Digital Media, Society, and Culture

Angus A. A. Mol

Flappy Bird
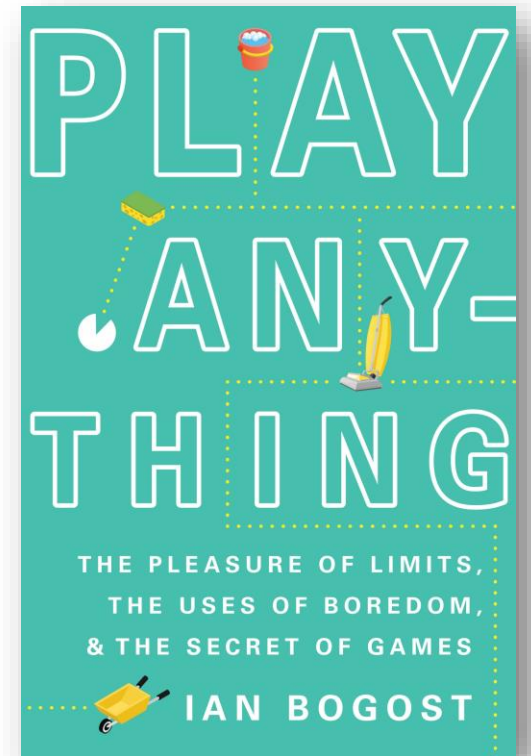
The Metaverse

Snow Crash (Neal Stephenson, 1992)

"#Hiro Protagonist and Vitaly Chernobyl, roommates, are chilling out in their home, a spacious 20-by-30 in a U-Stor-It in Inglewood, California. But there are worse places to live. There are much worse places right here in this U-Stor-It.

But Hiro's not actually here at all. He's in a computer-generated universe that his computer is drawing onto his goggles and pumping into his earphones. In the lingo, this imaginary place is known as the Metaverse. Hiro spends a lot of time in the Metaverse. It beats the shit out of the U-Stor-It."
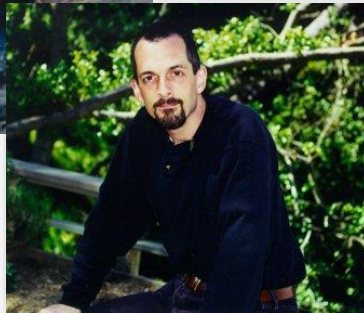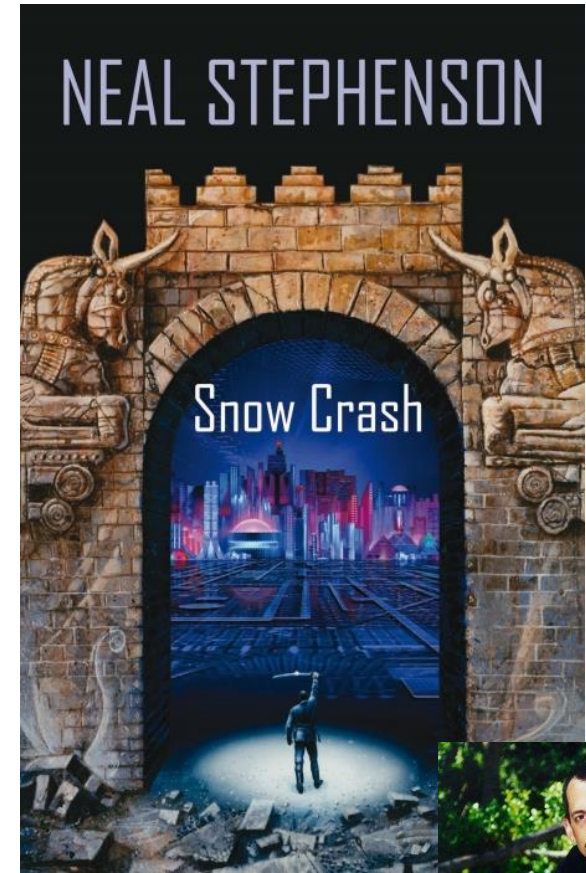
This Information is so Meta!

- Metaverse is meta + universe
- From Greek *μετά* ('by means of; between; in pursuit or quest of; after, next after)
- The Metaverse
  - is transcending
  - is self-referential
  - is a reality technology
  - is the next big thing
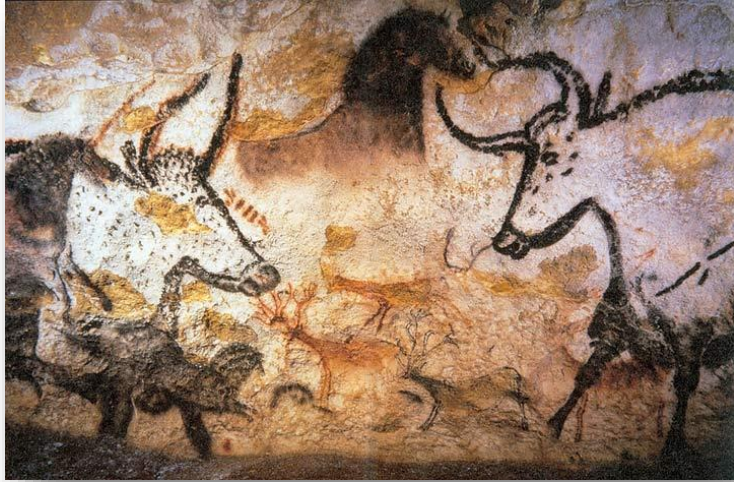 - is purple (at least according to artist renditions)
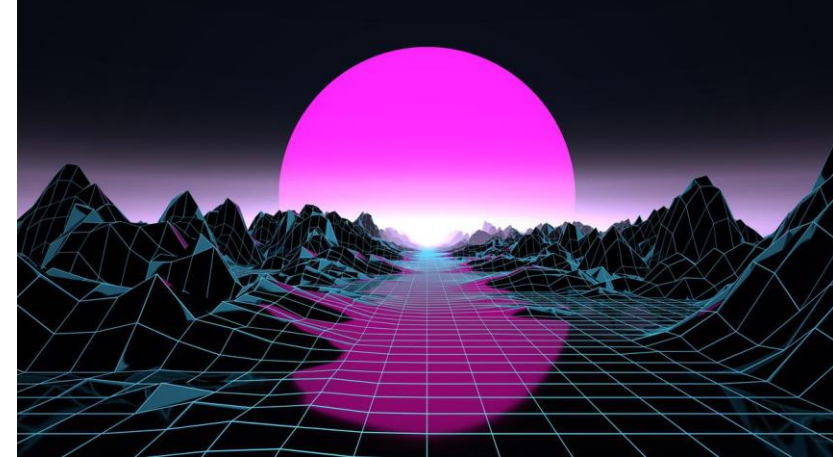
Virtual (adj)

- "in essence, potentiality, or effect, although not in form or actuality" ([OED](#))
  - Roots in Latin's *virtus* (*vir* [man]+ *tus* [suffix to form a noun]): virtue,
- Virtual is "that which isn't, having the form or effect of that which is." (Bartle 2004)

Pre-digital Metaverses
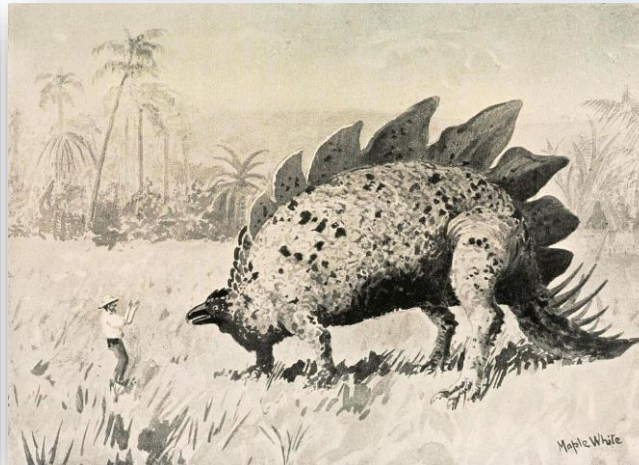

Lascaux Cave (France; 17.000 BCE)

Indigenous Caribbean petroglyphs
(Dominican Republic)

Fresco from the Villa of Livia
(Rome, 1st Century CE)
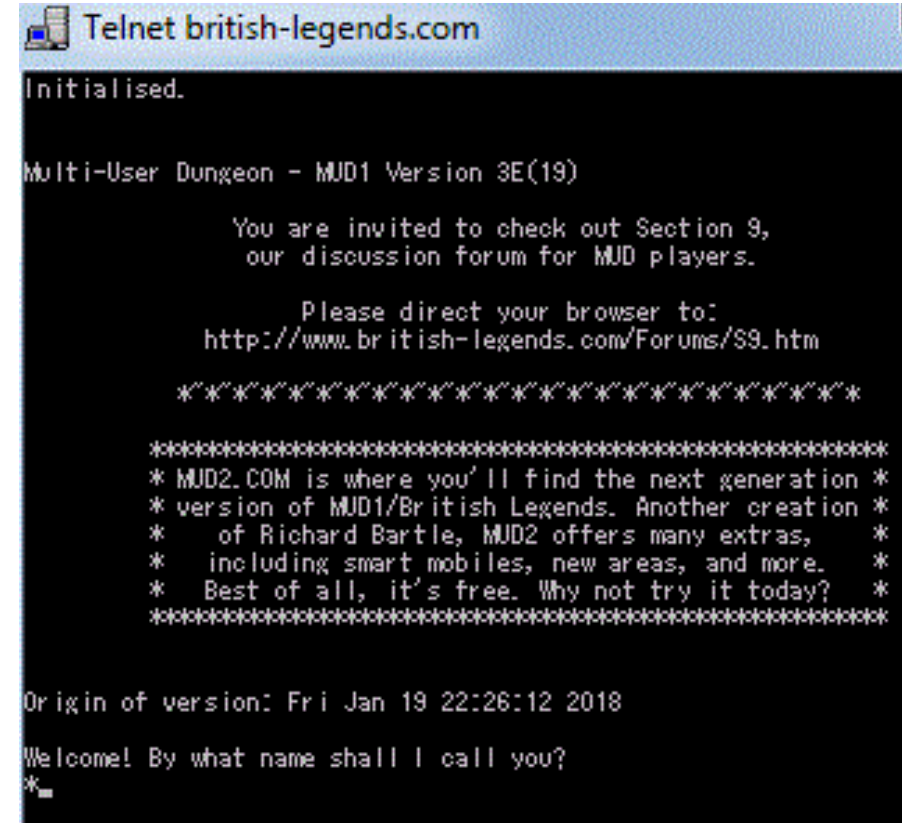

Plato's Allegory of the Cave
(Theory of Forms)

Arthur Conan Doyle's *Lost World*

Gary Gygax' *Dungeons and Dragons*

Virtual Worlds

- "Where the imaginary meets the real" (Bartle 2004)

- Virtual Worlds:
  - Have *physics*: underlying automated rules that enable players to effect changes to it.
  - Have players that represent individuals or *characters* in the world
  - Interaction takes place in *real time*
  - are *shared*
  - are (at least to some degree) *persistent*.

MUD (Multi-User Dungeon)

Colossal
Cave
(circa 1979)
Ralph Witt,
Dave Platt,
Architects

- Multi-User
  - Multiplayer, i.e. via a network
  - University networks
  - Early Dial-up networks
    - Access to MUDs based on provider (MUD belonged to CompuServe)
    - Once responsible for up to 10% of internet traffic (1993)

- Dungeon
  - Zork, originally called Dungeon (MIT 1977-1079) ← Colossal Cave Adventure (Will Crowther, 1976), also known as ADVENT ← Dungeons and Dragons + Caving
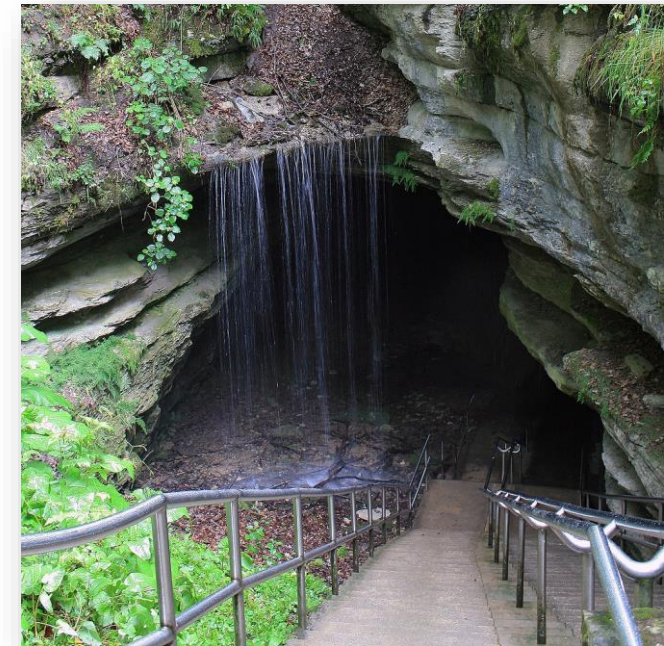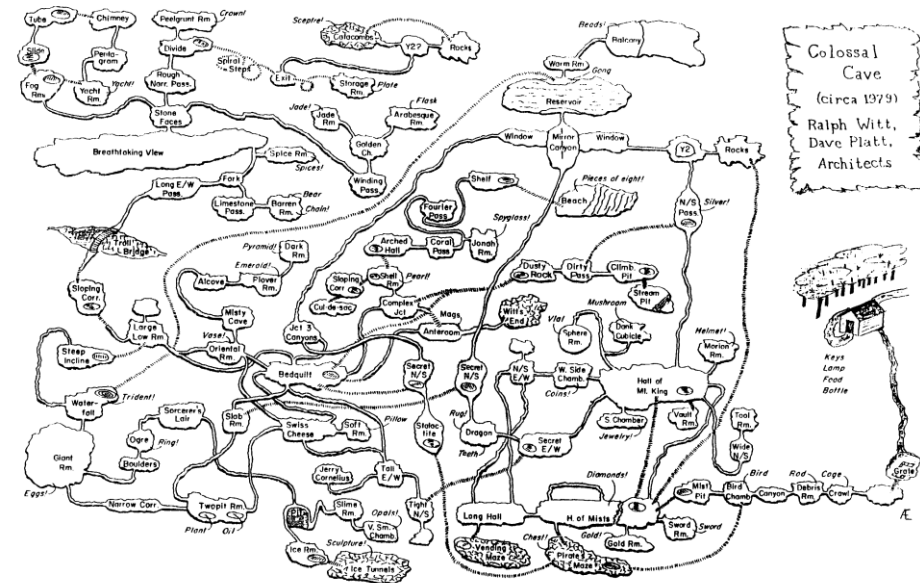
Mammoth Cave (Kentucky)

LambdaMOO

Pavel Curtis

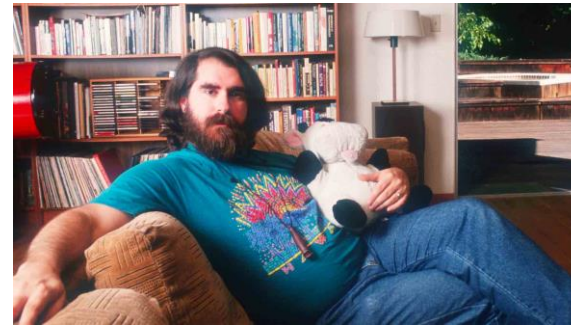Xerox PARC (Palo Alto, CA)

- MUD, Object Oriented
  - Players can create objects through scripting

- LambdaMOO
  - Hosted in Xerox Parc
  - Made by Pavel Curtis, further developed by thousands of people after him.

- Longest running virtual world

- Social Experiment
  - No hierarchy
  - "Wizards"
  - Large community

- *A Rape in Cyberspace* (1993)
  - Using a virtual voodoo doll
  - Led to institution of code of ethics and democratic self-governance system.

Map of LambdaMOO

Graphical Virtual Worlds

- *Mazewar*

- *Ultima Online* (1997)
  - Set in the world of the Ultima games by Richard Garriott
  - Famous for having a carefully designed eco-system that was [completely destroyed by players](#).

- Second Life (Linden Labs; 2003)
  - Social and entrepreneurial hub
  - Virtual Economy (GDP) in 2006: $64 million
    - If actual economy would have ranked 55 out of 179 countries.

→ MMORPGS, most famously WoW

Mazewar on an IMLAC-PDS 1D (1973)

Waiting for VR… Still!

- VR has been around for a long time

- 2016: "Year of VR"
  - Oculus Consumer-version VR
  - Oculus owned by Facebook

- Coronavirus breakthrough?

- Welcome to come and try at the Lab@Veth

3D movies in the
Sensorama (1962)

A virtual reality suit
(1989; VPL Research)

Presence

Avatars

Home space

Teleporting

Interoperability

Privacy and safety

Virtual goods

Natural interfaces

Metaverses

- Use visual and narrative technologies that have been present for ages.

- Build on a culture, society, and ecology that is rooted in our lived world (good and bad).
  - The Proteus Paradox

- Are surprisingly fragile places!

- Point to a fundamental strain in (Western) conceptions as well as practicalities of reality/actuality

- Future of the Metaverse?
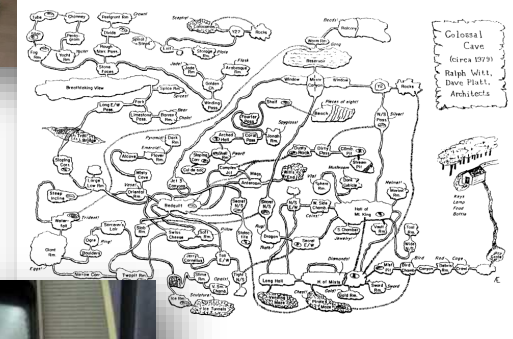
Fall, or Dodge in Hell

In his youth, Richard "Dodge" Forthrast founded Corporation 9592, a gaming company that made him a multibillionaire. One beautiful autumn day, while he undergoes a routine medical procedure, something goes irrevocably wrong. Dodge is pronounced brain dead and put on life support. Dodge's family has his brain scanned and its data structures uploaded and stored in the cloud, until it can eventually be revived.
In the coming years, technology allows Dodge's brain to be turned back on. It is an achievement that is nothing less than the disruption of death itself. An eternal afterlife—the Bitworld—is created, in which humans continue to exist as digital souls."

~ Harper Collins abstract

Also check out his Reamde or Cryptonomicon