Jamel Douglas
LIS 3793
Assignment 1: Needs Analysis
10/12/2021

A. General Information

My groups site is CSI: The Experience. The website is located at
https://csi.webadventures.games/. CSI: The Experience was originally put together by the Rice
University Center for Technology in Teaching and Learning (CTTL) and it is currently being
hosted by the university's School Mathematics Project (RUSMP). Since the RUSMP is running
the website right now, it is safe to say that they members of the project would have final
approval of the sites redesign.

B. Goals for the Website

The mission of the organization that created this sit is "The mission of CTTL was to undertake
research that makes technologies for learning more productive, accessible, and engaging,
especially through the use of games in science and health education" (RUSMP). With that being
said, the primary objective of this site is to use technology to provide a hands-on learning
experience. The main reason for a redesign is due to a change in software that removed almost
all game functionality from the site.

C. Current Site

At the very top of the page is a persistent banner that informs the user about Flash Player's end
of life. This banner also includes a navigation bar that links the user to a page with information
about Flash Player's EOL and a link to the instructions to download the game files. The sites
navigation bar is below the banner on the top of every page and it lists out 7 different pages
which allows the user to navigate through the site. Each of these pages has links on them that
allow the user to navigate to that page's sub-pages.

a: Screenshot of website

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I'm not too sure how often the site was updated in the past, but I can say for sure that the site has been update throughout the last year. Adobe Flash Player reached its end of life on January 12, 2021. As a result of this, the site lost all its functionality. Since then, banners and popups have been added to the site to inform users about the situation while also providing an alternative way to use the site. They also had to develop the instructions for the alternative way, the Web Adventures Flash Game Archive.

Rice University School Mathematics Project (RUSMP) is currently responsible for running the site, so they would handle any general maintenance to keep the site running. However, the RUMSP specifically states that they are unable to provide technical support for the site. Although it may seem that this site will not receive and new updates, the RUSMP has received funding to redevelop the games using modern software. However, no further updates have been provided on a timeline of such redevelopment.

D. Heuristic Evaluation

My Personal Evaluation

The first point that I mentioned in my evaluation would be the websites design. I selected the "Design needs improvement, but the site is usable" option to describe, the design of the website. My specific comments in my evaluation were lacks modern design, hard to tell what page you are on, users can get navigated to a page that no longer functions, and support of user tasks because users cannot complete tasks on the site anymore due to Adobe Flash Player end of life.

My Peers Evaluations

The first point mention by my peers would be the poor design of the website. One of my peers selected the "Poorly Designed, Difficult to use" option while the other chose the "Design needs improvement, but the site is usable" option.

The specific comments my first peer made about the site were bad embedded links, chaotic design and aesthetic, and lack of information.

The specific comments my second peer made about the site were that design of site is dated, the navigation could be improved and streamlined, and the information and resources could be organized more effectively,

E. Benchmark Analysis of Related Sites

Cool Science Careers – Web Adventures

The first related site that was looked at was the Cool Science Careers site located at https://csc.webadventures.games/. Like our client's site, this site is also part of the web adventure games provided by Rice University.

A few good features on this site include more information on the organization responsible for the site and informational pop-ups for all things that use flash player.

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Some bad elements of this site are its poor design that lack modern design touches and distorted images due to stretching. Also, Cool Science Careers lost a significant amount of functionality once flash player reached its end of life.

One thing that I want to emulate from this site are the fact that users get a popup every they click on something that requires flash player. The site we are working with sometimes leaves users with the general "Flash player is no longer supported" error and no reference on how to remedy the problem. I would also like to include more information on the organization responsible for the site

CIA Spy Kids

The second related site is the CSI Spy Kids site, which is located at https://www.cia.gov/spy-kids/games/index.html.

I really appreciate the minimalist design and the modern aesthetic. The site is simple which makes it very user friendly. The site makes use of contrast which draws user attention to specific parts of the site. Each embedded link actually works and corresponds to a section of the site or an activity.

I do not like the lack of a cohesive color scheme. The site uses so many colors that it looks a bit eclectic and cluttered. I do not like the scroller design of the website pages. It seems cluttered and like an overwhelming amount of information. I do not like how the buttons and some of the graphics appear so amateur. It is a CIA website so I would expect it to be top notch and not have the appearance of a high school project.

I would like to incorporate the minimalistic design. I would like to include embedded links that actually work. I would like to use images in an engaging and effective way like this site did.
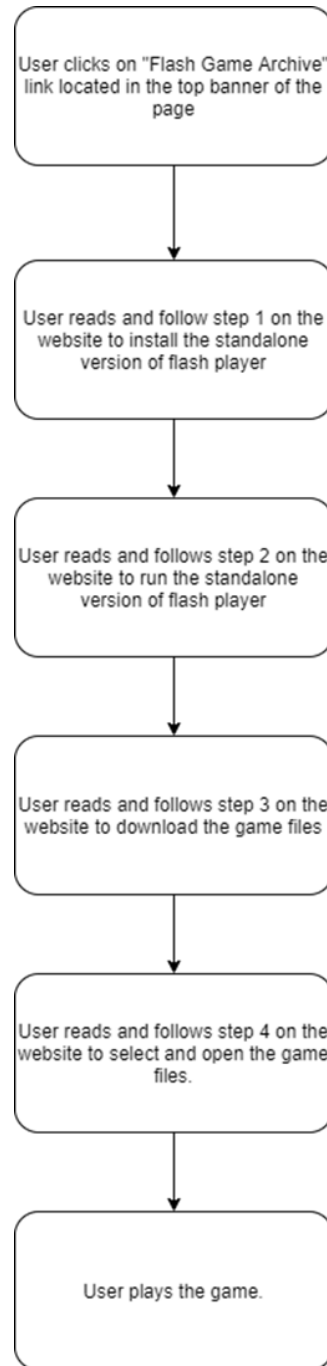
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F. User test your client's website using your friend as a participant

My first user task is for the user to locate and download the "Web Adventures Flash Game Archive". This task requires them to follow steps on the site to download standalone Flash Player and then continuing with the steps to download the game files to their local machine.

```
┌─────────────────────────────┐
│ User clicks on "Flash Game   │
│ Archive" link located in the │
│ top banner of the page       │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ User reads and follow step 1 │
│ on the website to install    │
│ the standalone version of    │
│ flash player                 │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ User reads and follows step  │
│ 2 on the website to run the  │
│ standalone version of flash  │
│ player                       │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ User reads and follows step  │
│ 3 on the website to download │
│ the game files               │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ User reads and follows step  │
│ 4 on the website to select   │
│ and open the game files.     │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│                              │
│ User plays the game.         │
│                              │
└─────────────────────────────┘
```

b: Task Flow Diagram of Primary User Task

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My secondary user task is going to be opening Case One with the standalone Flash Player and then completing the game. This task requires to user to find and locate the standalone flash player to open it. Then the user must locate and find the game files to open in the standalone flash player. Once open, the user can just follow along with the game.

My first user is one of my roommates. He is a current college student, and I would say has basic to intermediate computer knowledge. For the first task, he was quick to find the link to the archive instructions due to it being in a navigation bar at the top, he didn't use the link in the popup that is at the top of the page. The security warning for Flash Player caught his eye, but after reading it he understood it was a minimal risk. From there it was easy to find the download for his specific operating system. The next step explained how to open flash player, which my user had already done before moving to this page. Moving along, the reached step three which included the download links to the game files. Although the user had to look, he found the files for CSI: The Experience and downloaded them. The next step tells the user which one of the files to open in flash player for the game to open. The User seemed to understand that because he was able to open Case One. The user followed along with the game, eventually finishing it and thus finishing the second user task.

My second user is my father. My father is in his late fifties, and I would say has basic to intermediate computer knowledge, however, he does not keep up to date with current technologies, so he does have some trouble getting around the computer. My father struggled to find the link to the instructions, instead, he clicked the button for the educator survey that is in the top popup. Once he realized his mistake, he went back and was able to find the link on the navigation bar. The security warning for Flash Player tripped my dad up. He stated that he doesn't want to open his computer to vulnerabilities but did so anyway as a favor to me. He was able to find the link and download the standalone flash player. The user moved on to the next step and was able to open flash player. Then, the user moved to the next step and found the download link for the game files, though this took significantly longer than the other user. From there, the user followed the next steps and was able to open Case One. This step seemed like the easiest for the user. The user followed along with the game and finished it. Although it took a lot longer than the other user, he completed the second user task.

Throughout this process, I noticed that the web archive instructions are convoluted and a little hard to follow along. For example, if you were running macOS, you would have to scroll past the Windows instructions on each page. There are quick links that allow you to jump to the instructions for a specific operating system, but they don't stand out and are often missed. Also, the current setup is where each step has its own page and then each page has three sets of instructions for each of the major operating systems: Windows, macOS, and Linux. I feel like having all the steps on one page but having separate pages for each operating system would be more beneficial to this site. I also realized that the site sponsor also uses these instructions for other similar sites, so the download page for the game files has the files listed out for the other sites as well. This made it harder for users to find the download link that they were looking for.

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G. Content

The site has a pretty basic structure. At the very top of the page is a persistent banner that informs the user about Flash Player's end of life. This banner also includes a navigation bar that links the user to a page with information about Flash Player's EOL and a link to the instructions to download the game files. The navigation bar, which is completely separate from the banner's navigation bar, is on the top of every page and it lists out 7 different pages, including the homepage itself. Each of these pages has links on them that allow the user to navigate to that page's sub-pages. The homepage has a link to all of the 5 different portions of the game. These links currently open an informational popup that informs the user of Flash Player EOL and a link to the instructions to download the game files.

Visually, I would say that this site is still stuck in the early 2000's. The matrix-style green background is our first clue at the visual age of this site. The site also employs design scheming that is outdated. Also, the excessive use of the color green can also lead to some accessibility issues for users of the site.

H. Intended Primary Users of the Site

The primary users of this site fall into three groups: Students, Teachers, and Fans of the CSI television series.

Students

Students' primary tasks are playing the game, learning about forensics, and testing knowledge of forensics. Some other tasks that this user group may do on the site includes getting info about forensics, sharing of real-life CSI stories, TV show character info, computer compatibility info and answers to homework problems.

Some special consideration for this group is their general technical abilities, ability to navigate the site to find download instructions, and the ability to follow the instructions to download flash and game files to play game

Teachers

Teachers' primary tasks include Interactive teaching material, get information about forensics, discover other methods to teach students. Some other things that this user group would do on this site includes creating lesson plans, getting more info about forensics, sharing of real-life CSI stories, information about the processes and tools used in forensics and computer compatibility info.

Some considerations for this group are as follows. One key, defining factor will be if the user has a way to play Adobe Flash Player Games. If the user has a software that will allow them to play the game, then they will have little difficulty completing tasks. Another key factor will be how tech savvy the individual is. If they are confident about navigating websites, they will be more willing to spend time digging through the website tabs to find the desired information. A final

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key factor will be what age group they are trying to educate. Those with elementary school level students will be looking for different content then college professors.

Fans of CSI

The primary tasks of a user that falls into the Fans of CSI group are CSI characters, Playing the game, Testing knowledge from the show. Some other tasks that this user group may do on the site includes getting info about forensics, sharing of real-life CSI stories, TV show character information, TV show information, and computer compatibility info.

Some special considerations for this group are fresh new story lines that maintain accurate themes and dynamics and making sure that the educational aspects take precedent while satisfying the fans.

I. Analysis and Design Recommendations

There are a couple of issues with this site that need to be addressed moving forward. There are multiple navigation bars located throughout the site. Not having a clear navigation method through the site can make the users' experience cumbersome and unpleasant. Also, the site lost most of its functionality due to Flash Player's end of life. Now users must download flash player and the game files.

Some recommendations on changes include a complete design overhaul to modern design standards. A complete redesign of the site's navigation system. Another recommendation would be to re-develop the game with newer technology, like HTML5, so that the user can have the same in-browser experience as before. This recommendation is the least likely to happen because it would require starting the project over from scratch.

J. Research Methods

Most of the research conducted for this assessment is observational data that was collected through the observation of behavior or activity. Anything else would be what I consider derived data which involves using existing information to make a statement or claim.

K. Sources

https://rusmp.rice.edu/resources/science-health-games

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L. Appendix

Heuristic Evaluation – Jamel Douglas

Name of Evaluator :	Jamel Douglas	Your Team #:	5	Date:	12/4/2021
Name of Organizational Site Being Evaluated:		CSI: THE EXPERIENCE, https://csi.webadventures.games/index.html			

BRAINSTORMING ACTIVITY: Heuristic Evaluation

Instructions: Conduct a heuristic evaluation of the site's information architecture. Use the following guide questions below. Rate how much you agree or disagree with the following statements (**1** – strongly disagree; **5** – strongly agree). Use an 'X" to mark the appropriate column. Submit the completed form at the end of class for participation points.

ITEMS	SD 1	D 2	N 3	A 4	SA 5	N A
	Strongly Disagree				→ Strongly Agree	
Main/Home Page						
• The homepage orients the user to what the site is about and what content is available (good information scent).				X		
• The homepage has (a) clear call/s to action. *(Are there clear cues that lets users know what they are supposed to or can do on the site?)*			X			
• The homepage highlights the best ways to reach content. *(Supporting the few most useful ways of getting users to content is obviously more important and cost-effective than providing them with all possible ways.)*				X		
• The site sponsor/organization is clearly identified.		X				
Content						
• The overall content is clearly and logically organized.				X		
• The purpose of the site is clear from the type of information on the site and the way it is presented.			X			
• It is clear who the intended audience of the site is.				X		
• The content of the pages clearly support user tasks.	X					
Layout						
• The overall layout clearly indicates the hierarchy of contents on each page (e.g., it is easy to tell which items are grouped and which items are more important).				X		
• The layout makes it easy for users to find important information on the page.		X				
Site-wide Navigation						

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ITEMS	SD 1	D 2	N 3	A 4	SA 5	N A
	Strongly Disagree				→ Strongly Agree	
• **It is easy to tell where I am on the site.**			x			
• **There is a way to get back to the homepage from anywhere on the site.**				x		
• The site uses labels that are clear and meaningful.				x		
• There are navigation options that lead me where I'd want to go next.			x			

What is your overall rating of the site? *Pls. check one …*

_____ Very well designed and easy to use
__x__ Design needs to be improved but site is usable
_____ Poorly designed, difficult to use

List the top three issues that need to be addressed. Write your recommendations for addressing each issue. Explain each briefly:

Site design. Lacks modern design. Hard to tell what page you are on.

Navigation. Users can get navigated to a page that no longer functions.

Support of user tasks. Users cannot complete tasks on the site anymore due to Adobe Flash Player EOL.

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Heuristic Evaluation – Jack Miller

| **Name of Evaluator :** | Jack Miller | | **Your Team #:** | 5 FIX IT | **Date:** | 12/4/2021 |

| **Name of Organizational Site Being Evaluated:** | CSI show Website |

BRAINSTORMING ACTIVITY: Heuristic Evaluation

Instructions: Conduct a heuristic evaluation of the site's information architecture. Use the following guide questions below. Rate how much you agree or disagree with the following statements (**1** – strongly disagree; **5** – strongly agree). Use an 'X" to mark the appropriate column. Submit the completed form at the end of class for participation points.

ITEMS	SD 1	D 2	N 3	A 4	SA 5	N A
	Strongly Disagree				→ Strongly Agree	
Main/Home Page						
• The homepage orients the user to what the site is about and what content is available (good information scent).				X		
• The homepage has (a) clear call/s to action. *(Are there clear cues that lets users know what they are supposed to or can do on the site?)*			X			
• The homepage highlights the best ways to reach content. *(Supporting the few most useful ways of getting users to content is obviously more important and cost-effective than providing them with all possible ways.)*				X		
• The site sponsor/organization is clearly identified.					X	
Content						
• The overall content is clearly and logically organized.			X			
• The purpose of the site is clear from the type of information on the site and the way it is presented.				X		
• It is clear who the intended audience of the site is.					X	
• The content of the pages clearly support user tasks.			X			
Layout						
• The overall layout clearly indicates the hierarchy of contents on each page (e.g., it is easy to tell which items are grouped and which items are more important).		X				
• The layout makes it easy for users to find important information on the page.		X				
Site-wide Navigation						
• It is easy to tell where I am on the site.			**X**			

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ITEMS	SD 1	D 2	N 3	A 4	SA 5	N A
Strongly Disagree → Strongly Agree						
• There is a way to get back to the homepage from anywhere on the site.				X		
• The site uses labels that are clear and meaningful.			X			
• There are navigation options that lead me where I'd want to go next.				X		

What is your overall rating of the site? *Pls. check one …*

_____ Very well designed and easy to use
  X   Design needs to be improved but site is usable
_____ Poorly designed, difficult to use

List the top three issues that need to be addressed. Write your recommendations for addressing each issue. Explain each briefly:

The design of the site is dated
The navigation could be improved and streamlined
Overall the information and resources could be organized more effectively

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Heuristic Evaluation – Stephanie Winningham

| **Name of Evaluator :** | Stephanie Winningham | **Your Team #:** | 5 | **Date:** | 12/4/2021 |

| **Name of Organizational Site Being Evaluated:** | https://csi.webadventures.games/ |

BRAINSTORMING ACTIVITY: Heuristic Evaluation

Instructions: Conduct a heuristic evaluation of the site's information architecture. Use the following guide questions below. Rate how much you agree or disagree with the following statements (**1** – strongly disagree; **5** – strongly agree). Use an 'X" to mark the appropriate column. Submit the completed form at the end of class for participation points.

ITEMS	SD 1	D 2	N 3	A 4	SA 5	N A
	Strongly Disagree				→ Strongly Agree	
Main/Home Page						
• The homepage orients the user to what the site is about and what content is available (good information scent).	X					
• The homepage has (a) clear call/s to action. *(Are there clear cues that lets users know what they are supposed to or can do on the site?)*		X				
• The homepage highlights the best ways to reach content. *(Supporting the few most useful ways of getting users to content is obviously more important and cost-effective than providing them with all possible ways.)*	X					
• The site sponsor/organization is clearly identified.						X
Content						
• The overall content is clearly and logically organized.			X			
• The purpose of the site is clear from the type of information on the site and the way it is presented.						X
• It is clear who the intended audience of the site is.						X
• The content of the pages clearly support user tasks.	X					
Layout						
• The overall layout clearly indicates the hierarchy of contents on each page (e.g., it is easy to tell which items are grouped and which items are more important).		X				
• The layout makes it easy for users to find important information on the page.		X				
Site-wide Navigation						
• It is easy to tell where I am on the site.		X				

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ITEMS	SD 1	D 2	N 3	A 4	SA 5	N A
	Strongly Disagree				→ Strongly Agree	
• There is a way to get back to the homepage from anywhere on the site.			X			
• The site uses labels that are clear and meaningful.			X			
• There are navigation options that lead me where I'd want to go next.		X				

What is your overall rating of the site? *Pls. check one …*

_____ Very well designed and easy to use
_____ Design needs to be improved but site is usable
__X__ Poorly designed, difficult to use

List the top three issues that need to be addressed. Write your recommendations for addressing each issue. Explain each briefly:

- **Bad embedded links**
    - The premise of the site is a bunch of games that run on Adobe Flash. Adobe Flash was discontinued so when you click on the games you cannot access them. They have a solution posted as a tiny paragraph in the FAQ section. This should be easy to access if not entirely bypassed or integrated into the site.
- **Chaotic design and aesthetic**
    - This site is the definition of chaotic. It is cluttered and covered in images and text. In one instance they commit the cardinal sin of putting red text over a green background. They could benefit from a minimalist design approach and a total reevaluation of their aesthetic.
- **Lack of information**
    - The site does not communicate what there actually is to do very well. It is broken up into weird sections and needs more elaboration for the user. It focuses on a story, but doesn't even set a narrative or a premise.