

GOWER COLLEGE SWANSEA

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Interactive Application Design

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Contents

Introduction	2
Discussion about the options available	2
Pros and cons of doing an interactive application of Board games/card games	2
Board games	2
Card games	2
Both card and board games	2
Development methodologies	3
Use cases	3
Use case 1	3
Use case 2	3
Cognitive walkthroughs	4
Prototyping	5
Interaction models	5
Suitable technologies to support interactivity	6
Evaluation	6
Referencing	7

Introduction

In this assignment I will be conducting research and describing the correct approach to how the D20 Games industry will be best suited to making the board/card games interactive. I will consider possible outcomes of this task and propose an accurate evaluation on my findings. From the results I find the manufacturer then will be able to move forward in the gaming industry and reach there desired and wider market then they currently hold, by making their simple card and bored games they currently use to become interactive games.

Discussion about the options available

Many board and card game companies such as Konami ⁽¹⁾ (creators of YuGiOh) and Hasbro ⁽²⁾ (most known for monopoly), have already gone forward and made their game interactive from many different platforms like Hasbro ⁽²⁾ making monopoly a console game ⁽³⁾ in 2001 making them a big name for themselves across the globe but even though they went interactive thy still kept the original board game as a great success by bringing out limited editions for the board game which keeps the original start of Hasbro being a physical gaming industry while still taking on both interactive and physical approaches in gaming.

Pros and cons of doing an interactive application of Board games/card games

Board games

Making the board game interactive has a massive impact on the gaming industry, these days people would much rather play a mobile game rather than pull out a board game, by the time the board game is set up and settled down before playing most people who play online are already part way through there game, same as when the game is done interactive users can stop whenever they want to whereas board game users will have to pack the board game when done. People our day have become lazy so efficiency is the way forward when it comes to games.

Card games

Even card games are a better advancement in the interactive market, the majority of card games that have gone interactive have gained their users by the ability of being able to link through social media such as Facebook. Personally I find that linking through social media was a brilliant idea as it allowed users to play with anyone whether it's a random or a friends.

Both card and board games

Even before the argument came of weather these games should be interactive, the idea was thought about back when Microsoft bought out windows 3.0^[4] and they released an interactive version of solitaire. Now from my point of view this was a stepping stone for games on pc and is a good example of how successful games becoming interactive has actually been.

Development methodologies

Use cases

In system analysis a use case is a methodology that is used to identify and organize system requirements. The use case just lays everything out in a more clarified way. The use case is made up of a set of possible interactions that the user or the system when in a certain environment may have particular interests ^[5]. The methodology is made from a select group of elements for example may contain some interfaces or classes that when they are used simultaneously it will have a better outcome then the elements would when they are independent.

As an example I will create a use case for a card game website where the customer can buy or sell cards, the use case will help lay out the actions that will be taken by either a seller or a buyer.

Use case 1	Buy cards
Actor	Customer
Subject area	Purchase
trigger	card(s) is bought through website
Precondition 1	Cards are bought
Precondition 2	There is a website
Precondition 3	User has significant funds
Basic flow	The user will login and then view through a variety of cards and then purchase the item they search or find
Alternative flow 1	If user notice damage to item they can request money of item
Alternative flow 2	If after purchase buyer no longer wants item they can request cancelation
Alternative flow 3	User can leave reviews on the purchase item
Alternative flow 4	If user receives damaged item they can send it back and request refund

Use case 2	Sell cards
Actor	Seller
Subject area	Sell
trigger	card(s) are sold through website
Precondition 1	Cards are sold
Precondition 2	There is a website
Basic flow	The user can put up an item for sale then leave the e-Commerce site and allow the site sort the purchase and then alert the seller that there item has been sold and now they need to send the item out for postage.
Alternative flow 1	Seller can cancel sale before purchase with right cause
Alternative flow 2	Can contact buyer with further details on product about maybe late deliveries or other problems that may occur

Cognitive walkthroughs

Now this methodology is a usability evaluation tool in which one or more evaluators work through a series of tasks and then will ask a series of questions from the perspective of the user. the purpose of the cognitive walkthrough is a understanding of the systems learnability for the new and the infrequent users even though the cognitive walkthrough was originally designed as a tool to evaluate walk up and use kiosks such as postal kiosks, ATMs and interactive exhibits in museums where the users would have no training or little training whatsoever or has been employed by more complex and advanced CAD software and software development tools helping the users to understand the first experience of new users^[6].

Here I will make a short cognitive walkthrough to demonstrate the steps and how it works, for this example I will base it on a board game that has been used as an online game and use the cognitive walkthrough three key parts that have been demonstrated on the medium corporation website [8].

First you will need to identify the board game chosen, for this example we will use monopoly and we will make an assumption that it has been set up as a private game. Then you will need to identify the tasks at hand. Tasks such as...

- ❖ goal: sign in
 - choose account
 - press sign up
 - account logs in and retrieves gamer data
- ❖ Goal: players/lobby
 - choose how many players
 - each player picks there character piece
 - all players start from go
 - All players roll dice to select the order of when they take their turn.

After then going through the goals of the games you will need to document the key parts of the experience, usually during an online game tutorial a host will demonstrate how to do something then will ask the player do they understand on what they did not where the player can say yes and move on or say now and the tutorial will show it again. the best part of game being online is the instructions on how npcs will tell you what button you as the player needs to press, so when the games are online based its usually good to expect that the player is okay with the controls, and during the monopoly game, they even explain while the game is going how to buy property and other game related variables.

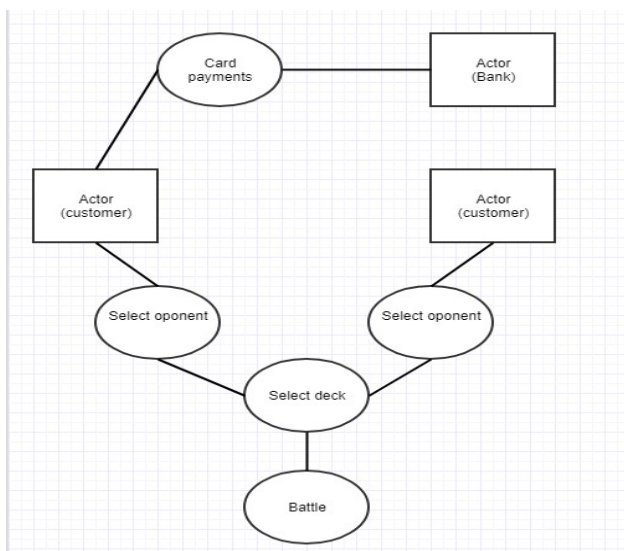
Prototyping

Also known as a systems development method (SDM) in which a prototype is then built and then fully tested and then will be rebuilt while eliminating all problems that are discovered, and when the prototype is then built to its desired purpose and then can be introduced as a completed system or product. The methodology is best used in circumstances where not all of the project requirements are known in detail ahead of time. It is an interactive trial and error process that takes place between the developers and there end users.

When monopoly was in the development stage for becoming an online game there was a prototype made by ubisoft, known as monopoly deal ^[9], this game had no board and was designed as an trading card game where people would earn money of the properties they draw and then buy other properties off other players to complete the sets to earn more the catch being that the other don't know the properties you own. but this was in the works for so long that it was really looked over by its target audience as being a worth playing game which is why Hasbro asked ubisoft to create an online game of monopoly to the book without changing the game entirely, this shows how important prototyping is, because it has shown the developers that although it was a good concept to the game it still needs a good amount of work before being released as a final version.

Interaction models

An interaction model is a design model that will tie an application together in a way that supports a conceptual models of its target user, the best way to show an interaction model is to create one, for this example I will base it on a concept for online card games.



This card game shows an interaction model on how the interactive card game process would work. Firstly the actor will select to play and then the game will find the player an opponent then the players will select the deck they are using and then they will be able to battle it out until one is the winner. The customer also has the option to choose card payments and so they can shop online for booster packs or certain cards. The payment will then be sent to the bank and then the bank will confirm or deny payment, assuming the card is accepted and purchase completes then the player's cards will then be obtainable in the player's card selection.

Suitable technologies to support interactivity

if you take away the technological device that would be used to make an interactive and well executed interactive game, the devices used such as keyboards, mice, remotes and other input and output devices there are a lot of requirements needed for the game to process completely going against my statement of the setup is the downfall of the gaming industry, which is why I find that a mobile phone based platform is the best option for these types of games especially due to their mobility as shown in the statistics chart^[10], that shows the where games are mostly played, as the only set up required is to turn the phone on and click the app, with the occasional linking or creating of accounts in order to go against friends which is no hassle as the majority of the time a mobile device will auto fill some of the information for you.

Evaluation

To evaluate my work, I have found that the best suited interactive version of these types of games would be card based, the reason would be that it has more of a chance at being a better and more successful interactive game, I have found this because, it has more potential than board games, I think this as when I played a card game that had been created interactively compared to a board game, I found that when playing YuGiOh^[1] I was able to see my characters monsters be summoned to the field which was a big deal as I have played the game for years and to see the monsters animated was a big deal which really made me feel more involved with the game, compared to the board game I played that had been created in an interactive fashion was chess, now yes I get that the comparison between the games is unfair but at the same time there wasn't much of an option when it came board games on an interactive basis. now yes maybe if there was more of an option when it came to board game I would be more inclined to give them a better chance but yet even playing poker online people are more likely to get more enjoyment, so to conclude my evaluation I have found that hands card games are the better go to when it comes to creating an interactive version of the two types of games, due to there ever expanding horizon of possibilities. to back up my evaluation I have used Facebooks statistics of the top 25 games they use^[11], with the top-3 being card games, these facts show that users are more inclined to play a card game then a board game. The only true positive I could come up with for board games are if they went interactive it would mean no more losing pieces to the game or it stops players from having to set up the game in the first place.

Referencing

Article title: KONAMI DIGITAL ENTERTAINMENT B.V.
Website title: KONAMI DIGITAL ENTERTAINMENT B.V.
URL: <https://www.konami.com/games/eu/en/> (1)

Article title: Hasbro
Website title: En.wikipedia.org
URL: <https://en.wikipedia.org/wiki/Hasbro> (2)

Article title: Buy MONOPOLY PLUS - Microsoft Store en-GB
Website title: Microsoft Store
URL: <https://www.microsoft.com/en-gb/p/monopoly-plus/c0cb2cvzvsnr?activetab=pivot:overviewtab> (3)

Article title: Microsoft Solitaire

Website title: En.wikipedia.org

URL: https://en.wikipedia.org/wiki/Microsoft_Solitaire[4]

Article title: What is use case? - Definition from WhatIs.com

Website title: SearchSoftwareQuality

URL: <https://searchsoftwarequality.techtarget.com/definition/use-case> [5]

Article title: Cognitive Walkthrough | Usability Body of Knowledge

Website title: Usabilitybok.org

URL: <https://www.usabilitybok.org/cognitive-walkthrough> [6]

Article title: What is Prototyping Model? - Definition from WhatIs.com

Website title: SearchCIO

URL: <https://searchcio.techtarget.com/definition/Prototyping-Model> [7]

Article title: Cognitive Walkthroughs – User Research – Medium

Website title: Medium

URL: <https://medium.com/user-research/cognitive-walkthroughs-b84c4f0a14d4> [8]

Article title: Monopoly Deal

Website title: Ubisoft.com

URL: <https://www.ubisoft.com/en-gb/game/monopoly-deal/> [9]

Article title: Where are Mobile Games Played? | Big Fish Blog

Website title: Big Fish Games

URL: <https://www.bigfishgames.com/blog/stats/where-are-mobile-games-played/> [10]

Article title: Top 25 Board and Card Games on Facebook by Purple Pawn

Website title: Purplepawn.com

URL: <http://www.purplepawn.com/2010/05/top-25-board-and-card-games-on-facebook-2/> [11]