## I. Use Case Description

<table>
<thead>
<tr>
<th>Use Case Name</th>
<th>Culture Shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Case Identifier</td>
<td>n/a</td>
</tr>
<tr>
<td>Source</td>
<td>Rensselaer Polytechnic Institute Computer Science Department</td>
</tr>
</tbody>
</table>
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                        Cameron Mine (minec@rpi.edu)  
                        Chandler Dunn (dunnc@rpi.edu)  
                        Amartya Chakraborthy (chakra2@rpi.edu) |
| Creation / Revision Date | 2/9/2017                     |

## II. Use Case Summary

### Goal
A user, who is familiar with a particular subset of television shows, finds a topic/political area covered in the show that they have questions about. The user then opens the Culture Shock chrome extension where they can find a response to their question from three particular perspectives: culture, legislation, and social networking. Each of the perspectives utilize their respective datasets to provide a holistic answer to the question that was presented.

### Requirements

**Culture:**
The ontology helps everyday people understand the bigger picture race in America by gathering fundamentals from TV shows which cover cultural topics and themes such as (politics, food, heritage). These themes must make up the majority of the show to provide significance to the user.

**Legislation:**
The platform must retrieve reliable data. Data must be classified and searchable by general terms, so bills on health care, for example, should be classified as such even if the bill doesn’t contain the phrase “health care”.

**Social Networking:**
The relevant data must be available and accessible on social media to give sufficient results to the user about the topic.

### Scope
The scope of this use case is that the questions will be related to only television shows focused primarily on cultural or political topics included in the show. The point of the system is not to provide basic details about the show like who are the actors, where was it filmed, etc.

Topics that are out of scope are defined by the themes not covered or mentioned in the program such as space travel and questions that have no influence or relevance to culture. While they (the questions) may be real world connections between the theme and culture we must have existence of it in the data set (Atlanta) for the question to be answered.

### Stakeholders
Development team: The stakeholders for this use case are the four developers, Beverly Sihsobhon, Cameron Mine, Chandler Dunn, and Amartya Chakraborthy. The stakeholders also include Professor McGuiness and Professor Kendall as they are both our mentors for this use case.

Culture:
black community (culture community in question); culturally aware individuals; television enthusiasts; Atlanta fans; sociology community

Legislation:
Voters, legislators, educators, political or cultural researchers

Social Networking:
Social media users

**Description**

The idea of how Culture Shock works is that the user will open the chrome extension. The extension will open as a small window that is part of the current tab. The user is then prompted to enter in a question into that window, that should be based off of a cultural question from a television show. The extension will then use its ontology to search for a response to the question as it relates to culture, legislation and social media.

In terms of culture, the ontology will be used to process data from a particular TV show. The ontology would go through the summaries of each of the episodes of the television show to develop an idea of the cultural values discussed on the show. If it can gather an appropriate amount of information, it will then look for information related to legislation which is focused on this topic. The ontology will go through the APIs provided by the Sunlight Foundation and Propublica in order to gather information about any relevant legislation on the topic and then provides it back to the user. Lastly, the ontology will look up terminology as needed through the use of social media websites or applications such as but not limited to Urban Dictionary, Facebook, and Twitter depending on the question provided by the user. The information as returned to the user will be social media results first which allows the user to either view the post directly or click on a link which takes them to the post. For relevant legislation, a list of legislation will be displayed to the user.

**Actors / Interfaces**

Culture:
The primary actors for the use case are the individuals who help find answers within the tv show (Devs) to common culture questions; the show/ontologies da pulled from; and the user who supplies the questions.

Legislation:
Primary: Sites from which data is pulled from/United States Congress
Users asking the question

Social Networking:
Additional actors in the social media element of this use case include the APIs that will be utilized to retrieve data from social networking sites.

Interfaces:
Implemented as a Google Chrome extension, that will either provide a small interface that opens within the user’s current tab or open a new tab in the same window that will display more information.

**Pre-conditions**
The use case assumes that the tv program has a wide enough range to answer the questions. Additionally, it assumes that there is a universal agreement to
answer to the cultural questions that can be proven by the data. Lastly, the programmer needs access to the script of the show; congressional bills available; the data from social media trends; and other data to answer the cultural questions.

<table>
<thead>
<tr>
<th>Post-conditions</th>
<th>Upon typing in his or her question to the extension, the user will receive appropriate responses to the question in terms of culture, legislation and social media</th>
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</thead>
<tbody>
<tr>
<td>Triggers</td>
<td>The trigger for this use case is whenever the user chooses to ask a question, which is physically achieved by clicking the extension’s icon and typing the question into the pop-up box.</td>
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</tbody>
</table>

III. Usage Scenarios

Usage Scenario A:
Kelly is familiar with the rhetoric that rap music, created by the black community as a means of social reflection, promotes violence. When Kelly watches the show Atlanta he feels a sense of comfort listening to the soundtrack of the show almost as if he is at home hanging out with his friends. Thinking that maybe his misunderstanding of music like rap comes from his lack of influence he heads over to the ontology and types in “music appreciated by black culture” into the search bar on the site. The site then uses natural language processing to understand the contextual meaning of Kelly’s query and gets from it that he is interested in seeing music that was on the show. The database has an up-to-date registry with the songs that were used in the show’s episodes to date and a link to a Spotify playlist that has as many of the songs as possible (we are taking into account licensing). Kelly then gets the response that we created above which shows him a list of every song featured in the show which includes everything from OJ da Juiceman to Cheryl Lynn. Additionally, Kelly gets any related articles/bill from congress.gov regarding rap music that might provide some interesting reading on the subject. Finally, Kelly see what is trending on Twitter regarding the idea of “rap being violent” in the form of visualization.

Kelly sees the first problem that the media was portraying: music for black culture is entirely rap; which he sees isn’t the case based on the music used in the show. Secondly, he reads the Fader interview and begins to see what music means to the black writers and musicians. Kelly now sees how the strong the music has to be to make two people from South Central and Atlanta both agree as song is “dope”. Kelly walks away feeling more enlightened because he knows the ontology takes data from the scripts of the show Atlanta; Fader “the definitive voice of music and the lifestyle that surrounds it”; and gets information about the show and its’ fans. As the creators of the ontology we must commend Kelly for his ability to clearly communicate his query in a way that is relevant to the scope of the project; had Kelly typed in “why is rap so violent” we would not have been able to answer the question.

Usage Scenario B:
Cameron and Beverly are talking about the idea of transracial identity was its’ extremely level of controversy within the black community. Cameron is not pleased by the idea that just because you identify or say you are apart of a certain community you should automatically receive as Prof. Sarah Lauro puts it “black inheritance”. However somewhere along the way Cameron realizes that Beverly is unfamiliar with the idea of transracial identity. In order to help get Beverly up to speed to finish the discussion: Cameron opens the site searches “what is transracial identity”. The ontology then looks for a definition of the term in the script and gets the following scene: Monologue show on transracial identity. Great so the ontology knows the theme is covered in the show and can know go about getting an exact definition. So the ontology moves to urban dictionary taking the top two comments. Then it filters through the example sentences for Proper Nouns to see if there are any physical examples of terms. In this case, Rachel Dolezal is found. Then the ontology moves to black people twitter (searching via hashtag) to get user responses from the representation in the show. We take the top images from the tweets and then also return those to the user. Last but not least we return news related to transracial identity or the significance of identity in the eyes of
Congress. We would primarily search through any legislation that either is directly related or has the potential to have contributed to a cultural view. We could also look at voting records of legislators on related bills as well as look at how these legislators have voted in the past.

IV. Basic Flow of Events

<table>
<thead>
<tr>
<th>Basic / Normal Flow of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step</strong></td>
</tr>
<tr>
<td>Opening the extension</td>
</tr>
<tr>
<td>Entering question</td>
</tr>
<tr>
<td>Viewing the results</td>
</tr>
<tr>
<td>Knowledge Obtained</td>
</tr>
</tbody>
</table>

V. Alternate Flow of Events

<table>
<thead>
<tr>
<th>Alternate Flow of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step</strong></td>
</tr>
<tr>
<td>Unable to update data</td>
</tr>
<tr>
<td>Search returns no results</td>
</tr>
<tr>
<td>Search returns nothing on legislation</td>
</tr>
<tr>
<td>Search returns nothing on social media</td>
</tr>
</tbody>
</table>
VI. Use Case and Activity Diagram(s)

VII. Competency Questions
- What does it mean to have a transracial identity?
  - Example answer: Rachel Dolezal is an example of a person who made headlines related to this topic.
  - Def: “noting or relating to a person whose racial identity does not correspond to the visible markers of that person’s racial group by birth.”
  - Social Media Search on the topic gives us an understanding of the general perception regarding the topic.

- What is Juneteenth?
  - Def: June 19, celebrated by African Americans as the anniversary of the emancipation of slaves in Texas on June 19, 1865.

VIII. Resources

<table>
<thead>
<tr>
<th>Knowledge Bases, Repositories, or other Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
</tr>
</tbody>
</table>


### Sunlight Foundation
Remote API
Contains all the necessary information about bills and legislators
https://sunlightfoundation.com/api/

### Propublica
Remote API
Similar to previous source
https://propublica.github.io/congress-api-docs/#congress-api-documentation

### congress-legislators
Remote API
Contains data on legislators
https://github.com/unitedstates/congress-legislators

### MediaWiki API
Remote API
Allows access to information on Wikipedia
https://www.mediawiki.org/wiki/API:Main_page

### Facebook Graph API
Remote Social media API
Can provide posts made by other individuals or pages related to the question asked.
https://developers.facebook.com/docs/graph-api

### Twitter Streaming API
Remote Social media API
Can provide posts made by other individuals or pages related to the question asked.
https://dev.twitter.com/streaming/public

### External Ontologies, Vocabularies, or other Model Services

<table>
<thead>
<tr>
<th>Resource</th>
<th>Language</th>
<th>Description</th>
<th>Owner</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government glossary</td>
<td>Remote</td>
<td>Contains a glossary of government terms</td>
<td></td>
<td><a href="https://github.com/unitedstates/glossary">https://github.com/unitedstates/glossary</a></td>
</tr>
<tr>
<td>BBC Ontology</td>
<td>OWL</td>
<td>BBC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blackish Ontology</td>
<td>? (Disney)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Other Resources, Service, or Triggers

<table>
<thead>
<tr>
<th>Resource</th>
<th>Type</th>
<th>Description</th>
<th>Owner</th>
<th>Source</th>
<th>Access Policies &amp; Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrome Extension</td>
<td>Application Services</td>
<td>Google has resources on how to create your own chrome extension</td>
<td>Google</td>
<td><a href="https://developer.chrome.com/extensions/getstarted">https://developer.chrome.com/extensions/getstarted</a></td>
<td></td>
</tr>
</tbody>
</table>

IX. References and Bibliography

While not sure about how to properly scrape these sites for data because for now there are no available or supported apis from these sources. Examples include but not limited to:
govtrack.us
lcv.org