

**EDUCATIONAL CONTENT WIDGET AND WEBSITES
PERFORMANCE WORK STATEMENT
SEPTEMBER 4, 2013**

Overview

The Office of Educational Technology (OET) in the U.S. Department of Education requires support to build websites and a widget designed to discover educational resources. The project will have two primary components: (1) developer/publisher widget; and (2) user-facing websites.

- *Developer/Publisher Widget:* The widget tool should enable any publisher or website owner to add Learning Registry (<http://learningregistry.org>) search capability to their own website via a Javascript snippet. The widget will have minimal design elements, but should be designed flexibly to make integration (both functional and aesthetic) as simple as possible.
- *Websites:* The goal of this work requirement will be to leverage existing websites (e.g. scienceeducation.gov) to enable users to find and use educational resources and digital learning content. This goal will be met through some light front-end work (including UX/UI revisions, HTML, CSS, JQuery/JS) to repurpose existing user-facing sites as a frontend for discovering content from the Learning Registry. In addition, the project will require the addition of new search functionality to enable users to search for learning resources listed in the Learning Registry, and any database of resources connected to the platform on which this tool is built. This search functionality may leverage existing free tools (or tools which can be reasonably licensed within the scope of the budget) such as the WordPress tool currently powering free.ed.gov.

Scope of Work

The contractor shall be responsible for carrying out all phases of work associated with the major activities under this performance-based contract. The period of performance shall be (12) months.

All tasks are to be interpreted with reference to the information provided in the Overview section, above. The contractor shall work in coordination with the COR, especially during the development phases of all tasks. The COR will be responsible for the review of all deliverables.

Appendix A includes additional information technology requirements that the contractor shall meet in carrying out all phases of work.

Tasks

The contractor shall provide the services as described in the following tasks:

TASK 1 – COMMUNICATION WITH ED

Overview

Throughout the duration of the contract, the contractor shall maintain effective communication to keep the COR informed by phone, electronic mail, meetings, and other means. The contractor shall meet with ED approximately once every three months. At all meetings, the contractor shall brief ED staff and discuss plans, progress, difficulties and solutions.

Scope

- *Kickoff Meeting.* The contractor shall meet with ED, at ED offices, to kickoff work under the contract within two weeks of the effective date of this contract. At the meeting, the contractor and ED shall discuss expectations for the tasks and subtasks comprising the contract and discuss the schedule of deliverables. The contractor shall submit to the COR draft minutes of the meeting. Allowing one week for the COR to comment on the draft minutes, the contractor shall submit to the COR revised minutes that incorporate the COR's comments.
- *Quarterly Meetings with ED.* The contractor shall meet with ED in the Washington, DC area, unless the COR approves alternative locations. To minimize travel expenses, ED may accept alternative arrangements instead of in-person meetings, such as conference calls or videoconferencing. One week before each meeting, the contractor shall prepare and submit to the COR a draft agenda and any supporting materials for the meeting. If requested by the COR, the contractor shall submit revisions within two days after receiving the COR's comments. Within one week after each meeting, the contractor shall prepare and submit to the COR a draft summary of approximately one page, covering the main points discussed during the meeting, any changes in plans, and any further actions to be taken, and a list of participants. If requested by the COR, the contractor shall submit a revised summary within two days after receiving the COR's comments.
- *Monthly Progress Report/Exception Reports.* The contractor shall prepare monthly progress reports due within 10 working days of the end of each month. These reports shall summarize the major activities and accomplishments for the reporting period. In addition, they shall provide information for each project task regarding significant activities, findings, and events, problem encountered, and staff used. The reports shall also specify the extent to which the project is on schedule, briefly describe the activities planned for the next month, identify and discuss significant deviations from the substantive work, and identify and discuss decisions that may be needed from the COR. If there are no exceptions, the reports shall state this fact. If there are exceptions, the contractor shall describe the proposal for resolving the problems.
- *Monthly Manpower/Expenditure Reports.* The contractor shall prepare monthly expenditure reports due within 10 working days of the end of each month. These reports shall be prepared and signed by the project director, and shall summarize the actual personnel assignments for the month just completed, showing the hours charged by task for each staff member. The report shall project similar assignment information for the upcoming month. The reports shall also show expenditures, disaggregating project costs by individual and by task, and specifying for all travel locations, duration, and personnel for each trip. The COR will provide a template for the monthly manpower/expenditure reports.

Task	Deliverables	Due Dates
1	Draft minutes from kickoff meeting	1 week from meeting
	Revised minutes from kickoff meeting	3 weeks from meeting
	Agenda for quarterly progress meeting	2 weeks before each meeting
	Draft summary of quarterly progress meeting	1 week after meeting
	Revised summary of quarterly progress meeting	2 days after receiving COR comments
	Monthly Progress/Exception Reports	Within 10 working days of the end of each month
	Monthly Manpower/Expenditure Reports	Within 10 working days of the end of each month

TASK 2: DEVELOPER/PUBLISHER WIDGET

Overview

The Publishing widgets to be developed would provide search and browse capabilities with minimal development effort on third party websites, ideally requiring only javascript, css and html code to implement on the third party site, though more significant backend solutions would be necessary on the search provider side (free.ed.gov's search database and API or equivalent).

A model for accomplishing this could be techniques that Google uses to help embed search into third party websites. Differences include the fact that Google does not easily permit faceted or parameterized search of structured metadata, though these features do exist in Google Custom Search Engines (CSE). It's even possible (though US ED does not endorse or require any particular solution) that Google CSE could be used as a technology platform for this project if it is determined to meet functionality requirements.

Importantly, other platform choices are also welcome and encouraged, where they meet requirements, such as the code base already deployed on free.ed.gov for search/browse or Bing's technology for search. Proprietary software that requires significant licensing fees are not preferred. Obscure search solutions with limited communities and narrow deployments are not preferred.

Scope:

- *UX/UI support:* responsible for design elements, including wireframes, mockups, logos and other assets, not provided. As part of the design process, we would like 2 rounds of revisions for proposed user flows and mocks prior to beginning development. This includes the website and widget experience (on 3rd party sites).

- *Frontend support:* responsible for implementing new user-facing elements per agreed-upon designs and user flows. The scope of this work will be limited, and require typical knowledge of frontend technologies (HTML, CSS, Javascript/JQuery, Ajax).
- *Backend support:* responsible for backend components of web application and search widget, and will likely leverage a range of technologies; should have experience building out search functionality, and deep knowledge of RESTful architecture and APIs.
- *Quality Assurance:* Prior to deployment, we expect a full QA and code walk-through.
- *Hosting:* Developer will not be responsible for hosting. However, the developer will be responsible for working with the designated hosting provider and environment to get the product running in the environment.
- *Support and Maintenance:* Developer will provide ongoing support for any code delivered as part of this project. Ongoing maintenance of the hosting environment is not the developer's responsibility. Support for any issues found to be unrelated or the responsibility of third-party providers will be billed at an agreed-upon hourly rate.

Task	Deliverables	Due Dates
2	UX/UI support	Within 2 months of contract award
	Frontend support	Within 4 months of contract award
	Backend support	Within 4 months of contract award
	Quality Assurance	Prior to widget launch, and ongoing after that
	Hosting	Ongoing
	Support and Maintenance	Ongoing

TASK 3: ONGOING SUPPORT FOR LEARNING REGISTRY

Overview

OET requires ongoing support for Learning Registry. The Learning Registry makes it easy to locate online education resources, assess their quality, understand their relationship to related resources, and share them with others. The learning registry acts as an aggregator of metadata, which is data about the learning resources, as opposed to the resources themselves. The learning registry captures information like the publisher, location, content area, standards alignment, ratings, and reviews, as well as usage data. (see <https://github.com/LearningRegistry/LearningRegistry>)

Scope

- *Posting to Learning Registry:* The Learning Registry relies on publishers and contributors to provide us with data and other details about their resources. As part of this project, developer will be asked to support publisher contributions, and posting of

data to the Learning Registry. This project requires knowledge of RESTful architecture and APIs. (see <http://learningregistry.org/developers>)

- *Documentation, Support, and Maintenance:* The Learning Registry is designed as an open resource for developers and third parties to build tools that better connect publishers and educators to online educational resources. Developer will provide full support for any code delivered as part of this project, namely scripts written to post metadata to the Learning Registry, and developing and maintaining any related documentation. Support for any issues found to be unrelated or the responsibility of third-party providers will be billed at an agreed-upon hourly rate.

Task	Deliverables	Due Dates
3	Posting to Learning Registry	Ongoing
	Documentation	Ongoing
	Support and Maintenance	Ongoing

TASK 4: WEBSITE DESIGN AND DEVELOPMENT

Overview

OET requires support for designing and developing a new externally-facing website that can easily integrate with the Learning Registry in order provide the ability to search for digital learning resources from within the site. The site will be based on approved U.S. Government technologies (e.g. Wordpress, free.ed.gov codebase), and facilitate regular updates to content.

Scope

- *Frontend/Backend support:* This project requires simple, full-stack support to stand up an instance of Wordpress (or similar approved content management tool), as well as the ability to customize the page based on the needs of the office. Platform should be flexible, and scalable. Depending on how it is executed, need for backend development will likely be limited to customizing features (e.g. search, themes) available “out of the box”.
- *Ongoing maintenance:* Apply patches/updates to Wordpress (or similar approved content management tool) as needed and ensure proper functionality.
- *Hosting:* Developer will not be responsible for hosting.

Task	Deliverables	Due Dates
4	<i>Frontend/Backend support</i>	Within 3 months of contract award
	<i>Ongoing Maintenance</i>	Ongoing

Appendix A: U.S. Department of Education Information Technology Requirements

In addition to the scope of work described in Task 1 (Communication with ED), Task 2 (Developer/Publisher Widget, Task 3 (Ongoing Support for Learning Registry), and Task 4 (Website Design and Development), the contractor shall ensure that:

1. Developed website(s) complies with OMB Memorandum M-03-22
http://www.usa.gov/webcontent/regs_bestpractices/omb_policies/privacy.shtml
which requires the posting of privacy policy.
2. A “.gov” hostname (typically hostname.ed.gov) is required for all government funded websites under OMB Memorandum M-05-04
(http://www.usa.gov/webcontent/regs_bestpractices/omb_policies/domains.shtml).
3. Any “ED-Sponsored “ content must be identified prominently with Department of Education, and the ED.gov logo should be displayed prominently and made a link to the ED.gov homepage. The compliance policy is described in the
<http://www2.ed.gov/internal/wwwstds.html#sponsor>.
4. Any non-Federal sponsored websites or content (outside of .gov, .mil, .Fed.us, etc.) that is linked to complies with “ED.gov” Management and Publishing Policies” at
<http://www2.ed.gov/internal/wwwstds.html#link> and the OMB Memorandum
<http://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2005/m05-04.pdf>.
5. Consistent with the Open Data policy outlined in OMB memo M-13-13:
 - a. The system design shall be scalable, flexible, and facilitate data extraction. (Capability for users to extract data in multiple formats and for a range of uses, including as internal and external needs change and potential uses not accounted for in the original design.)
 - b. All data outputs associated with this system shall be accounted for in the Enterprise Data Inventory.
 - c. All data outputs associated with this system shall meet the requirements described in part III, sections 1.a-d of M-13-13 (relating to machine-readability, open formats, data standards, open licenses, and use of common core metadata).
 - d. Data schema and dictionaries shall be documented and shared with applicable internal partners and the public.
6. All IT solutions shall be IPv6 capable. An IPv6 capable system or product shall be capable of receiving, processing, transmitting and forwarding IPv6 packets and/or interfacing with other systems and protocols in a manner similar to that of IPv4. Specific criteria to be deemed IPv6 capable are: An IPv6 Capable system must meet the IPv6 base requirements defined by the USGv6 Profile and Testing program as found here “<http://w3.antd.nist.gov/usgv6/testing.html>”. Systems being developed, procured or acquired shall maintain interoperability with IPv4 systems/capabilities. Systems shall implement IPv4/IPv6dual-stack and shall also be built to determine which protocol layer to use depending on the destination host it is attempting to communicate with or establish a socket with. If either protocol is possible, systems shall employ IPv6. The contractor shall provide IPv6 technical support for system development, implementation and management System Development Standards: Information

systems shall be developed in accordance with the ED Lifecycle Management Framework (LCM), ACS-OCIO 1-106

7. All contractor staff assigned to this contract complete Cyber Security and Privacy Awareness Training yearly to meet the FISMA requirement, follow all FISMA and Privacy policies”.