group snickerdoodles

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urbanGO.

get connected, stay active

research question

How can cities activate public spaces, increase walkability, and encourage community wellness through new + future trends in Augmented Reality?

project synopsis

In recent years, Augmented Reality has begun to interface with the public realm through video games, scavenger hunts, and exercise routines. These new digital landscapes have suddenly integrated themselves into the urban fabric — utilizing the public spaces for virtual play. **urbanGO** aims to synthesize these trending activities into a single publicly accessible application and introduce a public network of '**urbanGO portals**'. Through these interactive access points, the public can engage in activities ranging from virtual-guided running trails, to historic urban walking tours, to virtually enhanced meditation spots, to interactive competitive games against other users in real time. **urbanGO** seeks to address issues such as urban walkability, local economy stimulation, engagement with the natural environment, and providing accessible means for broad community health + wellness.

Augmented Reality Enters the Public Sphere

With recent developments in smartphone capabilities to project digital assets onto the physical world, a new paradigm in digital culture has taken shape. Augmented Reality [AR] continues to develop new possibilities in sectors from retail advertising to mobile gaming. Notably, the technology has largely been viewed through the lens of the smartphone, but experts have long speculated that AR is keen to be the hallmark of wearable technology, such as smart eyewear, providing a significant seamless link between the physical world and digital imaginations. A few precedent projects might include:

Pokémon Go

In 2016, Pokémon Go took the world by storm. Created and developed by Niantic in collaboration with The Pokémon Company, the mobile AR game uses GPS to locate, capture, train, and battle virtual creatures from the Pokémon world. The app was downloaded more than 500 million times worldwide by the end of 2016, and raked in a revenue of $1.23 billion in 2020 alone. In 2019, Niantic was valued at over $4 billion due to the popularity and success of this single application.

Credit: Niantic

Perhaps the most notable phenomenon engendered by the mobile game was that it brought people together from all walks of life into the public sphere. Spaces as grand as national parks to the sidewalks of neighborhood streets were suddenly frequented by players in search of their next AR experience. Small businesses also benefited from the nearby presence of “PokéStops”, where players could restock on game items if they were in close proximity.

Pokémon Go players congregate in Toronto, 2016.
Credit: The Guardian

HADO

HADO is an fully integrated AR sports platform where players are pitted against one another on a real-life court using digital assets in live competitions. It uses virtual reality headsets to envision a dodgeball-like game, requiring players to be physically agile and employ typical video gaming skills. HADO takes e-sports to the next level, offering a mix of virtual experiences to compete in real-life championships. Gyms, arcades, and sports centers can purchase “HADO licenses” to install a fully integrated experience into spaces once limited to traditional forms of play and exercise.

Credit: HADO

activities

urbanGO features a range of interactive activities for enhancing community health + wellness. Users find a nearby **urbanGO Portal** to sign into the app and choose their AR activity, supported via smartphone or smart eyewear. These can range from physical exercise routines, playful competitive games, to guided meditation.

urbanTRAIL

Users can enjoy a virtually simulated trail walk with our urbanTRAIL feature and win points for distance and speed. Users can choose between different speed categories, including walk, jog, run, or random (a mix of all three). We also include a timer feature for users looking to be more disciplined. Users choose a time for however long they want to walk, run, or jog, and if they remain active until the timer goes off they win points. If they give up before the timer goes off, however, points are lost. Through urbanTRAIL, users get their own personal cardio trainer that allows them to develop endurance and track their progress with our urbanCHARTS feature. The app will provide visual directions, historical markers, and other 'fun facts'. Routes designed for accessibility options are available for users of all abilities.

urbanGOALS

Our urbanGOALS feature gives users a fun and new way to visualize their progress through augmented reality. Usually apps designed for tracking habits include checkboxes for when tasks are completed for the day. In urbanGo, users can choose from a list of goals they want to achieve, including drinking water, going to bed earlier, waking up earlier, and book reading. Whenever the user drinks their water for the day, they can virtually pour water into their avatar body. Every time they read a book, they can place a book on their bookshelf. Anytime they go to bed on time or wake up on time, they can pull a switch to set the sun to the moon or moon to the sun. Hitting different milestone goals can provide the user with rewards such as discounts at local businesses, encouraging local economy stimulation.

urbanMIND

The urbanMIND feature is dedicated to less strenuous physical activity and focuses on mental wellbeing. Programs within this suite include guided meditation, where users are taken on a scenic walking or jogging route through an urban or natural environment. The guided route leads users to a scenic spot for meditation, breathing exercises, yoga, or other wellness activities. This feature can also include historical walking tours of your city, environmental facts about the local climate, and other interesting knowledge bases depending on user interests. To score points through this feature, users can take quizzes, excel in yoga routines, and contribute to the knowledge base with personal 'fun facts' related to the city.

urbanCHARTS

Users will be able to track physical and mental progress with our urbanCHARTS feature. We include points, records, and streak charts for both physical activity and mental notes. Users will also be uplifted by encouraging messages to keep up the good work from avatars along with suggestion alerts for when users are decreasing activity. Streak charts and records can also be customized to fit the user's personal goals, curating how the app interacts with the user. These settings can accomodate users with varying accessability needs and abilities.

activities

urbanPLAY

Our urbanPLAY feature offers several games that make physical activity fun and enjoyable. We include scavenger hunts, jump rope, and dodgeball. Scavenger Hunts involve finding objects throughout your local area. As you win points for finding objects, you can also win extra points for jogging or running. Jump Rope involves two avatars being displayed in front of the player that swing a rope at different speeds. Players can set the speed (slow, medium, or fast) or they can choose the random option where a mix of all different speeds will be activated. Players win points for the speed and time length of jump roping and have fun setting new records every time they play.

Scavenger Hunts

Scavenger Hunts involve finding objects throughout your local area (architecture, historical markers, local businesses, or public artwork). As you win points for finding objects, you can also win extra points for jogging or running. These games can also include historical learning assets where users are encouraged to explore new parts of their city and learn more about its history and roots.

Jump Rope

This game involves two avatars being displayed in front of the player in the AR environment that swing a rope at different speeds. Players can set the speed (slow, medium, or fast) or they can choose the random option where a mix of all different speeds will be activated. Players win points for the speed and time length of jump roping and have fun setting new records every time they play.

Dodge Box

Unlike dodgeball, Dodge Box involves players avoiding boxes above and below instead of balls being thrown at them. Players must jump above boxes that slide below them and squat below boxes that slide above them. Players can set the speed (slow, medium, or fast) or they can choose the random option where a mix of all different speeds will be activated. Points are accumulated for every box that is avoided.

urbanGO

TRAIL GOALS MIND CHARTS PLAY

activity map

TRAIL MIND PLAY

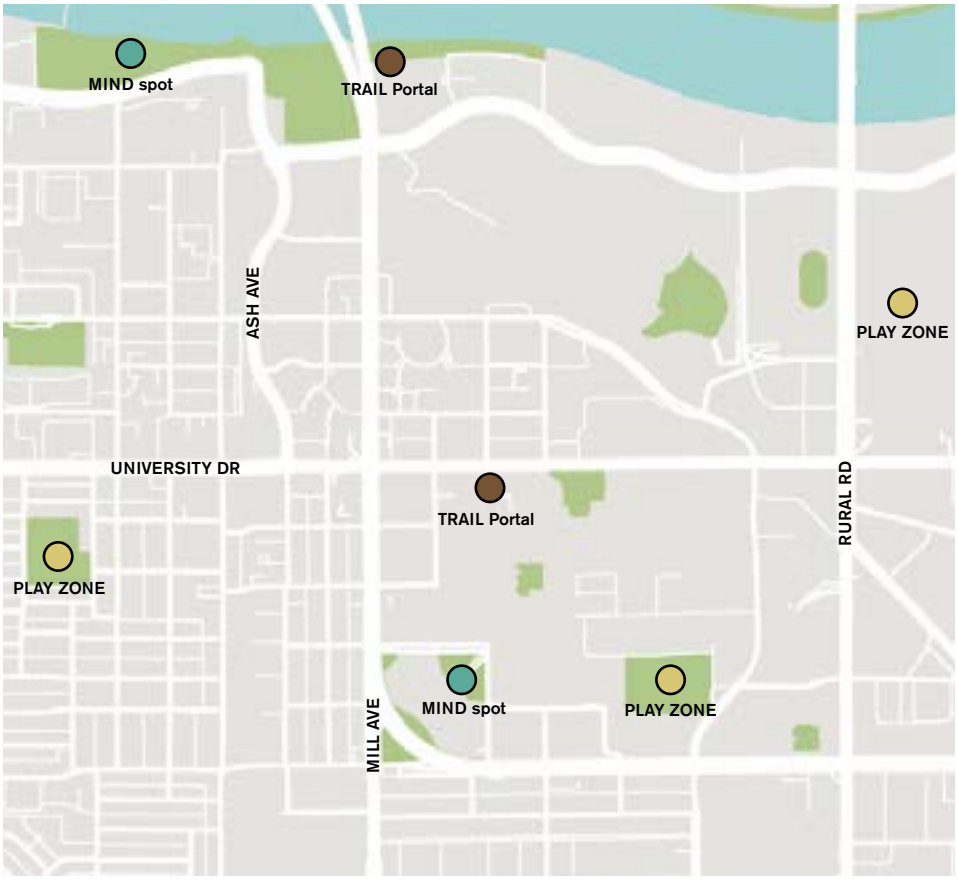
Tempe, AZ

Integration into the Tempe Campus includes several opportunities for diverse interaction with urbanGO portals.

TRAIL Portals take users on guided running or walking tours through the historic and busy parts of downtown Tempe and the ASU Campus, including options that meet accessibility needs for users of all abilities.

PLAY ZONES are strategically placed near existing sports facilities, open spaces, and public parks - each offering a different suite of mini-games for users to experience.

MIND Spots are installed near quieter public spaces, such as the Rio Salado Park or smaller intimate green spaces on campus.



Phoenix, AZ

The downtown Phoenix activity map focuses on integrating the Roosevelt Arts District, urban green spaces, and surrounding neighborhood residents.

TRAIL Portals are strategically places to take users to and from diverse areas of the urban core.

PLAY ZONES are situated within the newly renovated Hance Park and the more ASU focused Civic Space Park.

MIND Spots are located in quieter, less dense green spaces such as the Japanese Friendship Garden, Library Park, and Roosevelt Park.

implementation

urbanGO is an urban digital media experience, and requires a significant amount of planning to take the project from vision to relality. Below is a preliminary implementation plan, including our target audience, timeline, and funding.

TARGET AUDIENCE

Since we plan to initially launch **urbanGO** in Phoenix and Tempe, our current target audience includes the general local community, students, adults ages 16+, and potentially family units. Additionally, the target audience could be extended to small businesses so that they can get involved in potential reward systems through the application, as explained in the following 'outcomes' section.

PROJECT TIMELINE

Our project timeline is based off a preliminary understanding of typical development timelines for apps of similar nature. We estimate that **urbanGO** could be launched within 15 months of secure funding.

Initial Planning + Secure Funding	3 months
Application + Game Design	6 months
Testing + Quality Assurance	3 months
Advertising Campaign	2 months (concurrent with above)
'Portal' Installation	2 months (pending city permit approval process)
Final Testing + Launch	1 month
Total	**15 months**

PROJECT FUNDING

Funding for a project like **urbanGO** would likely be sourced from primarily private investment. There could be additional forms of funding such as through academic grants, public partnership with the City, or through a local University interested in purchasing the product. Below is an estimate of project costs, based on similar apps like Pokémon Go.

Application Design	$100,000
Game Design	$100,000
Sound Design	$20,000
UI/UX Design	$10,000
Server + Tech Expenses	$200,000
Quality Assurance Testing	$50,000
Advertising Campaign	$50,000
General Management	$20,000
Total	**$550,000**

outcomes

The outcome of the **urbanGO** project is to improve physical and mental health via a mixed reality environment. The project seeks to address issues such as urban walkability, local economy stimulation, engagement with the natural environment, and providing accessible means for broad community health + wellness.

Urban Walkability:

The project is intentionally proposed for dense urban environments in order to increase activity on the street, achieve public visibility of the app being used, and to encourage alternative forms of movement than vehicular transportation.

Local Economy Stimulation:

The project could employ rewards systems that stretch beyond digital leaderboards in the game world. For instance, rewards could be made up of a point system and users receive rewards as they complete daily tasks as well as personal challenges. Users can accumulate points overtime. Points can be used to receive various rewards, some examples are listed below.

1,000 points	10% discount at locally owned restaurants along the urbanGO running trail
5,000 points	20% discount at locally owned retail establishments along the urbanGO running trail
10,000 points	Coupon for free session at local yoga studio, rock climbing gym, or similar activity
50,000 points	Tickets to local sporting event, changing from season to season
100,000 points	'Date Night' package for two featuring local experiences and City-operated events

Of course, the range of these sorts of incentives can vary from city to city, depending on the target audience and available resources. Ideally, 100% of any acheivement reward program directly benefits locally owned businesses, features local events that stimulate the economy, and stay relative to regional community trends and desires.

Engagement with Natural Environment:

The project also encourages engagement with the natural environment via virtually guided running trails that could lead users from urban centers through nearby parks, scenic routes, and other destinations. The **urbanGO** app would also offer interactive elements to learn more about a regions unique environmental qualities, including flora, fauna, and climate facts.

Community Health + Wellness:

Benefits of using this program include improved physical and mental health. The program seeks to train the mind as well as the body in order for people to learn how to stay both physically and mentally fit.

The physical challenges are intended for people to exert some sort of physical strain resulting from physical activities. Various activities such as running, walking, and jumping are all included in the program. Physical activity can reduce risk of chronic disease, improve your balance and coordination, help you lose weight, and even improve your sleep habits and self-esteem. The main outcome of this section of the program is to develop the human body and work towards a goal of a healthy lifestyle.

The mental health section included in the **urbanMIND** game is meant to improve people's mental mindset. Mental exercise and meditation is proven to improve mental health by reducing anxiety, depression, and negative mood and by improving self-esteem and cognitive function. Exercise has also been found to alleviate symptoms such as low self-esteem and social withdrawal. Mental fitness can be defined as having and maintaining a state of well-being and cultivating awareness of how we think, behave and feel. We are less likely to sustain (or cause) emotional and relational injury when practicing mental fitness. Both physical + mental wellbeing contribute to the larger goal of community health + wellness.


thankYOU.