Proposal to the
Office of Systems Integration (OSI)

Request for Information (RFI) #75001

For
Agile Development Pre-Qualified (ADPQ) Vendor Pool

Human Centered Design

June 3, 2016

Strategy! Innovation! Transformation!

Revision History

Version	Date	Description of Updates	Author
DRAFT	05/25/2016	Created the draft version	xFusion
1.0	06/03/2016	Updated with review comments	xFusion

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1 Introduction

At xFusion, we are considerate of the end user who will be using the system by giving importance to the answers of the following questions:

- What will a human user want to see in the system?
- What will make him feel at ease while interacting with the system?
- What safety features would he expect and what would make him feel safe when providing his personal data?
- What flexibilities will he look for in order to use the system (for example, using a small device or a laptop)?
- Today's user typically interacts a lot with the web in day-to-day life. How can he relate his usage of the system to the day-to-day web experience he has?

2 Approach

Following the above-mentioned approach, we designed the SafeKids system. The design process included the following three phases at a high level:

- **Inspiration Phase:** In this phase we held in-person sessions with a focus group that consisted of real users and learned about their needs and expectations.

- **Ideation Phase:** In this phase, our design team put together the screen mockups and prototypes which were then shared with the focus group for their feedback. We followed an Agile approach where the screens were shared as they were built, in order to receive initial feedback. We went through several iterations of the Agile design and feedback process until our design was signed off by the users. Summarized below are the details of this phase:

  - ➢ **Used an iterative approach, where feedback informed subsequent work or versions of the prototype**

    We practice Agile development approach extensively. Our approach includes the following:
    - o Continuous interaction and feedback from the stakeholders
    - o Working prototype based development in iterations
    - o Joint Application Development (JAD) sessions with users
    - o Sprint based release methodology

    Summarized below are the steps that were performed for the design and development of the prototype:
    - o **Step 1**: Initiate kick-off meeting to iterate project plan, scope, and collect requirements.
    - o **Step 2:** Sketch/Revise wireframes which is focusing on information structure, site skeleton, navigation flow, and interface interaction.
    - o **Step 3:** Review and discuss wireframes.
    - o **Step 4:** Repeat steps 2 & 3 until reaching satisfaction.
    - o **Step 5:** Work on high-fidelity visual mockups which is focusing on style guides such as typography, color pallets, and graphical assets.
    - o **Step 6:** Review and discuss mockups.
    - o **Step 7:** Repeat steps 5 & 6 until reaching satisfaction.
    - o **Step 8:** Translate graphical mockups to code-ready HTML/CSS templates.
    - o **Step 9:** Implement/Revise coding logics into templates and create prototype.
    - o **Step 10:** Test and debug.
    - o **Step 11:** Repeat steps 9 & 10 until reaching satisfaction.
    - o **Step 12:** Perform usability testing and collect feedback.
    - o **Step 13:** Repeat steps 9 & 10 until reaching satisfaction.

  - ➢ **Created a prototype that works on multiple devices, and presented a responsive design**

    The prototype for SafeKids follow a user-centric and responsive design which works on multiple browsers as well as devices. The design is agnostic to the device used by the user, be it a computer or a small device.

  - ➢ **Performed usability tests with people**

    Extensive usability testing was conducted through a focus group to ensure the proper implementation of the human centered design features.

    Please refer to the Usability Testing deliverable for more details.

- **Implementation Phase:** In this phase, we finalized the screen design and created the screens following a user-centric and responsive design that included the following technology stack:
  - AngularJS
  - Twitter Bootstrap
  - JQuery
  - HTML 5
  - CSS3

3 User Interface Mockup – Wireframes

We developed Wireframes for the User Interface as a Human Centered Design Tool. The Wireframes were developed iteratively and incrementally based on user feedback in every iteration. The wireframe mockups for each iteration are provided in the GitHub *Working-Documents/UX-Design* folder.

- Iteration 1 : *Safekids-wireframe-adpq-v0_1.pdf*
- Iteration 2 : *Safekids-wireframe-adpq-v0_2.pdf*
- Iteration 3 : *Safekids-wireframe-adpq-v0_3.pdf*
- Iteration 4 : *Safekids-wireframe-adpq-v0_4.pdf*

4 User Interface Prototypes – HTML and Style

We developed User Interface prototypes as a Human Centered Design Tool. The prototypes were tested for usability and responsive design on a wide range of devices. The UI Prototypes for various iterations are provided in the GitHub in the _Working-Documents/UX-Design_ folder.

- ADPQ-SafeKids-UI Prototype_Iteration1
- ADPQ-SafeKids-UI Prototype_Iteration2
- ADPQ-SafeKids-UI Prototype_Iteration3