**Lab 3 Notes**

Prepare questions for next lab - ask knowledgeable questions using your domain knowledge that moves progress forward

Catalog selling products - Toys and Games (Video Games)

## Description

**Purpose and general scope of cataloging applications for this domain.**

There are a couple of main reasons for wanting to catalog games. Primarily for running either game stores or independent review platforms. Categorization helps the user find games using provided categories, as well as aiding keeping stock of inventory. The scope of video game cataloging is quite wide and generally includes high level details such as genres and tags as well as more detailed info such as descriptions and trailers/screenshots.

Other common key characteristics of individual game metadata include the game engine, developer/publisher, price, supported systems, reviews and other information that would help the consumer make a decision of whether to purchase the game.

There are several existing systems for gaming catalogues, including digital and physical storefronts, as well as review sites. Some examples of digital catalogues include Steam, GOG, Epic Games, itch.io, and Humble Bundle. And some examples of physical catalogues include GameStop, BestBuy, Walmart, and EBGames. Some examples of review sites can include IGN, and IGDB, and Moby Games.

## Glossary

**Art Style**

* Shader / Lighting (How light being implemented in game)
* Realism (Game with extreme detailed model, realism light tracing and shadow)
* Pixel art (Voxel-like)
* Vector art - (Geometry shape on 2D plane)
* Flat art (clean and minimalist)
* Low Poly (low detail model)
* Cartoon
* Dimension (3D, 2.5D, 2D)
* 3D Art Styles
* Cartoon/Anime
* Voxel (3D models using large collections of pixels, giving a “blocky” look.)
* 2.5D (2D view, with 3D illusion of depth)
* E.g. The Paper Mario series (Story Book Coming-To-Life)
* 2D Art Styles (Art styles consisting of using 2d pixels to represent the game world)
  + 8-Bit Games (Games using 8 bits to represent the game world.)
  + 16-Bit Games (Games using 16 bits to represent the game world.)

**Price**

* Free to play (Games that are free to download and play, usually have micro transactions)
* Cheap ($0 ~ $20)
* Little expensive ($20 ~ $40)
* Expensive ($40+) usually AAA games

**Age Rating**

* Different rating boards have different age categories (ie. ESRB in North America, PEGI in Europe).
* Early Childhood
* Everyone
* Everyone 10+
* Teen
* Mature 17+
* Adult Only 18+

**Platform**

* The devices that the game is made to run on. This is typically either PC (Windows), a different operating system or a specific game console.
* Examples of platforms:
  + PC (Personal Computers)
  + Xbox
  + Nintendo Switch
  + VR (Further broken down by headset or manufacturer)
  + Playstation

**Genres**

* Very broad categories that games typically fall into. Usually one or two are most applicable per game.
* Examples of genres include:
  + - RPG
      * Role playing games allow players to immerse themselves in fantasy worlds as fantasy characters.
    - Sandbox
      * Open-ended games where players can utilize their creativity.
    - Puzzle
      * Players must solve puzzles in order to progress
    - Survival
      * Players are tasked with scavenging resources from the lan while trying to survive any dangers the game may throw at them.
    - Shooter
      * Games focused on players shooting enemies (either other players or computer operated bots)
    - Sport
      * Games that allow the player to play sports
    - Strategy
      * Games where players develop and use strategies to defeat their enemies.
    - Story Rich
      * Games with rich storylines that immerse the player
    - Rogue-like
      * “Infinitely” replayable games that allow players to upgrade their gear over the course of a round using randomly placed powerups. If the player dies they must play the game from the beginning.
    - MMORPG
      * Massively Multiplayer Online Roleplaying Games allow players to roleplay characters with other players in a massive world.

**Tags (Overlap with Genre)**

* Describes gameplay with broad descriptors (slightly more fine grained than genres).
* Genre
* First Person
* Third Person
* Violence
* Blood/Gore
* Nudity
* Rage Games
* Simulation Games

**DLC (Downloadable Content)**

* + Extra usually purchasable content, adds extra gameplay elements or enhancements.
  + Extended storylines (e.g. Watch Dogs Bloodline)

**Microtransaction (MTX)**

* + Additional “small” purchases for a game that typically add small elements such as cosmetics. These don’t usually add any large gameplay changes as those would be considered DLC instead.

**Stakeholders**

* Investor (People who invest in game development)
* People in video game community (Players)
* Development team (People who make games)
* Publishers (people who publish games) (note that development team and publisher usually are different group of people)
* Streamer (People who stream game for player/fans to watch)

## Elicitation Plan

* **Knowledge gap**
  + Back end specifics such as server hosting
  + Front end specifics and direction
  + Game engine structure
  + Game Engine programming language
  + Functional Requirement
  + Nonfunctional Requirements
  + Rank features that are desired by the customer based on how needed they are
* **Tasks**
  + Create an in depth list of questions to ask - William
  + Create a visual of how the data structure will function. - Bryce
  + Look up hosting options, what scale of server would we need? - Nathan
  + Visualization of game graphic - Tobenna
  + Develop QA guidelines based on requirements listed by customer - Jerry
  + Look up copyright laws regarding game store databases and how they differ between various countries. - Everyone

## Sources:

<https://store.steampowered.com/>

<https://en.wikipedia.org/wiki/List_of_video_game_genres>

<https://en.wikipedia.org/wiki/Steam_(service)#Features_and_functionality>

<https://www.igi-global.com/chapter/esports-stakeholders/240440>

<https://www.hp.com/us-en/shop/tech-takes/video-game-genres>

<https://www.esrb.org/>