narrascope@term-world:~$ date
Sun Jun 23 2024
narrascope@term-world:~$ who

The Termites

Ariac11037
Asegeas
Batbayasgalan1
bergasanargya
CalebKendra
cschwartz01
KevenDuverglas
dyga01
Danniyb
jnormile
ullrichd21
PaigeCD
Mai1902
An immersive-world game built to teach computational fundamentals to introductory computer science students using real-world concepts and objects in a digital environment.
narrascope@term-world:~$ whatis
narrascope@term-world:~$ prebuild
narrascope@term-world:~$ whyis

2021: What does it mean to return to the classroom (i.e. why are we here?)

Alden Hall 109, Allegheny College
narrascope@term-world:~$ why is

Pennsylvania I-79, Exit 113

THE FRIENDLY ORANGE GLOW
The Untold Story of the PLATO System and the Dawn of Cyberculture
Brian Dear
But perhaps there was a way to solve [the individual learning] conundrum. Especially if the focus were more on helping the child learn, and less on helping the teacher teach...If you can’t clone the teacher, then why not turn the teacher into a machine, and clone the machine.
Sidney L. Pressey

**1920**: The “Automatic Teacher,” a device enshrining self-pacing and immediate feedback in self-guided learning

John B. Watson

**1912**: “A book could be so arranged that only to [them] that had done what was directed on page one would page two become visible…”

B.F. Skinner

**1954**: Skinner begins work on *The Teaching of Learning*

**1950s - current**: Cognitivism influences pedagogy

(This project’s referent is Linda Flower & John B. Hayes’ “Cognition of Discovery.”)
A need to offer automated, dynamic, self-paced discovery

Addresses demand to teach computational thinking via computational doing

A balance between real-world concepts (intuition), technical fundamentals (technical), and joy (magic)

Teaching and Learning with Jupyter, Barba, et al.
Engaged pedagogy does not seek simply to empower students. Any classroom that employs a holistic model of learning will also be a place where teachers grow, and are empowered by the process. That empowerment cannot happen if we refuse to be vulnerable while encouraging students to take risks.

> pg. 21
Adventure (1976/7)

Zork (1977)

Maniac Mansion (1987)

Zak McKraken (1988)

Loom (1990)

...Monkey Island (1990)
Successful computer entertainments in language have tended to be about the way something quite small and unitary opens up into something very large and elaborate.

This opening up, the discovery of much in little, seems to be a fundamental resonance of human intelligence.

> The world has underlying, automated rules that enable players to effect changes to it (although not to the rules that grant them this ability).

> Players represent individuals “in” the world.

> When you do something in the world, you can expect feedback almost immediately.

> The world is shared.

> The world is persistent.
The world has underlying, automated rules that enable players to effect changes to it (although not to the rules that grant them this ability).
Players represent individuals “in” the world.
When you do something in the world, you can expect feedback almost immediately.

- Customize the nameplate (no TODOs)
- Find the Ink hidden in the couch
- Print the lease
- Enter the house
- Open the UltraHeavyBox
- Open the FragileBox
- Open the SinisterLookingBox
- Open the TubeShapedBox
- Open the BeatUpBox

Passed 2/9 (22%) of checks for user-house-solved!

**Gator Grader**: A specifications-based grader which offers “just-in-time” achievement completion reports.
The world is shared.

An individual participating in a strong society believes that their ability to create change has worth.

Citizens who participate in such systems are fundamentally trustworthy.
The world is shared.
The world is persistent.
narrascope@term-world:~$ init >> error.log

> Rollout: 31 August 2022
> Result: Absolute failure
> Root cause: Bug in custom container launcher
> Fixed: 3 September 2022 (but it was too late)
> Lesson: For tech and games, if it doesn’t work the first time, it never works (from end-user perspective).
Students as citizens
Ethical, values-based challenges
Students complete self-directed improvements
Teamwork makes up majority of assignments
> Example assignments:

- Learning to navigate file systems via “housekeeping”
- Analyzing synthetic data about class performance
- Developing citizen surveys about the world
- Building power plants competing for limited resources
- Course project which builds world objects from scratch
Supporting infrastructure:

- In-IDE inventory system
- World “narrator” that allows objects to “speak”
- Pre-made formats enabling users to write custom items
- In-folder “events” system to prevent or allow action based on “in-game” achievements
> It’s hard to maintain this unless you have a team working on it all the time; but is a great student team project

> It requires expertise and technology to run (on-prem or in cloud); but is a great learning experience

> It can be expensive depending on workload sizes
narrascope@term-world:~$ reboot -n
That was so 1.0.
> Greatly reduces costs and infrastructure maintenance
> Models more realistic web application
> Allows more institutions to use common services
> Is mostly locally testable
Students as adventurers

Grit, persistence, problem-solving

Challenges framed as puzzles, dungeons, etc.

Maintains emphasis on collaboration via “party,” “job” system
Let's get a friend on the line.