



User Requirements

Visual Design & Technological Accessibility:

Requirements define the parameters or establish the rules and guidelines in which a project must adhere throughout the design process. Based upon target audience definitions, user goals, and project platform (delivery medium), the requirements for successfully interacting with this Online Application depend upon how accessible the content is in regards to visual design, technological requirements, and overall usability.

Technological Requirements for User Accessibility consist of the following:

Users must have Internet Access, either at home, library, school, etc. on either a PC or Macintosh platform computer

Users must have an up-to-date, or commonly used browser version (preferably a W3C standards compliant browser such as Mozilla FireFox. Or the more common, Internet Explorer 5.5 & higher can also be used)

Users must have an up-to-date Flash Plug-in installed with their browser in order to view the various process demonstrations (animations) and to participate in the construction activities that involve Flash-based user interaction (selecting, moving, and manipulating graphical elements on the user's screen)

Users must have a color monitor with a screen resolution of at least 728px X 1024px
(Note: px=pixels)

The logo must be clickable as an extra option for returning to the intro page

Users must be old enough (7th grade & up) to comprehend the basic concepts being demonstrated (beginner, younger, and/or special-needs users may require adult assistance to get them started)



and all project creatives such as artwork, animations, illustrations, images, sounds, and other content are copyright protected.
© 2007 Trent Wyman



Visual Design Requirements for User Accessibility consist of the following:

- Clear and consistent labeling conventions in regards to navigation and hierarchy of content and information display
- Layout must support branding and global navigation on all pages in addition to providing tutorial content, process animations, construction interactivities, and accessibility to either a Reference Guide, or a reference glossary of defined terms and basic concepts
- Layout must be modular to accommodate the current amount of content as well as future flexibility in regards to content expansion
- Graphics must be visually engaging while still portraying the physical realism of the concepts at hand
- The Artwork must be visually appealing across all target audience age levels
- (7th grade & up)
- The Brand & Logo for the Online Application must be consistently displayed on pages
- Static Images and graphics must be optimized to reduce download time
- ALT tags should be included for all images
- TITLE tags should be included in the HEAD of all pages
- HTML will be implemented for the presentation of static or non-dynamic content
- CSS will be implemented for visually styling content and defining layout
- Flash will be used to create process demonstrations, user interactions, and the Atom Character
- Pages will need to be crosschecked for accessibility and consistency across different platforms and various browser types
- Copyright and other legal information will be clearly and consistently displayed at the foot of each page



and all project creatives such as artwork, animations, illustrations, images, sounds, and other content are copyright protected.
© 2007 Trent Wyman



User Definitions:

The target audiences for this online application will consist of Primary, Secondary, and Complimentary user types, which are defined as the following:

Primary Users:

(7th & 8th grades) Middle School Science Students

(9th – 12th grades) High School Science Students

Secondary Users:

People who are generally interested atomic chemistry, particle physics, and / or science in general, for their work, fun, or recreation. More specifically, a teacher or instructor that uses the application in order to inform students and or to reinforce their current lesson plans

Complimentary Users:

Thought of as those individuals who may at some time or another use this online application as a source of inspiration, and / or benchmark comparison for a particular project they are designing, which may not necessarily share similarities in content or subject matter



© 2007 Trent Wyman and all project creatives such as artwork, animations, illustrations, images, sounds, and other content are copyright protected.



Primary User Persona:



Janine Hamilton

"Science and Chemistry bore me! I'd rather be out having fun and doing almost anything else."

Personal Profile

Janine is a high school student who enjoys athletics and social activity. She would much rather spend her free time outside, playing on the court or out shopping at the mall rather than expose herself to any sort of scientific subject matter just for the enjoyment or recreation. She usually does all that she can to avoid confronting such content, such as hardly ever participating in class discussions or activities that involve math or science.

Background

- ★ 16 yrs old, high school student
- ★ Good Academics Overall
- ★ Optimistic and Outgoing
- ★ Athletic

Attributes

- ★ Moderate Internet User
- ★ Has 1 computer at home
- ★ cable connection
- ★ Prefers online research to library and book research

User Needs

- ★ Intuitive labeling & organization
- ★ Accurate information & content
- ★ Positive Feedback
- ★ Successful Interactions
- ★ Quick & easy comprehension
- ★ Engaging visuals to hold interest

Scenario

Janine has a Physical Science class this year and her teacher is currently finishing up lessons on atomic structures and he is about to introduce the students to chemistry.

In order to assess how well the students are going to take to this subject, the science teacher has decided to introduce the students to the "Add'em Atom" online application as a fun and educational primer, to the upcoming class lessons.

The current homework assignment is for each student in the class to use the internet (at home or in the library) to play the online application "Add'em Atom". After interacting with the various tutorials, demonstrations, and animations; the students are required to write a 3-page paper about what they learned.

Janine's grade is starting to slip and it is very important that she do this assignment before next week's report card grades are averaged and sent home.



and all project creatives such as artwork, animations, illustrations, images, sounds, and other content are copyright protected.
© 2007 Trent Wyman



Secondary User Persona:



Alex Lancaster

"Teaching science to kids is my calling. I go out of my way to find and provide my students with lessons that are both fun as well as educational."

Personal Profile

Alex Lancaster is a high school science teacher who is sincerely devoted to his students and his teaching career.

Background

- ★ 36 yrs old, high school teacher
- ★ Reputation as a fun teacher
- ★ Encourages students to explore
- ★ Creative activity & lesson planner

Attributes

- ★ Heavy Internet User
- ★ Has 2 computers at home
- ★ cable connection
- ★ Has 1 laptop computer (wireless)
- ★ Loves technology & innovation

User Needs

- ★ Online activities that compliment class science lessons
- ★ Accurate information & content
- ★ Successful Interactions
- ★ Quick & easy comprehension for the level of his students
- ★ Engaging visuals to hold interest

Scenario

Alex is a Physical Science teacher and he is currently finishing up lessons on atomic structures. He is about to introduce the students to chemistry but he is unsure of their current comprehension level.

In order to asses how well the students are going to take to this subject, Alex is considering the approach of to introducing his students to the "Add'em Atom" online application as a form of fun and ecuational primer, to his upcoming class lesson plans.



and all project creatives such as artwork, animations, illustrations, images, sounds, and other content are copyright protected.
© 2007 Trent Wyman



Complimentary User Persona:



Mr. & Mrs. Takahami

"It is our business objective to find inspirations for the development of our projects from all different types of media formats"

Professional Profile

Mr. & Mrs. Takahami own their own business developing user centered designs and interactive projects for various large scale corporations.

In order to stay ahead of their competition, Mr. & Mrs. Takahami are always searching "outside-of-the-box" for fresh and innovative approaches. By searching through different media formats for design inspirations, the Takahamis always deliver top-quality and innovative projects to their clients.

Background

- ★ Married Professionals
- ★ Master Degrees
- ★ Business success oriented
- ★ Dynamic development team

Attributes

- ★ Heavy Internet Users
- ★ Both have 1 computer at home each
- ★ Both have 1 laptop at work each
- ★ cable connection
- ★ Perform and apply project research across a variety of media formats

User Needs

- ★ Inspiration for new project approaches
- ★ Intuitive labeling & organization
- ★ Solid Accessibility & Usability tactics
- ★ Successful Interactions
- ★ Quick & easy comprehension
- ★ Engaging or innovative visuals

Scenario

Mr. & Mrs. Takahami have just recently been contracted by one their biggest clients to develop an educational family home game that is based on rounds of player trivia and alternating rounds of various forms of player activities.

It is up to the Takahamis to create and develop the trivia questions as well as to create various activities in which the players will be required to perform during the game. The Takahamis are in the need for some fresh inspiration in regards to creating player activities that are fun and that correlate to the educational game's trivia content.

They know that one of the game categories is Science, so they must seek out different types of scientifically based interactive projects in order to develop inspirations for the player activities, as well as for finding additional scientific based facts in which they can apply to the Science trivia section of the game they are developing.

Mr. & Mrs. Takahami have found the online interactive tutorial "Add'em Atom" and seek to incorporate some of the facts and activity concepts into their game design.



and all project creatives such as artwork, animations, illustrations, images, sounds, and other content are copyright protected.
© 2007 Trent Wyman