



Keele
University

Investigation into the Usability of the Steam Client

Alex Farrell

PROGRAMME
Computer Science MComp

18th April 2018

SCHOOL OF COMPUTING AND MATHEMATICS
Keele University
Keele
Staffordshire
ST5 5BG

I Abstract

The primary objective of the project was to evaluate whether the Steam Client conforms to industry standard usability guidelines and usability metrics. This was achieved through research into usability as an entity, usability standards throughout industry and usability testing methods and guidelines. From this, an investigation was carried out to get the opinions of real users who were either new to Steam or experienced users. Having a wider demographic of participants meant that a more thorough evaluation could take place to obtain concise and detailed results and evidence which would then be used to create mock-up, wireframe designs that would hopefully rectify the issues that were raised from both usability metric evaluation, and user evaluation.

This project utilises the work of Jakob Nielsen and other industry professionals to provide a clear understanding of the usability of a system in an industry that has been expanding dramatically over the past few years. PC gaming is becoming more and more popular, with Steam and Valve at the forefront of this growth. Steam is the most widely used digital game distribution platform and is in its own league when it comes to functionality and what it has to offer the PC gaming community.

II Acknowledgements

I would like to thank Dr Ed de Quincey for being my project supervisor and for offering support and guidance whenever it was required. I would also like to thank all of the students who took time out of their own studies to take part in the investigation which provided the backbone for this project.

Contents

I	Abstract.....	1
II	Acknowledgements.....	2
	Figures.....	5
1	Introduction.....	6
1.1	What is being investigated?.....	6
1.2	What are the aims of the project?.....	7
2	Initial Research	8
2.1	Understanding Usability.....	8
2.2	Usability Standards and User-Centred Design (UCD).....	10
2.3	Usability Testing Definition and Methods	12
2.4	Usability and Steam	14
3	Methodology	16
3.1	Development Strategies.....	16
3.1.1	Waterfall Model	16
3.1.2	Rapid Application Development (RAD)	17
3.1.3	Agile Development	17
3.1.4	Conclusion	18
3.2	Investigation Techniques.....	18
3.2.1	User Testing	18
3.2.2	Interviews.....	19
4	Results.....	20
4.1	User Testing	20
4.1.1	Task 1: Login Procedure.....	20
4.1.2	Task 2: Steam Store	21
4.1.3	Task 3: Steam Library.....	21
4.1.4	Task 4: Steam Community.....	24
4.1.5	Task 5: Steam Profile.....	25
4.2	Interviews	27
5	Discussion & Design.....	29
5.1	The General System	29
5.1.1	Main Navigation Manager	29
5.2	Login Procedure	30
5.3	Steam Store	31

5.3.1	Category System	31
5.3.2	Ordering of Sections on Product Page	31
5.3.3	Amount of Information	32
5.3.4	User Reviews Overview	32
5.4	Steam Library	32
5.4.1	Change View	33
5.4.2	Size of Text in Game List	33
5.4.3	Ordering of Game in List	33
5.4.4	Adding a Game to Favourites and Other Features	34
5.5	Steam Community	34
5.5.1	Website Location on-clock of 'Community'	35
5.5.2	Content Filters	35
5.5.3	Community Post	35
5.6	Steam Profile	36
5.6.1	'Profile' Screen	36
5.7	Conclusion	36
6	Conclusion	38
7	References	40
8	Appendix	44
	Appendix 1 – User Testing Consent Form	44
	Appendix 2 – User Testing Questions	47
	Appendix 3 – Interview Questions (SUS)	49
	Appendix 4 – Investigation Transcriptions	50
	Appendix 5 – Mock-up Designs	91
	Project Plan	96
	Ethics Form	101

Figures

Figure 1: Steam error message on sign in	20
Figure 2: Steam Store - Racing Games	21
Figure 3: Steam Store - F1 2017	21
Figure 4: Steam Library Views	21
Figure 5: Steam Library - Change View	21
Figure 6: Pie Chart showing preferred Library Views	22
Figure 7: Steam Library - Friends Box	22
Figure 8: Steam Library - Right-click on game	23
Figure 9: Steam Library - Right-hand options	23
Figure 10: Steam Store - Reviews Section	23
Figure 11: Steam Store - Single Review	24
Figure 12: Community - Hub Search	24
Figure 13: Steam Community - Video Filters	24
Figure 14: Steam Community - Video 'likes'	24
Figure 15: Steam Community - Review Filters	25
Figure 16: Steam Community - Review (Account Name)	25
Figure 17: Steam Profile - Link	25
Figure 18: Steam Profile - Homepage	25
Figure 19: Steam Profile - Edit Profile Button	26
Figure 20: Steam Profile - Input Support	26
Figure 21: Pie Chart showing preference when updating profile	26
Figure 22: Table of adjusted results from SUS	27
Figure 23: Table of results from SUS	27
Figure 24: Graph showing final results of SUS	28
Figure 25: Mock-up Navigation Banner	29
Figure 26: Mock-up Login - Forgot Password	30
Figure 27: Mock-up Collapsible Sections	32
Figure 28: Steam Library Change View dropdown - Mock-up Design	33
Figure 29: Mock-up Library Text Size Option	33
Figure 30: Mock-up - 'Add to Favourites' and other features	34
Figure 31: Mock-up - Community Video Post	35
Figure 32: Mock-up Profile Newsfeed Preview	36

1 Introduction

1.1 What is being investigated?

Gaming is an ever-expanding world of creativity and innovation with more and more companies looking to enter the most lucrative industry in the world (Gray, 2014). One sector that has grown the most in recent years is the PC gaming industry with PC's accounting for \$32.3 billion or 28% of the gaming market value in 2017 (Bailey, 2017). Since 1996, Valve has had the approach to produce award-winning games, leading-edge technologies (Valve, 2018). In 2003, Valve released their 'ground-breaking' social entertainment platform, known as Steam (Wikipedia, 2018). Testament to its popularity and the growth of the PC gaming industry, in January 2018, Steam had over 18.5 million users, which is over 3 times larger than in November 2012 when they had around 6 million registered users (Statista, 2018).

Although Steam has a large following, when the Steam Client was designed, it appears that Valve gave little or no consideration to usability guidelines set out by previous research into areas such as HCI (Human-Computer Interaction). It is possible that due to the bespoke nature of the Steam's development, the development team may have opted for personal preference over guideline conformity, venturing a guess at user's needs (Nielsen, 2005). In terms of more bespoke research into usability of gaming consoles and gaming systems, there are very few publications available within academic literature with those that do exist having little relevance to the project. Therefore, the research for the project needs to look at Steam from different aspects outside of gaming.

1.2 What are the aims of the project?

The main aim of the project is to evaluate whether the current Steam Client conforms to relevant usability guidelines that exist for other, similar systems. Categorically, the Steam Client is a digital distribution platform (Wikipedia, 2018), therefore the initial research for the project can begin here. Once sufficient research has been collated from an academic perspective, the evaluation will shift focus to the actual user, to further identify issues with the current design, recognized by real people. This will be backed up by the completion of the System Usability Scale (Brooke, 1996) by each user.

Once the problems have been identified, an initial list of improvements can be created. The scope of the project looks at usability from a client-side, front-end development perspective and so it is likely that some improvements will fall out of scope as the solutions may require access to either the Steam Client source code, or the database systems, which are not available. Should these situations arise, solutions will be discussed at a hypothetical level to show awareness of expanded knowledge. Improvements that can be made within the scope of the project, along with usability guidelines, will assist in creating new mock-up designs that will hopefully go some way to rectify the problems identified in the investigation.

2 Initial Research

To make an informed judgement as to whether the current Steam Client conforms to the industry understanding of usability, it is important to analyse relevant literature in aspects such as usability as well as discussing in detail, the numerous standards that have been developed to help industry achieve usability. There is an intention within the project to get the opinions of real users, therefore research into usability testing methods is also imperative. Allowing development of understanding within these areas will create a strong foundation for the study, as well as offer support to subsequent conclusions.

2.1 Understanding Usability

Usability can be interpreted in different ways depending on the situation you are applying it to. In 2008, Fred Conrad described usability as the measure of accuracy, speed and satisfaction that a system presents (Conrad, 2008). Accuracy and speed are often pitched against each other to achieve satisfaction. A user is encouraged to balance both, however as expressed by Conrad, an increase in concern for one can have an adverse effect on the other. Nielsen's take on usability, offers a similar, yet expanded definition. Nielsen believes that usability consists of five main components. Learnability, efficiency, memorability, error rate and satisfaction (Nielsen, 2012, cited in (Speicher, 2015)), are believed by Nielsen to be more inclusive components, offering a more thorough evaluation of the overall usability of a system.

Speicher also discusses the idea of usability metrics. He comments on the content of ISO/IEC 25010 (ISO, 2017) standard and interprets its definition to comprise of three different levels of usability metric. The first level covers internal metrics which

measure a set of static attributes that can be related to the software architecture. The next level looks at external metrics which covers the behaviour of the system and execution at a software level. The final layer, and the one that has the most relevance to the project, relates to in-use metrics which involve the actual users of the system (Speicher, 2015).

There are various quality models that can be used to show usability. These quality models were investigated by Winter et al. in 2008. They found that hierarchical structures as quality models which focus mainly on quality assurance had been developed (Winter, et al., 2008). This type of model was used by McCall et al. in 1978, whose model consisted of three layers. These layers make up the factor-criteria-metrics (FCM) model (McCall, 1978, cited in (Winter, et al., 2008)). The factors layer specifies the external view of the software, as viewed by the users. The criteria layer builds the internal view of the software, as seen by the developer. Finally, the metrics layer controls the scale and method for measurement.

Quality models can also be viewed from a human-computer interaction (HCI) perspective. This view was used by Nielsen in 1993 when he explained five attributes he believed were imperative to usability. These factors were learnability, efficiency, memorability, errors and satisfaction (Nielsen, 1993). Although each one of these factors is important, they can conflict each other quite often in what Nielsen describes as ‘usability trade-offs’. The International Organization of Standardization (ISO) have published several standards that contain usability models for evaluating the usability of a system.

2.2 Usability Standards and User-Centred Design (UCD)

Over the years, as the software industry has grown, there have been numerous standards developed. A body at the heart of these developments is the International Organization of Standardization (ISO). As stated previously, the levels of usability metrics are loosely presented in ISO/IEC 25010:2011, however there are many other standards developed by ISO that look at usability in different ways. One common theme of these standards is that they influence the understanding of usability and user-centred design, however Whitney Quesenbery raises the question as to whether standards improve usability. She states that although most standards have increasing usability as one of their goals, most standards are limited in the scope they present which means that it is possible to meet the standard, whilst not achieving the underlying goal (Quesenbery, 2005).

An article written by Abran, Khelifi and Suryn in 2003 highlights two main standards to consider when discussing usability. The first of these standards is ISO 9126 (SQA, n.d.) which has since been revised to ISO/ IEC 25010:2011 (ISO, 2017), however the principles contained within it still stand. In the article, they say that in ISO 9126, usability is represented as ‘a set of attributes that bear on the effort needed for use and on the individual assessment of such use by a stated or implied set of users’ (Abran, et al., 2003). Abran et al. also discuss the weaknesses of standard, stating that the concepts overlap meaning that it is challenging for users to understand and that there is a lack of quality and guidance in assessing the results of measurement against these concepts.

The second of these standards is ISO 9241 (ISO, 2010). This standard states that ‘software is usable when it allows the user to execute their task effectively, efficiently

and with satisfaction in the specified context of use'. Abran et al. discuss the advantages and weaknesses that come with this standard. Advantages include that it identifies usability aspects during most stages of the system development lifecycle. However, the standard only addresses usability from a strictly process perspective, only tackling a single viewpoint (Abran, et al., 2003).

Usability can be approached in the avenue of user-centred design (UCD), a term that originates from Donald Norman in the 1980s (Abran, et al., 2004). According to usability.gov, the UCD process outlines the phases throughout the system development lifecycle while focusing on gaining a thorough understanding of who will be using the product (usability.gov, n.d.). There is no formal definition for UCD beyond some shared general values which often describe UCD as a way to accomplish usability (Quesenbery, 2005).

There are many industry standards that encapsulate UCD. ISO 13407 is a standard that focuses on human-centred design processes for interactive systems. Revised by ISO 9241 in 2010, this standard represents a general industry approach to UCD, describing four main principles of human-centred design which are active involvement of customers, appropriate allocation of function, iteration of design solutions and multi-disciplinary design.

ANSI 354 (a.k.a Common Industry Format [CIF]) is a standard that encourages better usability practise. Quesenbery discusses the work of Butler et al. in 2003 where they say that 'one way to encourage software developers to integrate usability engineering into their development process is for purchasers to require evidence of product usability (Butler et al. cited in (Quesenbery, 2005)). CIF is not so much a

standard but more a way of reporting on the results of summative usability testing techniques.

WAI (The W3C Web Accessibility Initiative) is an initiative that develops guidelines that are widely regarded as the international standard for Web accessibility (W3C, 2018). These guidelines focus on authoring websites that are accessible to people with disabilities and people using assistive devices. The WAI was launched in 1997 at the Web Conference in Santa Clara with endorsement by US funding agencies and various industry sponsors (Dardailler, 2009).

It is important that when these standards are created, that they are followed. They are empty documents unless they are used in practice when creating content. Therefore, when developing these standards, it is important to consider the impact they may have in relation to the time and effort they take to create and follow (Quesenbery, 2005). If a standard is going to take a long time to adhere to on development but have a very small subsequent impact on the users' experience, then it is unlikely that developers are going to pay attention to it.

2.3 Usability Testing Definition and Methods

Usability testing refers to evaluating a product by testing it with a sample of representative users, during which, participants will complete typical tasks whilst being observed (usability.gov, n.d.). The tasks a user will complete must be analysed to determine user goals. Also, the components of a typical task on the system should drive the interface design (Conrad, 2008). Conrad also explains that the outcome of user testing sessions is usually a list of problems and issues with the system. These problems can include actions that are inaccurate or an indication of user uncertainty which can be observed through user inaction or the slow completion of a task. Typically, a user

testing session will consist of many users meaning that the severity of a problem can be quantified by the frequency a specific problem occurs. Therefore, it is also important to make sure that testing considers a range of different users with different skill sets and experience with that or similar systems.

As well as a range of users, it is important to consider the tasks that users will be asked to do. Before you can write specific tasks for users to complete, a list of general goals should be drawn up. These goals should reflect the most important things that every user must be able to accomplish on the system (Nielsen, et al., 2014). Nielsen et al. also explain that when tasks are carried out, the tester must avoid giving clues or describing the steps needed to complete the task in too much detail, as these descriptions can often contain hidden clues on how to use the interface.

If user testing is carried out correctly and the tasks assigned are specific, the subsequent results can be relatively easy to interpret. A specific sequence of actions required by the user allow accuracy and speed to be assessed at a more precise level. Additionally, by including multiple users, as stated above, can help identify where problems are (Conrad, 2008). Another interesting point that Conrad makes is that by getting users to ‘think aloud’, a method introduced in the usability field by Clayton Lewis in 1982 (wikipedia, 2017), testers can gain additional insight, as well as understand user intentions in the way a simple mouse movement cant represent.

As well as testing accuracy and speed, it is also important to test satisfaction. A user may complete a task with the highest level of accuracy and in the quickest time which could be related to the level of experience that user has with the system. This does not automatically mean that the user is satisfied with the steps taken or the interfaces they interacted with along the way. If they are not satisfied, it is likely that

the user may defer to other similar systems that are less frustrating and more pleasing to use (Conrad, 2008). Conrad explains that the use of satisfaction questionnaires can give the tester some measure of a users' subjective experience of a system. These questionnaires can either be multiple choice or open ended. It is common for testers to tailor these questionnaires to fit the schema of the system they are testing, however by doing this, the questionnaire lacks the psychometric stamp of approval and is likely to produce bias results.

2.4 Usability and Steam

Relating usability to Steam is relatively straightforward as the majority of the system (excluding the Steam Library) is requested webpages that are displayed by the Steam Client's internal browser. Therefore in terms of evaluation, you can use usability heuristics set out by Jacob Nielsen. They are called heuristics because they are broad rules of thumb and not specific usability guidelines (Nielsen, 1995).

In terms of the debate between console and PC gamers, the one aspect of PC gaming that grasps people's attention is the availability of an online world. It is reasonable to expect that anyone who owns a PC also possesses an internet connection, whereas those with consoles, are less likely (Toivonen & Sotamaa, 2010). Torvonin and Stamata go on to explain that with PC gaming, there is a lot more importance on an effective online community due to the increased accessibility. The study they conducted asked people whether they had heard of various online gaming platforms and Steam was the most well-known platform with 92% of people asked saying that they were aware of Steam, with 59% saying that they also use Steam. Comparative systems they included in their study such as Direct2Drive and Gametap were less than half as well-known as Steam, with only 39% and 38% respectively, saying they had

heard of those systems. Therefore, they concluded that Steam is in its own class when it comes to online distribution of games compared to other PC competitors. This means that in terms of usability and overall user experience, Steam needs to make sure that it performs well as they know they are going to get a lot of users who, if they feel Steam is not usable, will veer towards competitors.

3 Methodology

It is necessary to outline the methodologies used during the course of the project to fully understand and interpret the results and subsequent findings. The first area of methodology to consider is the development strategy that will be undertaken. There are many different strategies to choose from, each of them lending themselves to different types and scales of project. It is also important to consider the investigation methods that will be undertaken to ensure that you get adequate results and evidence to go forward with the design.

3.1 Development Strategies

3.1.1 Waterfall Model

The Waterfall Model is one of the oldest and widely used models in government project and many major companies (Munassar & Govardhan, 2010). The first known use of the Waterfall Model was in 1956 by Herbert Benington, however the term ‘Waterfall Model’ was not coined until 1976 by Bell and Thayer in their paper, ‘Software Requirements: Are they really a problem?’ (Bell & Thayer, 1976).

The waterfall model promotes a logical, step-by-step progression of different stages of development, cascading down, hence the relation to a waterfall. Over the years, the waterfall model has gone out of favour somewhat, being replaced by more flexible methodologies as the demographic of projects change. However, the logical nature of the waterfall model cannot be denied and so remains a common design process in industry (Powell-Morse, 2016).

3.1.2 Rapid Application Development (RAD)

Rapid Application Development is a concept that was born out of frustration with the Waterfall Model which often results in products that are out of date or inefficient by the time they are released (Rouse, 2016). Rouse goes on to explain that the term was inspired by James Martin, who worked with his colleagues to develop a new development method called Rapid Iterative Production Prototyping (RIPP) which in 1991, became the basis for RAD.

The main focus of RAD is speed, using strategies such as prototyping and iterative techniques. This method of development does have its risks however. One risk is that as the focus is on getting the development of the system done quickly, the development team often shortcut the need to define measureable outcomes. As a result of this coupled with constant meetings with clients, the requirements are always changing meaning that people can get lost in the development (Wood, 2002).

3.1.3 Agile Development

Agile development is a methodology that anticipates the need for flexibility and applies a level of realism into the delivery of the finished product. Agile allows everyone who is involved with the project to stay involved and informed, meaning that software can get to the market quicker (Rouse, 2017).

Agile development has different roles within its structure. These roles include the user, the owner of the product and the development team. The product owner is responsible for capturing the vision and works with the development team to deliver the vision to the user (Sacolick, 2018).

3.1.4 Conclusion

For the project, the Waterfall Model has been chosen as it is the best method based on what the project is looking to undertake. As there is a system already in place and the aim of the project is to make improvements, the requirements are well known and the project definition is stable (ISTQP Exam Certification, 2017).

3.2 Investigation Techniques

3.2.1 User Testing

User testing will involve users completing a variety of tasks throughout the system, to further highlight or identify different issues that may arise during use. Using research conducted into usability metrics and standards, the questions will be designed so that they are open and do not risk a bias answer from the participants (Appendix 2), as this will affect the validity and reliability of the findings and subsequent design decisions (Wyse, n.d.).

The method of testing chosen is ‘moderated usability testing’, used by people looking to obtain live data either in person or remotely (Babich, 2017). This allows real-time communication with participants which can be useful to gain additional feedback by encouraging participants to ‘think aloud’ (wikipedia, 2017).

When choosing participants, a method called ‘hallway testing’ has been chosen. This is a method where participants are selected at random meaning that you can identify problems in the early stages of a new design (Wikipedia, 2018). It is important to mention that the investigation does not completely conform to the idea of hallway testing as participants were informed before deciding whether or not to participate, what their participation would involve.

The number of participants varies depending on whether the research is qualitative or quantitative. As user testing will produce primarily numerical results, the investigation is a quantitative study. Jakob Nielsen recommends that you test with 20 users (Nielsen, 2006), allowing for 1 outlier as 6% of task attempts are extremely slow and constitute outliers in measured user performance.

3.2.2 Interviews

Interviews are a qualitative research method (Dudovskiy, 2017) and the format selected is ‘semi-structured’. The interview questions will be based on the System Usability Scale (Brooke, 1996) where participants will give a rating based on the level with which they agree with each statement (Appendix 3). This will produce a quantitative result, as well as feedback and comments which can be used when analysing the results.

According to Jakob Nielsen, what users say and ultimately do, are different (Nielsen, 2010). Nielsen also recommends ‘critical incident technique’ (CIT), where you encourage users to recall specific incidences where they had difficulty with something or something went particularly well. This method adheres itself to the semi-structured nature of the interviews as follow-up questions can be asked to obtain more detailed information.

4 Results

Upon completion of both user testing and subsequent interviews, the results were collected and analysed. Audio recordings were captured and then transcribed (Appendix 4) at the discretion of each participant (Appendix 1) to obtain their comments to further identify and provide solutions to problems with the current system. In total, results were collected from 14 participants. During user testing, participants were asked to rate the ease of completion of tasks at certain points. The rating system used consisted of numbers 0 to 5 (0 – Failure to Complete, 1: Very Difficult, 2: Difficult, 3: Neutral, 4: Easy, 5: Very Easy).

4.1 User Testing

4.1.1 Task 1: Login Procedure

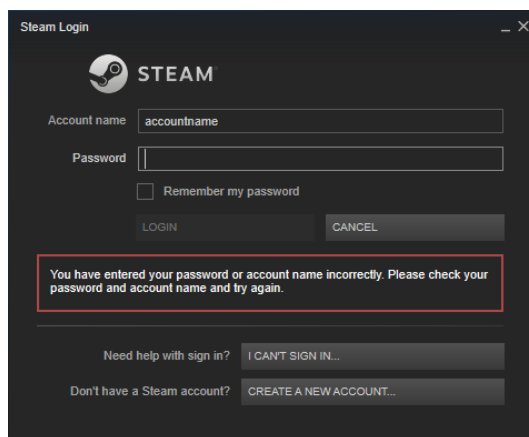


Figure 1: Steam error message on sign in

The overall opinion of the standard login procedure is that it is what they would expect having used other login systems, with a score of 4.9 given to reflect this. When a user enters the incorrect login details, they are presented with an error message (See Figure 1). When asked how

helpful this error message was, the score given was 3.3. Many users mentioned that they would like to have been told which of their details is incorrect, however stated that if someone was trying to hack into their account, they would prefer the system not to give too much away regarding this information.

4.1.2 Task 2: Steam Store

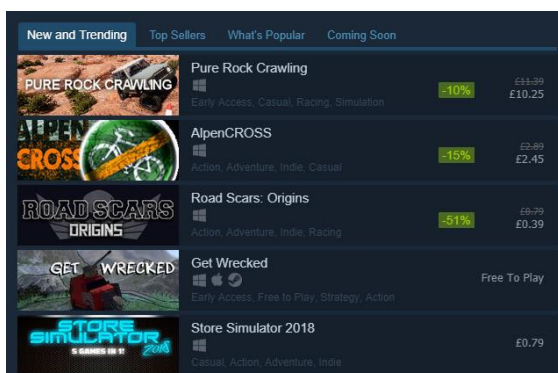


Figure 2: Steam Store - Racing Games

Participants were asked to find the game 'F1 2017' using Steam's category system. This task had mixed success, receiving a score of 3.1, based on the prior experience of each participant as well as Steam displaying a small portion

of games (new and trending, top sellers, etc.). Due to the fact that user testing occurred on multiple days, it was reasonable to expect that the games in each of these sections would change.



Figure 3: Steam Store - F1 2017

Next, users were asked to locate the price of the game and the number of DLC's (downloadable content) available for the game. The general opinion of this task was positive, with a score of 3.9. The main point made by many participants was that they felt the ordering of the sections on the page could be better.

4.1.3 Task 3: Steam Library



Figure 4: Steam Library Views



Figure 5: Steam Library - Change View

Each participant was first asked to review the 3 different view types (See Figure 4). By default, Steam displays detailed view and the user can change this by clicking on the option in the top right corner of the

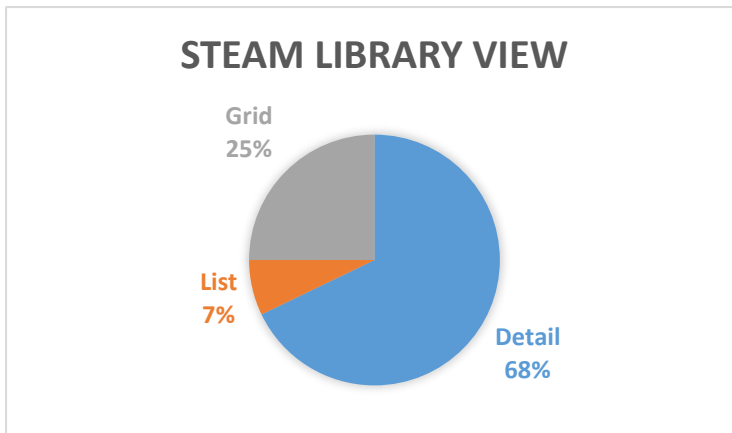


Figure 6: Pie Chart showing preferred Library Views

screen (See Figure 5).

Figure 6 shows a pie chart based on the type of view that each participant preferred. The results show that the most preferred view was

‘detailed view’, with ‘grid view’ coming second, and ‘list view’ coming last.

Next, participants were asked to locate a game in the list of games on ‘detailed view’. In general, this task was completed relatively easily, receiving an average rating of 4.1. The reason for this, mentioned by many of the participants, is that the games are listed alphabetically meaning that providing you know the name of the game you are looking for, you can scroll (if necessary) to the rough position in the list.



Figure 7: Steam Library - Friends Box

Next, participants were asked to critique the box that tells the user how many of their friends play that game and how many are online (See Figure 7). This task proved challenging due to the account used being a test account set

up for use in user testing only, meaning that the friends list was empty. With participants who had used Steam before, this was not so much of an issue as they could visualise this feature, however for users who had not used Steam, it was not so easy. When asked to comment on how Steam differentiates between ‘online’ and ‘currently playing the game’, the score given was 3.9.

Next, participants were asked to add a game to their list of favourites. Once again, this task had varying degrees of success, obtaining a score of 3.1, with some

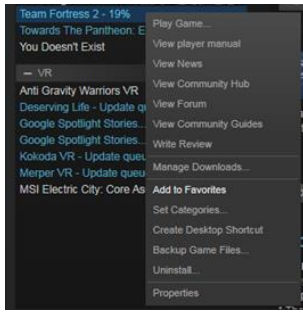


Figure 8: Steam Library - Right-click on game

users doing it straight away, whilst there were 2 users (Subject 11 and 13), who were not able to do it. When asked what they expected to see, 64% of users said that they were looking for either a star or symbol next to the title of the game, as they are used to associating this with the term ‘favourites’ on websites and browsers. Based on assumption only, some

users were able to ‘guess’ that they needed to right-click on the game title to bring up further options (See Figure 8).

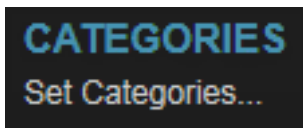


Figure 9: Steam Library - Right-hand options

Next, users were asked to assign a category to the game. Due to the similarity, this task scored a slightly higher average score of 3.9. However, the methods taken by each

participant was different. Those who were experienced with Steam went to the bottom right of the screen and clicked on ‘add category’ (See Figure 9), whereas those who either weren’t experienced or needed guidance on the previous task, opted to right-click on the game title as the same option is available there as well (See Figure 8).

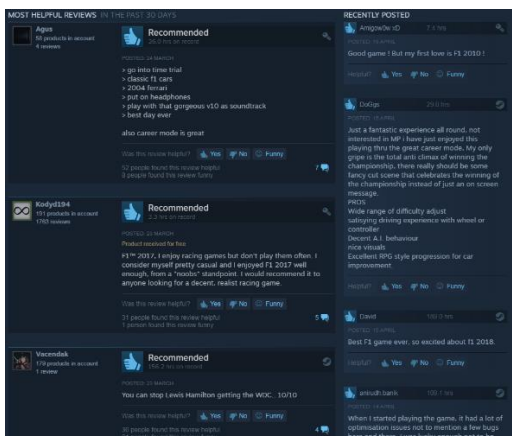


Figure 10: Steam Store - Reviews Section

Next, participants returned to the Steam Store, looking at the reviews section (See Figure 10). When asked how they feel about the overall look of the reviews section, the participants gave an average score of 4.1. In terms of the positioning of the reviews section on the page, most users stated that

they were used to reviews being at the bottom of a page, having used other websites.



Figure 11: Steam Store - Single Review

Finally, participants were asked to locate the date that a single review was posted (See Figure 11). All users were able to locate, giving an average score of 4. The location of the date within a single review is similar to that

of an Amazon review, which also displays the date and time below the title.

4.1.4 Task 4: Steam Community

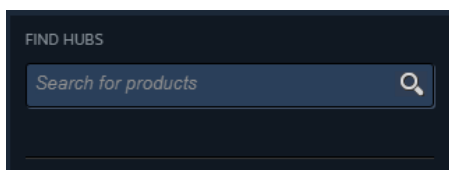


Figure 12: Community - Hub Search

Participants were asked to search for a hub using the search bar (See Figure 12). It would appear that Steam's search algorithm disregards numerical values. The average score given for this

task was 4.4, which was to be expected as it was reasonable to assume that all participants were familiar with search engines.

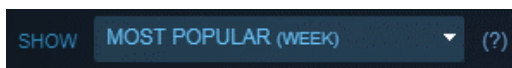


Figure 13: Steam Community - Video Filters

Next, participants were asked to find the most popular video of all time, requiring

the filters at the top of the page (See Figure 13). This task received a largely positive result, averaging 4.2.

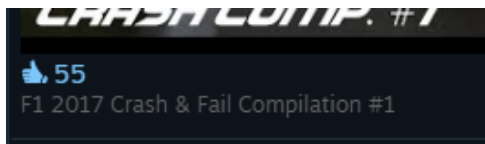


Figure 14: Steam Community - Video 'likes'

Next, participants were asked to find how many 'likes' the video had. This was also very positive, scoring an average of 4.6. When

asked how they felt about the 'thumbs up' symbol being used to signify 'likes' (See Figure 14), most users stated that they felt this was reasonable as most other social media platforms use either a 'thumbs up' symbol (such as Facebook), or a 'heart' symbol (such as Twitter).

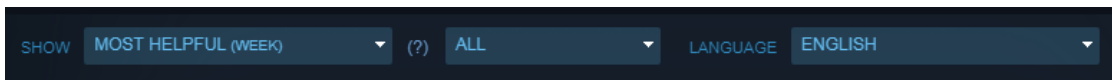


Figure 15: Steam Community - Review Filters

Next, participants were asked to find the most recent, positive review. This involved them changing 2 filters so that only positive reviews were shown, as well as ordering them by most recent (See Figure 15). As with the previous task, the results were positive with an average of 4. The one comment that was made by many participants was that the filter where you would select the type of review (positive, negative), is not obvious as the default option is ‘all’.



Figure 16: Steam Community - Review (Account Name)

Next, participants were asked to find the account name of the top review (See Figure 16). This was very successful, achieving an average score of 4.4. Participants were also asked about the positioning of the account name within the review itself, to which 6 people said that they would have expected it to be at the top as is the case with websites such as Facebook.

4.1.5 Task 5: Steam Profile

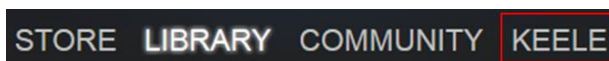


Figure 17: Steam Profile - Link

Before completing tasks, participants were asked whether they knew that the link at the top of the screen would mean ‘profile’ as Steam displays the account name (See Figure 17). Subject 1 mentioned that using the word ‘profile’ would be a lot easier for users to associate with.

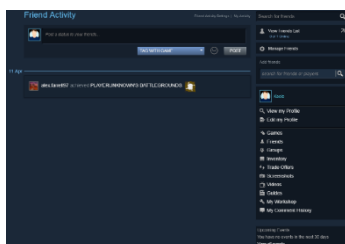


Figure 18: Steam Profile - Homepage

First, participants were asked to comment on whether the screen that appeared (See Figure 18), would normally be associated with the term ‘profile’. 79% of

participants did not expect to see the screen that appeared which according to Subject 10, is more like a newsfeed such as Facebook.



Figure 19: Steam Profile - Edit Profile Button

Next, participants were asked to locate the ‘edit profile’ option on the right-hand side of the screen (See Figure 19). This proved relatively easy overall with an average score of 4.8 and 11 people

giving the maximum score.



Figure 20: Steam Profile - Input Support

Next, participants were then asked to change a number of details about the profile including the profile name, profile picture and the summary. This task was very easy for

most users with an average score of 4.9. Subject 1 mentioned that if you are unsure about what a particular field is asking, there is a ‘?’ symbol (See Figure 20) next to the text box that explains what is required.

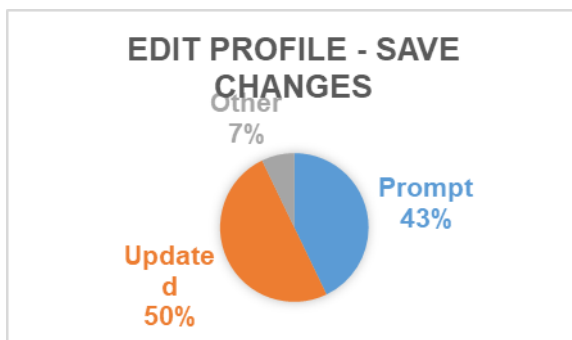


Figure 21: Pie Chart showing preference when updating profile

Finally, participants were asked to explain what they would expect to see when they click ‘submit’. The graph (See Figure 21) shows that 50% of people prefer to see their updated profile, however 43% of people prefer

to see a prompt, which is the method that Steam currently uses.

4.2 Interviews

Participant	1	2	3	4	5	6	7	8	9	10
Subject 1	5	4	4	3	4	2	4	5	5	3
Subject 2	4	2	4	1	4	4	4	3	3	2
Subject 3	4	3	3	3	4	5	3	3	4	3
Subject 4	5	3	5	1	5	5	4	3	5	2
Subject 5	4	1	4	1	4	5	5	3	5	1
Subject 6	5	4	5	2	5	4	3	3	4	2
Subject 7	4	2	4	3	2	2	4	4	5	2
Subject 8	4	3	4	2	5	4	4	2	5	2
Subject 9	5	2	4	2	5	4	4	4	2	2
Subject 10	5	2	4	2	5	3	4	3	5	2
Subject 11	4	2	5	4	5	5	5	2	4	2
Subject 12	5	1	4	1	5	5	4	1	5	2
Subject 13	5	2	2	2	4	4	4	4	3	3
Subject 14	4	5	5	4	5	4	4	1	5	2

Figure 23: Table of results from SUS

The interviews took place once each participant had completed the user testing. The questions were formulated from John Brooke's System Usability Scale (SUS) (Brooke, 1996). Each participant was asked these questions then required to give a rating from 1 to 5 (1 – completely disagree, 5 – completely agree). Figure 23 shows the results for each participant, for each question of the SUS.

Participant	1	2	3	4	5	6	7	8	9	10
Subject 1	4	1	2	3	3	3	3	0	4	2
Subject 2	3	3	3	4	3	2	3	2	2	3
Subject 3	3	2	2	2	3	1	2	2	3	2
Subject 4	4	2	4	4	4	0	3	2	4	3
Subject 5	3	4	3	4	3	0	4	2	4	4
Subject 6	4	1	4	3	4	1	2	2	3	3
Subject 7	3	3	3	2	1	3	3	1	4	3
Subject 8	3	2	3	3	4	1	3	3	4	3
Subject 9	4	3	3	4	4	1	3	2	1	3
Subject 10	4	3	3	3	4	2	3	2	4	3
Subject 11	3	3	4	1	4	0	4	3	3	3
Subject 12	4	4	3	4	4	0	3	4	4	3
Subject 13	4	3	1	3	3	1	3	1	2	2
Subject 14	3	1	3	1	4	1	3	1	4	3

Figure 22: Table of adjusted results from SUS

As per Brooke's guidelines, the results for each question then needed to be manipulated as scores for individual items are not meaningful on their own (Brooke, 1996). For questions 1, 3, 5, 7 and 9, the score contribution is the current score minus 1. For questions 2, 4, 6, 8 and 10, the contribution is 5 minus the current score (See Figure 22).

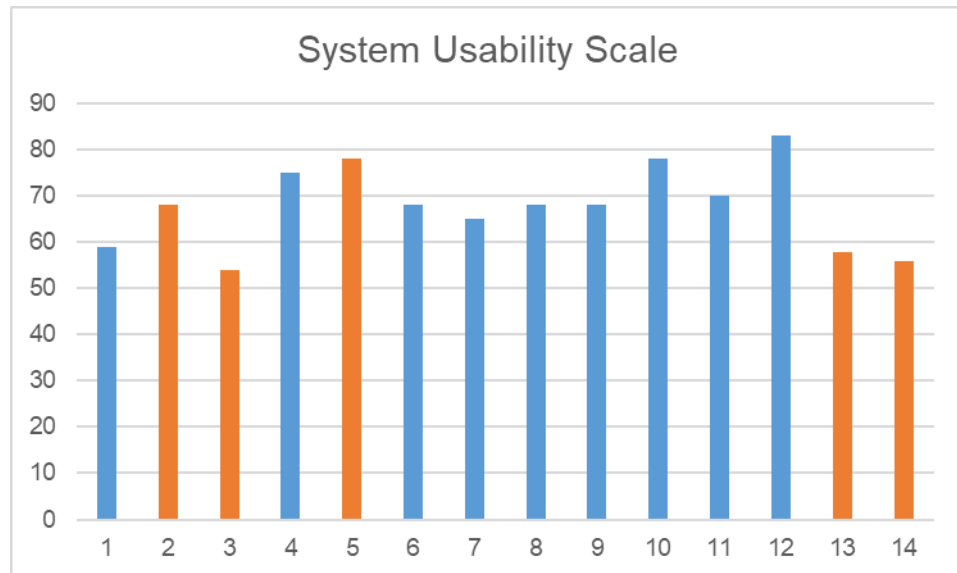


Figure 24: Graph showing final results of SUS

Once the results had been adjusted, the scores for each question were added together then multiplied by 2.5 to obtain an overall value (See Figure 28). The blue bars on the graph represent participants who have used Steam before and those in orange represent participants who are new to the system. In general, experienced users gave an average score of 68.2 on usability, whereas inexperienced users gave an average score of 62.8. It was to be expected that that score for inexperienced users would be lower given that it is the first time they have used the system, backed up by comments made by these participants hinted that they feel their score would be higher if they had used the system for a while. Therefore, it is reasonable to conclude that Steam needs to focus improvements on making it easier for new users to understand.

5 Discussion & Design

Once results have been collected and analysed, a list of problems was drawn up. After analysis of comments made by the participants, solutions were created to rectify the problems. As stated, the project focuses on client-side, front-end development so in order to keep within scope, it will not be possible to rectify every issue through a design. The solutions that can be achieved through front-end development, have been implemented in wireframe designs (Appendix 5).

5.1 The General System

There are issues that focus on the general look and performance of the overall system. These areas of the interface are those that are visible, no matter which section of Steam a user is looking at.

5.1.1 Main Navigation Manager

The investigation discovered that it was not obvious to users that the links on the main banner at the top of the page activated dropdown menus. It is encouraged to provide visual indicators to let the user know that a sub-menu exists (Rocheleau, 2017). One solution to this is to include an arrow underneath the name of the link. This solution has been chosen for the mock-up design (See Figure 25), meaning the user will still be able to click on the link name and the hover animation will still exist to reveal the menu.



Figure 25: Mock-up Navigation Banner

When participants were asked to click on the profile, the current interface shows the account name which is the same as social media sites such as Facebook, however

Facebook shows the profile picture next to the account name. In order to keep design consistency with the Steam interface, this is not a preferred option, therefore, as shown in Figure 25, the word 'Profile' has replaced the account name.

5.2 Login Procedure

Overall, the standard login procedure produced no errors during the investigation. However, many participants mentioned that the error message that appears as well as the process required to recover a password is not as straightforward as it could be. As explained in the investigation, the error message is a compromise with security as a user would not want Steam to give too much information away if someone is trying to hack into your account.

Account recovery is something that can be improved however. The way in which Steam currently deals with account support is useful as it offers many different options, however social media sites such as Twitter, have a dedicated link usually labelled 'forgot password', as this is the most common reason for unsuccessful login. Therefore, the mock-up that has been created to rectify this issue (See Figure 26), included a button that will take the user directly to the page that already exists which will allow the user to reset their password.

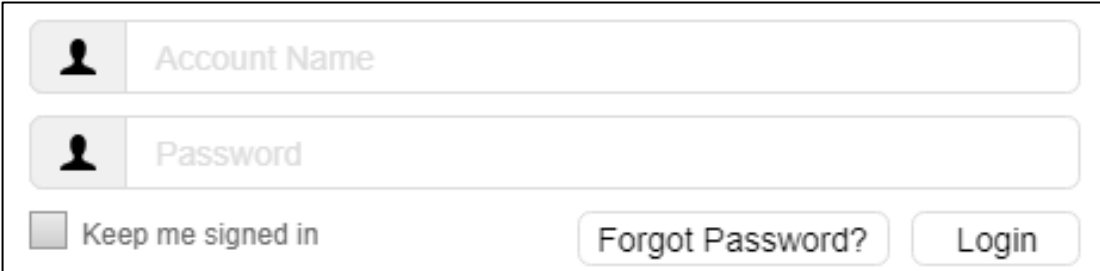
A mock-up of a login form. It features two input fields: the top one is labeled 'Account Name' and the bottom one is labeled 'Password'. Both fields have a small person icon on the left. Below the 'Password' field is a checkbox labeled 'Keep me signed in'. To the right of the checkbox are two buttons: 'Forgot Password?' and 'Login'.

Figure 26: Mock-up Login - Forgot Password

5.3 Steam Store

The Steam store is a separate website that is requested by the Steam Client internal browser, which means that its implementation would be slightly different. However, when investigated, a number of issues were identified by both new and experienced users.

5.3.1 Category System

Many participants commented that the categories that are available on the Steam Store homepage are either too broad or do not relate to games you would expect. For example, one participant mentioned that when they selected a category they expected to bring up a racing game, the game did not appear. In terms of solving this problem, a viable solution does not exist from a client-side, front-end development perspective, meaning that the solution to this is not possible within the scope of the project.

5.3.2 Ordering of Sections on Product Page

The investigation uncovered issues with the ordering of elements on the product page. Participants mentioned that they would like to see some sections before others, however each participant wanted to see different things in different orders. Therefore, the best solution to satisfy this is to offer an option to users whereby they can choose their preferred order of the elements and hide elements if necessary.

One solution involves a server-side implementation which, again is out of scope of the project. The solution would be to save user preferences against the record in the database that is associated with that user. This means that the order preferences will be available and loaded on any device the user logs into their account on.

5.3.3 Amount of Information

Following on from the previous section, there is some information that some users do not want to see all the time. For example, if a user owns a high-end gaming system, it is likely that they will be able to buy and run most games on the store without any issues. These users will therefore not need to see the ‘system requirements’ section that often.

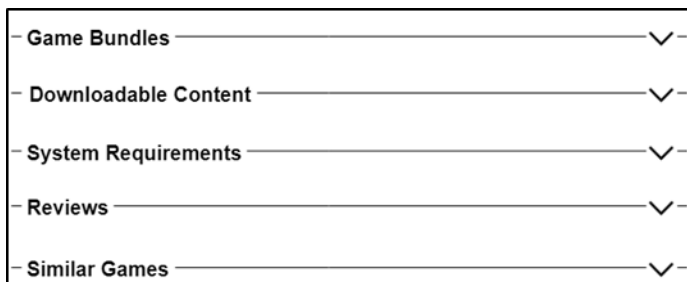


Figure 27: Mock-up Collapsible Sections

The solution that has been chosen is to implement collapsible menus (See Figure 27) so that users can click on a section to view information at

their desire. By doing this, it means that users will not have to scroll past information that is not relevant to them in order to get to where they want to be.

5.3.4 User Reviews Overview

At the time of investigation, the Steam Store displayed an overall score of the reviews given by users, of the product on the page. The rating was highlighted a different colour, however when clicked on, nothing happened. Some participants mentioned that when they click on it, they would expect to be taken to the reviews section on the page, as is the case with websites such as Amazon. After reviewing this section at a later date, Steam have now implemented this feature. For the purpose of the project, this feature will be implemented to show proof of concept.

5.4 Steam Library

The Steam Library is the only section of Steam that is independent of the Steam website, thus was the only section of the Steam Client that was produced upon creation.

Its design follows the same design patterns as the website, therefore can be evaluated using the same or similar criteria.

5.4.1 Change View

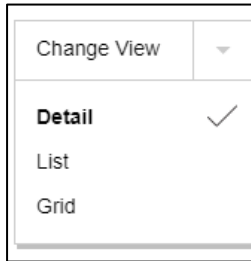


Figure 28: Steam Library Change View dropdown - Mock-up Design

Currently, the Steam Library displays 3 small icons in the top-right corner of the screen which allows the user to select their preferred method of viewing games. The investigation showed that even some experienced users did not know that this feature existed or if they did, didn't know where to find it. Therefore, it is

clear that this feature needs to be more obvious. A solution to this is to implement a dropdown box (See Figure 28) that is contrasted in colour to the rest of the page, making it clearer and more visible to the user. Steam already saves a user's view preference therefore there is no server-side implementation that would hinder the alteration of this feature.

5.4.2 Size of Text in Game List



Figure 29: Mock-up Library Text Size Option

It is a W3C standard to implement a feature that allows users to incrementally change the size of all text on a page up to 200% (W3C, 2016). In order to conform to this standard, the implementation of an option to change the size of the text will be executed (See Figure 6). As well as conforming to the standard, it will solve the issue which was highlighted during the investigation which was that for users who have a lot of games, with small text, it can be easy to scroll past the game you are looking for.

5.4.3 Ordering of Game in List

In the Steam Library, games are organised alphabetically by default. Although many participants deemed this an acceptable method of ordering the games, the sorting

algorithm implemented does not take into account definite articles such as ‘the’. This means that if someone has a lot of games beginning with the same definite article, it may be difficult to find if the user disregards these words when browsing.

A possible solution to this involves a JavaScript function which involves ‘if’ statements which will remove specified words from a string, and then sort the list of games after this. Websites such as Spotify use a similar method for sorting songs alphabetically using the first significant word.

5.4.4 Adding a Game to Favourites and Other Features

Currently, the user has to right-click on the game title to access the favourites feature. Although most experienced users are aware that this is the process required to access this feature, almost all participants explained that they expect to see a star symbol next to the game title, similar to how you would add a website to favourites in browsers such as Google Chrome.

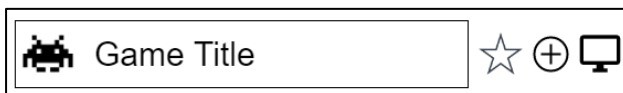


Figure 30: Mock-up - 'Add to Favourites' and other features

As well as favourites, Steam offers other features such as splitting games into categories and

adding desktop shortcuts. The mock-up designs displays these options were users expected to see them (See Figure 30). This means that not only will current users be able to achieve these tasks quicker, new users will be instantly aware that these features exist, allowing them to utilise more features that Steam has to offer.

5.5 Steam Community

Similar to the Steam Store, the Steam Community is a website requested from the browser built into the Steam Client. There were not many problems identified from

this section, however there were some small aspects that users thought could be improved.

5.5.1 Website Location on-click of ‘Community’

When the user clicks on the ‘Community’ link at the top of the screen, they are taken to the previous page they were viewing rather than the homepage. Although in some cases this may be useful if you accidentally click off the page you were looking at, some participants explained that they expected to be taken to the homepage of the community upon clicking on this.

5.5.2 Content Filters

On each of the sections of the community, the user has the option to filter the results to show different ratings and times that items were posted. Although most filters are obvious what they are based on either a label or what the default option is, there are a few that have a default value of ‘all’ and a label saying ‘show’. By deduction, you could deduce what the purpose of that filter is, however it should be more obvious what the intention is. One solution to this could be to include labels that appear when you hover over the filter box which explain what the filter does. This can be achieved within HTML using the ‘title’ attribute within the creation of an object.

5.5.3 Community Post

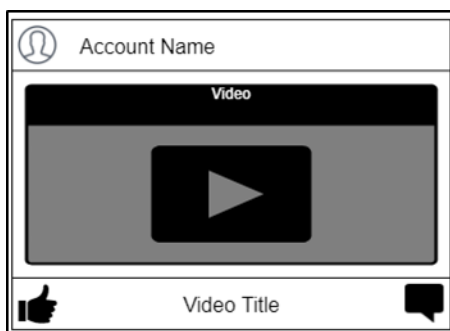


Figure 31: Mock-up - Community Video Post

The layout of a post on the community displays the account name and profile picture, underneath the content of the item. Although the focus should be on the content of the item itself, the positioning of a profile picture and profile name on other websites such as Facebook, and the

positioning within the mock-up design, is the top-left of the item (See Figure 31). The reason for this is that pictures generally have square dimensions. Couple this with the visual interest of an image, make it a more natural anchor to lead a user into the content. (Quora, 2015).

5.6 Steam Profile

As is the case with the Steam Store and Steam Community, the user profile is also requested to the Steam Client internal browser. Once again, there were not many problems identified with this section as it is standard to what users would expect on other websites that have profiles such as Facebook. However, as was the case with the Community, there are some small aspects that could be improved.

5.6.1 ‘Profile’ Screen

When a user clicks on the ‘Profile’ link at the top of the screen, most users were expecting to be taken to their actual profile. Instead, the screen that appears is similar to that of a news feed like you would see on Facebook.



Figure 32: Mock-up
Profile Newsfeed Preview

The solution chosen is to change the screen that appears by default to the user profile. A snippet of the news feed should be viewable on the profile so that the user is aware that the newsfeed exists, with a button which will take the user to their full newsfeed (See Figure 32).

5.7 Conclusion

The problems that have been identified and discussed cover a range of issues from simple aesthetics’ to performance and efficiency. The aim of the proposed

solutions that have been highlighted in the designs look at improving the interpretations of the 5 measures of usability specified by Jakob Nielsen that are learnability, efficiency, memorability, errors and satisfaction (Nielsen, 2012).

6 Conclusion

At the beginning of the project the aims were set out to see if the Steam Client conforms to industry standard usability guidelines and whether or not the usability could be improved. As the Steam Client is classified as a digital distribution platform (Wikipedia, 2018) and is predominantly web-based, the research undertaken consisted of academic papers, as well as various usability standards and metrics such as the System Usability Scale (Brooke, 1996).

The first aim was to see whether the current Steam Client followed the guidelines and metrics uncovered through the research. In some ways it does, however with particular reference to Jakob Nielsen's 10 usability heuristics (Nielsen, 1995), there was definite room for improvement.

The next aim was to get the opinions of real users both new and experienced. Research into usability testing methods, along with how to prepare and conduct user testing, meant that the investigation was both fair and informative. Particular attention was paid when preparing the resources for user testing as the investigation wanted both quantitative results, achieved by employing a Likert Scale for gauging participant responses, and qualitative results so that issues identified could be evidenced in detail. Upon analysis of results, the dataset obtained provided a good summary of the overall performance and the feedback and comments provided detailed evidence as to why and how issues were raised.

The final aim was to design mock-up interfaces which would hopefully rectify issues identified from both research and the investigation. The design for these interfaces only went as far as wireframes. It would have been further beneficial to

convert wireframe designs into semi-functional web-based solutions, however after evaluation of the issues raised from the investigation, there were numerous issues, whose solutions would have fallen out of scope of the project as the project was only looking at usability from a client-side, front-end development perspective. Therefore the decision was made to stop after the wireframes as there would have been no further advantage to producing web-based mock-ups.

The wireframes produced, although limited in functionality, did prove that the usability of the Steam Client can be improved, even if problems are only rectified on a purely client-side perspective. On the contrary, the project also proves that more consideration should be taken from the start that solutions would fall out of scope of the project and so the research and investigation should be tailored so that the focus is purely on client-side, or the project should widen its scope to allow for further improvements to be made, to create a more complete and ultimately usable system.

7 References

-
- Abran, A., Khelifi, A. & Suryan, W., 2003. Usability Meanings and Interpretations in ISO Standards. *Software Quality Journal*, 11(4), pp. 325-338.
- Abras, C., Maloney-Krichmar, D. & Preece, J., 2004. *User-Centred Design*, s.l.: Sage Publications.
- Babich, N., 2017. *The Top 5 User Testing Methods*. [Online] Available at: <https://theblog.adobe.com/the-top-5-user-testing-methods/> [Accessed 16 April 2018].
- Bailey, D., 2017. PC accounted for 28% of the game market in 2017. *PC Games News*, 20 December.
- Bell, T. E. & Thayer, T. A., 1976. *Software Requirements: Are They Really The Problem?*. [Online] Available at: https://static.aminer.org/pdf/PDF/000/361/405/software_requirements_are_they_really_a_problem.pdf
- Brooke, J., 1996. SUS: a 'quick and dirty' usability scale. In: *Usability Evaluation in Industry*. s.l.:s.n., pp. 189-194.
- Conrad, F., 2008. *Usability and Voting Technology*, Michigan: Bureau of Labor Statistics.
- Dardailler, D., 2009. *WAI History*. [Online] Available at: <https://www.w3.org/WAI/history> [Accessed 2 April 2018].
- Dudovskiy, J., 2017. *interviews - Research Methodology*. [Online] Available at: <https://research-methodology.net/research-methods/qualitative-research/interviews/> [Accessed 27 March 2018].
- Gray, J., 2014. The race for video game innovation. *World Finance*, 21 January.
- ISO, 2010. *ISO 9241-210:2010(en), Ergonomics of human-system interaction — Part 210: Human-centred design for interactive systems*. [Online] Available at: <https://www.iso.org/obp/ui/#iso:std:iso:9241:-210:ed-1:v1:en> [Accessed 2 April 2018].
- ISO, 2017. *ISO/IEC 25010:2011 - Systems and software engineering -- Systems and software Quality Requirements and Evaluation (SQuaRE) -- System and software quality models*. [Online] Available at: <https://www.iso.org/standard/35733.html> [Accessed 30 March 2018].

ISTQP Exam Certification, 2017. *What is Waterfall model- advantages, disadvantages and when to use it?*. [Online]
Available at: <http://istqbexamcertification.com/what-is-waterfall-model-advantages-disadvantages-and-when-to-use-it/>
[Accessed 17 April 2018].

Munassar, N. M. A. & Govardhan, A., 2010. A Comparison Between Five Models of Software Engineering. *International Journal of Computer Science Issues*, pp. 94-101.

Nielsen, J., 1993. *Usability Engineering*. s.l.:s.n.

Nielsen, J., 1995. *10 Usability Heuristics for User Interface Design*. [Online]
Available at: <https://www.nngroup.com/articles/ten-usability-heuristics/>
[Accessed 17 April 2018].

Nielsen, J., 2005. Usability for the Masses. *JUS - Journal of Usability Studies*, pp. 2-3.

Nielsen, J., 2006. *Outliers and Luck in User Performance*. [Online]
Available at: <https://www.nngroup.com/articles/outliers-and-luck-in-user-performance/>
[Accessed 17 April 2018].

Nielsen, J., 2010. *Interviewing Users*. [Online]
Available at: <https://www.nngroup.com/articles/interviewing-users/>
[Accessed 16 April 2018].

Nielsen, J., 2012. *Usability 101: Introduction to Usability*. [Online]
Available at: <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>
[Accessed 17 April 2018].

Nielsen, J., Norman, D. & Tognazzini, B., 2014. *Task Scenarios for Usability Testing*. [Online]
Available at: <https://www.nngroup.com/articles/task-scenarios-usability-testing/>
[Accessed 3 April 2018].

Powell-Morse, A., 2016. *Waterfall Model: What Is It and When Should You Use It?*. [Online]
Available at: <https://airbrake.io/blog/sdlc/waterfall-model>
[Accessed 26 March 2018].

Quesenberry, W., 2005. *Usability Standards: Connecting Practice Around the World*. s.l., s.n.

Quora, 2015. *Why are "profile pictures" always on the left hand side of the screen?*. [Online]
Available at: <https://www.quora.com/Why-are-profile-pictures-always-on-the-left-hand-side-of-the-screen>
[Accessed 17 April 2018].

Rocheleau, J., 2017. *UX Design Tips For Dropdown Navigation Menus*. [Online] Available at: <https://designmodo.com/ux-dropdown-navigation-menus/> [Accessed 17 April 2018].

Rouse, M., 2016. *rapid application development (RAD)*. [Online] Available at: <https://searchsoftwarequality.techtarget.com/definition/rapid-application-development> [Accessed 17 April 2018].

Rouse, M., 2017. *Agile Software Development*. [Online] Available at: <https://searchsoftwarequality.techtarget.com/definition/agile-software-development> [Accessed 17 April 2018].

Sacolick, I., 2018. *What is agile methodology? Modern software development explained*. [Online] Available at: <https://www.infoworld.com/article/3237508/agile-development/what-is-agile-methodology-modern-software-development-explained.html> [Accessed 17 April 2018].

Speicher, M., 2015. *What is Usability?*, s.l.: s.n.

SQA, n.d. *ISO 9126 Software Quality Characteristics*. [Online] Available at: <http://www.sqa.net/iso9126.html> [Accessed 2 April 2018].

Statista, 2018. *Number of peak concurrent Steam users from November 2012 to January 2018 (in millions)*. [Online] Available at: <https://www.statista.com/statistics/308330/number-stream-users/>

Toivonen, S. & Sotamaa, O., 2010. *Digital distribution of games: The players' perspective*, s.l.: s.n.

usability.gov, n.d. *User-Centered Design Basics*. [Online] Available at: <https://www.usability.gov/what-and-why/user-centered-design.html> [Accessed 2 April 2018].

Valve, 2018. *Valve*. [Online] Available at: <http://www.valvesoftware.com/company/> [Accessed 17 April 2018].

W3C, 2016. *G178: Providing controls on the Web page that allow users to incrementally change the size of all text on the page up to 200 percent*. [Online] Available at: <https://www.w3.org/TR/WCAG20-TECHS/G178.html> [Accessed 17 April 2018].

W3C, 2018. *Web Accessibility Initiative (WAI)*. [Online] Available at: <https://www.w3.org/WAI/> [Accessed 2 April 2018].

wikipedia, 2017. *Think aloud protocol*. [Online]
Available at: https://en.wikipedia.org/wiki/Think_aloud_protocol
[Accessed 3 April 2018].

Wikipedia, 2018. *Steam (software)*. [Online]
Available at: [https://en.wikipedia.org/wiki/Steam_\(software\)](https://en.wikipedia.org/wiki/Steam_(software))
[Accessed 17 April 2018].

Wikipedia, 2018. *Usability Testing - Wikipedia*. [Online]
Available at: https://en.wikipedia.org/wiki/Usability_testing#Hallway_testing

Winter, S., Wagner, S. & Deissenboeck, F., 2008. *A Comprehensive Model of Usability*, München: s.n.

Wood, M., 2002. *Rapid Application Development - Risks*. [Online]
Available at: <https://www.projectmanagement.com/discussion-topic/3769/Rapid-Application-Development---Risks>
[Accessed 17 April 2018].

Wyse, S., n.d. *Bias in Research*, s.l.: s.n.

8 Appendix

Appendix 1 – User Testing Consent Form

INFORMATION SHEET		
Study Title To what extent have Valve adhered to usability standards when designing the Steam Client?		
Aims of the Research <ul style="list-style-type: none">• Evaluate whether the current Steam Interface conforms to relevant usability standards, set out by in-depth research into usability standards relating to digital distribution platforms.• Identify issues with the current interface through this research, as well as user feedback.• Design and develop potential mock-up solutions that should rectify the problems identified.• Test whether the mock-ups rectify the problems.• Compare/ contrast mock-ups against current design.		
Invitation <p>You are being invited to consider taking part in the research study: 'To what extent have Valve adhered to usability standards when designing the Steam Client?'. This project is being undertaken by Alex Farrell.</p> <p><i>Steam is a multiplayer platform developed by Valve Corporation. It is used to distribute games and other forms of media online. The Steam Client included a digital storefront (Steam Store), which users can use to purchase games and software. Once a game is bought, a software license is attached to a user's Steam account, allowing them to download the software on multiple devices.</i></p> <p>Before you decide whether you wish to take part, it is important for you to understand why this research is being done and what it will involve. Please take time to read this information carefully and discuss it with friends and relatives if you wish. Ask me if there is anything that is unclear or if you would like more information.</p>		
Why have I been invited? <p>You have been chosen to take part in this investigation because a critical part of testing the usability of computer software, is obtaining feedback from real users about various attributes such as navigation, interface design, help & support, etc.</p> <p>For this study, it is important that a range of users from experienced users of Steam, to those who have never used Steam before, so don't worry if you're new to it.</p>		
Do I have to take part? <p>You are free to decide whether you wish to take part or not. If you do decide to take part, you will be asked to sign two consent forms, one is for you to keep and the other is for my records. You are free to withdraw from this study at any time and without giving reasons.</p>		
What will happen if I take part? <p>If you decide to take part, you will be given a list of 5 tasks to complete on Steam. The time you take to complete each task will be recorded. Once all the tasks have been completed, there will be a short, 1 on 1 discussion between yourself and the researcher (Alex Farrell), to get your feedback on how usable you felt the system was.</p>		
Version No: 2 Date: 07/11/2017 1 for participant, 1 for researcher	Page 1 of 3	ERP27314

How will information about me be used?

The researcher will be taking an audio recording of the 1 on 1 discussion so that he can analyse your feedback. This recording will only be accessible by the researcher for the purpose of this study. Once he has extracted your feedback from this recording, the audio file will be deleted.

Who will have access to information about me?

The responses you provide in the discussion will be stored on a password-protected document, only accessible the researcher. These responses will be referenced anonymously in his project report. On completion of the study, your information will be kept in a locked filing cabinet on the Keele University Campus.

What if there is a problem?

If you have any concerns about any aspect of this study, you may wish to speak to the researcher who will do their best to answer your questions. You should contact Alex Farrell on w4s22@students.keele.ac.uk.

If you remain unhappy about the research and/or wish to raise a complaint about any aspect of the way that you have been approached or treated during the course of the study please write to Nicola Leighton who is the University's contact for complaints regarding research at the following address:

Nicola Leighton

Research Governance Officer

Research & Enterprise Services

Dorothy Hodgkin Building

Keele University

ST5 5BG

E-mail: n.leighton@uso.keele.ac.uk

Tel: 01782 733306

CONSENT FORM

Title of Project

To what extent have Valve adhered to usability standards when designing the Steam Client?

Name and Contact details of Principal Investigator

Alex Farrell, w4s22@students.keele.ac.uk

**Please tick the box if you
agree with the statement**

1. I confirm that I have read and understood the information sheet dated 07/11/2017 (version 1) for the above study and have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time. ☐
3. I agree to take part in this study. ☐
4. I understand that data collected about me during this study will be anonymised before it is submitted for publication. ☐
5. I agree to the interview/ discussion being audio recorded. ☐
6. I agree for any responses I give during the discussion to be anonymously referenced. ☐

Name of Participant

Date

Signature

Researcher

Date

Signature

Version No: 1

Page 3 of 3

ERP27314

Date: 07/11/2017

1 for participant, 1 for researcher

Appendix 2 – User Testing Questions

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport
 - Realistic
 - Simulation
 - Racing
 - Multiplayer
3. How easy did you find it to find the game? (0 – 5)
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for either:
 - F1 2017
 - Team Fortress 2
 - Player Unknown's Battlegrounds

- Minecraft Story Mode: Series 2
 - Garry's Mod
3. How easy were you able to find the community hub? (0 – 5)
 4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
 5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele / Squirrel
 - Profile picture: Profile / Squirrel
 - Summary: This is my profile / I edited my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes? Either:
 - a) Same page
 - b) Profile page
 - c) Other

Appendix 3 – Interview Questions (SUS)

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
 - Comments
2. How unnecessarily complex did you find the system?
 - Comments
3. How easy did you feel the system was to use?
 - Comments
4. How much assistance do you think you will need to use the system?
 - Comments
5. How well do you feel the system was put together?
 - Comments
6. How consistent do you feel the system was laid out?
 - Comments
7. How quickly does you / a new user feel you were able to learn the system?
 - Comments
8. How awkward do you feel the system is to use?
 - Comments
9. How confident did you feel when using the system?
 - Comments
10. How much technical knowledge do you feel you would need to use the system?
 - Comments

Appendix 4 – Investigation Transcriptions

Subject 1

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)

I guess for security reasons it won't tell you which one is wrong, but it doesn't pop up saying something like 'forgotten password' or 'forgotten username', it just says 'do you need help with signing in?'.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Login procedure is relatively easy, but I don't like the 'Steam News' that has popped up in front of me because I have no interest in any of this 'Midweek Madness'. It's kind of useless.

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer

It is not appearing. Clearly there is a problem with the tags because that was a racing sport game, yet it still didn't show up because it is not a great system and there is no actual order to the tags on the side and the fact that I am searching for the tag using 'Ctrl + F' says a lot about Steam.

I could find similar games through 'Project Cars'. No, it does not appear which is not great either. There is one that appears, 'F1 2014' so I am going to go to that. If I scroll down to the 'F1 bundle franchise', I can see 'F1 2017'.

So, you can't find it using the tags, even though on the game page, it states that the popular user defined tags are racing, sport, simulation, multiplayer and driving.
3. How easy did you find it to find the game? (0 – 5)

It was very painful to find and if I wasn't a very experienced Steam user, I wouldn't have been able to find the game.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

I just scrolled down it was quite easy. Steam is clearly a website. The Steam interface seems to operate like a browser but as you can tell it's in the middle of the screen. It's not a very responsive design. I would like to have the 'about this game' before the 'reviews' and 'downloadable content' because if I see this game, I'd want to know about it more, I don't care about buying the rest of the games. The updates should probably come around third in the list. You should have 'about game' then 'reviews' so the general order isn't great. The system requirements should be quite high up as well

How would you feel about the page being tab-based or dropdown-based?

I like being able to scroll through the information as one page, however you should be given the option to hide information you can't see. For example, I'm not interested in system requirements as I know I can run most games on the market so if I wanted to look at it, I would want to pull it up myself. I don't care about the updates or update patches, I only care about the reviews and the actual information about the game DLC's. I don't want to see the deals on the bundles as this is the first time I've gone onto this, so the chances are, I'm not going to buy the entire 'Code masters collection'.

How would you feel about a 'store preferences' option so you could choose what appears?

If you could have an ordering system whereby you choose the order you want and what you feel is most important to you. I think the collapsible menus are a good idea but as it stands its ok, it just needs ordering better.

Task 3 – Steam Library

5. Go to the Steam Library area
6. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)

I didn't know there were different layouts. Looking for a game I would use detailed view. Using list view, there is the same problem as before where it floats to the edge of the screen. There is lots of blank space in the middle. Using grid view, I feel it's more of a TV thing that is more suited to Steams 'Big screen' view. I wouldn't personally use it, but I guess it is more suitable for people who have problems reading.

With detailed view, I think there is a massive issue at the top where you have the search bar. I know if I click on 'games' it changes the category of search, but it doesn't look like a button because if you click off it looks like a search term as it reads 'search games'. It should look more like a button
7. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?

Easy as it's alphabetical. Then again, saying that if the game starts with 'the', it might be difficult to find as it is a generic word and people sometimes disregard generic words. It might cause a problem for some people; however, I am used to it.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)

When I clicked on the menu, it tells me friends who own this game and friends who are currently playing this game.
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)

I'm going to assume I can right click as there is no actual option. I can see it has added a category called favourites which is great but when I think of categories, I think of things like first person shooter, not favourites. There is room for improvement.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)

It is there under categories. It doesn't look like a button, it's just text again but I think you would figure it out eventually.
8. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)

They are right at the end. That is poorly designed. I was looking for it and I could see 'user reviews very positive'. If I click on this it should take me to the positive reviews, instead the reviews are right at the bottom. The reviews should be higher up.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

It was right below the recommended header. Once you find the reviews, it's quite easy. I would like to point out that there is a text box which houses comments relating to that review, but it is quite out of the way. I know it's a generic icon, but it should just say number of comments.

Task 4 – Steam Community

6. Go to the Steam Community
So, as you can tell, I clicked on 'community' and it has taken me back to the reviews for 'team fortress 2'. If I click 'community' I shouldn't have to click it twice to go to the homepage.
7. Using the search bar, find the community hub for F1 2017
For some reason, the search term 'F1' has brought up 'Farming Simulator' and 'Final Fantasy' and then 'F1 2017' which if I type in F1, it should search for this.
8. How easy were you able to find the community hub? (0 – 5)
9. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
Relatively easy which again highlights the inconsistency of Steam that this is tab based. If done right (like this) it's fine but it should be consistent.
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
It doesn't say 'likes', just thumbs up. People who are familiar with social media would know but some users might not.
10. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
It's there but it's kind of blurred out until you hover over it. If you've got poor eyesight, it's not very well contrasted. Even when you hover over, the font changes a little and lights up but not much.

Task 5 – Steam Profile

4. Go to the Steam Profile
It could just say 'profile' which would be a lot easier.
 - a) When the page appeared, was the screen that came up what you expected to see?
No that's my friend activity. Activity shouldn't be the first page. I can see if you hover over the username, you can see 'profile'.
5. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
It is there on the right, but it shouldn't be there. It was easy for experienced users.
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Wheel
 - Summary: I edited my profile
 - ii. How easy was this task to complete? (0 – 5)
It's straight forward. There is a little '?' next to the box. It's quite jokey and serious when it needs to be.
6. What do you expect to see when you save changes?

System Usability Scale

The following questions are rated on a scale of 1 – 5

11. If you were a PC gamer, how likely are you to use this system frequently?
I use steam a lot and I can tell you that it is still better than other pc gaming systems available.
12. How unnecessarily complex did you find the system?
This design hasn't changed much since 2008. When I first joined, it was the worst thing I had ever experienced. It was very hard to get familiar with it. I feel it is still relevant given that it hasn't changed much. The layout has changed a little bit, but it is horrible for new users.
13. How easy did you feel the system was to use?
It was quite say but then again, I use Steam a lot. If I was a new user, it would not be the same.
14. How much assistance do you think you will need to use the system?
I wouldn't really need any as a new user. As painful as it is to use, it is still usable, so you would figure it out eventually.
15. How well do you feel the system was put together?
I feel they have included everything they need, just in a terrible fashion. It is a complete system but not very well thought out.
16. How consistent do you feel the system was laid out?
Some pages have tabs, some have menus, and some have other. If I were to choose one, I would say having all the information there is, but I would say tabs is simpler.
17. How quickly does you / a new user feel you were able to learn the system?
I would say an hour but going back to earlier on, I didn't know you could change the view in the library and I have had Steam for 9 years. The basics are quick to learn but some features need better explaining.
18. How awkward do you feel the system is to use?
On the game page in the store, the tags were the same as I used to search and got 7 results, none of which were the game. That is poor.
19. How confident did you feel when using the system?
As an experienced user, I feel quite confident. As a new user, probably not so confident.
20. How much technical knowledge do you feel you would need to use the system?
Using Facebook, you'd be more familiar with it. If you are not used to modern interfaces, it would be very difficult. It's quite complex but if you are playing games, there is a good chance you know what you're doing.

Subject 2

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
It's not very useful but you don't want it to give too much away if someone is trying to hack into your account.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
It was quite easy. I guess if it wasn't on the 'bestselling' category, I wouldn't know how to find it.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)
I would say if you understood Steam it would be quite easy, but I didn't really have a clue where it was.

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
I would say for finding a game, grid view is easier but for a cleaner look, detailed view.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
Quite easy as it's alphabetical. If you had a lot of games, it would be more of an issue.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
It seemed quite easy, but I was hoping that the button I clicked on would give me the menu I was looking for.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
It follows the same kind of layout as other consoles that I am used to.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)
Not that easy as I looked at the bottom, but I can see at the top it makes sense.

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Team Fortress 2
3. How easy were you able to find the community hub? (0 – 5)
It was easy enough, I typed in the game title and it came up.
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
Relatively easy. The name being at the top of the review would make more sense.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
Not really. It hasn't displayed anything that would say that it's you.
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Profile
 - Summary: I edited my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?

I think Steam is probably the one I had heard of before this, so I would say I would use it the most.

2. How unnecessarily complex did you find the system?
3. How easy did you feel the system was to use?
4. How much assistance do you think you will need to use the system?
5. How well do you feel the system was put together?

I feel it is a complete system but there is always room for improvement

6. How consistent do you feel the system was laid out?

I think it is quite consistent but could be better

7. How quickly does you / a new user feel you were able to learn the system?

I think you would be able to learn the system very quickly

8. How awkward do you feel the system is to use?

I feel it's ok if you know what you are going to do but in the store for example, if you are using the tags to search for a game, it isn't always spot on, so it would take you longer

9. How confident did you feel when using the system?

At the start I didn't but if you were to ask me now, I feel a lot better

10. How much technical knowledge do you feel you would need to use the system?

I don't think you would have to go out your way so if you use social media or the internet in general, you would be ok

Subject 3

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
It tells you what it wants but doesn't tell you which one is wrong. I find it annoying on most login systems when it doesn't tell you whether it is your account name or your password, but I understand it's a security measure by not specifying.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
I couldn't find it at first. I didn't look at the 'top-sellers' at first but as a first-time user, it's not very clear.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)
Once you start looking it's quite easy to find but it did not bounce out at you.

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
It's all alphabetical so I would say it's easy
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
I wouldn't say it was very easy. It would be better if there was a click bar that could do it as appose to right-click
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
Fairly easy. You just keep scrolling and you get to it eventually.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)
Didn't bounce out at you but if you were looking for it, you could find it quite easily.

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Minecraft Story Mode
3. How easy were you able to find the community hub? (0 – 5)
It was quite hard as the search criteria didn't bring up the game even though I typed the name in.
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
Relatively easy. The dropdown where you select the type of review, it is not obvious that is the purpose of it.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
Very easy. I don't mind if it is at the top or the bottom of the review.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
I would say it isn't too far from what I would expect to see.
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Squirrel
 - Profile picture: Wheel
 - Summary: This is my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?
I would like to see a prompt come up asking you if you are sure you want to make the changes.

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
2. How unnecessarily complex did you find the system?

With a bit of practice and experience I would say it would be ok.

3. How easy did you feel the system was to use?

Again, with a bit more practice, it would be easier.

4. How much assistance do you think you will need to use the system?

A tutorial at the start would be quite useful to show you how to do basic tasks.

5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
8. How awkward do you feel the system is to use?

Suggested games based on your history would be useful.

9. How confident did you feel when using the system?
10. How much technical knowledge do you feel you would need to use the system?

I think you need to have a bit of confidence with computers in general. If you have general experience with a computer software system, you would be ok.

Subject 4

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
Very useful because it tells you the username or password is wrong, so you need to try again to get access to the system.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
I would have expected the store to default to top sellers or suggested games.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
Detailed view is best because it lists all your games and you can put them into sub-categories and it gives you links to aspects of the game.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
I thought it might have been on the right-hand side with the other links, but it is part of the 'community' so it makes sense to have it under that.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)
The font went a different colour, so it is easy to see.

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Garry's Mod
3. How easy were you able to find the community hub? (0 – 5)
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
The 'thumbs up' symbol allows you to recognise it. Facebook has made it the main symbol to recognise so it makes sense to use the same one.
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
I did not know you had to specify the type of review.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
I would expect to see my actual profile.
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Profile
 - Summary: I edited my profile
 - i. How easy was this task to complete? (0 – 5)
It has the headings of each of the boxes, so you know where to go.
3. What do you expect to see when you save changes?

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
2. How unnecessarily complex did you find the system?
I think the store and the library are easy to use but the community and the profile would take a bit longer to get to grips with.
3. How easy did you feel the system was to use?
4. How much assistance do you think you will need to use the system?
5. How well do you feel the system was put together?
It separates the parts into 4 separate areas which is good.
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
There would be a couple of aspects that would take a while to figure out.
8. How awkward do you feel the system is to use?
9. How confident did you feel when using the system?
10. How much technical knowledge do you feel you would need to use the system?
You would need knowledge of how a general system works but nothing specific.

Subject 5

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
Not very useful because it doesn't link me to where I can change my password. It is just a message that doesn't give me any actions.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
I would have noticed the tabs across the screen (top sellers, most recent, etc.) but it would have taken me a bit more time.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Player Unknown's Battlegrounds
3. How easy were you able to find the community hub? (0 – 5)
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)

- b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Squirrel
 - Profile picture: Wheel
 - Summary: This is my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
It is a good range of games.
2. How unnecessarily complex did you find the system?
3. How easy did you feel the system was to use?
I found the colour scheme, in particular the colour of the text a bit difficult to read.
4. How much assistance do you think you will need to use the system?
5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
8. How awkward do you feel the system is to use?
I think it would take me a bit of time but once I had got the hang of the general system it would be fairly easy
9. How confident did you feel when using the system?
10. How much technical knowledge do you feel you would need to use the system?
If you know how to use a computer and basic programs you will be fine.

Subject 6

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)

It's quite helpful because it tells you what you've got wrong. It doesn't specify which one is wrong which is good if someone is trying to hack into your account. It doesn't tell you if you have forgot your password, how you can retrieve it. They do have things underneath it which tells you what you can do if you need help signing in but that text box in particular doesn't give you much advice other than telling you that the login has failed.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Very easy and very intuitive. I think anyone could use it really.

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)

Once I realised that I was only on the new and trending tab and that I could select the other ones, it was pretty simple. It wasn't too difficult but it was a little bit confusing because the range you are presented with on default limits the range you have to search through.
4. Tell me how much this game is to buy?

Directly below the video. You don't have to scroll down as it's right there on the screen. The green button next to it is contrast to the background so you are drawn to it straight away.
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

You scroll down and it says downloadable content.

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)

I used to prefer list view but now I prefer detailed view as you can select each one individually and see the recent news and other things.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?

The games are listed alphabetical. Having played it before, I know how small the text is on the side. If you have lots of games, as they are stored alphabetical its ok but it can be a bit awkward if you have a lot of games that start with the same word such as 'the'. In detailed view, there is no indication what game it is whereas with other views you have the image beside the game title. Such games as Player Unknowns Battlegrounds can be referred to as 'PUBG' so if you are looking for that as appose to the full title, you might not find it.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)

It comes up with how many friends have it. It is dead centre which makes it seem like it is the most important part which is confusing but it is very easy to see.
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)

On the list view there is a little star you can click which I tend to do. In detailed view, it would be useful to have this next to the game title so you can select it. It might not be intuitive to a new user to right-click to add the game to your favourites. It would be much easier to assign this at the top of the screen.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)

Some people might not know you can create your own categories. As soon as you know that you can do this, it is quite easy to find this.

How useful would you say preloaded categories would be?

I wouldn't say they would be because some games are in lots of different categories. There are some games that have just one but there are some that cross boundaries. Also when new games come out, they might not fit into a category at first. The one thing I like about Steam is that you can customize it to how you want. It might be counterintuitive to have preloaded categories however an option to do this for users would be good, similar to the Steam store.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)

It's like most other things like a news article if you scroll down you have the comments section.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

It's a little bit darker so it blends in a bit more. If you have a quick look you should be able to find it.

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for F1 2017
3. How easy were you able to find the community hub? (0 – 5)
It was weird that you needed to have the correct case to find it. Some games have random case so it would be useful not to have to capitalise to find the hub you want.
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
You click on the 'show' box and choose 'all time'
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
I think the thumbs up symbol it usually means you approve of something so I think it would be obvious to a user that this is the intended use.
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
It wasn't immediately obvious that you could select the type of review as it could be something else. It was an assumption that this was the use but you can't be sure that everyone will make the same assumption.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
I thought the account name would be at the top of the review but it still within the comment and when you hover over it, it lights up so it's still obvious that is the account name of that particular review.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Profile
 - Summary: I edited my profile
 - i. How easy was this task to complete? (0 – 5)
It got question marks next to each field so it gives you a pointer as to what the field is asking for.
3. What do you expect to see when you save changes?
A print preview of what your profile would look like so that if it is wrong, you can go back and change you profile. Possibly a 'preview' button as well as a 'submit' button.

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
On my PC I use Steam all the time, either every day or every other day. The only time I don't use Steam is when the game I want to play is not available on there.
2. How unnecessarily complex did you find the system?
Usually it is fairly easy to see however something I found recently which was quite confusing was being able to link your phone to it (popup). The only way to get rid of this popup was to scroll to the bottom which was not immediately obvious.
3. How easy did you feel the system was to use?
There are lots of different ways to get to things, particularly in the store so as a user, you have plenty of options.
4. How much assistance do you think you will need to use the system?
You would have to tell them which tab to go to but only light pointers like this would be required.
5. How well do you feel the system was put together?
It explains about the games very well. It has the recent and overall reviews which is good because there could be games that used to be good that may have fallen out of popularity because of updates and other things.
6. How consistent do you feel the system was laid out?
It has the same background and same font. Generally the menu system chosen for each one is good but the Community area is slightly odd in layout.
7. How quickly does you / a new user feel you were able to learn the system?
I think buying and searching a game would be very easy but I think other tasks such as profile and community would be slightly awkward to use.
8. How awkward do you feel the system is to use?
Community and profile are slightly awkward but store and library are fairly straightforward.
9. How confident did you feel when using the system?
I feel fairly confident and if I get lost at all, I'm only lost for a few moments until I find where I need to be.
10. How much technical knowledge do you feel you would need to use the system?
I think as long as you know how to use the internet and you have used it for a while, I think you would be able to use Steam fairly easily. If you were going to use things like Steam codes it would be a bit tricky but if you were just playing a game it's very simple.

Subject 7

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)

It's not very useful that it says you've forgotten your password or your account name. If I have not logged into Steam for quite a while then there is a chance I will have forgotten one or the other. So by saying either, it doesn't help. There might be a security reason. There is no link to allow you to reset your password which a lot of other sites do.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)

Very difficult but normally, if I know the game, I would search for it. It wasn't immediately obvious where to search through different categories. I found it eventually but not straight away. It took me quite a while. There is an issue with the categories that they are not organised very well and they are very broad.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)

Although there is a lot of games, I think it is better being able to see details about each game as appose to just a list of games. It's easy enough to find on the list but if you have more games, I think the Grid View would be easier.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?

Some people might scroll past the game they are looking for as the text is quite small.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)

I was not aware of this feature. It was not immediately obvious but once I knew this feature existed, it was easy to find.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)

The reviews are very low down on the page. I feel like a lot of the stuff on the page could be collapsible (system requirements). Some of it is but a lot more of it should be collapsible.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Minecraft Story Mode: Season 2
3. How easy were you able to find the community hub? (0 – 5)
Using the search bar is easy enough as it had the autofill feature.
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
It doesn't seem like very useful information as I don't think many people use it.
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
It isn't immediately obvious and also not very useful as I would like to see a mixture of both types of reviews as oppose to just one.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
I would expect the username be at the top as most other sites tend to do this.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
It seems too much like a social media and I don't use Steam this way.
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Squirrel
 - Profile picture: Wheel
 - Summary: This is my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?
I feel like it's more helpful to stay on the same page as if you make a mistake, you can edit it straight away rather than having to fins it again.

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
2. How unnecessarily complex did you find the system?
3. How easy did you feel the system was to use?
4. How much assistance do you think you will need to use the system?
5. How well do you feel the system was put together?
There are a lot of features in there that I didn't know existed. Even though they are there, make it more obvious or maybe a tutorial to help you get started.
6. How consistent do you feel the system was laid out?
Total inconsistency apart from the font.
7. How quickly does you / a new user feel you were able to learn the system?
For the simple stuff it would be quick but there are features that I didn't know about.
8. How awkward do you feel the system is to use?
The tags to search for a game is very awkward. It shouldn't default to new releases. When I've searched for a game in the past, I get options that are not related.
9. How confident did you feel when using the system?
10. How much technical knowledge do you feel you would need to use the system?
I will say that your average user won't know what that means. A feature to show you whether your computer can run the game would be useful to combat this.

Subject 8

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
I think it's a pretty standard error box. I think other websites have the same thing. I don't think there is any other information they could give you.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
The game could be in more than one category.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)
It is a bit cluttered because you have the bundle and it misguided me. I thought at first sight that the bundle is the DLC. I would put the DLC above the bundle.

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
Detailed view allows you to see all the games at once, whereas in List View you would have to scroll.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
The games are stored alphabetical. I also know that the game is 2 words so I am looking for a game beginning with 'T', and is 2 words long.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
It was not immediately obvious but for a new user it would take them more time. I would have expected a button or symbol next to the title to do this.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
I was a little bit confused as when I did this, the game appeared twice, both in favourites and the category I set.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
As it's at the bottom of the page, it makes sense, the same as other sites such as YouTube. It is easy to find the reviews section but not to filter out the reviews to show the most helpful.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Team Fortress 2
3. How easy were you able to find the community hub? (0 – 5)
The autofill options are useful.
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
I would have expected 'all time' to be at the bottom of the list as it is chronological.
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
Before clicking on the box to choose the type of review, I was not aware that this was the intended function.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
The text is faded slightly so it is not as clear to read as it could be. In terms of the location of the username, I don't mind whether it is at the top or the bottom.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Profile
 - Summary: I edited my profile
 - i. How easy was this task to complete? (0 – 5)
The question mark is good as it tells you what is meant to go in each box.
3. What do you expect to see when you save changes?
You are given the button to return to your profile so I think they have found a good compromise.

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
My use of different systems would depend on the games each one offers.
2. How unnecessarily complex did you find the system?
I would say it is complex as it has a lot of information but not that difficult to use.
3. How easy did you feel the system was to use?
It takes a bit of time to complete tasks but its ok.
4. How much assistance do you think you will need to use the system?
It's not complicated but it's not immediately obvious.
5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
For basic tasks such as buying a game it's very quick but for other features, it would take a bit of time.
8. How awkward do you feel the system is to use?
It's not that awkward but it does have a few areas where it could improve.
9. How confident did you feel when using the system?
10. How much technical knowledge do you feel you would need to use the system?
As long as you have used interfaces such as Facebook and YouTube, you will be able to use it. Also maybe knowledge of other game systems such as Xbox and PlayStation would be useful.

Subject 9

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
It says password or account name so I wouldn't know which one was wrong.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
I would know whether I had installed it or not. If not, it would take a bit longer. It's in alphabetical order so it's easy.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
I guess they could use a star at the side of the game title but it is ok as it is.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
I knew the feature existed but I haven't used it myself.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Garry's Mod
3. How easy were you able to find the community hub? (0 – 5)
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
I didn't know that the box to change the type of review had this intended use.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
I would expect the account name to be at the top but it was still obvious where it was.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Squirrel
 - Profile picture: Wheel
 - Summary: This is my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
2. How unnecessarily complex did you find the system?
3. How easy did you feel the system was to use?
4. How much assistance do you think you will need to use the system?
It's relatively simple but they might not see the search bar straight away. Maybe make the search bar more prominent.
5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
The community and profile would take some time but the store and library would be easy. For console gamers who are new to the system, maybe show them 'big picture mode' as this is more like the interfaces they would likely be used to.
8. How awkward do you feel the system is to use?
9. How confident did you feel when using the system?
If I am just playing a game then it is easy but for other things like making a server, it is more difficult.
10. How much technical knowledge do you feel you would need to use the system?
I would say you would need a little bit of technical experience with things such as social media and other computer systems.

Subject 10

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
It doesn't suggest any other method of resetting your password. It has a box saying 'can't sign in' but it is based on assumption.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
I had to narrow the search down quite a bit but if you know exactly what you are looking for then it's pretty easy. If you are just looking to buy a game similar to games you already have, it is good to have a broad range of games to start with.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
Detailed view is easier to see all the games that you own and all the information about a game.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
The games are shown alphabetical. I think it is possible to scroll past the game you are looking for, especially if you have lots of games as the text is very small.
 - b) How many friends play this game?
Where the box is, it is the first thing you see. If you see they are online, you can ask them if they want to play which adds a social aspect to it.
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
If you haven't used Steam much, you might not know that the different coloured borders mean anything. However, if you hover over the box, you get a popup telling you that they are online.
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
When I first started using Steam, it took me a while to realise that you could right-click on games and get more options. So, I think that some of the options on the right-click menu should be on the main screen as I feel that these are things most users will use.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
Relative to other businesses, the positioning of the reviews is where you would expect. However, for people who are looking for a game, maybe there should be a small section near the top with some reviews to give the user an idea.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)
Having the ability to order reviews in different ways is good because often, the top reviews are the funniest which is not always helpful.

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Player Unknown's Battlegrounds
3. How easy were you able to find the community hub? (0 – 5)
The search feature is good if you want to find out how active the community for a game is, however when I use the community, it is only usually for games that I already own, so you can access it from the game page.
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
Having the profile picture as well as the account name draws you to it and it gives you the option to see other videos posted by that user.
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
I used my intuition to guess that the box I selected allowed me to change the review type to positive, however I have not used this section before and the only reason I went to it was because I couldn't see anywhere else on the screen that you could do this.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
If we are talking about something like Facebook, you are taken to your profile whereas the screen that has come up is like your Facebook news feed.
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Profile
 - Summary: I edited my profile
 - i. How easy was this task to complete? (0 – 5)
It is well labelled. It's not the friendliest to use screen but I don't think you would expect to see anything else.
3. What do you expect to see when you save changes?
The green bar at the top is enough to assure me that the changes have been made.

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
Steam is the clear winner but it's good to have some competition.
2. How unnecessarily complex did you find the system?
Everything is clearly labelled. It might be complex if you are new to computers in general.
3. How easy did you feel the system was to use?
As we saw with the library, if you don't know to right-click, there are a lot of options that a user is missing.
4. How much assistance do you think you will need to use the system?
Finding a game would be difficult if you don't know the name but buying a game is standard.
5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
Design-wise, it is consistent but layout-wise it is a bit different because with the community, it is a lot more stand-out and it is about media whereas with the library, it is not as good looking. The one thing that has always bugged me is the 2 separate headings at the top which I think is pointless.
7. How quickly does you / a new user feel you were able to learn the system?
Learning the basics would be easy but there are some features that even experienced users might not know about.
8. How awkward do you feel the system is to use?
The category system is a bit broad and as there is so many games, it can be difficult to narrow down a search.
9. How confident did you feel when using the system?
10. How much technical knowledge do you feel you would need to use the system?
If a user knows how basic menu systems work they would be fine. Also as Steam is not advertised much, if someone is searching for it, they most likely know what they are searching for so there is a better chance that they will understand what they are doing.

Subject 11

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
It would be better if it told you which one of your details was wrong.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
Providing you know what type of game it is, it is easy.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)
The DLC list should be closer to the top.

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
The games are shown alphabetical.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
You would assume that there would be a symbol next to the game title to do this.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for F1 2017
3. How easy were you able to find the community hub? (0 – 5)
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
The title is a little small.
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
It was kind of obvious as it said 'all' but it wasn't obvious what this meant so I had to click on it to find out.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
The more important thing is the review so having it at the bottom is good.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Squirrel
 - Profile picture: Wheel
 - Summary: This is my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?
I may expect to be asked to enter my password if the information is sensitive.

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
If the game I am looking for is not available on Steam I will use something else, however I prefer to use Steam.
2. How unnecessarily complex did you find the system?
Certain things are a bit complex but others are quite easy.
3. How easy did you feel the system was to use?
4. How much assistance do you think you will need to use the system?
5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
8. How awkward do you feel the system is to use?
9. How confident did you feel when using the system?
Occasionally there are some things I may need to look up how to do but overall, I know what I'm doing.
10. How much technical knowledge do you feel you would need to use the system?
If you know the basics of how to use computer programs you will be ok.

Subject 12

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
It's pretty standard as it's what you get across all platforms. Although it is not that useful, you are supposed to remember your password.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
The game specifically was easy to find as it was a racing game so I looked in the racing category.
4. Tell me how much this game is to buy?
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)
It wasn't obvious. I'm used to games having a long list of DLC's so when there is only a few or one, it is easy to miss.

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
I think the average person would know that if you right-click you get loads of options but some people might not know to do this.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
It's a useful feature however, I was not aware that this feature existed until now.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
You generally expect the reviews to be at the bottom so I knew to scroll down to the bottom.
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Minecraft Story Mode: Season 2
3. How easy were you able to find the community hub? (0 – 5)
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Profile
 - Summary: I edited my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
2. How unnecessarily complex did you find the system?
3. How easy did you feel the system was to use?
4. How much assistance do you think you will need to use the system?
5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
8. How awkward do you feel the system is to use?
9. How confident did you feel when using the system?
10. How much technical knowledge do you feel you would need to use the system?

Subject 13

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
I can't see anywhere where you can set a new password.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
You wouldn't know which category would bring the game up. I had to guess which one it was.
4. Tell me how much this game is to buy?
Could have been a lot clearer.
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
It gives you a bit of information and news about the game whereas the others are just icons.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
I would not have known that right-clicking on a game would bring up options. I was looking for a button (or a star) near the 'play' button.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
This feature should be made a bit more obvious to the user.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)
It could be made more obvious.

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Garry's Mod
3. How easy were you able to find the community hub? (0 – 5)
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)
I feel the ordering of the filters should be kept chronological so 'all time' should be at the bottom of the list.
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)
I feel that a new user would assume that the 'thumbs up' symbol means 'like'.
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)
As it already had an option of 'all' in, I assumed that this would allow me to change the type of review.
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)
I would have expected it to be in the top-right of the review itself.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?
I would expect to see my actual profile.
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Squirrel
 - Profile picture: Wheel
 - Summary: This is my profile
 - i. How easy was this task to complete? (0 – 5)
3. What do you expect to see when you save changes?

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
I prefer to use Steam over going to the shop to buy a game as you can buy a game without going anywhere and you get a lot of discounts as well.
2. How unnecessarily complex did you find the system?
There is not enough to navigate.
3. How easy did you feel the system was to use?
Navigation is quite poor.
4. How much assistance do you think you will need to use the system?
5. How well do you feel the system was put together?
The layout is quite minimalist and it is quite bland to look it. It is well put together but could be nicer to look at.
6. How consistent do you feel the system was laid out?
7. How quickly does you / a new user feel you were able to learn the system?
To get to grip with getting round the system would be pretty quick but to learn more of the intricacies, it would take you a few hours.
8. How awkward do you feel the system is to use?
9. How confident did you feel when using the system?
I would have an idea of what to do but I wouldn't be 100% sure that what I was clicking on would take me to the right place.
10. How much technical knowledge do you feel you would need to use the system?
Someone who struggles with computers wouldn't be able to use it well but someone who has used social media would be ok.

Subject 14

Task 1 – Login Procedure

1. Double-click on the Steam icon on the desktop
2. Enter the username ('alex_farrell_2017')
3. Attempt to log on with incorrect password ('hello')
 - a) How helpful is the error message (1 – 5)
To an extent I would find it quite useful because I would know whether the password or account name is wrong. If I had put it in lots of times and it didn't work I would know that someone has got into my account.
4. Attempt to log on with correct password ('Keele2017')
 - a) How easy did you find the log on procedure (0 – 5)
It's quite straightforward and it is what I would use for other gaming platforms and social media.

Task 2 – Steam Store

1. Go to the Steam Store homepage
2. Attempt to find the game 'F1 2017' using the following tags (Top Sellers):
 - Sport, Realistic, Simulation, Racing, Multiplayer
3. How easy did you find it to find the game? (0 – 5)
It is easy to use but I feel it needs expanding. The PS4 has multiple categories you can look at.
4. Tell me how much this game is to buy?
I would expect it to be on the right-hand-side or at the top near the title.
5. How many DLC's are available for this game?
 - a) How easy were you able to find this information? (0 – 5)
The DLC's should be more obvious. On DS the DLC's are a lot clearer. Having a picture describing the DLC would be a lot better as you would see it better.

Task 3 – Steam Library

1. Go to the Steam Library area
2. Have a look at the 3 different view types
 - a) Which layout do you prefer? (Detail, Grid, List)
Grid view is easier to look at whereas detailed view gives you all the information at once.
3. In the game list, find 'Team Fortress 2'
 - a) How easy was it to find?
As long as you know the game you are looking for, alphabetical is enough.
 - b) How many friends play this game?
 - c) How many of these friends are online?
 - i. How easy were you able to find this information? (0 – 5)
 - d) Add this game to your list of favourites
 - i. How easy was this task to complete? (0 – 5)
It was not immediately obvious that you had to 'right-click'. Initially, I was looking for a button (star) near the top.
 - e) Add a category entitled 'Funny' to this game
 - i. How easy was this task to complete? (0 – 5)
I think if you had a lot of games it would be easier as you could narrow down your search, depending on the category you chose.
4. Find the most helpful review
 - a) How easy was this task to complete? (0 – 5)
 - b) Tell me the date this review was posted
 - i. How easy were you able to find this information? (0 – 5)

I would prefer to see it on the left and side of the username and more importantly, the design makes it unclear as the colour is too close to the colour of the background.

Task 4 – Steam Community

1. Go to the Steam Community
2. Using the search bar, find the community hub for Team Fortress 2
3. How easy were you able to find the community hub? (0 – 5)
4. Find the most popular video of all time
 - a) How easy was this task to complete? (0 – 5)

I was expecting it to be in chronological order meaning that 'all time' should be at the bottom.
 - b) How many likes does this post have?
 - i. How easy were you able to find this information? (0 – 5)

Based on assumption they would be able to work out that the 'thumbs up' symbol would mean 'like'
5. Find the most recent positive review
 - a) How easy was this task to complete? (0 – 5)

It said 'all' which gave me the assumption that I could change this to 'positive'
 - b) What is the account name of the user who posted this review?
 - i. How easy were you able to find this information? (0 – 5)

I would have expected it to be at the top but other sites such as Amazon, the account name is either at the bottom or not there at all.

Task 5 – Steam Profile

1. Go to the Steam Profile
 - a) When the page appeared, was the screen that came up what you expected to see?

The screen that appears is more like the news feed on Facebook.
2. Locate the 'Edit Profile' option and click on it
 - a) How easy was this task to complete? (0 – 5)
 - b) Change the following details:
 - Profile name: Keele
 - Profile picture: Profile
 - Summary: I edited my profile
 - i. How easy was this task to complete? (0 – 5)

It's the same as you would expect on other social media platforms.
3. What do you expect to see when you save changes?

I would expect to see my original profile as then you can see what your new profile looks like and you know the changes have been saved.

System Usability Scale

The following questions are rated on a scale of 1 – 5

1. If you were a PC gamer, how likely are you to use this system frequently?
I would use other platforms if the games were not available on Steam.
If the game you wanted was available on both Origin and Steam which one would you use?
I would use Steam as it is a lot easier to find the game as on Origin, you have to go online.
2. How unnecessarily complex did you find the system?
3. How easy did you feel the system was to use?
The basic aspects that most users would use are easy to use.
4. How much assistance do you think you will need to use the system?
If it was a game I had never heard of that I was being asked to search for, it would be more difficult.
5. How well do you feel the system was put together?
6. How consistent do you feel the system was laid out?
The store needs improving to make it more accessible and easier to use but other areas are fine.
7. How quickly does you / a new user feel you were able to learn the system?
If you have used other platforms and other social media sites you would be ok but if you are completely new, you wouldn't have any idea how to use it.
8. How awkward do you feel the system is to use?
9. How confident did you feel when using the system?
In a way it is simple to use at it unifies other gaming platforms that I use and it is quite expected that you would do something like that.
10. How much technical knowledge do you feel you would need to use the system?
I think if you had experience of using another gaming platform then you would be able to use it but if you are new to gaming then it would be quite complex to get used to.

Appendix 5 – Mock-up Designs

Login Procedure

The mock-up shows a window titled "Steam Login" with standard OS window controls (minimize, maximize, close) in the top right corner. The window contains a "Steam Logo" button in the top left. To its right is a red-bordered error message box with the text: "You have entered your account name or password incorrectly. Please check your details and try again". Below the logo is a text input field labeled "Account Name" with a person icon on the left. Below that is a text input field labeled "Password" with a person icon on the left. Under the password field is a checkbox labeled "Keep me signed in". To the right of the checkbox are two buttons: "Forgot Password?" and "Login". A horizontal line separates the login section from the bottom section. The bottom section has two columns. The left column is titled "Don't have a Steam Account?" and contains a "Create New Account" button. The right column is titled "Need help accessing your account?" and contains an "Account Support" button.

Steam Login

Steam Logo

You have entered your account name or password incorrectly
Please check your details and try again

Account Name

Password

☐ Keep me signed in

Forgot Password? Login

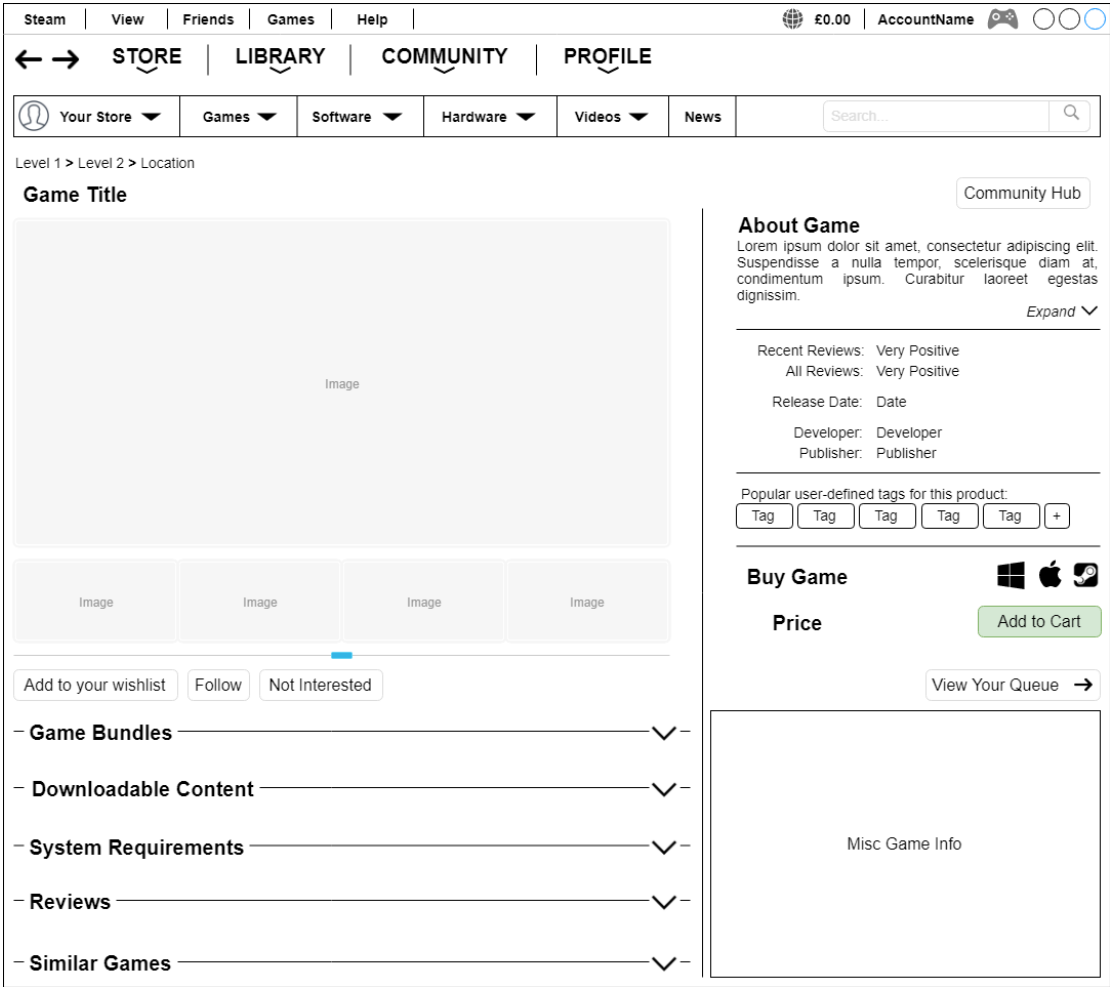
Don't have a Steam Account?

Create New Account

Need help accessing your account?

Account Support

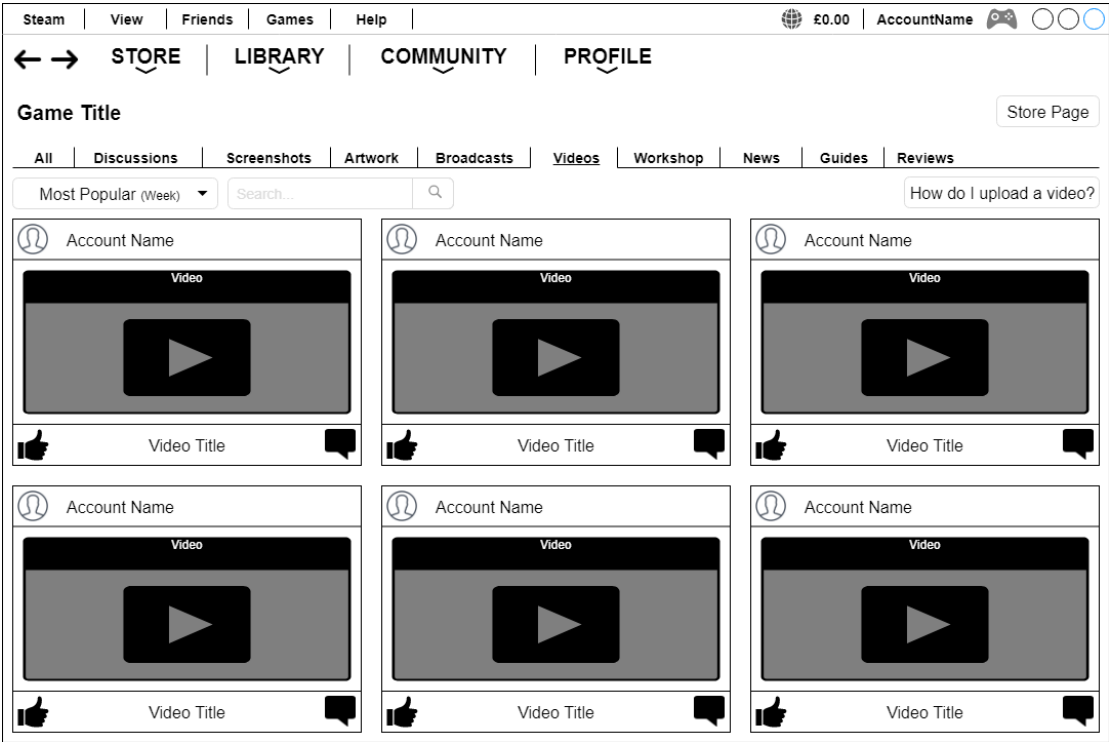
Steam Store



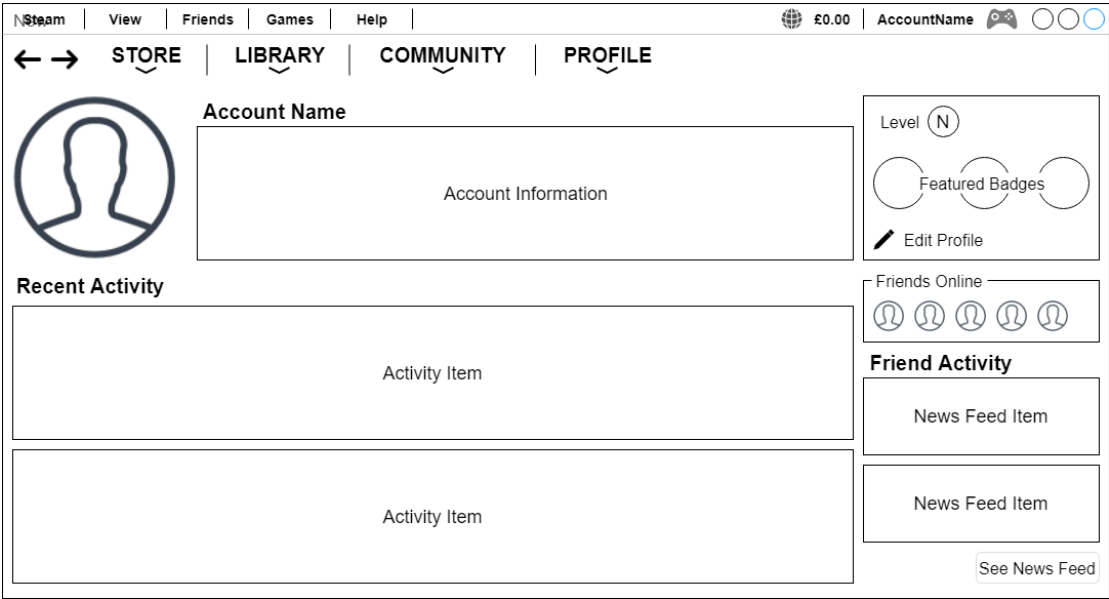
Steam Library



Steam Community



Steam Profile



Project Plan

Project Overview and Description

Student Name:	Alex Farrell
Student Username:	W4S22
Student Number:	15005594
Module (<i>delete as appropriate</i>):	CSC-30014
Supervisor Name:	Ed de Quincey
Project Title:	Investigation into the usability of the Steam gaming platform.

Please provide a brief Project Description:

This project will investigate user interface design in the gaming world. Large amounts of research have been carried out in general usability and interface design such as:

- Eye tracking in HCI and usability research (Poole & Ball, 2006)
- 10 Usability Heuristics for User Interface Design (Nielsen, 1995)
- International standards for HCI and usability (Bevan, 2001)

However, there seems to be very little attention and consideration taken when it comes to the usability of games console and other gaming platforms, with very few publications available within the academic literature.

Specifically, this project will investigate the current usability of the Steam gaming platform, as statistics show that from 2012 - 2017, PC gaming (particularly Steam) is becoming more and more popular amongst this community (Statista, 2017). From this, I hope to identify issues with the current platform and suggest improvements that can be made.

What are the aims and objectives of the Project?

- Evaluate whether the current Steam Interface conforms to relevant usability standards, set out by in-depth research into usability standards relating to digital distribution platforms.
- Identify issues with the current interface through this research, as well as user feedback.
- Design and develop potential mock-up solutions that should rectify the problems identified.
- Test whether the mock-ups rectify the problems.
- Compare/ contrast mock-ups against current design.

Please provide a brief overview of the key literature related to the Project:

<https://www.usability.gov/> - I intend to use this as my main resource to obtain general usability standards. This site has different sections that refer to different areas of usability.

Human-Computer Interaction (Alan Dix, 2003) – I intend to refer to this when identifying standards with Gaming UI.

<https://mccall0.files.wordpress.com/2016/07/student-usability-report.pdf> - This is a usability study conducted on Steam. May reference at testing stage.

Project Process and Method

Please provide a brief overview of the Methodology to be used in the Project (inc. an overview of best practice within the Methodology):

Investigation Stage:

- Conduct initial research into usability standards
- Derive a list of relevant standards that relate to the Steam gaming platform
- Identify problem area(s)
- Conduct user testing session to get detailed feedback on issues

Design & Implementation

- Based on research and user feedback, design new interfaces
- Create working mock-ups/ prototypes of new interfaces

User Testing

- Conduct user testing session with prototype interfaces to get detailed feedback on changes

Evaluation

- Compare current interface with prototype and explain improvements

Which Data Collection Methods will be employed (e.g. card sorts, questionnaires, simulations, ...)?

- Documents – Analyse usability standards to derive relevant list.
- Controlled observation – Give users a list of tasks to undertake and observe their actions
- Interview – On completion of tasks, get feedback from users on their experience with Steam

Time and Resource Planning

Will Standard Departmental Hardware be used? YES

Will Software which is already available in department be used? NO

If NO please outline the Software to be used including how any necessary licences will be obtained:

Steam – Free to download online. I will create test account for purpose of investigation.

Will the project require any Programming? YES

If YES please list the (potential) Programming Languages to be used (including any IDEs and Libraries you may make use of):

HTML & CSS – Creating mock-ups of new designs

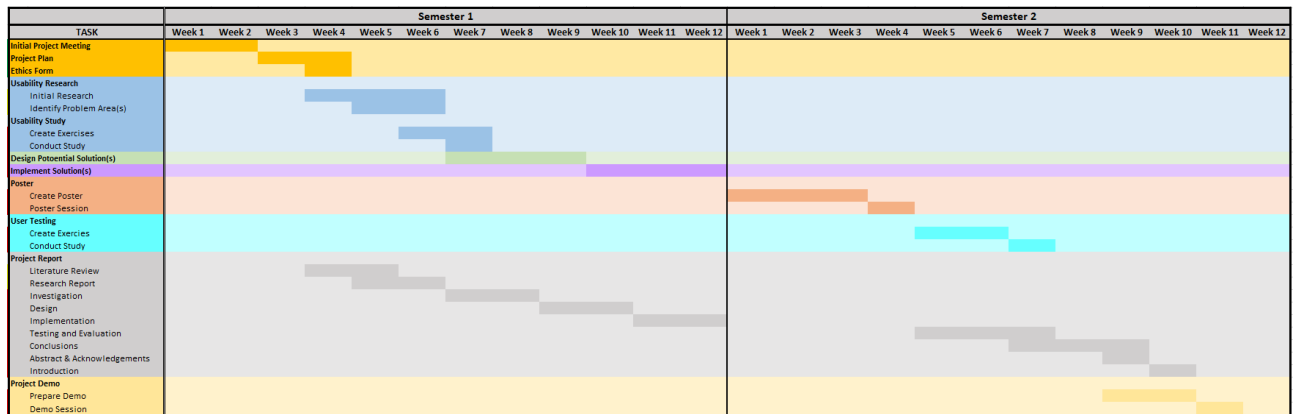
Table of Risks (if non Standard Hardware and/or Software to be used please include backup options/ contingency plans here):

Risk	Likelihood	Avoidance	Actions on occurrence
Running out of time	Unlikely	Aim to stick to schedule laid out on Gantt Chart.	
Unable to find standards specific to Steam	Possible	Tailor research to gaming specific usability standards.	Focus on general usability standards for web interfaces as Steam is a web-based platform.
No problems identified from research	Unlikely	Browse Steam forums for user comments on usability issues.	Look at designing interfaces based only on usability criteria.
Lack of participants for user testing	Possible	Offer some sort incentive, either financial or material.	Conduct testing on participants available or, if none, conduct user testing myself.

Investigation into the Usability of the Steam Client

No problems identified from user testing	Unlikely	Tailor user tasks so that finding issues are almost certain.	Take user comments into consideration and create designs from this.
------------------------------------------	----------	--------------------------------------------------------------	---------------------------------------------------------------------

Gantt Chart/ Pert Chart (must include milestones and deliverables):



References and Administration

Please include a list of References used in this Plan:

Encyclopaedia of Human Computer Interaction – Eye tracking in HCI and usability research
(Poole & Ball, 2006)

10 Usability Heuristics for User Interface Design
(Nielsen, 1995)

International Journal of Human-Computer Studies - International standards for HCI and usability
(Bevan, 2001)

<https://www.statista.com/statistics/308330/number-stream-users/>
(Statista, 2017)

Submission Date: 18/04/2018

PLEASE NOTE THAT SHOULD YOUR PROJECT UNDERGO ANY MAJOR CHANGES FOLLOWING THE SUBMISSION OF THIS PLAN YOU ARE EXPECTED TO SUBMIT AN UPDATED PLAN WHICH ACCURATLEY REFLECTS YOUR PROJECT.

CHANGES IN MODULE FROM CSC-30013 TO CSC-30014 ARE DEEMED TO BE A SIGNIFICANT CHANGE REQUIRING AN UPDATED PLAN.

Ethics Form

School of Computing and Mathematics: Student Project Ethics Committee

Application form (U/G and PGT Students)

Please print off a hard copy of this form and submit it to the School Office.

Please remember to sign it, date it, and to get your supervisor's signature on it.

Student name:	Alex Farrell
Student number:	15005594
Course:	Computer Science MComp
Date:	24/10/2017

Part A: (all students)

Does the topic of the project involve any of the following?	YES	NO
Recall of personal or sensitive memories		✓
Reporting or discussion of personal or sensitive topics		✓
Tasks which could be harmful or distressing		✓
A significant risk of participants later regretting taking part		✓
Procedures which are likely to provoke inter-personal or inter-group conflict?		✓

If you answer "Yes" to any questions on Part A, then please also complete the University Ethics form (on the KLE) and seek guidance from the School Research Governance officer. The School Research Governance officer (mentioned in the university form) is the projects co-ordinator, Gordon Rugg.

Part B: (if you are doing a software design and/or software build or gathering data from human participants)

Requirements gathering and evaluation: use of unusual techniques	YES	NO
Will the techniques you are using for requirements gathering and software evaluation be unusual in a way which could cause ethical problems?		✓
Will any of the participants be from a vulnerable group (e.g. under 18, or with learning difficulties, or under pressure to help you)?		✓

If you answer “Yes” to any questions on Part B, then please also complete the University Ethics form (on the KLE) and seek guidance from the School Research Governance officer. The School Research Governance officer (mentioned in the university form) is the projects co-ordinator, Gordon Rugg.

Student’s signature and date:	
Supervisor’s signature and date:	