CAREER CREATOR

GAMIFICATION PROJECT - 2017

ABSTRACT

Career choices are plenty in number, and to choose the right one will always be a night mare to some. This document will showcase an app that'll be helpful to many, solve their problems, and make it an overall fun experience.

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INTRODUCTION

WHAT IS GAMIFICATION?

To put it in simple terms, gamification is the use of game thinking and mechanics in non-gaming contexts. This is done to engage users, motivate them and solve problems. This concept is used in several ways when it comes to the variety of fields available to us. For example, business sectors use it to integrate game dynamics in websites, services, and in online community to initiate user participation.

Gamification has a lot of benefits when implemented correctly, such as, increased engagement, higher motivation level, increased interaction with user and greater loyalty.

ABOUT THE PROJECT

This project is about gamifying a very interesting issue that tends to be an annoyance to several youngsters, and even the older ones. "Choosing a Career" is not something one can blindly choose since it has consequences attached to it. A wrong choice will lead to dissatisfaction, even if the person is excelling at it. Sometimes, due to peer or parental pressure, students end up in careers they aren't even good at, and later face failures.

Since it's the era of technological advancements, we can use this to our advantage and create things that can solve this issue, perhaps for good. Most of the youngsters are familiar with the concept of gaming, stats, and the rewarding system associated with it. Hence, gamifying this situation will serve to be very beneficial, and provide a fun learning experience.

The app "Career Creator", helps solve this issue by letting its users choose any field they desire to test out, and let them progress through it by learning, testing, observing, and doing small jobs in a simulated world. In case a career does not work out for them, they can always change their field in the app, and test it out again. This way, they can know what their strengths and weaknesses are.

The programs are customized by universities that collaborate with the app developers, hence providing a more accurate setting for its users. Few companies will customize tasks that pop up in the simulated world. This will help the users understand the intensity of work one will face during certain types of jobs or projects.

The progress made in the app does not remain in the virtual world, but can be used to enhance portfolio's while applying to universities. Since many tasks will require the user to submit their work and get feedbacks, the same work can be added to their portfolio's. This will help creative fields heavily.

Besides all the work, users will also get to visit sessions related to their chosen field. Some will be shown on app to give an idea to the user, some the users can point out. These sessions will serve

to be helpful in increasing social interaction as well, since people can organize a meeting point and attend these sessions together.

RESEARCH

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SUMMARY OF THE RESEARCH

The references used for the research to help in the production of this project, revolve around four main factors – Gamification, Career Guidance, Motivation, and taking Risks. The links help us understand how important it is to choose the right career, and how much of a problem it becomes if not dealt with in the right manner.

It also becomes clearer that when the issue is Gamified, things can get better to a certain extent. It breaks down the issue and helps turn it into features for the app. The app also deals with the most common evil, lack of motivation and not being able to take risks in life. When turned into an app, users can take risks that they usually wouldn't in real life.

If their experiment on a career choice works out in the app, it'll not only yield virtual rewards, but real-world rewards.

PROJECT MANAGEMENT TECHNIQUES

The project management techniques used in the production of this app is as follows:

- Planning & Research
  - This phase is where all the research happened. Materials and references were collected and information was acquired.
  - This information was then framed in an order to make sense.
  - Paper designs were made of the screen layout.
  - Scheduling was done to have an idea about the duration of each activity. Setting milestones helped in reaching goals
- Implementation
  - Documentation
    - A format that was set was followed while doing documentation.
    - Comments were added to keep a reminder on things that had to be done.
  - Prototype
    - A mockup was created using Illustrator and MockFlow
    - 4 screen types were created
- Feedback Sessions
  - Feedback from fellow students were considered, and some of them were implemented in the app to provide a better experience to the user.

CONCEPT

THE PROBLEM

Students all around the world face a common enemy, that is, choosing a career. This problem is so huge that some people end up taking decisions in a haste by giving into parental or peer pressure, or blindly choosing a field based on its fanciness.

This leads to several negative consequences at times. When people end up in a career they aren't passionate about, they don't give their all. Some end up having an unsuccessful career, whereas some are just unsatisfied.

The problem is not that easy to solve and an aptitude test or a counselling session may not always serve helpful.

THE SOLUTION – IDEA

Although some students have a clear idea of their path, those who don't are not necessarily in a mess. The solution to the above-mentioned problem comes in the form of a gamified app, that has a tiny lore attached to it.

This is done to keep the right balance of seriousness and fun, which helps maintain a level of engagement. This solution does not only aim to provide study related content, but find an actual use to it, and produce work that can be added in one's portfolio.

VISION

The vision used behind building any of the concepts for the app revolves around one main goal, that is, to help students, or anyone looking forward to exploring different career paths.

This can be done by giving the users the freedom to choose any field they desire.

The app will provide an insight on several crucial sectors of the program that universities offer, which will make them understand the intensity, content, pros & cons, the level of work required, and most importantly, help them identify their strengths & weakness.

This isn't limited to the confused souls, but can also be used by the ones who have got it all set. This will only help them in preparing themselves better for their upcoming adventures.

CONCEPT VARIATIONS

The following are the variations of the app that were not chosen due to the imbalance of several elements, such as fun, seriousness, interactivity, and solving the actual problem.

VARIATION 1

Variation 1 of the app revolves around the idea of being a content provider. Although an app that is rich in content is not a bad idea, the level of interactivity involved was too less. Hence this variation of the app was not chosen due to the following reasons.

1. No personalization
   a) There was no representation of the user in the app to which they can connect to,

2. Reading, Watching Videos, Listening to Podcasts
3. Tests
    a) This feature would end up being very boring, flavorless and eventually frustrating.
    b) User would have to rely on their rote learning, rather than their understanding and practicality.
4. It also started resembling an existing gamified website – khanacademy
5. There is no competition involved either. Competition leads to innovation, and growth. Hence, the absence of it deprives the user of the drive to be more creative in their work.

VARIATION 2
This variation of the app turned out to be a serious game instead of a gamified app.

1. Light hearted game
2. No real-world achievements
3. The development would take too long, requiring a bigger team and investment
    a) This wouldn't help us achieve our goal of guiding the users
4. The level of seriousness would go down and hence the goal of the app won't be reached, that is, to take a serious decision about choosing a career.

VARIATION 3
This variation of the app lacked sense of direction and seemed quite boring which would lead to users losing interest in the app.

1. There was no concept of mentor/mini-mentorship involved.
2. This took away the concept of teaching leadership and promoting social interaction.
3. This version also had no lore involved in it, which made the app dry.

SELECTED VERSION
This version of app had the right balance of all the elements that would engage its users and motivate them to keep using it till they reach their goal. This app turned out to be a mixture of all the elements from the previous variations.

FEATURES & THE WORKING
The app consists of the following features. Each feature has been divided into section that it takes care of, along with its working.

1. **Personalization**
    a. Profile – The users create a profile that requires basic information. This will help them save their progress, in case they decide to switch career, or switch devices.
        i. This will require the user to fill their **Name, Age, University/School/Office**, and their **timing**. The timing will help the app analyze how long and when the user will be able to do their work.

b. Avatar – An avatar lets the users connect to their course.
c. Users get to choose 1 powerup/bonus skill in the beginning, to help them boost certain aspects.
d. Lore – Users will experience their progress in app through a passive lore, which will help them connect and relate to the contents of the app.
e. Career Choice – Users choose a career they want to try out. Initially, users can try out 3 careers.

2. **Levelling Up –** Levelling up will help users feel a sense of progression. Each level a player acquires has a status attached to it. To add a touch of personalization, the level status names will be connected to the major they have chosen.

3. **Tasks –** The content of the tasks and flow provided here is a generalized setup. Some courses will have different setups, depending upon their flow.
   a. **The Research –** The tasks that fall under this category are meant to inform and educate the player. Research phase will allow the player to read materials, or check out information related to their field.
      i. Reading
         1. Articles, Books, Research Papers, Case Studies, Art Styles
      ii. Listening to Podcasts
      iii. Watching Videos
      iv. Practice Sessions
   b. **Scheduling -** Although upto the player, this task besides having gamified rewards, will teach the player to organize their priorities. This is done passively, and the priority of the tasks can be changed whenever the user desires to do so.
   c. **Evaluation** – These kinds of tasks arise only when the player has been asked to work on small assignments.
      i. Submitting work – Submitting work is not limited to writing assignments. Any kind of task allotted to the player, such as creating an art work, and or writing a research paper. The evaluation process goes as stated below -
         1. Users submit their work, which is reviewed by other users. They provide comments and stars.
         2. When enough stars are obtained, the work is then reviewed by mini-mentors, who also follow the same process.
         3. The last stage is where the main mentors review the work, which if verified, can be added to the user's portfolio.
      ii. Feedbacks – Feedbacks help increase healthy social interaction amongst its users.
         1. Giving Feedback
         2. Receiving Feedback

d. **Social** – The social factor is well incorporated in the app and will help its users in both getting to know more people as well as learning how to work with them.
   i. Team Projects
      1. This task requires users to team up with available other users on the app, and do team assignments. These assignments or tasks will require input from everyone on the project, which is then compiled and evaluated.
      2. The leaderboard will help the users choose users for their projects. They'll be shown people having a similar skill set, score and tags to help them pick.
      3. To add a bit of fun to this activity, a different mode is available, This has its own unique system, where the players go into **matchmaking**. Matchmaking matches users randomly that have their scores in the same range, and users can work together.
   ii. Feedback
      1. Giving – providing constructive feedback to other users works will help them establish healthy bonds, and expose them to the works of others. This will also award them points, if they're feedback is upvoted by several others.
      2. Receiving – Although users don't get rewarded for receiving feedbacks on their work, it's still an excellent feature for increasing interaction amongst other users.
   iii. Leaderboards – Besides show casing the scores, the leaderboards will help other users and mentors identify the strong ones, and choose people accordingly.
e. **Attending sessions** – This is the most unique aspect of the app where users get to attend sessions or events related to the course they have chosen. Users can choose to attend sessions shown in the app, or attend the ones not shown, but provide the details later.
   i. A crowdfunding can help this task become more helpful. Once the crowdfunding reaches its threshold, the app developers can help host sessions like these.
   ii. To begin this, a couple of users can choose a location/session type and the location falls common to several, it can be funded.
f. **Job Quest –** These quests appear in the form of a light-hearted game where the players must do these quests in a simulated world. This world represents the real-world job environment accurately, in terms of time, resources and goals.

4. Mentor

    a. Main Mentor
   - i. These mentors are qualified professional staff that work in recognized universities or schools.
   - ii. These main mentors are the ones who customize the programs.
   - iii. They help the students out when questions are put up in the forums.

    b. Mini Mentor
   - i. When a player achieves the highest level, they reach the status of being a mini-mentor. They keep levelling up as a mini-mentor, which represents their status. The higher the level, the more experienced they'll appear.
   - ii. This status allows its user to create tasks, which are then voted by users. Once a task has been voted for, the mentors verify it, and expand on it.

5. **Rewards –** The rewarding system works in two ways.

    a. Experience Points/XP – When a player completes a task, they are awarded points. These points are standard, and don't differ from user to user. Special points are awarded to the users who do their tasks quicker or hit a bonus streak.

    b. Achievements – These are awarded to players who do their tasks in creative ways, or much quicker.
   - i. Virtual
     1. Trophies – Special trophies are awarded to users when they complete a task in diverse ways
     2. Tags – These tags are special statuses awarded to users by Mini/Main Mentors. Although users can get more than one tag, only one can be attached to their profile at a time. These tags are an equivalent of a specialization.
   - ii. Real World
     1. The aim of having real world rewards is to motivate the users and encourage them to work for actual goals, and not just virtual prizes.
     2. Discount, Vouchers, Free Sessions

6. **Currency (Optional)**

    a. The app has a currency system which is used for unlocking additional careers. They are represented as pencils, and users can obtain these by converting the points they earn. The conversion requires a heavy investment; hence users need to carefully choose their subject.

    b. The currency can also be used for unlocking accessories for avatar.

WHY IT WOULD WORK?

The reason this version of the app would work is because of the features it consists of and the development area it covers. Users will feel motivated because they will always be pushed to learn additional content and use that knowledge to create new things, which will only serve as an addition in their portfolios.

The emphasis on the organizational skills will also serve beneficial, not only in completing their tasks by prioritizing them, but use the same skill for real world tasks.

All the tasks that are devised, are done in an order to both cover crucial areas, and lead them to the mini-game, which not only provides fun, but tests out the knowledge out of the content provided. Hence, rewards aren't the only driving force behind the motivation.

WILL THE USERS FIND TIME? - DURATION

The tasks allotted under each subject available is devised in such a manner that the users won't feel pressured. Each subject has its own time, but can be decided based on user's comfort.

- Time decided by the course developers
- Time decided by the user

If in case, user exceeds the time limit or user sets their time limit ahead of what is set by app developers, the level of XP gain will reduce.

DEVIATION – TACKLING CONSTANT CAREER CHANGE

A big issue arises when the currency feature is kept optional, that is, how to stop the users from constantly changing their chosen subjects. To deal with this issue, the app can track the behavior of the user and provide suggestions in the form of prompts if the user plans on changing. This way, the app won't restrict the player, and will solve the issue.

ESTIMATE DEVELOPMENT TIME

The app will need approximately a year to develop all the features mentioned here, and complete the research.

- Research – 1 month
- Hiring Mentors – 20 days
- Program Customization – Passively goes on, 2 months
- Development
  - Features – 4-5 months
  - UI – 1 month
  - Contacting stores, companies, or any centers for sessions and discounts – 20-25 days
- Testing – 1 month

MAINTAINENCE & REQUIREMENTS

The app will require monitoring since it involves students completing tasks that will constantly evolve. There are several other sectors where it'll be necessary for…

- **Mentors** – Mentors are people that are hired/selected after a lot of screening. It's important to do so, because these selected people are the ones who guide the users, customize the programs, and reward tags.
- **Tasks** – The assignments and activities will constantly have minor changes in them, and sometimes major. Hence this area will require the most monitoring and maintenance.
- **Rewards** – Some rewards are real time, which consists of discounts on certain items, vouchers, or free items. These will require the app developers to constantly keep up with the offers, and provide rewards that are accessible to the user locally.
- **Sessions** – Activities where the user has to attend sessions like exhibitions, seminars, or observing people working, will require constant monitoring. This is in case the activities are organized by collaborators of the app.
- **Scale –** The app will have to deal with the possible career options, which are plenty in number. To begin with, four career choices will eventually branch out into several career options, and customizing special courses for each will be very tedious.
- [Plagiarism](#) **& Trolls–** When users submit their work, there is chance that other users can try steal the work, copy it, or criticize unnecessarily. This area requires monitoring by the app developers. A feature can be added to control who sees users work.

THE FLOW

The flow charts below explain the working of the app.

CORE – BASIC WORKING

THE ENTIRE SYSTEM

UNIQUE FEATURES – USP
The interesting features of the app are as follows:

- Overall Development
  - The app takes care of the overall development of the user. Besides the learning process, users get to learn discipline and better their organization skills.
  - They also get to learn team work, since some of the tasks will require them to work with others.
  - The above will lead to building social and leadership skills.
  - Some assignments require its users to visit places to learn things by mere observation.
  - Tasks also require researching skills.
- Sessions
- Lore attached to studies

BENCHMARKING
The following apps and websites were kept in mind while developing the app "Career Creator". These apps had few factors that were common such as the gamified version of stats, the engagement factor, and the learning process. The benchmarking goes as follows:

- **Lumosity** – A brain training app with four goals, memory, attention, problem solving, processing speed or flexibility of thinking. The games are played against clock and change every time. This app claims to improve mental skills and users can track their progress and compare performance with others.

- **Elevate** – The app offers a rotating set of three games every day, each one targeted to specific brain functions like memory or math. It also keeps a track of the progress each day made by the user.

- **Khanacademy** – The website's goal is to provide a personalized learning experience, mainly built on the videos. Website also includes other features such as progress

tracking, practice exercises, and teaching tools.

SCENARIOS – EXAMPLES OF TASKS

Following is an example of how this app will serve helpful to the user when they choose **Neuroscience** as their subject. The app will first inform the users about the course and its prospects. The tasks are as follows and are just mere examples.

- THE RESEARCH PHASE
    - Reading
        - Activity - Users will be asked to read about organic chemistry.
        - Purpose – This covers basic principles to understand the structure and reactivity of organic molecules.
        - Material – https://ocw.mit.edu/courses/chemistry/5-12-organic-chemistry-i-spring-2005/
    - Watching
        - Activity - Watching a video on Neurobiology
        - Purpose – This lecture explains the nervous system as a communication network, beginning with neurons, action potentials and ion channels.
        - Material - https://www.youtube.com/watch?v=dKLkXQEN9XU
    - Listening
        - Activity - Lectures on Psychology
        - Purpose – The podcasts will help the users understand basics of psychology.
    - Practice
        - Activity - Users will be asked to practice and improve their math skills. This will consist of Statistics and Calculus.
- TEAM TASKS
    - Case studies of patients, which will later lead to diagnosing sessions. The team can then work towards the solutions together.
- THE OBSERVATION
    - Attending sessions on Neurobiology.
- THE SUBMISSION
    - Users will be asked to submit a paper on Applications of Molecular Biology to Medicine.

- THE JOB
    o An example of simulation could be of an Occupational Therapist. They'll be asked to check few patients in the game, identify the issue, help them perform better in their daily life.
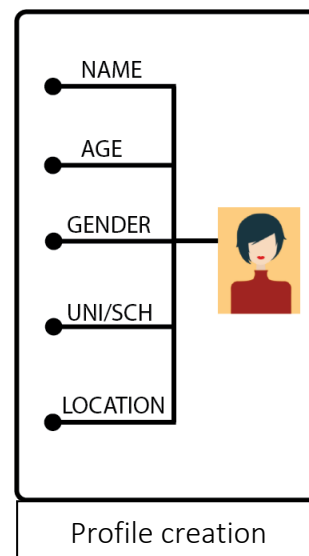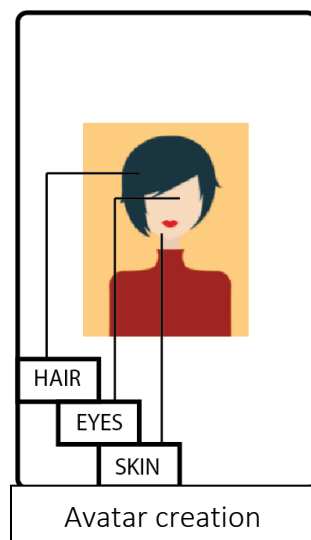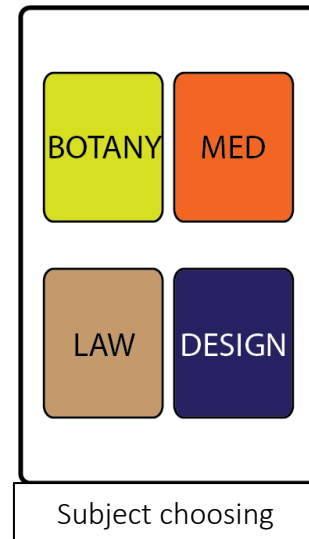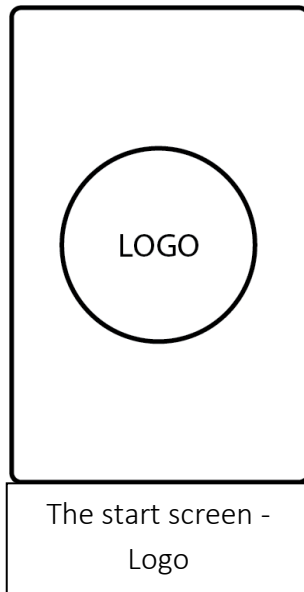
FUTURE DEVELOPMENTS

The app now is not at its full potential, but will eventually reach it upon further developments. Few of them are listed below
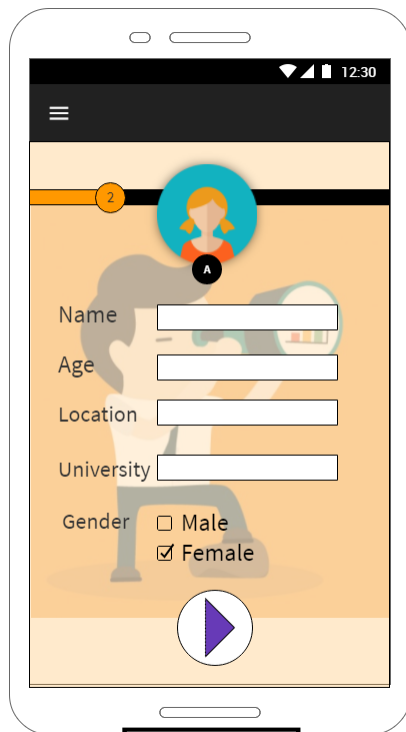
- More career options to choose from

- More mini-games (Job quests) to play

- Dealing with plagiarism, a feature can be added to control the privacy of profiles and the work submitted by them.
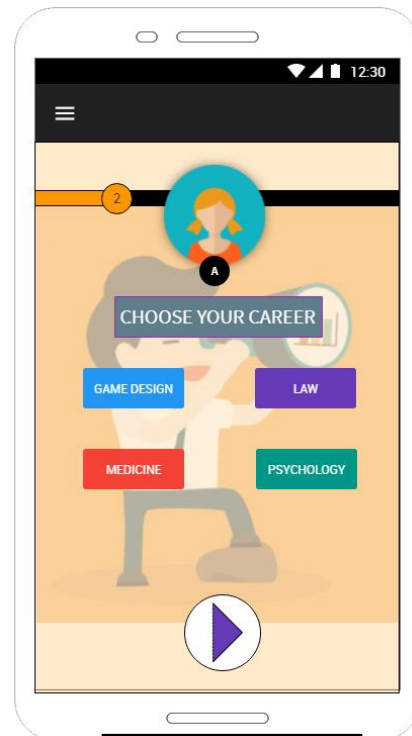
DEVELOPMENT

The following illustrations show the initial development process for the app screen's. The four-screen's shown below are the starting screens.
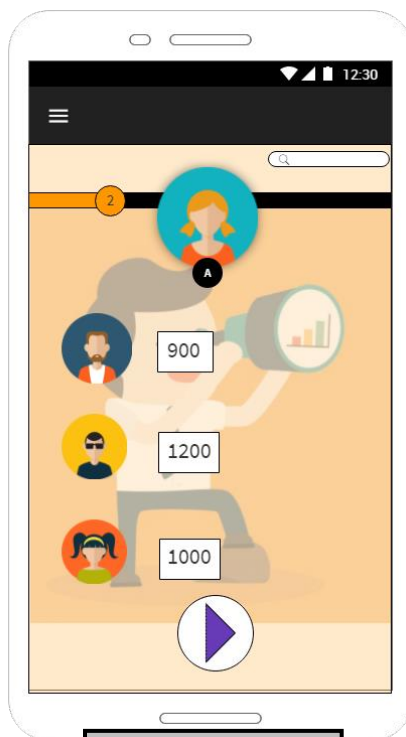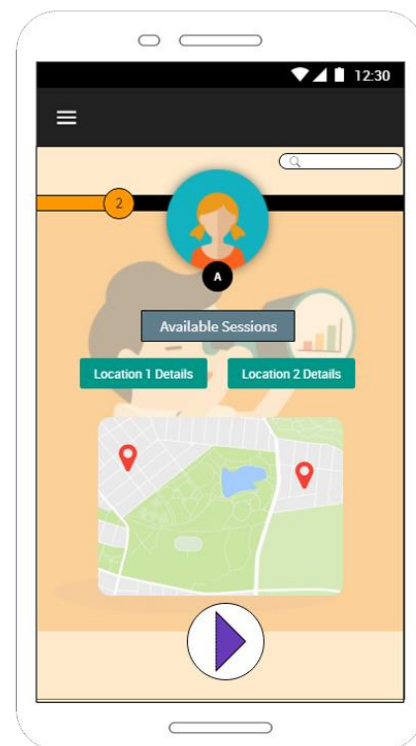

The start screen - Logo

Subject choosing

Avatar creation

Profile creation

FINAL

12:30

Name

Age

Location

University

Gender ☐ Male
☑ Female

PROFILE

12:30

CHOOSE YOUR CAREER

GAME DESIGN   LAW

MEDICINE   PSYCHOLOGY

CAREER CHOICE

12:30

900

1200

1000

LEADERBOARDS

12:30

Available Sessions

Location 1 Details   Location 2 Details

SESSIONS

GLOSSARY

Gamification - The application of typical elements of game playing (e.g. point scoring, competition with others, rules of play) to other areas of activity, typically as an online marketing technique to encourage engagement with a product or service.

Vision - Vision statement describes what the game will be like when it is finished

Matchmaking - Matchmaking is the process of connecting players together for online play sessions.

Crowdfunding - The practice of funding a project or venture by raising money from a large number of people who each contribute a relatively small amount, typically via the Internet.

Simulated - A simulation game attempts to copy various activities from real life in the form of a game for various purposes such as training, analysis, or prediction.

Plagiarism - The practice of taking someone else's work or ideas and passing them off as one's own.

Benchmarking - Evaluate (something) by comparison with a standard

Documentation - Documentation here refers to Game Design Document (GDD)

Lore - A body of traditions and knowledge on a subject or held by a particular group, typically passed from person to person by word of mouth.