

## NEH Application Cover Sheet (HD-248622)

### Digital Humanities Start-Up Grants

#### PROJECT DIRECTOR

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**Field of expertise:** Communications

#### INSTITUTION

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Stone Soup Productions  
Washington, DC 20036-2504

#### APPLICATION INFORMATION

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**Title:** *The Search for Harmony: Building a Game Development Tool for WordPress*

**Grant period:** From 2016-05-01 to 2017-04-30

**Project field(s):** Cultural History; African American Studies; Music History and Criticism

**Description of project:** The process of creating information-rich websites has become more accessible to the public through content management systems (CMSs) like WordPress. New game development tools have also become available to creators for designing engaging experiences. However, there is a need for a tool that can create educational games with the familiarity of a CMS platform already in use in the humanities, rather than require learning a new program. The proposed tool aims to pair a game development framework with WordPress to allow media makers to develop educational games using a simple interface. The Search for Harmony is a case study game concept, about multicultural influence on classical music, that will help provide content to develop and refine the tool. The end product would reduce resources needed to create educational games of a certain type, foster websites that could repurpose game content, and encourage educators and others in the humanities to create engaging experiences for

#### BUDGET

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<b>Outright Request</b>	37,430.00	<b>Cost Sharing</b>	0.00
<b>Matching Request</b>	0.00	<b>Total Budget</b>	37,430.00
<b>Total NEH</b>	37,430.00		

#### GRANT ADMINISTRATOR

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## **THE SEARCH FOR HARMONY**

### Table of Contents

#### **Attachment 1: Table of Contents**

#### **Attachment 2: List of Project Participants**

#### **Attachment 3: Abstract**

#### **Attachment 4: Narrative**

A. Enhancing the Humanities Through Innovation	page 1
B. Environmental Scan	page 1
C. History and Duration of the Project	page 2
D. Work Plan	page 2
E. Staff	page 3
F. Final Product and Dissemination	page 4

#### **Attachment 5: Project Budget**

#### **Attachment 6: Biographies**

#### **Attachment 7: Data Management Plan**

#### **Attachment 8: Letters of Commitment and Support**

#### **Attachment 9: Appendices**

A. Detailed Work Plan	page 1
B. Work Sample and Innovation Statement	page 4
C. <i>The Search for Harmony</i> One Pager	page 6
D. <i>Sonata Mulattica</i> Two Pager	page 7
E. Selected Bibliography	page 9
F. <i>Anne &amp; Emmett: the other</i> One Pager	page 10

**THE SEARCH FOR HARMONY**  
Project Participants

**PROJECT PARTICIPANTS/DIGITAL TEAM:**

**Andrea Kalin – Creative Director/Project Director**  
Founder of Spark Media

**Nick Ray – Lead Developer/Technology Director**  
Adjunct Professor of Web and Mobile Application Development, American University

**Matthew Weise – Lead Game Designer/Artistic Director**

**Tim Oshida – Graphic Artist**

**Caralyn Moore – Associate Producer**  
Associate Producer, Spark Media

**Benjamin Stokes – Impact Analysis**  
Assistant Professor, American University, Co-Founder, Games for Change

**Lindsay Grace – Gameplay Design Consultant**  
Associate Professor and Director of The Game Lab and Studio, American University

**Raki Jones – Story Consultant**  
Professor of Media and Television Production, University of the District of Columbia

**Brigid Maher - Digital Media Consultant**  
Co-Director of Center for Media & Social Impact, American University

**ADVISORY BOARD:**

**Center for Media & Social Impact**  
American University

**Rita Dove – Lead Project Scholar and Creative Consultant**  
Commonwealth Professor of English, University of Virginia

**Allison Blakely, Ph.D.**  
Professor of European and Comparative History at Boston University

**Dominique-René de Lerma, Ph.D.**  
Musicologist and Author

**Afa Dworkin**  
Executive and Artistic Director, Sphinx Organization

Stone Soup Productions  
NEH Office of Digital Humanities  
Digital Humanities Start-Up Grant

Attachment 2:  
Project Participants

**Bonnie Gordon, Ph.D.**

Associate Professor, Critical & Comparative Studies, McIntire School of Music, University of Virginia

**Patricia Stroh**

Curator of the Ira F. Brilliant Center for Beethoven Studies, San Jose State University

**Josephine R. B. Wright, Ph.D.**

Professor of Black Studies and Music at the College of Wooster

## **THE SEARCH FOR HARMONY**

### **Abstract**

*The Search for Harmony* is an original web-based game about the rich, forgotten historical legacy of classical musicians of African descent. This concept provides content for the grant project's primary task - the pairing of an HTML game development framework with the content management system WordPress to create a game where players search for clues and items in two-dimensional environments. The end product will be a WordPress plugin that will allow creators with little or no code knowledge to produce similar types of educational games using a system more ubiquitous in the humanities than game engines such as Unity, and thus create games with a lower burden on resources. The producers of this project seek \$40,000 for technology evaluation, adviser consultation, gameplay design and the development of a prototype to be published in public code repositories. This tool would empower educators and others in the humanities to use games as a means of creating engaging, informative experiences for students.

## THE SEARCH FOR HARMONY

### Narrative

#### **Enhancing the humanities through innovation**

Based on experience working with social impact games such as [Anne & Emmett: the other](#) (see appendix), it has become clear that the space for those in the humanities wishing to use games as a platform for engagement and teaching has a gap. Many tools exist for game development, but this necessitates downloading and learning a brand new piece of software, which requires time, or hiring a developer with expertise in that platform, requiring funding. Though an interested scholar could dedicate time to learning a game development tool, the investment is not just in technical proficiency, but in researching effective gameplay constructs that provide maximum impact.

Stone Soup Productions aims to simplify this process of creating educational games by using *The Search for Harmony*, currently in the early stages of development. In *The Search for Harmony* concept, players help a diligent character named Maestro look for his lost friend, Harmony, who has vanished into one of many disconnected worlds, each fixed in a unique moment of music history. It's up to the player to explore each world, look for clues, cross worlds via musical score "bridges" built from scattered pieces musical scores and find Harmony.

Using the game concept *The Search for Harmony* for test content, the goal of this Start-Up project is twofold. First, to research and refine a game construct that is not only effective for *The Search for Harmony*, but could be also applied to similar games exploring art, science, literature, etc. The effort dedicated during this time to understand best practices in game development as it relates to this kind of game is effort that future users of this tool will not need to replicate - we will have provided a concept that is ready to implement and known to have the potential for impact.

Once this game structure has been established, the best candidate for a game engine to pair with the content management system will be researched, based on accessibility, extensibility and the size of the support community. WordPress is a natural choice for this content management because it has one of the strongest communities and user bases of open-source content management systems. According to their website, WordPress powers 24% of the web<sup>1</sup>, making it more likely that creators in the humanities will at one point have been exposed to the "WordPress way" of content management. Designing a system that fosters game creation using an interface like WordPress that creators already know means the knowledge barrier to entry is reduced, which, when paired with a pre-defined and researched game construct, further empowers the proliferation of similar web-based games for education.

#### **Environmental scan**

In the realm of web-based games, from a software standpoint, one finds two major camps: fully custom applications built from the ground up, and games built using an existing (and often open-source) development library, where tools such as Cocos2dx-js, Phaser.io, or Crafty.js, employ code from other games to lower the barrier for future web developers. These libraries, however, often remain code-based, rather than wed to an interface that's friendly to non-coders. The WordPress interface already does this for writers, enabling publishers to focus on content, rather than display. For those more familiar with WordPress than programming, the closest related tools in the field now are plugins which allow for the presentation of games, but not necessarily the robust creation of games themselves.

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<sup>1</sup> <https://en.wordpress.com/>

A few examples of related software in the field highlight both the interest in a tool like what this project hopes to create, and a gap in need of closing. Kiwi.js is a javascript library that claims to be the “WordPress of HTML5 game engines,” focused on reusability and extendability. Their website even contains a link in the footer mentioning a WordPress plugin that is coming soon, though the link leads nowhere and the past year of blog entries neglects mention of such a tool being in active development. The developers of Kiwi.js, though, have understood the potential good a WordPress plugin with their library could serve or else the mention would not exist on their site at all.<sup>2</sup> Our goal is to focus on developing one type of game construct and make it user-friendly to create, rather than a plugin that is flexible for any time of game - at least in this version. Thus it may be possible that we pursue a sort of collaboration with those developers if kiwi.js best serves the needs of our project.

Another example worth noting is GamePress<sup>3</sup>, which is an Apple iOS app that helps facilitate the creation of games. While user-friendly, its reach is limited by being bound to one platform, where the tool created in this project will be web-based and thus both portable and widely accessible.

### **History and duration of the project**

The genesis of *The Search for Harmony* stems from Stone Soup’s work on two projects: the documentary film *Sonata Mulattica* and the educational game *Anne & Emmett: the other* (see appendix for information on both). It has been clear since the beginning of production of *Sonata Mulattica* that community engagement, especially with underserved youth, would be a crucial component of the film’s lasting impact. The concept of a self-contained, standalone game that also could further supplement, enhance, and expand upon the themes of Rita Dove’s book and the documentary film struck us as an exciting, effective and timely way to spur this engagement. With film production concluding in late 2016, our team is starting to swing focus toward outreach planning and, significantly, the development of audience tools for richer engagement. Brainstorming sessions with the core digital media team have solidified the goals of the game, and created initial gameplay concepts. Now, digital experts and advisers supplement our production team, while we continue to develop our relationships with scholars. Paired with limitations we experienced and observed while working in the game engine Unity during the production of *Anne & Emmett: the other*, it has become clear that lasting impact requires creating a tool that will not only foster the development of *The Search for Harmony*, but will support future, similar endeavors.

### **Work plan (May 1, 2016 – April 30, 2017) See Detailed Work Plan in Appendix**

*Humanities Content & Story Development (May-August, 2016):* The start-up phase will begin with an initial Brain Trust virtual retreat, in which we will bring together our project developers and our scholars to discuss initial gameplay ideas and approaches. The creative director will finalize the key historical figures and archival assets to be used in the demo game proof-of-concept. Foundational work will begin on Technical Specifications for the tool, which will serve as the backbone for prototype.

*Technological Research & Development (May-November 2016):* After ideas are put forth during the initial Brain Trust session, our lead developer will follow up the ideas put forth with research on possible gameplay approaches and develop multiple gameplay options for review, and consult with our graphic artist and impact analyzer. These options will be presented to the Brain Trust at the conclusion of this phase for selection to assess which has the highest impact potential.

*Early Implementation (November 2016 - February 2017):*

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<sup>2</sup> <http://www.kiwijs.org/>

<sup>3</sup> <http://www.gamepressapp.com/>

Based on the decision of the Brain Trust, early concept art will be created for primary characters in the example proof-of-concept, and the sample level, which will be presented for review. The lead developer will also refine and develop the foundational codebase. At the conclusion of this phase both Technical Specifications and a Game Design Document will also be presented for review, informed by early tests on the software and refined based on the decision of the Brain Trust in November.

*Proof-of-Concept Presentation (February 2017 - April 2017):*

Based on archival research, and evaluation of software best practices for both development and documentation, the lead developer will complete the code necessary to demonstrate a sample level for the software, or proof-of-concept. The graphic artist and other consultants will also play a role in this development, providing assets and iterative feedback. The Technical Specifications will be updated to reflect adjustments during development, and at the conclusion of this phase, both it and documentation related to the proof-of-concept will be refined.

***Staff***

**Andrea Kalin – Creative Director/Project Director:** Andrea Kalin is a digital producer and filmmaker, and the founder of Stone Soup Productions and its production arm, Spark Media. As creative director she will oversee project development, from technology and story development to achievement of project goals and eventual engagement. Over the grant period, Andrea will dedicate approximately 30% to 40% of her time to the project.

**Nick Ray – Lead Developer/Technology Director:** With extensive background in WordPress development and integration with other platforms (iOS/Android apps), as well as experience with game development, Nick has the technical proficiency to take high-level gaming constructs and integrate them with WordPress as described above. In this startup phase, he will serve as an advisor to concept and as primary developer. Nick will commit approximately 220 hours to this formative stage of the project.

**Matthew Weise – Lead Designer/Artistic Director:** Matt's expertise in refining gameplay concepts will help inform the Game Design Document and the development of several conceptual models, from which the Brain Trust will choose one to pursue as a proof-of-concept. Matthew will commit approximately 100 hours to this formative stage of the project.

**Tim Oshida – Graphic Artist:** Tim has great skill in developing aesthetics to match the needs of both games and mobile apps. In the early phases he will be providing concept art to help give visual presence to the evolving game. He will also be contributing to the artwork required by the proof-of-concept. Tim will commit approximately 42 hours to this work.

**Benjamin Stokes – Impact Analysis:** Benjamin Stokes, incoming assistant professor at American University, will serve as part of the Brain Trust in the early stages of the game, helping to develop measurable impact metrics for the game assessment, define clear goals for impact and advise on gameplay concepts to help reinforce the approach as it relates to impact design.

**Lindsay Grace – Gameplay Design Consultant:** Lindsay Grace has extensive background in game development and is the director of the Game Lab at American University. Lindsay will provide additional insights into refining gameplay, and review progress throughout concept and development to provide feedback and direction. Lindsay will commit approximately 10 hours to this project.



**Raki Jones – Story Consultant:** In collaboration with Spark Media, Producer Raki Jones has been a producer and writer for the documentary films *The Pact* and *Prince Among Slaves*, which won numerous industry and film festival accolades. In addition to serving as producer and writer on the documentary film adaptation of *Sonata Mulattica*, Jones is currently a professor of Media and Television Production at the University of the District of Columbia. Raki will commit approximately 10 hours to this project.

**Brigid Maher - Digital Media Consultant:** Brigid is Co-Director of the Center for Media & Social Impact at American University. Both her background in digital media, and the Center's experience in documentation, including complex issues like fair use best practices, will help reinforce the project's clarity and potential use for other stakeholders.

### **Final product and dissemination**

Once the new software is complete, *The Search for Harmony* will be made available as an example proof-of-concept, free to anyone with access to the internet via computer, tablet or mobile device. To maximize the reach of the tool and the demo, Stone Soup is further exploring alternative methods of delivering this project to people who don't have ready access to either computers or mobile technology. Both urban and rural communities, who have equally poor access to music education, will benefit from the proof-of-concept level, while content creators in the humanities will benefit from the documented prototype of the game development tool itself. Our target audience for the proof-of-concept is middle and high school students, though this need not be a restriction on other uses of our tool once released. We are in early talks with both the American University Game Lab and the Center for Media & Social Impact (a project consultant) for a multi-department collaboration that could further extend the exposure and use of the final product, and plans are being made for American University graduate students to assist with documentation and play testing in the spirit of that collaboration.

The final product will consist of four major components:

1. Prototype of the tool, using a proof-of-concept level for *The Search for Harmony* as a demo of the software.
2. GitHub repository containing the WordPress plugin (which will also be published to the WordPress plugin repository)
3. Documentation supporting future endeavors related to game development in the humanities using this tool.
4. A White Paper outlining our research for the game concept and development process, as well as impact metrics obtained in initial testing.

A microsite will be created featuring these components and offering tutorials on using the tool, with *The Search for Harmony* as a use case. All components will be released with open source licensing (GPL/MIT) to reflect what is used by WordPress and the selected game engine. Publishing both to GitHub for active development and the WordPress repository allows us to reach two major audiences: the development community at large, and WordPress users. The former can contribute to the tool's longevity via pull and feature requests, while the latter can "one-click install" it using WordPress' internal plugin directory. The microsite also allows us to reach non-developer audiences in the humanities. This dual approach and articulation to both technical and non-technical audiences maximizes delivery reach and potential for adoption in future works. The White Paper will document components of *The Search For Harmony* proof-of-concept with an emphasis on lessons learned from production, and will continue to evolve with development of the tool.

## THE SEARCH FOR HARMONY

### Data Management Plan

#### Expected Data

Type of Data	When Shared	Under What Conditions?
Open-source computer code including Javascript, PHP, HTML and CSS, including all algorithms and design templates.	At the conclusion of the start-up grant period, following quality assurance testing. Additional versions as project progresses.	Code will be freely available.
A playable, web-accessible version of <i>The Search for Harmony</i> proof-of-concept, which demos the tool.	At the conclusion of the start-up grant period, following quality assurance. Additional versions as project progresses.	Website will be freely accessible.
Sample database and WordPress installation for <i>The Search for Harmony</i> to be used as test data for end users.	At the conclusion of the start-up grant period.	Freely available as a GitHub code repository linked to the primary tool.
Exported event-driven Google Analytics data for impact metric analysis.	At the conclusion of the start-up grant period.	Included as a report with code and linked to from any ancillary media, e.g. Stone Soup website.
White Paper	After the project has been completed.	Freely available on the Stone Soup website.
Progress reports including multimedia.	From the time of writing, throughout the duration of the project.	Freely available on the Stone Soup website.
Documentation of reusable tool.	At the conclusion of the start-up grant period. Additional versions as project progresses.	Freely available, included with the GitHub code repository.
Final Report to NEH	After the project has been completed.	Dissemination will be the responsibility of the NEH.

## **Data Formats and Dissemination**

Two components comprise the bulk of data generated during the course of this Start-Up Grant Period: Web-based computer code for the WordPress plugin that is being developed to facilitate game creation in the humanities, and sample code in the form of *The Search for Harmony* proof-of-concept level. This plugin and the demo will be shared on GitHub. The plugin will also be shared in the WordPress Plugin Repository, and will adhere to WordPress coding best practices.

Also included will be plain text and markdown documentation on the plugin and how it can be used, and information related to its implementation in *The Search for Harmony*. The project itself will be freely available for download so it can be duplicated and studied as a use case.

Progress reports and the White Paper will also be made available in PDF format, downloadable through the Stone Soup website.

Analytics data will be collected using Google Analytics' event-based Javascript code, which will be used to measure engagement and user progress anonymously for research that will foster development of the game. Once the project has reached its conclusion, this anonymous analytics data will be made freely available as a sample data set for future humanities media makers interested in measurement methods related to web-based games.

The playable version of *The Search for Harmony* will require a server capable of running WordPress, which is a common requirement for most websites.

## **Data Storage and Preservation of Access**

All materials will be hosted using existing code repositories such as GitHub, extending the duration of their access without incurring additional cost. GitHub allows for free repositories that are open-source.

## **Period of Data Retention**

Data will be retained for a minimum of five years, although no effort will be made to remove the code from GitHub or the WordPress Plugin repository following this period. The Lead Developer owns cloud servers and will support the playable version for a minimum of five years, removing the normal cost of hosting from long-term storage.

## **APPENDIX**

### **THE SEARCH FOR HARMONY**

#### Detailed Work Plan

#### **Overview**

The primary objectives for producing a web tool that others can use to create educational games are ranked as follows:

1. The tool must be as cross-platform as possible to maximize the potential audience for the prototype and for future uses.
2. The tool must be simple to use. Anything that is not completely straightforward must be documented, and such documentation should be bundled with the version of code itself so it is always accessible to the end user.
3. The tool must first focus on one particular gaming construct, e.g. searching two-dimensional environments for clues and navigating between them. Developing one construct, rather than an effort to create many options at once, allows emphasis on making an effective end product and establishing best practices for future development of the tool.

With these objectives in mind, the following is a detailed approach to how the project intends to proceed.

#### **Establishing a Game Construct - May 2016**

Games are widely becoming accepted as powerful tools for both social impact and education. Research often compares gameplay to the educational theory of constructivism, where students construct their own knowledge and draw their own conclusions, rather than have that information handed to them, and where instruction itself is about facilitating that process, rather than direct communication.<sup>1</sup> Gameplay is about doing rather than viewing, and if students are motivated to win, they will seek to retain knowledge as means to an end, which is hopeful victory in the game. The first step in establishing a tool will be to evaluate several different types of game constructs, or sets of rules, to determine which construct is most likely to engage the most number of students for our target audience: middle and high school students. In this stage we will be consulting with experts like Ben Stokes, co-founder of Games For Change, on models that have been successful in the past, until we have developed options for our Brain Trust to review and select from, based on their expertise. This game construct will be the model made accessible in a WordPress plugin for other creators.

#### **Evaluating and Selecting an HTML5 Game Engine - May - November 2016**

There are a number of web-based, open-source game development tools in existence that, when paired with content management features in a system like WordPress, would facilitate effective games. Until the game construct has been selected, however, it will be unclear which engine is best suited to use for the project. Some other criteria include:

- Mobile Accessibility (older tools, e.g. Flash, are immediately dismissed because they lack this compatibility)
- Size of Development Community (potential for future growth)
- Documentation

The game engine will be selected based on this criteria and development will begin.

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<sup>1</sup> Cunningham, D., & Duffy, T. (1996). Constructivism: Implications for the design and delivery of instruction. *Handbook of Research for Educational Communications and Technology*, 170–198.

### **Creating a Static Proof-of-Concept - November 2016**

Once the game engine has been selected, a basic version of the proof-of-concept, using demo content from our example concept *The Search for Harmony*, will be constructed. This initial version will not be linked to WordPress, but rather will be built solely through code. Once the version is created, the code structure can be evaluated to determine how each component is assembled, and where features can be made editable using a content management system. For example, there may be basic code that is used in every level, but with certain parts that vary depending on which level. “Level” can thus be a kind of content used in WordPress and fields can be created that will allow the general user to drop in content like an image, text, video or link. This content would be merged with the code that is common to all levels, allowing multiple levels to be created without the need for the general user to interact with code directly. Creating this initial proof provides the best insight into how the project can ultimately be made user-friendly to create, and this iteration will be adapted to a WordPress version in the final deliverable.

### **Story Development for *The Search for Harmony* - May - November 2016**

In order to ensure that the tool is compatible with a game development process, including pre-production, it is essential that the tool be used from the start in a ‘real-use’ situation. *The Search for Harmony* is a concept that is in the early stages of development, and so it can serve both as an exceptional case study for the software, and also help draw focus towards features that need to exist or be refined, as a byproduct of its development. Time will thus be dedicated to developing story and gameplay beats for *The Search for Harmony* so that specific requirements for that game can be discussed, both in the context of building features, as well as deciding which features should be made reusable in the prototype tool.

### **Establishing Impact Metrics - November 2016**

Working with Ben Stokes of American University, both *The Search for Harmony* and the selected game construct will be evaluated to determine where measurements can be made to determine impact. Because the software is web-based, triggers can be created using Google Analytics based on events that happen in-game. For example, one may want to measure how many levels were completed, or how many clues were accessed during the course of gameplay. Outlining these metrics upfront ensures they will be implemented as an intrinsic part of development, rather than as an afterthought.

### **Finalizing Feature Set - December 2016**

Once the game construct, engine, and test proof-of-concept are in place, the feature set for the initial release of the prototype tool will be locked in, so scope can be dedicated on making the selected construct as easy to generate and as powerful as possible.

### **Development of the WordPress Plugin - January 2017 - March 2017**

Using the static proof-of-concept as a starting point, a user interface will be constructed in the form of a WordPress plugin that creates controls for every feature in the feature set, abstracting as much as possible from code so that content, triggers, and even the order and structure of levels can be controlled without direct modification of the code base itself. WordPress has established best practices for programming, which will be followed at the outset with the intention of publishing the final product in the WordPress Plugin Repository. Following their programming guidelines is a requirement of publishing in that arena, and means that other developers would, in the long-term, have the ability to contribute back to the plugin, either through bug fixes, or the development of other game constructs that could be added in as options to future versions of the tool.

### **Creation of Digital Assets for *The Search for Harmony* - December 2016 - March 2017**

As the project is being developed, graphics and other content necessary to *The Search for Harmony* will be created. These assets include backgrounds, researched information, sounds, and character renders for the two featured characters, Maestro and his friend Harmony. At the conclusion of both this phase and the prototype, content will be entered and the proof-of-concept will be ready for testing.

### **Quality Assurance & Documentation - March 2017**

The attempt to combine two otherwise unrelated pieces of software in the form of a plugin is expected to have bugs that will need addressed. Though many will appear as a function of development, dedicated time will be scheduled specifically with the goal of breaking the prototype so areas that can be improved are spotted. In addition, draft documentation on how the tool can be used will be created.

### **Play Testing - March 2017**

While Quality Assurance is being carried out, the proof-of-concept will be presented to two audiences: One will be the target audience for *The Search for Harmony*, with the goal of understanding what works and what is not working with respect to gameplay, aesthetics, and general engagement. Metrics will be evaluated as well, to confirm that the right metrics are being measured, and that the system is effective. The second audience will be a set of humanities scholars who have little or no code knowledge, with the goal of gauging how the experience of game creation is resonating, where the user experience can be improved, and what is most confusing about the process. This will be followed by a training session, which will include content planned to be in the final documentation. Questions from the session will further inform what instructions are included in documentation and what needs more clarification.

### **Revision & Documentation - April 2017**

Based on feedback from both audiences, gameplay and the content management framework will be refined, as well as the associated documentation. This may potentially include another set of play testing and training if concern exists on the integrity of the tool or its usefulness following the first training.

### **Creation of a Microsite - March - April 2017**

Prior to completing and publishing the project, a basic website will be developed, which will both house the final documentation, and provide links both for *The Search for Harmony* and the WordPress plugin for game development.

### **Final Quality Assurance & Publication - April 2017**

Once revisions are complete, another round of testing will ensue to confirm the integrity of code before public release. The plugin will be published both on GitHub and in the WordPress repository, and *The Search for Harmony* source code and assets will also exist on GitHub, so creators can either test the proof-of-concept to learn the tool, or use it as a starting point for their own project. The white paper will also be written based on experiences and lessons learned during the project.

### **Outreach**

Several members of the project are affiliated with American University in one capacity or another, and the school is in the midst of making a push into social impact gaming, with the creation of a new Game Lab, of which Ben Stokes is a part. Our hope is to build a partnership with the Game Lab to use our mutual networks in the promotion of the tool. The Center for Media & Social Impact, also at American University, will be consulting on the project through their incubator focused on producing cutting-edge social impact media.

### **Statement of Innovation:**

*The Search for Harmony* will combine an open-source engine for producing games with the popular content management system WordPress. By translating common tasks and components for a game with this structure into fields, dropdowns, radio buttons, etc, the knowledge and cost barrier for producing works of a similar type will be lowered for other media makers in the humanities, fostering future game development in the field and the potential to engage more students through interactive experiences.

### **Statement of Humanities Significance:**

The end result of this project will deliver a tool that empowers media makers to produce educational games more easily, and thus potentially engage more students in humanities subjects. Research has validated gameplay as an effective means of educating and engaging students, as well as use in social impact campaigns, and this project would help make that medium more accessible both to the general public and to educators seeking new ways to inspire interest in their subject matter.

### **Work Samples (Spark Media):**

#### ***Anne & Emmett: the other***

Director: Andrea Kalin

*Understanding Intolerance as it Lives Today by Experiencing its History*

Inspired by Janet Langhart Cohen's provocative play, and drawing on the tragic true stories of two young victims, *Anne & Emmett: the other* is an immersive video game for tablet and desktop computers that will give players a role-playing experience of making choices under the weight of violence and fear.

Anne Frank and Emmett Till lived in two different worlds: one in the heart of Nazi-occupied Europe, the other in the supposed land of the free. And yet both Anne Frank and Emmett Till were victims of cultural and institutional intolerance and racism – and a cruelty so astounding, so pointless, that it left these two children dead in its wake along with countless others.

Players explore visually cinematic virtual environments, interact with complex characters in multiple timelines, and unlock a wealth of historic artifacts, all through the first person point-of-view of a European Jew in the 1930s and 40s and a young African American in a racially divided 1950's America.

Developed with youth in mind, *Anne & Emmett: the other* uses a compelling, interactive narrative that not only teaches history and the humanities; it also brings awareness and introduces empathy for "the other" as a primary lesson and transformative mechanism against dehumanization and hatred. The game connects lessons from the past with experiences of anti-Semitism and racism as they live today, addressing humanity's capacity for immeasurable cruelty along with our ability to cultivate compassion for others...

*Anne & Emmett: the other* is executive produced by Janet Langhart Cohen, William S. Cohen, and Race and Reconciliation in America, and is being developed by Spark Digital Media and Learning Games Network. The project is led by director Andrea Kalin in collaboration with developer Nick Ray and the Spark Media production team.

### **Links:**

Prototype Landing Page: (b) (4)

View the Teaser: (b) (4) Password (b) (4)

View a Walkthrough of *Anne & Emmett* Gameplay: (b) (4) Password (b) (4)

## **Work Samples (Nick Ray, Lead Developer):**

### **A Mosque of Her Own**

<http://mosqueofherown.com/>

Role: Lead Developer, Co-Director with Brigid Maher, American University

Project Goal: Develop a way to facilitate the creation of visual archives for historic landmarks and cultural sites.

Specific Tasks: Expansion of an open-source javascript library to facilitate multiple views and content triggers, and eventual integration with WordPress for content entry.

### **University Film & Video Association 2015 Conference - Website & iOS/Android/Web App**

<http://ufva2015.com>

<https://itunes.apple.com/us/app/ufva/id1018200024?mt=8>

<https://play.google.com/store/apps/details?id=com.nickjamesray.ufva2015>

Role: Lead Developer/Designer

Project Goal: The national conference, hosted in 2015 by American University, needed a user-friendly way to share the schedule and meeting locations with conference participants.

Specific Tasks: Customize WordPress so that content entered by administrators populates where relevant on the website, in an Apple iOS app, an Android app, and a mobile web app. All data streams from the singular WordPress install.

Example View of WordPress Admin UI: (b) (4)

### **Land of Opportunity - Interactive**

<http://beta.landofopportunityinteractive.com/>

Role: Consultant

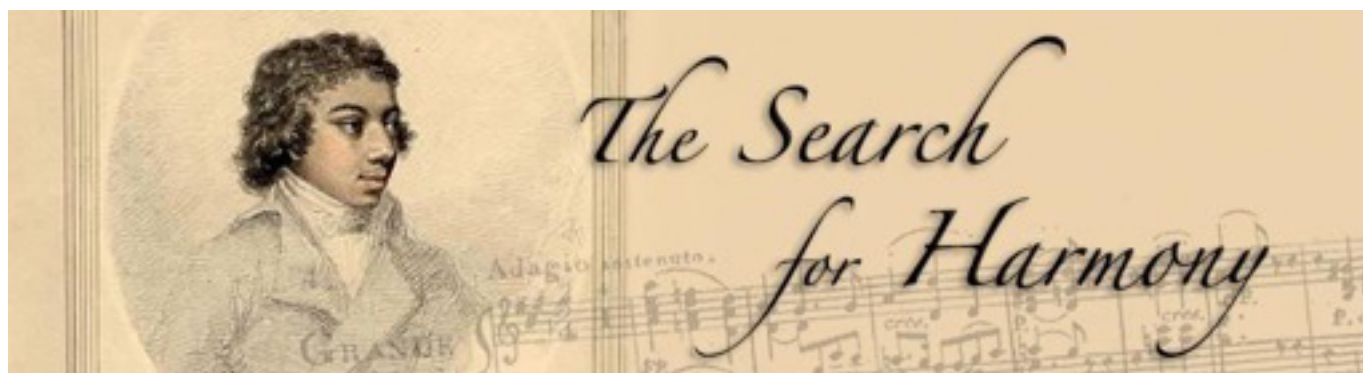
Goal: Develop a means to allow navigation between video, text and imagery based on context, like how hyperlinks in web text operate.

Specific Tasks: Advised director on possible strategies for development at various milestones in the production cycle, and some minor troubleshooting of the codebase (on Drupal).

### **A Rule-Focused Approach to Electronic Game Design for Educators, Advocates and Filmmakers**

Graduate thesis literature review on the potential of games for education, and thoughts on design.





## **THE SEARCH FOR HARMONY**

***An online simulation inspired by the documentary film and book by Rita Dove, Sonata Mulattica***

Spark Media is pleased to announce the development of ***The Search for Harmony***, a new web-based game about the rich – and forgotten – historical legacy of classical musicians of African descent. The game will be released alongside the documentary film *Sonata Mulattica* in 2017, and will be a key component of the film's outreach and engagement with disadvantaged youth and communities around the country.

In ***The Search for Harmony***, players help a creature named Maestro look for his lost friend, Harmony, who has vanished into one of many disconnected worlds, each based in a unique moment of music history. The only way to travel between these worlds is to rebuild mythical bridges made of musical scores. Parts for each score are scattered and hidden, and it's up to the player to explore each world, rebuild the bridges, look for clues, and find Harmony.

Through the gaming experience, players will understand vital multicultural influences on classical music, learn rudimentary composition concepts and discover the expressive power of music. Themed levels range from the experience of George Augustus Polgreen Bridgetower, an Afro European violinist whose story is virtually unknown despite an astounding virtuosity that enthralled eighteenth and early nineteenth century nobility, to other classical musicians of African descent: the Chevalier de Saint Georges (also known as the "Black Mozart"), Samuel Coleridge Taylor (the "African Mahler") and "the dean of African-American composers" William Grant Still.

A mobile-accessible approach to game design provides us a point of contact to share classical music with youth, especially in low income communities. It is a way for kids to interact with history, as well as to experiment with the fundamentals of musical composition organically, without instruction. ***The Search for Harmony*** aims to bridge a divide between disparate cultures and allow everyone an opportunity to realize the multi-cultural contributions that have shaped music throughout history. This kind of education is particularly critical today, especially with decreased funding for artistic and music programs across the United States.



*Somehow, George Augustus Polgreen Bridgetower did not go down in history.*

After a meteoric, early 19<sup>th</sup>-century rise - tied to a rocky creative relationship with Ludwig van Beethoven - the Afro-European violin prodigy was promptly forgotten. But he has since been rescued from obscurity by Pulitzer Prize-winning Poet Laureate Rita Dove in her acclaimed book *Sonata Mulattica*. And at 19, contemporary African-American violinist and composer Joshua Coyne has the talent to share center stage in a new documentary that spans two centuries of struggle.

Divided by two continents and two centuries, George Bridgetower and Joshua Coyne have never met. Yet they share an exceptional bond: a musical gift that transcends the boundaries of race, culture and class. Linking contemporary artistry to classical virtuosity, the documentary *Sonata Mulattica* combines Dove's dramatization of a lost virtuoso's thwarted ambitions with a character-driven exploration of his modern counterpart, Coyne, a new prodigy of similarly humble beginnings and extraordinary potential. With Rita Dove as literary muse, two remarkable lives are imaginatively interwoven into one artful tale.

George Bridgetower's life is a fascinating tale of fickle fortune and artistic triumph. Born to servants of Prince Nikolai Esterházy in 1780, he showed great musical talent at a very young age. Advertised to the world as an "African prince," Bridgetower made his professional debut in Paris at the age of nine before an enthralled audience that included Thomas Jefferson. The acclaimed violin prodigy went on to tour Europe and landed in Vienna in 1803, where he amazed Ludwig van Beethoven with a performance of the "unplayable" Kreutzer Sonata. The fateful artistic collaboration and tumultuous

friendship that followed ended suddenly in a fierce quarrel that would ultimately push Bridgetower into relative obscurity.

Two centuries later, across the Atlantic in the American heartland, a single white mother adopted an abused African-American toddler, with 18 broken bones and a full body cast. To soothe her new son, she played a recording of a Puccini aria. He promptly hummed it back. So began the serendipitous musical career of Joshua Coyne. By age four he was studying violin; by eight, being mentored by Itzhak Perlman and Marvin Hamlisch; at age 14, he performed before then-Senator Barack Obama and a crowd of 13,000. Now studying composition at the Manhattan School of Music, Coyne finds inspiration from Bridgetower as he confronts his past and his own stereotype-defying destiny in an elite classical music world.

As the stories of Bridgetower and Coyne unfold side by side, Joshua Coyne becomes a contemporary embodiment of Bridgetower, restoring him to center stage in a modern reversal of fortune. *Sonata Mulattica* is a mesmerizing musical journey infused with meditations on identity, passion, race, cultural belonging, and historical legacy, revealing how music and art have the power not only to open our hearts, but transform our lives.

Visit the official film website at [www.sonatamulattica.com](http://www.sonatamulattica.com)

*"This is a story about music and what it does to those who make it, whom it enslaves. Yes, slavery of all kinds enters the mix."*

— Rita Dove *Sonata Mulattica*



## THE SEARCH FOR HARMONY

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*UNDERSTAND INTOLERANCE AS IT LIVES TODAY  
BY EXPERIENCING ITS HISTORY*

Anne Frank and Emmett Till lived in two different worlds: one in the heart of Nazi-occupied Europe, the other in the supposed land of the free. And yet both Anne Frank and Emmett Till were victims of cultural and institutional intolerance and racism – and a cruelty so astounding, so pointless, that it left these two children dead in its wake along with countless others.

Inspired by Janet Langhart Cohen's provocative play, and drawing on the tragic true stories of these two young victims, *Anne & Emmett: the other* is an immersive videogame that will give players a role-playing experience of making choices under the weight of violence and fear.

Players will explore visually cinematic virtual environments, interact with complex characters in multiple timelines, and unlock a wealth of historic artifacts, all through the first person point-of-view of a European Jew in the 1930s and 40s and a young African American in a racially divided 1950's America.

Developed with youth in mind, *Anne & Emmett: the other* uses a compelling, interactive narrative that not only teaches history and the humanities; it also brings awareness and introduces empathy for "the other" as a primary lesson and transformative mechanism against dehumanization and hatred.

*Anne & Emmett: the other* connects lessons from the past with experiences of anti-Semitism and racism as they live today, addressing humanity's capacity for immeasurable cruelty along with our ability to cultivate compassion for others...

For an exclusive clip, please visit [www.vimeo.com/111672451](http://www.vimeo.com/111672451). The password is A&E.

If you have any questions or want to get involved, contact us at [info@sparkmedia.org](mailto:info@sparkmedia.org).

*Anne & Emmett: the other* is executive produced by Janet Langhart Cohen, William S. Cohen, and Race and Reconciliation in America, and is being developed by Spark Digital Media and Learning Games Network.

