

Project proposal Phoenix

by Phoenix Webb Gimenez

Submission date: 26-Oct-2023 02:28PM (UTC+0100)

Submission ID: 214106097

File name: 49890_Phoenix_Webb_Gimenez_Project_proposal_Phoenix_525049_2018886324.pdf (125.25K)

Word count: 1350

Character count: 7231

"Racing Video Games Evolution"

Project Proposal

Phoenix Webb 2310140

1348 words

1. Introduction

The project examines the evolution of racing video games over time, visually through the evolution of designing, graphics, and technologically through the evolution of the technology that produces these video games as software and tools. I am particularly interested in examining the transformations that have occurred from the inception of the first racing video game up to the present day. I have always had a passion for the world of motorsport and video games, and now I am directing my focus towards hard-surface 3D modeling. I enjoy playing racing video games and am keen to understand their creation process and the workflows employed.

In the practical aspect of the project, I will be modeling some car wheels and an environment of a garage.

2. Background to the Proposed Research

Over time, the evolution of racing video games has been investigated and analyzed in various domains. This information can be found in books, forums, websites, journal papers, and more. The following section will mention significant research projects that delve into the evolution of racing video games.

Historical Overview:

Racing video games have been a part of the gaming landscape since the early days of arcade gaming. Classic titles like "Pole Position" (1982) and "Out Run" (1986) set the stage for what would become a diverse and innovative genre. Initially, these games featured simple 2D graphics and basic gameplay mechanics.

Advancements in Technology:

One of the most significant drivers of the evolution of racing games has been advancements in technology. The transition from 2D to 3D graphics was a game-changer. Titles like "Virtua Racing" (1992) and "Daytona USA" (1993) brought polygonal 3D graphics to the forefront, revolutionizing the genre. This shift allowed for more immersive environments, realistic physics, and greater attention to detail in vehicle design.

The 21st century saw the rise of online multiplayer gaming and virtual reality (VR) in racing games. Titles like "Forza Motorsport" (2005) and "iRacing" (2008) allowed players to compete against others worldwide. VR racing games, such as "Gran Turismo Sport" (2017)

and "Project CARS 2" (2017), provided an unprecedented level of immersion, allowing players to feel like they were inside the cockpit of a race car.

Gameplay Mechanics:

While realism in graphics and physics has been a central focus, gameplay mechanics have also evolved. Early racing games were often simple and arcade-like, but modern racing games strive for a balance between realism and accessibility. The introduction of features like car tuning, dynamic weather, and day-night cycles has added depth to gameplay.

Player Experience:

The player experience in racing games has evolved with the advent of social and online gaming. Players can now join communities, compete in e-sports events, and customize their cars and avatars. The integration of realistic force feedback steering wheels, pedals, and VR headsets has elevated the immersive experience.

References of big theories:

- **"Racing the Beam: The Atari Video Computer System"** (Montfort & Bogost 2020): While focusing on the Atari 2600 platform, this book explores how early racing video games were developed on this console and how they influenced the genre as a whole.
- **"The Art of Video Games: From Pac-Man to Mass Effect"** (Melissinos and O'Rourke 2012): This book focuses on the history of video games as a whole but dedicates a chapter to racing games.
- **"The History of Mario Kart is hard"** (Bosboom et al 2015) : Mario Kart is one of the most iconic racing game franchises, and this book centers on its history and evolution over the years.
- **"Playing at the Next Level: A History of American Sega Games"** (Horowitz 2016): This book focuses on Sega games and their influence on the video game industry, including racing titles such as "OutRun" and "Daytona USA."
- **"The Legend of Zelda and Philosophy: I Link, Therefore I Am"** (Cuddy 2008)
- **"Super Mario Kart"** Michael Darnell: This book centers on the iconic Mario Kart franchise and its impact on the history of racing video games.

- **"Console Wars: Sega, Nintendo, and the Battle that Defined a Generation"**
(Harris 2014): While not exclusively focusing on racing games, this book narrates the rivalry between Sega and Nintendo in the 1990s, which influenced the development of many racing games.
- **"Game Studies"**: the international journal of computer game research.
- **"IGN"** It is an American website for video games and entertainment media.
- **"DiGRA" (Digital Games Research Association)**: It is an academic organization dedicated to research in the field of video games.
- **"Edge"** is a British video game magazine known for its focus on in-depth analysis and the more artistic and technical aspects of video games.
- **"Game Informer"** is one of the largest and widely read video game magazines.

3. Aims & Objectives

Aim:

Investigating how technology has advanced through software and development tools in the context of racing video game production.

Objectives:

- 1. Exploring Genre and Subgenre Evolution:** Examining the division of game types (arcade, simulation, open world, etc.) and how they have evolved and diversified over time.
- 2. Comparing Different Eras and Platforms:** Conducting a comparative analysis of various gaming platforms and their evolution across different time periods.
- 3. Studying Game Design and Gameplay:** Researching the evolution of racing game design, including aspects such as game physics, user interface, and gameplay mechanics.
- 4. Exploring the Evolution of Online Gameplay Modes:** Investigating how the experience of online multiplayer gameplay in racing games has changed and how online competition has developed.

4. Methodology

4.1 Research Methodology

I will take my objectives into consideration and conduct research across various academic sources to facilitate a comprehensive investigation into the development of racing video games and the technologies employed in this regard.

4.1.1 Philosophy

My research will be mixed, employing positivism for the development of software and technical evolution as they are grounded in objective and quantitative data, and phenomenology for the development of new designs and the evolution of genres and subgenres.

4.1.2 Approach

It will be deductive, starting from a general premise or rule and arriving at a specific conclusion that is a logical application of that premise. Technological advancement operates through logical and numerical applications.

4.1.3 Strategies

I will conduct a literature review analyzing the information that has already been provided in books, journals, online publications, etc.

4.1.3. Strategy 1

My first strategy will be an ethnographic study. I will examine where the best racing video games have been developed and how they have been influenced by their culture in the development of the video game.

4.1.3. Strategy 2

My second strategy is a case study. I will examine a video game that had a significant impact on the evolution of racing video games.

4.1.4 Risks & Limitations

I need to know where to obtain the necessary information and determine its validity, assessing the reliability of the sources. I want to avoid any limitations in my research because the realm of technology is vast.

4.1.5 Ethical Issues

Perhaps there may be issues with certain car brands (Mercedes, BMW, etc.) in some video games due to copyright concerns.

5. Resources and Planning

I will utilize valid information from sources such as books, forums, news articles, journal papers, etc.

5.1 Hardware Resources

Mi PC, phone, books.

5.2 Software Resources

Google chrome, Maya, Substance painter, Marmoset toolbag 4.

5.3 Project Plan

INDEPENDENT PROJECT PHOENIX	December	January	February	March	April	May
Interim Viva (Wed 17 th /Thurs 18 th Jan 2024)		Here I will have half of the project completed, I will have studied my objectives to reach the aim				
Practical work			Here I will do the practical part, the 3D modeling of a wheel asset pack			
And research				I will continue gathering information about books and academic publications		
Final Report (Wed 24th April 2024 by 3pm)					First delivery of the research + 3D renders reel	
Final Viva (Wed 1 st /Thurs 2nd May 2024)						Final delivery + reel
Exhibition: Poster (Tuesday 7th May 2024 by 3pm)						Prepare a presentation for the final project

6. Reference list

Blake, H. J. (2014). Console Wars: Sega, Nintendo, and the Battle That Defined a Generation.

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Horowitz, K. (2016). *Playing at the Next Level: A History of American Sega Games*. McFarland.

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GRADEMARK REPORT

FINAL GRADE

40/100

GENERAL COMMENTS

1. Intro /Aims & Objectives (10/20)

The introduction is a bit general – this provides an overview but we do need to have some specific details included to indicate that you have conducted research in this area. At present it is a little light.

The literature suggestions are promising as these look as though they cover key moments in racing game evolution – these have been retrieved independently, which is good to see.

The aims and objectives seem particularly focused on gameplay and technology – how does this relate to the modelling aspect of the project?

2. Background to the Project / Literature Review (10/20)

The advancements in technology seem limited to titles of games released across the years – this feels like the technology aspect is being overlooked somewhat. All games have improved graphically over the years but this is to be expected – is there something within this area that would be more interesting to explore? Technological capabilities and graphical fidelity will always increase in general, so there's not much to say about that. A comparison of different eras feels a little redundant – it'd be like trying to race a Mini Clubman against a Bugatti Veyron... the recent tech will obviously be superior and more refined in almost every way.

The evolution of popular elements of racing game design might be a good direction to go in – from the origins of the genre to the development of ‘Kart racers’ and more refined simulations such as Gran Turismo and R Factor. This does leave a bit of a gap between the practical proposal and research however – we may need to work on this to give a clearer justification for the practical work.

3. Project Design (14/30)

Specific research methodologies have been listed in the proposal which is good as this shows consideration for what processes need to be considered.

‘Best’ racing games may be subjective – bear this in mind.
Some players will think Mario Kart is the best while others may consider Forza Motorsport worthy of that title. It may be good to focus on a subgenre, such as racing simulation, rather than consider all driving games as this may be too broad a topic.

4. Resources / Planning (8/15)

Project proposal appears to show general milestones after the halfway point – what work will need to be completed before this time?

References have been included in a bibliography – this is good but for additional marks these need to have in-text references (using IEEE format).

5. Document Presentation (8/15)

Presentation of the report includes sections and subheadings, clearly laying out the proposal – though this can be enhanced with the inclusion of a separate title page, contents page, etc. More use of quotes and references would be advisable too, to further evidence applied research to the work.

Work has been submitted after the specified deadline date, which means it is counted as a late submission and subject to a maximum 40% cap in accordance with University assessment regulations (**original uncapped mark of the work is 50%**).

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6
