

partout

sharing cultures through stories by children

Somya N Jampala, Master of Design Candidate, Interaction Design
Prof. Dan Boyarski, Advisor

School of Design, Carnegie Mellon University
May 2013

partout

Sharing cultures through stories by children

Somya N Jampala

Bachelor of Architecture

School of Planning and Architecture

May 2007

Master of Design, Visual Communication

Indian Institute of Technology, Bombay

August 2010

A thesis submitted to the School of Design, Carnegie Mellon University,
for the degree of Master of Design in Interaction Design, 2013

Copyright Somya Jampala 2013

Somya Jampala

Master of Design Candidate, Interaction Design

Dan Boyarski

Professor, School of Design

Do you know?

In Greece, a child's tooth is thrown onto the roof for good luck.

Abstract



The range of diversity in a country like the United States opens up a new brave world of global connections and multicultural relationships. While it brings greatest opportunity and choice about how we live our lives, there is a challenging side to diversity. In the context of sustaining their own cultural identity, how do families originally from other countries, blend their own culture over time with the dominant culture of the place to get a third mixed culture for raising their children?

Bicultural families often struggle in deciding the balance between a culture at home and a different culture outside home. It's challenging for parents to explain to their children about why daily activities at home are done differently from their friends at school. Currently, sharing experiences and stories between parents and children is mostly conversational. What if the exposure and appreciation of multi-cultures with other children enable a child to accept and embrace his own cultural experience even at a younger age? What if a new and appropriate platform of storytelling is developed to share cultural stories?

partout is a crowd sourcing online platform to share cultural stories by children for children. With *partout*, children can share visual narratives about a cultural tradition, ritual, food, event, artifact, language or architecture with other children across the world. The goal is to introduce interesting qualities of different cultures to children in the voices of other children.

Do you know?

In Indonesia, a person points with their thumb as it's considered very rude to point with a forefinger.

Acknowledgements

I would like to thank Dan Boyarski, my advisor for his support and encouragement throughout the project and my time at School of Design, Carnegie Mellon University.

I am grateful to the Carnegie Mellon Graduate Student Assembly and Provost's Office, for their Graduate Small Project Help grant that allowed me to fund my research studies successfully.

Thank you to all the participants and the families, who were generous to take out their time and work with me in different phases of research. Special thanks to Saurabh *bhaiya* for helping me in connecting with other families.

A heartfelt thanks to Parita for fun, tense and crazy moments throughout the year. And lastly, my family and Manan for always being there. Without their patience and wake-up calls, I wouldn't have made it to the end with my sanity intact.

Do you know?

In Brazil, New Year's Day is celebrated with a bowl of lentil soup as the lentil is considered a symbol of wealth.

Table of contents

4	Abstract
6	Acknowledgements
10	Introduction
16	Process
18	Related work
24	Existing products
32	Exploratory research
56	Generative research
68	Evaluative research
88	Design solution
98	Future directions
100	Personal reflections
102	References

Do you know?

The Bahai People of Iran have their own calendar consisting of nineteen months each with nineteen days.

Introduction

How can children of immigrant families adjust to the multiculturalism in their new environment?

Problem

The United States is becoming increasingly culturally diverse. It is estimated that by the year 2050 almost half – 49.9% of the population will be non-Caucasian (U.S. Census Bureau, 2000). In large metropolitan areas such as New York City, the majority of the population now already comes from various countries in Asia, South and Central America and the Caribbean, and as much as 36% of its residents are foreign born (U.S. Census Bureau, 2000). The presence of families from 125 nations in the area covered by one zip code attests to the increasing diversity of the country (National Geographic, 1998). Reasons for relocating to the United States vary among families. Many families come because of economic opportunities in the U.S. whereas others relocate because of political and religious discrimination in their countries of origin ¹. With increasing relocation of families between countries, the adaptation of immigrants to a new culture is a significant worldwide concern especially for the immigrant parents. In the context of sustaining their own cultural identity, parents often face complex challenges in bringing up their children in a culture different than their own.

Asian American families comprise units with diverse immigration histories. For example, many of these families are five and six generations removed from migration, whose ancestors entered the United States in the mid-1800s and early 1900s during the sugar and pineapple plantation period in Hawaii and the Gold Rush and Transcontinental Railroad eras in California. Other families are third and fourth-generation Americans whose Asian ancestors entered the United States during World War II and the Korean War. There are also Asian American families who entered the United States after the passing of the

1. Congress, E. P., and González, M. J. *"Multicultural Perspectives In Working With Families."*, 2005

Immigration Act of 1965 or after the United States' pullout from Southeast Asia in 1975. Moreover, Asian American families comprise members who entered the United States as recently as yesterday. This suggests that Asian Americans represent a wide range of diversity to the extent to which they have adopted the norms of the dominant US culture and retained the norms of the traditional Asian culture ². The range of diversity in the United States opens up a brave new world of global connections and multicultural relationships. While it brings greatest opportunity and choice about how we live our lives, there is a challenging side to diversity. How do families blend their own culture over time with the American culture to get a third mixed culture for raising their children? Within this context, parenting becomes a complicated concern between enculturation (reinforcing the basic values and norms of a culture) and acculturation (when the values and norms of an outside culture are acquired). Parents try to inculcate cultural roots in their children by enrolling in different cultural organizations and making them participate in different cultural activities like music, dance, calligraphy, etc. The research conducted on the influence of contextual factors and based on the experiences of Asian immigrant parents reveal retention of ethnic identity to be influenced by engagement in cultural celebrations and activities, a need to hold onto tradition and upbringing, family ties, social support, and a rejection of perceived Western values ³.

2. Kim, B. S. K., Ahn, A. J., and Lam, A. N. *Handbook of Mental Health and Acculturation in Asian American Families*. 2009.

3. Inman, A. G., Howard, Erin E., Beaumont, R. L., and Walker, J. A. "Cultural transmission: Influence of contextual factors in Asian Indian immigrant parents' experiences.", *Journal of Counseling*. 2007.

However, children often face the challenge of maintaining the balance between cultures. Most often, the children at the age of adolescence are repulsed by their native culture to fit in with the common American culture of their peers in school. Interestingly many adults admit that being children of immigrants in America, they were inappreciative towards their non-American culture during their childhood but they now take pride in having a unique identity of distinct cultures.

Core questions

How do families define culture?

What challenges do parents face in bringing up their children in a culture different than their own?

What are the parents' expectations from their children in terms of cultural values?

How are parents trying to retain and pass their cultural heritage to their children in daily life?

How can the gap in cultural values between parents and children of multicultural families (immigrant) be bridged through a human centered design intervention?

Opportunity

Interaction design is defined as shaping the behavior of products (artifacts, environments, services and systems) with respect to people and their context (social, economic and cultural). It is also defined as shaping behavior of people with respect to the products and their context of use. It is critical to develop sensitivity to cultural issues in design considering the increasing diversity across the countries and the global context of product design and use. As a designer, I will face the challenge of designing for different cultural contexts in future and it is important to be able to understand multi-cultural needs of people.

With increasing mobility between countries, how can we design for people from different cultural contexts? How can children adjust to the multiculturalism especially in a context that assumes a single culture?

Using my skills in interaction design in this thesis, I'm exploring how a human centered design process can help children absorb their cultural roots and adjust to multiculturalism.

Project scope

The cultural values of families from different countries will be different for different nations because of social, political and economic reasons. For the purpose of my thesis, I focused on designing a solution to support the cultural needs of immigrant families with Indian roots living in the United States.

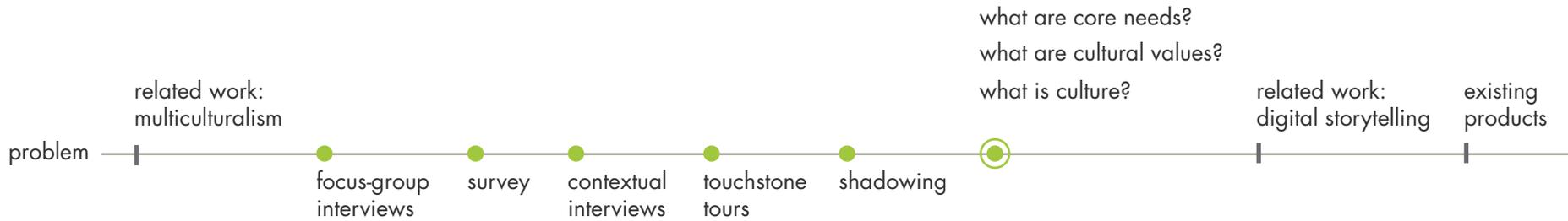
The initial exploratory phase involved understanding interactions with children of different age groups of Asian roots. However, I worked with families of Indian origins for the purpose of research in the later phases. I focused on designing for children aged 8–16 years. An age when they start questioning and discussing their differences and problems.

Do you know?

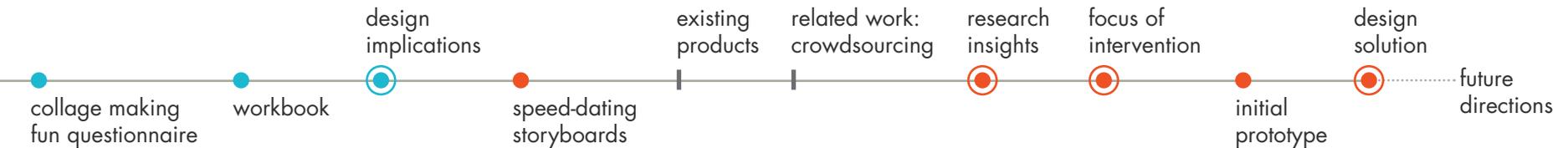
'Morning Mr Magpie' is often said by people in the UK to counteract the bad luck brought by the sighting of a single magpie.

Process

Can a human centered design process solve the stated problem within a multicultural context?



My design research was structured in three phases with different goals and intentions. The first phase of research – the exploratory phase aimed to immerse myself in the lives and environments of the stakeholders (parents and children), discover insights and highlight areas of opportunity to frame the design intervention. I also looked at existing literature to understand cultural theories and multicultural experiences of Asian families in the U.S. Based on the chosen direction, in the generative phase, I collaborated with the parents and children to contribute ideas addressing the identified problem areas through different activities. Different existing solutions were analyzed to identify the critical need and focus of the design intervention. Finally, the evaluative phase involved testing different ideas and refining low-fidelity prototypes into the final concept.



Related work

The literature study helped me in validating the problem and frame research questions in different phases. I examined selected papers, books and theory to inform my understanding of three key areas: multiculturalism, digital storytelling and crowd sourcing. This section includes the summary of the work that directly impacted the focus of intervention in my thesis.

Understanding culture, Shelley Zion & Elizabeth Kozleski

It's critical for educators to understand culture because our individual cultural orientation is present in every interaction. Often, people make assumptions about a person's beliefs or behaviors based on a singular cultural factor of race or ethnicity. Cultural identities are a complex combination of thoughts, feelings, attitudes, beliefs, values and behaviors. It's important to understand and be sensitive to the fact that others may differ in their cultural interactions. There is no checklist of behaviors to categorize a particular culture and each student should be understood from his/her frame of reference in different characteristics—language, attitudes towards time, space/proximity, gender roles, familial roles, taboos, family ties, grooming and presence, life cycles and education. These characteristics were discussed and referenced by parents in the interviews when explaining differences between Indian and American culture.

Cultural Transmission: Influence of Contextual Factors in Asian Indian Immigrant Parents' Experiences

Inman, Howard, Beaumont & Walker

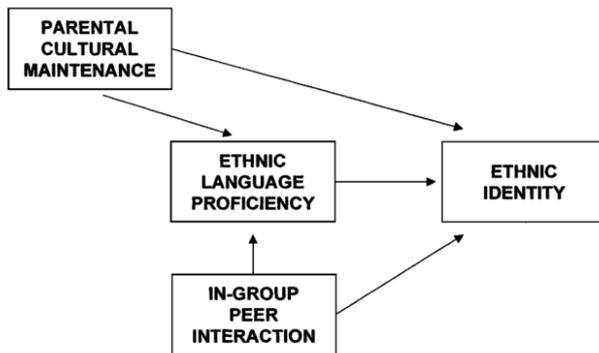
Understanding the significance of losses, expectations, experiences and challenges for immigrant parents in retaining and transmission of culture and ethnic identity provides insights into specific challenges experienced by second-generation children. The research in this paper reveals ethnic identity retention to be influenced by engagement in cultural celebrations and activities,

a need to hold onto tradition and upbringing, family ties, social support, and a rejection of perceived Western values. Environmental obstacles and barriers within American society, loss of familial support, lack of cultural continuity, and an inability to have the “best of both worlds” are some of the challenges in ethnic identity retention. The research also points out to challenges of immigrant parents of limited familial guidance, obstacles from Western culture and an inability to apply their own experience or upbringing.

The Role of Language, Parents, and Peers in Ethnic Identity Among Adolescents in Immigrant Families

Phinney, Romero, Nava & Huang

The paper examines the importance of 3 factors that are assumed to influence ethnic identity among adolescents from immigrant families: ethnic language proficiency, cultural maintenance by parents, and social interaction with peers from the same ethnic group. While language retention appears to be particularly critical for children who arrive at a very young age or are born in the United States. Even for those who learn it at a young age may not value retaining it, because of the salience of English in schools, with peers, and in the media. Proficiency in or the retention of, one’s ethnic language will have a positive impact on ethnic identity among youths. The paper concludes that the parents in immigrant families can have an important impact on their adolescent children’s sense of their ethnicity, either directly or through the promotion of the ethnic language at home.



Proposed model of influences on ethnic identity in the paper *The Role of Language, Parents, and Peers in Ethnic Identity Among Adolescents in Immigrant Families*

Multicultural Families—What Makes Them Work?

Mary C. Sengstock

There are lessons that can be learned from multicultural families to deal with multicultural setting and make relationships more effective. Accentuating their common cultural characteristics and minimizing their differences, distinguishing between those cultural dimensions which are important and those which are not, searching for the commonalities in their relationships, and establishing a supportive social setting—all can engender the development of positive relationships in multicultural and/or multiracial settings in the family, at work or school, or in communities.

7 things you should know about... Digital Storytelling

EDUCAUSE Learning Initiative (ELI)

People tell stories to teach beliefs and values to others. The oral tradition of knowledge transfer and exchange has served as the basis for education since humans began teaching one another and digital stories build on this model by incorporating rich, dynamic media. A majority of U.S. teens use various tools to create digital media, and this proportion is growing. Today's students don't think twice about generating original electronic content and sharing it online. Digital storytelling is the practice of combining narrative with digital content, including images, sound, and video, to create a short movie, typically with a strong emotional component. Using simple elements like a recording

device, microphone, tools to shoot pictures and video and hardware and software to manipulate images and video can enable users with little or no technical knowledge assemble a script into digital stories.

The World of Digital Storytelling, Jason Ohler

Through creating electronic personal narratives, students develop power of their own voices and become active creators, rather than passive consumers, of multimedia. It's important to focus on the story first and the digital medium later in digital storytelling to enhance students' skills in critical thinking, creative writing and media literacy. Digital stories are powerful tools because children are involved in the creation of combining story and technology to express themselves to others. It's a challenge for students to use the persuasive nature of the electronic culture and to zoom out and see the larger picture of media impact.

Kim's digital story is evocative and crafted with care. It's personal, yet it touches a universal chord. Her story incorporates authentic voice, problem-resolution, narrative tension, a transforming realization, and other elements most of us expect from a serious story or movie. It is both a story and a documentary, incorporating real events from Kim's life and her reflection on those events.

Crowdsourcing, Collaboration and Creativity, Aniket Kittur

Crowdsourcing has worked well for tasks that are fast to complete, incur low cognitive load, have low barriers of entry, require little expertise and can be broken up into independent subtasks. Social norms, a desire to avoid looking bad and potential for additional future work can promote higher quality contributions. Many collaborative tasks in the real world, however, involve people interacting with each other. Therefore, there may be benefits from breaking the assumption of independence and enabling people to collaborate interactively in crowdsourcing. The advantages of interacting groups are to communicate and coordinate on the fly, identifying with a group and the bonds formed from interactions with group members. An important area of future research in crowdsourcing is to understand the motivational and reward structure and how those can meet the needs of different markets.

Existing products

The study of existing products uncovered what has been done, what's successful and what's the need in the domain of culture and storytelling. Although I looked at many products including storytelling applications for children, these had the most influence in guiding my focus of intervention for children above 8 years.

Lunchboxproject.wikispaces.com

Lunch Box Project is an international language and cultural awareness project started in 2008 with classes from China, Australia and Turkey sharing what they ate for lunch. This project was particularly interesting to me because the main goals of this project are for students to use the second language they are learning for an authentic purpose and for students to become aware of the differences and similarities between themselves and students in other countries and how they might be viewed by students overseas. The project depends on how many schools in different countries are involved and how the teacher plans the project for children to share their thoughts and initiate a discussion within the classroom. The strength in the project is that it used one of the key scenarios of eating ethnic food from my research and that the concept steered ahead with the help of teachers at school. However, I felt that could also be a limiting factor in children's participation in some countries.



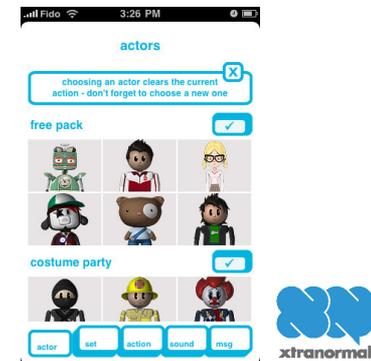
Globalreadaloud.com

Started in 2010, the goal of the project is to connect classrooms across the world. A book is chosen and read aloud by a teacher in the classroom. Students from all over the world then interact with the help of media (skype, online learning platforms, email, blog, etc.) to discuss the book. Each teacher decides the scope of the project with how much time they would like to dedicate and how involved they would like to be. I personally felt that it was a great way to make children aware that they are part of the bigger world and connect them with other children across the world. Schools and teachers can be really helpful in facilitating the conversations between children at a global level.



Mobile applications on storytelling

After I decided to focus on the core need of new storytelling experiences, I looked at many existing mobile applications that help in creating stories. Some of these applications were StoryKit, an app to create an electronic storybook; myStory Lite, an app to create and narrate stories with sounds and pictures; signBright, an iPad storytelling application to connect deaf children & hearing parents and xtranormal, a website that turns words into a 3D animated movie. Most of these applications provided tools and features to use words, images, voices, characters, backgrounds and colors to construct stories. The opportunities identified after studying these applications were to come up with something that doesn't have a big learning curve, allows collaboration with friends and family and encourages use of user's own content instead of only using provided images and sounds.



incultureparent.com

Focused on culture, tradition and language, InCultureParent is an online magazine featuring articles on parenting multicultural children. Unlike other parenting websites based on one dominant cultural framework, InCultureParent was started by Stephanie Meade as a meeting point and an information source to discuss cultural differences and gain insights into what other multicultural families are doing to raise children as global citizens. The service is a great resource featuring several global holidays and traditions with recipes, books with cultural themes and craft ideas for children. I stumbled upon this service after speed dating storyboards and realized that it was similar to my concept of CulturalPool.com in many ways but different in one important manner. It focused on content by parents and writers around the world rather than participation by children. Also, the content in the form of posts was dispersed throughout lacking hierarchy, and categorization.





Jabberstamp

Jabberstamp

Jabberstamp is a tool that allows children to synthesize their drawings and voices. To use it, children create drawings, collages or paintings on normal paper. They press a special rubber stamp onto the page to record sounds into their drawings. When children touch the marks of the stamp with a small trumpet, they can hear the sounds playback, retelling the stories they have created. Children ages 4+ can use Jabberstamp to embed names, narratives, characters' voices and environmental sound effects in their original drawings. Children's compositions help them communicate their stories with peers and adults, and allow them to record and situate stories in personally meaningful contexts to share with others, before they have mastered writing. Jabberstamp is one of the projects of an interaction designer Hayes Raffle who invented materials for tangible interpersonal communication and toys for children to learn complex ideas through play at MIT Media Lab. His work was suggested by Prof. Aisling Kelliher in the December Thesis poster session. I felt that Jabberstamp was an excellent playful tool to help in supporting children's emergent literacy without using traditional methods.

StoryVisit

Hayes Raffle's another project is Story Visit, a website where children and long-distance loved ones can read books together. Story Visit combines video conferencing and connected story books: when a grown-up turns the page, the child's page turns along with it. If the child points to something on his screen, the grown-up can see that on her screen too. This was an interesting concept addressing the emerging problem from my research of dispersed families and the need of grandparents to interact with children. Designed for very young children (3 year olds), the product makes joint activities possible and engaging between children and long-distance adults.



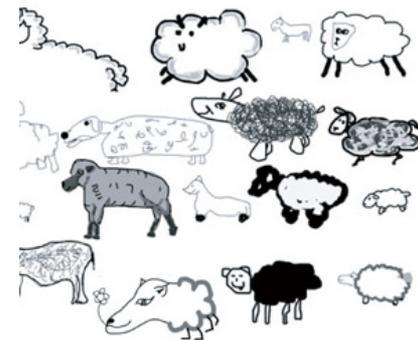
gnaana.com

Gnaana is a retail website and online community center offering families a way to incorporate elements of South Asian languages, traditions and histories into their everyday lives. Geared towards children from birth to 12 years of age, gnaana's products and blog posts are inspired by the Montessori method. The products range from alphabet blocks in regional Indian languages to puzzles, musical CDs and other developmental toys designed to inspire children to take interest in learning about India. As a South Asian mom growing up in the US, but born in India, Aruna Hatti founded the company to fulfill the need of engaging educational products for children to connect with Indian culture. I felt that gnaana's website and blog were really successful in featuring different resources and links about the challenges and ideas of raising multi-cultural children. While it fulfilled the need of a good resource focused on Indian heritage for parents, I wanted to explore an intervention driven by children to understand different cultures.



TheSheepMarket.com

While making low-fidelity prototype for the design intervention, I started researching about crowdsourcing. Aaron Koblin's work was particularly influential in learning how people like to contribute in small ways. I was lucky to attend his lecture and understand his approach at Studio for Creative Inquiry, Carnegie Mellon University. Relevant to my thesis, the project TheSheepMarket.com is a collection of 10,000 sheep made by workers on Amazon's Mechanical Turk. Workers were paid 0.02 (\$USD) to "draw a sheep facing to the left". His thought that an interface is a narrative device summed up my thoughts about using the concept of crowd sourcing in my project to facilitate cultural stories by children across the world.





StoryCorps

StoryCorps is an independent nonprofit organization whose mission is to provide Americans of all backgrounds and beliefs with the opportunity to record, share, and preserve the stories of our lives. Founded by radio producer David Isay in 2003, StoryCorps has collected and archived more than 45,000 interviews with nearly 90,000 participants. The stories are recorded between two people (friends, family or acquaintances) that know and care about each other. A trained StoryCorps facilitator guides participants through the interview process. The participants can record their stories through StoryCorps recording booths or by conducting Do-It-Yourself interviews in their home, workplace, or community. StoryCorps interviews are featured every Friday on NPR's Morning Edition and archived in the Library of Congress in Washington DC. These interviews are also available as podcasts and animations on the website. An attempt 'to instruct and inspire people to record stories in sound', StoryCorps is a fascinating way to bring people together, record memories, shared with an audience and store for future generations. Focused on Americans through oral histories, this project was particularly influential in my design intervention to crowd source stories by the audience.

NAME/ PRODUCT	MEDIUM	DESCRIPTION	FEATURES	MISCELLANEOUS	POSITIVES	Weaknesses/ MISSING/OPPORTUNITIES
STORY KIT 	iphone app itunes	Create an electronic Storybook.	<ul style="list-style-type: none"> - Write text - Illustrate - drawing, photograph, Album photos, photos of sketch - Record sound - Layout elements - Reorder/delete - Share 	<ul style="list-style-type: none"> - By International children's Digital Library (ICDL) - Includes 4 public domain books which can be rewritten. 	<ul style="list-style-type: none"> - Can use your own content over existing balance of existing/new - Different mediums - draw, photo, record - It's designed for children? 	<ul style="list-style-type: none"> - Will children use it on his own? - How ^{can} parents collaborate? - More stories collection - colorful ^{fun} - Interactive elements existing in story?
MY STORY LITE 	iphone app itunes	Create stories to narrate with sounds, pics.	<ul style="list-style-type: none"> - Select category of story to start - Illustrations with diffnt sounds - start → problem → solution → <u>end</u> help tips. 	<ul style="list-style-type: none"> - 3 kinds of hints to create end of stories 	<ul style="list-style-type: none"> - Impromptu stories with visual cues - sounds are good for imagination - good for bed-time stories - quick - parents can narrate stories instead of children reading on own. 	<ul style="list-style-type: none"> - Any random characters - maybe there's a mix of popular and new - more intuitive - step-by-step story experience
SignBright 	ipad app BWA State Univ	Storytelling application to connect deaf children & hearing parents	<ul style="list-style-type: none"> - Learning - Objects Visual conversion - stories - story with sign language. Signfinder - Facing camera - record own gestures 	<ul style="list-style-type: none"> - All age-groups - With all objects - Sign language - only sign language - make own stories 	<ul style="list-style-type: none"> - English sign language - easy translation of sentences into sign language - Allows practicing signs - replay 	<ul style="list-style-type: none"> - How can it be modified for ethnic & cultural backgrounds - Maybe for really young children of how for adolescents? - complicated stuff.
Story Starter 	website	Random creator for story starters	<ul style="list-style-type: none"> - Creates random story statements - can be used for short stories, plays, scripts, fun 	<ul style="list-style-type: none"> - Resource of story starting statements 	<ul style="list-style-type: none"> - One resource for children separately 	<ul style="list-style-type: none"> - Visuals?
xtranormal 	website	Creates words into a 3D animated movie	<ul style="list-style-type: none"> - Make movies with actors, sets - actor customization 	<ul style="list-style-type: none"> - Can be used in classrooms 	<ul style="list-style-type: none"> - Kids learn the art of movie-making 	<ul style="list-style-type: none"> - Big learning curve - limited characters
Zimmer twins 	website	animation creator, choosing characters - expressions, background, music & etc.	<ul style="list-style-type: none"> - 3 characters (boy, girl, cat) - customize their actions, expressions, backgrounds, voice, objects, transitions. 	<ul style="list-style-type: none"> - Watch a movie - Create a movie - Nice set of options 	<ul style="list-style-type: none"> - Nice visuals - Mature kid style - Kids & Families, Schools - 2 versions - start from scratch or impenre 	<ul style="list-style-type: none"> - Nice visuals - Mature kid style? - Trading of stories, maybe characters are released once you get points.
Pixton comics 	website	Complex comic creator tools where one can	<ul style="list-style-type: none"> - Tell story through characters - collaborate 	<ul style="list-style-type: none"> - add own images. - any age 	<ul style="list-style-type: none"> - Nice visual style - comic is 	<ul style="list-style-type: none"> - these comics can be traded - children can make story - tradition through this?

Exploratory research

In order to understand the needs of immigrant families, I used a variety of research methods including surveys, focus group interviews, contextual interviews, touchstone tours and shadowing. These methods helped me understand various challenges faced by the Asian families and in particular, families with Indian roots in the United States.



How was your experience as a child with cultural roots different than American?

What were your parents' expectations in introducing their cultural roots to you?

Which activities do you participate in school and after school?

Focus group participants



Focus group interviews

Description

In groups of two, I interviewed six adults (age 25+, graduate students at CMU) to talk about their multicultural experience in their childhood. These adults are born and brought up in United States and have cultural roots in Korea, Taiwan, Hong Kong, Iran or India. These adults have lived in different cities like Chicago, Los Angeles, Demarest (New Jersey), Stillwater (Oklahoma), Lafayette (Louisiana) or Pittsburgh. I contacted these adults through personal network at CMU community. I considered this a first step to understand the first-hand experience and get the problem validated.

Findings

1. Parents stressed on learning different activities like music, swimming, calligraphy, and sports, typical to the native culture. Going to a language school on weekends is common with most children.
2. When children were young, they wanted to be as normal as other children. It was challenging to see different things at home than school.
3. Most parents either became lenient or strict in introducing cultural values with the second child depending on their experience with the first child.

4. The children were stereotyped and faced rude comments from other children in school even in cities where there was a big population of immigrant families (like New Jersey).
5. Importance of close family ties and eating ethnic food was key in bringing families together.

Conclusion

Validating my initial observation that the children from immigrant families participate in many more activities than other children, most of the children swamped by extra-curricular activities start questioning their routine in teenage years. The adults agree that their parents were concerned about their children being entirely American and try to find similar ethnic families to share the cultural values. Depending on how conservative parents are, the introduction and discipline of introducing cultural values vary in different families. The adults agree that although they didn't like the reinforcement of a different culture than American culture in childhood, they're appreciative and thankful to their cultural background for their personality now.

I mentioned about hoisting American flag and they would say that it's an American thing. Didn't make sense to me then.

I just wanted to be a normal kid American kid. Now I think about it and I say it's so cool, am so excited about my background.

Are you a fob or twinkie?

**fob - fresh off the boat. (just arrived in America), twinkie - yellow on outside, white on the inside.*

I think normal kids don't do so many activities...for me it wasn't normal.

Do you think it's important to introduce children to different cultural values?

What all do you consider important to a culture?

What all do/would you do to introduce your children to multicultural values?

What all (cultural activities) did you do as a child?

2. How do you usually celebrate cultural events/festivals/holidays?

#	Question	Mostly	Sometimes	Rarely
1	At home without friends	12	9	3
2	With family & close friends	17	9	3
3	With community/cultural groups in the city	6	12	7
4	Go for a vacation	3	12	8
5	Visit country of origin for major festivals	0	7	11

Survey

Description

Based on the conclusions from the initial focus group interviews, I wanted to know what values do families consider important to a culture? While the survey for parents as well as children (age 18+) of immigrant families asked basic demographic questions like country of origin, year of move to United States and cultural events celebrated, etc., the main focus was to understand how different families are retaining and introducing cultural values to their children.

The survey was sent out to families in my network, posted on facebook, PittsburghIndian.com and CMU community. There were 30 responses from parents of Indian origin and 20 responses from children (age 18+) of different ethnicities living in different cities of the United States. The survey was created also to recruit families for the next phases of research.

Findings

1. People consider family, cultural events, food, history and language as the most important values of a culture. Rituals, beliefs, attitude and media were considered less important and art & craft and clothes were considered least important values to a culture. Interestingly, the associated values to a culture were similar for both parents and children who took the survey.

2. Most parents communicate with their children primarily in English and sometimes in their regional language.
3. Cultural events, visit to country of origin and eating ethnic food are the most common practices to introduce and retain cultural values in a family.
4. Almost all parents and children who responded to the survey agree that it's important for children to know their cultural roots. Only a few thought that they couldn't force it on their children in any way.
5. Most families celebrate events associated with their culture with close family and friends in United States. Some of the other American holidays like Christmas, Thanksgiving are celebrated too.
6. Only a few actively participate in the cultural organizations of their city. There are too many organizations to choose from and therefore, people prefer to participate in an organization based on a cultural event or celebration.
7. The adults agree that although they didn't like the reinforcement of a different culture than American culture in childhood, they're appreciative and thankful to their cultural background for their personality now.

It is important to balance and pick the best of cultural values from both countries (country of origin) as well as country of current stay.

I think as immigrant parents, we face a continuous mental 'tug-of war' to find the right balance and to arrive at the 'correct' set of values and cultures that should be instilled in our kids. Bringing up kids so that they are not completely insular and yet exposing them to some of the cultural aspects of their parents' culture is a difficult task.

I love being in a multicultural environment and learning about different cultures. I wish I had embraced my own culture more as a child.

I value the multicultural values that were instilled in me during my childhood and am very thankful and appreciative to my parents for raising me in the way that they did.

Conclusion

There is a consensus about being proud of roots because it plays a major role in building identity and how we see things. At the same time, they find it difficult to strike a balance in picking the best of cultural values from both countries (country of current stay and country of origin). Family values, celebration of cultural events and food are key values in retaining cultures. Validating my earlier observation again, many children shared the fact that it's important yet challenging to have different cultural values and they wish they had embraced them as a child.

25. Do you think it's important to introduce children to different cultural values?

#	Answer	
1	Yes, its very important	
2	Yes, sort of	
3	Well, we can't force it	
4	No, children have too much to learn anyways	
5	Not sure yet	
6	Comments	

26. What all do/would you do to introduce your children about multicultural values?

Ad

Table Options ▾

#	Answer		Response
1	Introduce children to art/dance/music/movies		26
2	Communicate with children in different languages		20
3	Celebrate cultural events with children		28
4	Visit country of origin with children once in a while		28
5	Narrate stories to children		24
6	Talk about history of country to children		23
7	Eat ethnic food at home		28
8	Make children meet/talk to relatives		25

51. Do you think it's important to have different cultural values? Select all that applies to you.

Add Grap

#	Answer		Response
1	Yes, I wish I understood this as a child		6
2	Yes, I take pride in having exposed to different cultures		19
3	Yes, but it's quite challenging		6
4	Not really, it's too much too expect from children		0
5	No, I'm born American and I feel American		0

How do you define culture? What are the values that you associate with a culture? Can you give examples?

How important do you think it is to introduce children about multicultural values? How do you do that? Over the years?

What are your expectations from your children? What do you think about your children's response to your expectations?

What resources do you use in narrating stories or sharing experiences with your children?

Contextual Interviews

Description

From the survey responses of parents in the survey, I contacted five families who were interested in helping me further in my thesis research for contextual interviews. For the purpose of focus in research, the families chosen have Indian origins, are living in suburbs of Pittsburgh and Philadelphia and have child(ren) aged 6 and above. The goals of these interviews were to understand how different families describe culture in day-to-day life and what are their expectations from their children in terms of retaining those cultural values. The interviews were also conducted to inquire about past experiences and methods that parents are using to introduce their cultural roots to their children in the United States. Children were also interviewed in presence of their parents about the language of communication with parents, activities that they liked after school, communication with grandparents and cousins and their understanding of the country India.

Findings

1. Proud of ROOTS

All the families interviewed echoed the fact that they wanted their children to be proud of their roots but not by forcing them to do cultural activities. They want their children to know their cultural differences and own up them. These families are less conservative and strict about following religious traditions or have stopped

sending their children to *Bal Vihar* (weekend school at the Indian temple). These parents realized that mythological stories narrated and activities conducted mostly by an older person at *Bal Vihar* were a bit more advanced, uninteresting and rigorous or their children.

2. Bicultural IDENTITY

Most of these families have bicultural identity of Indian culture at home and American culture outside, parents often struggle in deciding the balance between both the cultures. How can they pick and teach good qualities of both the cultures to their children?



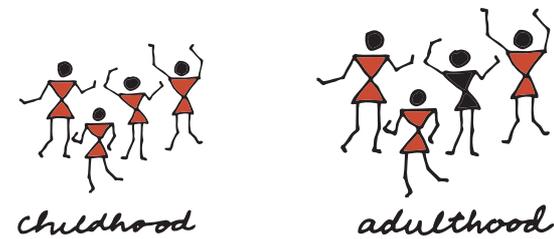
3. Answer QUESTIONS

It's challenging for parents to explain to their children about why daily activities at home are done differently from their friend's house. Parents feel there are inadequate resources to help them answer and explain differences in cultures to their children.



4. Similar and UNIQUE

When children are young, they want to be as similar to their peers as possible and don't want to stand out differently. Children often face rude comments and indifference from other children at young age when they are in minority. When they grow older, they want to be unique and that's when they realize the importance of their cultural experience.





It's very important for children to learn where they come from. Not only know about their roots but proud of their roots.

Respect for elders. The way we see elders not necessarily age wise but also superiority wise. You don't talk to your superiors with their first name. You don't talk to an older person in the same way that you do to a friend.

Festivals are what we try to celebrate regularly. They (children) enjoy doing the activities and we can explain the significance and how of celebrating. They look forward to food, gifts and fun with the other kids.

5. Unstated EXPECTATIONS

Parents want their children to understand the value of hard work and excellence in education besides other unsaid expectations. It's often difficult for parents to share their contrasting childhood and upbringing experiences with their children because of their standard of living in the United States now. They wear good clothes, live in a good comfortable house, go out and have all entertainment facilities. They never understand hardship and struggle, which we had to get to this stage in life.

6. Interaction with FAMILY

The families resonate the disadvantage of being away from close relatives, cousins and particularly grandparents, mostly in another country. Their visits to India have reduced with time due to busier lifestyles; children school vacations and their activity schedules.

7. Description of INDIA

When asked to describe what comes to their mind about India, the children described it as a crowded and busy country. Eating good food and meeting cousins is what excited most of them about the country.

8. Acceptance in DIFFERENT CITIES

Validating the finding from focus group interviews, children shared differences in their experiences in different cities of

the United States. The children face extremes with favoritism or complete indifference by other children and teachers if they were in the only children with Indian origins in class at school.

Conclusion

Parents have a hard time choosing the best values of both Indian and American cultures. They understand that times have changed and they were raised differently and don't want to force their children to learn about Indian culture. At the same time, they understand that the future generation is going to experience multicultural relationships more than ever and it's important to be able to appreciate different cultures. Introducing children to only Indian and American cultural values is not the solution. It's important for everyone including immigrant as well as American families to appreciate different cultures and have a multicultural experience so that one doesn't experience a feeling of isolation. Exposure to different kinds of cultures could make a person appreciate his/her own culture.

Good education is given. You have to go to college-its expected and not even a question. What do they want to do after that is what we don't ask.

Our biggest fear is that they'll end up being totally confused. So we have to try to communicate to them where they come from so that they understand that their lifestyle is much different than an average American.

Our role is to try and find a happy medium. We don't want them to be so different that they are too different or can't survive here. We have made a choice to stay here, they're Americans and they have to be. But they have to know where they come from so that they're not uncomfortable in their own skin.

How are they trying to retain their cultural identity with use of artifacts and activities in daily life?

If you have to send me pictures of products in your house about the things that remind you of your culture, what would those be?

Touchstone Tours

Description

The goal of touchstone tours was to identify the use of cultural products and activities that help immigrant families retain their cultural roots. Houses of three families were visited and photographed. Images from one family were collected to see the influence of tangible artifacts (art, craft, utensils, tools, etc.) and capture cultural practices (prayer, eating dinner together, playing music instruments, etc.).

Findings

Interestingly, the cultural values that were least important from the survey results— art & craft and clothes were key cultural artifacts in the houses of interviewed families. Indian Art in the form of paintings, sculptures, accessories and fabrics in furnishings were common in the houses (of families interviewed). The other common artifacts were utensils in the kitchen owing to ethnic food and a prayer place with photographs or sculptures of various idols of the Hindu religion. One family also displayed photographs of deceased elders of the family in their house, a common practice in India to respect and remember the family members. Families also had a collection of Indian children books that were used to narrate stories to children at younger age. To an extent, the display of Indian art reminds families of their Indian roots as well as gives an opportunity to appreciate the detailing and aesthetics in Indian crafts.







Cultural artifacts identified in touchstone tours

Shadowing

Description

Shadowing was an opportunity for me to observe how families interacted and did activities not only at home but with other immigrant families as well. I got a few opportunities to spend some time, observe and interact informally with two families (known personally to me) without being obtrusive.

I also got a chance to attend the celebration of a cultural event *Sankranthi* with one family in Austin, TX. It is one of the major festivals celebrated in the state of Andhra Pradesh in India and is celebrated to mark the end of the harvest season during January. People wear new clothes, pray to god and make traditional food and sweets on this day. *Bommala Koluvu* (assembly of toys/dolls) is an integral part of the festival where dolls of animals and birds and figurines depicting the rural life of the *Telugu* community are decorated and displayed in the house. Children participate with their parents to prepare the display. The event that I attended was celebrated in traditional way where families wore traditional clothes, invited other families and ate ethnic food together.

One of my most valuable experience was to attend *Bal Vihar* (weekend school) with eight families on a Sunday. This was a simpler version of the weekend school at the temple and seven families had come together to improvise the cultural activities for children to meet every two weeks at a family's house. The

Assembly of toys/dolls on Indian festival *Sankranthi*



one-hour session involved parents and children doing several activities and reading of a book together. It started with chanting Om three times followed by meditation for five minutes. After that, eight pages of the book *Ramayana* with mythological story were narrated in simple words and illustrations by the parents. After a general discussion of the reading, the host family moderated a discussion about four values (jealousy, respect, manipulation, selflessness) supported by a presentation of definition, examples from *Ramayana* and real life examples. Then these words were divided between teams of children to illustrate the value with a realistic scenario. The session was concluded with *Aarti* (prayer to God) and fruit as the offering. Finally some cake, water and coffee were served which gave time for parents to discuss the next session and children to play together.

Findings

1. Based on the city and the degree to which parents are conservative, they find ways to do different activities with families of similar beliefs to retain cultural values.
2. After participating in displaying dolls in celebrating *Sankranti*, children split into two groups. Older children (12+ years) got busy in playing video games and younger children (6–12 years) watched videos and animations on an iPad.

We didn't wanted it (Bal Vihar) to be religious, we wanted it to be fun. Especially for children.

Yes it's working; we had only 3 books so far in 3 years. Kids remember the stories, it's interesting to them and they seem interested. We sometimes do a news activity. Where children find news about India in 20 minutes. Discuss whatever you find interesting. Last year we got them (children) into the cricket world cup. Now, they know about T20, chess players and movies. Before that, we did dresses and music instruments in India. We also tried making maps by mapping the states and where everybody's from?



3. The simpler improvised concept of Bal Vihar is successful, introducing children to other children in the United States like them and in maintaining their interest over one hour.
4. Children like to participate in the discussions of the cultural stories when they see other children who face the same cultural challenges participating in the activity. They learn and enjoy better together. They don't see themselves in minority or being forced by parents.
5. The comparison of cultural values from a mythological story to real life examples made children understand the relevance of the story and the associated values.

I brought it up in Bal Vihar about how to avoid getting kids born and raised in this country into the culture we don't want them to.

Children performing a skit on values learned from *Ramayana* in *Bal Vihar*

What is culture?

It's the way we live and the way we think.

Culture dominates your thought process. And that's what makes you react differently.

Culture would be similar to something that I was exposed to when I was growing up. I would define it as learning to appreciate music and dance.

Something that a community has in terms of religion, lifestyle, food, clothing, beliefs and education.

Cultural PERSPECTIVES

the philosophical perspectives, meanings, attitudes, values, beliefs & ideas that represent a culture's view of the world.

Cultural ARTIFACTS

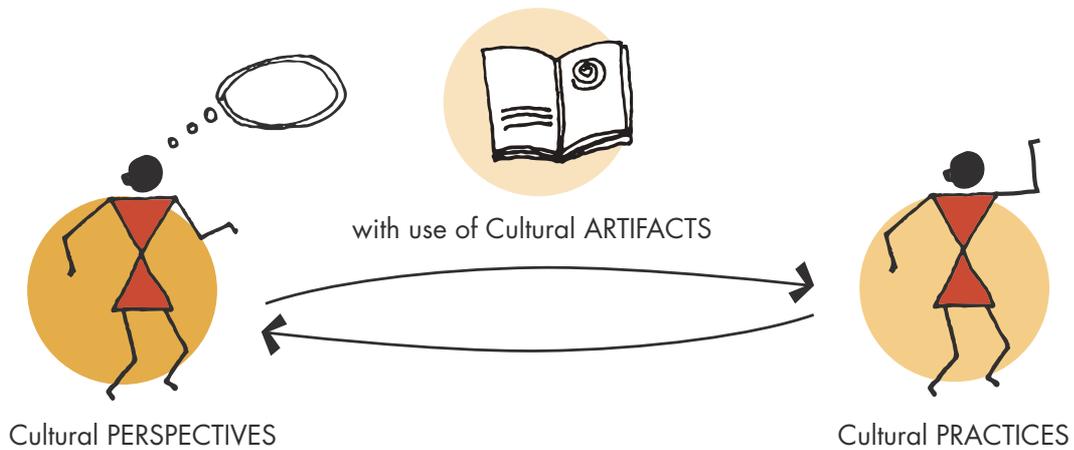
are the tangible or intangible creations that reflect a culture's perspectives and practices.

Cultural PRACTICES

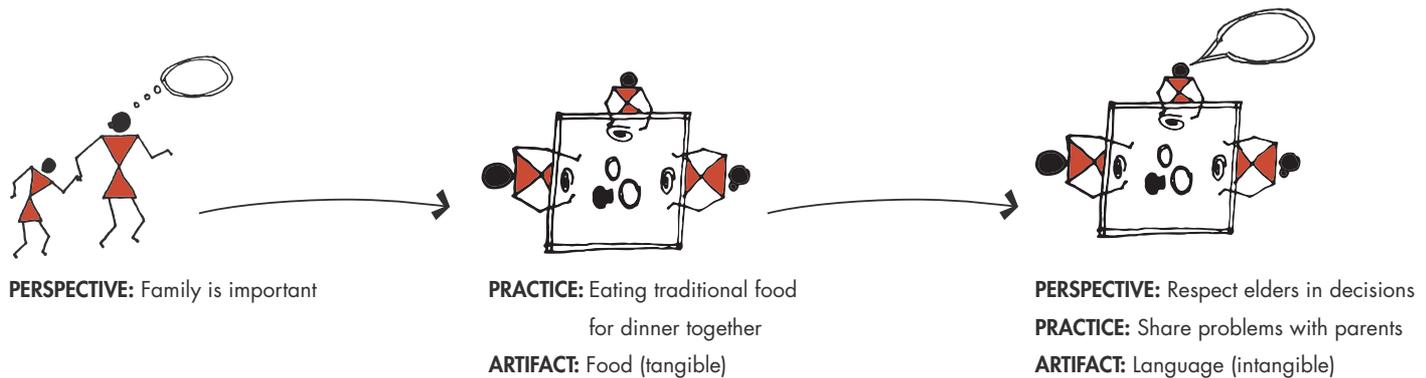
are patterns of social interactions & behaviors that represent the knowledge of what to do when & where and how to interact within a particular culture.

Underlying beliefs and values (perspectives) of a culture directly affect the behavior (practices) in interactions and vice versa. However, these cultural perspectives and practices are reflected by use of various tangible and intangible artifacts. Example of perspectives, practices and artifacts in a family.

Cultural model adapted from National Standards for Foreign Language Education Project. (1999). Standards for foreign language learning in the 21st century. Lawrence, KS: Allen Press, Inc.



What is culture? Perspectives directly affect the practices in interactions and vice versa. However, perspectives and practices are reflected by use of various tangible and intangible artifacts.



Example of perspectives, practices and artifacts in a family.

What are cultural values?

Indian families are well connected to the extent that they're intrusive sometimes. In America, there's a lot of stress on independence.

I really want them to understand the relevance of family even when they are so far...

Family

If they know what the major festivals are and why they're celebrated, I think that is good enough.

These bring us together and make us feel connected in some way.

Food is an integral part of celebrations.

Cultural events

Food

It was embarrassing for our parents that we didn't know the history of the country of our origins, they just stressed on family history.

I would have been really happy if he could talk comfortably in Hindi.

History

Language

Respect for superiors.
Be humble & work hard.

I'd like them to be able to speak up if someone says eww to their food.

We felt really bad as parents that he couldn't communicate what he wanted at day care for weeks.

You never put a foot on a book.

I wish we could visit more often.

I was really happy to hear that he went for Garba dance.

Rituals

Beliefs

Attitude

Visits to India

Media

Keep shoes outside the home.
Light a lamp in the evening everyday.

Spend time with guests no matter how busy you are.
It belongs to us rather than me.

Music and movies are important part of life everyday.

Most of the artifacts in our house are Indian.

Arts & Crafts

Clothes

Location

He doesn't like to wear Indian clothes but when he sees his friends wearing it, his acceptance and willingness is more.

They were kind of stereotyped in New Jersey.

* size of the circle indicates the importance of the cultural value for parents and children

Cultural PERSPECTIVES

Cultural PRACTICES

Cultural ARTIFACTS

What are the core needs?

The exploratory research pointed to many findings from which I've identified four core needs:

Counseling for parents & children

How can parents and children be counseled to deal with cultural differences at home and outside?

Communication & language

Communication in a native language is still challenging. How can language learning be introduced in a more convenient and fun way?

Exposure to multiple cultures

Can exposure and appreciation of multiple cultures different than their own enable a child to accept and embrace his own cultural experience at a younger age?

Storytelling— narrating experiences

Currently, sharing experiences and answering questions with children is mostly conversational. How can new and appropriate mediums of storytelling be developed to give richer experiences? How can relevant resources and tools be developed to equip parents in sharing their experiences and stories?

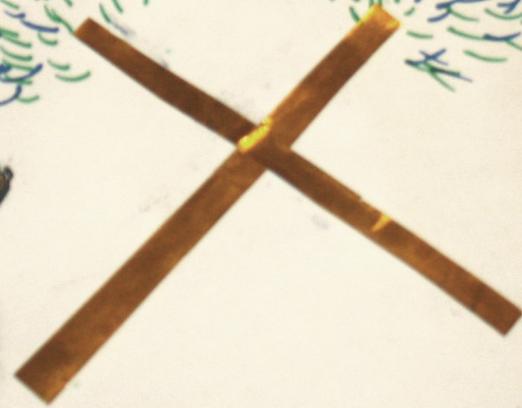
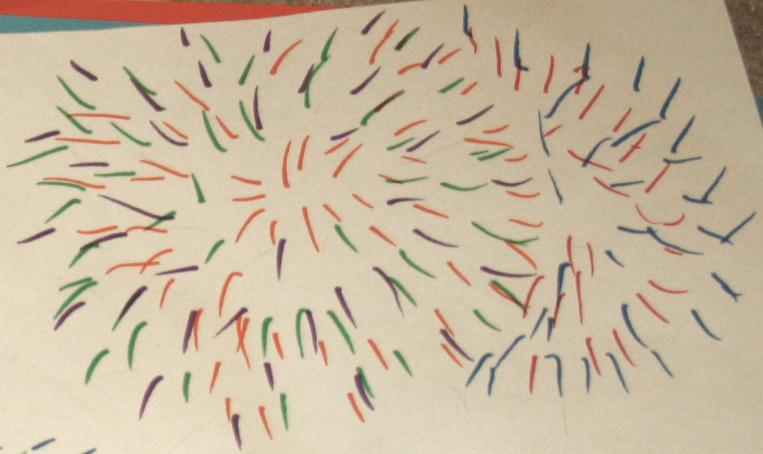


Generative research

After getting feedback from peers and faculty on the core needs identified after the exploratory research, I decided to focus on storytelling as the direction of intervention. In the Generative phase, I collaborated with the parents and children to contribute ideas by incorporating participatory design with activities like collages and a fun questionnaire with the five children and a work book with five parents.



Amal



Diwali → the festival of light

Illustrate one cultural event that is celebrated at home.

What is the festival about, how do you celebrate it, what are your likes and dislikes about it?

Collage making

Description

I utilized this method to find out what practices or artifacts do children like about different cultures. To direct the question to children in some way, I asked five children (aged 9–16 years) to illustrate one cultural event that is celebrated at home. They were asked to explain what is the festival about, how do they celebrate it, what are their likes and dislikes through a collage or a drawing using a toolkit which included a big sheet of paper, glue stick, pair of scissors, colored markers, crayons, clay, few images of festivals and stickers of assorted shapes. Each child was given approximately 45 minutes to do the activity and at the end of the activity, the child was asked to talk about what he/she had made.

Findings

1. Children illustrated different events — Halloween, Christmas, *Holi*, *Diwali* and *Ganesh Chaturthi*. They used different mediums of drawing, clay and pasting images to illustrate their thoughts.
2. Almost all children illustrated that they liked that they celebrated the event with their close family (mother, father and sibling).
3. Sweets or candy were common in all the illustrations pointing out that food is an integral part of having fun at the events. Getting gifts and decorating house with lights were also common in reasons to

4. like a cultural event. The fact that children get to eat delicacies or do these things only at specific times of the year is what makes it exciting for them.
5. Interestingly, a 16year old drew his family (mom, dad, brother and herself) in illustrating *Diwali* (Indian festival of lights) and posted a straight faced smiley on her brother's face. She explained that her younger brother is usually disinterested in celebrating cultural events at home.

Child making a collage in generative research



What do you like doing most with your parents? Why do you like it?

What do you like doing most with your friends? Why do you like it?

If you have to write a story and you have to be a cartoon/game character, which character would you be? And your dad? And your mom? And your brother/sister? Your grandparents? Your friend? Can you tell me a short story with all these characters?

Fun questionnaire

Description

The questionnaire given to children of 8–16 years was utilized to find out children's likes when doing activities with parents and friends. I was also curious to find out if video games are the most popular activity with children like the most popular belief. Having chosen a direction of storytelling, I also wanted to see if children can imagine characters and build their own stories with some constraints.

Findings

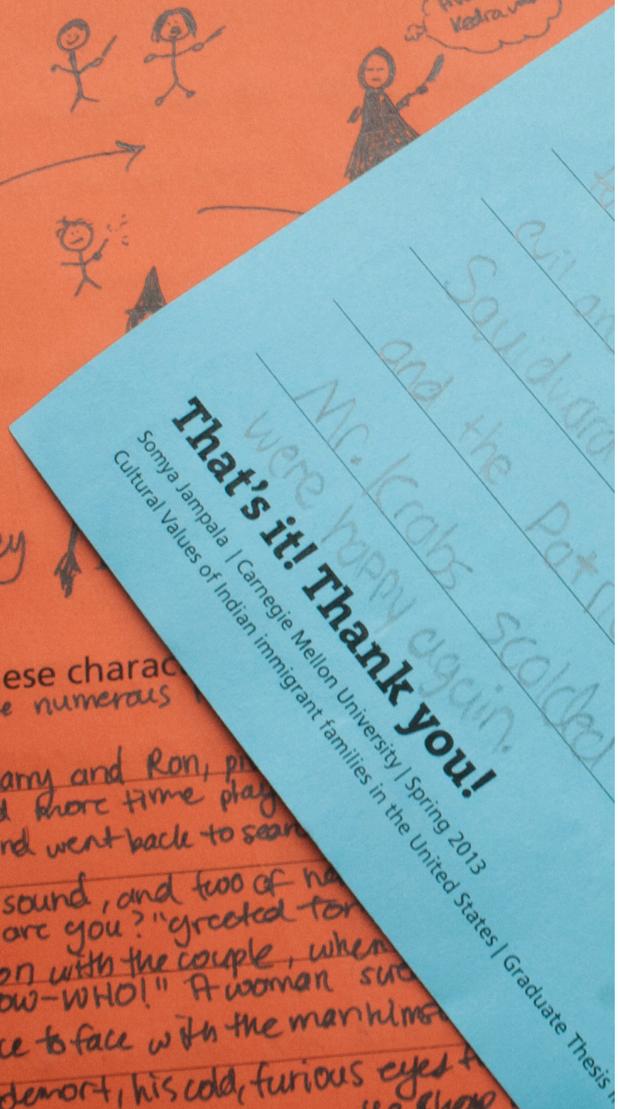
1. While most children like to watch movies and play games (board games, sports, etc.) with their parents to have fun, they like to play games and sports to compete with their friends.
2. Contrary to popular belief, the children interviewed like playing board games and sports more than television and ipad games.
3. Some of the favorite cartoon/game characters with children are Tom & Jerry, Yoshi and Smurfs with Spongebob being the most popular character.
4. Although children took some time to assign different cartoon/game characters to their family members, they were quick to build a story with those characters.

ave to write a story and you have to be a cartoon/game character
er would you be? And your dad? And your mom? And your brother/
our grandparents? Your friend? Can you draw them?
acters can be from different games or cartoons.

Hermione
emus Lupin
ymphandora Tonks
NONE
Voldemort
Dumbledore
Minerva McGonagall
Harry Potter? and Ron Weasley
Hedwig (owl)



I me a short story with all these charac
the bookstore, rifling through the numerous
voices of her two best friends, Harry and Ron, p
Hermione to stop reading and spend more time play
Hermione simply ^{noticed} raised her eyes and went back to sear
he heard the chime of the door sound, and too of ha
ked in. "Watch Hermione, How are you?" greeted for
eeded to start a conversation with the couple, when
the bookstore. "It's You-Know-WHO!" A woman sud
rned around — only to come face to face with the man him
get you, Granger," hissed Voldemort, his cold, furious eyes
e spell upon his lips — when Hedwig flew through the shop
ding a momentary distraction for another man — Dumbledore and
"Next time, Ms. Granger," reprimand



I like to play board games with my parents because I know that all games will be played fair.

I like sports most out of all games.

One day, Wonder Woman (Mom) and Curious lady (Grandma) were thinking about the rainforest. They decided to go to the Amazon....

Fun questionnaires filled out by children

Workbook

Description

In this phase of the research, I wanted to learn from parents about how they try to respond to a question or a problem of their child in different possible scenarios. This was an opportunity to understand the different strategies that parents would take in tackling the common scenarios identified from contextual interviews. I gave the workbook 'Reflections on raising multicultural children' to five parents whom I had interviewed before in the exploratory phase.

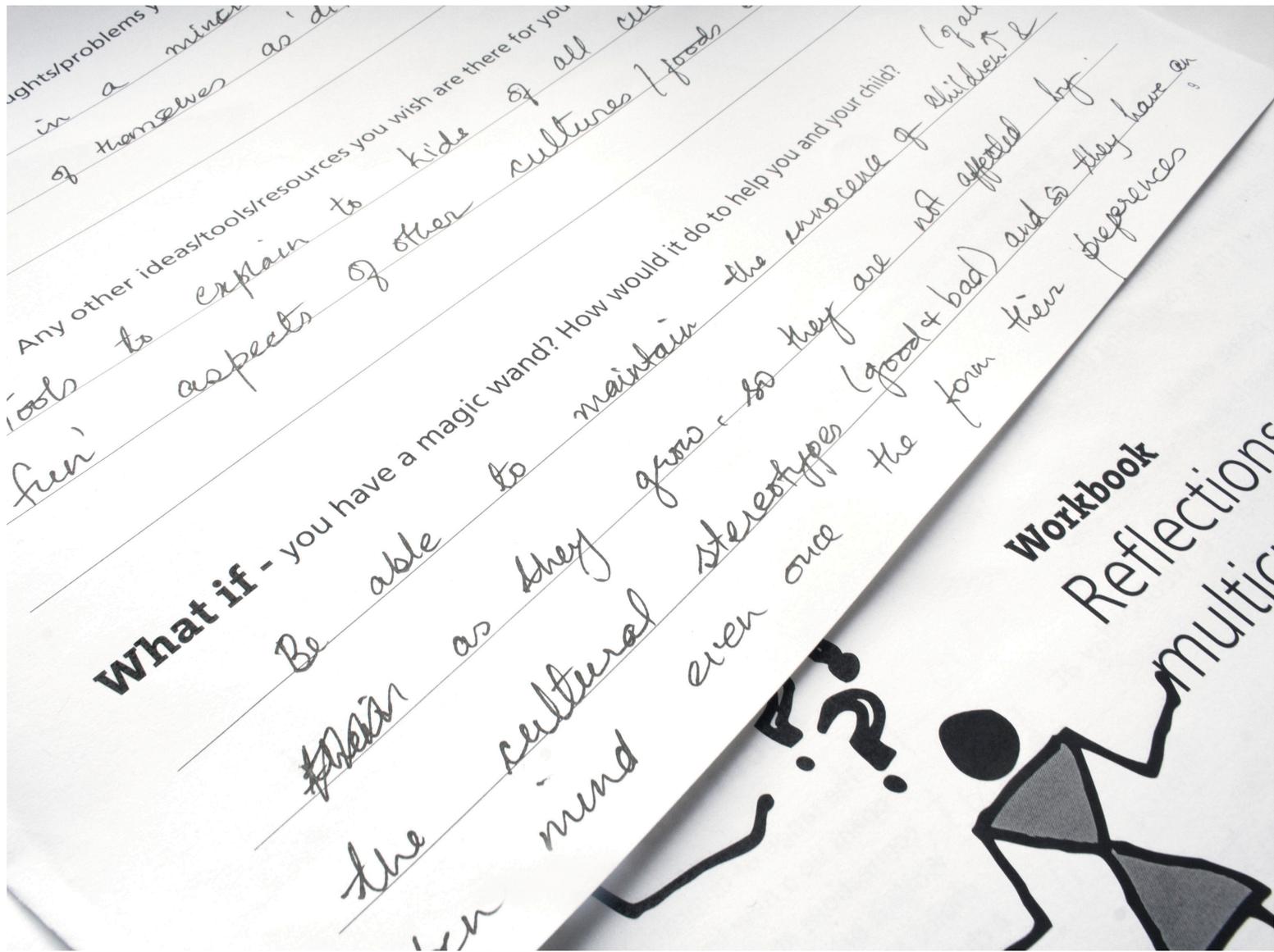
Imagine, your child loves Indian food and doesn't mind taking it to school. You recently learned that some of his/her friends at school make faces/comments about it and now he/she doesn't want to take Indian food to school.

What will you do now? What do you think you should've done in past so that he/she was able to deal with it better?

I think - Any other thoughts/problems you want to share?

I wish - Any other ideas/tools/resources you wish were there for you or your child?

What if - you have a magic wand? How would it do to help you and your child?



	P1 C - 11F, 6M	P2 C - 9M	P3 C - 9M	P4 C - 19M, 12M	P5 C - 16F, 12M
Incident to point struggle between cultures	Wear make-up in school as a teenager like friends.	Different skin color than friends at school.	Thoughts about puberty and dating are different at home and outside.	To be able to explain the major Indian festival Diwali even after celebrating it every year.	To transition to a new school and make friends again as a teenager.
Introduce family (member) and explain their importance	Talk about examples of similar family visits in own childhood, about how it was and about known relatives.	Use role play (to act like a family member), make a list of similar interests and play games with the family member.	Talk about family member as much as possible and think about activities to do with them.	Talk about cousin and his/her likes/dislikes and value of respect, spending time, helping a guest and spending time with them.	Talk about manners, serving food to guests before, taking care & spending time with family before meeting family and after meeting them.
Taking ethnic food for lunch to school	Talk about how Indian food is different like other foreign food (Italian pasta) & to be able to explain to friends. Package food	Talk about comfort level of children to take ethnic food to school and explain some western names same food.	Introduce children to foods of different cultures at home and school (not just Indian) and give American names to Indian food.	Teach from early age about respecting all cultures and ability to speak for themselves & their culture	Talk to children about their thoughts about ethnic food at school, discuss food of other kids and prepare them to speak for themselves.
Talk about India as a country and it's good things	Talk about India as the populous country & slow progress. Education as a core value to improve lifestyle and parents work extremely hard to educate their kids.	Compare US & India and explain similarities like corruption at different levels. Also, introduce harsh realities to children so that they appreciate what they have.	Talk about good and bad things about the country and encourage them to value positive things because of their roots to India and appreciate as some non-Indians do too.	Talk about good and bad things about the country and show Indian culture in US context. Encourage children to talk and meet their cousins in India.	Show current online content and examples (media) about achievements by Indians. Discuss myths about the country and value good things.
Discuss different religions	Talk about God as power (strength) in different forms and not as a deity which can't be comprehended.	Explain that there is only one God but is in different forms and all religions have same moral beliefs like honesty.	Discuss religion of their friends at school and how God is in a different form in different cultures.	Use resources like books and internet to talk about God as one but in different forms and give a reference of friends who have different religions.	Explain God as one but in different forms and give examples of both Indian festival Diwali and Christmas.
Learning Indian language	Talk in an Indian language more at home and make children meet more children of Indian origins.	Talk in an Indian language more at home, watch movies, songs and take help of Rosetta Stone.	Speak Indian language more at home and with grandparents.	Be more strict about speaking Indian language at home and take help of cousins & grandparents in communicating in a Indian language.	Send children to a language school, speak Indian language at home and find resources online.
I Think Problems to share	Children in minority feel different.	-	Different cultures should be discussed at school.	It's challenging to balance two cultures in a different country.	Teens face conflict between cultures at teens when they find culture at home different than the culture outside.
I Wish Resources to use	There were tools to introduce different cultures to kids, especially 'fun' aspects.	-	My child was good at Indian language and there was a forum to post challenges by parents and professionals.	I had sent my children to language school.	I wish children could visit their grandparents more often and spend time with them.
What if A magic wand could help	We could maintain innocence of all children and there were no cultural stereotypes.	Children could understand and speak native language.	It would have been nice to have grandparents close-by.	Children could understand values of honesty, self-discipline, hard work and success.	Children could speak Indian language, loved Indian food more and had same acceptance to values that we have (had in childhood).

Comparison table of answers filled out by parents in workbook

P1 means Parent 1

C-11F, 6M means 11 year old daughter, 6 year old son

Findings

The strategies for different scenarios contributed by parents pointed out the need for **language learning**, **more interaction with grandparents** and need to **learn different cultures**. Other key ideas were to **make children meet other children** of similar background and a **forum for parents** to discuss multicultural challenges.

Conclusion

Parents want their children to be proud of their cultural roots and speak for themselves with others. They wish that there were no cultural stereotypes and there was more exposure and respect for diverse cultures. They long for interaction and communication with grandparents and cousins living far away in a different city or a country. They wish they were more disciplined about introducing and speaking Indian language at home with their children. They feel unequipped with appropriate resources to discuss their problems with other parents and professionals and share relevant cultural examples with their children.

My daughter asked me why she is not allowed to wear makeup to school unless there is a dance/music performance. It appeared that this is a common practice at her age in the US.

Give examples of how I used to enjoy similar visits when I was little.

Tell them that Indian food is as different as pasta-an Italian food that is also foreign to the US.

I think kids when in a minority feel more isolated as they think themselves as different.

I wish there were tools to explain to kids of all cultures the fun aspects of other cultures.

What are the design implications?

Based on the findings from generative research, I identified some of the possibilities for intervention:

Physical & Digital

As children interviewed liked playing board games and sports more than television and iPad games, can the storytelling medium incorporate both physical and digital components? Can the storytelling medium have a traditional (books, cards, etc.) and new (iPad, iPhone, etc.) component to it that even family members using older methods can also participate in an activity?

Different cultures

A need of exposure to different cultures was common among families throughout exploratory and generative research. Can introduction of interesting things about different cultures to all children help in developing respect for different cultures even in minorities? I think it's important for people living in this country to have that appreciation. And it goes both ways. We have about their culture. We expect some reciprocity.

Stories & characters

What mediums and characters are appropriate to narrate stories and experiences to children? What ways can make children excited about collaborating with friends? What could be the motivation and challenge in creating interest?

Stories with different glasses

Can the simple exchange of experiences between families be used in other contexts? What would be the different scenarios of the same story, maybe in a difference in voice and tone? Can old mythological stories be reinvented with new characters or maybe family characters?

Stakeholders in the problem space to identify design implications

 - parent

 - multi-cultural child

 - home

 - school

 - other children

 - teachers

 - outside

--- - needs to be a stronger connection

Evaluative research

After identifying the possibilities for intervention from exploratory and generative phase of the research, I focused on key scenarios to brainstorm different ideas. These scenarios were also used with parents to understand their strategies through workbook activity in the generative phase. After being evaluated by parents and peers, one of the ideas was refined further.

Explain why culture @ home is different than outside

Show examples of GOD as one but in different forms.

To know GOOD & BAD about India & value things

Language Learning

LEARNING LANGUAGE
Meet more Indian kids, family, grandparents
Talk more in Indian language at home
Language school
Language tools (Rosetta Stone)

SPEAK INDIAN LANGUAGE

Increase communication with relatives in Indian language

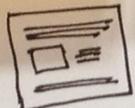
FORUM to share problems with parents & professionals

TEENAGE asking questions

DIFFERENT RELIGIONS
diff. of culture
examples of both festivals
values, beliefs, etc.

STRUGGLE ISSUES
- discuss children asking q's

Wear mask at school
Different skin color
Making friends
Explain Festivals/Culture



CULTURAL pool.com

INTRODUCING INDIA
Good & bad things about India & appreciate
Achievements & myths
Meet Cousins in India
Similarities b/w India & US.
Introduce harsh realities
Talk about population slow pro education

NO CULTURAL STEREOTYPES

To be able to SPEAK for themselves & SHARE

FAMILY & IMPORTANCE
Discuss interests, background of visiting family
Think of similar activities
Manners & etiquette with family
Role Play
Examples from own childhood

DIFFER MEDIA to introduce family

Show & tell about family through conversations, media

MEET FAMILY & GRANDPARENTS more often

SPEAK for themselves in other contexts.

Respect for ALL cultures

Resource of
- Western names of Indian food
- Recipes
- Packaging

ETHNIC FOOD AT SCHOOL

Indian food & other foreign food

Package/ Cooking tips

Western names for dishes

Respect all cultures & speak for themselves

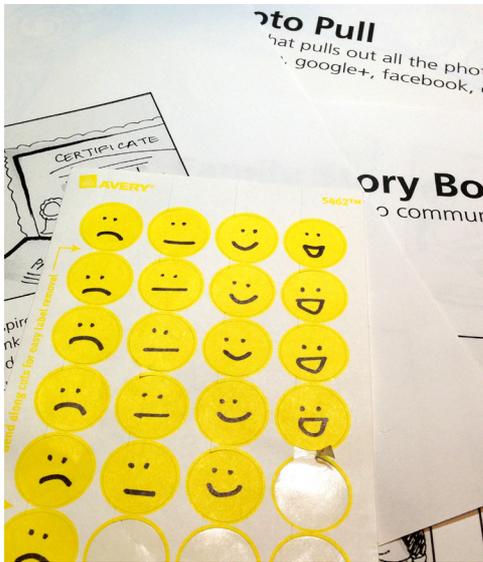
Intr

Speed-dating Storyboards

Description

From key scenarios used in generative research that also addressed five key cultural values identified in exploratory research — family, cultural events, food, history and language, I created four concept storyboards. The storyboards were then evaluated in need validation sessions with five parents using Speed-dating, a research method developed by Davidoff, Lee and Zimmerman. Each parent was shown a storyboard and the scenario was read aloud with a lead question in the end. Responses were recorded and the sessions lasted about 30 minutes.

Grading concepts with one of the smileys—don't like, just okay, like or love in storyboard speed-dating sessions.



Storyboard speed-dating sessions with a parent.

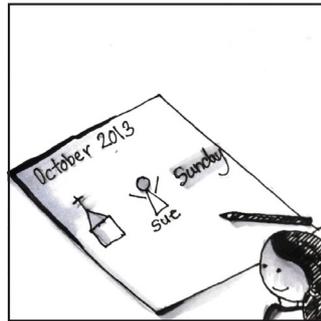


Family Story Box

A family story box to communicate and share stories within a family



8-year old Medha and her parents got their family box just 2-months ago. Medha and her parents take turns in asking a question and sharing a story every month. The challenge is to pose the question or share the story in only 3 words or images.



Medha recently learned that her best friend at school — Sue goes to church every Sunday.

She wonders why doesn't her family goes to church like Sue and puts her question in the family story box.



Medha's mom wants her to know what "gayatri mantra" but she doesn't want Medha to just cram it up.

So, she decides to share that with Medha through family story box this month.



On a Saturday morning end of the month, Medha and her parents sit down after breakfast and open the story box.

Thus, Medha's family formally shares stories ever month through family story box and Medha gets to keep a little documentation of each story.

Family Story Box

The idea is that every month, a parent and a child either asks a question or shares a story. The challenge is that they have to do it in only three words or images so that they're constrained and don't have to elaborate on the whole story to begin with. They can take a month's time to put their message in the physical box. The goal is to formalize the sharing of thoughts in a family every month and a child would be able to document all the stories that he/she has heard and problems discussed with the parents. for their children.

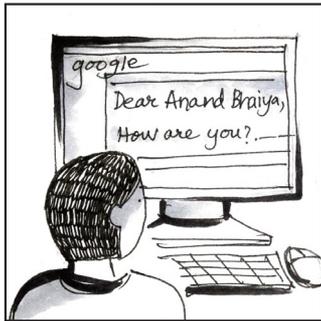
There was positive feedback that the concept formalized the process of initiating conversations and document the exchange of thoughts between parents and children. Parents also liked that it could facilitate the discussions about similarities and differences between different cultures. However, parents were concerned that it might not be successful and necessary in the families where there is an open communication between parents and children. They also thought that a formalized process could become an obligation to children from parents. The frequency of the activity varied with parents suggesting the activity to be done once in two weeks to once in two months.

Will you get a family story box to communicate and share stories within a family?

I think one place where it might be helpful - even in cases where there is open communication is where the child might be not very articulate and explain what the issue is.

Photo Pull

A tool that pulls out all the photos from all photo uploads -dropbox, snapfish, flickr, hard drive, google+, facebook, etc.

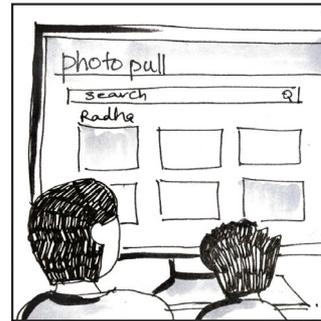


Anand's cousin Radha is visiting Anand from India for few days. He is going to meet Radha after 6 years.

Anand knows that his 10-year old son Arun is shy by nature and tries to avoid meeting new people. Anand wants to talk to Arun about Radha before she arrives.



2 days before Radha is scheduled to arrive, Anand mentions about Radha's visit at dinner. He shares a story about his childhood time spent with Radha.



After dinner, Anand uses photo pull to search and extract all Radha's photos on various mediums - hard drive, facebook, flickr etc.



Arun gets really excited when he sees and listens to his dad's childhood stories with Radha Masi and looks forward to her visit.

Photo Pull

This idea is built on the fact that families have a huge collection of their photographs stored in different mediums— digital (facebook, dropbox, flickr, snapfish, external hard drive, picassa) and physical copies which can be used to narrate stories in a better way. When families share memories of family members, travel or previous experiences, it's mostly conversational. In absence of regular interactions with extended family and friends, some children are shy and indifferent towards meeting new people and guests. As pointed out by exploratory research, parents associate family as the most important value in an Indian culture. Introducing and familiarizing children born and raised in another country to family whom they have rarely met is a challenge for parents. Photo Pull can tag photographs with people and places based on face recognition technology and help families in sharing relevant narratives with their own content.

This concept was well accepted and appreciated with the parents. They felt that PhotoPull would be a relevant tool especially with digital pictures to introduce and compare family members, life in India and festival celebrations then (years back) and now. Parents felt that photographs can encourage children to ask more things about how life used to be when their parents were young. One parent suggested that building a family tree with PhotoPull would help in making the connections between relationships more relevant for the children.

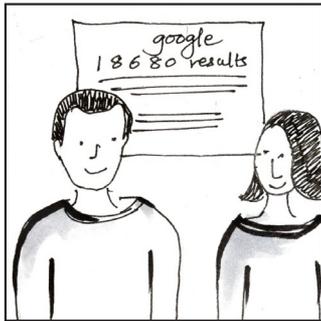
Do you need a tool that can pull and tag all your photos from all photo uploads like dropbox, facebook and flickr?

This is a really good idea, I didn't think of pictures but if you show them pictures ahead of time or you've spent time with them before that would get them more interested in talking to a person and learning more about the person.

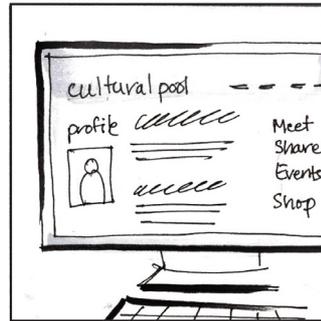
I think it's a great idea. Especially because kids here really can't relate to the kind of houses we lived in India because lot of things were different back then. This would be wonderful.

CulturalPool.com

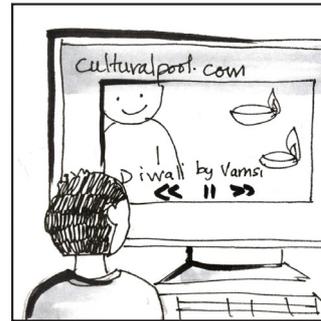
An online resource for multicultural parents bringing up their children



Sanjay and Priti always struggle with finding good relevant examples from the thousands of examples in explaining Indian culture to their 10-year old son Pranshul. Last time they showed a video to Pranshul, he was distracted by the accent of the narrator in the video.



Their friends tell them about culturalpool.com which is an online resource to meet other families, look for events, share stories and most importantly, find relevant examples for their multicultural children.



It's the festival of Diwali next weekend in the month of October. Sanjay and Priti login to culturalpool.com to show a short animated video about Diwali narrated by another bicultural child to Pranshul.



Inspired by the video, Pranshul makes and uploads his own video about Thanksgiving on culturalpool.com next month.

In response to his popularity of his video, he receives a certificate of "Cultural Star" in mail from culturalpool.com.

CulturalPool.com

Based on the need identified throughout earlier phases of research, parents find it difficult to find a resource or a tool to learn, discuss and share new ways to help them in bringing up multicultural children. In absence of a common touch point, every parent has to start and think on his/her own despite of the fact that many parents have already found or created different approaches. Moreover, children find it hard to imagine and relate to the stories due to lack of visual examples. When parents find examples in the form of photographs and videos online or illustrations in books, children feel uninterested towards them. CulturalPool encourages stories narrated by children so that children are exposed to yet not distracted by age or accents of people.

This concept of introducing children to meet others with a similar background (with immigrant parents belonging to a different culture) and learn about other cultures was also well received by the parents. They thought that the idea would be helpful to parents and children in the cities where children of same culture doing similar cultural activities in person are not common. The service would allow children to appreciate and respect different cultures. It can also help them in learning a culture in depth if they're interested. Parents agreed that the stories narrated by other children rather than narrated by an adult would also spark more interest in children. The only concern that the parents pointed out was regarding safety and privacy settings to monitor the content.

Do you need an online resource helping in raising multicultural children?

It would be nice if I have the ability to get my kids to meet more children from a similar background. So that they can talk to them and realize that they are not the only ones.

When you show them something, you show that its not just Indian kids with accents. Kids of all countries have an accent. That's a good idea.

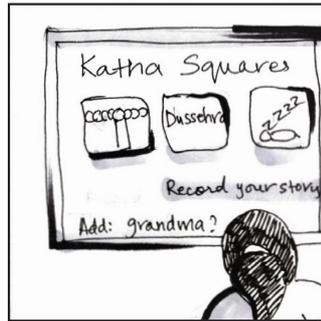
Katha Squares

Squares that help families narrate, record and share stories

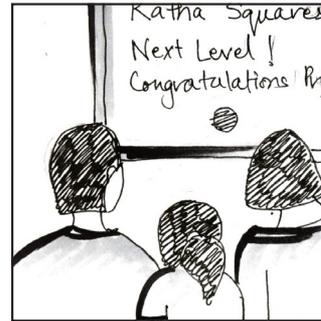


Payal and Arvind have been using different mediums like books, flash cards and toys to narrate stories to their 11-year old daughter Priya.

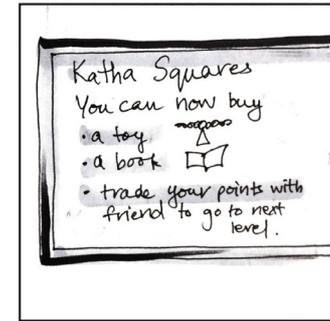
They now realize, she enjoys watching videos and playing games on digital mediums (like ipad/ipod touch).



Payal and Arvind challenge Priya with the help of katha squares to narrate a story with images they selected. Katha squares not only presents images of animals, mythological characters, their family members but also allows drawing and recording of stories.



Only when Priya is able to answer series of puzzles and narrates a story from the images challenged by her parents, she gets to the next level. Sometimes, their family plays this game together and tries to resolve puzzles.



After certain levels of the game are finished, Priya gets an option of buying a toy from a story or a photograph of a family memebr personified as a fictional character or trade her points with friends to unlock higher levels in the game.

Katha Squares

The goal of this concept is to help families narrate, record and share stories together. The millennial generation is comfortable in using various forms of digital technology right from the childhood. Most parents have been already using different mediums like flash cards, toys and books to discuss stories but there aren't many ways to combine both mythological (old) stories with new stories of family members and other fictional characters. The idea is to encourage children to be creative in building stories from existing tales and narratives.

Parents found Katha Squares as least successful in terms of feasibility and effectiveness to introduce cultural values to children. The thought that the idea could help in encouraging creativity in children with the use of digital medium but including fictional characters and family members with existing mythological stories would be difficult and complicated for multicultural children. The parents would have to be really motivated to use this activity to start a dialogue with children.

How would you build creative stories with your children?

It could be a good trigger to see what children know and what they don't know and how they interpret some things.

I guess it could work theoretically. It can definitely be fun for kids but I'm not sure how it will help in introducing Indian cultural values.

It is very hard for a child who is born and raised here to understand a mythological story like Ramayana. Incorporating more fictional or family characters would be really difficult.

What are the research insights?

Following were the research insights based on the exploratory, generative and evaluative research to direct my design intervention:

Evaluating storyboard ideas

While I got some valuable feedback from parents in storyboard speed dating sessions with them, I wanted to find out which concept would be the most desirable, viable and feasible solution. Parents were asked to grade the four storyboards with one of the smileys—don't like, just okay, like or love. The concepts of PhotoPull and CulturalPool.com were clearly most loved and desired in addressing key challenges and needs of the parents.

While conceptualizing PhotoPull idea in iphoto with a family tree/connections tool using face recognition technology and tagging, I found out that iPhoto '11 had already enabled this feature. iPhoto '11 organizes photos by who, where, and when by categorizing them as Faces, Places and Events in the photo library.

This led me to explore the idea of CulturalPool.com, an online resource helping in raising multicultural children. The concept of children narrating stories remained as the focus of the resource. The detailed framework of features pointed out the issues of

PARENTS

- Problems discuss/blog/advice
- Recipes/Western names
- Resources/Shop?
 - Language learning
 - Curriculum
 - Books } - oznoz.com
 - Games/Activities
 - Tools
 - Other Websites

↳ Newsletter?

- ↓
- Theme
- Activity - Craft/
related to culture
- Book - understanding / MEDIA
- SPOTLIGHT
- Calendar
- Blogposts - 3.

↳ Meet other families

- ↳ events
- ↳ connect

↳ Cultural events

Grana.com
incultureparent.com
Oznoz.com
stapycorps.com
Rosetta Stone

CHILDREN

- Share cultures/stories }
(pen pals)
- Festivals
- Play games
- Know highlights/
fun facts/
quiz about culture
- ↳ Activities / craft
- ↳ Cultural events

Safety &
Monitoring

Age-group - 8-11 years

- Still interested
- Prepared beforehand
- Learning new things
- Asking q's at that time

Features brainstorm of CulturalPool.com for parents and children

accessibility, privacy and security. The system had to allow parents to monitor content shared by children but disable children to view discussions by the parents. A quick feedback from peers, advisor and parents revealed that a platform with both parents and children as users could lower children's trust to participate in sharing stories with intrinsic motivation. In addition, there are existing forums for parents to discuss and share experiences with multicultural children (incultureparent.com, gnaana.com) but, there are rarely any avenues for children to contribute and share their cultural stories.

Storytelling as a medium

Digital stories can help give children an opportunity to express themselves in the context of the world in their own words and their own voices. They can give children an opportunity to tell a story that highlights specific characteristics or events in the context of the world.

Research suggests that a majority of U.S. teens use various tools to create digital media, and this proportion is growing. Today's students don't think twice about generating original electronic content and sharing it online ⁴. The design intervention for children aged 8–16 years is appropriate because that is when they start questioning their differences and identity.

4. 7 Things You Should Know about Digital Storytelling. EDUCAUSE Learning Initiative (ELI). January 15, 2007.

Use of Crowdsourcing

Complex tasks can be accomplished by dividing simple independent tasks through crowdsourcing. Existing research is being done to investigate the application of service design theory and crowd-sourcing technology to improve public services. The research points out to three specific approaches for increasing people's contribution to a community ⁵:

1. Asking: People are more likely to contribute if they are asked, and if they are asked specifically/individually.
2. Intrinsic Motivation: People will contribute if they perceive an intrinsic motivation, such as their own enjoyment in doing the work. In addition, people perceive value in helping others and in helping groups of people they feel an affiliation towards.
3. Rewards: People will contribute for different kinds of rewards including praise, increased reputation, an increase in privileges, and financial compensation.

A variety of problems are being solved with faster and cheaper methods with crowdsourcing but can it be used to harness thoughts and beliefs in a culture? Can crowdsourcing be used to document similarities and differences of complex and global cultural values across the world? Which approach can help in motivating children to contribute stories and values in the proposed design intervention?

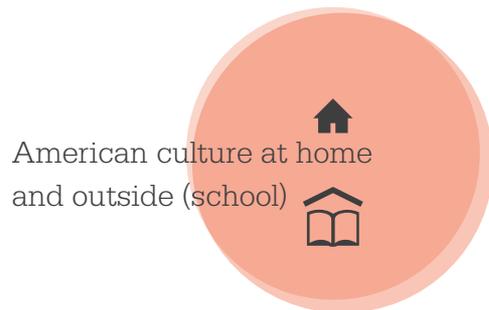
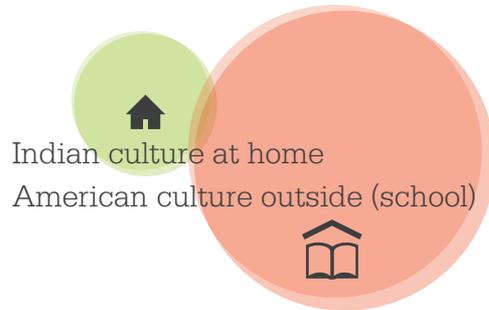
5. Zimmerman, J., Tomasic, A., Garrod, C., Yoo, D., Hiruncharoenvate, C., Aziz, R., Thiruvengadam, N. R., et al. *Field Trial of Tiramisu : Crowd-Sourcing Bus Arrival Times to Spur Co-Design*, 2011, 1677–1686.

What's the focus of intervention?

Present Scenario

A child is exposed to only two cultures — one at home and one outside (school).

Example: A bicultural immigrant family with Indian origins would have primarily Indian practices at home and American outside



Probable Scenario

The family adapts American culture at home owing to acculturation leading to loss of unique cultural values. Acculturation—the process in which an immigrant or bicultural individual adopts the cultural and social norms of the mainstream society.

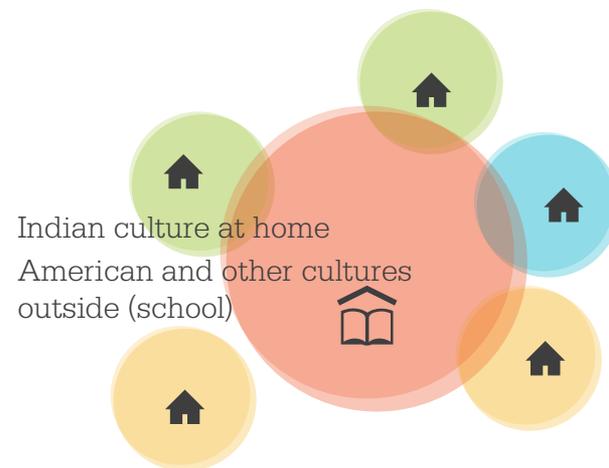
Example: A bicultural immigrant family with Indian origins would completely adapt to American practices and perspectives at home so that the future generation doesn't struggle between the cultures.

Preferable Scenario

The family strikes a balance between cultures and a child is able to embrace their own culture in view of other cultures.

Example: If a child in a bicultural family of Indian origins would not see Indian culture as a minority in view of different cultures in the world.

This gives an opportunity to design something which motivates the celebration of cultural differences with others.



Initial Prototype

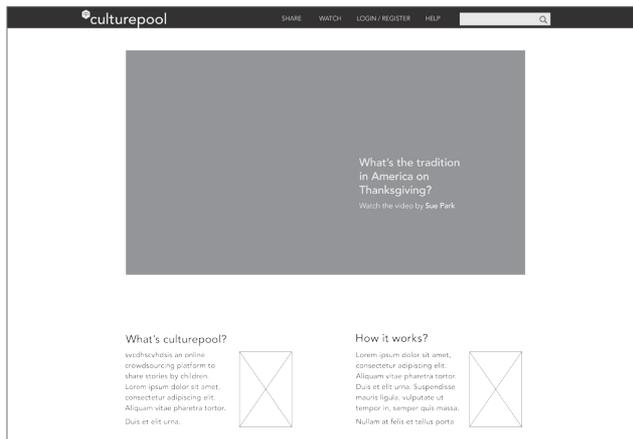
Description

The initial low-fidelity prototype was done to quickly build different UI components for the proposed online platform. These were an early iteration to represent the idea while allowing scope for changes in the final solution. It allowed for me to get easy and quick feedback before moving to a higher fidelity prototype. The quick wireframes encouraged more honest comments and critique than the pixel perfect realistic looking screens. These wireframes were shown to two peer designers and one parent to get some quick feedback. The discussion was focused to discuss the user experience on the homepage and the details of interactions on the collection page.

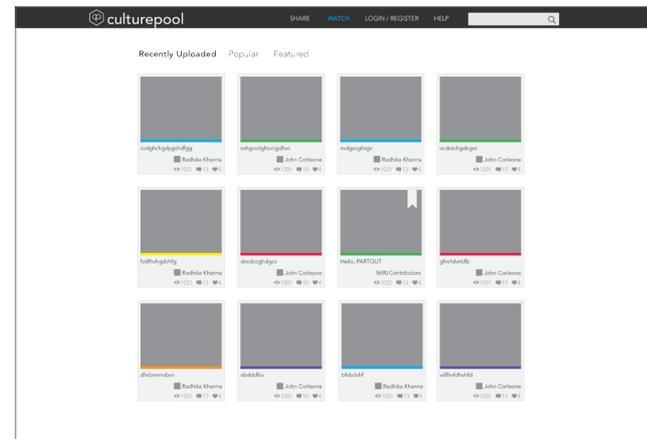
Findings

1. The featured video on the homepage could be a good way to excite and make children curious to watch a story uploaded by another child. However, it's not enough to motivate children to upload their own stories. There has to be a clear and direct way for children to contribute to the system.
2. 'What's culturalpool' and 'how it works' need not take the primary real estate of the online web platform. Children needn't see the goal and underlying framework to participate in the system.

3. The collection of stories looked too similar to *pinterest* and needed to be categorized to allow quick browsing.
4. View of recently uploaded stories might not be the best option to archive stories in the collection.
5. Crediting the child (contributor) with the visual of the story in the archive view can be a good motivator for children to upload their story. At the same time, extra information like number of views might give a biased and a little too much information for a child at the primary level. It can be shown on rollover or after the video is selected.



Low fidelity wireframe of the homepage



Low fidelity wireframe of the collection view

Do you know?

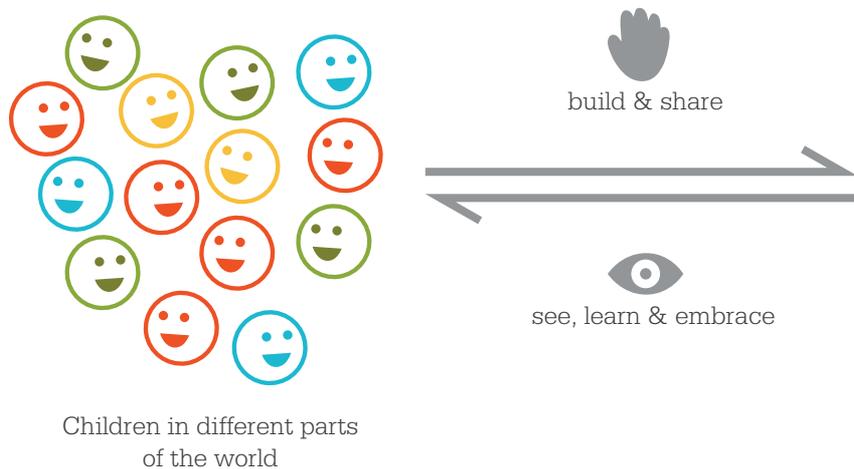
It's considered very rude to pointing the bottom of one's foot at another person in Thailand, as is touching the top of another person's head.

Design solution



It's a crowd sourcing online platform to share cultural stories **by children for children**. 'Partout' in French means everywhere.

With **partout**, children can share visual narratives about a cultural tradition, ritual, food, event, artifacts, language or architecture with other children across the world. The goal is for children to learn about interesting qualities of different cultures in the voices of other children.



partout: crowd sourcing platform to share cultural stories by children for children

How will it start?

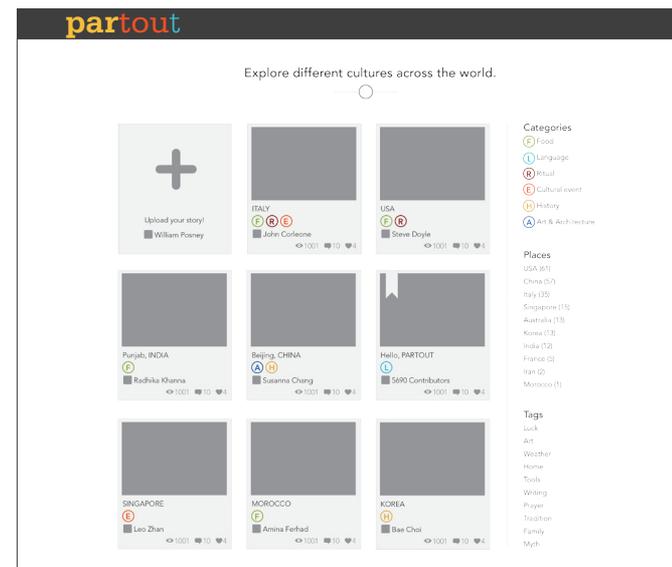
1. Reach out to students in **different schools** across the world.
2. Ask students to teach **how to greet hello in a different language** than English.
Example: Hindi namaste na-ma-s-te, Spanish ¡hola! o-la
3. Upload a combined video on **partout** for all the children to watch and learn about other languages.
4. Share more videos (the first 25) with contributions from different schools across the world.

How does it work?

Watch: Hear the story

It is important to be aware and build relationships with people from diverse cultures with unique strengths and perspectives. When children are young, they want to be as similar to their peers as possible and don't want to stand out differently. However, when they grow older, they want to be unique and that's when they realize the importance of their cultural experience.

partout is an online resource pool of stories to introduce diverse cultures to children in voice of the children. 'Watch' will catalogue all stories uploaded on the platform categorized with cities and tags and credited with names of the children who contributed to the story. Parents can also use this resource to find and narrate stories about other cultures to their children. The language of communication would be primarily English but the platform and stories will have preferred language translations.

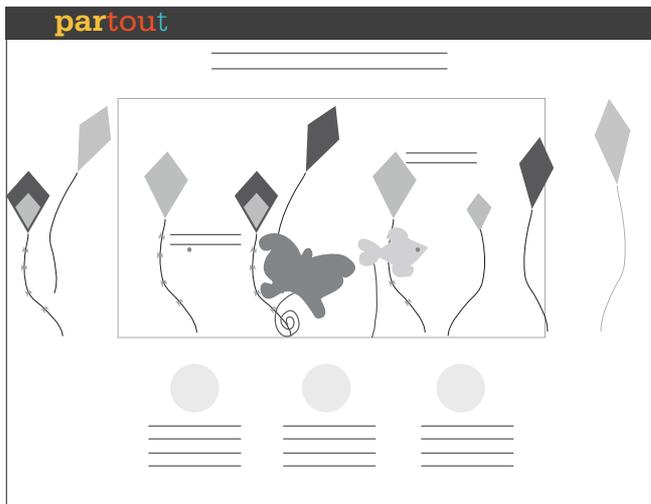


'watch' will catalogue all the stories based on theme, culture and tags.

Contribute: Add to the story

Simple constraints based on the monthly theme would invite children to contribute their voice to the collaborative narrative.

Example: Invite children to draw 'a kite with a string' with the help of an online drawing tool.



'home page' will be an interactive in case of collaborative contributions

Upload: Start the story

What to share?

Children can make narratives about verbal/written language (words), festival, tradition, cultural event, artifact, architecture, etc.

How to share?

partout will allow narratives to be built with images, video, illustrations and audio with in-built uploading, shooting and drawing tools.

How to be creative?

Based on what they select, **partout** will give them suggestions and tips about how to build their story. The platform will also allow them to re-order content, add tags and sub-titles to build a narrative.



Experience structure of uploading stories on partout

Sharing cultures through stories by children.



DO YOU KNOW

What's the tradition to bring good luck on New Year's Day in America?



Watch the video by [Lisa Mathew](#)



Theme

Fireworks and lanterns, Chinese New Year is here. Upload your story for the month of February.

EXPLORE THEME



Contribute

You think you can draw? Draw and contribute "a kite with a string" until Jan 31, 2014.

ADD TO THE STORY

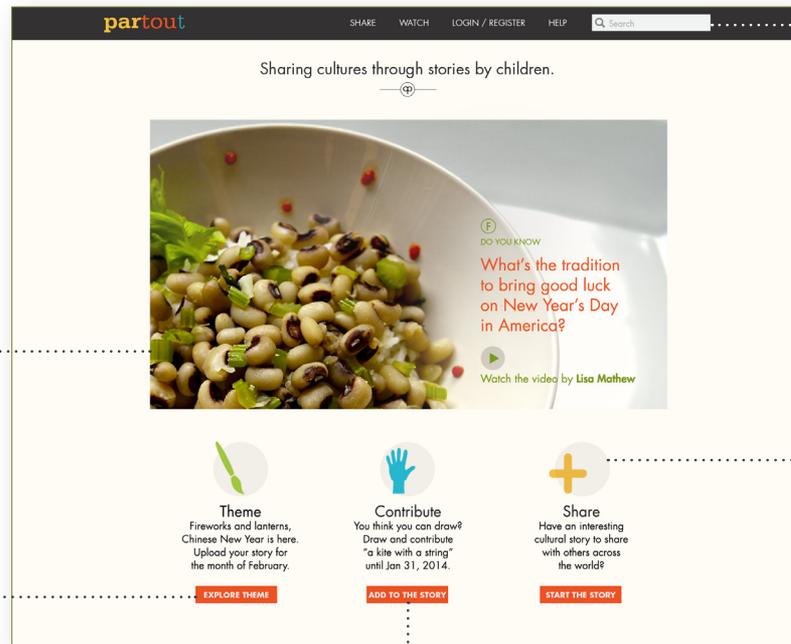


Share

Have an interesting cultural story to share with others across the world?

START THE STORY

Homepage of *partout*



Featured

Feature a weekly story in different categories (like language, food, tradition, history, architecture) on the homepage.

Theme

Invite children to explore a monthly theme based on holidays, festivals and cultural events.

Watch

Search for examples in different cultures by keywords. Can also be used by parents to share and compare cultures and answer children's questions.

Share

Encourage children to show and tell interesting stories about different cultures to others.

Collaboration

Use simple constraints to build a collaborative narrative with contributions from many children across the world.

Welcome Tarun!

What is pseudo Chinese food? Watch [Ming's video](#) to find out!

POPULAR RECENTLY UPLOADED FEATURED

Upload your story!
William Posney

John Corleone
F R E

Steve Doyle
F R

Radhika Khanna
E

Susanna Chang
A H

5690 Contributors
L

Leo Zhan
E

Amina Ferhad
F

1001 10 4

Categories

- F Food
- L Language
- R Ritual
- E Cultural event
- H History
- A Art & Architecture

Places

- USA (61)
- China (57)
- Italy (35)
- Australia (13)
- Korea (13)
- India (12)
- France (5)
- Iran (2)

Tags

- Luck
- Art
- Weather
- Home
- Tools
- Writing
- Prayer
- Tradition
- Food

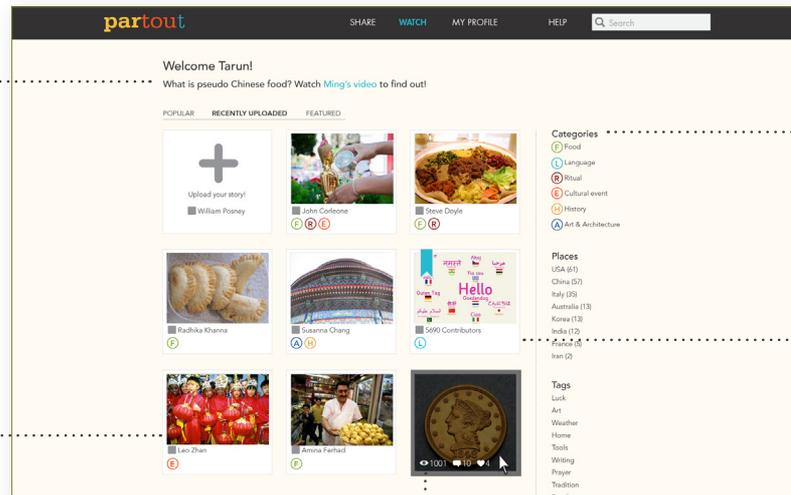
Watch page (archive of stories) of partout

Recommendations

Profile registration enables personalized recommendations based on profile activity and introduce relevant stories without bias

Archive view

Grid-view thumbnails enable number of stories to be viewed at once and can easily be filtered.



Tagging

Each story would be tagged with relevant categories, places, keywords to be searchable.

About story

Along with the visual and the name of the contributor the thumbnail would be tagged with categories (history, architecture, food, etc.) and if it's a featured video.

No. of views

The rollover on the story thumbnail will show number of views to avoid visibility of more information at the first level.

Future directions

Proposed as a design concept, *partout* received positive feedback for connecting children with other children and cultures across the world through stories.

However, it can be expanded and detailed in many ways keeping in mind some of the future directions.

Global pen friends

Based on the broader idea of global pen friends, *partout* is going to help children connect and share their cultures with other children across the world using a digital medium.

Storytelling vs games

Storytelling can help children build self-esteem and strengthen bonds between parents and children to bridge gaps between cultures, languages and traditions. I understand that it's hard for children to resist fast-paced challenging games but storytelling and gaming don't need to compete. They can exist side by side in children's lives.

Cyber bullying and security settings

Children can be affected by the content created by other children with cyber bullying. *partout* requires strict moderation to enforce a safe online platform by monitoring and prohibiting inappropriate content.

My profile

My profile can also enable collection of content for making stories. Children might collect ideas and thoughts on their profiles before publishing a finished narrative. However, the content should be visible to everyone to maintain safety and security on the online platform.

Visual design and mobile version

partout has a mature look and feel to it right now. It can make use of children's writings and themes every month to have a dynamic background that is closer to children's aesthetics. The online platform *partout* can extend beyond a website and be designed for mobile devices in the future.

Do you know?

Gold and silver coins are placed inside a brides wedding shoes in Sweden.

Personal reflections

It's been a challenging year in thinking and working on this project in connecting cultures and interaction design. I approached this project with an aim to determine how user centered design process can help children absorb their cultural roots and adjust to multiculturalism. It's been personally satisfying to see that a user centered design process can help in addressing an intangible bigger problem.

It was difficult to recruit families in the first place but I'm glad that I was able to connect with five families who understood and resonated with the problem. I believe using multiple research methods in this project has been rewarding throughout. It was challenging to use the methods single-handedly in this project. However, I wish I had access to families in Pittsburgh as scheduling research sessions in a different city put me off the intended time line of this project. The project would have benefited by creating a robust prototype and getting it evaluated by children in the end.

The project has come a long way from where it started. Even when the problem was identified between parents and children, the design solution focused on the children. With this project, I've realized that the problem focus can shift and be addressed differently depending on the research with the stakeholders. A problem needn't be answered by a single solution, it can be answered at different levels.

Do you know?

Antakshari is a music-based fun game that involves singing Indian movie songs.

References

READINGS

Print

Bornstein, M. H., Cote, L. R., and National Institute of Child Health and Human Development (U.S.). *Acculturation And Parent-Child Relationships: Measurement And Development*. NJ: Lawrence Erlbaum Associates, 2006

Buenker, J. D., and Ratner L. *Multiculturalism In The United States: A Comparative Guide To Acculturation And Ethnicity*. CT: Greenwood Publishing Group, 2005

Congress, E. P., and González, M. J. *Multicultural Perspectives In Working With Families*. NY: Springer Publishing Company, 2005

Inman, A. G., Howard, Erin E., Beaumont, R. L., and Walker, J. A. "Cultural transmission: Influence of contextual factors in Asian Indian immigrant parents' experiences." *Journal of Counseling Psychology*, Vol 54(1), Jan 2007: 93-100. doi: 10.1037/0022-0167.54.1.93

Kittur, A. *Crowdsourcing, collaboration and creativity*. XRDS: Crossroads, The ACM Magazine for Students, 17(2), 2010. 22. doi:10.1145/1869086.1869096

Lee, Evelyn. *Working With Asian Americans: A Guide for Clinicians*. NY: Guilford Press, 2000

Mitra, Kalita, S. *Suburban Sahibs : Three Immigrant Families and Their Passage From India to America*. New Brunswick, N.J.: Rutgers University Press, 2003.

Ngo, Bic. "Beyond "Culture Clash" Understandings of Immigrant Experiences." *Theory Into Practice* 47 (1), Jan 23 2008: 4-11.
doi:10.1080/00405840701764656.

Ohler, J. *The World of Digital Storytelling*, 63(4), 2006. 44–47.

Phinney, J. S., Romero, I., Nava, M., and Huang, D. "The Role of Language, Parents, and Peers in Ethnic Identity among Adolescents in Immigrant Families." *Journal of Youth and Adolescence*, Vol 30(2), 2001: 135-153.

Sengstock, Mary C. "Multicultural Families—What Makes Them Work?". *Sociological Practice: A Journal of Clinical and Applied Sociology*, Vol 3(1), 2001: 1-17, doi: 10.1023/A:1010185813676

Shankar, S. *Desi Land: Teen Culture, Class, and Success in Silicon Valley*. Durham, NC: Duke University Press; 2008.

Zimmerman, J., Tomasic, A., Garrod, C., Yoo, D., Hiruncharoenvate, C., Aziz, R., Thiruvengadam, N. R., et al. *Field Trial of Tiramisu : Crowd-Sourcing Bus Arrival Times to Spur Co-Design*, 2011, 1677–1686.

Zion, S. and Kozleski, E. *Understanding Culture* in On Point Series. October 2005. National Institute for Urban School Improvement, Arizona State University.

7 Things You Should Know about Digital Storytelling. EDUCAUSE Learning Initiative (ELI). January 15, 2007.

Web

Aaron Koblin

<http://www.aaronkoblin.com/>

Customs and Traditions From Around the World

<http://www.mobal.com/blog/travel-talk/destination-guides/customs-and-traditions-from-around-the-world/>

Globalization and Culture

<http://www.stateofnature.org/globalizationAndCulture.html>

The Global Read Aloud, One book to connect the world
<http://www.globalreadaloud.com/>

Gnaana, a fresh way to connect kids with culture
<http://www.gnaana.com/>

Iphone Apps, Storytelling
<http://www.apple.com/iphone/from-the-app-store/>

Jabberstamp, StoryVisit
<http://www.hayesraffle.com/>

Immigrant Learners and Their Families
<http://www.cc.kyoto-su.ac.jp/information/tesl-ej/ej06/r5.html>

InCulturalParent, For parents raising little global citizens
<http://www.incultureparent.com/>

The Lunch Box Project
<http://lunchboxproject.wikispaces.com/>

Multicultural Families and Adolescents Study

<http://www.mfas.ucr.edu/>

Multicultural Families – Identity and Change

<http://www.multilingualliving.com/2010/08/18/multicultural-families-identity-and-change/>

Rory's Story cubes

<http://www.storycubes.com/>

Rosetta Stone, Language learning

<http://www.rosettastone.com/>

TheSheepMarket

<http://www.thesheepmarket.com/>

Storycorps, Every voice matters.

<http://storycorps.org/>

