Overview:

Problem:
The problem that our project attempted to solve is to change the way online news media is presented to an audience. The goal of our project is to present online news media as an integrated format, where a news item consists not only of an article, but also images, videos, comments, blogs, and so on. Most news sites restrict what kinds of news media are presented or they present news in a less than optimal way which leads to clutter or confusion. Some sites like Google news simply redirect the user to the original sources. Our project tries to offer a personalized topics from the news, so that people can leverage their interests in news topics to other users - the idea being that a professional news item could be associated with popular blog entries of your friends, and your friends interests are reflected in the news you are presented. In sum the main problem that our project addressed was to provide a service that presents news in a better fashion such that news items are taking full advantage of being online as well as changing how the news is present to account for the challenges of presenting news online. Our project was to enrich the experience of gathering the news, sharing the news, and enhancing it with social media whilst hopefully allowing the user to enjoy the site without having to do everything.

Audience:
The audience for our project has the potential to be quite large, encompassing anyone who uses the internet as a regular news source. The audience could range in age from young to old, and could be from almost any demographic. Both casual and regular users would be able to leverage the site as they see fit. The common link between users would be an interest in setting topics for news, and leveraging the social aspects of the site.

Competition:

Google news:
Google news provides a decent interface to obtain the current and most pressing news. However, google news acts merely as a distributor, it provides a means by which articles on a given subject and topic are found. With that said, Google almost presents too much news and forces the user to do a lot of their own filtering. Google does offer video and image support, but it does not provide a way to associate images with a story, and offers no permanence (as might be found in something like a Google Wave). Finally Google news has a pedestrian layout and design which is cluttered and detracts from a user wanting to interact with the news. Our project tries to improve on this style by bringing pre-filtered news to the user instead of having the user look for news, and provide some permanence to a developing article, including comments, additional images, etc. To do this we provide a seamless underlying social network that allows for users to more easily share news items with their friends.

**Newser:**
Is a news portal website that tries to present news as quickly as possible to a user. This site lacks almost any kind of organization - it simply presents news on several different topics all in the same general area, which makes it difficult for a user who may want news on a general topic, like sports. The site also requires a large number of clicks to get to things such as the full article itself and extra items such as comments. Our project was designed to make use of a similar visual presentation of news, mainly one that includes several images and headlines, and make the news seemingly somewhat more interactive and enjoyable. Also a problem we noticed is that each image has link overlays, one that goes to the article source and one that goes to the article summary, this was confusing and did not seem consistent. The site uses popups to avoid loading additional pages - which is good - but the information and presentation of the popups themselves was not satisfactory as a user.

**Google Fastflip:**
This google site provides a distinct and very interactive way to view the news but has some problems with visibility. The site essentially presents images of the main pages of other news sites, so that someone using Fastflip can quickly scan through a number of sites for main articles. First the site itself could be daunting for a novice user or a more casual user might find it too flashy or fancy or just plain too complicated. Another problem is that sometimes it is very hard to read the contents of one of the article panels, which in turn requires a click to discover what the article is about. Clicking on an image may not provide the user with the expected experience - i.e. you might be trying to view the second page of an article and find that you cannot click through to it.

**Project design description and details:**
Our project main goal is to act as a news distribution center. The main idea behind the project is to not simply provide a user with news, but to enhance there experience by making the user more involved. For this prototype we were not able to implement a method to gather live news, instead we uploaded a database of about 150 articles of a different enough variety to hopefully illustrate how our site might work with live results. The user can not only see news that interests them, they can comment, add images, add videos, and send these articles to friends. The overall experience should allow the user to access the news, and add community based data to the articles.

**Main page:**
The first thing that a user will see is our main page. The main page or home page is designed to allow for users to use some of the basic features of the site to access news quickly. For example we purposely did not want to have a user login in order to locate news items. Instead, the main page is design such that a user can still find articles using the search bar, as well as be shown some popular categories of the day's top news. However, there are to be many features that are to help enhance the user experience, which in turn requires that the user must login.
The visual design for the main page is intended to be simple but crisp. A grid was used to
display news items, which are arranged by a category. The news item itself is a picture
followed by a headline underneath it. Each box that which consists of a picture and headline
is click-able. The main page features a nice large logo such that the user clearly knows what
site they are at. The main page also features a simple login area as well as a search bar.

**User Login:**
Once the user is logged in then the main page undergoes a slight modification to update the
categories to the categories that the user has set up. The idea behind this design is that the
user should be able to quickly see the news that he or she wants to see. However, unlike
other sites the information is to be well organized such that the user does not have to
activity search for news as much. Hopefully, the user will be able to provide the system with
some input such that the system is able to provide the user with the most up to date news
that the user wants to see. Secondly once that user logins he or she will have the ability to
interact with his or her friends by sending them articles or receiving article from their
friends. The user will also have the ability to create new custom categories based on
whatever topic the user decides to enter. Of course for the prototype the search results are
limited because of our small database of articles.

**Article Window:**
Once a user finds an article that he or she likes, they will click on the box and a new window
will be displayed featuring the article itself and several tabs which will provide some related
items based on that article. One tab features comments about the article, which a logged on
user may also post their own comments. A tabbed layout and popup window were used to
allow for the user to have easy and quick access to articles. The tabs allow for a good
separation of information while still providing the user with some visibility about the other
useful content. Finally the article itself is displayed in a simple text format, but does have
show use features, including the ability to for a user to go directly to the original source, a
rating button, and a button to allow for the user to send the article to friends.

In sum our project's design was intended to provide an integration between some social
networking aspects and news media as well as present news and other news related
material to help keep the user engaged in the news story.

**Usability Test Summary:**

We used four people to test the usability of our project and learned some important things
about our project. Here is a list of some of the key problems discovered during the usability
tests.

- All the pictures were the same for the clickable news item.
- No headlines were visible, thus the user was forced to click on a box, open it to
  know what the article was about. This is not a very practical nor efficient way to
  view the news.
- The popup box we used to display news items was lacking some basic features that
  the users expected, such as a close button or box, a re-sizable window, and a ability
to maximize the window.
- The users also noted that the way we had posting of comments set up was poor.
- The users thought that the overall site design needed to be made to look better.
- The users presented some basic problems with the friends features, such as adding
  friends, receiving messages/alerts, and the ability to block friends from sending
  messages.
- Users also noticed when some basic features were missing, such as being able to
  press the enter key to submit information from a text box.
- Users noted when text was left in the login text box after the logout button was
  pressed.
• Users also noted that features should not be made visible if the user needs to be logged in, when they are not logged in.
• Users also noted the difficulty to execute searches as well as finding news items in general.
• In general users wanted more feedback to know that clicking the rating button for example actually did something.

Based upon our usability tests we made several changes to our prototype that is now displayed in our final prototype. Here is a list of improvements that were incorporated into our final prototype.
• First, we made a much larger database of articles and images to give a better idea of what the fully functional site may end up looking like. This helps to solve some of the fundamental problems discovered in the usability test. The increase in the number of images helps to give the site an overall more visually appealing look. The multiple pictures also provide a better mechanism to help users to locate future articles.
• Secondly we included a small text headline below the picture of an article to give the user a general idea about what the item was before they had to click on it.
• We redesigned the popup window to include some basic features such as a close box in a familiar location for a windows user. The window itself included more information about the article as well as a link to the original article per user request. The window was also made to be re-izable and drag-able. The window place buttons in a better location to help improve the visual look and feel. The comments area was redesigned to offer a better interface such that the user was not overwhelmed by features and that it was more clear that the user can easily add comments. Finally the window also had several other small features implemented to help suggest how the future design of the site might go, such as including a place for videos, images, blogs, and so on.
• The site in general was given a visual overhaul to hopefully give the site a more crisp and polished look. This includes changing the colors and the layout of some of the items.
• The site included some very basic friends features to at least illustrate the types of actions that we wish our final design project would have featured.

What Works:
• New items are displayed in a grid
  ◦ every item is click-able
  ◦ every item displays an article and a working link
  ◦ the window the item is displayed in is draggable, resizeable, and closeable
• Users can login and logout.
• A user can add a custom category
• A user can search for news items.
• The user can see their friends, and add users as friends.
• A user can comment on an article, and this comment will be displayed to everyone that uses the site.
• Users can give a "like" or "thumbs-up" to a story, raising its rank for friends who view items in that story's topic.
• The news is sorted and displayed based on the overall rank given by friends.

Known Problems and Future Work:
Problems:
• The search method, manly due to our project's lack of live news or even a large news database. The search method itself is rather simple and mainly illustrates
functionality, and shows that a search bar is an important part to have in a future version of this project.

- Currently the user does not really send articles to their friends, the gui displays how they work, however the action never takes place. Similarly, the alerts - where articles would be received - does not work. It serves as a placeholder.
- The rating system, comments system, and add a friends system works only while the server is running.
  - This could be fixed by using writing back to the database.
- The news is sorted by only friend rank.
  - Overall rank and date should be added.
- Some links to source do not work correctly.
  - This is an issue with the database and could be updated given time.
- Considering that we were loading these articles in a method peculiar to the implementation of the prototype, this would avoided entirely given a robust database implementation with a live news feed.
- The news is sorted by only friend rank.
  - Overall rank and date should be added.
- Some links to source do not work correctly.
  - This is an issue with the database and could be updated given time.
- The user is only able to add one custom category. This is a limitation of the current code, and would be changed so that the users would be able to fully customize all existing categories and have a higher number of possible categories over all.
- Users should receive better feedback in cases when entering information, such as confirmation when a user gives a story a "thumbs up".
- Add a category that is not in the database should give an error and allow the user to try again.

**Future work:**
- User accounts will have passwords.
- Integrating a new search method based off Google Search API for GWT. We started to do this for images, videos, and other content pulled to the client live, but integrating this with the back-end database is much more complicated and will require a complete redesign of the core of the application.
- Sorting delivered content not only on friend ranking, but also their overall ranking and date.
- Integrate Facebook to allow the user to login and access their Facebook friend list.
- Allow users to delete and add categories.
- Allow users to setup homepage categories.
- Allow users to delete friends.
- Add community images and or videos to items, and allow the user the ability to add such items.
- Create a better search to allow for better results.
- Allow users to send/receive articles to/from friends.
- Need a better way to get and size images.
- Add date tracking to Comments.
- In some cases, popup windows should be automatically closed. For instance, when a user logs out all open popups should close. Also, when a user opens a second news story without closing the popup from the first one, the first one should close.
- Have a profile page for a user.
- Make it so that when adding a friend, users are prompted with existing names.
- Add a way that users can add an article to a favorites list for quick access.

**Screenshots:**

**Homepage:**
• User not logged in:

![Image of uNews interface when user is not logged in]

• User Logged in:

![Image of uNews interface when user is logged in]

• Add Custom Category:

![Image of custom category dialog box]

• After adding custom category:

![Image of uNews interface after adding custom category]
Article Popup:

- Article (Not Logged In):

- Article (Logged In):

- Article (Send to a Friend):
U.S. President Barack Obama says the approval of a long-delayed election law by the Iraqi parliament is an important milestone. Mr. Obama says it helps clear the way for a planned withdrawal of American combat troops.

Comments (Not Logged in)

- This is a test

Comments (Logged in)

- This is a test
Lessons Learned (the hard way)

Though this is not a specifically requested topic, we felt that we should address some of the challenges that we experienced as a group during the course of this project's development.

- Our original ideas were too broad - we needed to limit the scope of what we were trying to accomplish. We spent days working on components which were eventually scrapped because we were being too ambitious for the scope of this project.
- Our original ideas were not concrete enough. We needed more specificity with what we intended to deliver. We spent weeks debating what kinds of features we all agreed would be nice, and at the end we each had ideas about what the most important aspects of the application would be. When we got around to coding the project, we would discover that these ideas did not always mesh. We should have limited our project's ambitions, and prioritized features.
- We needed to agree to a strong software design concept. Snowballing from our lack of specificity, we began to design components of an application which would not always work well together. We had a GUI which wasn't designed for an AJAX application; we had an application that wasn't prepared to be used by GWT RCP; we divided the code up into smaller managable pieces and ended up duplicating key components and decentralizing to the point that it required a large overhaul of the application. We would do a complete design on paper so that we had components which supported all our key features, and components interacted in specific ways.
- We would probably divide development into more distinct phases - get all the functionality, then work on GUI. We found that going back and forth between the two aspects was distracting, often unproductive, and led to vastly different GUI results since it was being worked on by three different people with different styles.
- We would figure out exactly how to use the SVN server before we overwrite days of work.

Finally, we are very happy with the progress we have made on this application. While uNews is not quite everything that we hoped it would be, we are proud of what we have accomplished, and we feel that it does show potential solutions to the problems we set out to solve.