**Politico - Literature Review**

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# **Introduction**

This document is a review of the relevant literature for my final year project. It will cover what games have inspired the project and what elements have been taken from said games. It will also cover the use of politics and fuzzy logic within games with references to my prior research into the subject. Finally, it will discuss games on the web as a means of being cross platform and the technology choices made for such games and the project as a whole.

# **Similar Games**

The idea behind this project is very simple and so where gameplay ideas have been taken from other games it is usually very small scale and requires discussion as it is more nuanced than a like for like copy.

The biggest inspiration for the project is the mobile game Reigns **[1]** that first implemented the idea of having a Yes/No decision be the only mechanic that a player can interface with. The biggest difference is that the effects of a decision lie entirely within that decision as opposed to being a combination of different factors which is limiting in terms of being able to look at different areas within the game to inform any decision.

Alongside Reigns, another inspiration for the project is the board game Diplomacy **[2]** that utilises politics and the idea of making political decisions that affect different areas within the nation the player controls.

Some other notable mentions would be the Victoria **[3]** and Civilization **[4]** series that the ideas of interacting with a province in the nation and being able to see all of its statistics and how they influence political leaning came from.

# **Games on the Web and Cross Platform Games**

Early games within the web used technologies such as Flash and Java Applets which required the user to have external plugins/extensions installed on their machines in order to run them. Some of the most popular games for the web such as Fancy Pants Adventure **[5]** or Line Rider **[6]** were made using the technologies. These games weren’t able to run in every browser as the proprietary technology wasn’t a browser standard, this started to change slowly through the introduction of HTML5 which included a Canvas that could be painted to, overtime this has phased out the use of external technology and now most web browsers fail to support the outdated technology such as Flash player.

Although games were thriving early on after the introduction of HTML5, they were only really cross platform in the sense that they could be played on any device with a browser but it wouldn’t be a comparable experience, many games just serving the desktop site with no support for touch controls. Some web games that decided to focus on being cross platform ditched the browser altogether and used a web wrapper such as Adobe AIR **[7].**

The focus of this project is to be completely cross platform whilst being in the browser, accessed in exactly the same way on all platforms, designed to be responsive and just scale to any screen size with intuitive controls that work on all platforms without the need to query the platform. This will be driven through the use of mobile first design **[8]** that scales up from a mobile screen to any sized screen.

# **Politics and Fuzzy Logic**

* Other games that introduce politics as a *main* theme within the game and how they have gone about it
* Reference my own research into fuzzy logic to determine the political leaning of an area and how this can be used in my final year project to give realistic and non-random political leaning values for an area.

# **Technology**

Technology has come a long way from Flash and Java Applets to modern HTML5, JavaScript and SVG/Canvas and so it is important to look at the available options for a project of this kind and why using a certain technology is beneficial.

This project uses React and TypeScript; React **[9]** is a framework for JavaScript that allows you to write declarative components that output as HTML on a page and TypeScript **[10]** is a super-set of JavaScript that adds static typing to the language. React is designed for user interfaces and so games that heavily rely on other elements aren’t suited to this platform and the use of the HTML5 Canvas is probably more suitable whereas games such as strategy games or games that have a high focus on their user interface can take advantage of React and its ecosystem. An example of a game made using React is The Danger Crew **[11]** and an example of TypeScript’s use within game development can be seen with the Excalibur game engine. **[12]**

Many games for the web utilise the HTML5 Canvas which is very robust and would have been usable for this project, however, it makes developing cross platform games more difficult over just using the HTML DOM as UI doesn’t automatically scale to different screen sizes whereas HTML and CSS do.

# **Bibliography**

1. Reigns Game - <https://reignsgame.com/reigns/> (Last accessed 19th December 2019)
2. Diplomacy Board Game Rulebook - <http://www.diplomacy-archive.com/resources/rulebooks/2000AH4th.pdf> (Last accessed 19th December 2019)
3. Victoria Game Series by Paradox Interactive - <https://www.paradoxplaza.com/victoria-ii/VAVA02GSKvic2001.html> (Last accessed 19th December 2019)
4. Civilization Game Series - <https://civilization.com/en-GB/> (Last accessed 19th December 2019)
5. Fancy Pants Adventure World 1 by Brad Borne - <https://www.bornegames.com/games/fpa-world-1/> (Last accessed 19th December 2019)
6. Line Rider - <https://www.linerider.com/> (Last accessed 19th December 2019)
7. Adobe AIR - <https://www.adobe.com/uk/products/air.html> (Last accessed 19th December 2019)
8. Mobile First Design - <https://darwindigital.com/mobile-first-versus-responsive-web-design/> (Last accessed 19th December)
9. React Documentation - <https://reactjs.org/> (Last accessed 19th December 2019)
10. TypeScript Documentation - <https://www.typescriptlang.org/> (Last accessed 19th December 2019)
11. The Danger Crew - <https://thedangercrew.com/> (Last accessed 19th December 2019)
12. Excalibur TypeScript Engine - <https://excaliburjs.com/> (Last accessed 19th December 2019)