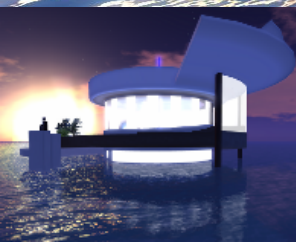


The Art of Enhanced Reality



The Science Circle
Presentation in Second Life
October 26, 2014

John Lester
about.me/pathfinder
Chief Learning Officer
ReactionGrid



A Story about Enhanced Reality

Pathfinder 2: star
@jokaydia.metaverseworlds.co
m:8002
look up!
it's beautiful!
set your time to midnight

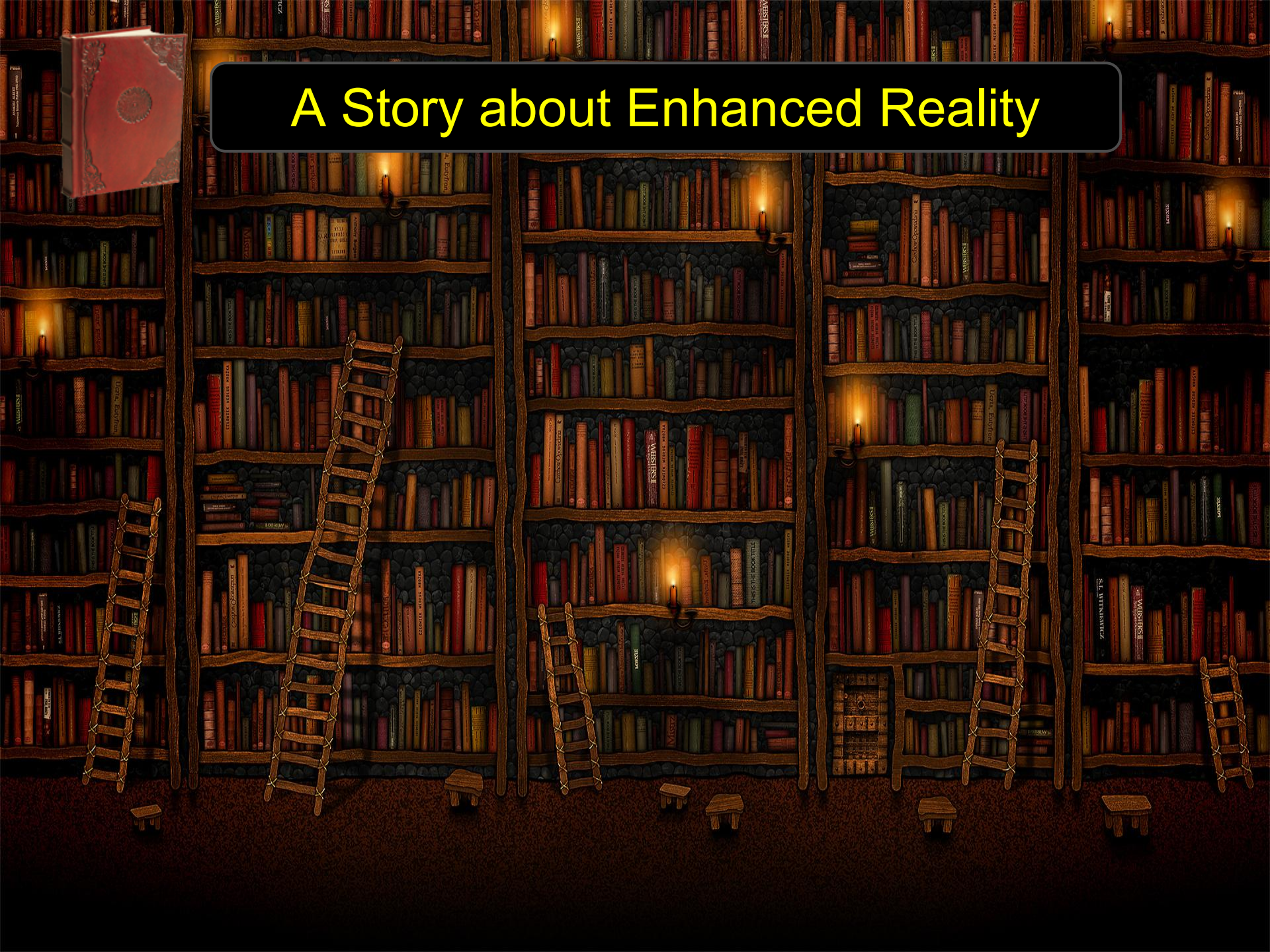
Orchid Jameson (Imprudence)

Mimetic Core
@jokaydia.metaverseworlds.co
m:8002

Pim Peccable
@jokaydia.metaverseworlds.co
m:8002 (Imprudence)

Thair
air
es
nprudence)

A Story about Enhanced Reality





A Story about Enhanced Reality

- 1) Discovering the Art of Enhanced Reality
- 2) The Promise and Peril of being Bound by our Biology
- 3) The Beauty of When Enhanced Reality Works
- 4) Horizons of Virtual and Augmented Reality

Chapter 1: The Art of Enhanced Reality



Chapter 1: The Art of Enhanced Reality

Enhanced = to raise to a higher degree

"Candlelight enhanced the beauty of the market."

Reality = our mind perceiving and interacting with the world
sense + action



Chapter 1: The Art of Enhanced Reality

Enhanced Reality is the **augmentation** of our **mind's ability** to **communicate** and **share knowledge** through the complementary use of **different tools**.

These tools include media, language, the web, networked mobile devices, and virtual / augmented / immersive reality.

The **Art of Enhanced Reality** is achieved when we successfully use tools that **leverage our biology's strengths** while **minding our biology's weaknesses**.

Eventually we succeed at **combining** the **fascinating** with the **familiar** to create **powerful learning experiences**.

Chapter 2: **Bound by our Biology**



Chapter 2: Bound by our Biology

We are **designed to thrive** in a 3-dimensional environment that is **full of life and living organisms**, seeking to **learn through exploring** while **avoiding threats**.

We are constantly looking for opportunities **interact with people**, and **places that are particularly interesting** will kick our brain into high gear.

We are **really good at metaphors** because **our brain is really good at filling in the gaps**, and we **instinctively create tools** that augment ourselves.

There's a reason why so many of us have desktops and mobile devices that look like *this*.



It's because we really want *this*.



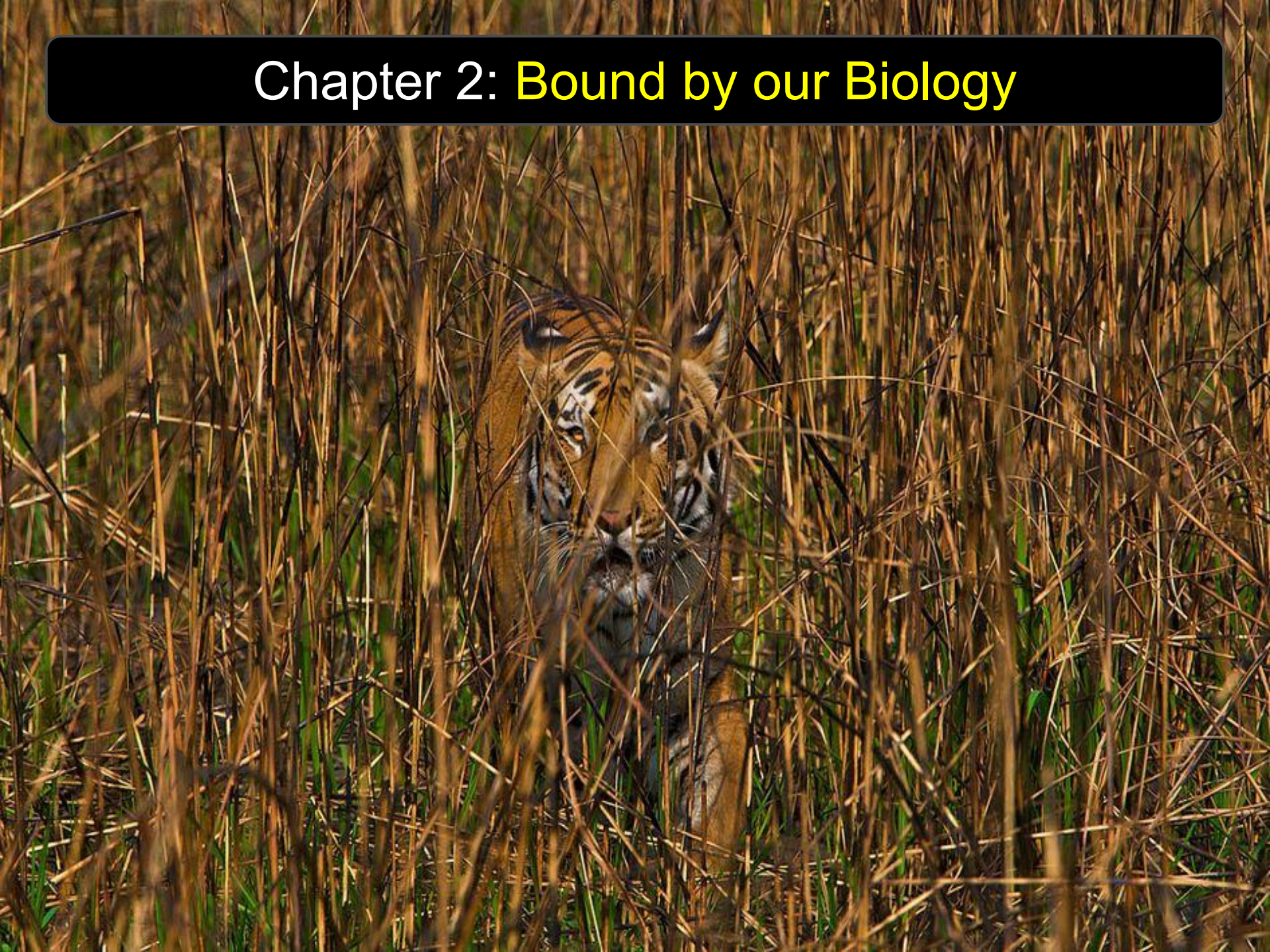
we navigate and simulate *this*



while we really dream about navigating *this*.



Chapter 2: Bound by our Biology



Chapter 2: Bound by our Biology

Evolutionary Advantages and the story of The Tiger in the Grass

Moving from Partial Information to Cognitive Whole

From Pattern Recognition to Pattern Matching Misfires

Lost Opportunities caused by Using a New Tool like an Old Tool

We are constantly exposed to *New Media*



and we are constantly *using it like Old Media*

The **phonograph** is all about *reading aloud*



Movies are all about *filming plays*



The future of our organization's *flyer*...

Newton reads your writing and turns your doodles into drawings.



While it does everything a notepad can do, the Newton MessagePad communications assistant also does much more. It recognizes your writing—printed, cursive, and mixed. It recognizes shapes, jagged lines become razor sharp—automatically. Or you can leave your sketches just as you draw them, in "ink."



Practice makes perfect.

Just as learning to write took a little practice when you were young, learning how to write on your Newton MessagePad takes practice. Which is why it comes with a handwriting instructor that teaches you how to do what you do best. You'll find your writing is a little better. But then again, most everybody gets it.

Staying in touch has never been easier. The Newton MessagePad can send a "file" and "beam" information to another Newton.

You can also exchange electronic mail with just about any computer or any other NewtonMail™ subscriber.

So no matter where you are, the world you need to reach is as near as your Newton MessagePad. And not only can you connect it with desktop computers, you can print anything that's on your Newton MessagePad on a PC- or Macintosh™-based printer.*



Staying in touch has never been easier.



With the optional Apple Fax Modem you can fax the facts directly from the palm of your hand to just about any fax machine in the world. And in addition to formatting your fax automatically, Newton even sends a color photo.



With the optional Apple Print Pack, you can set it to type on most types of printers, dot matrix, portable, or jet, thermal, and laser. With the optional Newton Connection Kit, you can transfer information to and from a PC running Microsoft® Windows™ or Macintosh® computers. So you can easily back up your work, and distribute information to your Macintosh MessagePad without having to rekey.



*Requires a network card.
** Transferring data to and from a PC is possible only if you have a PC with a serial port. Speed and other features may vary.

Just instruct Newton on what you want doing, and consider it done.



Think of it as you would a personal assistant, your wish is its command. It understands a variety of words that you use in everyday life and responds to them. If it sounds simple, that's because it is.



Dial, fax, birthday, print it, hey, look for, dinner, to do, work, call, remind me, ring, attention, find, don't forget to, e-mail,



schedule, car phone, breakfast, search for, remember, meet with, time in, lunch, dear, other, send, locate.



Just tell it the way and Newton handles the how. Newton's the way you want it. You'll want it to do.



Just tell it the way and Newton handles the how. Newton's the way you want it. You'll want it to do.



Newton knows what you're doing and when you're doing it.

The Newton MessagePad helps you schedule, plan, prioritize, and track your time. It even has an alarm clock to keep you on time.



Newton knows time by the day. And by the week. And by the month. Even by the year.

If it's time to do, Newton will do it. You can let it, or you can let it off.



The Newton MessagePad has an address book that lets you keep track of family, friends, colleagues, and business people. So if you can't remember a Newton's out.

Newton knows what time it is, anywhere in the world. When you change time zones, it'll do it for you.



...is a **website**.

Find It

Product Information

Customer Support

Technology & Research

Developer World

Groups & Interests

Resources Online

About Apple

Apple Sites Worldwide

Switzerland

Taiwan

Turkey

UK & Ireland

United States

Go

Where to Buy

Register to Win

Software Updates

Home Page Archives

Welcome to Apple



Introducing
CyberDrive

Register today for a free CD-ROM.

EMATE 300

Mobile,
Affordable,
& Smart



MOVIES
FROM MARS

QuickTime VR
Takes You Out
of this World

What's Hot

Preorder Mac OS 8

Now you can [preorder Mac OS 8](#), described by Macworld as "the most comprehensive update to the Mac OS in years, sporting a bold new look, a speedier Finder, more shortcuts and integrated Internet functions."

Want a PowerBook?

Qualify to win a [PowerBook 3400/200](#) by [entering](#) this month's Apple Registration Sweepstakes.

Big Help for Small Biz

Find out what you need to make

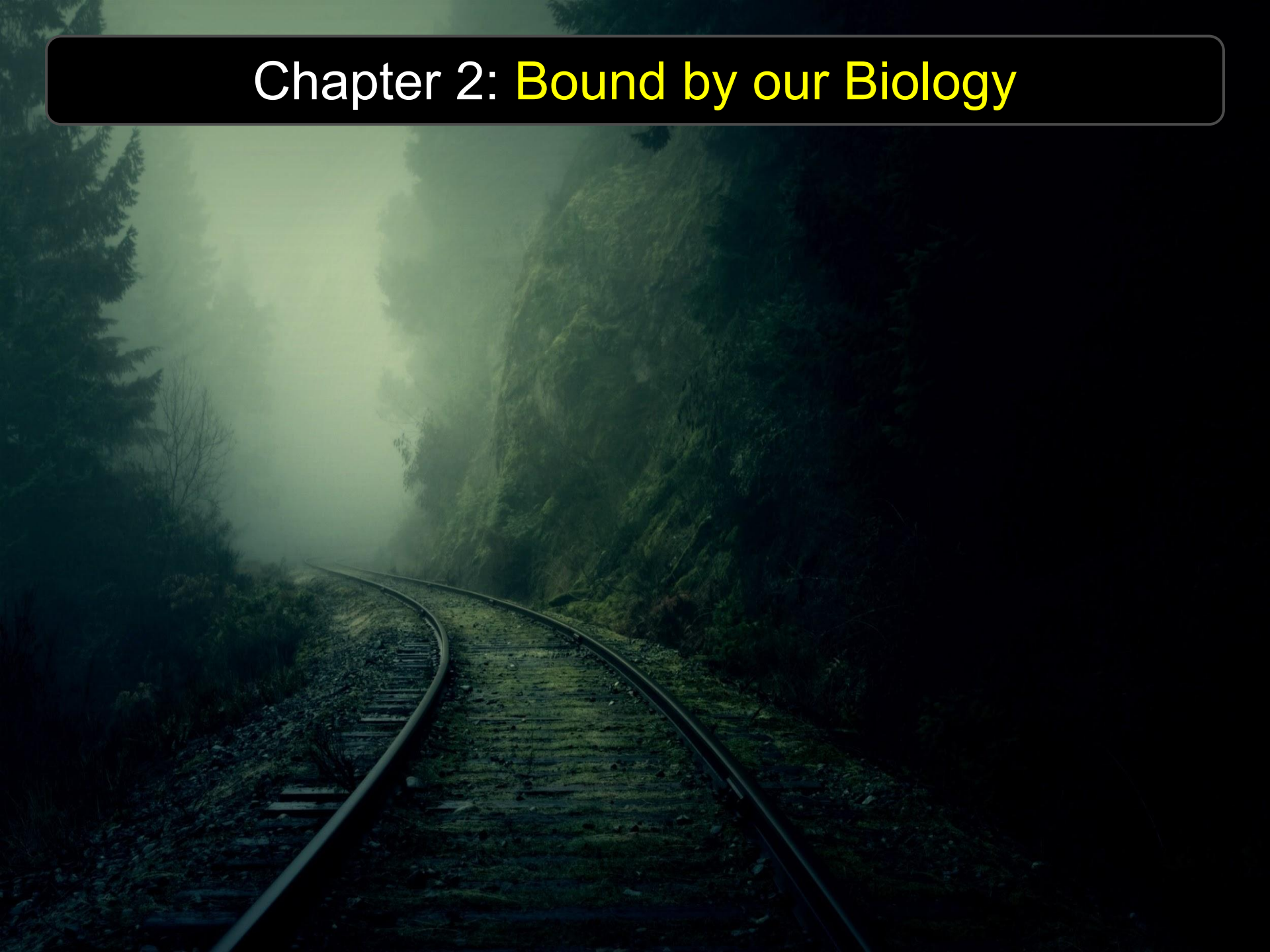
Be the First to Know

Learn about new Macintosh software releases the moment they become available. Check [Hot Mac Products](#) to hear about programs like Speed Demon, ReBirth RB-338 and QuickCRC.

Newton Connects

Newton, Inc., will enhance network connectivity for Newton-based devices this fall via [Newton Internet Enabler 2.0](#). Ethernet capability can connect devices to Local Area Networks.

Chapter 2: Bound by our Biology



Chapter 2: Bound by our Biology

We instinctively **recreate the familiar**.

We do this because **familiar feels safe**.

The deepest learning **does not happen** when we feel completely safe in a completely familiar environment.

The deepest learning happens when we are **fascinated with and challenged by our environment**.

Safe and Familiar



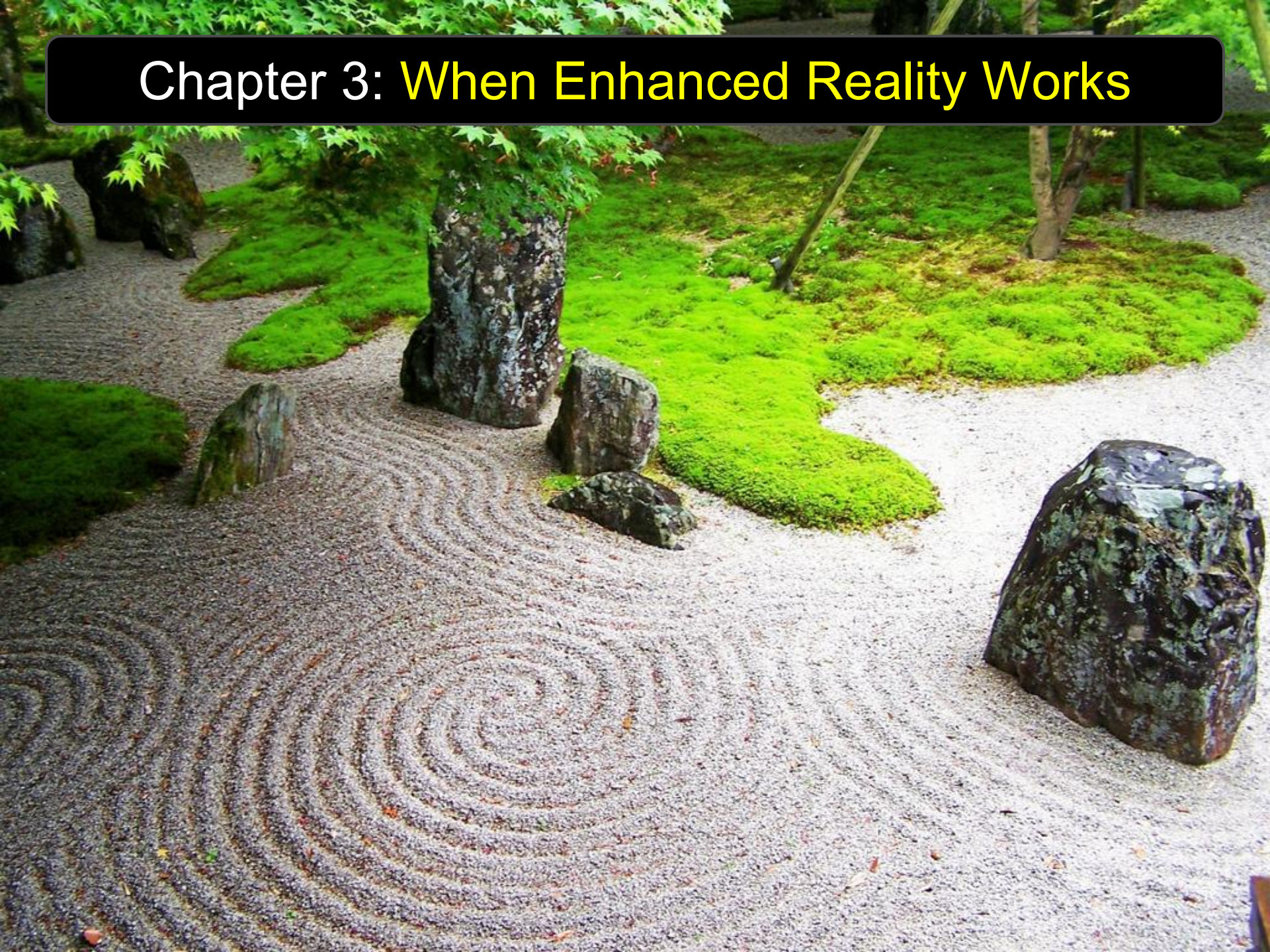
Interesting, but still **Safe** and **Familiar**



Is this really *innovative*?



Chapter 3: When Enhanced Reality Works



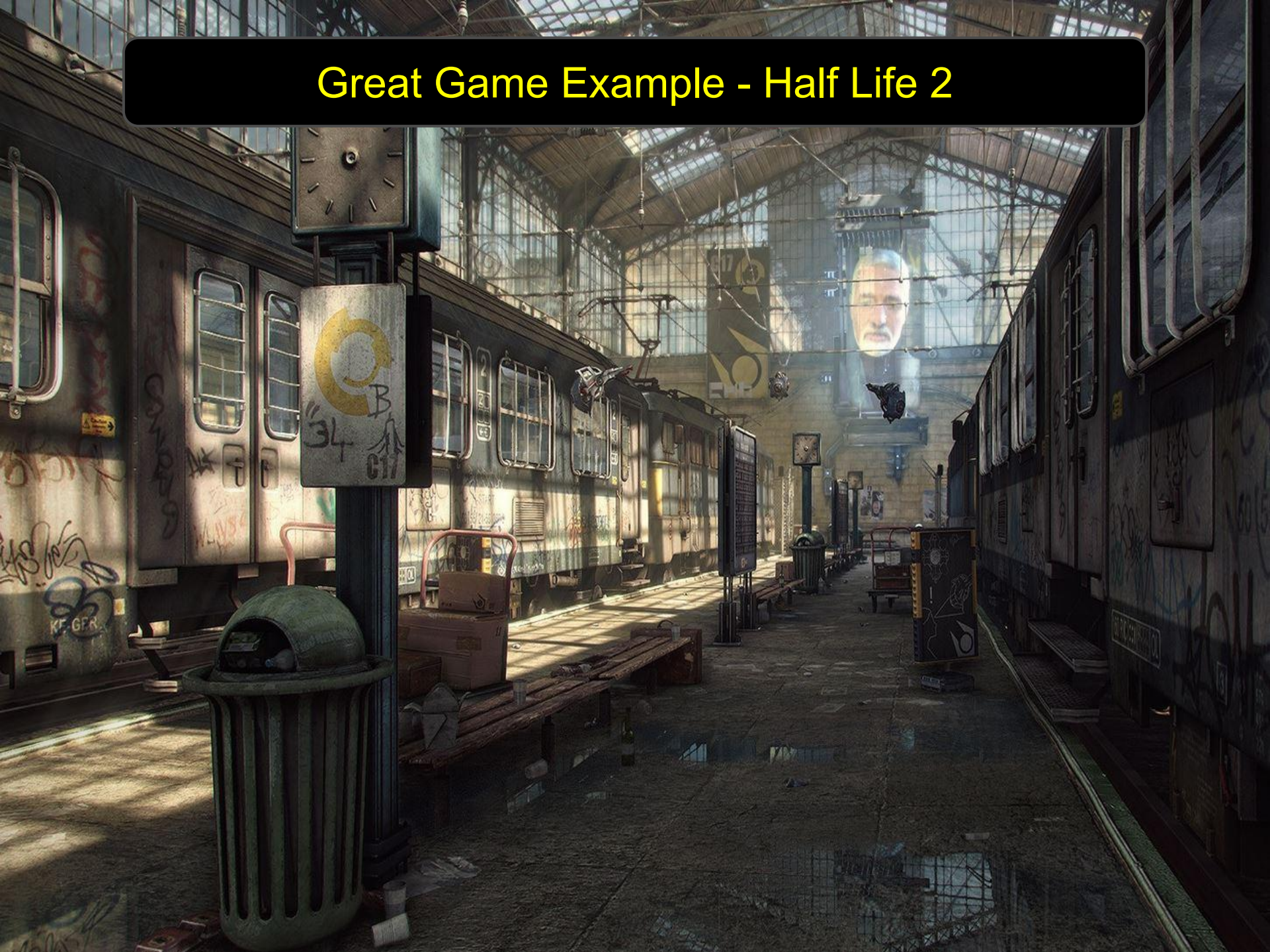
Chapter 3: When Enhanced Reality Works

When it all comes together, **you'll know**.

Combine the **Fascinating** with the **Familiar**.

Great **game developers** do this a lot. **Learn from their best work.**

Great Game Example - Half Life 2



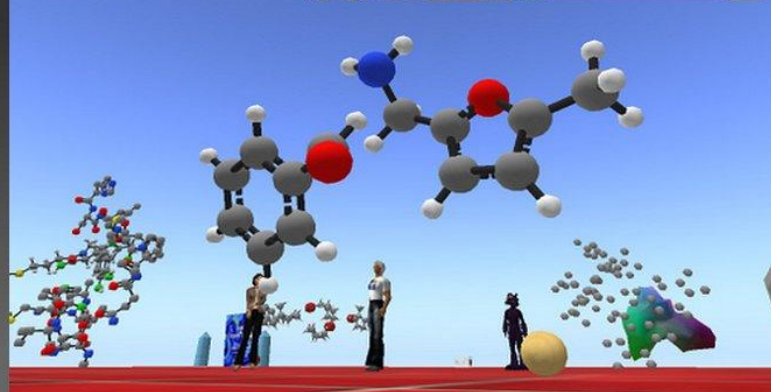
Another Great Game Example - FRACT



Innovative Tools for knowledge management and communication



But for Truly Fascinating you need Perceptual Immersion



Automatically Triggering Contextually Relevant Content

Firefox

John "Pathfinder" Lester's Jibe World ...

jibemicro.reactiongrid.com/pathfinderlester/

13 Tweet 50 Submit Share 20 Like 23

How to Navigate in Jibe

- Press WASD or arrow keys to walk
- Hold W to start running
- Press E or C to fly up or down
- Press space while moving to jump
- Click-drag on screen to move camera
- Click on chairs to sit
- To stand up, walk forward or backward

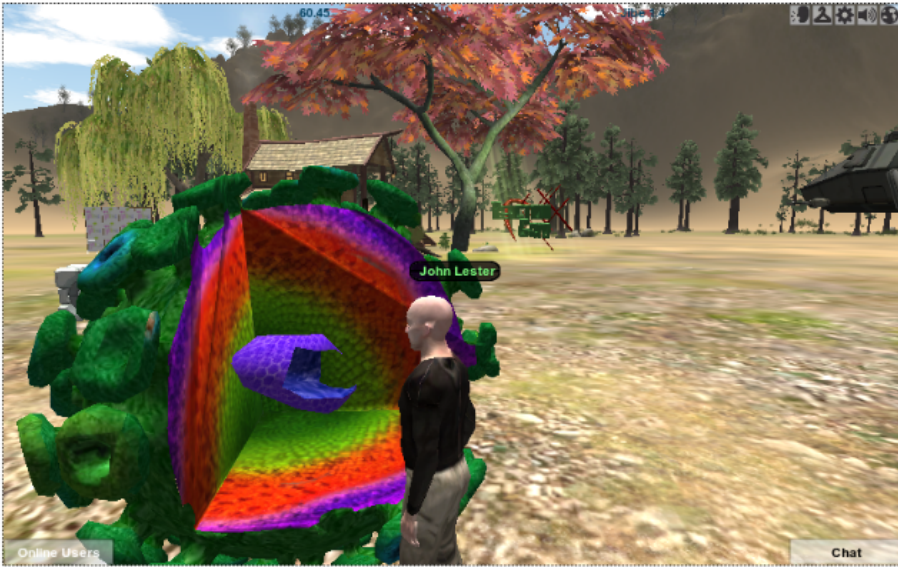
ReactionGrid on Twitter

Pathfinder Watching presentations about augmented reality while sitting in a Jibe virtual world. [bit.ly/Jibe](#) #ttz2011 #ReactionGrid yesterday · reply · retweet · favorite

nzerk RT @Lokazional: "Interfaces for the New Decade" - Join us Online at The Tech Test Zone 2011 Conference on Nov 15th [see.sc/Gds56l](#) #reactiongrid yesterday · reply · retweet · favorite

Pathfinder I tweaked my Jibe world so you can watch the ... yesterday · reply · retweet · favorite

Join the conversation



John Lester

Online Users

Chat

[About | Help with Voice | Jibe Product Page | JibeMix Portal | Jibe-Unity3d Discussion Group | Load Bigger(1024x800) | FULLSCREEN]

Want to learn more? Join a [Live Tutorial](#)

Powered by Jibe 1.4 and SmartFoxServer

US Pacific: 10:12 am Thu US Mountain: 11:12 am Thu US Central: 12:12 pm Thu Lima: 1:12 pm Thu Montreal: 1:12 pm Thu UK: 6:12 pm Thu Paris: 7:12 pm Thu Tokyo: 3:12 am Fri Sydney: 5:12 am Fri Hong Kong: 2:12 am Fri GMT/UTC: 6:12 pm Thu

HIV

HIV

Classification and external resources

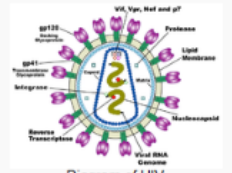


Diagram of HIV

ICD-10	B20-B24
ICD-9	042-044
OMIM	609423
MedlinePlus	000602
eMedicine	article/783434
MeSH	D006678

Human immunodeficiency virus (HIV) is a *lentivirus* (a member of the *retrovirus* family) that causes *acquired immunodeficiency syndrome* (AIDS).^{[1][2]} a condition in humans in which progressive failure of the *immune system* allows life-threatening *opportunistic infections* and *cancers* to thrive. Infection with HIV occurs by the transfer of *blood*, *semen*, *vaginal fluid*, *pre-ejaculate*, or *breast*

Immersive Learning needs People

The screenshot displays a Facebook page for John Lester. The main content area shows a virtual world scene from a game like Second Step. In the scene, a character named John Lester stands on a grassy bank next to a wooden sign that reads "Welcome To Rock Creek Park National Park Service U.S. Department of the Interior". A stone bridge with a glowing blue orb in the distance is visible. The interface includes a top navigation bar with the Facebook logo, notification icons (1, 1, 15), a search bar, and a user profile for John Lester. On the right, a list of recent activities shows users like Arthur Bushkin, Brandy Maltas, Ben Williams, Jon Stevens, John Lester, Brad Kittenbrink, Caos Sinclair, and John Lester again, each with a brief description of their action and a timestamp.

facebook 1 1 15 Search

John Lester Home

Presentations

John Lester

Welcome To Rock Creek Park National Park Service U.S. Department of the Interior

Online Users Chat

John Lester is using Virtual Career Center @ Rock Creek Park. 3 minutes ago

Arthur Bushkin read Sean Parker: Facebook Power Users Have Gone to Twitter or Google+ on Washington Post Social Reader. 9 hours ago

Brandy Maltas used Status Shuffle. 8 hours ago

Ben Williams used Washington Post Social Reader. 8 hours ago

Jon Stevens used The Guardian. 8 hours ago

John Lester used Virtual Career Center @ Rock Creek Park. 42 minutes ago

Brad Kittenbrink used MyCalendar - Birthdays. 2 hours ago

Caos Sinclair read Supporting Cain, GOP base evokes Thomas hearings on Yahoo! 2 hours ago

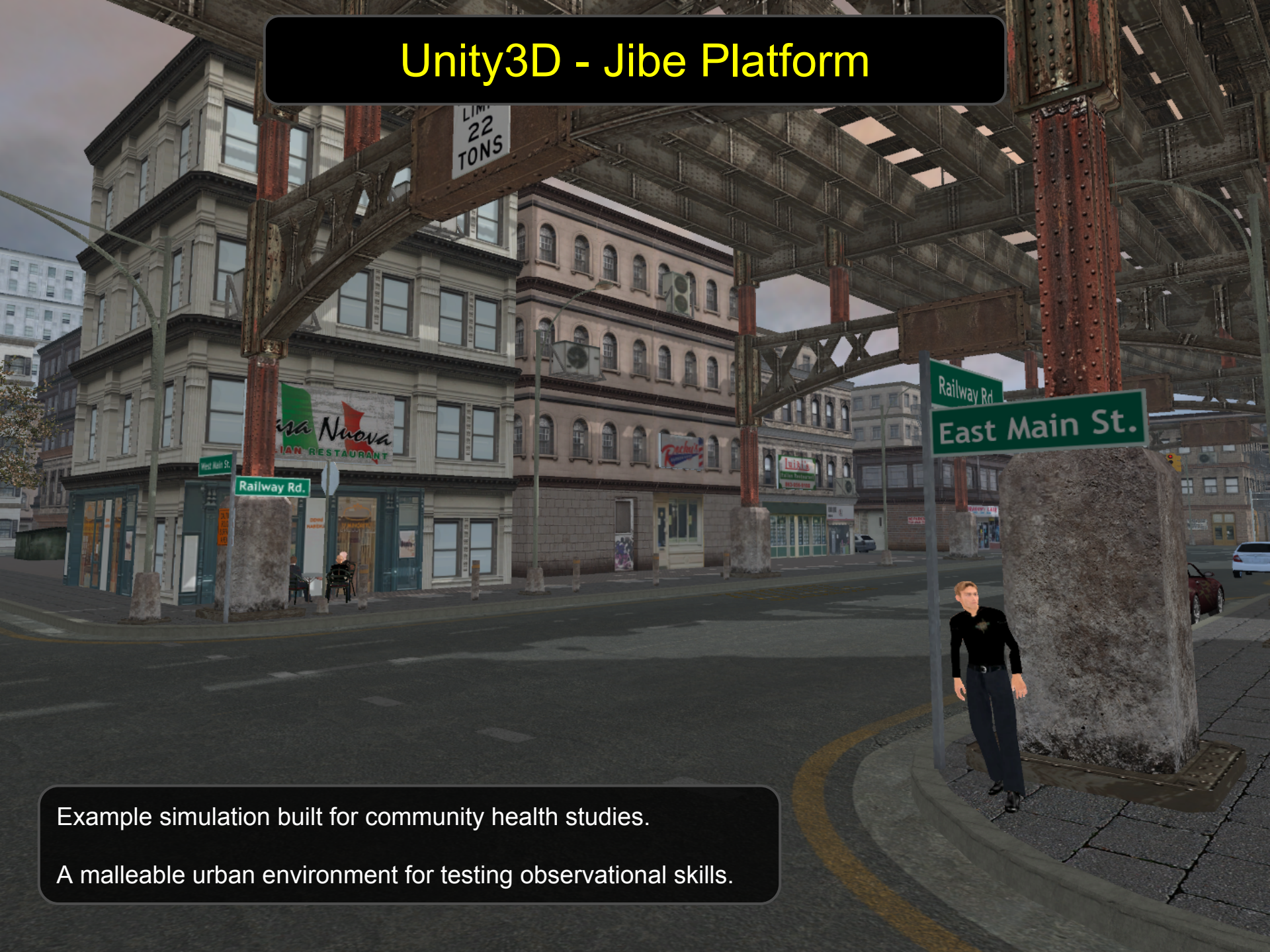
John Lester used Virtual Career Center @ Rock Creek Park. 5 hours ago

Unity - Jibe Platform

- ReactionGrid.com
- Multiuser environment that coexists with web-based content
- All content development using the Unity Editor
- Backend database for user info and behavior tracking
- Hosted or self-hosted
- Create highly interactive and malleable worlds

Pathfinder

Unity3D - Jibe Platform



Example simulation built for community health studies.

A malleable urban environment for testing observational skills.

Unity3D - Jibe Platform



Storefronts can be changed on the fly.

A mix of physical world images with models and links to the web.

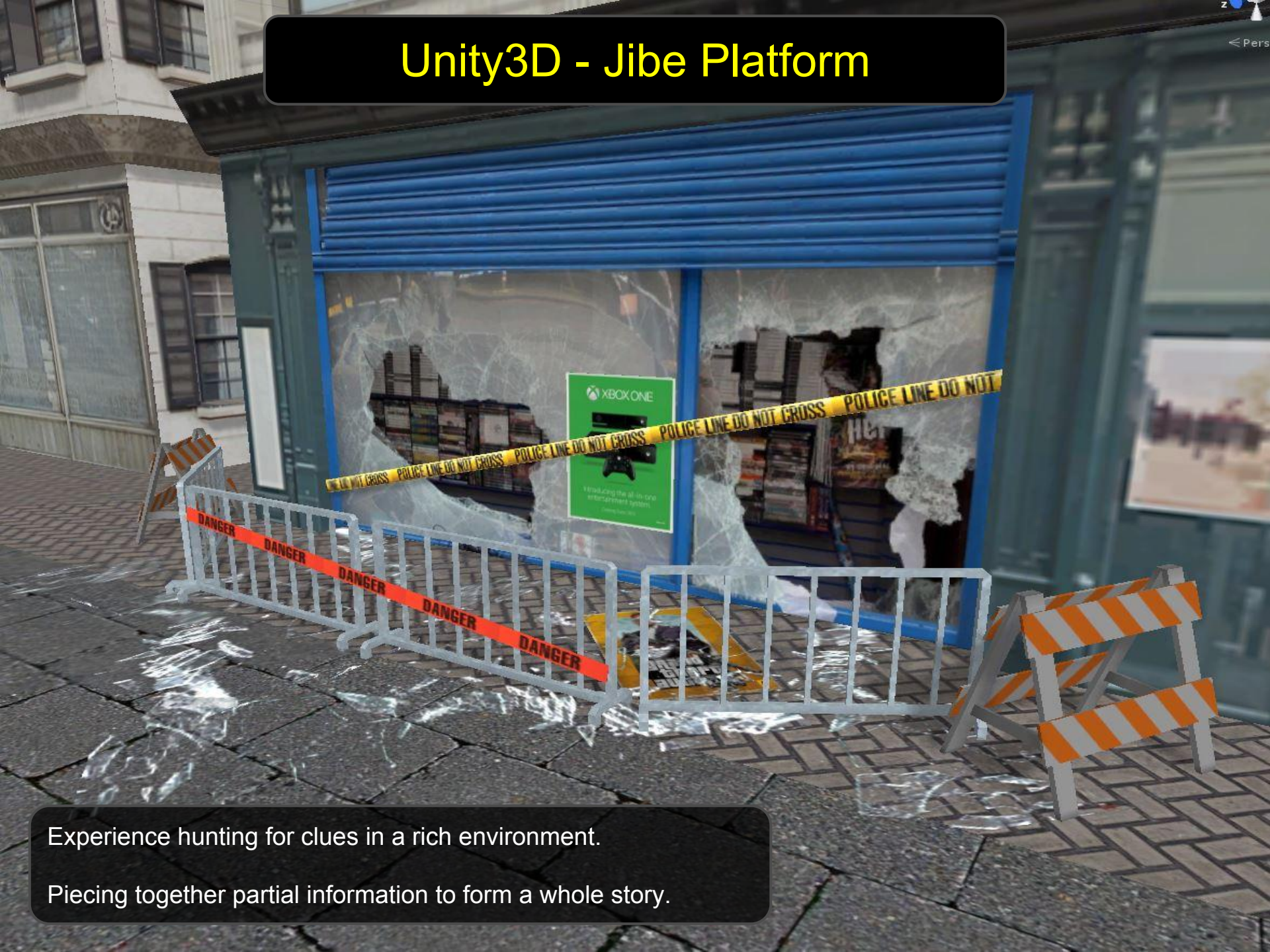
Unity3D - Jibe Platform



The city changes based on a student's actions.

Graffiti expands if it is not removed.

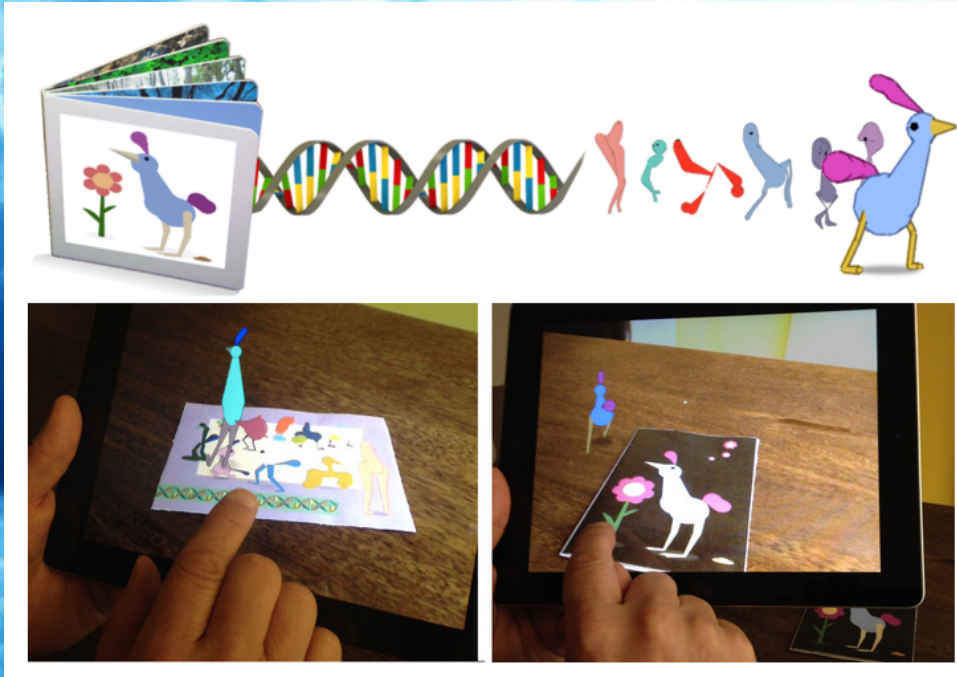
Unity3D - Jibe Platform



Experience hunting for clues in a rich environment.

Piecing together partial information to form a whole story.

Wiglets and Simulating Life



- WigglePlanet.com

Autonomous, evolving, self-animated and self-motivated agents that can exist in both completely virtual and augmented reality environments.

They exist at a wildly creative intersection of artificial life, art and gaming. You interact with them directly through touch and gestures.

Imagine the learning possibilities - especially for children.

Simulating Life with Wiglets



Graffiti General



www.graffitigeneral.com

Beautiful example of an urban art learning experience that combines
web content + music + 2d imagery + 3d immersion + user generated content

Graffiti General



STREET ARTISTS
FROM AROUND THE WORLD

Graffiti General



Chapter 4: Virtual and Augmented Reality



Chapter 4: Virtual and Augmented Reality

Think **beyond** sticking your phone on your face (e.g. Google Glass).

Think about both **sight** and **sound**.

Think about **malleable places** and **mixed reality**.

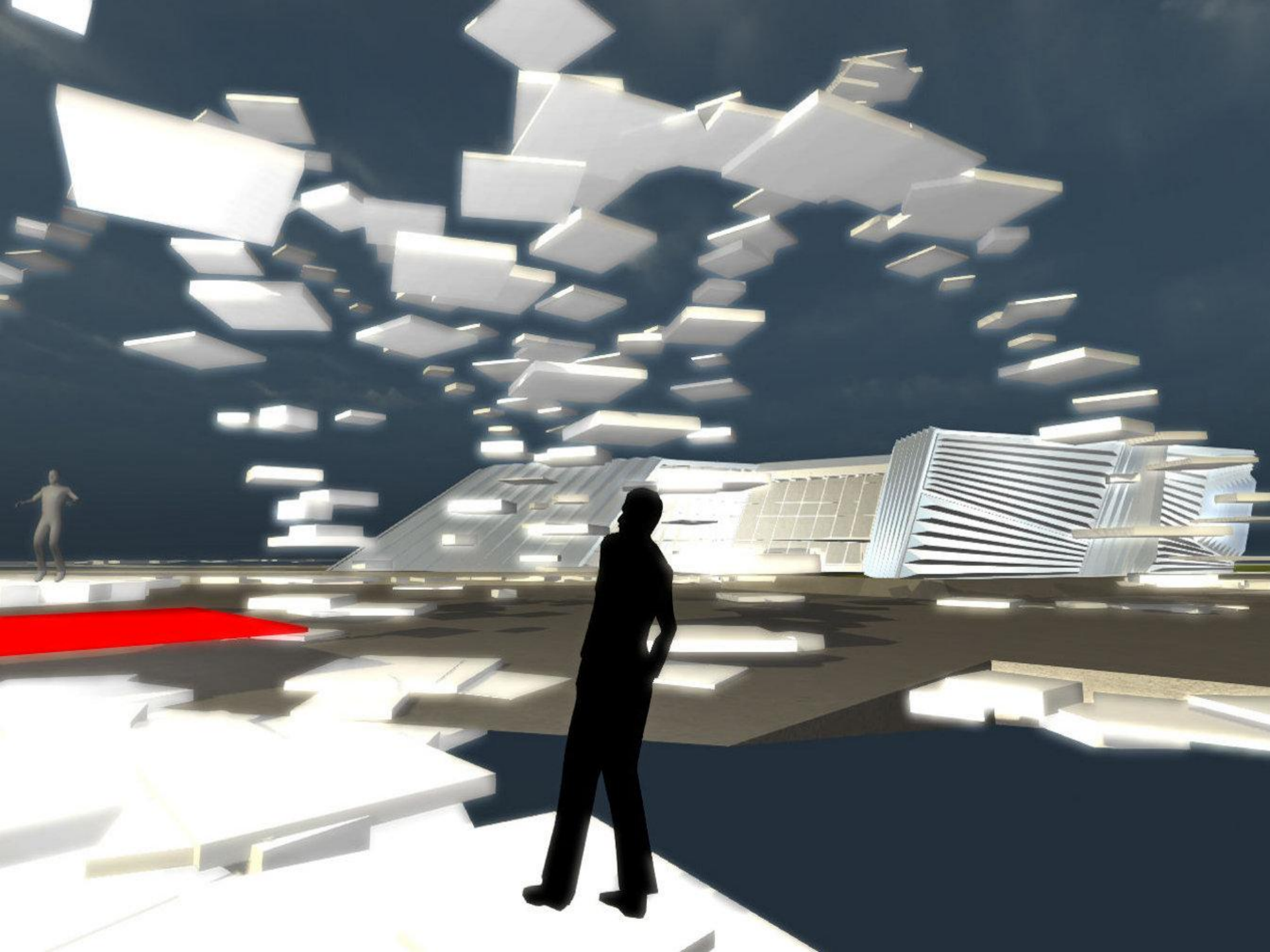
Watch Augmented City





A Story about Enhanced Reality

- 1) Discovering the Art of Enhanced Reality
- 2) The Promise and Peril of being Bound by our Biology
- 3) The Beauty of When Enhanced Reality Works
- 4) Horizons of Virtual and Augmented Reality





Thank you.

Pathfinder

These slides:

bit.ly/science-circle-lester