GDC
How Design Can Ensure Impartial Scientific Fairness in User Research
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GAME DEVELOPERS CONFERENCE® | FEB 27-MAR 3, 2017 | EXPO: MAR 1-3, 2017 #GDC17
UBM

Let’s stop talking about methods.

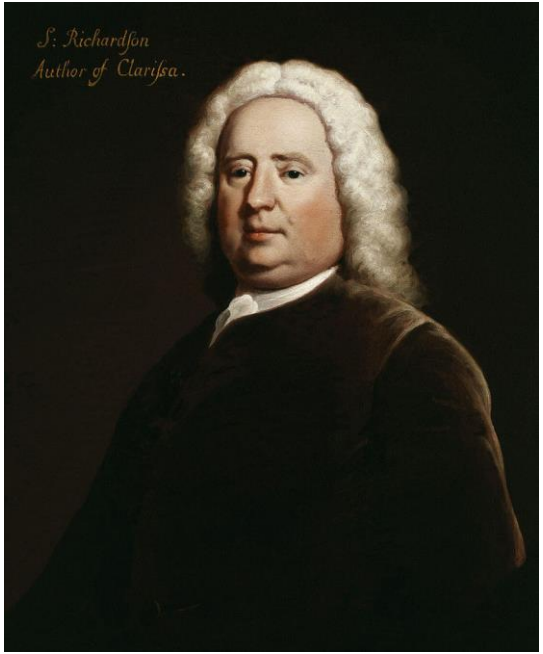
Three things to discuss…

What UR needs from game designers

How UR designs bespoke research

How to ensure a just interpretation of data

What UR needs from game designers



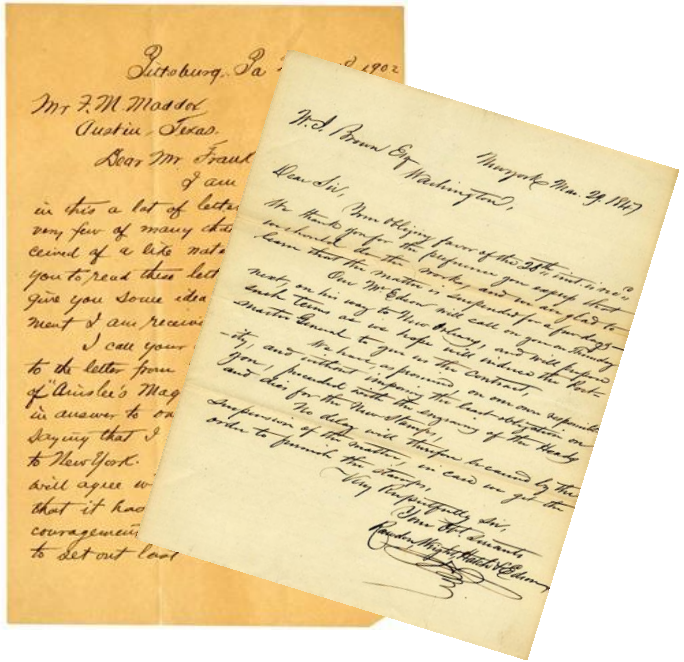
Case Study

How do you get people to care about fiction?

"a semblance of truth sufficient to procure for these shadows of imagination that willing suspension of disbelief for the moment, which constitutes poetic faith" – Coleridge

Minimizing the gap between reality and fiction

Epistolary Style is best

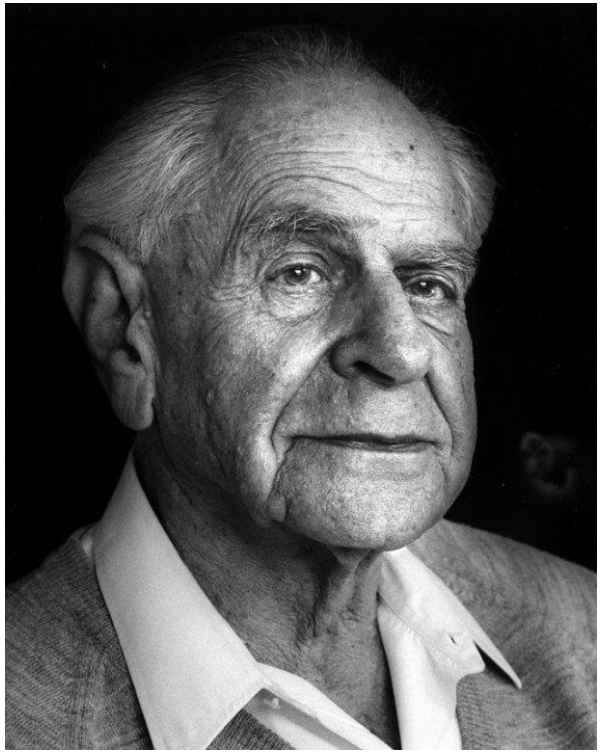


Minimizes Leaps of Faith

- People are slightly more verbose than usual
- Have good memories
- Unusual propensity to keep their letters

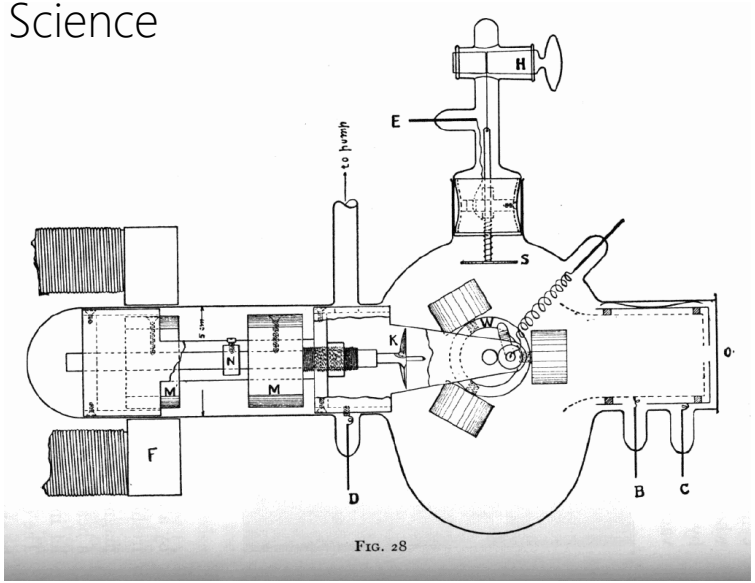
XBOX

Falsifiability



A scientific theory "…must be capable of conflicting with possible, or conceivable, observations" – Karl Popper

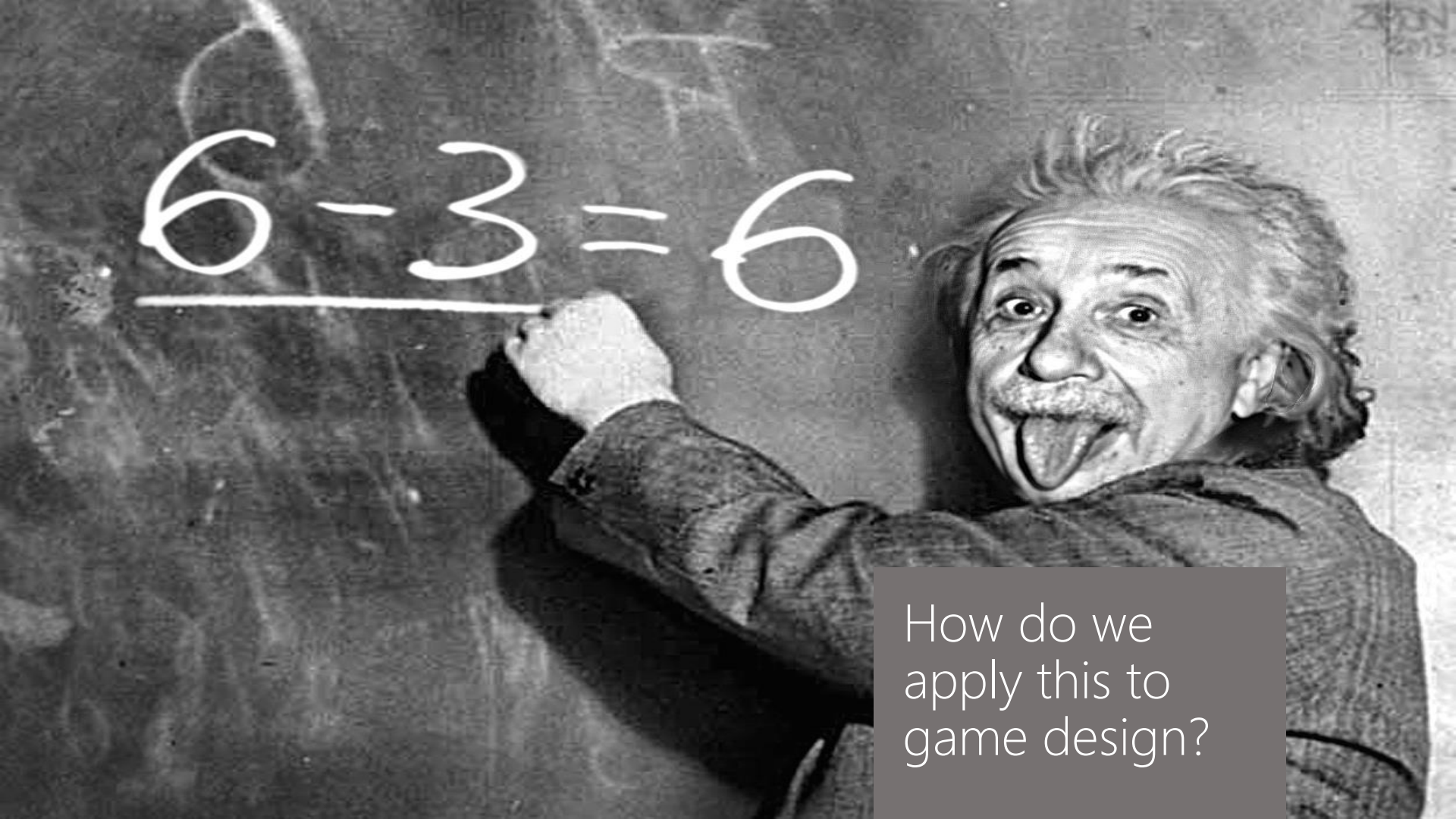
Science



FALSIFIABILITY

Not Science

"I love to win; but I love to lose almost as much. I love the thrill of victory, and I also love the challenge of defeat." – Lou Gehrig



How do we apply this to game design?

How to build a falsifiable design theory

1. Game-specific experience goals
2. Broken into sub-components
3. Measurable (falsifiable)
4. Feature independent

Frictionless Exploration

I am motivated to explore and do so without limits or friction.

Frictionless Exploration

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- **Need pushes out –** my base is not self-sufficient, but needs me to explore.
- **Curiosity pulls me farther** – I may head out with an initial goal, but the environment I see and people I meet tempt me, making me want to explore.
- **Exploring is frictionless –** I can instantly read the environments and know where I can go, what I can climb, what I can (and should) interact with, and where there are landmarks of interest.
- **Exploring is rewarding** – when I go exploring, I find interesting environments, items, and people and always feel risk is worth the likelihood of reward.

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How UR designs bespoke research

Power

How big is your N?

How big is your N?

Oh, it's very big.

How big is your N?

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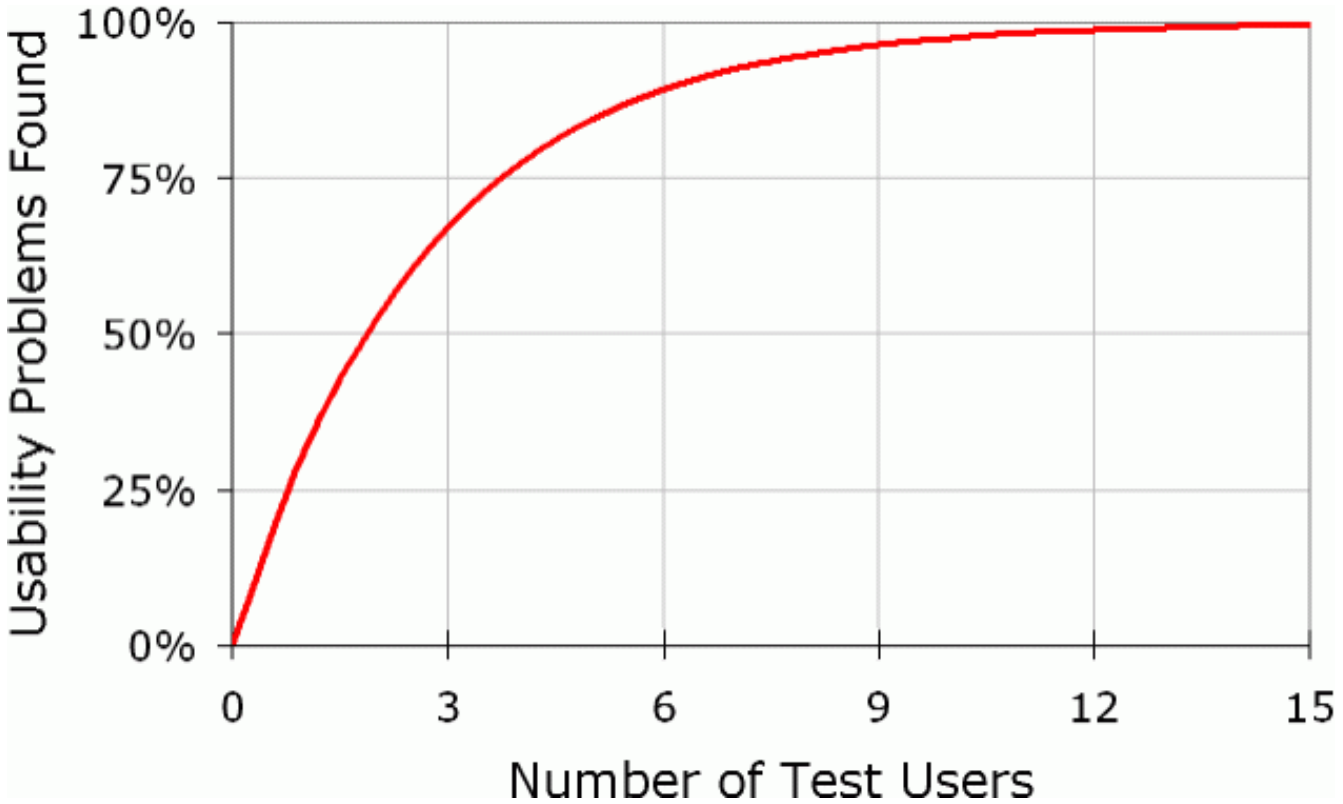
How big is your N?

Oh, it's very big.

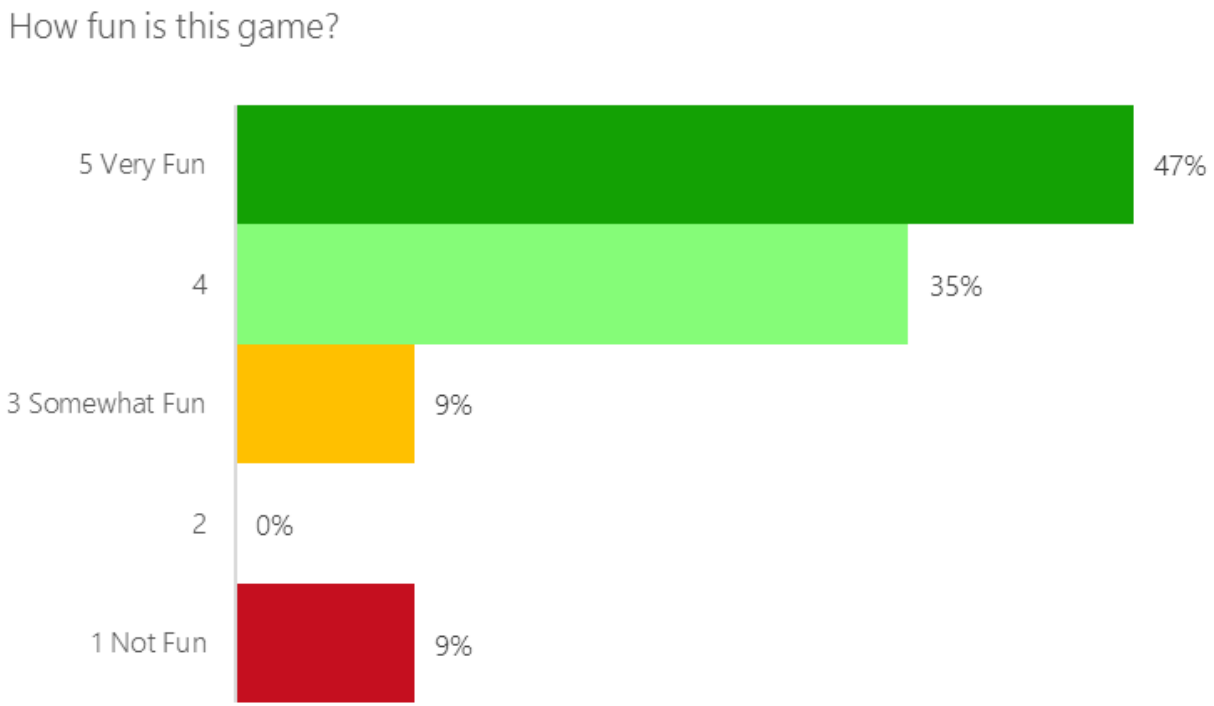
Nielsen's ratio



Risk

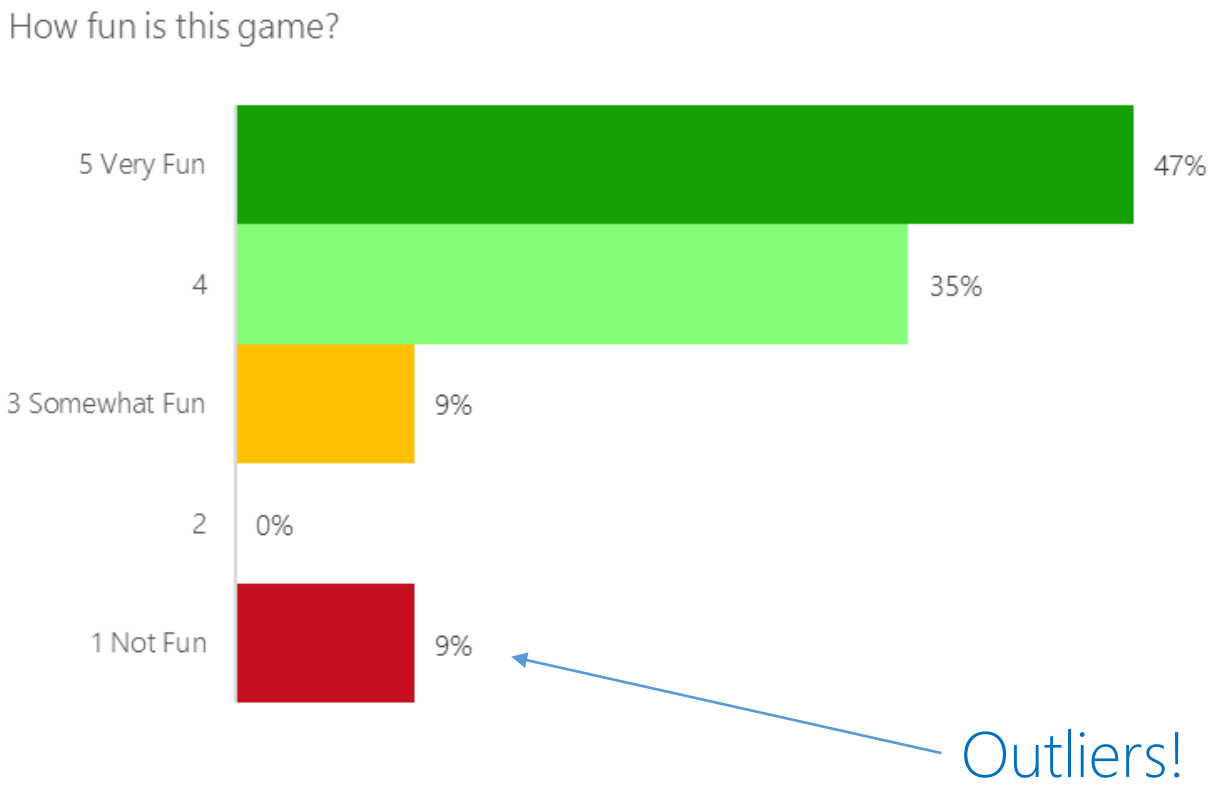
Break your leg? (heals)
Mess up your ankle? (forever)

Risk


How fun is this game?
5 Very Fun
47%
4
35%
3 Somewhat Fun
9%
2
0%
1 Not Fun
9%

XBOX

Risk


How fun is this game?
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Outliers!

XBOX

x5
COVER EYES!

Key to playtest severity ratings

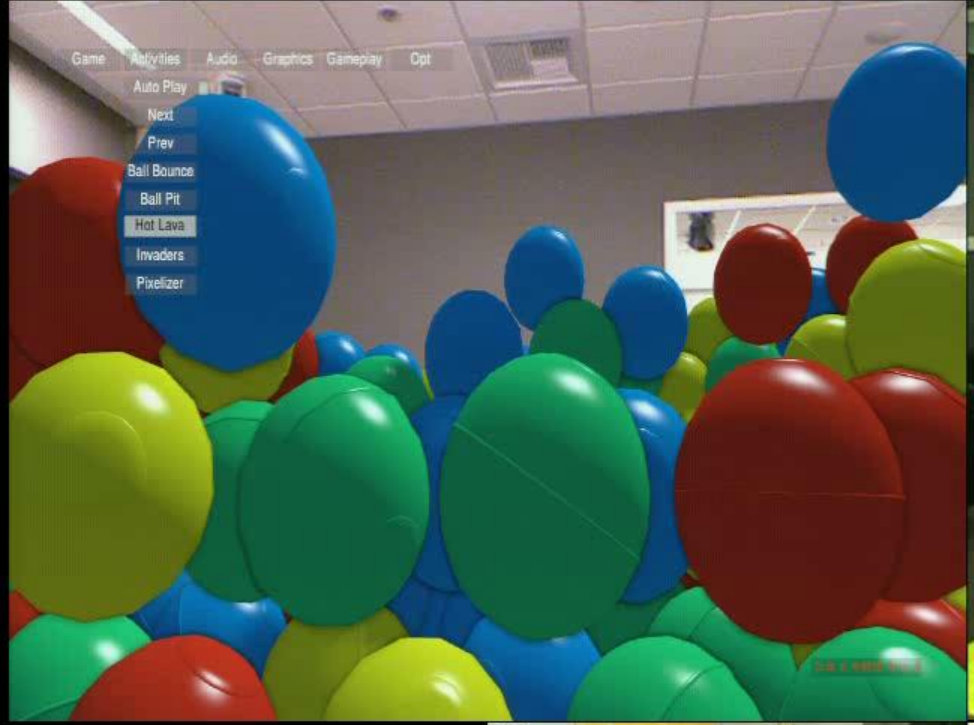
Sev 1	This issue will cause a substantial number of users to stop playing the game. These are game blockers and include: The gameplay is so difficult that many participants can't progress beyond a certain point. The pacing is so slow that many participants indicate they would quit playing because of it.
Sev 2	This issue will prevent a substantial number of users from enjoying a crucial feature or gameplay element. These are feature and gameplay blockers and include: Many participants indicate that the rocket launcher is too difficult to use. Many participants indicate that the controls are too sensitive and interfere with their enjoyment of the game.
Sev 3	This issue will hinder *some* users from enjoying a *crucial* feature or gameplay element or hinder *many* people from enjoying a *minor* game element. These are feature and gameplay impedances and include: Some participants complain that the weapon reload speed for the shotgun is too slow. Many participants indicate that the repetitive audio effects annoy them.
Sev 4	This issue will cause some users to become mildly frustrated or express minor complaints about a game element or make suggestions for improvement. These are minor feature and gameplay complaints or suggestions and include: Some participants complain that there is not enough variation in the character's idle animations. Some participants indicate that they would like the background music's tempo to reflect the pace of action in the game.

Control

XBOX

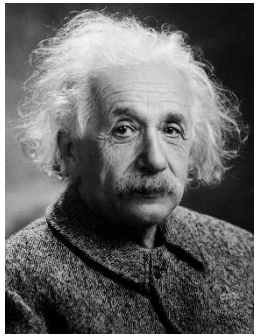
http://sorendahlgaard.com/

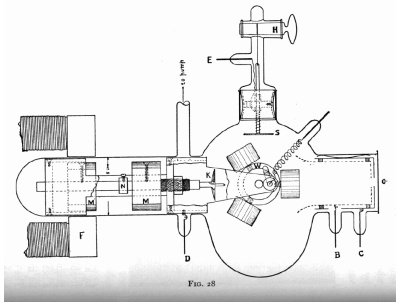
Xbox Stay


Game
Activities
Audio
Graphics
Gameplay
Opt
Auto Play
Next
Prev
Ball Bounce
Ball Pit
Hot Lava
Invaders
Pixelizer

Org Chart

- Terry Myerson
  - Phil Spencer
    - Useless Management Oversight
      - Game Designers
  - Harvinder Bhela
    - Useless Management Oversight
      - User Researchers

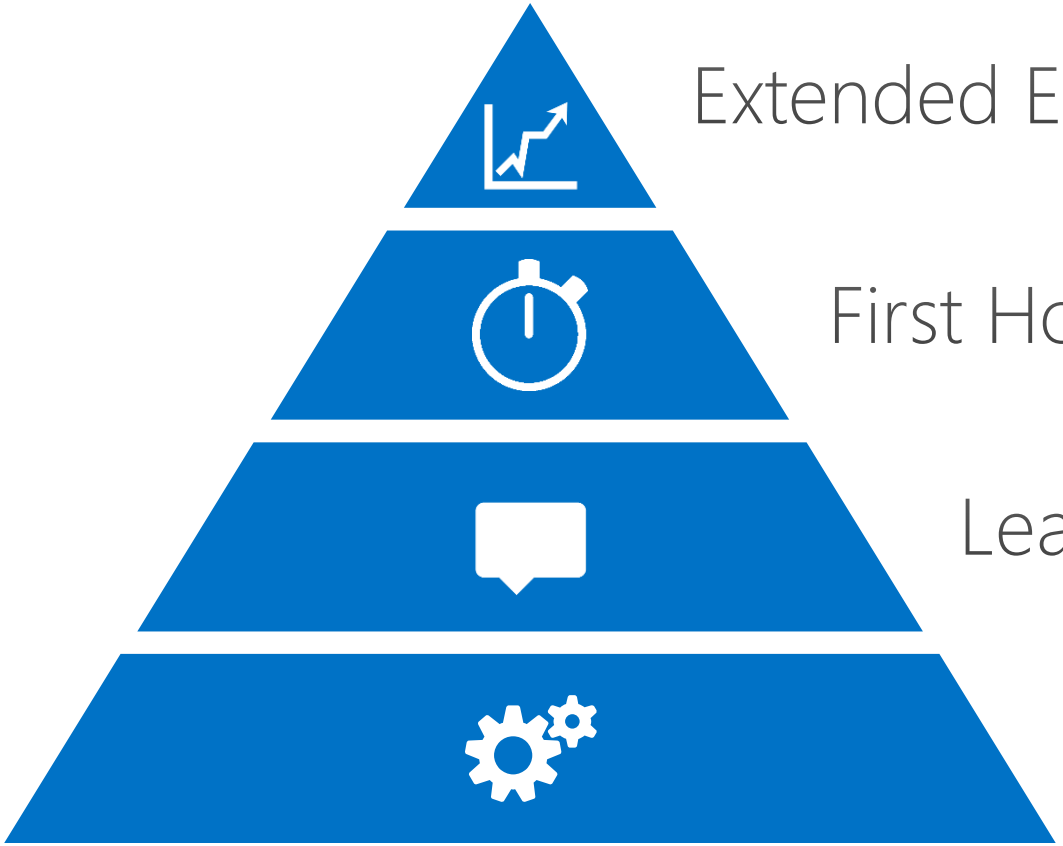




XBOX

Noise

20
$57,120
Decoychunk
12
38
Commando
Go hard or go home.
$20
TOY SOLDIERS
"COMMANDO"
Single Man Army, US Special Forces
Zoom
Fire
Aim
Barrage!
45x



Extended Experience

First Hour Experience

Learning Systems

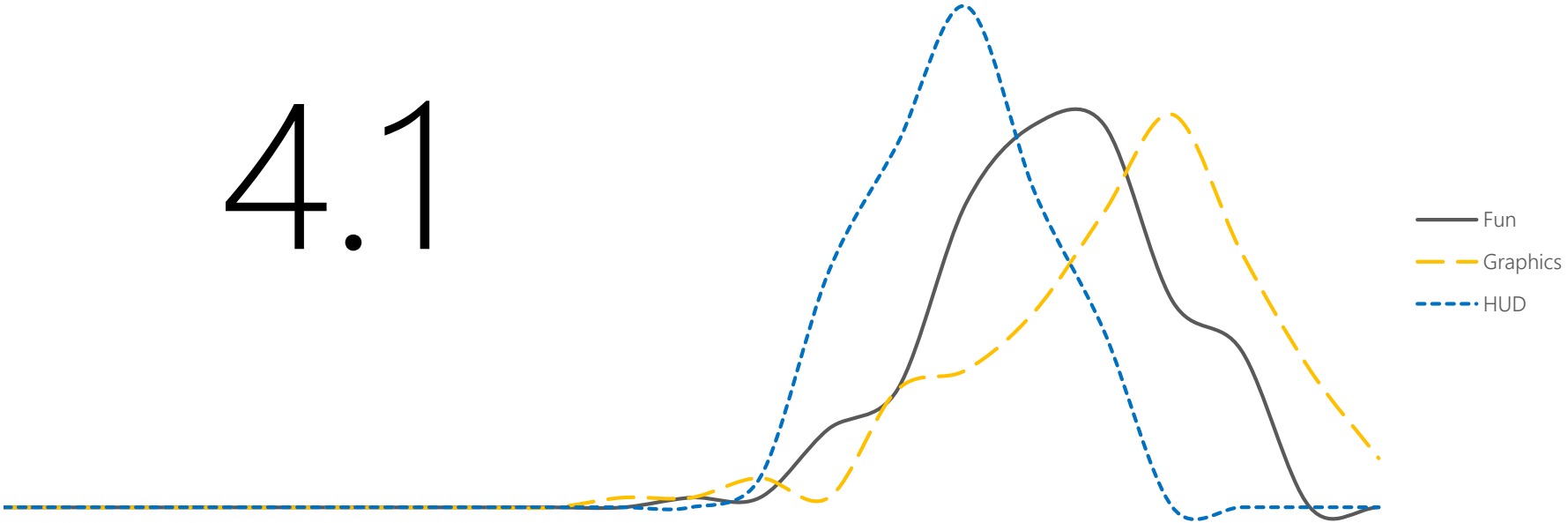
Core Mechanics

How to ensure a just interpretation of data

A priori

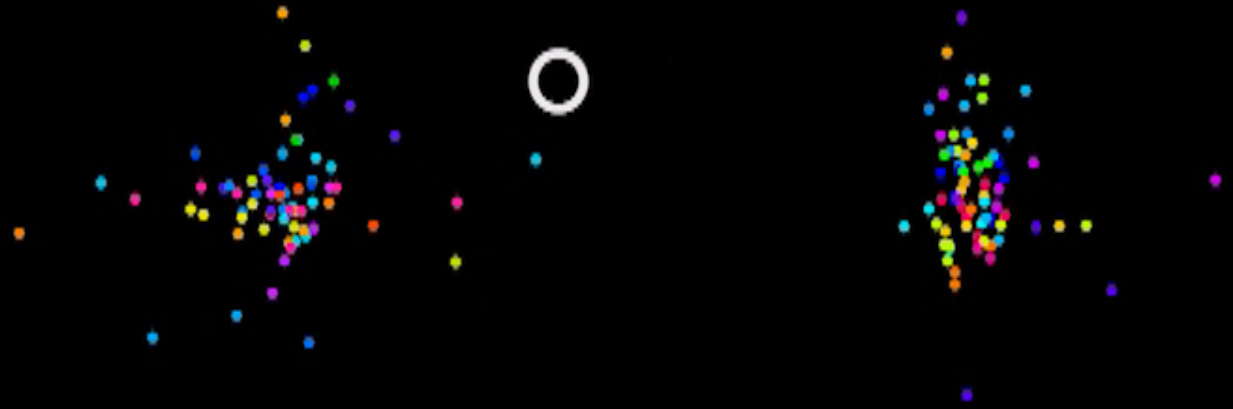
Distribution of Benchmark Scores

4.1



XBOX

Actionable



Prototype

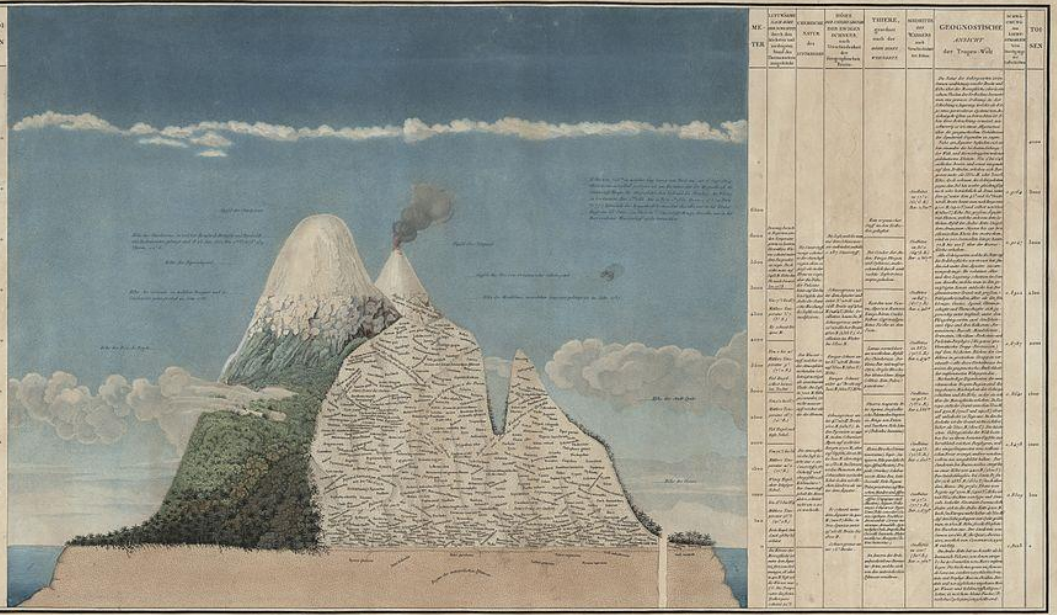
Release

Halo 2

This part of the game is…

- Too Easy
- About Right, I'm making progress
- Too hard, I don't know what to do next
- Too hard, I don't know where to go
- Too hard, I keep getting killed

Consumable



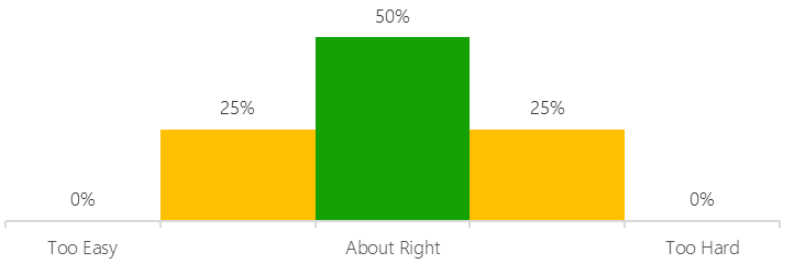
Geographie der Pflanzen in den Tropen-Ländern;

ein Naturgemälde der Anden,

gegründet auf Beobachtungen und Messungen, welche vom 10ten Grade nördlicher bis zum 10ten Grade südlicher Breite angestellt worden sind, in den Jahren 1799 bis 1803.

von ALEXANDER VON HUMBOLDT und A. G. BONPLAND.

How difficult was this mission?



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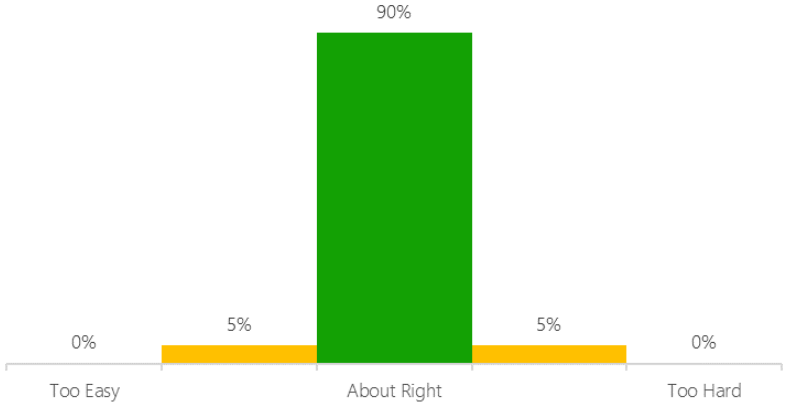

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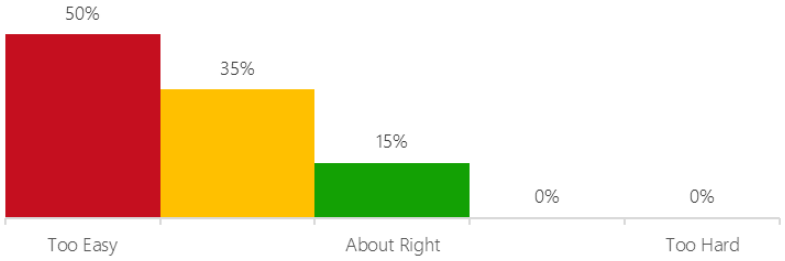

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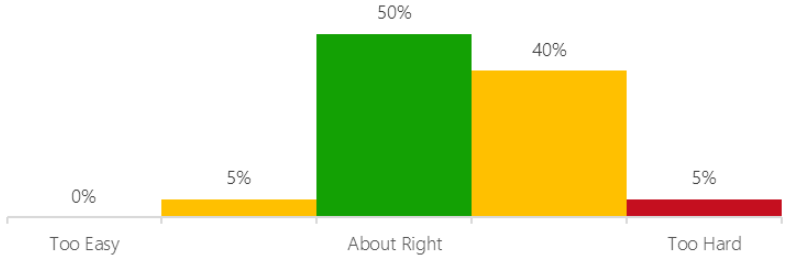
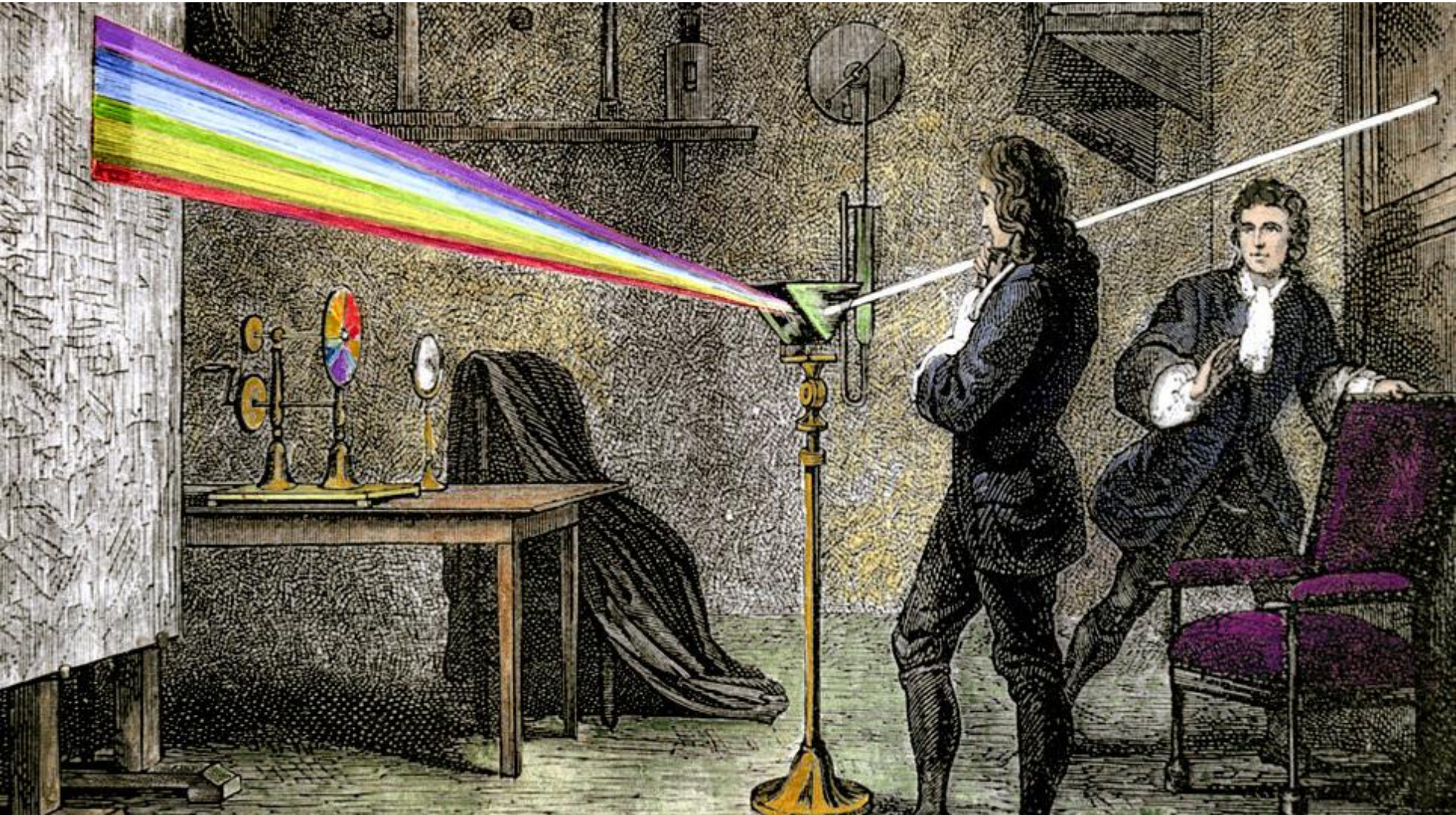
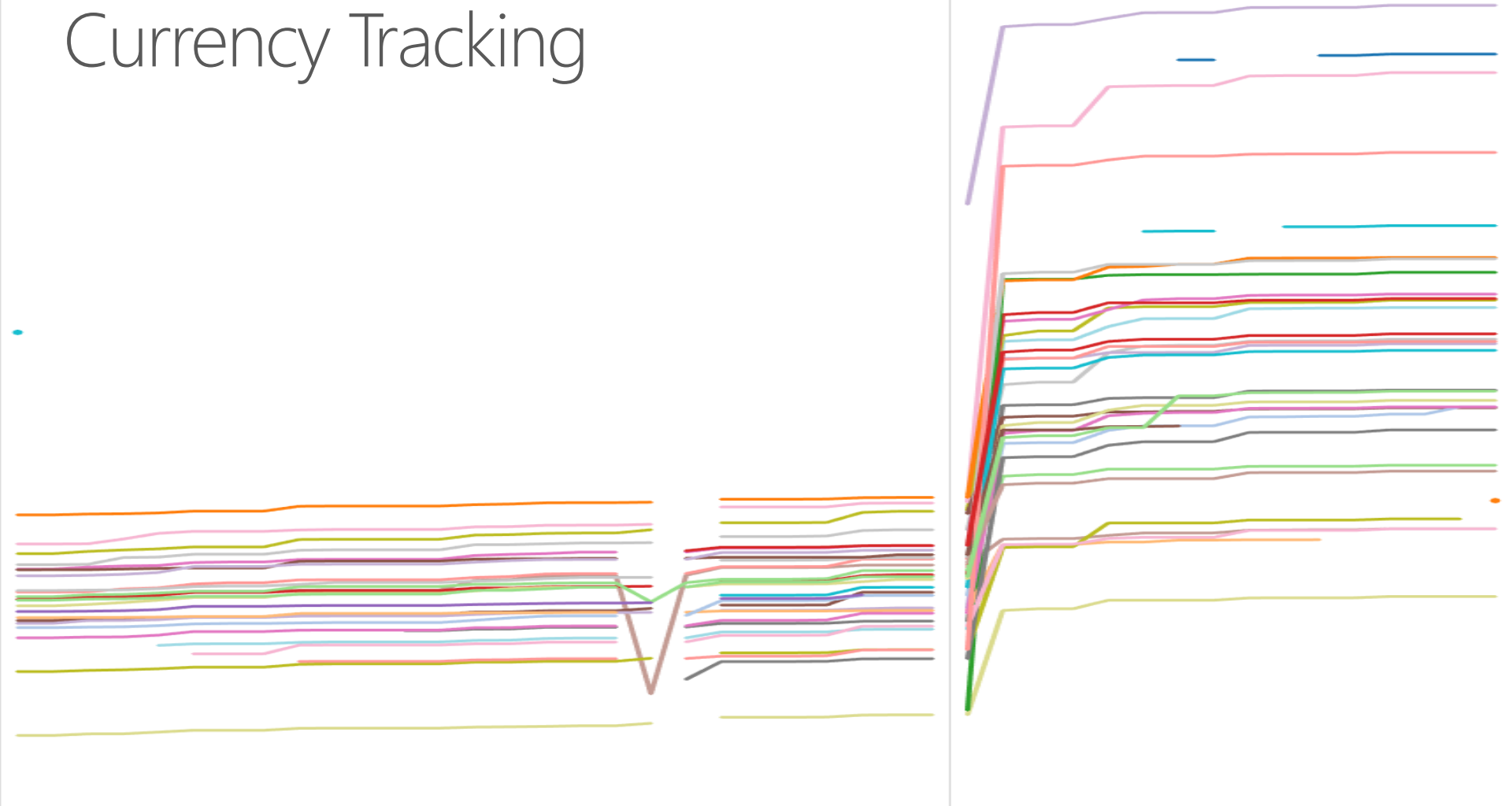


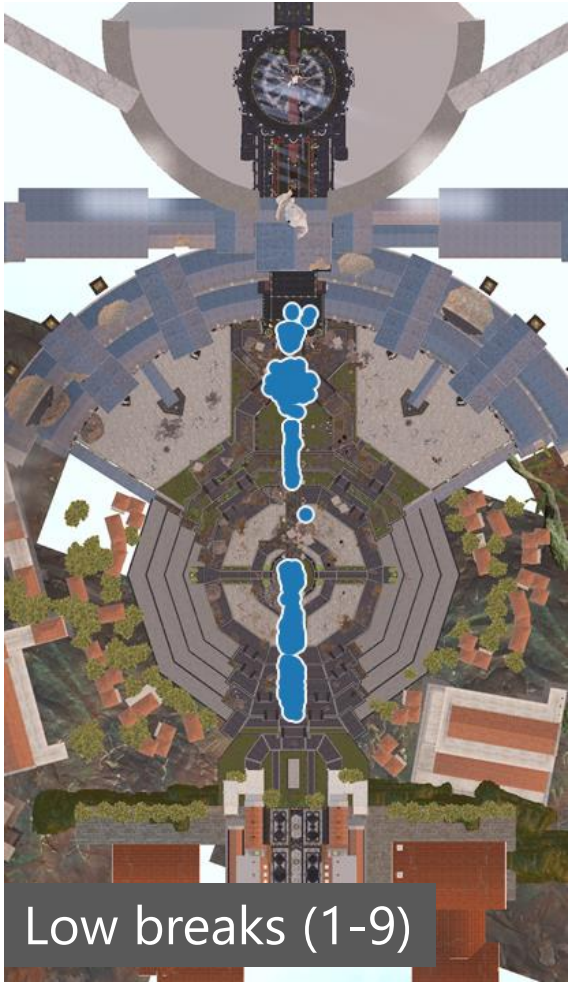
Diagnostic



Currency Tracking



Combo-Breaks

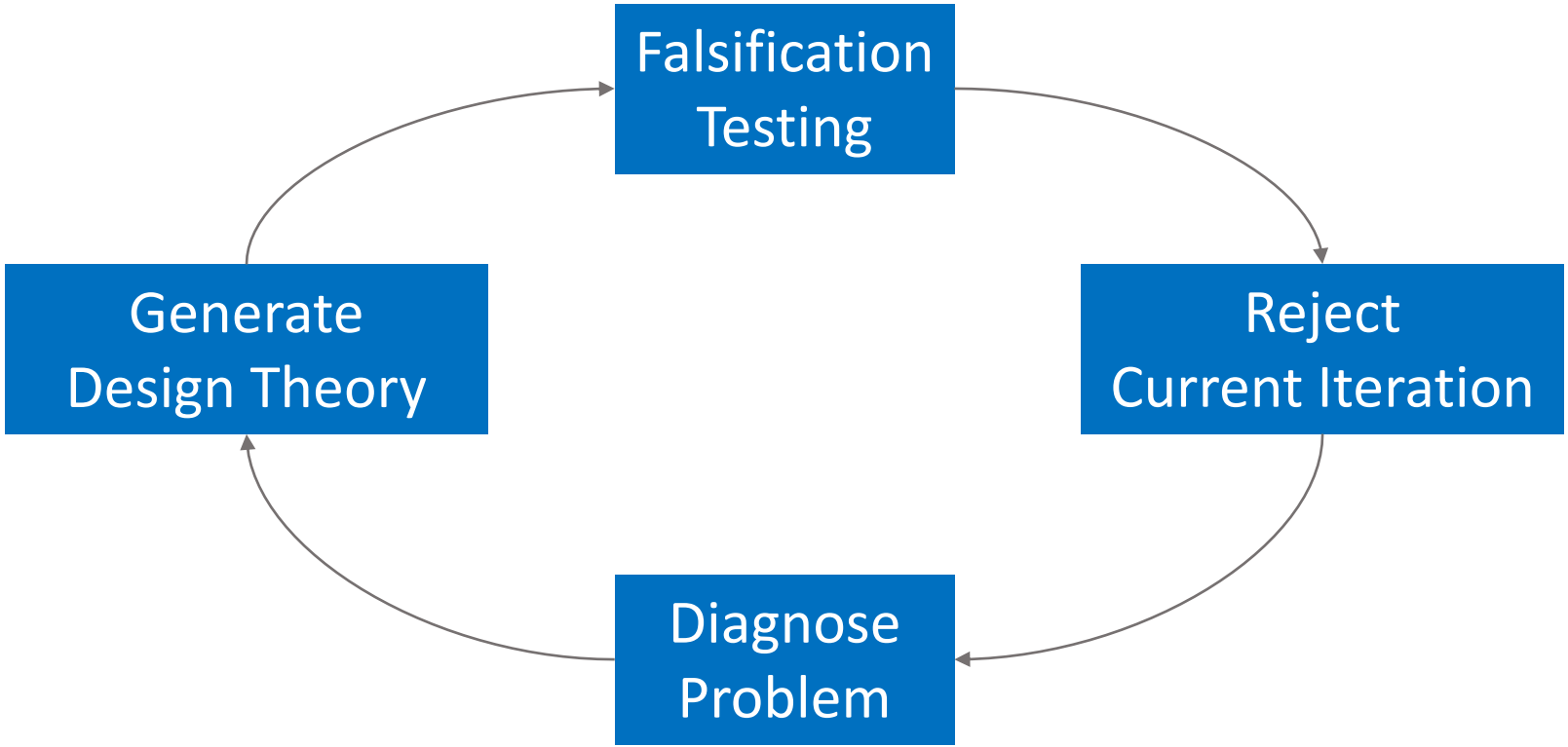


XBOX

Visualize the User Experience

Wasn’t this whole talk about methods?

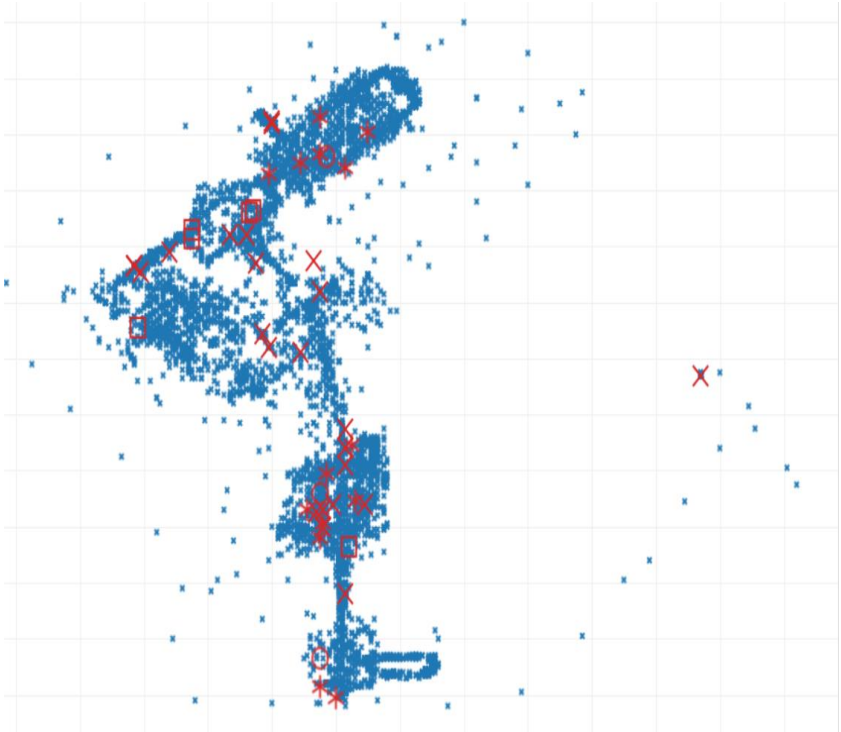
The right method…



Where are players getting lost?

Where are players getting lost?

Telemetry

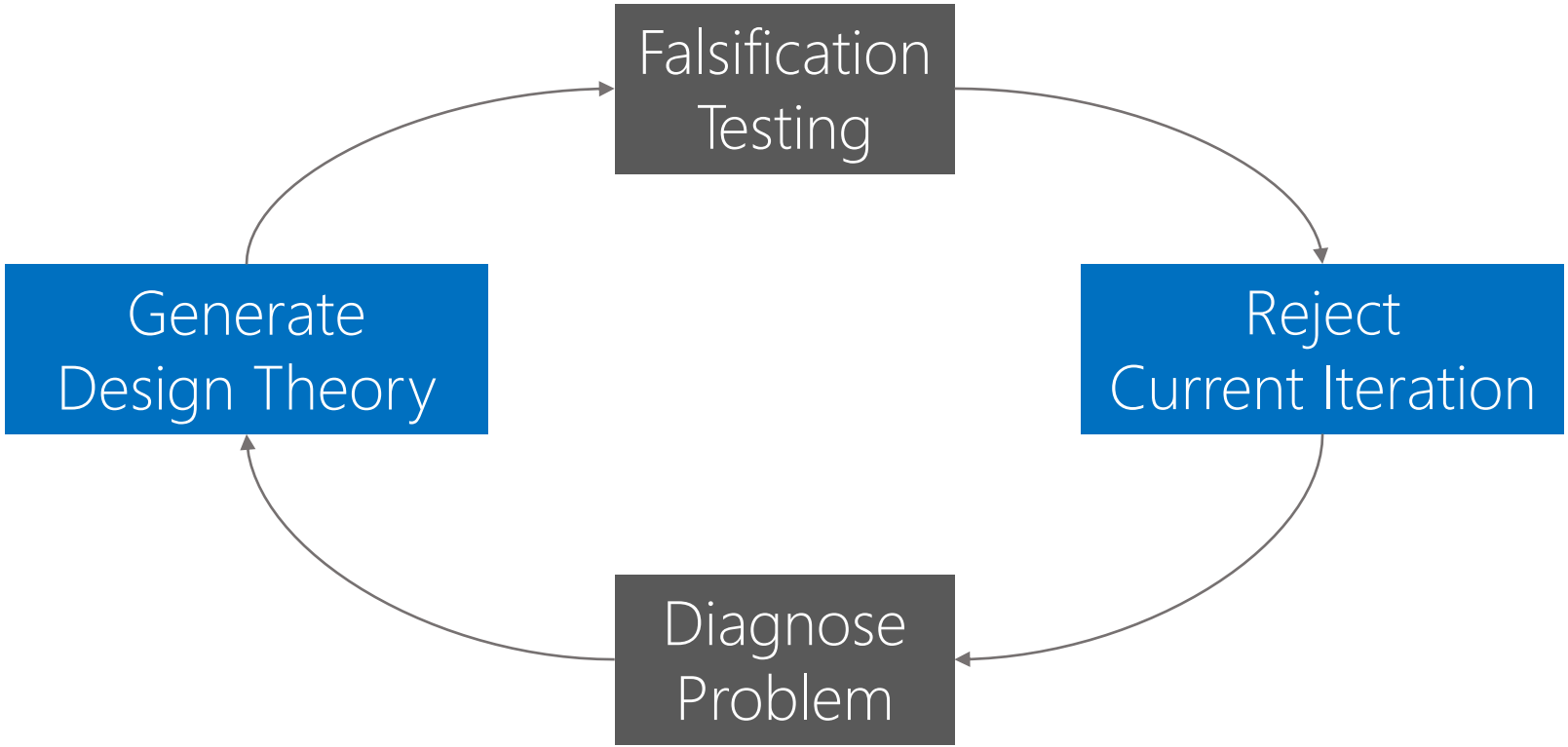


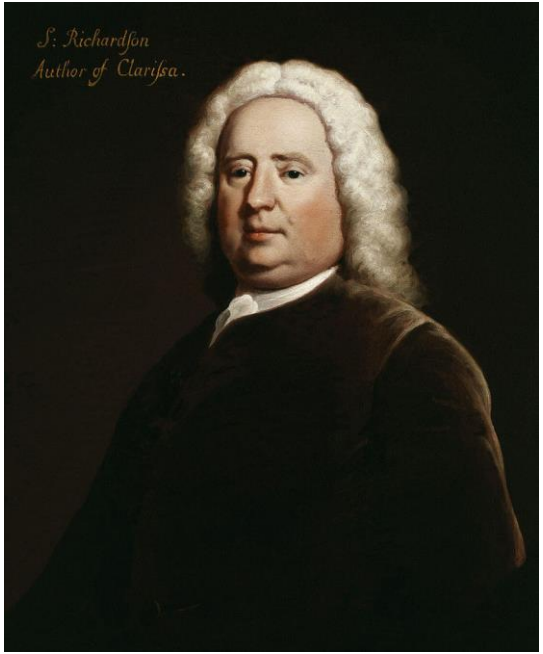
Just ask participants

95% of players got lost

"The front door to the museum was accessible and open, entering through the entrance did not trigger the antagonists or the continuation of the story. Thge puzzle entrance was difficult until I remembered the time stop power which until this point I had not used since its introduction."

The right method…

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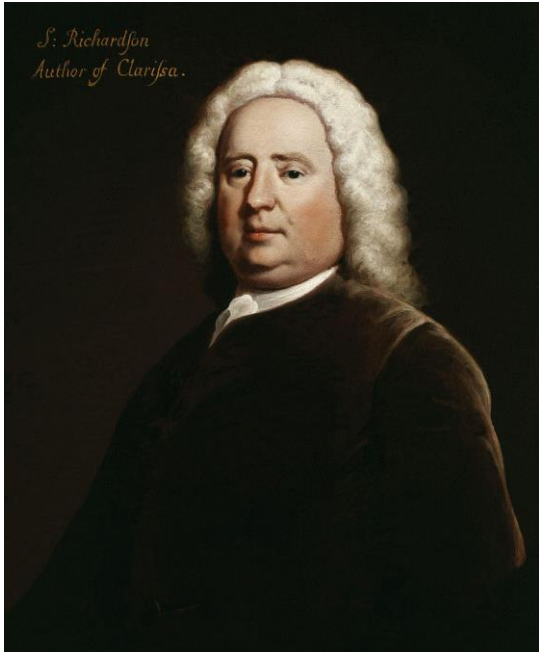
Author of Clariſſa.


S: Richardſon
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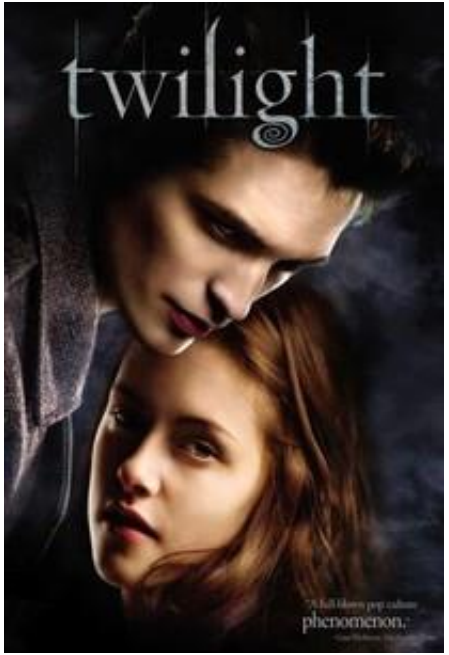
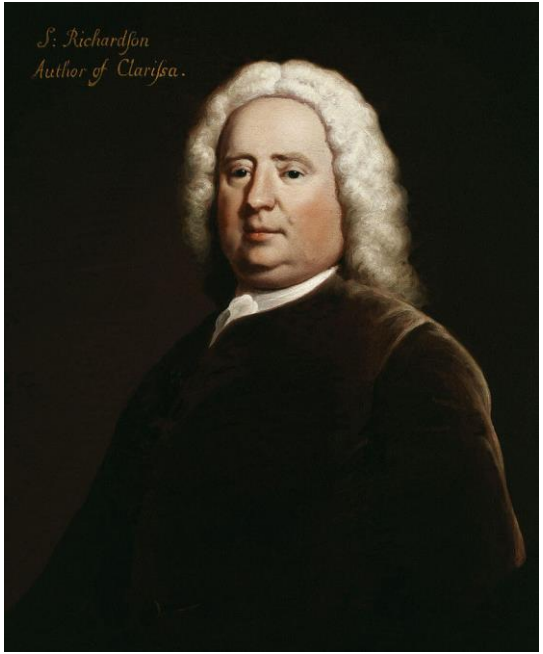
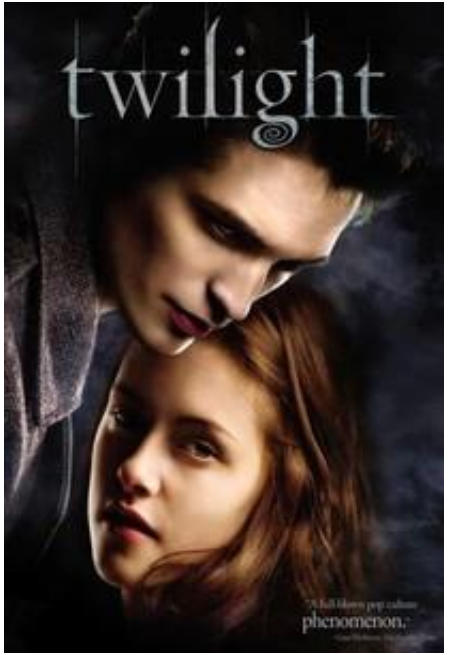

twilight
phenomenon.





*

*kidnapping is bad

“It is a truth universally acknowledged, that a single man in possession of a good fortune must be in want of a wife.”

THE
LIFE
AND
STRANGE SURPRIZING
ADVENTURES
OF
ROBINSON CRUSOE,
OF *YORK*, MARINER:

Who lived Eight and Twenty Years, all alone in an un-inhabited Island on the Coast of AMERICA, near the Mouth of the Great River of OROONOQUE;

Having been cast on Shore by Shipwreck, wherein all the Men perished but himself.

WITH

An Account how he was at last as strangely deliver'd by PYRATES.

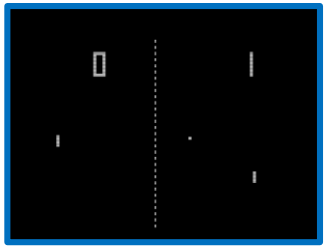
Written by Himself.

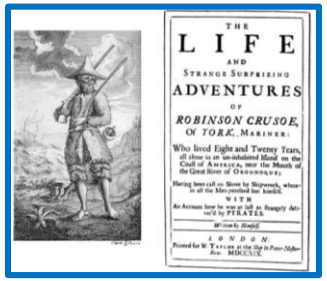
LONDON:

Printed for W. TAYLOR at the Ship in Pater-Noster-Row. MDCCXIX.

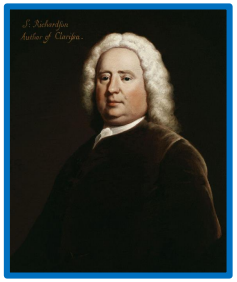
1719

1972





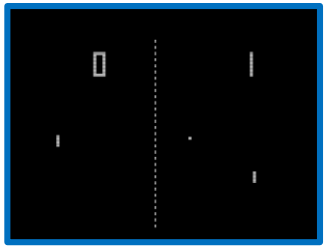
1719



1740-48

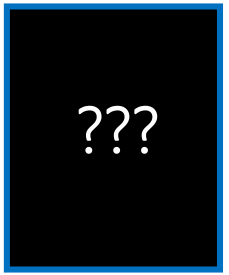
1811

1972



2017

2064



“Daring ideas are like chessmen moved forward. They may be beaten, but they may start a winning game." - Goethe

Thank you.

dhen@microsoft.com