“An Online Community for Children of Indian Diaspora to learn more about Indian Culture”

Smitha G. Barki

Master’s Candidate in
Information Design and Technology

Committee

Ellen Strain-Seymour
Sha Xin Wei
Amy Bruckman
Executive Summary for Master’s Project Proposal

Introduction
This project studies the cultural identity issues faced by children of Indian Diaspora. These children, referred as ABCD (American Born Confused Desi) are of Indian parentage and born in the United States. The parents of these children take pride in being American Residents/Citizens when the children sing the National Anthem and celebrate the fourth of July. They also try to teach Indian traditions and values to their children through everyday activities and special Sunday classes that they send their children to.

The Problem
When these children are young, they go along with their parents’ wishes and attend the Sunday classes with gusto. As they grow up, they feel that are doing something different from their peers in school and participate in these activities with growing resentment. Like many children of immigrants, at times the child feels an outcast, rebelling against anything Indian and wondering which part of his culture he should retain, if at all.

Proposed Solution
This project will study why the traditional methods of classroom teaching fail to inspire the child of early teens to carry on the ideas of Indian traditions which he/she had so enthusiastically learnt when eight years old. The project attempts to design a space or artifact that will help bridge this disparity that the children experience.

The space I propose is one where children would interact with others and understand that they are not alone in their conflicted relationship to Indian culture. The interaction with their peers in the real world (Sunday schools) and the virtual world would strengthen the sense of community among the children, help the children express ways of bridging the two cultures and would enhance their experience. It would help them embrace their heritage as part of growing up.

User group
This project targets children aged 10-14 to help them smooth the transition between cultures. For this study, the South Indian population in the city of Atlanta who send their children to Sunday classes at the Hindu Temple at Riverdale, serves as the user group.

Deliverables
My deliverables would consist of a digital artifact and a report. The digital artifact is the prototype, a single representative component of the larger proposed application that would allow me to get preliminary feedback, test my assumptions, etc. The report accompanying the artifact would include observations from preliminary research, a description of the proposed system, details of usability testing and the analysis of the system.
“An Online Community for Children of Indian Diaspora to learn more about Indian Culture”

Smitha G. Barki
Master’s Candidate in Information Design and Technology

PROJECT PROPOSAL

INTRODUCTION ................................................................................................................. 1
STATEMENT OF PROBLEM .............................................................................................. 1
PROPOSED SOLUTION ................................................................................................. 2
DESIGN QUESTIONS ...................................................................................................... 4
METHODS AND APPROACHES ..................................................................................... 5
RELATED WORKS ............................................................................................................ 6
SPECIFIC PROPOSED DELIVERABLE .......................................................................... 13
PROJECT TIMELINE ...................................................................................................... 14
RESOURCES REQUIRED ............................................................................................... 15
REFERENCES
DIGITAL ARTIFACTS .................................................................................................... 16
BIBLIOGRAPHY ............................................................................................................ 17
### Introduction

We live in a world where physical and geographic boundaries no longer limit interactions of people. The census of 2002 puts the number of people of other races in United States to be greater than the number of white, African-American, and Native Indian population. This project focuses on the 2,150,901\(^1\) Asian Indian population in the United States.

What do you call an Indian born in America who is not Indian enough to be an Indian and not American enough to be an American? The word coined for this subset of people born as second generation Indians in USA is ABCD - ‘American Born Confused Desi’. ‘Desi’ is the slang used by Indians to describe another Indian. Literally, it means ‘someone from the country’. The parents of these children take pride in being American Residents/Citizens when the children sing the National Anthem and celebrating the fourth of July. They also try to teach Indian traditions and values to their children through everyday activities and special Sunday classes that they send their children to.

### Statement of Problem

When these children are young, they go along with their parents’ wishes and attend the Sunday classes with gusto. As they grow up, they feel that are doing something different from their peers in school and participate in these activities with growing resentment. Like many children of immigrants, at times the child feels an outcast, rebelling against anything Indian and wondering which part of his culture he should retain, if at all.

This project will study why the traditional methods of classroom teaching fail to inspire the child of early teens to carry on the ideas of Indian traditions which he/she had so

---

\(^1\) The US Census Bureau, United States Department of Commerce, http://www.census.gov

The census of 2002 quotes a figure of 25,764,707 people of other races (Asian, Pacific Islands and others), among the population of United States. Of these other races, 11,213,133 are Asians and of the Asians - 2,150,901 are Asian-Indians)
enthusiastically learnt when eight years old. The project attempts to design a space or artifact that will help bridge this disparity that the children experience.

For purpose of observation, the Indian population in Metro Atlanta is being studied. This population is representative of the typical Indian Urban population in the United States. For instance, Sunday classes are held in Hindu Temple at Fort Worth, Dallas; Hindu Temple Society, Flushing, New York; Sri Ganesha Temple at Nashville, Tennessee among other cities and second generation Indian children all over the country and the world face the same issues.

India, being a vast country of cultural diversities, has different regional communities identified by language, religion, and other various factors. To narrow the scope of the user group for the project, among the Metro Atlanta Indian population, the South Indian population\(^2\) is selected for study. Since I belong to the same population, my domain knowledge would prove invaluable during the study.

More specifically, children attending the Sunday classes held at the Hindu Temple of Atlanta at Riverdale will be the subjects of this study. The Sunday classes range from learning classical Indian music or dance, Indian scriptures, moral values and the more specific regional language classes.

**Proposed Solution**

Initial interviews with the South Indian community in Metro Atlanta indicate that when children first start attending these Sunday classes, they are very excited about it. They get a chance to learn new things that they have not learnt in pre-school and something that their parents often do not have enough expertise to teach them about. Cultural fiestas\(^3\) serve as a platform for the children to show off what they have learnt. Getting to wear traditional dresses and jewelry on these occasions is an added bonus to some children. As they grow up, they

---

\(^2\) South Indians are people from three of the South Indian states – Karnataka, Andhra Pradesh, and Tamil Nadu and people commonly speak Kannada, Telugu, and Tamil respectively in these states.

\(^3\) Cultural fiestas are usually held on the occasions of major Indian festivals. One specific regional language group organized these cultural activities at about four a year.
begin to lose interest in these classes for different reasons. For some children, peer influence in schools and a growing sense of being ‘different’ causes resentment. Others develop other special hobbies and interests that they would rather do on the Sundays, and they lose interest in these classes.

This project attempts to create a platform on which these children can extend their Sunday school knowledge to their daily activities. This project explores how new technologies can be used to create environments explicitly designed to help young children identify themselves with their culture, in the process rediscovering the glorious past and heritage of India.

The application I propose to build would consist of a space where children would build their own virtual world. When they create personally meaningful artifacts in this space, they would be more invested in it than reading the textbooks from Sunday school. This, in turn, would serve as a bridge between the young child’s mind (when they are ready to accept anything that is told to them) and the young teen’s mind (when most of them tend to reject anything that would make them ‘different’ from their peers). The space would be one where children would interact with others and understand that they are not alone in their conflicted relationship to Indian culture. The interaction with their peers in the real world (Sunday schools) and the virtual world would strengthen the sense of community among the children, express ways of bridging the two cultures and would enhance their experience. It would help them embrace their heritage as part of growing up. This application is designed for children aged 10-14 when they most experience the conflict between cultures.

In this document, platform / space refers to the complete system that I propose. This consists of an application and other resources. For purposes of this project, a prototype of this application would be built. The prototype is a single representative component of the larger proposed application that would allow me to get preliminary feedback, test my assumptions, etc.

The initial lists of goals for the space are listed below.

? Provide a platform of expression for children aged 10-14 when they most experience the conflict between cultures.
Provide community support to the children to help them understand that they are not alone in their conflicted relationship to Indian culture.

Help create an extension of the Sunday classes into the flexible environment of an online community.

Help the children make a smooth transition between the two cultures.

Maintain a collection of resources that can be used by all children, even those not attending Sunday schools. Parents are to be a major source of contribution to this section.

Further strengthening or any change in these goals would depend on the outcome of each stage of my research.

**Design Questions**

1. *What does the user population actually require? What is the content to be developed?*

In my initial research I propose to study to what extent classroom teaching influences children. Taking a Learner Centered Design (LCD) approach, I plan to study what this user population require and design a space for them accordingly. Since there is vast diversity in Indian culture, this approach would guide me on what content would be used in the environment.

2. *What type of environment will I create for supporting both learning and community?*

I propose to create an online environment with community support. The children can interact with one another and utilize the flexibility of an online community to extend their cultural education into their daily life.

Both real and virtual places can help to create a supportive context for human activity and social interaction. You can also get the best of both worlds by using a virtual community to link many small face to face communities (such as after-school programs) into a larger whole (Bruckman 1998).
3. What tools will I use to create the prototype?

This decision will be made a result of my research so that I use the environment that best meets the needs of the project as determined in the research phase.

**Methods and approaches**

1. **Community support in a Constructionist environment.**

The theoretical foundations of the project are based on Constructionism. Constructionism - the N word as opposed to the V word - shares Constructivism's connotation of learning as "building knowledge structures" irrespective of the circumstances of learning. It then adds the idea that this happens especially felicitously in a context where the learner is consciously engaged in constructing a public entity, whether it's a sand castle on the beach or a theory of the universe (Papert 1991).

Constructionism emphasizes that these projects should be personally meaningful, allowing the learner to make deep personal connections with the ideas being learned.(Papert 1991, Resnick 1994).

A Constructionist approach in this project would involve children building objects that are meaningful to them. This would help develop a sense of involvement in the online community. Collaboration with other children online would strengthen this community and provide support to the children when they face the cultural conflict.

2. **Learner Centered Design**

The initial requirements gathering and theoretical design would be done using a Learner Centered Design approach. A study of the participants’ needs, current knowledge would form a pedagogy that would be the basis of the content to be developed.
3. Usability testing methods

Through usability testing methods, I propose to evaluate the strength of my design and measure the educational value of the project. A few methods include and are not limited to,

a. Subjective data techniques such as Interviews, focus groups and questionnaires
   A questionnaire would gather demographic data such as age, gender and motivation and also interface data about the screen design, learning process using the application and the overall impression of the system. An interview would help get the user’s subjective viewpoint and might lead to helpful constructive suggestions.

b. Think Aloud
   This approach would involve making the user describe verbally what they are thinking while using the system. The user describing what they believe is happening, why they take an action and what they are trying to do would allow me to understand the users’ thought process better. This in turn would help me evaluate my design.

c. Co-discovery learning or Constructive Interactions
   In this evaluation technique, two children would work together on the application. Observing their interaction with the application and studying their thought process as they guide each other through it would serve as an important observation tool. The same technique would be used with the child and their parents using the application. Since this project explores ways to involve parents, this would serve as an important method to evaluate the extent of their involvement.

Related Works

1. Works in Print - “Amar Chitra Katha” as a model for delivering Indian Cultural Instruction in a popular and easily consumable format.
Print is a popular medium that people have explored to get children interested in Indian culture. One of the most popular books available is the Children’s comic book series “Amar Chitra Katha”. They have well illustrated stories of Indian history, mythology and culture and have become synonymous with many children growing up in India. These comic books can be purchased over the Internet and some parents buy for their children the books they grew up reading. Work is currently ongoing to make these comic books available online for download/real time reading.

Some of the categories on print in these series are shown below.

\textit{a. Books on Indian Mythology:}

\begin{itemize}
\item \textit{Krishna}
\item \textit{Sati and Shiva}
\item \textit{Prabhlaad}
\end{itemize}

\textit{b. Books on Indian History:}

\begin{itemize}
\item \textit{Shah Jahan}
\item \textit{Rani Durgavati}
\item \textit{Subhas Chandra Bose}
\end{itemize}
c. Books on wisdom and moral values

MOOSE Crossing is a text-based virtual reality environment (or "MUD") designed to be a constructionist learning environment for children ages eight to thirteen. The constructionist philosophy of education argues that learning through designing and constructing personally meaningful projects is better than learning by being told. Children on MOOSE Crossing learn computer programming and improve their reading and writing by working on self-selected projects in a self-motivated, peer-supported fashion.

MOOSE Crossing expands the idea of constructionism by recognizing the importance of community support for constructionist learning activities (Bruckman 1997).

Bruckman explores the bi-directional link between constructionism and community, finding both that communities are vitally important for supporting constructionist learning activities, and that constructionist activities, such as collaboratively building a virtual world, shape, strengthen, and enhance the community that surrounds those activities. (De Bonte 1998)
3. From Text based to Graphical – Pet Park as a graphical virtual world

Building on MOOSE Crossing is De Bonte’s Pet Park. Pet Park is a graphical, networked virtual world for kids. (De Bonte 1998). With its theoretical foundations in Constructionism, Pet Park allows children to create their own pets, design behaviors for scripts through a simple programming language. Like MOOSE Crossing, Pet Park recognizes the importance of community support in the collaborative building environment. Pet park also explores the differences between a text based virtual world and a graphical virtual world.

Unlike text-based worlds where all information is provided via a single channel, a text stream, graphical worlds make use of many different modalities of expression, including visual cues, sounds, and spatially separate output areas. Users can interpret the location, intention, emotion, action, and other features of a character just by looking at the character, noting which way it is facing, whether it is smiling or grimacing, and what it is currently doing (De Bonte 1998).

Pet Park no longer exists online and the study was made reading papers published on the project and De Bonte’s Thesis.
Users talking to each other online through their avatars.

The Furniture Library at Pet Park
3. **Online Resources for learning Culture/History**

a. **Zora** – An example of learning moral values through a constructionist online environment.

Zora is a narrative-based graphical multi-user environment purposefully designed to help people understand and affect the ways in which identity and values are actively constructed by both an individual and a community. Zora engages young people in building artifacts as representations of their complex self and creating communities in which values and attitudes are put to the test (Bers 1999). In Zora, Children can program storytelling interactions and conversations with the characters of the world. They can write stories about their characters (role models and anti-role models), create a collaborative dictionary of values and engage in discussions about different worldviews.

The theoretical framework supporting Zora states that identity is not a monolithic notion, but a dynamic and complex concept composed by integrating different aspects and values. (Bers 1999)

*The City Hall with the rules of Zora created by the kids.*
The Avatar's profile and the authoring tools windows.

Zora no longer exists online and the study was made reading papers published on the project and Ber’s Dissertation.

b. **Explorer’s of the ancient worlds: Egypt** – Presentation of Cultural Information in a collaborative environment.

Created by NYU ITP students with assistance from the Dalton School, "Explorers of the Ancient World: Egypt" is a collaborative educational environment exploring ancient Egyptian civilization and the crafts of archaeology and museum curation. The project simulates the excavation of a New Kingdom royal tomb in Egypt's Valley of the Kings. The tomb features a wide range of objects and artifacts representative of the late 18th to early-19th dynasties in ancient Egypt.

"Explorers" is intended as an educational simulation to be used by grade school students (age 9 - 12) in the classroom environment, and it is being developed in collaboration with teachers and museum educators. "Explorers of the Ancient World: Egypt" is implemented on the web using Microsoft's Virtual Worlds research platform. The project features multi-user interaction in a 3D virtual environment with rich textures.
Explorers of the Ancient World: Egypt no longer exists online and the study was made reading research papers published on the project.

Specific proposed deliverable

The specific breakdowns for the deliverables are

1. Research
   The observations and study made as a result of my research would be part of my report, deliverable in paper format. I expect this phase to constitute 30% of my project work and would take about 15% of my project timeline.

2. Building the Prototype
   The prototype of the application that I build would be 40% of my project work. The time taken to build the application would be 50% of my timeline. The deliverable for this section is the digital artifact that I shall build.
3. Usability Testing
   The deliverables for Usability testing includes survey results, questionnaires, etc. In paper format, this would constitute 15% of my project and I expect it to be 25% of my total time.

4. Analysis
   Deliverable in paper format, the written analysis of testing results would include a re-assessment of my proposed application. This would constitute 15% of the project and I plan to spend 10% of my total project time on it.

Project Timeline

Now - Nov 15th
   ? Research on the best platform to build
   ? Research on formulas for success for
      o Online Communities
      o Cultural Learning
   ? Research on Diaspora identity formation in early childhood
   ? Study of Content
      o Curriculum currently used in Sunday schools.
      o Other content in circulation, e.g. the comic books.

Nov 15 – Nov 22
   ? Collection of assets for use in the prototype.
   ? Obtain feedback on prototype proposal.

Dec – Mid Jan
   ? Build the shell with code for basic interactions within the prototype.
Mid Jan – Beginning Feb

- Get feedback from Committee and make necessary changes
- Decide on usability testing approaches.
- Get necessary permissions, set up secure testing location, draft questionnaires, etc.

Mid Feb - Mid March

- Usability testing and analysis.
- Collate results.
- Analyze results and write report consisting of the final observations and screen shots.

Mid March – Until defense

- Contingency time

Report / Thesis writing

Valid sections of the report accompanying the digital artifact will be written as and when the sections are complete.

Resources required

1. IRB approval for study
IRB approval for study on human subjects is to be obtained. I have partially completed the NIH training that is required for the human subject study. I plan to complete the NIH training course by the 1st of November and apply for IRB approval a couple of days after that.

2. Consent forms
Consent forms for all the participants would be prepared. In addition, since the subjects of study are children, parental consent would be obtained.

3. Copyrights and Permissions
All copyrights and permissions would be applied for when the final technical decisions are made. E.g. For a graphical 2D world, I could either draw my characters from scratch and
animate them or transform them from the popular comic books. If the latter were adopted, permission would be asked from the comic publishers to replicate the same.

**Digital Artifacts**

Zora: http://xenia.media.mit.edu/~marinau/Zora/

MOOSE Crossing: http://www.cc.gatech.edu/elc/moose-crossing/

**Bibliography**


Erickson, Erik H. (1950) Childhood and Society. New York: W.W. Norton & Company,

http://www.cc.gatech.edu/edutech/projects/lbd_icls98/icls_LBD.html


http://lcs.www.media.mit.edu/groups/el/Papers/mres/pianos/pianos.html


