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Request for Proposals

1. Summary and Background

The Digital Archive of Japan's 2011 Disaster (hereafter JDA) is seeking proposals to develop, design, launch and host a new multimedia digital archive platform to succeed its current system (http://jdarchive.org). The existing archive was developed and launched in 2011 by the Reischauer Institute of Japanese Studies at Harvard University in response to the Great East Japan Earthquake, Tsunami and Nuclear Disaster of March 11, 2011 (also known as 3.11). In order to achieve greater stability and to ensure the longevity of this evolving, real-time and open-source-based multimedia digital archive, the JDA Executive Team has determined we need a new platform that allows for greater efficiency and stability in content management, and that can be easily learned and managed by a staff that has some technical literacy but not at the level of professional developers. The new platform needs to be designed with the future growth in size of the archive mind and to provide mobile support so the JDA can adapt to changing technological demands.

This Request for Proposal (RFP) solicits proposals from organizations as well as individual developers, based on criteria listed below, to allow us to select the best candidate to create a platform meeting the needs of JDA and its user community.

JDA is conceived and designed to generate a real-time, evolving, and collaborative multimedia virtual space for citizens, researchers, students and policy makers. JDA provides an open arena of shared memory, especially for those most directly affected by the events of 3.11. This "participatory" digital archive consists of materials from all over the web, including individuals' testimonials, tweets, and content acquired via both automated and semi-automated API from

international partners who are building their own digital repositories about 3.11 and its aftermath. JDA not only facilitates the rapid searching of materials across numerous collections, allowing users to discover and learn more about the disasters. It also allows registered users to actively engage with the events of 3.11 in two important ways: First, individuals can use the archive to create online collections of materials on topics of interest to them. Second, individuals can utilize an interactive storytelling editor called "Waku" to narrate their own 3.11 stories. Collections and Waku presentations can be shared publicly via the archive website to generate a new dialogue about 3.11 and animate the various items accessible through the archive. JDA also features an innovative heatmap feature that visualizes all materials that are tagged with geographic information in real time, allowing its users to discover and engage through the archive the novel interconnectivity of the range of digital materials across various media types.

2. PROPOSAL GUIDELINES

Proposals should be submitted by **5 p.m. April 1, 2016**. Any proposals received after this date and time will be given less priority. All proposals must be signed by an official agent or representative of the company submitting the proposal.

We are happy to have a pre-meeting with an individual or organization who is interested to bid, to go over the RFP, the current website and answer any questions you might have.

If the organization submitting a proposal must outsource or contract any work to meet the requirements contained herein, this must be clearly stated in the proposal. Additionally, costs in proposals must be all-inclusive (i.e., they must include any outsourced or contracted work). Any proposals which call for outsourcing or contracting work, must include a name and description of the organization being contracted.

Budgets must be itemized to include an explanation of all fees and costs.

Contracted terms and conditions will be negotiated upon selection of the winning bidder for this RFP. All contractual terms and conditions will be subject to review by the JDA Executive Team and will include scope, budget, schedule, and other necessary items pertaining to the project.

3. PROJECT PURPOSE AND DESCRIPTION

The purpose of this project is as follows:
JDA's current platform was implemented in 2011. Although the front-end user experience is at present relatively stable (with some exceptions), the JDA Executive Team has determined that its backend (**Zeega** http://blog.zeega.com/about) is cluttered and difficult to work with, risking future stability. Over the years the inscrutability of the backend architecture has had negative impact on the archive's manageability, stability, and to some extent, JDA's ability to offer a user-friendly online environment. Additionally, the current platform has not been optimized for data-uploading and managing by our website curatorial team, nor has it been designed to allow individual users to contribute multiple items in their local environment to the archive in one entry. The JDA Team believes that either by replacing the current Zeega platform with a CMS-based platform or refurbishing the current platform in the form of incremental development, we can achieve higher stability and manageability of the archive, which in turn will provide our users and potential users with a more user-friendly, seamless collaborative environment that would enable JDA to be the ever-growing participatory digital archive we purport it to be. Finally, there has been increasing demand, especially in Japan, for the archive's user community to be able to use mobile devices to interact with JDA. It is crucial that JDA be able to accommodate to this demand.

PROJECT DESCRIPTION:

JDA is seeking a provider to utilize the latest open source CMS technology or incrementally reform the current Zeega platform to create a platform that allows our staff to easily to add or modify content. It should be a platform that, once created, can be managed by developers with lower-level expertise. A new platform should successfully inherit and integrate the core features of the current platform (e.g., the Heatmap Visualization and Waku Editor described below). It should replicate similar functionalities within the proposed management service (e.g., user curated collections, user-submitted edits to object metadata [translations and tags], streamlined way for users to add content to the archive and collections from other websites and media platforms). The new platform should allow a seamless transition of the functionalities present in the current platform.

The finished platform must allow the JDA's staff to easily manipulate the layout and content in order to accommodate changes that are sure to be necessary in today's dynamic and fast-paced digital environment. Successful execution of the project should take into consideration not only the long term robustness of the platform but should also provide a well-written documentation of the platform in insure the platform will be understandable by any future developers who work on it. The platform must be designed to take measures to prevent potential intrusion and security breaches.

4. PROJECT SCOPE

The scope of this project includes all design, development, coding, licensing, and hosting of JDA's new platform on our Amazon AWS/S3 server and GitHub account (https://github.com/Japan-Digital-Archives). All material will be provided to the selected bidder by JDA's management and curatorial team for inclusion in the design of the new platform. The selected bidder will be responsible for collaborating and educating, if necessary, the project manager of JDA and curatorial and IT staff throughout the process of the project by holding regular meeting and/or exchanging ideas in teleconference, etc., to customize the platform to fit with the needs and wants of JDA's staff.

In addition, the new platform must be able to incorporate two features, namely, the Solr/Lucene-based Heatmap[1] capability which was developed by the Center for Geographic Analysis (CGA) at Harvard University and a JavaScript-based Waku Editor[2], which was developed by metaLAB at Harvard. The selected bidder will work closely with the developers at both CGA and metaLAB to ascertain that the finished platform will seamlessly integrate the map feature and Waku Editor.

The following criteria must be met to achieve a successful project:

- Visually and aesthetically pleasing website design
- Successfully inherits as much as is reasonable from the current platform design and functionality (see Appendix A for the list of the JDA functionalities)
- Provides user experience consistent with the current platform
- Offers consistent design across all pages/sections of the site in a design theme
- Ability to host and display the site in both English and Japanese

[1] The JDA system uses Symfony2 based on PHP and MySQL to manage its contents. In order to support rapid search of its large inventory, it uses Solr. Moreover, in order to visually represent results spatially, it uses Lucene's 2D heatmap faceting capability which uses a hierarchy of grid cells at numerous resolutions and can compute counts for very large numbers of spatial features (points, lines and polygons) against these grids. Solr is used to return a heatmap in the form of an array of arrays with the grid resolution requested by the client via the API. The value of each cell in the array represents the number of Solr documents that intersect the cell. Queries that return counts against the grid can include also include any Solr filter and thus dynamic heatmaps based on specific constraints are possible. A JavaScript plugin to OpenLayers has been developed which handles the heatmap generation function.

[2] Waku Editor is a JavaScript program, with Node.js/Express, Mongodb, and Backbone. In order to communicate with the current JDA platform, Waku makes an API call with a specific collection ID to pull materials.

- Ability to migrate current web content as well as ingest new content each day
- Ability to (1) pull metadata from select platforms (e.g., YouTube, twitter, soundcloud, vimeo, pdf, website, etc.) and (2) allow these assets to be embedded to the JDA in a seamless manner.
- Ability to allow a registered user to create her account and/or inherit already registered users' ID and associated collection(s)
- Ability to allow users to add post hoc tag(s) and translations to archived materials
- Allow site to be changed/modified easily by JDA staff even with little to no background in HTML/CSS
- All software and licensing requirements should be included as part of this project
- Uses a popular and well-established open source base CMS
- Site should be compatible with all current web browsing technology such as Chrome, Firefox and IE version 8 to 11 and easily upgradeable
- Ability to be displayed and used with mobile devices (both Android and iOS)
- Ability to work closely with JDA manager and staff on coordination of project tasks and resources as well as teleconference, workshop, etc., when necessary, on how to manage, modify and develop the platform.
- Plan and perform a complete testing process (both unit and integration tests) on the platform and database in order to ensure functionality
- Careful documentation of the codebase, structure and interrelation
- All components used for the project and all code developed for the project should be open source to the greatest possible extent
- Seamless integration of the Heatmap feature and Waku Editor
- Improvement or replacement of the current admin database management interface for managing users and content

5. MAINTENANCE & SUPPORT

Following the completion of the project, we expect to maintain a relationship that covers:

- Attention to urgent failures we are unable to address
- Necessary software updates (especially for mobile)
- Maintenance relating to implemented spec failure that becomes apparent after project completion

We will work with the selected programmer to conclude a post-completion contract to cover these aspects.

6. PROJECT SCHEDULE AND BUDGET

The project schedule is preliminary and high level. A detailed schedule will be produced with input from the selected programmer. Dates may be revised with input from the selected programmer and based on scheduling considerations of the JDA.

- Evaluation of proposals will be conducted in **April 2016**
    - Follow-up discussions will take place during this time
- Selection of developer by **May 1, 2016**
- Discovery and planning phase: **early-mid May 2016**
- Development phase: **May through August 2016**
- Completion of a beta release by **Sept 1, 2016** that will used and tested by a selected group of users (students in a fall semester course) through **December 2016**
- Occasional consultation with developer through the fall semester
- Release of final product by **February 15, 2017**

BUDGET

All proposals must include proposed costs to complete the tasks described in the project scope. Costs should be stated as one-time or non-recurring costs (NRC) or monthly recurring costs (MRC).

NOTE: All costs and fees must be clearly described in each proposal.

7. BIDDER QUALIFICATION

Bidders should provide the following items as part of their proposal for consideration:

- Description of experience in planning, building and hosting corporate, university or individual-based web platform, including examples of relevant past work
- List of how many full time, part time and contractor staff are in your organization
- List of anticipated resources you will assign to this project (Total number, role, title and experience).
- A full testing plan
- Timeframe for completion of the project
- Project management methodology
- Portfolio of relevant work with references for us to contact

8. PROPOSAL EVALUATION CRITERIA

JDA Executive Team will evaluate all proposals based on the following criteria. To ensure consideration for this RFP, your proposal should be complete and include all of the following criteria:

- Overall proposal suitability: Proposed solution(s) must meet the scope and needs included herein and be presented in a clear and organized manner
- Organization Experience: Bidders will be evaluated on their experience as pertains to the scope of this project
- Value and cost: Bidders will be evaluated on the cost of their solution(s) based on the work to be performed in accordance with the scope of this project
- Technical expertise and experience: Bidders must provide descriptions and documentation of staff's technical expertise and experience

9. PROPOSAL SUBMISSION

Proposals should be submitted no later than **April 1, 2016** to:

Ryo Morimoto, JDA Project Manager, at: rmorimoto@fas.harvard.edu

An electronic copy is required.

Hard copies (optional) may be mailed to:

Ryo Morimoto
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