1. Timeline visualization

A timeline of stories is presented, and a user can zoom in/out to the time of interest. Clicking on the item (image or title) brings up the web page with that story. Might support a filter, so the timeline is only generated for a particular search query (e.g. all stories related to Kotzebue).

Example from Bederson:
2. Speech Synthesis

Read a story in a selected voice. Commercial software available to do this, will require some integration with the server. Might be a little tricky if outsourcing the server?

URLs:  http://www.research.att.com/projects/tts/
       http://www.wizzardsoftware.com/att_server.php
       http://www.wizzardsoftware.com/ibm_tts_sdk.php

About $2000

Free version: http://freetts.sourceforge.net/docs/index.php
Could be delivered as a Java Web Start Application (~ 3Mb one time download), similar to running separate application but can launch from the web page

3. Geographic Navigation

Placeholders are added to a map (might use an overlay of google maps) that link to stories that occur in that location. The map is zoomable to high detail if desired.

Example: http://www.frappr.com/applegeeks

Might merge with the timeline approach?
4. Document Visualization

Automatically generate a map or landscape visualization of the documents contained in the repository. For example, the following map was automatically generated from usenet documents using a neural network algorithm. Light areas mean lots of documents, darker areas mean fewer documents. The documents are automatically clustered on the map according to their similarity.

![Map Visualization Example]

Users can get a high-level picture of the types of documents that exist, and how many, and zoom in to see actual documents.

A related technique maps the colors onto a 3D map, so the documents appear as peaks and valleys and one can navigate through the space to find the documents they want.

5. Network of Connections

This approach overlays a network across related documents. Users can navigate to related documents with a hypergraph:

![Hypergraph Example]

In our case, essays/images would form the nodes of the graph, and the user can browse among related ones. The graph expands in the center around the concepts the user has selected.

Examples: [http://hypergraph.sourceforge.net/examples.html](http://hypergraph.sourceforge.net/examples.html)

We could generate the links automatically based on document similarity, or also overlay links based on user input (e.g. user traffic patterns, common user paths from one doc to the next is indicated by a strength of an edge).
6. Kid-Oriented Activities

Iditarod game – kids race each other online by answering questions mined from litsite. Students/kids must search litsite for the answers to move forward, with the opportunity for arcade action as well.

Mysite.litsite.org -- ways for kids and others to create their own sites (could be easily done in a normal wiki type of setting)

Alaska Zoo – Build an image library of Alaska animals from the digital archives with kid-friendly information

Mapping – kids could type in their location and comments on and see them on the map as another overlay as in (3)

Visual pathway for finding books, that relate to Alaskan animals, in the Joint Library Catalog. (Need to flesh this out more)