Detailed Evaluation Results for Project : Improve access to state data, online or using a mobile device

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We conducted a survey in-order to evaluate the LINC website.

Task List: Make the participant browse to linc.state.nc.us and ask them to perform the tasks mentioned below

1. Find the contact information of SDC affiliate for Nash County
2. Close the pop up that appeared in Task 1 and try to find the contact of the SDC affiliate of Nash county again
3. Locate the website for "State Demographics - Estimates/ Projections"
4. Find total housing units in Wake County in the year 1980 and 2000
5. Find total urban population in Wake County in the year 1980 and 2000

Evaluation Report of initial survey for the LINC website link :
http://goo.gl/htC8Mz

Summary of evaluation results:
Most users found the tasks 1 to 3 straightforward and easy. Task 4 was difficult. But task 5 being similar to 4, users could use correlation and complete it. The long process of navigation required to finally arrive at some concrete and relevant information was found to be complex and confusing. Many users complained about inconsistency in the design of web pages. The vast amount of information present on some of the pages, requiring users to scroll down a lot was daunting to the users. Few users even gave up completing the tasks 4 and 5 after they got disoriented and frustrated with the unintuitive interface. A few users, felt looking up data was very troublesome due to the display of a lot of data on one page of the website. A few other participants, found the navigation within the website to be interesting. According to them, there was no difference between the representation of links to other websites and links to other pages of the same website.

On the basis of our evaluation of initial survey we decided our User Experience Objectives to be as such**:** Trustworthy, Positive, Intuitive, Innovative, Simple, Easy to Navigate and Find Information, Helpful, Aesthetically Appealing.

Design Considerations for our Prototype:
On the basis of this feedback obtained, we worked on redesigning the website to improve the user experience and developed a working prototype for the same. The prototype is built using **Bootstrap.js** library and is also compatible with mobile devices and has responsive design.

The points of focus in our design of the prototype have been: addition of user stories to depict the different means of using the data provided by LINC; incorporating icons, graphs, tables, etc. to improve data visualization; simplifying the process of arriving at specific data by reducing the number of clicks; designing as per web standards and making the web pages consistent with one another. A new feature that we have added is to provide for downloading the data as .csv file document. This will be of help to users who plan to use the data for research and do more offline processing with it. Additionally, the prototype also improves the aesthetic appeal of the web-site.

Prototype Sketches based on our design ideas and feedback received:
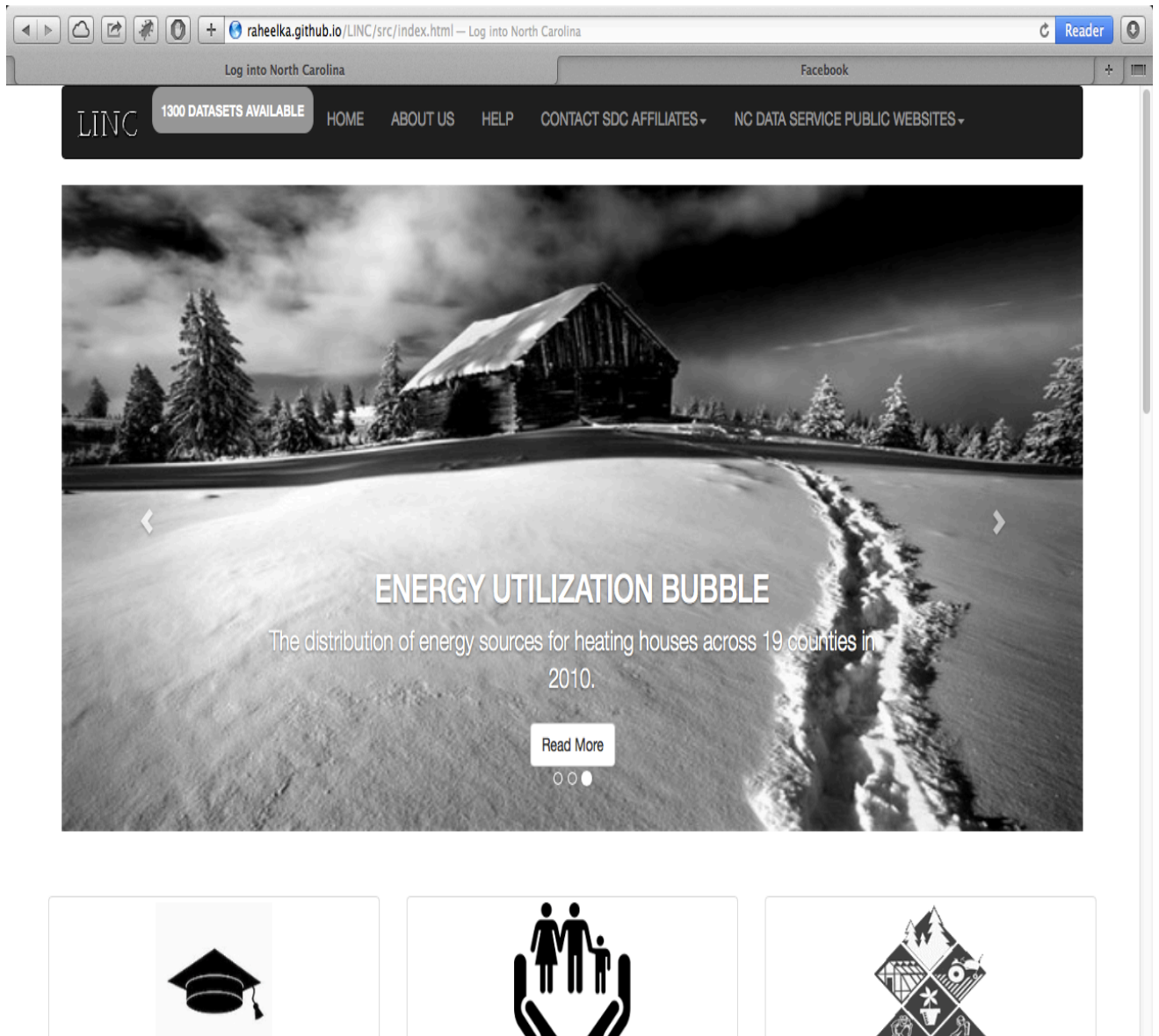
Proposed Home Page Sketch:
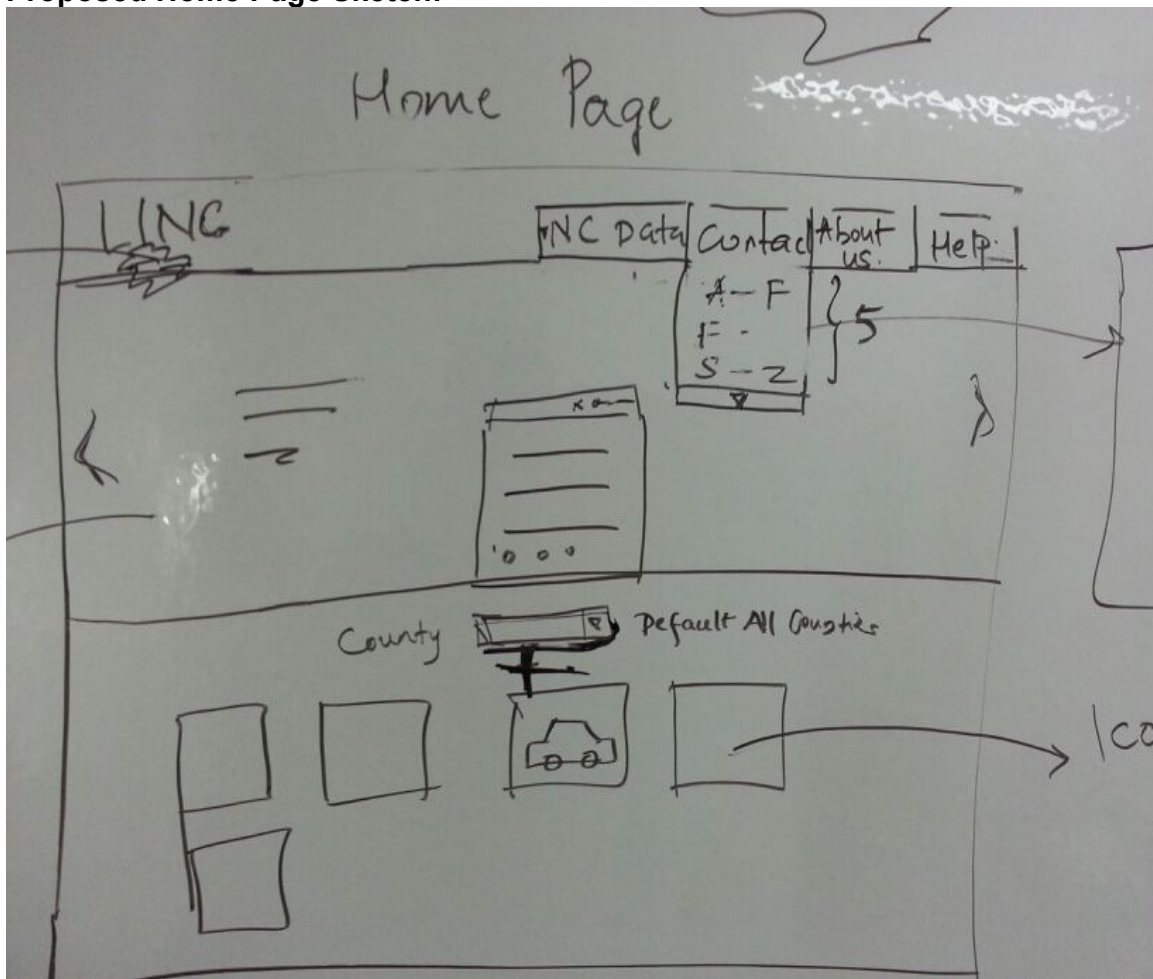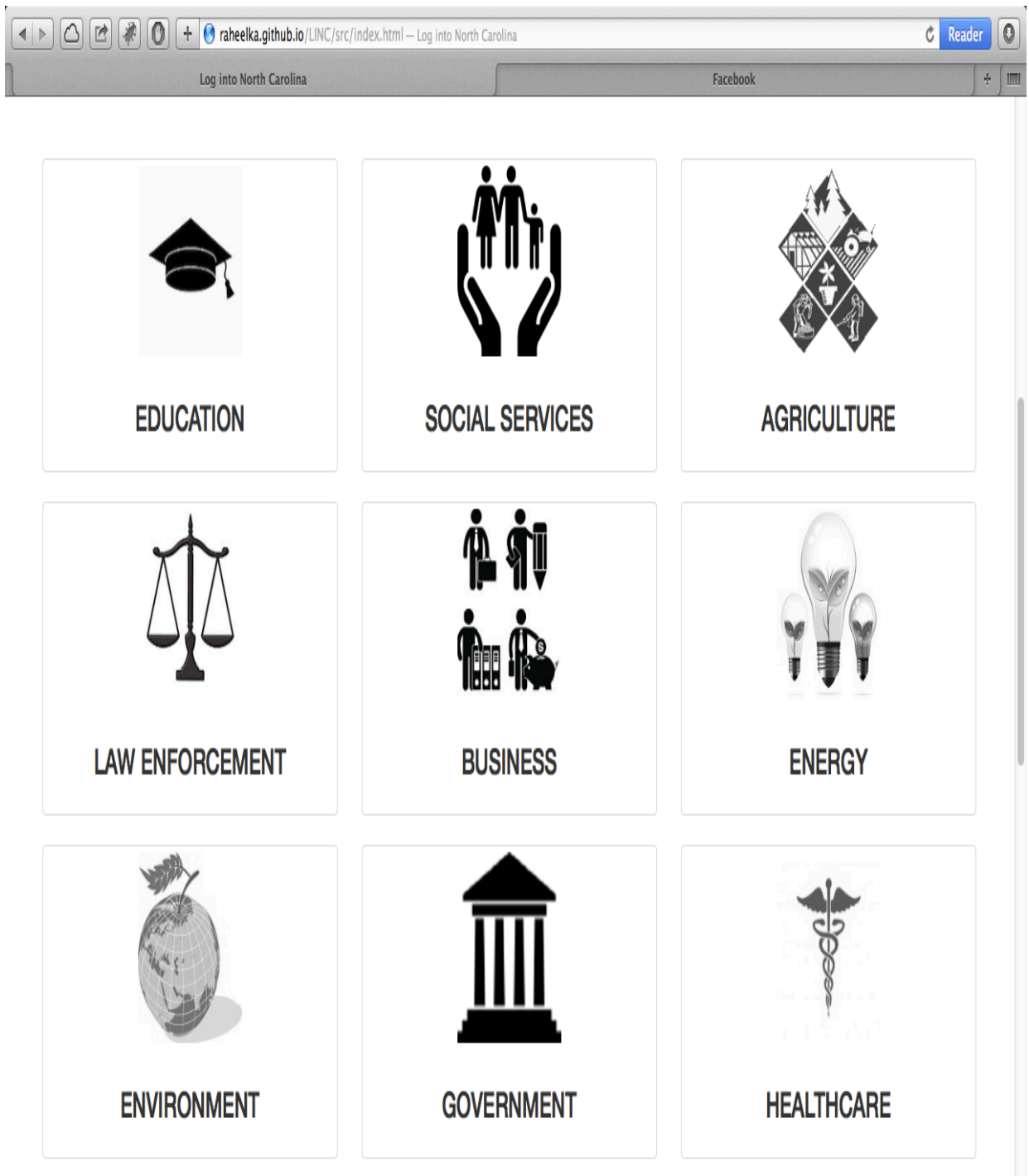
Proposed Data Visualization Page Sketch:
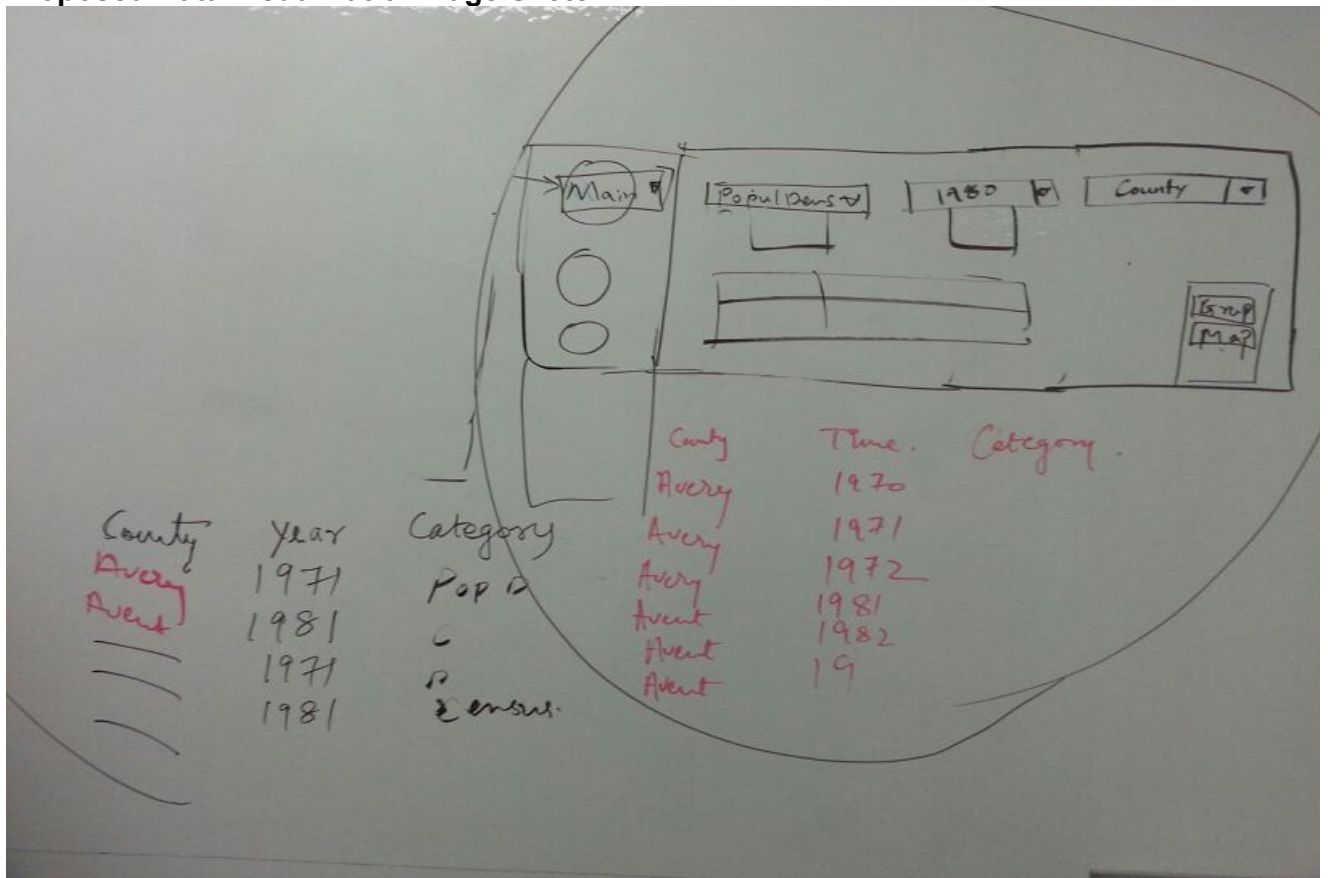
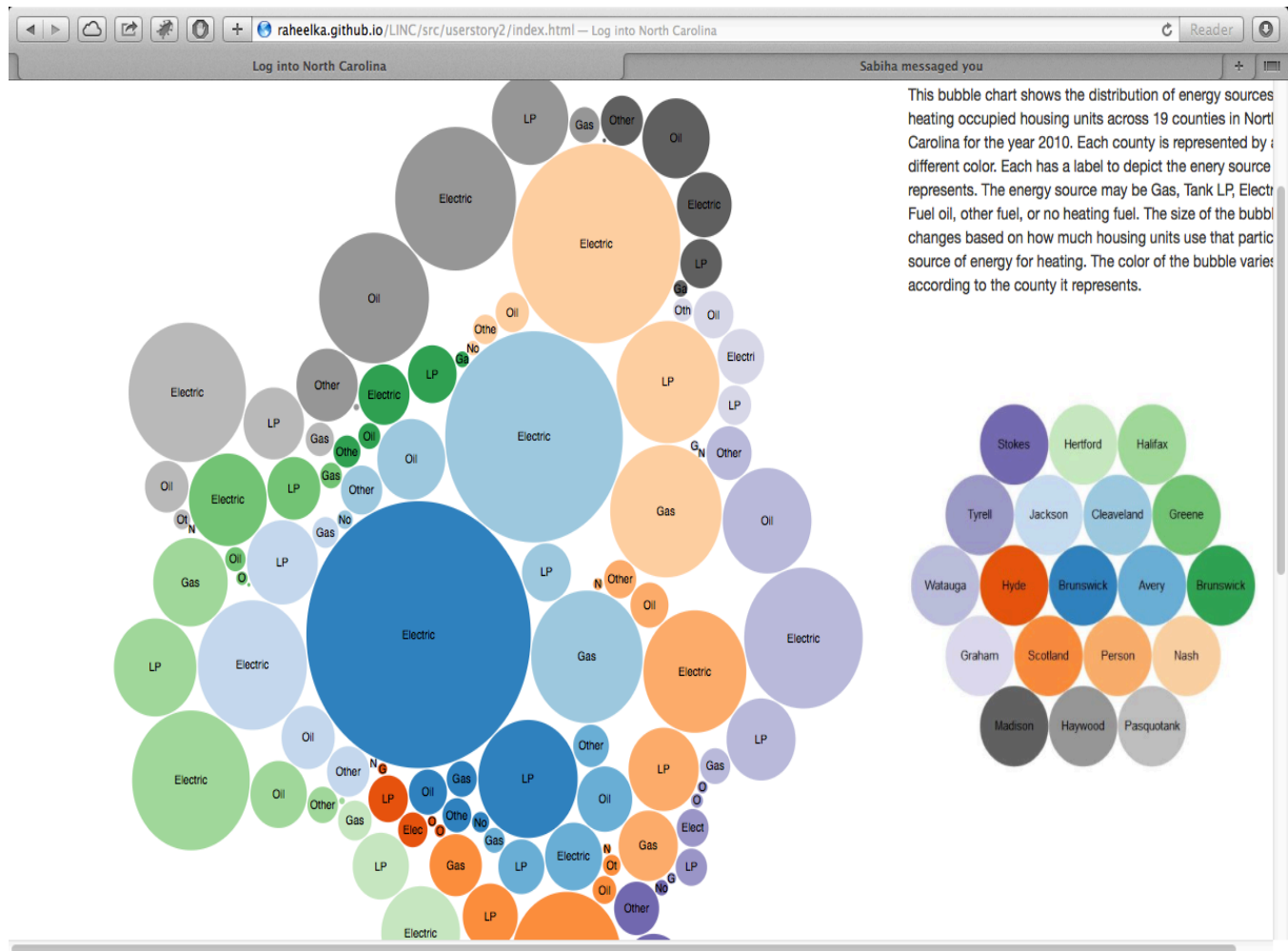**Actual Prototype:** Following are the screenshots from our prototype:

LINC Prototype Home Page:

Category Tiles on Home Page:

EDUCATION

SOCIAL SERVICES

AGRICULTURE

LAW ENFORCEMENT

BUSINESS

ENERGY

ENVIRONMENT

GOVERNMENT

HEALTHCARE

Example User Story Page:

Interesting Facts Section:

INDUSTRY   **POPULATION**   **TRANSPORTATION**

Interesting Facts

America's oil and natural gas industry supports 9.8 million jobs throughout the economy and 7.1 percent of GDP.

Energy   Find More ...

— NC Energy Forum

The United States Census Bureau, as of July 1, 2009, estimated North Carolina's population at 9,380,884 which represents an increase of 1,340,334, or 16.7%, since the last census in 2000.

Population   Find More ...

— Wikipedia Encyclopedia

The N.C. Department of Transportation has an annual operating budget of over $4 billion. These monies come from three primary sources: the Highway Fund, the Highway Trust Fund, and federal funds.

Transportation   Find More ...

— NcDotGov

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Data Set in Tabular Form with color-coded values:

Graphical View:

Help Modal section:
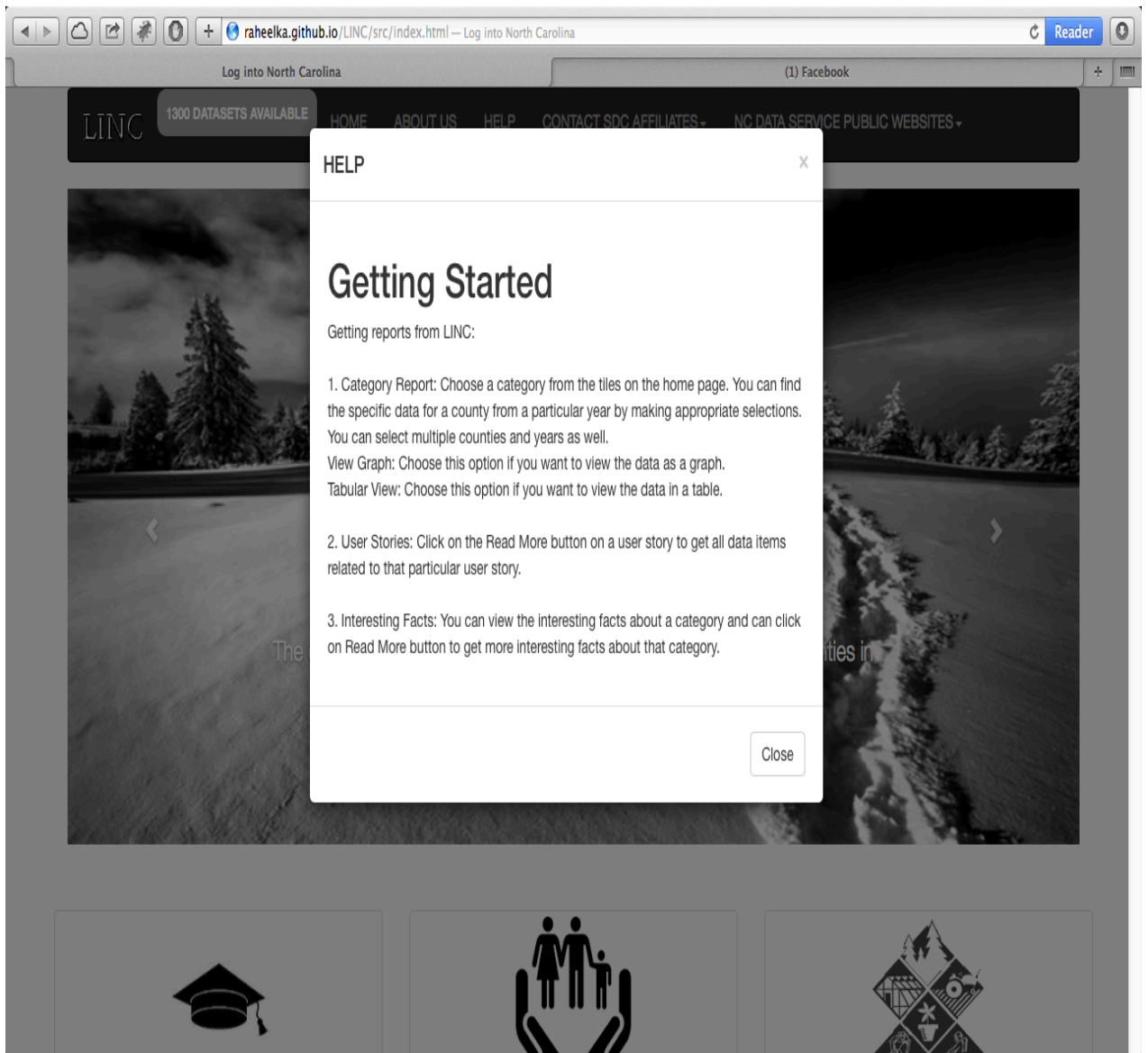
We then conducted a survey in-order to evaluate the prototype we developed.

Task List: Make the participant browse to linc.state.nc.us and ask them to perform the tasks mentioned below

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2. Close the pop up that appeared in Task 1 and try to find the contact of the SDC affiliate of Nash county again
3. Locate the website for "State Demographics - Estimates/ Projections"
4. Find Yr-Rd housing units with steam/hot water heating equipment in the year 2010
5. Find Yr-Rd housing units w/ Fireplace, stove or Rm heaters in Wake and Greene county in 2011

(The tasks 4 and 5 have been modified to suit the Prototype mocked up data, but are at the same level of granularity as the data set asked in survey with the current link site.)

Evaluation Report of survey with our Prototype LINC: http://goo.gl/uU8Nrg

Summary of results: The participants could complete all the tasks assigned to them with ease and with agility. The emotional state, subject experience with the website was positive. Never during the span of the task did the participant show any frustration. Moreover all the participants completed all of the tasks. LINC was designed keeping into mind that it is a government site which has a lot of data sets available and hence it needed to be simple yet innovative and intuitive. A lot of participants said that when they see something that is aesthetically pleasing and something that has an element of least surprise is something that they would trust. Thus a majority of the participants also found the website to be trustworthy - a core criteria for government related websites.

Conclusion:
We think that the prototype will provide guidelines to the hosts of the LINC website to revamp their current website, make it more usable and user-friendly, thereby attracting more users.