ENTREALITY
Virtual Learning

Entreality

Handbook

Contents

1. CONNECTION INSTRUCTIONS

1.1 Account Creation

You can create an avatar account (Firstname, Lastname, Password) here: http://aivw.ceid.upatras.gr:9030/wifi/user/account/

The Email field is optional. You will need to remember your First Name, Last Name and Password to be able to connect, so make sure you write them down.

1.2 Installation and Initial Configuration

To connect to the 3D World with that avatar you need 3D viewer Software such as Firestorm or Kokua. We recommend using Firestorm. You can download the version for OpenSim here: https://www.firestormviewer.org/os-operating-system/

Scroll down to the "**Choose your Operating System**" section, select your Operating System from the available icons and download the suitable version.
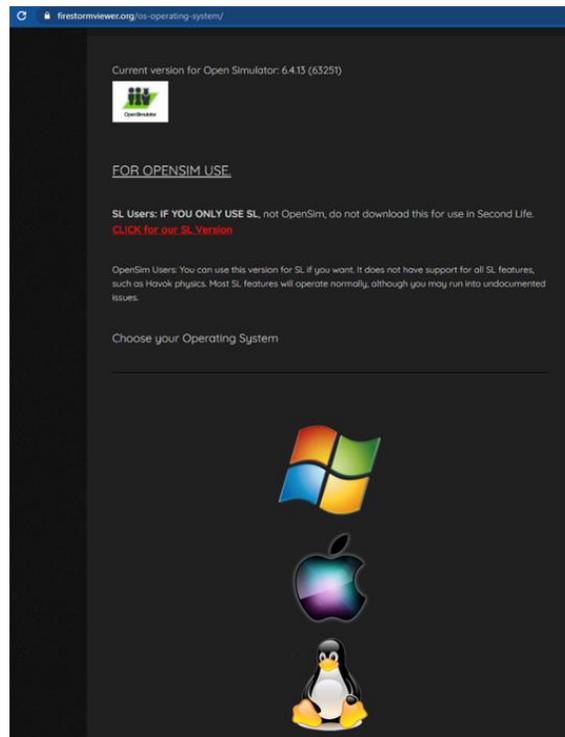
Once you have downloaded, installed, and opened Firestorm, you need to add the ENTREALITY 3D World in the list of available destinations (you only do this before connecting for the first time):

1. Viewer -> Preferences -> OpenSim
2. Add new grid: http://aivw.ceid.upatras.gr:9030/
3. then click 'Apply' and 'OK'

The grid should be now added to the **Manage Grids Table**.
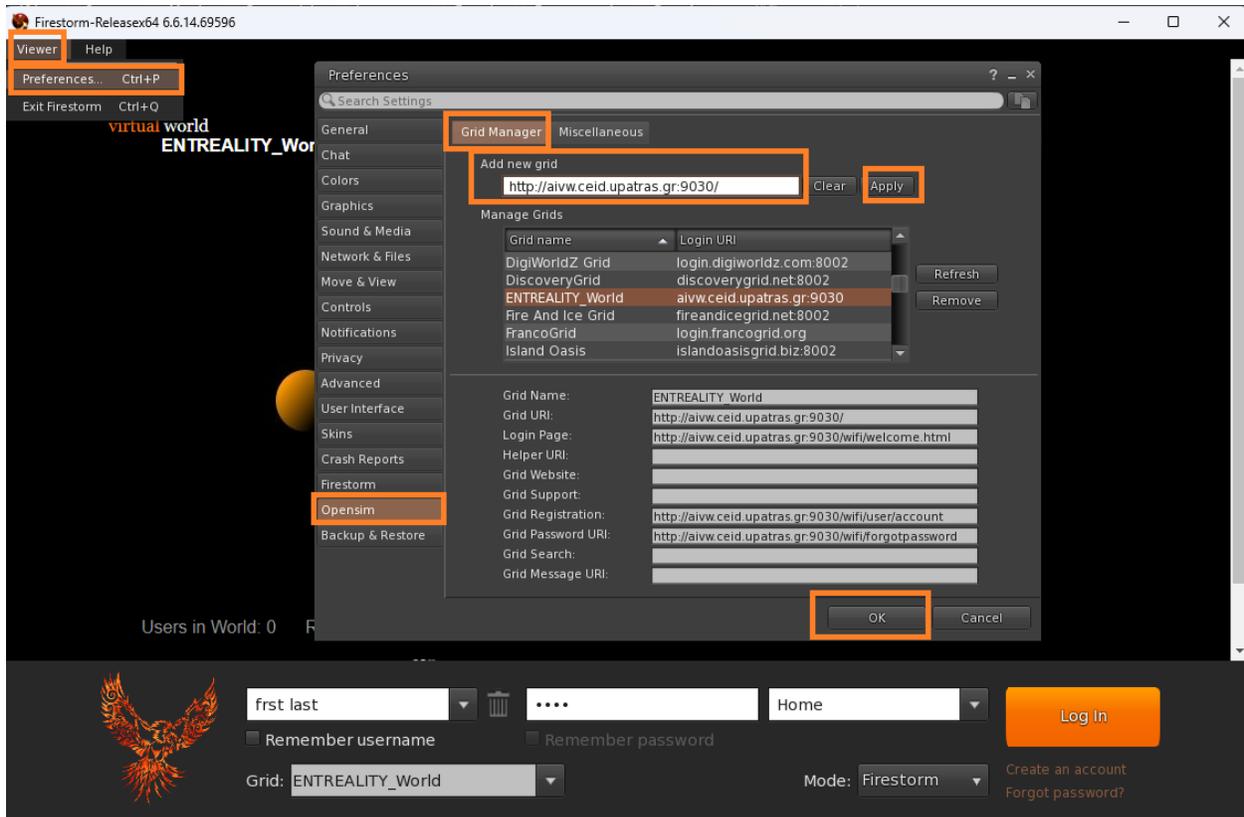
1.3 Connecting to the 3D World

Use your username "**Firstname Lastname**" and **password** and select the "ENTREALITY_WORLD" grid from the drop-down menu. Click 'Log In' to enter.
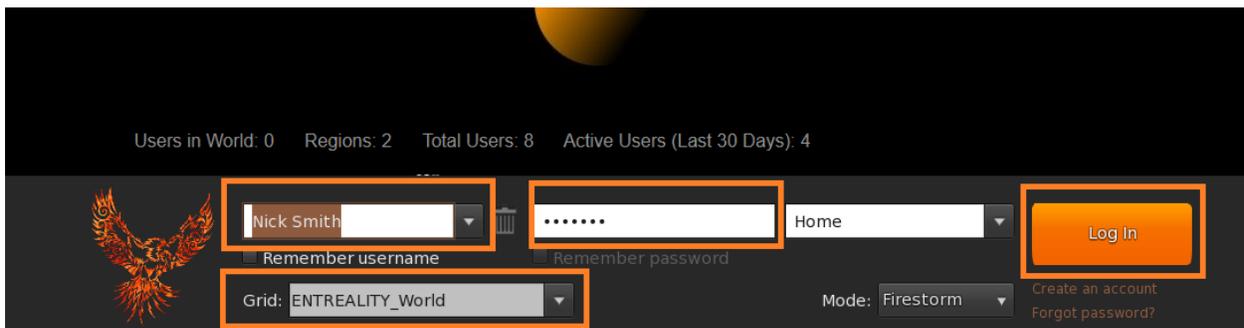
If the "Grid" dropdown list does not appear in the form, then you have probably downloaded the wrong Firestorm option (return to the installation instructions and make sure you have selected the Opensim version of Firestorm).

After a connection is made you will be inside the virtual world with your avatar.

2. BASIC CONTROLS

2.1 Moving Around

A presentation near the landing point, covers all the basic controls for moving around and controlling the camera. Follow the instructions and try to get accustomed with controlling your character.

If you like, you can choose to customize your character following the instructions.

2.2 Navigation

There are two kind of maps you can use for navigation:

World > Minimap

- It shows a small map where you can Identify your location and it updates according to Avatar movement

- It acts as a compass

- You can use this map to **teleport** to another point by Double Clicking required location

World > World Map

- Larger overview of the region with filtering feature

- You can zoom in/out to find more regions nearby

2.3 Inventory

Each avatar has an inventory of files organized by file type:

Avatar > Inventory (Ctrl + I)
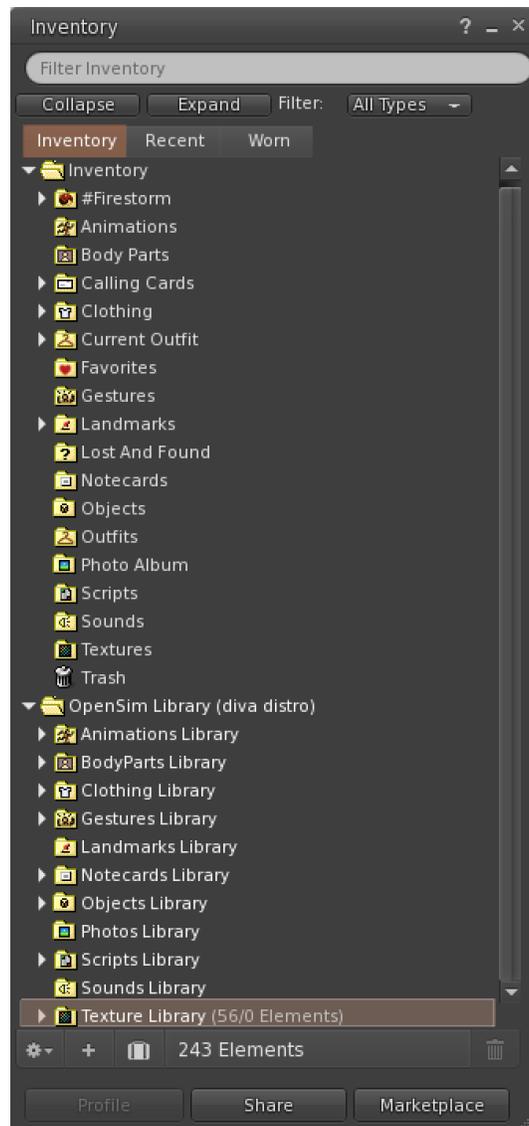
You can create files for your avatar's appearance (BodyParts and Clothing folders), you can find or create text files with notes (Notecards folder) or find Objects that you have received from the activities (Objects folder).

2.4 Communication

You can add other user avatars as friends to easily find them and be able to teleport to them. From the viewer's navigation bar, select **Comm -> People**, to open a window that display a list with all nearby users. Right click on one of the users and you get the option to view their Profile, add them as a friend, send a private instant message (IM), request that you teleport to them (**Request Teleport**) or that they teleport to you (**Offer Teleport**), and to create a distinct marker on his place to easily find him (Track).
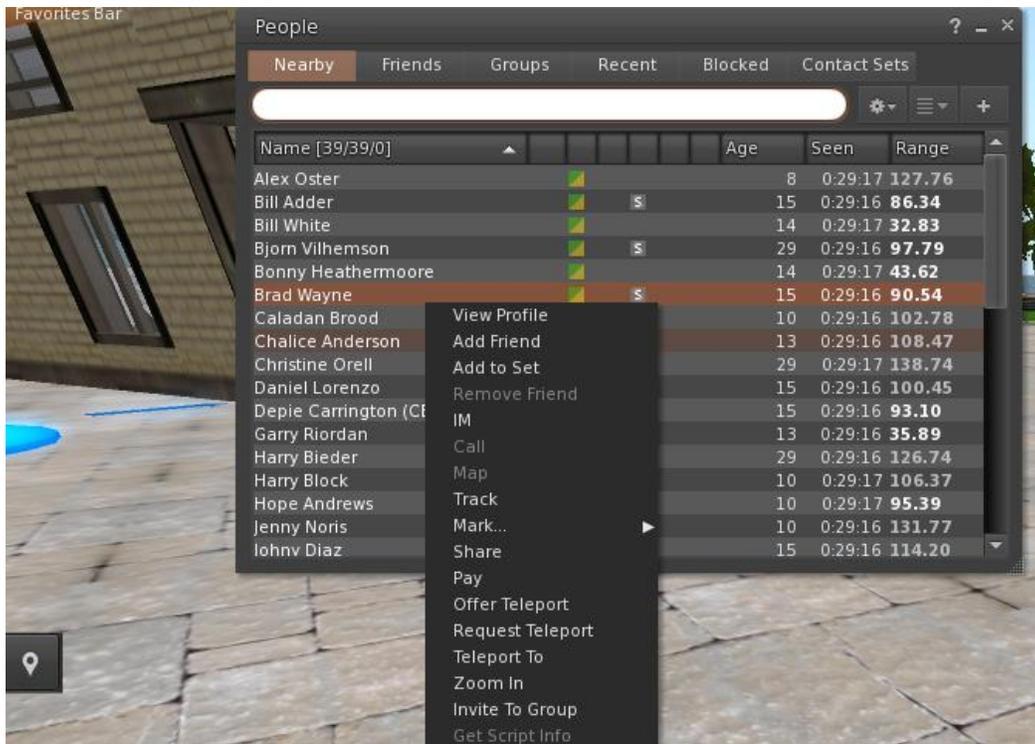
If you have already added some user as a friend, you can find them in the 'Friends' tab, even if they are not online at the moment. You can send them a private message and they will be able to see it as soon as they log in the virtual world.

You can open the chat window (**Comm -> Chat**) to view and participate in conversations. The default '**Nearby Chat**' displays all discussions that happen near your avatar. There is also a shortcut for righting quick messages that nearby avatars will receive by using the chat bar on the bottom left of your screen.

You can configure **Gestures** to be used with chat. Gestures are animations performed by your avatar to indicate or emphasize your attitude or your emotions. You can associate specific Gestures with specific words, so when you include them in your chat messages, your Avatar will perform the animations.

First, open your Inventory (**Avatar -> Inventory**) and locate the "**Gestures Library**" folder, under "**Opensim Library**". There are several gesture files in that folder, and you can right click and select "Activate" the ones you want your avatar to be able to perform.
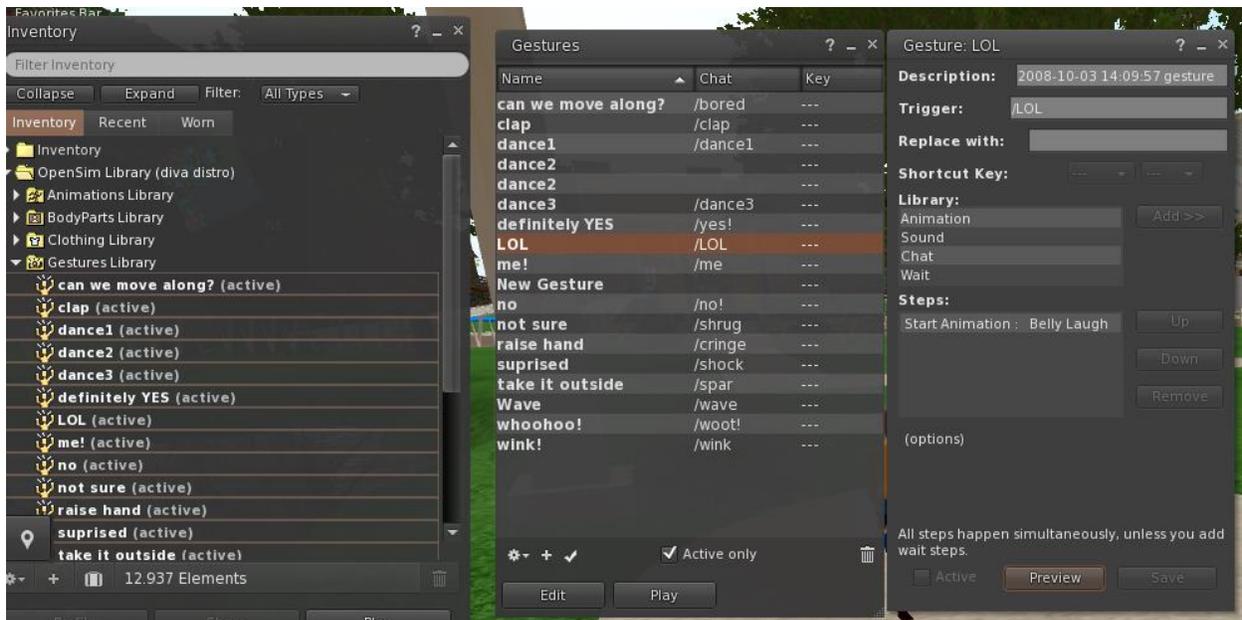
Then open the Gestures Window (**Comm -> Gestures**) and you will see the Gestures you have activated. Double click on one of the Gestures and you will see your avatar performing the animation. Select a Gesture and click the "**Edit**" button to view the details. There is a **Trigger** field that shows the command to use in chat to perform the Gesture. For example, you can write **/LOL** in the chat menu to make your avatar perform a laughing animation.

You can use the groups window (**Comm -> Groups**) to join or create a Group with other users to communicate with.

Communication with voice with other users in the virtual world is not possible directly from the 3D Viewer. However, we have prepared a voice channel in a Discord server where users can join and participate in conversations while they are connected to the 3D World. Give the following link to your students and they can follow the instructions to create an account and join the Virtual Worlds Discord Server:

https://discord.gg/xRmkaywtNF

You can then direct your students to enter the "**entreality-voice**" voice channel.
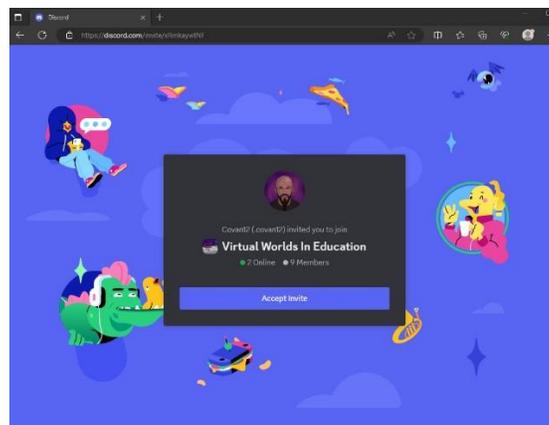
3. LEARNING MATERIAL

The **Entreality** Virtual World includes five distinct buildings that host the learning material for the corresponding five courses:

1. Entrepreneurship Fundamentals
2. Business plan & Models
3. Legal & Finance
4. Dissemination & Communication
5. Sustainability

Each building in turn contains separate rooms for the different topics of the course. For each topic there are presentation panels with the theory and assessment activities of various types.

3.1 Presentation Panel

Presentation Panels are used to display the theory of a topic. The user can use the controls to navigate the slides and select the preferred language.

3.2 Quiz Activity

In this type of activity, the user is presented with a series of questions and has to select the correct answer from the available options.

3.3 Classification Activity

In this type of activity the user has to assign each one of the cards to the correct category from the available options.

3.4 Matching Activity

In this activity, the user must match each item from the left column with an item on the right column.

3.5 Match labels to Image parts

In this type of activity, the user can see a diagram/picture with various parts, and has to put the correct label for each part.
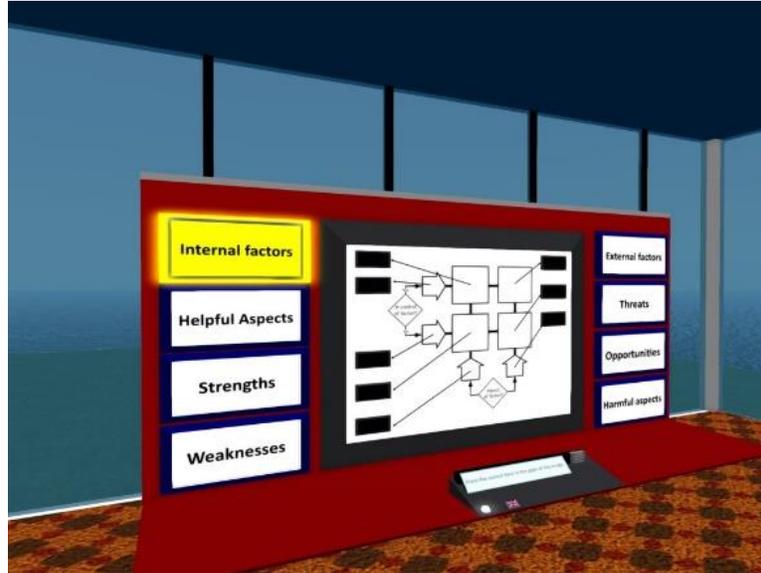
3.6 Find correct items from a set

In this type of activity, the user has to select the correct items from a list of options according to the statement that is provided.

4. SIMULATION GAME

There are two variations of the simulation game: **Farm** and **Caffeteria**. Multiple users/avatars can take up the different roles of a social business and simulate running it in the form of a game that can also be played as a tabletop board game.

4.1 Registration

The avatars that want to participate in the simulation must each click in one or more of the available 4 roles.

- General Manager
- Financial Manager
- Human Resources Manager
- Marketing Manager

The names of the avatars should appear next to the corresponding Roles. You can click on the button again to abandon a role.
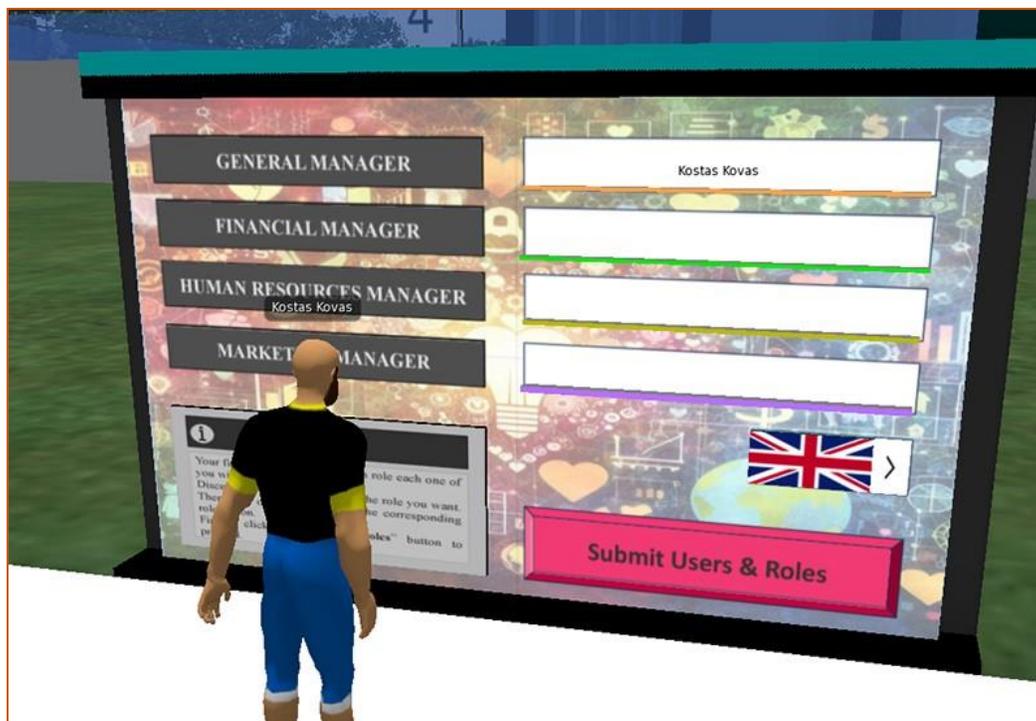
The Roles the avatars pick, do not actively matter in the Simulation but they should be taken into account during the discussions to make decisions.

When the avatars have decided on their roles they can click the "Submit Users & Roles" button to register for the game and begin. The Game is then locked for the specific users. Other users will not be able to interfere for the next panels

4.2 Product Selection

Before starting the simulation, the avatars need to decide on the products they will offer.

This is an example Product Card:

- **INITIAL COST**: This cost will be subtracted once from your balance when you start the simulation.

- **EXPECTED INCOME**: Every round, the product will provide this amount of income, that will be added to your balance (it will be adjusted according to your enterprise's productivity)

- **RISK FACTOR**: Each round there is a chance for each product that something goes bad and there is reduced (half) income than the expected.

- **SOCIAL BONUS**: This amount will be added to your enterprise's social score metric each round.

The Game presents 6 from the total of 8 products. The users can select up to 4 products from these by pressing the corresponding "+ / - " buttons below. You can pick the same product more than once by increasing the slots number above 1.

The users need to distribute 4 slots among all the products before they can start. They need to click the "Submit Products" button to finalize their selections and the actual simulation will start.

Each product you select will have an initial cost for your company and then for every round of the simulation, will add money to your funds (expected income) and will have a benefit for the society (social bonus). However, there is a chance (risk factor) that the product will return halved income.

4.3 Status Panel
The Status Panel will display the current status of the Enterprise.
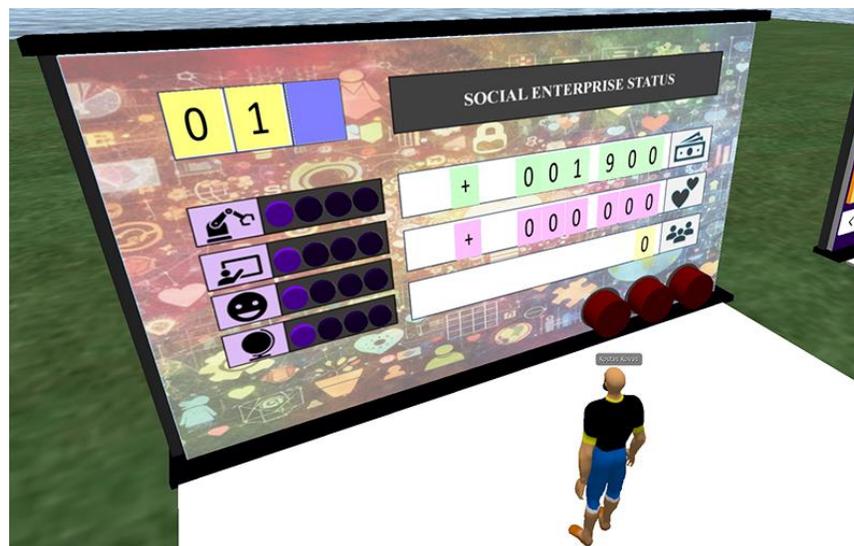
- **BALANCE**: This is the first of the two main metrics of your company. It represents the money you have on your funds. It can be negative.

- **SOCIAL SCORE**: This is the other important metric for your company that represents how much you have benefited the society.

- **GAME OVER ALERTS**: When you end a round with a negative balance an additional alert will light up. At three lights, the simulation ends!

- **EMPLOYEES**: The number of employees you have hired. Employees affect your company's productivity, allowing you to achieve as close to the expected products' income as possible. However, employees have to be paid a salary, which is subtracted from your balance each round.

Investments:

- **TECHNOLOGY (***TECH***)**: Technology investments increase your employees' productivity by supporting their own Physical/Mental capabilities.

- **TRAINING (***TRAIN***)**: Training investments increase your employees' productivity by supporting their own Education/Experience skills.

- **WORK CONDITIONS (***WCOND***)**: Work conditions investments increase your employee's productivity.

- **POPULARITY (***POPUL***)**: Popularity investments can increase your products' expected income.

4.4 Simulation

The main simulation runs for 12 rounds. Each round has 4 phases.
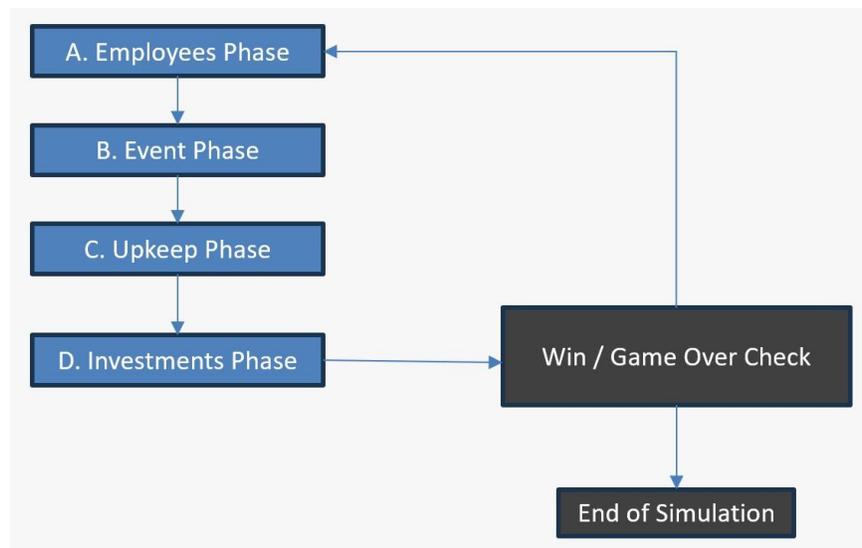
GAME OVER condition: If for three consecutive rounds, the financial balance of the enterprise is negative, the simulation ends with a "failed" state.

WIN condition. After 12 rounds, the simulation ends with a "complete" state.

4.5 Phase A: Employee Selection

At the first phase of each round, you have the option to make changes to your employees.

On the right there are the currently hired employees. You can fire one of them by clicking the X button below. On the left there is a list of four candidate employees you can inspect and decide if you want to hire (using the + button below).

This is an example Employee Card:

- **PHYSICAL / MENTAL ABILITIES (ABL)**: This metric of the employees represents how healthy they are in body and mind. It affects their productivity.

- **EDUCATION / EXPERIENCE (EXP)**: This metric of the employees represents how well educated they are and their work experience. It also affects their productivity.

- **SALARY**: This is the amount of money you need to pay the employee each round.

- **SOCIAL BONUS**: This amount will be added to your Social Score metric each round.

- **SPECIAL EFFECT**: Each employee has a special trait that can affect the simulation.

Each time you hire or fire an employee, the list of candidate employees is updated with a new set of four employee cards to select from. When you have made all the modifications you want, click the "**Complete Employees Phase**" button to end the phase.

4.6 Phase B: Round Event

At the second phase of a round, you check if there is an important event or opportunity that has appeared. Click the "View Round Event" once to check the result. There are four possible outcomes: No Event , Positive Event, Negative Event, Decision Event

If you get a No Event then nothing special has occurred. If you get a Positive Event or Negative Event, then you can simply read the description of what happened and how it will affect you. These events are temporary and you can check on the bottom left of the card, how many rounds they will be activated.
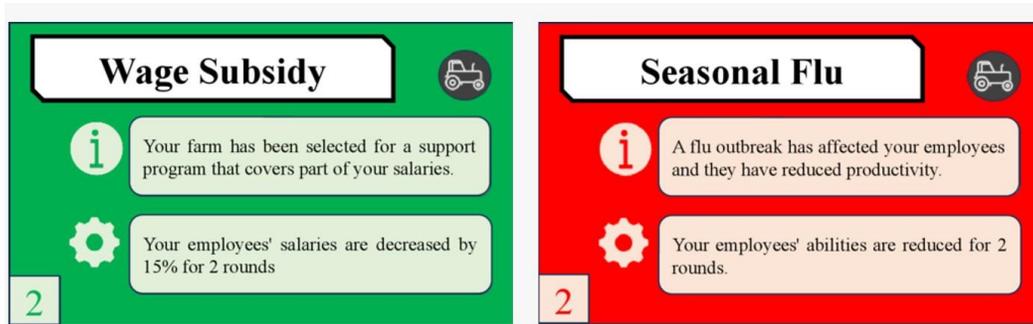
If you get a Decision Event, then you can read the description of the opportunity that has appeared and how it will affect you If you accept it. You can decide if you want to accept it or not using the two buttons below the card.Regardless of what type of event you had and if you decided or not, you must click the "Complete Phase" button to end the Phase!

On the right of the Event Panel, there is a grid where the currently active cards that affect your enterprise will appear. These Include:

- Decision Event Cards that you have accepted (These are permanent for the simulation)
- Positive and Negative Cards that have not expired (their counter is reduced each round until they get to zero and disappear from the grid).

4.7 Phase C: Upkeep

The Upkeep Phase is the time of the round where all the calculations are made, and you get to see how much the main metrics (Balance and Social Score) have been increased (or reduced). Click the View Upkeep Data once to retrieve the information and end the phase.

INCOME: The money added from your products

SALARIES: The money subtracted because of the employees' salaries

SOCIAL BENEFIT: The amount added to your Social Score because of your products and your employees.

If your hired employees have low **ABL** ratings, an investment in **TECHNOLOGY** should improve their Productivity. Similarly, if your employees have low **EXP** ratings, an investment in **TRAINING** should help. An investment in **WORK CONDITIONS** can slightly improve the Productivity of all your employees. An investment in **POPULARITY**, can have a fixed bonus to your income each round for each product.

4.8 Phase D: Investments

In the final phase of each round, you have the option to spend money from your balance to invest and permanently increase one or more of the four metrics (Technology, Training, Work Conditions, Popularity). There is a grid of investment cards on right. Cards you have already invested in appear with a yellow color. Cards that are too expensive for your balance, appear with a red color.
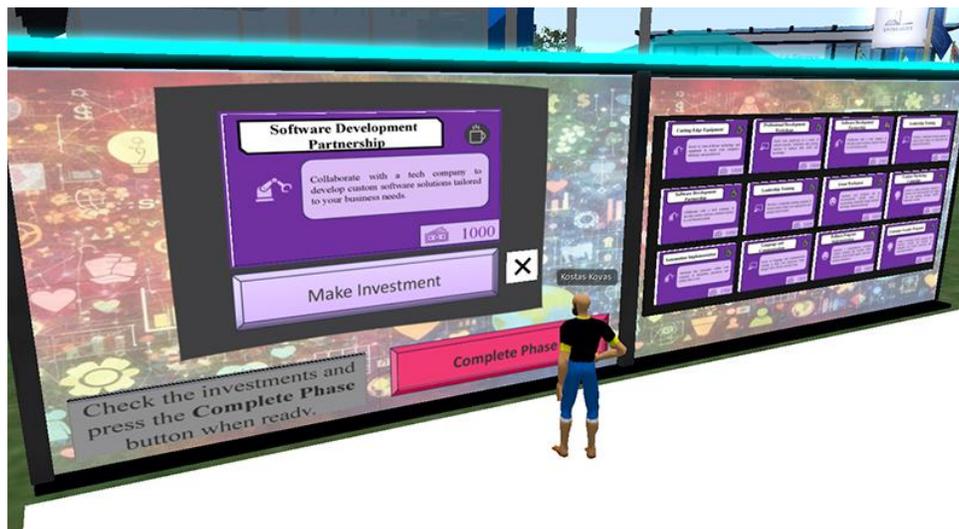
If there are available investment cards, you can select one of them so it appears on the left panel, and you can confirm the investment by clicking the button "**Make Investment**" below it. Whether you made an investment or not, you have to click the "**Complete Phase**" button to end the phase and the round.

4.9 Round Result

At the end of the round, there is a panel where you can see a quick feedback about your progress. You will also get the information for the simulation ending with a failure (because of consecutive negative balance values) or successfully (12 rounds competed). There is another panel on the right where you can browse all the actions you made throughout your simulation.

At the beginning and end of the simulation, each avatar will receive a personal message with a URL where they will be able to view their simulation data in the future, from any browser or device.

4.10   Leaderboard

Near the beginning of the simulation , you can find a Leaderboard Panel where the best scores achieved are displayed. The Score of the simulation is a combination of the final Balance, Social Score and Investments metrics.