Software Requirements Specification

For

Get Real Website

Version 0.2

Prepared by Ken Cone

OUS Industry Affairs

<7/16/07>

Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The software described in this document is the *http://getreal.ous.edu* website and associated support pages. Rev1 of the website was created on or about summer of 2006. This document describes requirements for Rev2, summer of 2007. There may be a need for future updates of the website.
The scope of the Get Real website is limited to attracting and encouraging Oregon high school students to take coursework leading toward a baccalaureate degree in computer science (CS) at one of the seven Oregon University System campuses.

1.2 Document Conventions

There are no standard document requirements for this document.

1.3 Intended Audience and Reading Suggestions

Primary readers of this document are the web designers contributing to and testing of the Get Real website.
Contributors to this document are members of the Computer Science Task Force subcommittee of ETIC.
The remaining sections of this SRS describe the functional requirements for Get Real site.

1.4 Project Scope

The scope of the Get Real website is to provide a high school teen friendly set of web pages that are easy to navigate and at the same time provides sufficient depth and information about careers in computer science.
Two potential groups of viewers (students) exist: 1) students interested in CS seeking more in-depth information about a CS career, and 2) college bound students not necessarily interested in CS who might be attracted to a CS career with the right "push" from information on the Get Real site.
The goal of Get Real is to encourage more Oregon students to choose computer science and related majors, eventually increasing the number of computer science graduates from Oregon universities.
Maintaining a teen friendly site is deemed of highest importance in order to hold student attention and guide the viewer to information that will lead to a decision to pursue a career in CS.

Benefits for using the site should include:
- Personal and Career information from a broad spectrum of CS professionals
- CS course and other information from OUS campuses
- Timely and up to date information that encourages readers to return to the site, may include Q & A
- Call to action, and plans for students to follow to prepare for a CS career

Related sites visited by students to gain career information include: Google, Yahoo, news.myspace.com, engineergirl.org, etc. (need more input from students and from HS counselors)

1.5 References

For web page development at the Capital Center, use the local site files for Dreamweaver on ~cn-capctr/share/Get_Real_website/~
Be cautious of others modifying pages on the site. Always use Dreamweaver check in/out feature.
Adhere to CSS and other style conventions established in Get Real version 1.

<List any other documents or Web addresses to which this SRS refers. These may include user interface style guides, contracts, standards, system requirements specifications, use case documents, or a vision and scope document. Provide enough information so that the reader could access a copy of each reference, including title, author, version number, date, and source or location.>

2. Overall Description

2.1 Product Perspective

This product is an update of the existing Get Real web site version 1. The new site will be version 2. A future version 3 may be needed to incorporate ideas learned from version 2.

2.2 Produce Features

Major features of the Get Real website include the following pages/subsections:
(existing pages/sections)
Exploring College
Jobs & Money
Real People
Women in Computing
Resources
I'm Looking For…
Articles

(proposed new pages/sections, need to prototype and prioritize list)
High School Courses

Search for additional information
Professional Organizations
RSS feeds of current CS information
Ask an Engineer, Ask a Prof – FAQ
Consider a CS minor in other professions
Other ideas/page proposals

2.3 User Classes and Characteristics

Users are typical Oregon high school students, grades 9 to12 in ALL high schools across Oregon.

Two potential groups of viewers (students) exist:
1) students interested in CS finding more concise information about a CS career, and
2) college bound students not necessarily interested in CS who might be attracted to a CS career with the right "push" from information on the Get Real site.

A third group of students might be those interested careers as diverse as protein research, weather prediction, neurobotics, medicine, law or other sciences where a CS minor could contribute to a better understanding of data and information. A "Consider a CS minor" section could provide helpful information.

Oregon High school students from several schools and classes were interviewed to gain their feedback on version 1 of the Get Real site. Common themes emerged in the need to change/update overall site graphic design and real people.

Students who are not generally interested in CS, suggested graphic design changes, more white space, pictures, and easier to navigate pages. This group was much less tolerant of the site than the CS folks had been. They wanted a site that "spoke to them" and felt that if you were not a computer science student, it had very little to offer. The suggestion was very strong that the site be broken into more readable chunks of information. The term "walls of text" appeared several times. The need for more visually attractive information also was a central theme. They wanted color, photos, diagrams, charts, etc. to break up the text and make the site attractive. Many of them commented positively on the spinning globe and satellite menu.

Students who are interested in CS and engineering suggested changes in the Real People, Resources, and Colleges sections. Most of them spent their time in the college comparison chart, and in the real people part of the site. It sounded like they were attracted by the pictures. Several commented positively on the sections in each person's story. The college comparison chart again scored positive marks.

Changes to version 2 should include design changes to all existing pages to shorten up paragraphs and add bullets and charts where possible to

accommodate faster page reading and shorter reader attention span. One example used on the engineergirl.org site uses an interactive table menu for more detailed information, leaving the main pages short and to the point.

<Identify the various user classes that you anticipate will use this product. User classes may be differentiated based on frequency of use, subset of product functions used, technical expertise, security or privilege levels, educational level, or experience. Describe the pertinent characteristics of each user class. Certain requirements may pertain only to certain user classes. Distinguish the favored user classes from those who are less important to satisfy.>

2.4 Operating Environment

The Get Real site runs as an extension of the OUS site e.g. ~getreal.ous.edu~ Being part of the OUS domain will maximize Google and other search engine hits. The site runs on OSU servers.

2.5 Design and Implementation Constraints

Constraints for the website include:
> Space
> Bandwidth for video streaming
> Limited availability of Chancellor's Office resources

2.6 User Documentation

There are no user documents.

2.7 Assumptions and Dependencies

There are no development assumptions or dependencies.

3. Get Real Pages & Sections

This section provides more detailed information about each web page.

3.1 Exploring College (existing)

A listing of the computer science offerings from Oregon university System campuses and other Oregon colleges.
>Need to determine extent of community and private colleges in Oregon

3.2 Jobs & Money (existing)

Offers answers to the questions: "how can I contribute to society and how much money can I make with a computer science degree?"

3.3 Real People (existing)

A people section outlining recent CS graduates and more experienced professionals in CS and related careers. A key point is to show real people using their CS knowledge in diverse fields, and not cooped up in a cubicle. Students are interested in two groups of professionals, recent grads, and experienced professionals. The use of video or audio could help convey a personal message that could "push" some students to pursue a CS degree. >see examples from UW CS videos

3.3.1 Example video "real people" profiles

Computer science students and young professionals are presented here: "a day in the life of" "power to change the world" and Pathways in computer science" http://www.cs.washington.edu/education/ugrad/prospective/download.html >reviewers of this document should review these videos – click link above then "Video Downloads Available" These profiles convey clear messages of CS majors using their degrees in a variety of diverse careers.

3.4 Women in Computer Science (existing with new name)

The intent is to profile women computer scientists and engineers as people who work every day to solve problems and make the world a better, cleaner, safer place.
 "These women are also actively involved in their communities, raising families, and enjoying all kinds of sports and hobbies."   www.engineergirl.org is an example of youth oriented site that shows women in exciting engineering careers and has good use of white space on the pages.

3.4.1 Other resources for women in computer science

 WICS UO, www.cs.uoregon.edu/groups/wics/

www.cis.upenn.edu/acg/wicarch.html this site lists a resource for those wishing to contact women in computer architecture. Get Real might use a similar list for girls interested in contacting recent grads or women CS professionals.

3.5 Resources (existing)

Explore a wide range of pre-college technology programs and courses for high school students.

3.6 I'm Looking For… (existing)

A list of focused questions and answers with links inside the Get Real site. topics include: money, people, and colleges.

3.7 Articles (existing)

A list of articles outside the Get Real site including "50 best jobs in America, Dream Jobs 2007, etc.

3.8 High School Courses (new)

The intent of this section is to show recommended curricula for high school students interested in CS and related careers. This page should provide pointers to curricula recommendations from OUS campuses and other university sources. The ACM has recommended curricula for HS CS students. >UO is working on this area, no other campus has recommended HS courses

3.9 Search for additional information (new)

At least two kinds of searches are needed, 1) internal search of the Get Real site, and 2) external search of CS related outside sites such as OUS campuses, articles on CS etc. Google, for example provides tools for internal and external searches. The Get Real prototype index page ~getreal.ous.edu/protoindex.html has examples of various search engines.

3.10 Professional Organizations (new)

A listing with links to ACM, IEEE, and key sub groups such as SIGGRAPH, to show students the national and international strength of CS organizations. Pointers should lead to student sections of these organizations.

3.11 RSS feeds of current CS information (new)

Selected articles from the chancellor's office daily communications distribution, fed to RSS subscribers on the Get Real site. This feature requires X hours per week of web design resource for editing the URLs to the DSS feed.

3.12 Ask a Grad or Prof – FAQ (new)

Get fast feedback from the Oregon University System on questions asked in a Q and A format. Answers are posted in an FAQ section for all to read. A Grad or Prof BLOG on CS careers would also work here.

3.13 Consider a CS Minor (new)

Information for students in medicine, law, business, and other professions to provide students visibility of the high value of having a CS minor. The video "pathways in Computer Science" is a good example of CS majors in diverse fields

3.14

Other new page ideas here...

4. External Interface Requirements

4.1 User Interfaces

The Get Real site should work and be tested against IE, Firefox and Netscape.

4.2 Hardware Interfaces

There are no special hardware interface requirements

4.3 Software Interfaces

There are no special software interface requirements

4.4 Communications Interfaces

There are no special communication interface requirements

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The Get Real site should be hosted on a server that can provide adequate response time. High school students tend to have short attentions spans, so a slow server would not be satisfactory for this application. The current OUS (www.ous.edu) site is a good example of rapid response time.

5.2 Security Requirements

Copyright and other security measures for Get Real should be the same as the OUS site.

5.3 There is a need to track and evaluate the "hits" and time spent on the student-focused website over time; and make content, design, and navigation changes as needed based on evaluation of hits.

5.3 Software Quality Attributes

Web design conventions should be consistent with the standards and conventions used on the OUS site.

<Specify any additional quality characteristics for the product that will be important to either the customers or the developers. Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability. Write these to be specific, quantitative, and verifiable when possible. At the least, clarify the relative preferences for various attributes, such as ease of use over ease of learning.>

6. Get Real Version 3 Suggestions

6.1 Knowledge base

Appendix A: Glossary

Appendix B: Analysis Models

<Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams.>

Appendix C: Issues List

<This is a dynamic list of the open requirements issues that remain to be resolved, including TBDs, pending decisions, information that is needed, conflicts awaiting resolution, and the like.>