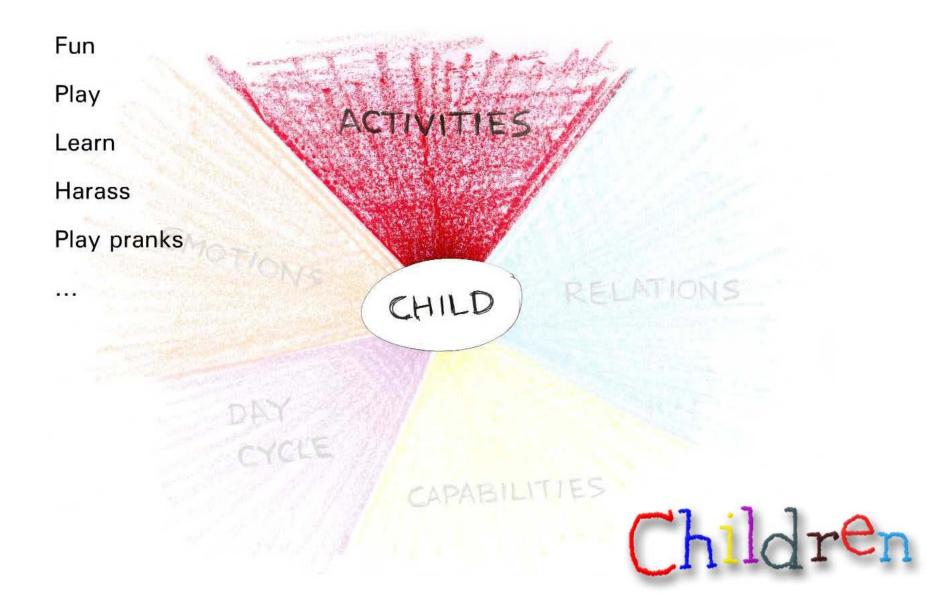
A Child's World



Child related concerns



Activities



Relations

Parents

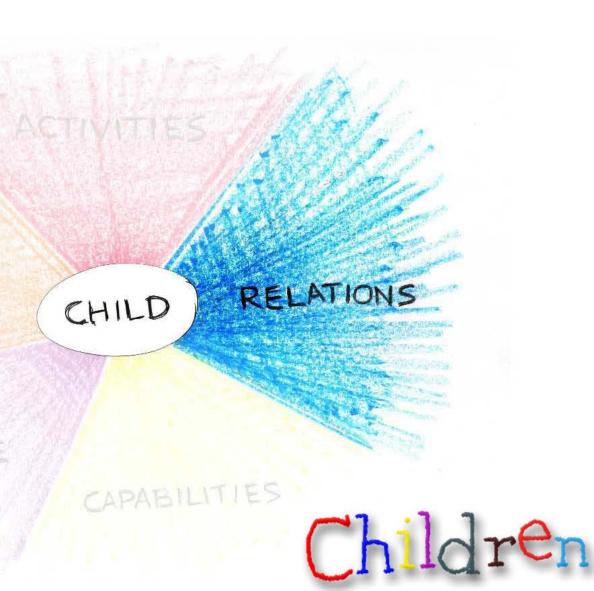
Friends

Teachers

Role models

Relatives

. . .



Capabilities

Ready to learn new things

Regional language

No mindset

Find use for things

. . .

CHILD)

CAPABILITIES

Children

Day Cycle

Home

School

Journey

Playground

Home work

Cartoons

TV

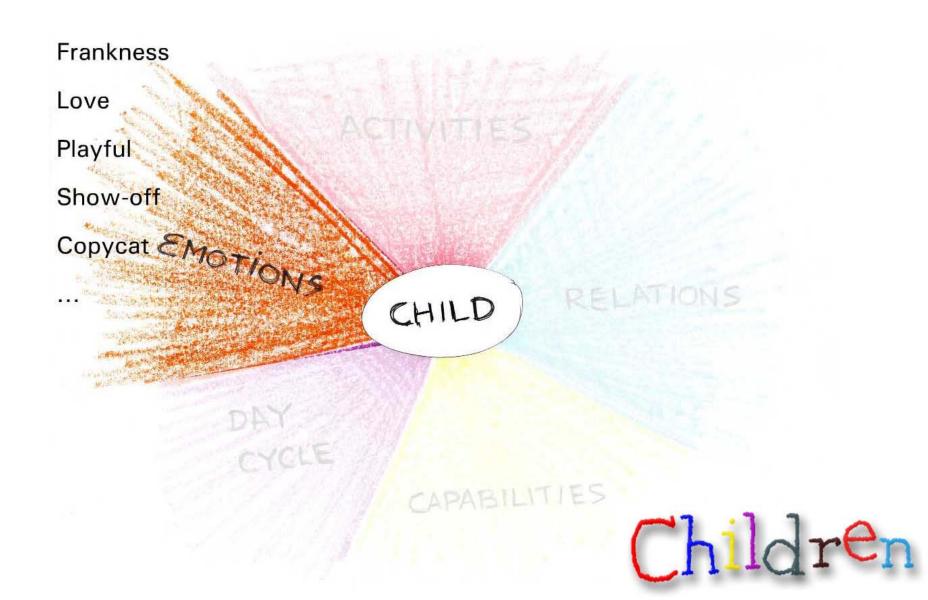
Toys

Eat

Sleep

CHILD

Emotions



Secondary Research

Media & Literature study

Cooperative Inquiry: Developing New Technologies for Children with children -Allison Druin - Human Computer Interaction Lab - University of Maryland

Interaction design and human factors support in the development of a personal communicator for Children -Ron Oosterholt, Mieko Kusano, Govert de Vries Philips Corporate Design

One Shot Trust Game Experiment

Trust In Children - William T. Harbaugh, Kate Krause, Steven G. LidayJr., Lise Vesterlund

Touch me, Hit me and I know How you feel: A design approach to emotionally rich interaction -Stephan Wensveen, Kees Overbeeke, Tom Djajadiningrat

Kid Pad -A collaborative story-authoring tool for children HCI Lab, University of Maryland

Children, Monkey King & Chinese language: An experiment

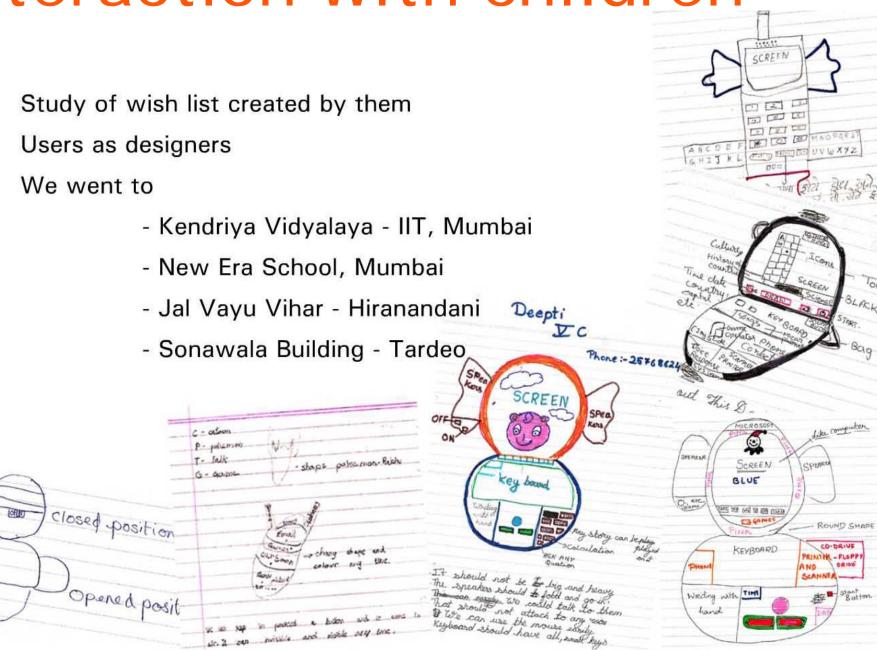
User Study

Interaction with children

- . Conversations touching various aspects with child at the center.
- . Practical testing of their interface navigation skills.
- Interactions with the children under different environments and in different situations.
- . Observations exploration of their technological awareness.







Inferences from the study

- . Well aware of new technology
- . Curious about using new products
- After school hours, interaction happens with friends / neighbors / relatives
- Find use for anything that is given to them
- An urge to SHARE their experience is an inherent quality



Emerging Product Brief

- A fun device to break from the monotony of life
- A device which would help them to make new friends
- A device that brings out creativity among children
- . Something to give them a feeling of "a device that is specially meant for them"
- . A device that would help children to share, learn and play
- . The device should be unbreakable [child proof :)]





Cultural Inheritance

Tangible

Toys, story books, epics (Mahabharata, Ramayana), fables (Panchatantra), photographs, gifts, compass box, games, own drawings or doodles, stationery (pencils, crayons, erasers),

Intangible

Stories, lullabies, festivals, customs, celebrations, traditional acquired skills (carpentry, pottery), prayers, riddles, puzzles



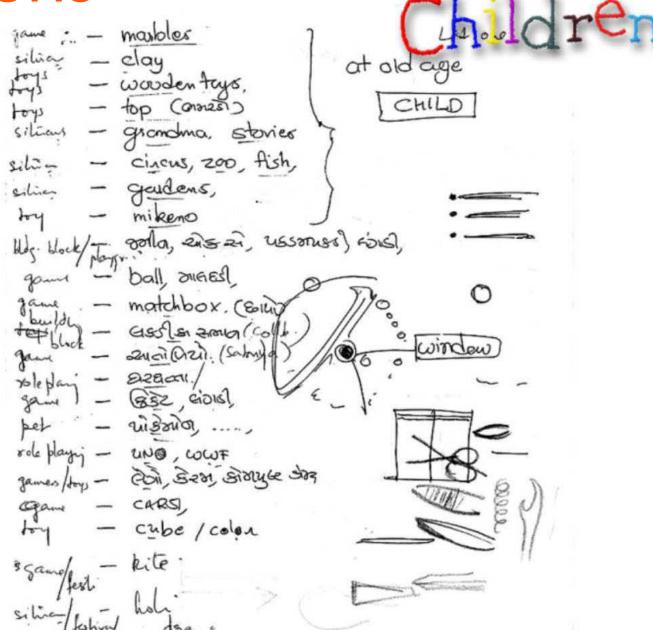
Inspirations

Marbles

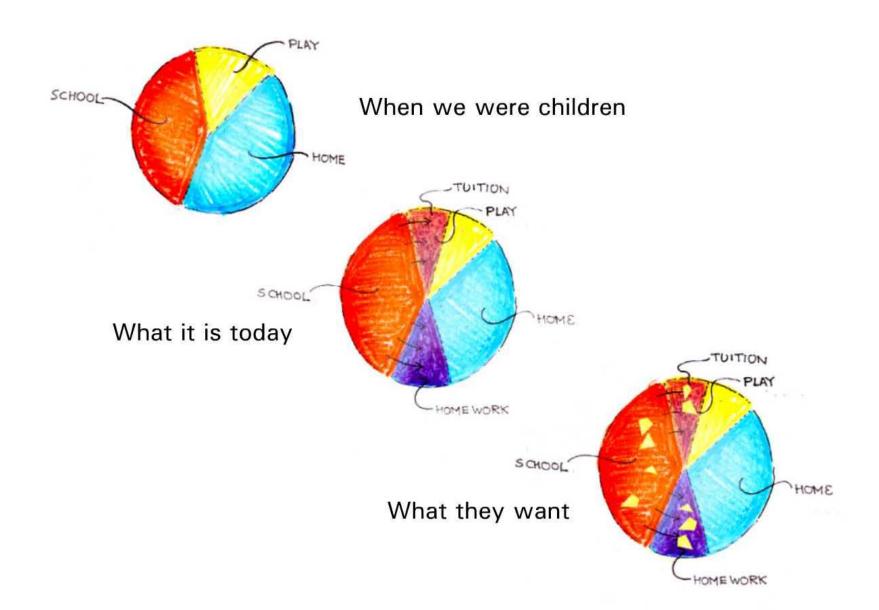
Pet

Kite

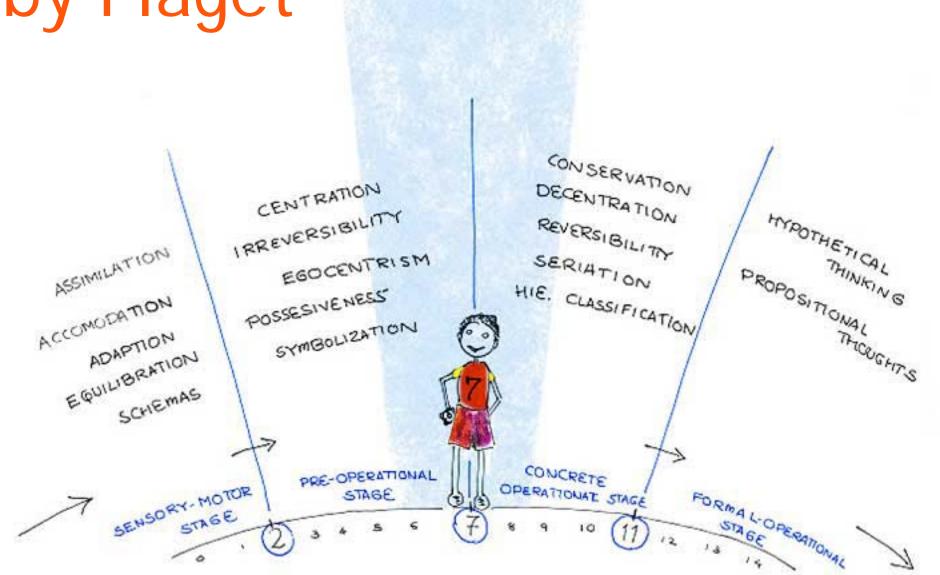
Slate



Environmental Zones

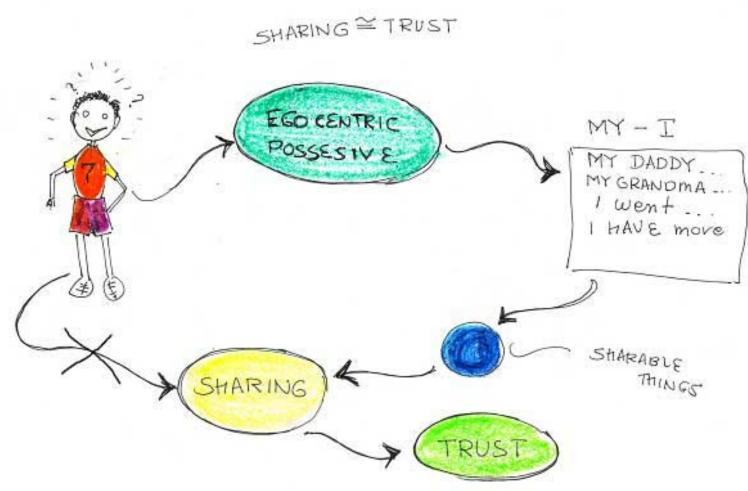


Cognitive Development by Piaget



Trust and Relations

- conceptual model



Design Process

Rest of the design process in part two:

- . Early Concepts
 - . Final Concept
 - . Scenario
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 - . User Feedback

