AR (AUGMENTED REALITY) Storytelling Finding Mother

Game Design Document

Version 1.0 (Aug 12th, 2022)

Overview

AR storytelling is a new and immersive way to read stories. This application provides you with the most advanced storytelling techniques using Augmented Reality.

Concept

AR Storytelling is a portfolio project using AR technology and storytelling techniques. It is aimed to help kids read with a higher degree of interest and engagement. Rather than reading the book silently, the children can play the animation with sound by scanning the bar code.

Style

Visual style: Augmented Reality. Partially immersive.

2D or 3D: 3D

Game flow: Following the Start scene, users scan the pictures on each page to enjoy reading the book in augmented reality.

Targeting

Platforms: Android and IOS
Target audience: Everyone who loves reading. Everyone who is interested in AR.

Game's advantages compared to its competitors:

-Compared to AR books: Finding Mother specializes in storytelling.

-Compared to a traditional book: Contents are more vivid with augmented reality.

Management

Schedule

Release date: August 12th, 2022

Soft launch: August 12th, 2022

Alpha: August 12th, 2022

Beta: September 1st, 2022

Playable version: October 1st, 2022

Special events: TBD

Budget

Running expenses, Salaries, Rent, Internet, Software subscriptions

The game is currently running under a portfolio project of four VRAR students at Champlain College.

-Salaries: 100 hours * 4 developers * 50 CAD per hour = 20,000 CAD

-To publish the software: Vuforia SDK 500USD.

Purchases, Hardware, Software, Licenses, Service fees, Rating fees (ESRB, PEGI…), Platform fees, (Steam, Play Store, console stores…)

Current funding - No

Additional funding plan, Crowdfunding, Investors, Early access

- GoFundMe

How many copies must be sold? (Considering platform fees, taxes, discounts…)

The app will be free to download until a mature version is published. Then a charge of per user is planned.

Monetization model, Retail, Digital distribution, Subscription, Microtransactions, Advertisements

Fundings from the school board will be a main source after the app is published.

Management Tools

1. Scrum board

-We have daily scrum meetings. The meeting is recorded with the following questions to be answered:

What did you do yesterday?

What are you doing today?

Is there anything blocking you?

2. Documentation

Individual Tasks Assignment:

Ping Feng

1. characters models in the story are functional and presentable. 2. animations are functional.

Junxiang Zhang

1. story scripts are appropriate for storytelling. 2. story and narrations are well matched. 3. story books are designed properly for distribution.

Zijie Jin

1. Users can use their cellphone to experience the story. 2. Applications are accessible.

Kazumichi Nakashima

1. animations are flawless. 2. character rigs are refined for animation development. 3. story books are designed properly for distribution.

Version control

-Github is the platform we use to collaborate and update our individual work. Once changes are made, we push to the GitHub individually.

Test Plan

All Markers are thoroughly tested to make sure that the markers work correctly. To fix bugs, we are doing a lot of tests.

Risk Analysis

Losing markers is the main risk we found during our tests. Some users are kids under 12, who may not hold the phone or pad properly while reading the book. To solve this issue, we changed the mode of tracking.

Marketing Plan

Research target market.

Perform competitor research.

Create a landing page that sells.

Make the app visible in the app store.

Create viral video content.

Start a blog.

Reach the audience with social networks.

Measure the app KPI.

Game World and Narrative

Look and Feel

This is a baby sparrow's tiny adventure and happened in the modern day. Various charming voice actors lead children into the story. All content is created for children.

Locations and Structures

All stages are set in ordinary nature environments. The scene starts from a sparrow family’s nest on the tree...

The baby sparrow is born in the nest and misses to see its mother. The baby does not know who the mother is. The baby gets out of the nest and starts looking for the mother. On the way, the baby sparrow encounters a cow at the farm, a hen at the field, and a crow in the woods. They advise the baby who is the baby's mother and what the mother looks like.

Plot

The player participates in the story as a 3rd person and follows with the main character.

This project is for children, but also this is the first step of fulfilling the desire for everyone who wants to travel in the world of stories.

This story is told by the voice actors. They play those characters more characteristic and make the storytelling more vibeliant.

Characters

The baby sparrow, who is the central character, encounters the candidates of the mother, and compares the figure with the mother. Each candidate has contrasting character with the mother and gives relevant advice to the baby sparrow.

- The big cow said she is small and has feathers.

- The flightless hen said she can fly.

- The monochromatic crow said she has a pattern on the feathers.

Concept Art

We always think about our audience who are children, we keep images' style for children.

We use realistic and cartoonish objects both. We do not have strict guidelines. If I must say, our general guideline for design is that everything looks suitable in our environment.

Characters and Environment

Our guidelines for character design are, for example, a sparrow looks like a sparrow. When children see a bird, they can tell what kind of bird it is. It is a reason we use multiple styles of models in the same environment.

Colour

Color coordination focused on hue.

Black and white contrast is powerful and persuasive in realistic expression. However, we tried to keep a wide range of hues for our children's project more than contrast.

Animation

The basic animations are big action to understand easily, like acting in a theater. However, the senses are an AR environment, you can observe the animation in the proximity.

We have put a weight on the amplitude of the big and small animations.

Mechanics

Progression

The goal of the app is to provide users with a vivid immersive experience, fun, high engagement, and knowledge by reading AR stories.

Users can change the order of reading stories at will to gain new fun.

Users can reread stories from different perspectives, such as rotating, looking from a distance, looking closely, looking down, and looking up are new feelings.

Users can reread stories in different environments, such as watching on the sofa at home and watching on the lawn are completely different experiences.

Users can exit the app at any time. The progress of the app playing the story is not saved, and users are encouraged to use a new order and perspective to reread the story next time.

Challenge

The user interface of the application is very intuitive. Users only need to try it out. If you do not understand something, read the instructions, and you can use it right away.

Users can watch the scenes of the pages they want to see in any order, although for first-time users, it is usually more appropriate to read the stories in the order of the e-book.

Users can arbitrarily organize the order, perspective, and environment of AR storybooks like fiddling with a Rubik's cube and gain new fun, which are full of new exploration fun. Compared with traditional books, AR storybooks still attract users to reread them after a long time.

Movement and Actions

Users can change the order, perspective, and environment of reading stories at will to gain new experience and fun.

Screens

There is a main menu and a play screen.

Interface

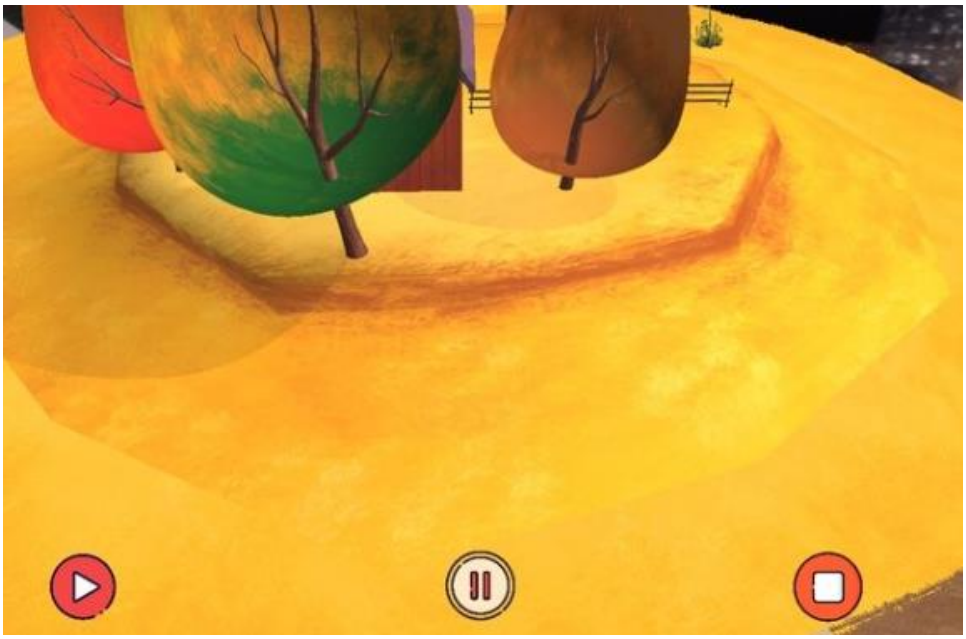
Controls

Start Scene

AR Markers

Markers are distinct patterns that cameras can easily recognize and process and are visually independent of the environment around them; they can be paper-based or physical objects that exist in the real world.

Event buttons



Audio

Sound Effects

Voice Cover

Baby Sparrow- Dallas

Mother Sparrow - Menglin

Dandelion - Paul

Cow - Paul

Hen - Dallas

Crow – Costa

Narration - Menglin

Music

Credits Scene

Technical

Target Hardware

Minimum requirements

Processor

Video card

Memory

Operating System

Peripherals, Special controllers, VR (VIRTUAL REALITY) goggles

Internet connection

Development Standards

Code guidelines

Version control guidelines

Procedure for updating assets

Prototyping guidelines

Game Engine

The primary game engine is Unity, Vuforia SDK.

Documentation 1

Production – Junxiang Zhang, Kazumichi Nakashima, Ping Feng, Zijie Jin

Story writing - Junxiang Zhang

3D Models and Rigs

Baby Sparrow - Kazumichi Nakashima

Mother Sparrow - Kazumichi Nakashima

Hen - Kazumichi Nakashima

Crow – Kazumichi Nakashima

Cow – Junxiang Zhang

Animation

Scene # 1 - Kazumichi Nakashima

Scene # 2 - Kazumichi Nakashima

Scene # 3 - Kazumichi Nakashima

Scene # 4 - Zijie Jin

Scene # 5 - Junxiang Zhang

Scene # 6 - Ping Feng

Scene # 7 - Ping Feng

Scene # 8 - Kazumichi Nakashima

Scene # 9 - Junxiang Zhang

Scene # 10 - Junxiang Zhang

Scene # 11 - Ping Feng

Scene # 12 - Zijie Jin

Character Cover

Baby Sparrow- Dallas

Mother Sparrow - Menglin

Dandelion - Paul

Cow - Paul

Hen - Dallas

Crow – Costa

Narration - Menglin

Documentation 2 (environment)

3D Models

Birds nest – IronEqual (Sketchfab)

Farm - Sampaidesu (Sketchfab)

Forest House - peachy royalty (Sketchfab)

Stylized forest - Scene "May holiday" - borsh_and (Sketchfab)

Wheat Farm at Sunset – kristenlee (Sketchfab)

Low-poly Tree – ALostEggroll (Sketchfab)

Dandelion - IronEqual (Sketchfab)