Battle of Origins — Theory Defender

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Figure 1: Battle of Origins | Theory Defender

Contents

1. Game Description

1.1 Storyline

We live in a world where to all questions humanity asks itself an answer is found in religion and science. Two branches that split the world into two parties drifting more and more apart. Neither of them willing to accept or even listen the opinion of the other. But humanity cannot progress when it is at conflict with itself. The time has come to reunite the population of our planet and to lead humanity on its one and only true path. For a peaceful and strong world one side needs to disappear forever. Starting with the most fundamental question: "how did we become what we are today?". Was it an instant creation of perfection or an evolution that took billions of years to make us who and how we are to this day. Choose your belief and convert everyone who dares to challenge your norm of existence in the epic "*Battle of Origins*".

1.2 Gameplay

Before the match begins the player may choose a belief. Either religionist or evolutionist. The main aim of the game is to convert the entire opposing team to your belief.

The teams will consist of 30 people each. Non-human players will be controlled by an artificial intelligence. Each player is able to blast the players of the other team away, causing them to fly through the air and temporarily take their ability to move. To convert the opposing player to your belief a big wonder must be cast. A big wonder can be generated by standing together as a group from the same team. Standing together allows the player to press the pray/study button which will start filling the big wonder progress bar. While standing together the players have an increased vulnerability. Meaning if an opposing player A is shooting at a player B who is currently praying/studying, player B will be hurled further away than he would have been if he had not been studying/praying. In addition while the players are standing together the rest of the map is blurred out so they cannot see approaching enemies. This can only be done if we use multiple screens. When releasing the pray/study button the player has a cool-down of 2 seconds before he can start running and shooting again. The speed of the wonder-creation progress is determined by two factors:

1. **The size of the group:**
   The more people close to each other, the quicker the progress bar will increase

2. **Wonder Skill:**
   The creating-wonder skill of each player that is currently in the group (see subsection 1.4)

Once a big wonder is generated it is indicated by multiple representations:

- The progress bar is full (visible to all players)

- One player is now in possession of the big wonder (see subsection 1.5 to see visual representation)

- A sound lets all players know that a big wonder is ready

The player who is in possession of the big wonder can now cast this whenever he wishes. While he is in possession he cannot be converted by a big wonder of the other team. Furthermore the possessing player has an increased running speed. A timer lets all players know how much time there is left before the wonder cannot be cast anymore. Once the big wonder is cast, the player becomes immune to all types of attacks (main attacks and big wonder conversion) and he is able to control the big wonder's area of effect. Any opposing player who is in the area of effect will be converted to the own team. While the wonder is active the progress bar decreases. Once it has reached zero the wonder will be deactivated and the player will have normal running speed and be vulnerable to all attacks again. Players of the same team can remain studying/praying while the wonder is active in order to lengthen the period of the wonder.

1.3 "Death" of players

There is no real death in the game. One can only hurl the other players through the field and making the unable to move for a period of time. There are two modes that control what happens after a player is converted. This mode can be selected by the player at the beginning of the game:

mode 1: If a user-controlled player is converted he takes control of another computer controlled player of the team he originally picked, as long as there still exists one. If no computer controlled player is left in the team the player enters spectator-mode until computer controlled players are available again. This simply allows him to watch the game without having any influence.

mode 2: If a user-controlled player is converted the user remains in control of the player but is now helping the other team to convert his originally selected team. This results in all players to be winners in the end.

1.4 Evolving Upgrades

Players will evolve on the fly while playing. They will not have the ability to choose an upgrade themselves. The more they perform a specific action, the better they will become at it. Following is a list of automatically evolving skills:

- Running Speed

- Power of main attack

- Precision of main attack

- Contribution to creating a big wonder

- Immunity against attacks

The visual difference of each upgrade can be seen in subsection 1.5. Each player starts with 0-skill points on each skill. A class can be chosen before the game starts. Choosing a class will give an initial boost in a certain skill or allow the player to gain skill points in a certain skill faster.

1.5 Visual Difference

Although each player has the same power and tools, they are visually and audibly different depending on the chosen belief. Here is a table of what each part will look like

1.5.1 Main Game Aspects

See table 1

1	Religious	Evolutionist
Main Weapon	Force push	Blast gun
Main Weapon (upgrade)	Super force push	Blast cannon
Main attack	Use force push	Shoot blast gun/cannon
Big Wonder	Rays of god	Rain of books
Creating Big Wonder	Praying	Studying
Big Wonder finished creating sound	Angels singing "*Aaaaah*"	Pen on paper scribbling OR Voice saying "*Q.E.D*"
Possessing wonder	Wings	Carrying big book, Big glasses, robot, orbiting planets/atoms OR light bulb above head

Table 1: *Main Game Aspects*

1.5.2 Character Upgrades

See table 2

	Religious	Evolutionist
Immunity against attacks	Skin color (white –> silver)	Skin color (white –> silver)
stronger main Weapon (upgrade)	Glove color (white –> red)	Gun size (small –> big)
Faster Running	Bigger feet	Bigger feet
Big Wonder skill	Size of hands (small –> big)	size of head (small –> big)

Table 2: *Character Upgrades*

1.6 Important Aspects

1. **Fair Teams:**
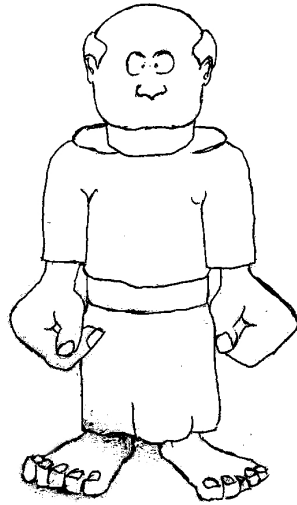   We want the teams to be equal in the sense that both possess the same offence/defence.
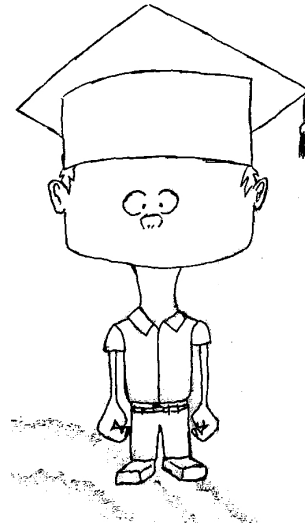
Figure 2: Creationist

Figure 3: Scientist

Therefore, winning merely depends on the strategy and the aiming skills of the player

2. **Unique Gameplay:**
   We want our game to be extraordinary, but still playable by common users, without directly fitting into a game category or the need to have long tutorials.

3. **Cartoony/Non-Photorealistic Rendering:**
   Since we are touching a controversial topic we blind out some seriousness by making the characters and surroundings cartoony

4. **Visually stunning and self-explanatory:**
   A player should be entertained by simply watching the game. Furthermore it should be self-explanatory without the need of long tutorials

5. **Multiple Tasks:**
   During the game the player needs to perform different tasks at the same time. On the one hand the game can only be won when a big wonder is cast and thus, players need to form study or praying groups to fill the big wonder bar. On the other hand players must prevent the other team from filling their big wonder bar. Some players in the other team will also pursue this task of distracting the prayers or the studying. Therefore, in order to win the game players also need to protect the players filling the big wonder bar.

2. Technical Achievement

For a game like the one presented in this document the interaction between the players is crucial. Therefore it depends a lot on a rather large group of players, such that the player won't get bored if no one else is around him to interact with. To achieve the player to feel like a part of something big, as well as being attracted by the game by lots of interactions and possibilities to behave is the balance between the level size and the number of players in the game.

If the level is very large and there is only a small number of players on the field, everybody is just playing around on his own and not interacting a lot with the other players. It takes a long time to reach the other players to either attack them or to pray or study with them. An experience like this would probably not make the players to fall in love with our game immediately.

If, on the other hand, the level is rather small and there are many players on the field, the player will feel challenged and necessary to help his team win the battle. If he has to deal with lots of enemies before being able to reach his fellow campaigners, he will stay active and motivated throughout the entire game. This is the effect we are aiming for.

Of course it is not always possible to start a game with that many friends who can join. But since the number of players is really crucial to the game, we will provide non-player characters (*NPC*), which will be controlled by the computer rather than by some human. The artificial intelligence to make these NPCs behave intelligently is the most prominent technical achievement we want to reach. For the player it should not feel different when playing with NPC or with fellow human players. Therefore the artificial intelligence should make the NPC behave similar to characters controlled by humans. On the other hand the artificial intelligence must not be too good. If an NPC is clearly better than the human player, he might feel overchallenged. Therefore we will try to find a good compromise between stupidly behaving NPCs and super-soldier NPC who are invincible.

3. "Big Idea" Bullseye

Big Idea: Don't Kill, Convert
Technical innovation: Not a standard shooter
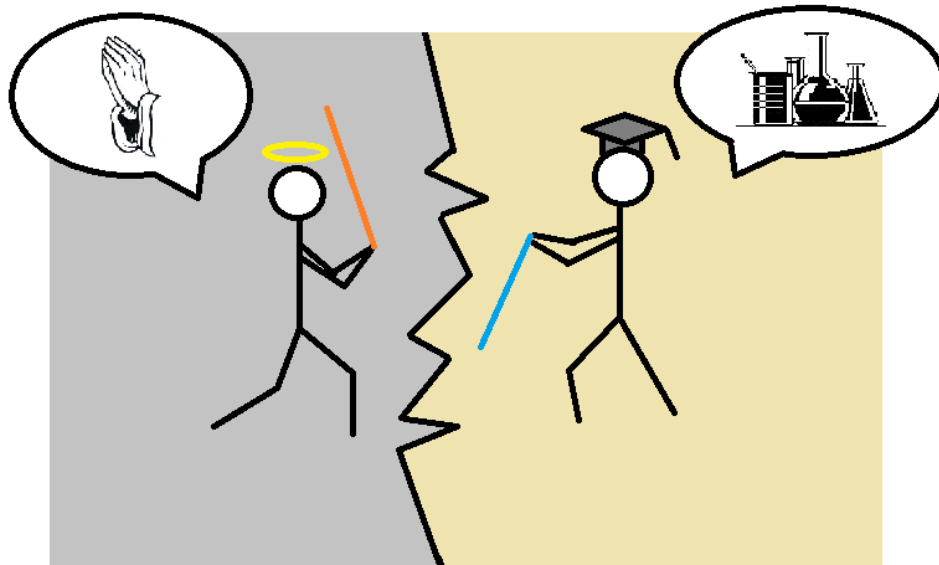
Figure 4: Big idea Bullseye

4. Development Schedule

4.1 Layered task breakdown

1. Functional Minimum

   - Players from two teams running around
   - Players flying away when hit
   - Counting hits

2. Low target

   - Creating a wonder by standing together. Will convert entire team after successfully created for now.
   - Characters visually recognizable

3. Desired target

- Wonder is possessed by a player
- Wonder can be cast
- Wonder will convert other players when in area of effect
- Wonder visually recognizable

4. High target

- Other players are controlled by an advanced AI
- Player controls free NPC when being converted
- Players evolves visually and numerically according to their actions
- Power-ups can be collected during a game session

5. Extras

- Online multiplayer
- Procedural, automatic level-design (each level is different)
- Classes of characters (specialized for praying/studying or shooting)

4.2 Task Allocation

See table 3

4.3 Timeline

See table 4

5. Assessment

Our game shall stand out in several ways. We want to create a funny, cartoony, visually stunning gaming experience that fascinates someone by only watching another person playing the game. By "funny" we mean that everything from design over physics to sound will be produced with always keeping humour at the back of one's mind. For example, if a character gets hit by an enemy's shot, it will fly through the air far away from real-world physics. Also, we want to include a dimension of "cuteness" into our gaming experience by using non-photorealistic rendering and a cartoony overall look. We believe that the combination of cartoony visuals, a camera that shows a wide part of the action and a fast effect-overloaded gameplay will create a special form of appealing that will bring the player in a good mood while providing an experience of fun in every second of playing. By "visually stunning" we want to say that the player will see a battlefield with a lot of characters fighting each other and building pray/study circles, objects that are hit and therefore flying through the air, different looking characters according to their skills and a lot of light and particle effects caused by the weapons, power-ups or the skills of characters. As criteria for success we elaborated our own "big idea bullseye". On the one hand, our core idea

consists of the effect-overloaded non-realistic cartoony styled fight over evolution including the "super-power" of converting enemies. On the other hand, our technical innovation is a shooter where you can't kill enemies and where team play is crucial to win the game.

Task	Description	Who	Hrs	Actual
	Idea Finding			
1.	Brainstorming Design	All	5	7
2.	Character modeling	Gregory	20	
	Assignments			
3.	Project Proposal Draft	All	10	10
4.	Prototype Chapter	All	10	
5.	Interim Report Chapter	All	10	
6.	Alpha Release Chapter	All	10	
7.	Playtest Chapter	All	10	
8.	Conclusion Chapter	All	10	
9.	Demo Video	Patrick	50	
	Presentation and Demos			
10.	Pitch of the Game	All	7	7
11.	Formal Game Proposal	All	10	12
12.	Paper Prototype	Jacqueline	5	6
13.	First Playable Demo	All	30	
14.	Interim Demo	All	50	
15.	Alpha Release Demo	All	100	
16.	Play-test presentation	All	75	
17.	Final Public Presentation	All	40	
	Functional Minimum			
18.	Main attack for both parties	All	15	
19.	Physics	All	15	
20.	Lighting	All	5	
	Low Target			
21.	Audio	Patrick	7	
22.	3D character modeling	Gregory, Jacqueline	25	
23.	Level design (terrain and obstacles)	All	20	
	Desired Target			
24.	Toon Rendering/Shaders	All	20	
25.	Animation of attacks and hits	All	35	
26.	Studying and praying	All	25	
27.	Causing a big wonder	All	20	
28.	Convert enemies	All	15	
29.	Particle Effects	All	5	
	High Target			
30.	Artificial Intelligence	Ruben	50	
31.	Power-ups	All	10	
32.	Player evolving visually	All	25	

Table 3: *Task allocation*

Task	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14
						Idea Finding								
1.	A	A												
2.	G	G												
						Assignments								
3.		A	A											
4.				J	A									
5.						A	A	A	A					
6.										A	A			
7.												A		
8.													A	A
9.													A	A
						Presentation and Demos								
10.	A													
11.				A										
12.						A								
13.									A					
14.											A			
15.												A		
16.														A
17.														A
						Functional Minimum								
18.					A									
19.				A										
20.					A									
						Low Target								
21.						P								
22.						JG								
23.						R								
						Desired Target								
24.							A							
25.							A							
26.							A							
27.							A							
28.								A						
29.								A						
						High Target								
30.								R	R					
31.								A						
32.								A	A					

Table 4: *Timeline*
A = All, P = Patrick, R = Ruben, J = Jacqueline, G = Gregory