



GRX
IMMERSIVE LABS

A CROSS PLATFORM TECHNOLOGY & MEDIA STUDIO



P.O.V.
POINTS OF VIEW

EDUCATION
THROUGH
ENTERTAINMENT

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A CROSS PLATFORM TECHNOLOGY & MEDIA STUDIO

PROFILING
IN ACTION

OUR
CIVIL RIGHTS

A.I. &
THE SURVEILLANCE
STATE



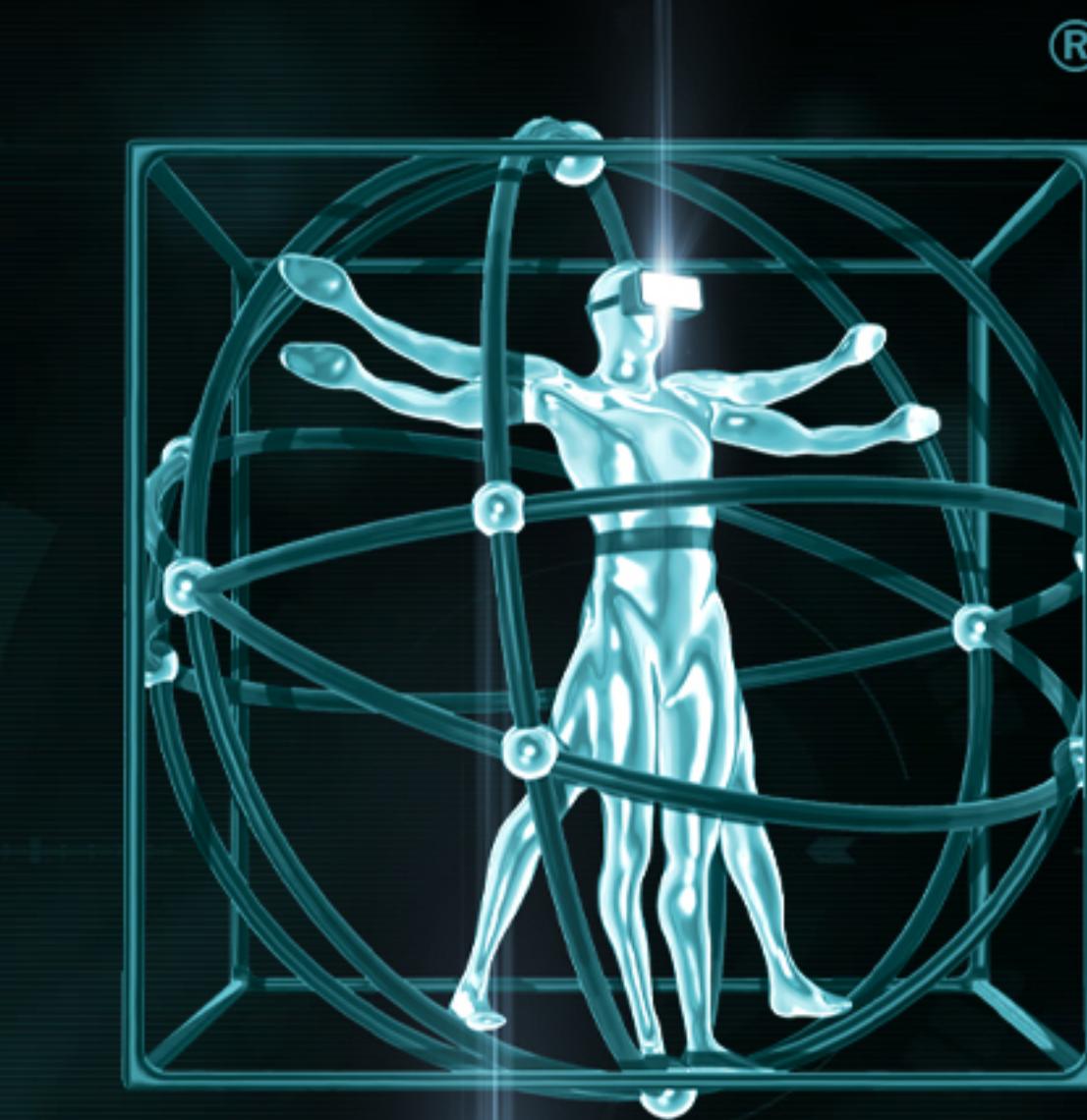
OUR CIVIL RIGHTS

1 OUR CIVIL RIGHTS

The U.S. Commission on Civil Rights Reported in November 2018

The best available evidence reflects high rates of uses of force nationally, with increased likelihood of police use of force used against people of color, people with disabilities, LGBT people, people with mental health issues, people with low incomes, and those at the intersections and margins of these communities.





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A.I. & THE SURVEILLANCE STATE

2 A.I. & THE SURVEILLANCE STATE

PREDICTIVE POLICING

Last Year, there were over 60 police departments using AI and predictive policing programs like COMPAS and PredPol that allegedly forecast where crimes occur, and who will commit them.

3 DRONE SURVEILLANCE

Drone surveillance is rapidly becoming a staple in the policing toolkit..

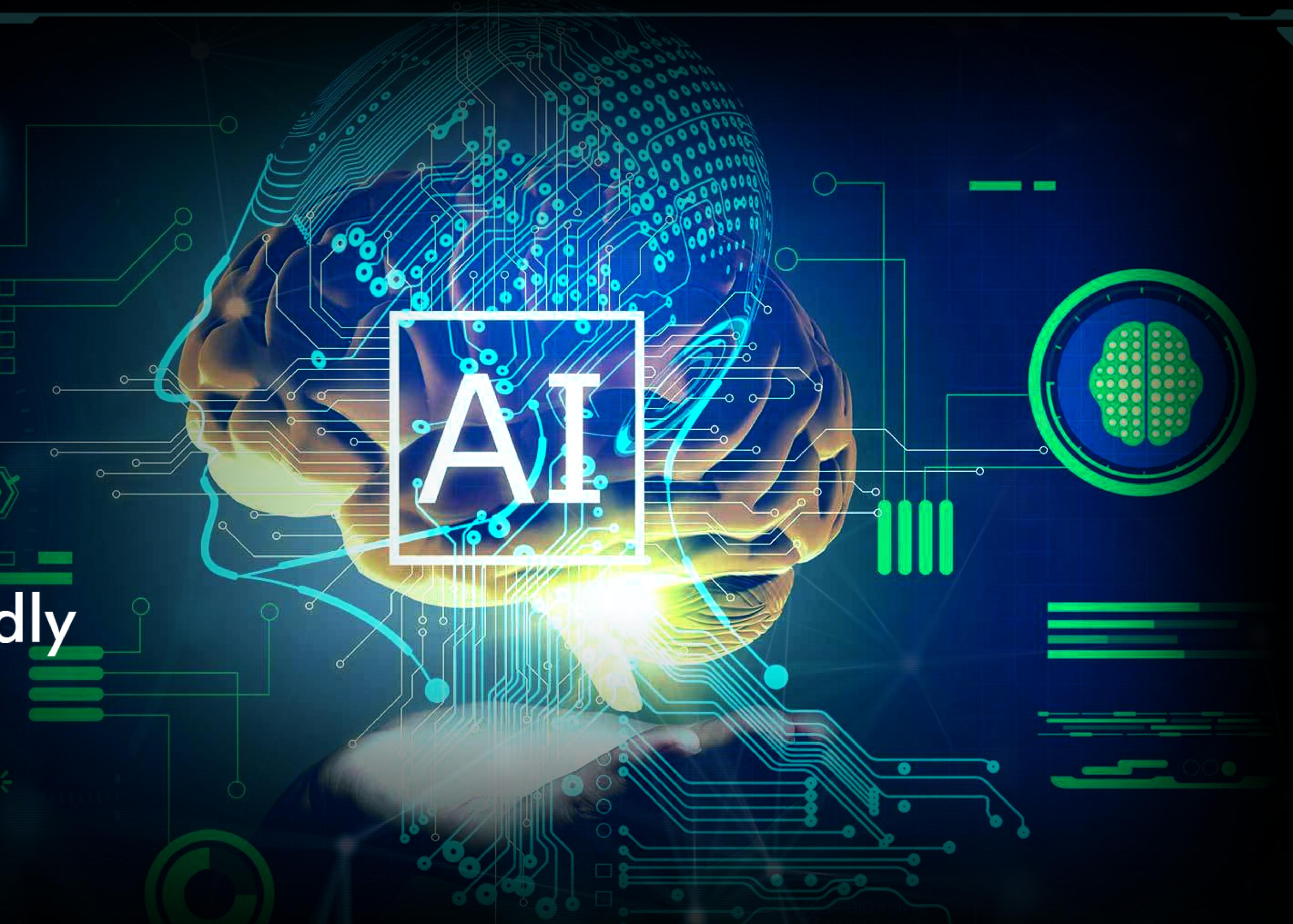
According to an April 2017 Bard Institute report, at least 347 state and local police, sheriff, fire and EMS departments have acquired UAVs. And some state and local law enforcement agencies are borrowing Customs and Border Patrol drones for missions.

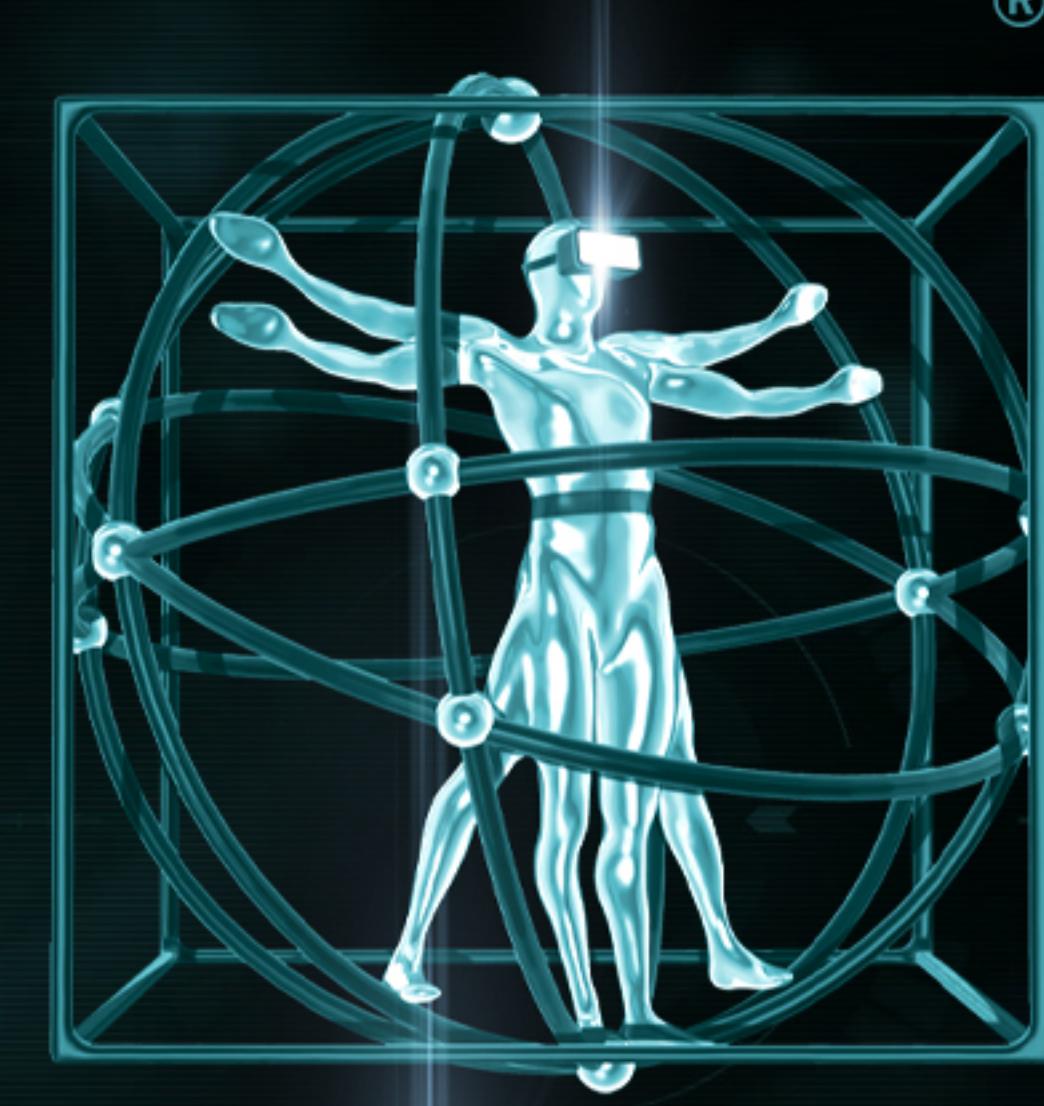


4 THE ALL SEEING EYE

There are over 62million surveillance cameras operating in the US alone.

There millions of tracking devices in our pockets that are giving away 30,000 points of facial recognition data right now.





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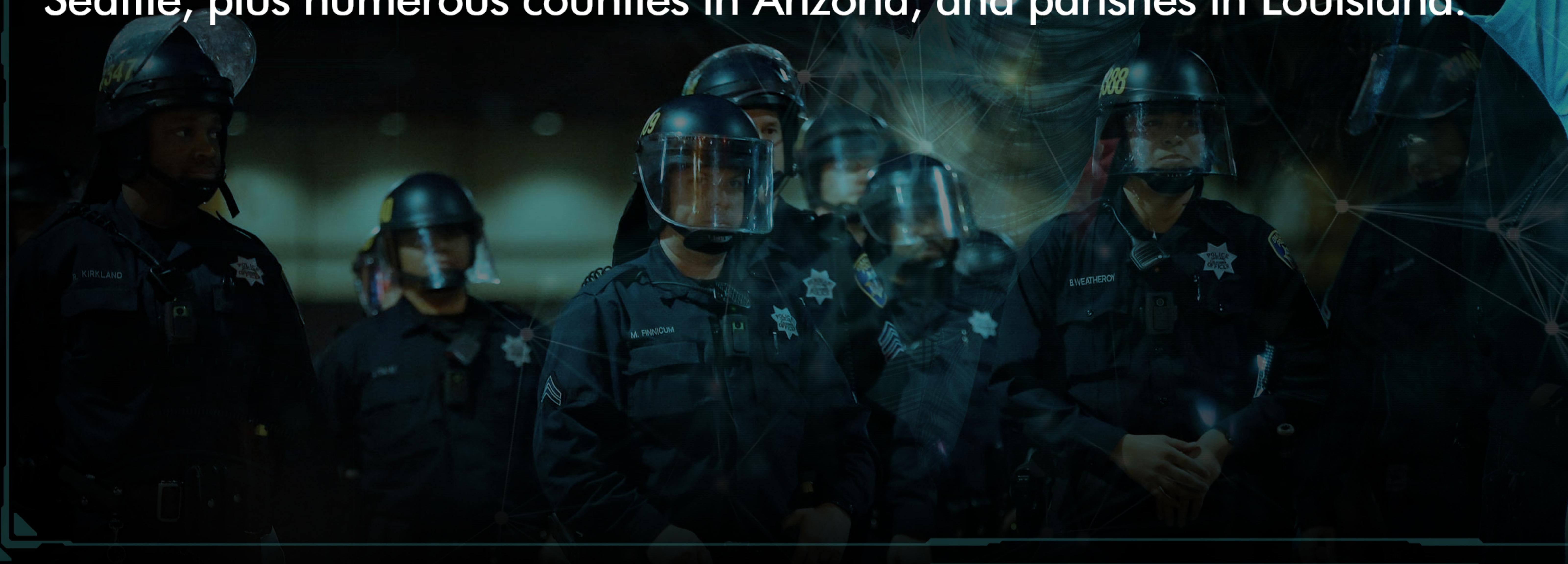
PROFILING IN ACTION

5

PROFILING IN ACTION

PROFILING HAS REACHED A NEW AND SOPHISTICATED LEVEL.

Several police departments are being investigated by DOJ for patterns of excessive use of force and racially discriminatory policing, in Albuquerque, Baltimore, Chicago, Cleveland, Ferguson, Los Angeles, Newark, New Orleans, Portland, Puerto Rico, and Seattle, plus numerous counties in Arizona, and parishes in Louisiana.



6 PROFILING IN ACTION

SOME OF LAW ENFORCEMENT'S NEW TECHNOLOGY TOOLS FACE LEGAL CHALLENGES BECAUSE OF THEIR POTENTIAL FOR NEGATIVE IMPACT ON CIVIL LIBERTIES

The largest police departments — in New York, Chicago and Los Angeles — are all being sued to force release of their predictive policing information and use algorithms to create lists of people and neighborhoods for officers to target.

7 PROFILING IN ACTION

THE CONCERN, ACCORDING TO CIVIL RIGHTS ADVOCATES, IS THAT THE COMPUTER PROGRAMS TARGET PEOPLE OF COLOR AND PERPETUATE THEIR DISPROPORTIONATE RATES OF ARREST, EVEN BEFORE A CRIME ACTUALLY OCCURS.

The public rarely, if ever, knows when predictive surveillance and policing programs are in place, and never get to audit or debate the use of these systems.

the use of these systems.



EDUCATION THROUGH ENTERTAINMENT

8

EDUCATION THROUGH ENTERTAINMENT

AS A RESULT OF ALL THIS, THE GRX TEAM IS ASKING THE PUBLIC TO CONSIDER:

If the police departments that are populated by humans continue to perpetuate patterns of excessive force and discriminatory policing based on race and national origin, what do we expect the outcomes will be of increased use of drones and AI in policing?



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EDUCATION THROUGH ENTERTAINMENT

NOT ONLY ARE WE ASKING THE RIGHT QUESTION...

but we are also developing the tools to stimulate and inspire public engagement and education about the topic of surveillance bias algorithms.

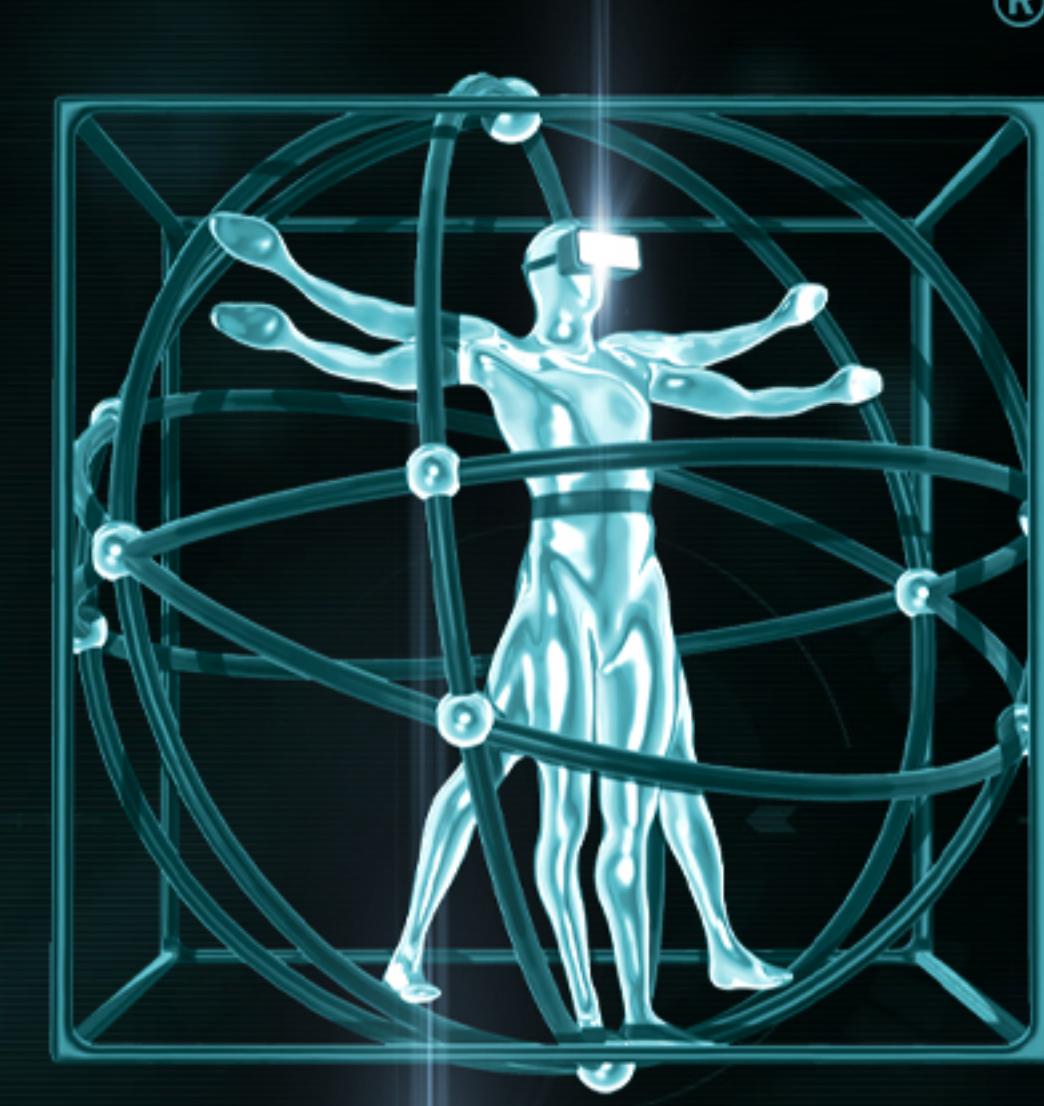


10 EDUCATION THROUGH ENTERTAINMENT



MORE IMPORTANTLY...

our mission is to promote equity in the application of, and access to new technologies to promote and implement technological justice, especially among those who are most targeted by police and surveillance technologies.



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P.O.V. POINTS OF VIEW

11 P.O.V. POINTS OF VIEW

POINTS OF VIEW IS A SCI-FI FULLY IMMERSIVE EXPERIENCE DESIGNED TO RAISE AWARENESS OF THE SYSTEMIC THREAT OF BIAS IN ARTIFICIAL INTELLIGENCE, WHICH ARE MACHINES THAT LEARN.

Most people are unaware of the inherent bias that is being programmed into AI that could replicate and advance systems of oppression. Our goal with this project is to raise awareness about AI and implicit bias and to affect real change, within the VR industry, within policing and the community.



THE P.O.V. PROJECT WILL PROVIDE

POV demonstrates how a person of color exerts leadership in AI to use it for the collective good and systems change.

A theatre-style VR experience that combines the best of education and entertainment and creates opportunities for community dialogue and curated information exchanges.

Engaging training modules for police and citizens that facilitate learning about implicit bias and how to address it.

The training of persons currently or formerly involved in the criminal justice system, to use their experiences to frame the issues, and also to provide a path to employment in new and emerging technologies for returning citizens.

12 P.O.V. POINTS OF VIEW

THE STORY...

After serving 2 years in prison for biometric hacking, Cassius Moore, a 21-year old black male qualifies for early release under a federal drone surveillance program. As a result, an artificially intelligent weaponized drone, which is essentially a replacement for the electronic ankle bracelet, follows him and records his every move.



13 P.O.V. POINTS OF VIEW

THE EXPERIENCE...

POV is a cross-platform experience allowing us to connect with audiences through multiple formats, including Immersive Installations, Desktop, Web, Mobile, Xbox and other Gaming consoles. The project will consist of 6 episodes of VR content 5 minutes in length.

Throughout this 6-part immersive experience we follow this young man as he struggles to start a new life and maintain his civil liberties in a world programmed with biased artificial intelligence and surveillance technology.



PGCVIEW

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE GAMEPLAY STORYBOARD - EXPERIENCE

PROGVIEW

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV POINTS OF VIEW

A VIRTUAL REALITY EXPERIENCE

POV EXPERIENCE



2B

INT. HOME SETTING - CONTINUOUS

User clicks "BUY" and a QR code is generated with the date and time of premiere.

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

POV EXPERIENCE



VR 180 INTERACTIVE GAMEPLAY STORYBOARD

3

EXT. PLANETARIUM LOBBY - NIGHT

POV SHOT: User/ Ticket Holder approaches ticket taker and pulls up QR code on app.

POV

A VIRTUAL REALITY EXPERIENCE

POV
EXPERIENCE



VR 180 INTERACTIVE GAMEPLAY STORYBOARD

POV
EXPERIENCE

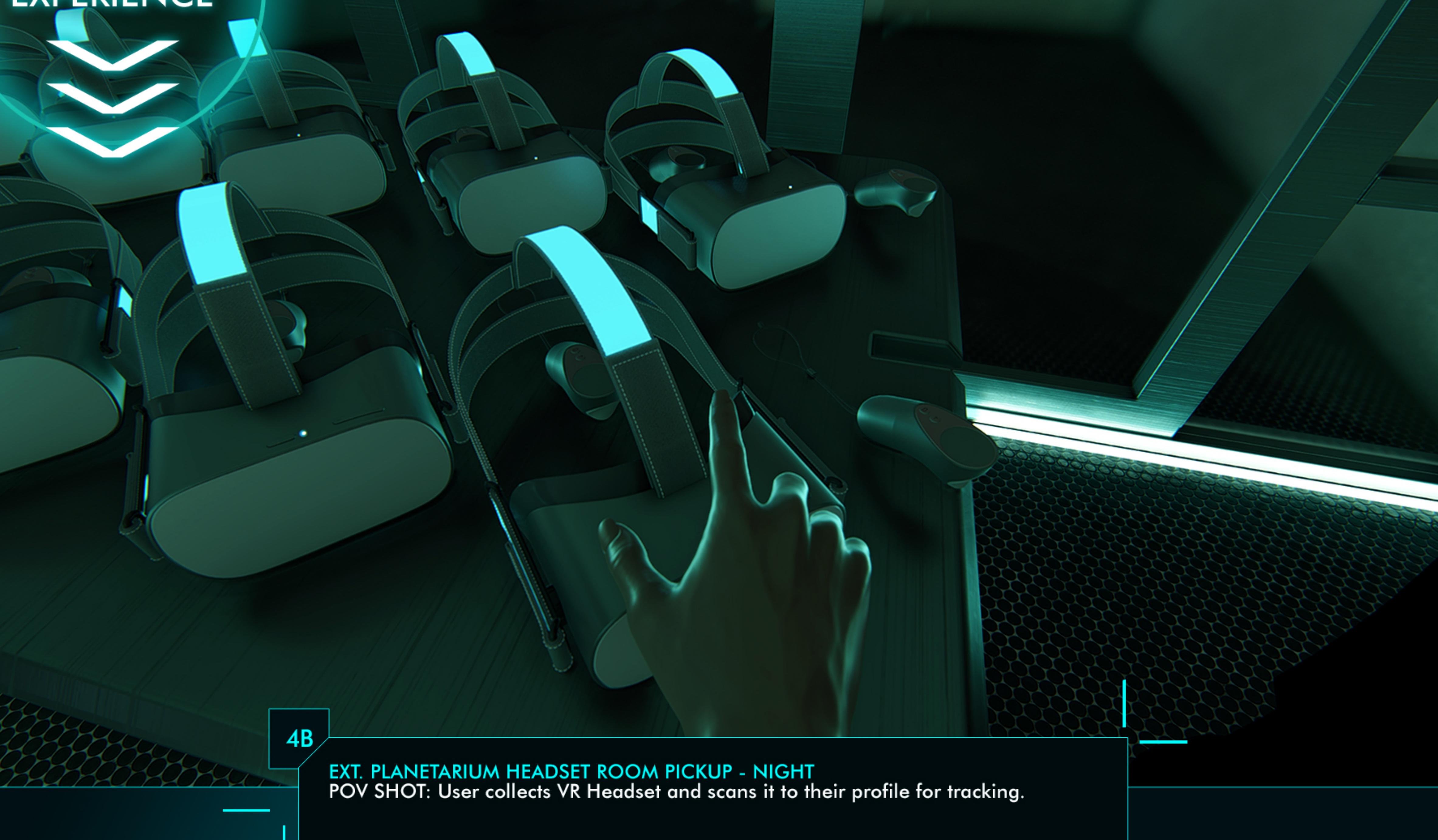


VR 180 INTERACTIVE GAMEPLAY STORYBOARD

PROGVIEW

A VIRTUAL REALITY EXPERIENCE

POV
EXPERIENCE



VR 180 INTERACTIVE GAMEPLAY STORYBOARD

POV
EXPERIENCE



VR 180 INTERACTIVE GAMEPLAY STORYBOARD

POV

A VIRTUAL REALITY EXPERIENCE

POV EXPERIENCE



5B

EXT. PLANETARIUM ENTRANCE - CONTINUOUS
DRONE POV SHOT : Reverse shot of people asking drone questions

POV EXPERIENCE



6

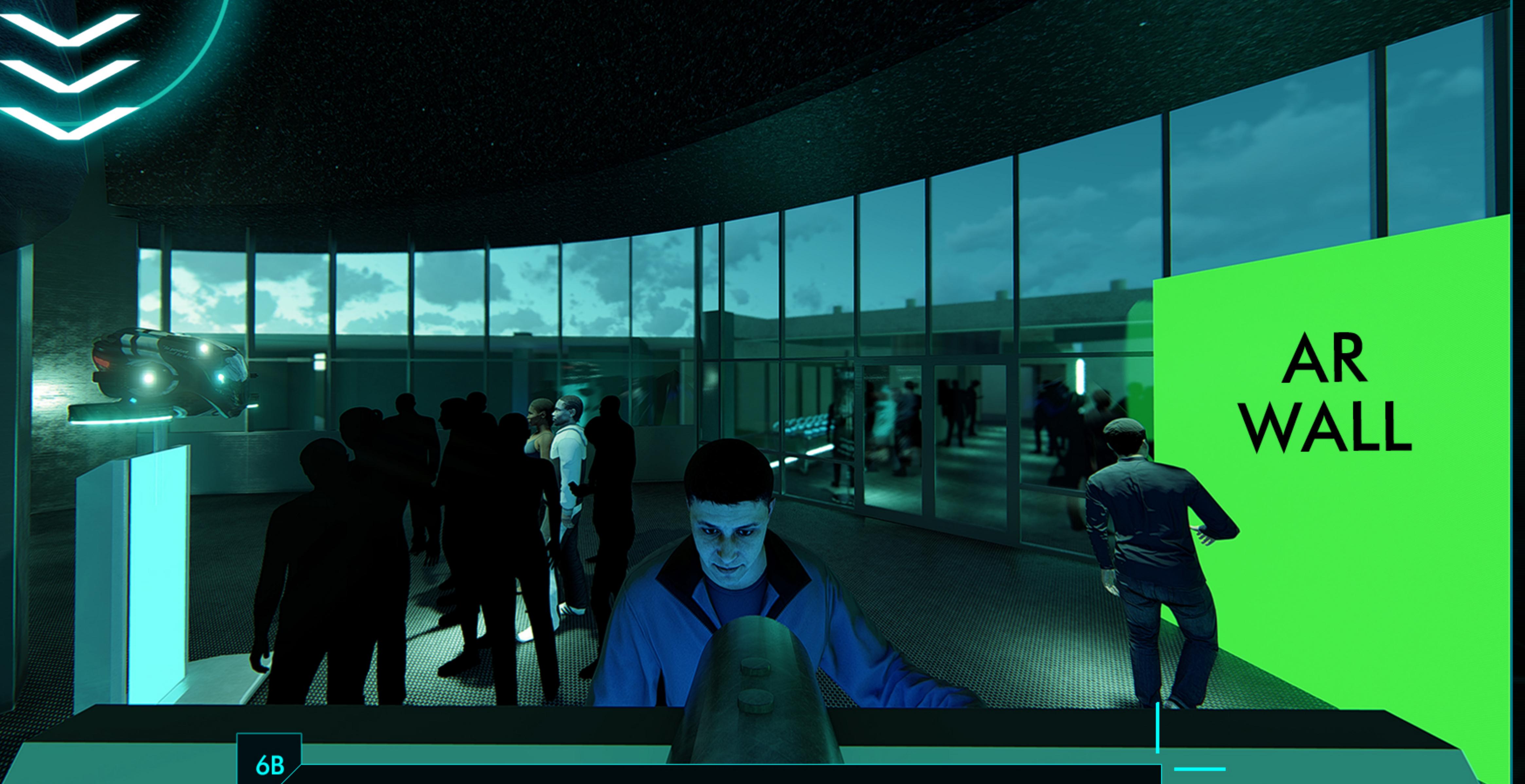
EXT. PLANETARIUM ENTRANCE - NIGHT
POV SHOT: Person moves toward entrance and is prompted to be face scanned.

PROGRESSIVE

A VIRTUAL REALITY EXPERIENCE

POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV

A VIRTUAL REALITY EXPERIENCE

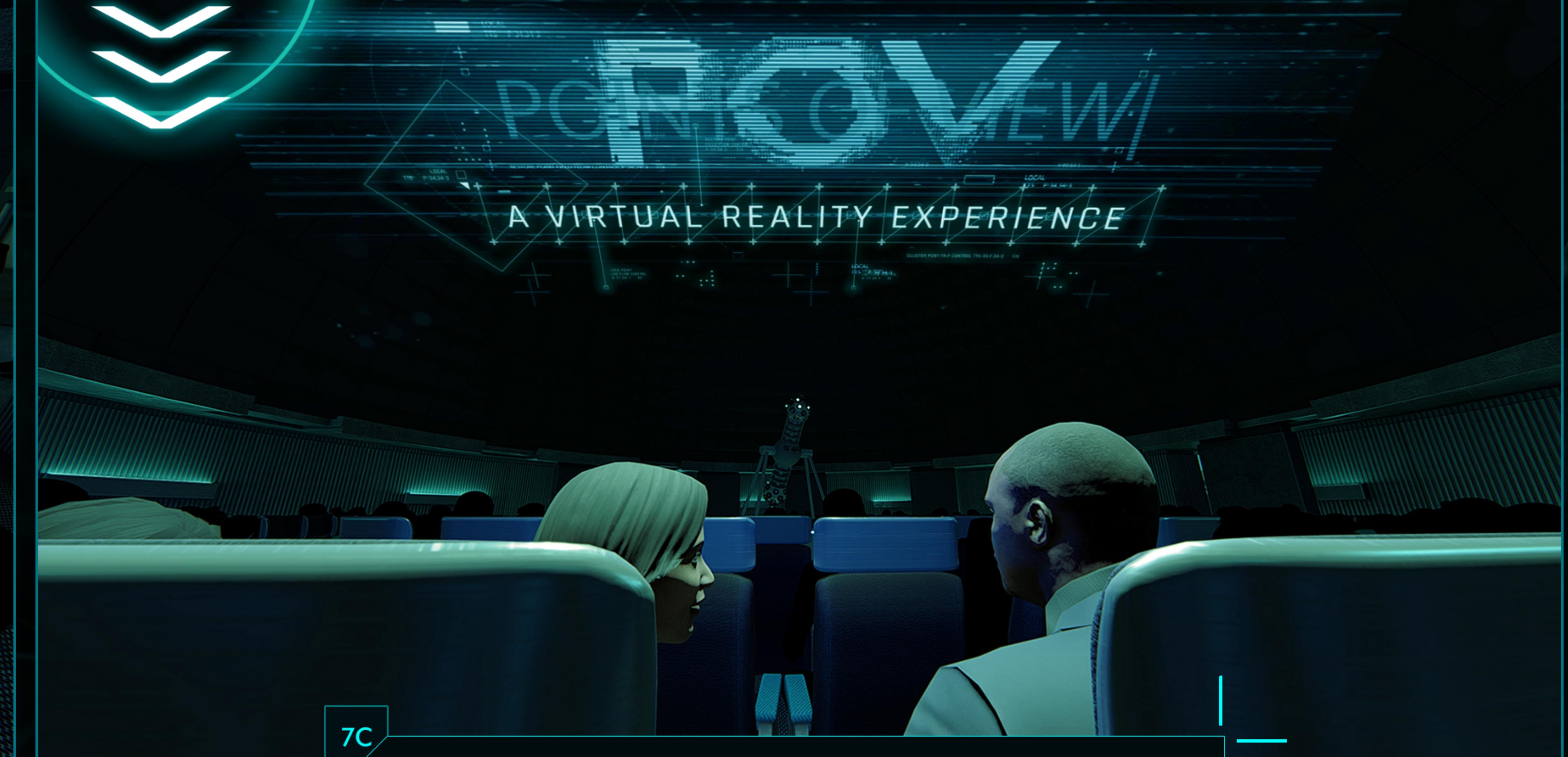
POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV

A VIRTUAL REALITY EXPERIENCE

POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



8

INT. PLANETARIUM -NIGHT
POV SHOT: In between episodes, guests are prompted to put on headsets to activate interactive installations.

POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



9

EXT. PLANETARIUM ENTRANCE -NIGHT
SINGLE: After Premiere, Guests interact with AR WALL as audience exits theater.

POV

A VIRTUAL REALITY EXPERIENCE

POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



10

EXT. PLANETARIUM ENTRANCE -CONTINUOUS
3 SHOT: Guests engage in panel discussions after premiere on various subjects.

POV
EXPERIENCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

BIAS
TEST
RESULTS

11

EXT. PLANETARIUM -NIGHT
POV: Guests leaves event and receives Bias Test results via SMS through APP.

PROGVIEW

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE GAMEPLAY STORYBOARD - INSTALLATIONS

PROGVIEW

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - TRAINING ROOM

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



INTERACTIVE ENTRY POINTS - INSTALLATION UI

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV INSTALLATIONS

A VIRTUAL REALITY EXPERIENCE

POV INSTALLATIONS



VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV INSTALLATIONS



VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - INSTALLATION UI

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV INSTALLATIONS

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



POV

A VIRTUAL REALITY EXPERIENCE

POV INSTALLATIONS



VR 180 INTERACTIVE GAMEPLAY STORYBOARD

3B

POLICE LINEUP: INT. POLICE STATION - DAY

POV INTERACTIVE INSTALLATION: Viewer participates in a police lineup to help the officers determine the guilt or innocence of a potential suspect based on appearance, actions, and available data. Viewers answers are logged into bias test.

APPX. VR GAMEPLAY TIME: 5 Minutes

INTERACTIVE ENTRY POINTS - INSTALLATION UI

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

DRONE LAW ENFORCEMENT VR TRAINING PROGRAM



4

VR USER INTERFACE - TACTICAL TRAINING SELECTION

Under each gameplay selection, a status bar indicates if the game has been completed and Bias Test results logged. The Tactical Training Selection will contain an Interactive Training Simulation as well as an Interactive Firing Range Installation.

POV GVIEW

A VIRTUAL REALITY EXPERIENCE

POV INSTALLATIONS



VR 180 INTERACTIVE GAMEPLAY STORYBOARD

4A
URBAN TRAINING: EXT. CITY ALLEYWAY - DAY
POV INTERACTIVE INSTALLATION: Viewer participates in an urban training exercise as the drone to assist in apprehending a suspect. Viewer must determine who has committed a crime based on available data and observation. Results are logged in Bias Test.

APPX. VR GAMEPLAY TIME: 5 Minutes

POV INSTALLATIONS



VR 180 INTERACTIVE GAMEPLAY STORYBOARD

4B
SHARPSHOOTING: INT. GUN RANGE - DAY
POV INTERACTIVE INSTALLATION: Viewer participates in an sharpshooting exercise as the drone to hone their shooting skills.

APPX. VR GAMEPLAY TIME: 5 Minutes

POV

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - INSTALLATION UI

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



5

VR USER INTERFACE - SEARCH & RESCUE SELECTION

The Search & Rescue Selection will contain an Interactive Rescue Simulation as well as an Interactive Drone Race Installation.

POV INSTALLATIONS

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



5A

SEARCH & RESCUE: EXT. CITY - NIGHT

POV INTERACTIVE INSTALLATION: Viewer participates in a search and rescue operation from the drones POV to assist in an accident.

APPX. VR GAMEPLAY TIME: 5 Minutes

POV

A VIRTUAL REALITY EXPERIENCE

POV INSTALLATIONS



VR 180 INTERACTIVE GAMEPLAY STORYBOARD



INTERACTIVE ENTRY POINTS - INSTALLATION UI

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

DRONE LAW ENFORCEMENT VR TRAINING PROGRAM



POV
POINTS OF VIEW

6

VR USER INTERFACE - APPREHENSION SELECTION

The Apprehension Selection will contain an Interactive Pullover Experience as well as an Interactive Incarceration Experience.



POV

A VIRTUAL REALITY EXPERIENCE

POV INSTALLATIONS



6A

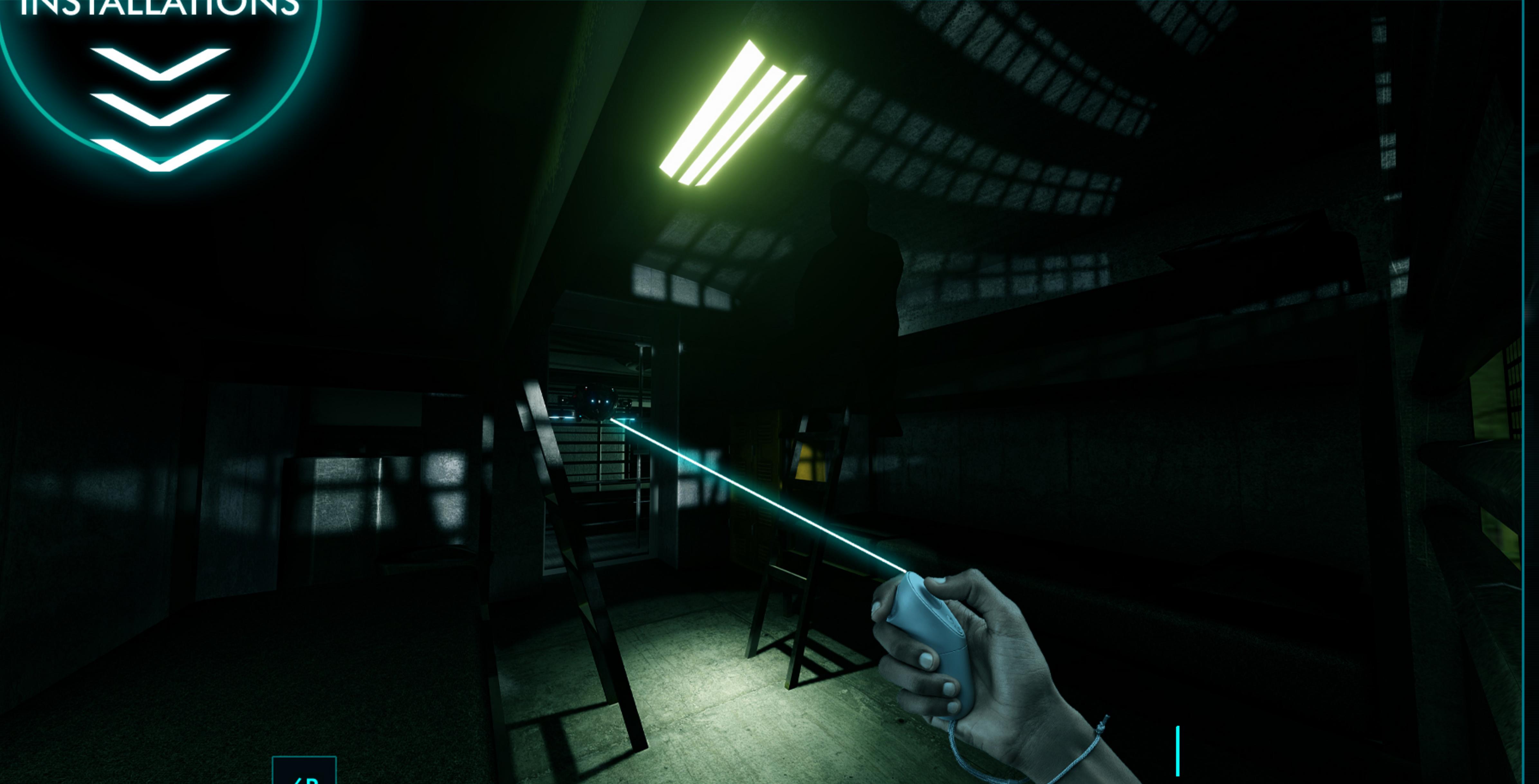
PULL OVER: EXT. CITY - DAY

POV INTERACTIVE INSTALLATION: Viewer experiences what it feels like to be pulled over and harassed by police. They must make quick decisions how they respond which effects the outcome of the scenario. Results are logged in Bias Test.

APPX. VR GAMEPLAY TIME: 5 Minutes

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

POV INSTALLATIONS



6B

INCARCERATION: INT. PRISON - NIGHT

POV INTERACTIVE INSTALLATION: Viewer experiences what it feels like to be incarcerated in a prison. They must make quick decisions how they respond to Prison Guards and Inmates, which effects the outcome of the scenario. Results are logged in Bias Test.

APPX. VR GAMEPLAY TIME: 5 Minutes

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

POV

A VIRTUAL REALITY EXPERIENCE

INTERACTIVE ENTRY POINTS - INSTALLATION UI

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

DRONE LAW ENFORCEMENT VR TRAINING PROGRAM



1

2

3

4

5

6

POV
POINTS OF VIEW

7

VR USER INTERFACE - INVESTIGATION SELECTION

The Investigation Selection will contain an Interactive Crime Scene Experience where the viewer will participate in solving the crime from the series.



POV INSTALLATIONS

VR 180 INTERACTIVE GAMEPLAY STORYBOARD



7A

INVESTIGATION: EXT. CITY - NIGHT

POV INTERACTIVE INSTALLATION: Viewer participates in the crime scene investigation with access to volumetric, frame by frame fly around the moment of the shooting. They interact with police and drone to determine what happened. Results will be logged in Bias Test.

APPX. VR GAMEPLAY TIME: 10 Minutes

PROGVIEW

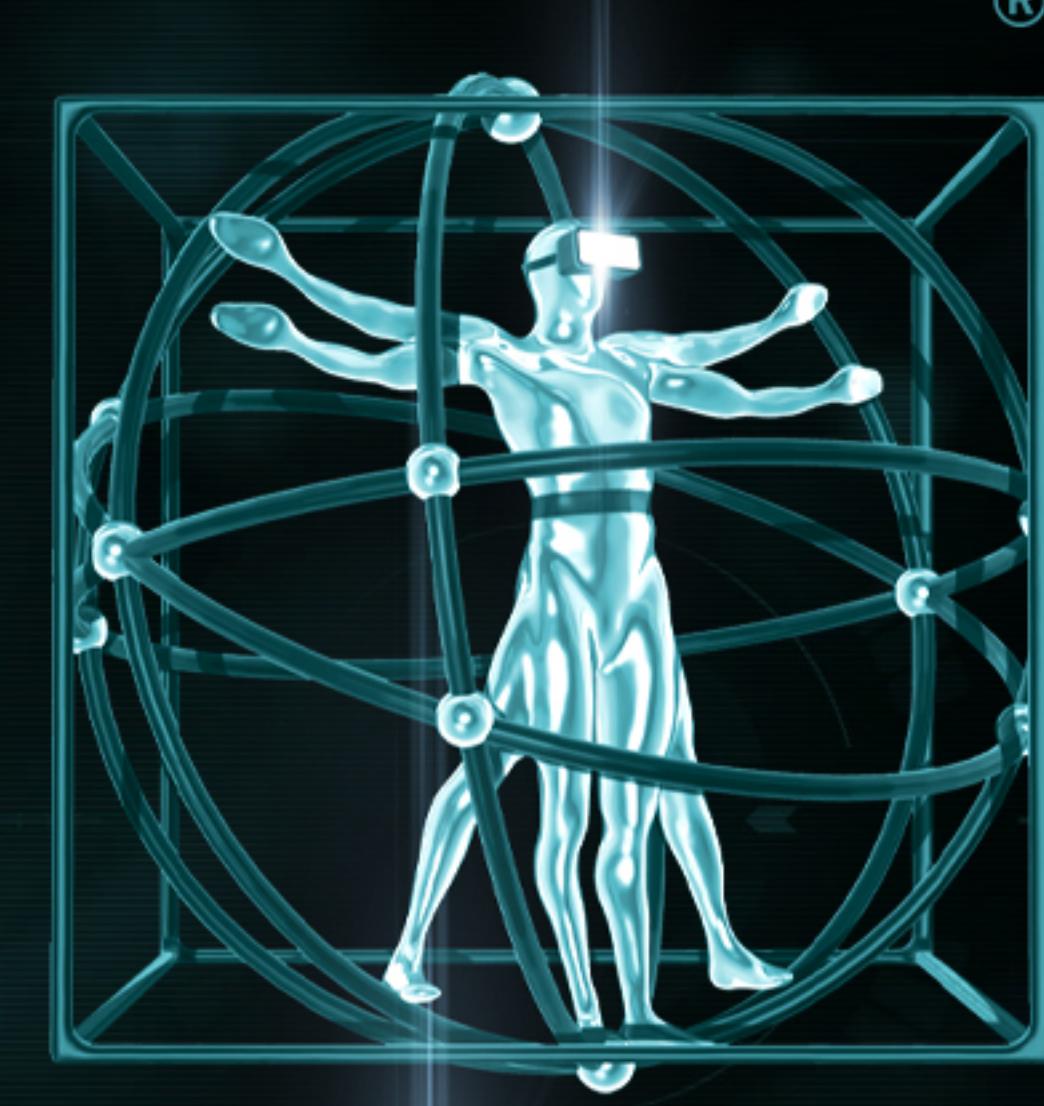
A VIRTUAL REALITY EXPERIENCE

SERIES & INSTALLATION DATA AT A GLANCE

VR 180 INTERACTIVE GAMEPLAY STORYBOARD

EPISODES	1	2	3	4	5	6	
	EP1 INTELLIGENT AGENT	EP2 CONTROL THEORY	EP3 BRUTE-FORCE SEARCH	EP4 ECHO STATE	EP5 MARKOV CHAIN	EP6 EXISTENTIAL RISK	
INSTALLATIONS	PROFILING	INTERROGATION	TACTICAL TRAINING	SEARCH & RESCUE	APPREHENSION	INVESTIGATION	
1.RIDE ALONG	Interactive: Yes Appx Gameplay Time: 10min Active after viewing EP 1- 2	2.INTERROGATION	Interactive: Yes Appx Gameplay Time: 5min Active after viewing EP 1- 2	4.URBAN TRAINING	Interactive: Yes Appx Gameplay Time: 5min Active after viewing EP 3-4	6.SEARCH & RESCUE	Interactive: Yes Appx Gameplay Time: 5min Active after viewing EP 3-4
3.POLICE LINEUP	Interactive: Yes Appx Gameplay Time: 5min Active after viewing EP 1- 2	5.SHARPSHOOTING	Interactive: Yes Appx Gameplay Time: 5min Active after viewing EP 3-4	7.DRONE RACE	Interactive: Yes Appx Gameplay Time: 5min Active after viewing EP 3-4	8.PULL OVER	Interactive: Yes Appx Gameplay Time: 5min Active after viewing EP 5-6
9.INCARCERATION						10.CRIME SCENE	Interactive: Yes Appx Gameplay Time: 10min Active after viewing EP 5-6

6
TOTAL SERIES RUNTIME (6 Episodes): 30 Minutes
TOTAL INSTALLATION GAMEPLAY RUN TIME: 60 Minutes
TOTAL POV EXPERIENCE RUNTIME: 90 Minutes



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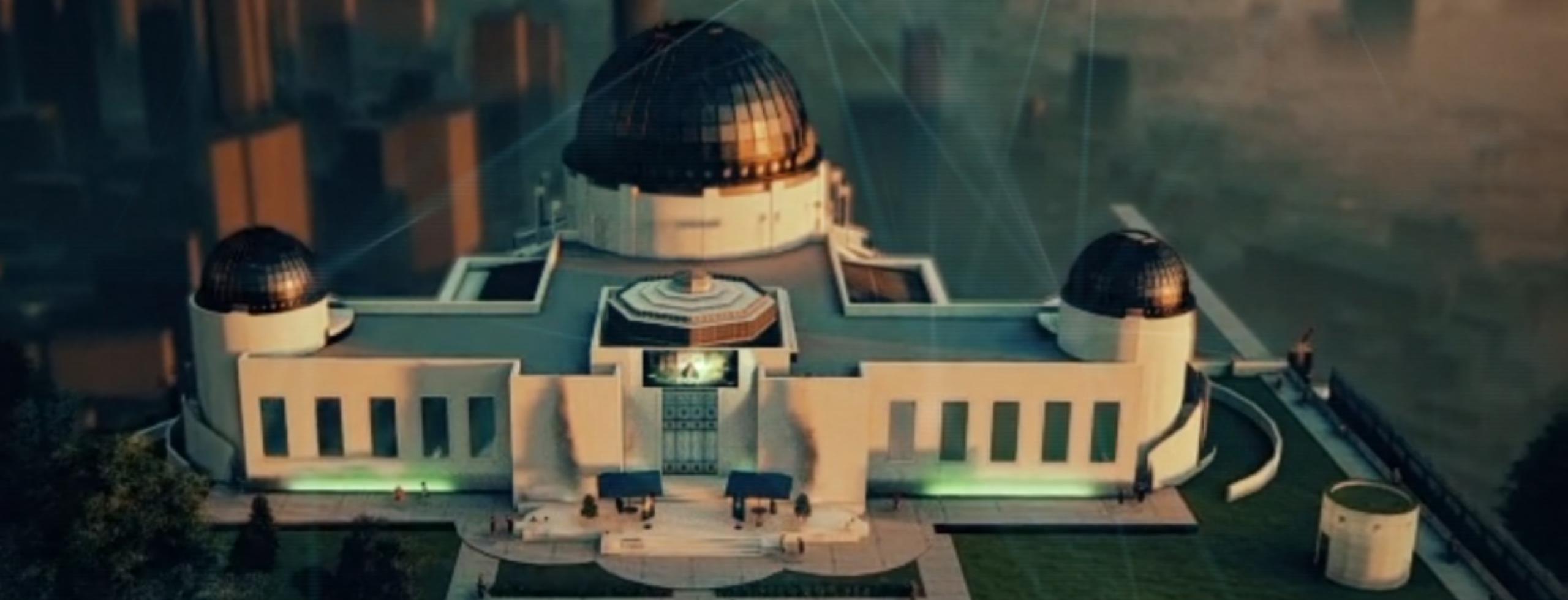
COMMUNITY ENGAGEMENT

14 COMMUNITY ENGAGEMENT

THE ROLL-OUT...

Our community engagement and distribution plan will be implemented through partnerships with museums, galleries, VR arcades, and educational institutions in order to stage location-based installations, and other events to accelerate community engagement and social impact.

There are over 350 Planetariums in the US and thousands of them around the world, all connected through an existing network of educational and community organizations, and they are all perfectly designed to host POV.



POV

A VIRTUAL REALITY EXPERIENCE

AFTER EACH EPISODE

The audience will engage in a series of interactive experiences using VR headsets to demonstrate what technological bias looks like.

This interactive experience is designed to make audiences aware of their own unconscious bias and how those biases are reflected back to us through the digital world and the technology we create and increasingly rely on.

AFTER EACH SHOWING

We will curate and present panel discussions in each city with thought leaders and leaders in the field of AI to analyze the preponderance and implications of bias programming in emerging technologies and the strategies that are being researched and implemented to address those biases.

AFTER EACH EXPERIENCE

We will use the POV installation spaces and other community venues to provide technology training and resources for youth and returning citizens to give them an opportunity to code a better tomorrow.

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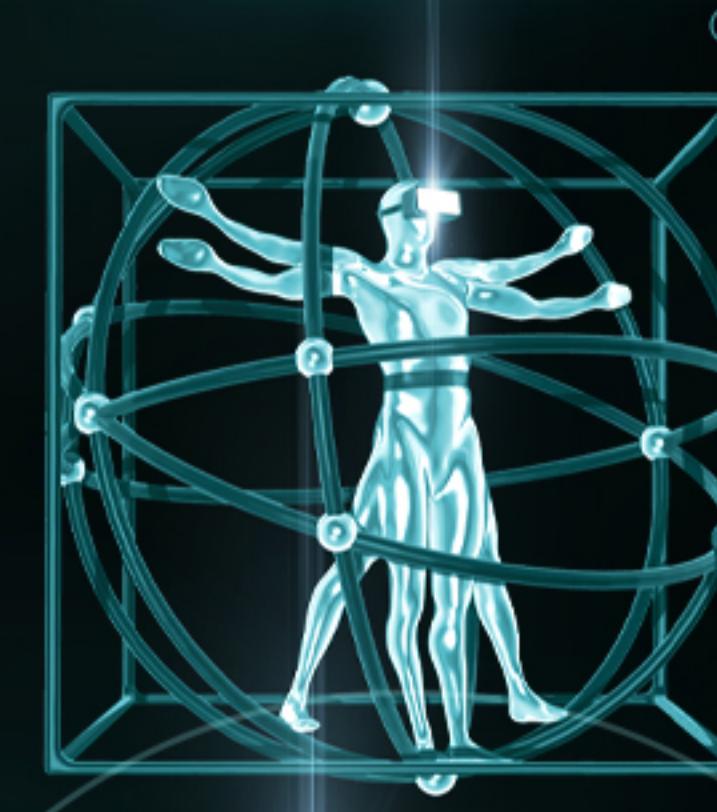
EVALUATING IMPACT

THE BIAS TEST...

We will be collecting audience feedback information through completion of the interactive implicit bias tests. In addition, participants in each POV event will be asked to complete a short-form questionnaire to provide feedback on the immersive POV experience.

This will dive into their fears and dreams about new technologies and what they hope AI can accomplish in helping to facilitate system change and technological equity. This feedback will inform the next iteration and subsequent episodes and storylines of POV.

“our present racial biases are being coded into the technology of the future.”



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THANK YOU

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