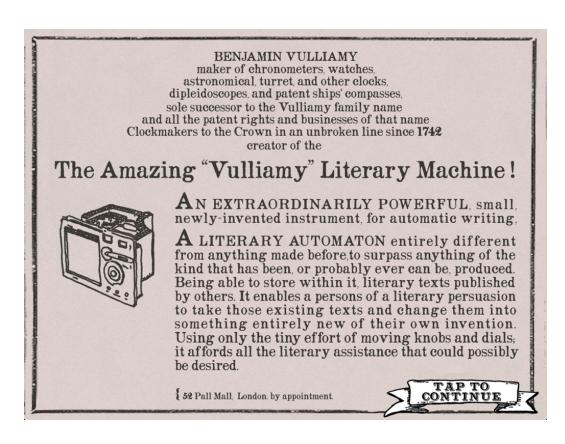
Nathan Boyer Elizabeth Chang Adventures of a Hack Project Final Report to IIF Committee 5/5/14

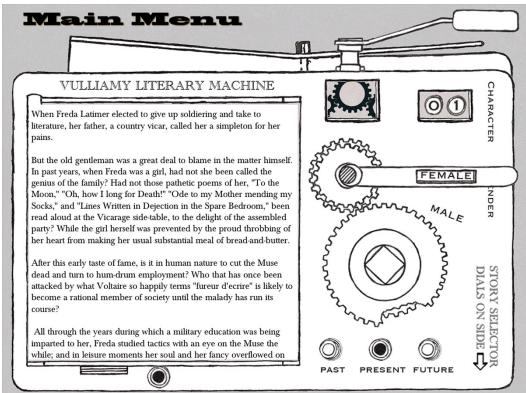
At the close of the grant period, the "Adventures of a Hack" team has produced a working prototype of a literary adventure game playable on iPads.

The game has two parts. In the first, players read and remix 19th-century texts, manipulating words, phrases, and plot elements to create new versions of old stories. In the second, players' avatars move through an interactive London animated using nineteenth-century newspaper illustrations, pursuing or rejecting mass popularity.

## **Description of the Project: Part 1:**

We have completed a fully working "literary machine" and text parser engine. This can load Victorian short fiction texts based on the genre and/or the gender of the author. (The project can handle stories in any of these late nineteenth century genres: New Woman, Imperial, Naturalist, Decadent, Nursery stories, Utopia, Invasion literature, Romance, School Stories, Children's adventure stories, Fantasy, Sensation, Provincial, Bildungsroman, Mysteries, Sporting, and Industrial.) After text selection based on gender/genre criteria, the user can then manipulate those stories: changing the gender of any of the characters, changing the time period the story takes place in, and modifying the level of interiority in the story through the manipulation of dials, knobs and buttons. Currently there are eleven stories loaded into the project and fully tested (all fairly unknown 19th-century short stories that build on the project's theme, which fits in with the mission of the project to expose more people to more unread/unstudied 19th-century literature.) But we are very pleased that the way that it is built it is also fully scalable. The parser allows for the addition of an unlimited number of new stories in the future, so that the project can continue to develop.





Screen shot of one of the screen of the "Literary Machine," showing some of the dials and buttons to manipulate the story.

## **Description of the Project: Part 2**

In the second part of the project, in which players' avatars move through an interactive London animated using nineteenth-century newspaper illustrations, we have a total of nineteen locations in london that we use as environments within the app for animated characters and events. We have used sources such as the *Illustrated London News* and Dore's etchings of London as source material. These images have been painstakingly sliced up into their component elements in Photoshop so that they can be used as interactive environments. These locations have then been mapped onto a period map of London, created a historically accurate 19th century London that users can move through.

We developed a custom-built movement engine to run this part of the project, as well as a system for handling all the narrative parts of the project that happen in the form of interactive storytelling, in which the user can navigate through the world of the nineteenth century British literary world. We have hand-animated all the animations of the characters moving through London as well as the drawings of the interactions and story elements (literally hundreds of drawings).

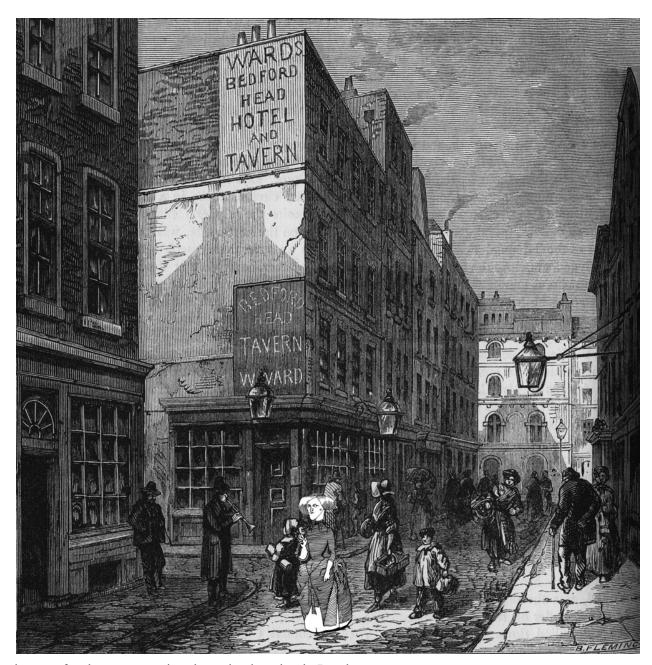
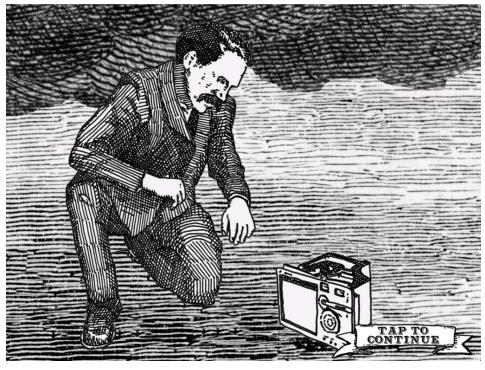


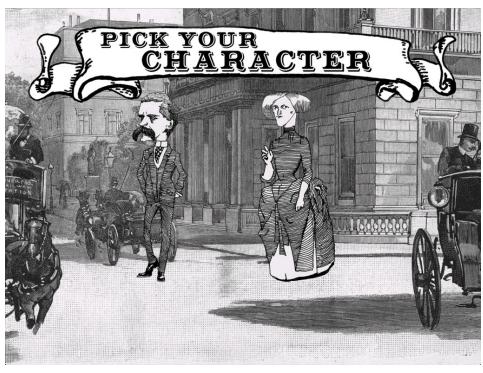
image of a character moving through a location in London

# SCREENSHOTS:











#### **Impacts on Students**

The major impacts of this project for students and student organizations is the development of new paradigms for collaboration between humanities and arts faculty, Application Development Network staff, and graduate and undergraduate students. Historically there have been limited project models for interaction between students and faculty in creative and humanities disciplines and the Department of IT. Equally rare have been models seeking to advance active research and creative agendas by arts and humanities faculty to which undergraduate and graduate assistance is both relevant and essential. The availability of IIF funding has allowed both of these kinds of connection to be made.

This project has also become a model of getting students involved in faculty research. Both graduate and undergraduate researchers have been involved in every aspect of the app production, including scanning historical documents, coding, writing narrative, tagging historical categories. During the first portion of the grant period, the project was also partially supported by Mizzou Advantage funds through the establishment of two Undergraduate Research Teams. We also have been part of humanities-based mentoring programs: we have also had students take advantage of the Undergraduate Research Mentorship program from the College of Arts and Science, and independent study programs.

One of our particular success stories is undergraduate Hannah Reese who began in the URT and then continued work on the project as part of an honors preceptorship and was able to make presentations about the project at both the 2013 and 2014 Spring Undergraduate Research Forums as well as at Undergraduate Research Day at the Capitol, she was also made an Undergraduate Research Ambassador based on her work in the project. These opportunities significantly advanced campus and lawmaker awareness of the research potential for the arts and the humanities using campus technology resources. As a result of this project, future interdisciplinary collaborations between faculty and students and between academic computing and humanities disciplines will be possible. This will be beneficial to students in both a curricular and extracurricular setting.

## **Next Steps:**

Professor Boyer is finishing up a the narrative and animation parts of the prototype this summer, with the help of computer science graduate student Benjamin Hotrabhavananda (Benjamin is another success story of the project... he began the project with no knowledge of app coding, and now both the App Development Network and his own department are eager to hire him based on the skills that he has developed working on this project. The funding to continue to pay him part-time this summer to finish up his part of the project is coming from a grant from Mizzou Advantage).

The prototype that we have been able to develop with the support of IIF offers two exciting possibilities: We could either release this version to the public or use it as a model for securing outside funding to further develop the app in its visual and functional sophistication. At the end of the summer we will proceed with one or both of these options. None of this would have been possible without the support of IIF.

#### **EXPENSE REPORT**

\*\*\*PLEASE NOTE: These expense reports are not complete for 2013-2014. The final payments to the graduate student programmers are not yet reflected in the account so there is still funds remaining in the account, which will be paid out in the month of May.

Allocation from IIF		\$25,000.00
URT-Support for Adventures of a Hack	3/11/13	\$300.00
TOTAL		\$25,300.00
Less Expenses for 2012-2013		\$7,397.85
Less Expenses for 2013-2014 (does not yet include May programmer salaries)		\$16,367.21
***Funds Remaining		\$1,534.94

Account/Expenses	2012-2013 Expenses	
Graduate Student programmer		5,100.00
Undergraduate student animation assistant		1,503.00
TOTAL SALARIES & WAGES		6,603.00
FICA Benefits		144.99
TOTAL BENEFITS		144.99
software to communicate with MU app development	9/26/12	\$47.20

2 scans from Illustrated London News	10/25/12	\$66.16
poster for undergraduate research team presentation	4/23/13	\$67.50
Ipad for development project	5/2/13	\$240.00
Ipad for development project	5/2/13	\$259.00
TOTAL OTHER EXPENDITURES		679.86
	TOTAL EXPENSES 12/13	7,397.85

Account/Expenses	2013-2014 Expenses (does not reflect final payments to graduate student programmers)	
two Graduate Student programmers 2013-2014 (up until April)		16,320.01
TOTAL SALARIES & WAGES		16,320.01
software to communicate with MU app development		\$47.20
TOTAL OTHER EXPENDITURES		679.86
	EXPENSES TO DATE 2013-2014	16,367.21