

GODS AND GAMES

UNIVERSITY OF BRISTOL AASS

17TH MARCH 2011

RICHARD A. **BARTLE**

INTRODUCTION

- SO, I THOUGHT I'D START OFF MY TALK THIS EVENING WITH A LITTLE **BACKGROUND** INFORMATION ABOUT ME
- MY NAME IS **RICHARD BARTLE**, I'M PROFESSOR OF **COMPUTER GAME DESIGN** AT THE UNIVERSITY OF ESSEX, AND I'M A **GOD**
- THAT'S **LITERALLY** A GOD, NOT **METAPHORICALLY** A GOD
- I'VE **BEEN** A GOD FOR OVER **30 YEARS**
– YES, **SCARY**, I KNOW...

DEFINITION

- A **GOD** IS SOMEONE WHO **CAN** (IF THEY WISH) **CHANGE** THE **PHYSICS** OF A REALITY
- **IMPORTANT:** THEY **CAN'T** CHANGE THE PHYSICS OF THEIR **OWN** REALITY
 - BECAUSE **THAT** WOULD MEAN THAT THE **ABILITY** TO CHANGE THEIR REALITY'S PHYSICS WAS **PART** OF THEIR REALITY'S PHYSICS
 - THEY WOULD THEREFORE **STILL** BE OPERATING **WITHIN** THAT REALITY'S PHYSICAL LAWS
 - ALBEIT LAWS SOMEWHAT **DIFFERENT** TO OURS, WHICH ADMIT NO WEIRD GÖDEL SELF-MODIFICATION STUFF...

REALITY

- WE **EXIST** IN A REALITY WE CALL "REALITY"
 - I'LL WRITE THIS *REALITY* ON THE REMAINING SLIDES
- WE ARE **SUBJECT** TO THE **PHYSICS** ("LAWS OF NATURE") OF *REALITY*
- FROM OUR **DEFINITION**, PEOPLE WHO **ARE** SUBJECT TO THE PHYSICS OF A REALITY ARE **NOT GODS** FOR THAT REALITY
- THEREFORE I AM **NOT** A GOD OF *REALITY*
 - I'M A GOD OF A **DIFFERENT** REALITY
 - ACTUALLY, I'M A GOD OF **SEVERAL** OF THEM...

RIFT

- *RIFT*, TRION, 2011:



WORLD OF WARCRAFT

- WORLD OF WARCRAFT, BLIZZARD, 2004:



EVERQUEST

- EVERQUEST, SONY ONLINE ENTERTAINMENT, 1999



DIKUMUD

- DIKUMUD, COPENHAGEN UNIVERSITY, 1990

```
[x2] A barrel has been left here.  
An angry-looking statue of Hoturi is standing here.  
An angry-looking statue of Priapus is standing here.  
A statue of Odin is standing behind the altar.  
A Sign for Newbies is here.  
You are a guest here until you save yourself.
```

```
If you need  
to get to your guild, use the guild medallion in your inventory. If you lose  
it, pray to the statue of Odin for another.
```

```
105m/202e/38hlook  
Temple of Udgaard
```

```
You are inside the small and humble village temple in Udgaard. A simple  
stone altar, with strange stone carvings, is placed against the north wall. A  
small humble donation room is to the east. The temple exit is south to the  
Village Square.
```

```
[x2] A barrel has been left here.  
An angry-looking statue of Hoturi is standing here.  
An angry-looking statue of Priapus is standing here.  
A statue of Odin is standing behind the altar.  
A Sign for Newbies is here.
```

```
105m/202e/38h_
```


ABERMUD

- **ABERMUD, ALAN COX, 1987**

```
Your wimpy value is set to 15. See 'help change' to see what that means.
```

```
The Temple Of Paradise
```

```
You stand in the Temple of Paradise, a huge sandstone structure whose walls are decorated with ancient carvings and runes, some so old that even the priests no longer know their meanings.
```

```
A single set of steps lead south, descending the huge mound upon which the temple is built and ending in the forests below.
```

```
A roaring fire burns here. Its flames make the temple sparkle and glitter.
```

```
At your feet a huge sacrificial pit allows you to give valuables to the gods in the hope of being rewarded.
```

```
A furlled umbrella lies here.
```

```
Obvious exits are:
```

```
North : Welcome Center
```

```
South : Forest Track
```

```
Down : Forest Track
```

```
Last login: Wed Sep 7 17:43:26 2005
```

```
>
```

MUD

- MUD, ROY TRUBSHAW & RICHARD BARTLE, 1978

Narrow road between lands.

You are stood on a narrow road between The Land and whence you came. To the north and south are the small foothills of a pair of majestic mountains, with a large wall running round. To the west the road continues, where in the distance you can see a thatched cottage opposite an ancient cemetery. The way out is to the east, where a shroud of mist covers the secret pass by which you entered The Land. It is raining.

*w

Narrow road.

You are on a narrow east-west road with a forest to the north and Gorse scrub to the south. It is raining. A splendid necklace lies on the ground.

*

- MUD DIDN'T COME **FROM** ANYTHING
- THIS IS WHY **I** GET TO GIVE THIS TALK AND YOU **DON'T**

A PONY

- HERE'S A PICTURE OF A **PONY**



- (THE PONY IS THE ONE UNDERNEATH)

LONG AGO...

- SO, **33** YEARS AGO I **CO-WROTE** THE VERY **FIRST** VIRTUAL WORLD
 - FROM WHICH ALMOST **ALL** MODERN VIRTUAL WORLDS ARE **DIRECTLY** DESCENDED
- **WE** DECIDED WHAT **PHYSICS** TO IMPLEMENT FOR THAT WORLD, AND WE **IMPLEMENTED** IT
- THIS MADE US GODS **FOR THAT REALITY**
- WE **BASED** THE PHYSICS (AND CULTURE AND EVERYTHING ELSE) OF THIS REALITY ON **REALITY**

REASON

- THE **REASON** WE DID THIS WAS BECAUSE WE WANTED PEOPLE FROM *REALITY* TO VISIT ("PLAY") OUR VIRTUAL WORLD, *MUD*
- THE IDEA WAS THAT PEOPLE WOULD **WILL** THEMSELVES TO BELIEVE THE **VIRTUAL** WAS **REAL** SO THAT THEY COULD **FEEL** THEY WERE **"IN"** IT
 - A CONCEPT KNOWN AS **IMMERSION**
- TO PRESENT FEWER **OBSTACLES**, WE AIMED TO MAKE THE WORLD **PERSUASIVE**

PERSUASIVENESS

- TO **TRICK** PLAYERS INTO THINKING THAT SOMETHING IS **REAL** WHEN IT **ISN'T**, MAKE IT FUNCTION LIKE IT WOULD IF IT **WERE** REAL
- PLAYERS CAN THEN **TRUST** IT AND CONCENTRATE ON THE **ACTUAL** DIFFERENCES
 - EG. **MAGIC**, WHICH ISN'T A FEATURE OF *REALITY*...
- **PHYSICS** IMPLEMENTS **CAUSALITY**
 - IF SOME ACTION DOESN'T DEFAULT TO HOW *REALITY* WORKS, PLAYERS LOOK FOR A FICTIONAL **COVER**
 - IF THERE **ISN'T** ONE, THEY **GIVE UP** IN DISGUST

SUPERNATURAL

- IT **MAY** BE THAT SOMETHING **APPEARS** TO BE **BEYOND** A REALITY BUT **ISN'T**
 - IF YOU DON'T HAVE THE **FULL PICTURE**
- EXAMPLE: OUR **THEORIES** RULE OUT FASTER-THAN-LIGHT TRAVEL IN *REALITY*, SO IF WE DISCOVERED **EVIDENCE** OF IT THEN EITHER:
 - THE **EVIDENCE** IS WRONG AND IT DIDN'T HAPPEN
 - OUR **THEORIES** ARE WRONG AND IT IS POSSIBLE
 - WE WERE RIGHT, IT **IS** IMPOSSIBLE IN *REALITY*, BUT *REALITY* WAS **CHANGED** – “SUPERNATURAL”

DELEGATION

- **SUPERNATURAL** POWERS ARE LAWS OF NATURE THAT ONLY APPLY **SELECTIVELY**
 - GODS CAN **GRANT** THESE POWERS TO **OTHERS**
- SUPERNATURAL BEINGS, OBJECTS, PLACES OR WHATEVER ARE **NOT** GODS **THEMSELVES**
 - THEY CAN'T **REPROGRAM** REALITY – ONLY **GODS** CAN DO THAT
- SUPERNATURAL BEINGS ARE **STILL** GOVERNED BY THE REALITY'S PHYSICS, IT'S JUST THAT SOME RULES DO (OR DON'T) **APPLY** TO THEM

WIZZES

- IN *MUD*, ROY AND I **DID** GIVE SOME PLAYERS ADDITIONAL ADMINISTRATIVE **SUPER** POWERS
 - WIZARDS/WITCHES – “WIZZES”
- HOWEVER, THOSE POWERS WERE STILL **PART OF THE PHYSICS**
 - BECAUSE THEY WERE **PART OF THE CODE**
 - JUST THEY WERE A PART MOST PEOPLE DIDN'T HAVE **ACCESS** TO...
- **ONLY** ROY AND I COULD **CHANGE** THE PHYSICS, SO **ONLY** ROY AND I WERE **GODS**

ABROGATION

- NOT ALL DESIGNERS **WANT** TO BE GODS
- ATTEMPTS **HAVE** BEEN MADE IN THE PAST TO GIVE CONTROL TO PLAYERS (NOTE: NOT TO NPCs)
 - MOST NOTABLY IN *LAMB DAMOO* IN THE MID-90S
 - THE *SECOND LIFE* OF ITS DAY
- LAW AND SOCIAL SCIENCE SCHOLARS HAVE **ALSO** SUGGESTED THAT **CONTROL** OF A VIRTUAL WORLD SHOULD BE VESTED IN ITS **PLAYERS**
 - PLAYERS FORM A **GOVERNMENT** THAT ORDERS WHAT THE DESIGNERS AND DEVELOPERS IMPLEMENT

WHAT'S NOT TO LOVE?

- **UNFORTUNATELY**, SOONER OR LATER, THE GOVERNMENT [WARNING! TECHNICAL TERM!] WILL **ASK FOR A PONY**
 - THEY ASK FOR SOMETHING TO BE IMPLEMENTED THAT THE DEVELOPERS **POINT BLANK** WON'T IMPLEMENT
 - **WHENEVER** YOU PROMISE SOMEONE "YOU CAN HAVE WHATEVER YOU WANT", **EVENTUALLY** YOU'LL HAVE TO **BREAK** THAT PROMISE
- DEVELOPERS WHO TRY TO **ABROGATE** THEIR **GODLINESS** TO THE PLAYER BASE **CAN'T**
 - THEY ARE **GODS** WHETHER THEY **LIKE** IT OR **NOT**

ROBOT

- HERE'S A PICTURE OF AN ANGEL INVESTOR



HALF-REAL

- NOW YOU **MAY** BE WONDERING HOW I CAN JUSTIFY CALLING A **GAME** WORLD A "REALITY"
 - NOT **ENTIRELY** A STRAW MAN ARGUMENT
 - SOCIAL SCIENTISTS IN PARTICULAR HAVE SUGGESTED THAT VIRTUAL WORLDS ARE **ADJUNCTS** OF *REALITY*, RATHER THAN REALITIES IN THEIR OWN **RIGHT**
- FOR A REALITY TO **QUALIFY** AS A REALITY, SOMEONE HAS TO **PERCEIVE** IT AS A REALITY
- PLAYERS FROM *REALITY* **ARE** CAPABLE OF DOING THAT
- HOWEVER, IT WOULD BE **BETTER** IF THERE WERE PEOPLE FOR WHOM THE **CREATED** REALITY IS **THEIR** REALITY
 - PEOPLE WHO KNOW **NO OTHER** REALITY

NPCS

- ROY AND I POPULATED MUD WITH **NON-PLAYER CHARACTERS** I CALLED "**MOBILES**"
 - WHENCE THE MMO TERM "**MOBS**"
- THESE CHARACTERS OPERATED **ENTIRELY** WITHIN THE MUD WORLD
 - THEY COULDN'T TELL **PLAYER** CHARACTERS FROM **NPCS**
- THEY COULD DO **ANYTHING** THEY WANTED TO DO **WITHIN** MUD'S PHYSICS
- OK, SO THEY WEREN'T SOPHISTICATED ENOUGH TO DO **MUCH**, BECAUSE ARTIFICIAL INTELLIGENCE ISN'T ALL THAT POWERFUL **NOW** AND CERTAINLY WASN'T **THEN**
- BUT WHAT ABOUT THE VIRTUAL WORLDS OF THE **FUTURE?**

AI

- MUD'S DENIZENS COULDN'T REALLY "**THINK**" AS WE UNDERSTAND THE TERM
- HOWEVER, MAYBE **500** YEARS FROM NOW WE'LL HAVE **TRUE** AI?
 - OR **5,000**? OR **50,000**? WE HAVE ALL OF **ETERNITY!**
 - TAKE AS **LONG** AS YOU **WANT!**
- SOONER OR LATER WE **WILL** HAVE A VIRTUAL WORLD POPULATED BY INTELLIGENT-AS-US BEINGS
- THOSE BEINGS WILL REGARD **THAT** VIRTUAL WORLD AS REALITY, AND WILL HAVE NO CONCEPTION OF **REALITY**
 - EVEN THOUGH IT'S THE **PHYSICS** OF **REALITY** WHICH IS SUSTAINING THE EXISTENCE OF THE REALITY THEY **PERCEIVE**

DESCENDING

- TO AN **NPC** WITH AI IN A VIRTUAL WORLD, THE VIRTUAL WORLD APPEARS **SELF-CONTAINED**
- THERE IS NO REASON TO SUPPOSE THAT **OUR** WORLD **EXISTS**
- OF COURSE, WE CAN **ENTER** THEIR WORLD USING OUR **PLAYER CHARACTERS** AND **TELL** THEM ABOUT **REALITY**
 - WHY WOULD THEY EVER **BELIEVE** US, THOUGH?
 - AND WHY WOULD WE EVER **DO** THAT ANYWAY?
 - OR, ALTERNATIVELY, WHY WOULDN'T WE DO IT **THE WHOLE TIME?**
- THEY COULD ALSO **LOOK** AT THE WORLD AROUND THEM AND DEDUCE THAT IT WAS CREATED BY SOME **HIGHER BEING**
 - THEY'D BE **CORRECT** TOO - **WE** ARE THOSE HIGHER BEINGS
- THEY COULD **FURTHER** REASON THAT THEY THEMSELVES WERE **MODELLED** ON THAT HIGHER BEING
 - **ALSO** CORRECT - FOR REASONS OF **PERSUASIVENESS** AND **IMMERSION**

MISCONCEPTIONS

- HOWEVER, THEY WOULD BE COMPLETELY **WRONG** AS TO:
 - THE **NATURE** OF THAT HIGHER BEING
 - WHAT THE HIGHER BEING'S **WORLD** IS LIKE
 - **WHY** THE HIGHER BEING **CREATED** THEIR REALITY
 - PRETTY MUCH EVERYTHING **ELSE**, TOO
- "YOU MEAN, THE **CREATOR** CREATED **OUR** WORLD TO MAKE MONEY IN **THEIR** WORLD?!"
- THE **SMARTEST** NPCs MIGHT FIGURE THAT WITH NO **EVIDENCE** TO SUGGEST THERE **IS** A HIGHER BEING, THEN RATIONALLY THERE PROBABLY **ISN'T** ONE
 - **ATHEIST** NPCs!
 - WHO ARE **WRONG!**

EXCUSED

- BUT HEY, **DON'T WORRY**, ATHEIST NPCs!
- YOUR REALITY'S **GOD** WILL BE REALLY **PLEASED** AT YOUR SOPHISTICATED LINE OF REASONING
 - EVERY DESIGNER I'VE EVER ASKED ABOUT THIS HAS SAID THEY'D BE HIGHLY **IMPRESSED** WITH ANY NPCs THAT THOUGHT THAT WAY, AND WOULDN'T HOLD IT **AGAINST** THEM AT ALL
- YOU **WON'T** BE GOING TO **HELL** WHEN YOU DIE
 - THEN AGAIN, **NO-ONE** WILL BE GOING **ANYWHERE** – YOU'RE JUST **BITS** IN COMPUTER MEMORY
- **ALTERNATIVE**: SOME DEITY OF *REALITY* MIGHT TAKE YOU TO **THEIR** AFTERLIFE INSTEAD!
 - AFTER ALL, IT'S NOT **YOUR** FAULT YOU WERE WORSHIPPING A **DESIGNER** INSTEAD OF THAT **DESIGNER'S DESIGNER**
 - HOW COULD **YOU** KNOW HOW MANY LEVELS THERE ARE **ABOVE** YOU?

ROBOT

- HERE'S A PICTURE OF A **ROBOT**



- (THE ROBOT IS THE METAL THING)

EXISTENCE

- NPC ATHEISTS **DO** HAVE A POINT HERE
 - EXISTENCE IS **RELATIVE**
- I EXIST IN **MY** REALITY BY DEFINITION
- DO I **EXIST** IN ANY REALITY I **CREATE**?
 - WHEN I **VISIT** THAT REALITY, SURE, I EXIST THERE **THEN**
 - DO I EXIST IN IT WHEN I'M **NOT** VISITING IT, THOUGH?
- DO I EXIST WHEN I DON'T **VISIT**, BUT MAKE **CHANGES** TO THE WORLD THAT ITS INHABITANTS CAN DETECT AS BEING (IN THEIR VIEW) **SUPERNATURAL**?
 - THEY CAN DEDUCE I EXIST IN **MY** REALITY, IF NOT **THEIRS**
 - THEY COULD **ALSO** BUILD UP AN HYPOTHETICAL **PICTURE** OF ME BASED ON MY SUPERNATURAL **INTERVENTIONS**
 - WHICH I MAY OR MAY NOT ACTUALLY HAVE **DONE**

NON-EXISTENCE

- WHAT IF I **CAN** CHANGE A WORLD'S PHYSICS, BUT **NEVER DO**?
- DO I **EXIST** IN THAT REALITY **THEN**?
- WELL, FOR ALL INTENTS AND PURPOSES, **NO: I DON'T** EXIST IN THAT REALITY
- DO **YOU**, WHO HAVE NEVER **PLAYED** MUD AND WOULD TAKE **TIME** TO LEARN HOW TO ALTER ITS PHYSICS, **EXIST** RELATIVE TO ITS DENIZENS?
 - WELL NO, YOU **DON'T** – EVEN THOUGH IN *REALITY* YOU PLAINLY **DO** EXIST!
- IF A GOD DOESN'T VISIT A REALITY AND DOESN'T CHANGE IT, THAT GOD **DOESN'T EXIST** IN THAT REALITY

MORAL MESS

- SENTIENT NPCs RAISE SOME INTERESTING **MORAL** PROBLEMS FOR THE REALITY HOSTING THEIRS
- EXAMPLE: CAN YOU **SWITCH IT OFF?**
 - TO DO SO WOULD BE TO **OBLITERATE** COUNTLESS **MILLIONS** OF FREE-THINKING BEINGS!
- WOULD **YOU** BE FINE CAUSING THE PAINLESS DEATH OF MILLIONS OF SOULLESS **ANIMALS** IN *REALITY*?
 - SO YOU PROBABLY **WOULDN'T** SWITCH IT OFF THEN?
- BUT YOU'D HAVE TO **KEEP** IT RUNNING **FOREVER!**
- COULD YOU MAYBE JUST TAKE A **SNAPSHOT** OF THE DATABASE AND SAVE IT SOMEWHERE?
 - YEARS LATER IT **COULD** IN THEORY BE RELOADED...

ASIDE

- I MAY **SKIP** THESE NEXT TWO SLIDES IF I'M LOW ON TIME...
- **ABRAHAMIC** RELIGIONS HAVE A **SPECIAL** ISSUE HERE:
- IS THE CREATION OF A VIRTUAL WORLD **SACRED** OR **BLASPHEMOUS**?
- **GOD** CREATED THE WORLD (*REALITY*), AND CREATED **ADAM** (I.E. MANKIND) IN HIS (GOD'S) OWN IMAGE
 - SO ADAM HAS **FREE WILL** AND **CREATIVITY**, JUST LIKE GOD
- ADAM CAN'T CREATE HIS **OWN** WORLD, BECAUSE ALTHOUGH HE'S IN THE **IMAGE** OF GOD, HE ISN'T **ACTUALLY** GOD
 - HE HAS NO POWERS OVER *REALITY*
- SCOOT FORWARD TO **NOW**, AND **VIRTUAL WORLDS**
- ADAM **STILL** DOESN'T HAVE POWERS OVER *REALITY*
- ADAM **DOES** HAVE POWERS OVER **NEW** REALITIES OF HIS **OWN MAKING**

QUESTION

- SHOULD **ADAM** (WELL, ROY AND I) HAVE **TAKEN** THAT FINAL STEP AND **CREATED** NEW REALITIES?
- SOME PEOPLE WOULD SAY **NO**:
 - GOD CREATED THE **UNIVERSE**
 - IF **WE** CREATE VIRTUAL WORLDS, WE ARE "**PLAYING GOD**"
 - THIS IS A **MOCKING** ACT OF ARROGANCE, FALSE PRIDE AND **HUBRIS**
 - **BLASPHEMY!**
- SOME PEOPLE WOULD SAY **YES**:
 - GOD CREATED ADAM IN GOD'S OWN **IMAGE**
 - **OF COURSE** ADAM IS EVENTUALLY GOING TO CREATE WORLDS!
 - IT'S THE **FINAL STEP** OF **GENESIS!**
 - IT MAKES **US** THE TRUE COPIES OF **GOD** WE WERE ALWAYS **INTENDED** TO BE
 - **SACRAMENT!**
- FROM A RELIGIOUS PERSPECTIVE, IT **HAS** TO BE ONE OR THE OTHER - IT **CAN'T** BE BOTH OR NEITHER
- EITHER VIRTUAL WORLDS **MOCK** GOD'S CREATION, OR THEY **FULFIL** IT

ASCENDING

- EARLIER, I SAID THAT ALTHOUGH **WE** CAN VISIT THE VIRTUAL WORLDS WE **CREATE**, NPCs IN THOSE REALITIES **CAN'T** VISIT **REALITY**
 - THEY'RE **CONTAINED** IN THEIR OWN REALITY AND CAN'T **ESCAPE** IT
- THAT'S **TRUE**, BUT WE **CAN** GIVE THEM THE MEANS TO **EXPERIENCE** OUR WORLD
- SUPPOSE WE CREATED HUMAN-LOOKING **ROBOTS**
 - AGAIN, TAKE AS MANY YEARS AS YOU WANT FOR THIS...
- **INSTEAD** OF IMPLEMENTING "ROBOT BRAINS", WE COULD PASS CONTROL TO THE **AI** OF AN **NPC** IN A VIRTUAL WORLD
- THAT NPC COULD THEN **EXPERIENCE** OUR WORLD THROUGH THE **SENSES** OF THE ROBOT

CONSEQUENCES

- THE NPC COULD ALSO **INTERACT** WITH OUR WORLD USING THE **PHYSICAL** BODY WE **BUILT** FOR THEM
- WE COULD TEACH THEM TO **PROGRAM** THEIR **OWN** REALITY FROM *REALITY!*
 - PROBABLY **NOT** A GOOD IDEA IN CASE THEY **CRASHED** IT
- THEY COULD **EVEN** SUICIDALLY THROW THE **SWITCH** THAT TURNED THEIR WORLD **OFF**
- PEOPLE IN A REALITY THAT'S CONSEQUENT ON A **HIGHER** REALITY **CAN** ESCAPE TO IT IF THEY HAVE THE **CO-OPERATION** OF THAT REALITY
- COOL! WE CAN GIVE OUR FAVOURITE NPCs A **HEAVEN**
 - OR, IF THEY DON'T **LIKE** IT, A **HELL**

ANALOGIES

- IT'S VERY **EASY** TO DRAW **ANALOGIES** BETWEEN **REALITY'S** RELATIONSHIP TO VIRTUAL WORLDS AND SOME PRESUMED **META-REALITY'S** RELATIONSHIP TO **REALITY**
- **SOME** OF THESE ARE STRETCHING SYMMETRY **TOO FAR**
 - "PRAYERS ARE LIKE BUG REPORTS!"
- HOWEVER, ON THE WHOLE THE CONNECTION IS A **GOOD ONE**
- THIS IS BECAUSE AT HEART THE RELATIONSHIP **ISN'T AN ANALOGY AT ALL**
- WE REALLY **ARE** GODS FOR THE VIRTUAL WORLDS WE CREATE!

LENS

- THIS GIVES US A **LENS** THAT IS USEFUL FOR BOTH THE **SPIRITUAL** AND THE **NON-SPIRITUAL** ALIKE
- SPIRITUAL:
 - IF WE LOOK AT HOW **WE** TREAT VIRTUAL WORLDS, AT THE VERY **LEAST** THIS ILLUMINATES SOME OF THE **DECISIONS** THAT THE HIGHER-ORDER BEING WHO IMPLEMENTED *REALITY* WOULD HAVE HAD TO FACE WITH REGARDS TO **US**
- NON-SPIRITUAL
 - HOW DO WE WANT OUR CREATIONS TO **BE**, AND **WHY?**

WRAPPING UP

- THIS IS ALL **GREAT** FOR LATE NIGHT FIRST-YEAR STUDENT GET-TO-KNOW-YOU PHILOSOPHICAL DEBATE, BUT **SO WHAT?**
- BASICALLY, ALL I'VE **SAID** IS:
 - WE CAN **CREATE** REALITIES
 - THE PEOPLE IN THOSE REALITIES DON'T KNOW ABOUT **REALITY** EXCEPT WHAT WE **CHOOSE** TO TELL THEM
 - WE CAN APPLY THE **SAME** REALITIES-WITHIN-REALITIES ARGUMENTS UP AND DOWN **INDEFINITELY**

DEDUCTIONS

- SOME REALITY **WILL** BE AT THE BOTTOM
 - *REALITY* PROBABLY WAS UNTIL ROY AND I CREATED MUD, BUT WHO KNOWS WHAT PEOPLE ON **OTHER** PLANETS HAVE BEEN DOING?
- SOME REALITY **WILL** BE AT THE TOP
 - AS FAR AS **ATHEISTS** ARE CONCERNED, IT'S *REALITY*
 - AS FAR AS **RELIGIOUS PEOPLE** ARE CONCERNED, IT'S THEIR DEITY'S (OR DEITIES') REALITY
- **NOTHING** THERE FAVOURS EITHER **THEISM** OR **ATHEISM** THOUGH
 - IT'S JUST A **TOOL** TO HELP US THINK ABOUT *REALITY*
- **EXCEPT...**

CRITIQUE

- THE THING IS, AFTER **30 YEARS** OF WORK NOT ONLY DO WE KNOW HOW TO **PROGRAM** NEW REALITIES, WE ALSO KNOW SOMETHING ABOUT HOW TO **DESIGN** THEM
- **SPEAKING** AS A DESIGNER, I HAVE TO SAY THAT **REALITY SUCKS**
- **I** COULD DESIGN A BETTER WORLD THAN **REALITY!**
- IT WOULD TAKE A WHILE TO **IMPLEMENT**, BUT THE **DESIGN** WOULD BE A MANAGEABLE SIZE
 - MOST OF THE CONTENT WOULD BE GENERATED **PROCEDURALLY**, RATHER THAN HAND-CODED

SUCKINESS

- IF WE ACTUALLY **IMPLEMENTED** A SIMULATION STYLE VIRTUAL WORLD THAT WORKED **EXACTLY** LIKE **REALITY**, **NO WAY** WOULD PEOPLE PLAY IT
 - IT HAS **PERMADEATH!**
 - IT HAS **NO TELEPATHY!**
 - IT HAS **NO TELEPORTATION!**
 - WHAT'S THE DEAL WITH **PAIN?!**
 - HOW COME ONLY **HALF** THE POPULATION CAN HAVE **BABIES?** THAT'S **UNFAIR!**
- WHAT DESIGNERS **DO** IS **BASE** THEIR WORLD ON **REALITY** FOR REASONS OF IMMERSION, THEN THEY **THROW OUT THE SUCKY BITS**
- WHY HAS **NO-ONE** THROWN OUT **OUR** SUCKY BITS?

OBJECTIVELY

- DON'T GET ME WRONG, OBJECTIVELY SPEAKING *REALITY* IS **SUPERBLY** ENGINEERED
 - A **SMALL** NUMBER OF TYPES OF PHYSICAL ENTITY WITH A SET OF FINELY-BALANCED **RELATIONSHIPS** BETWEEN THEM
- IT'S JUST, IT COULD BE **SO MUCH BETTER!**
- SOME POSSIBLE **EXPLANATIONS:**
- *REALITY* IS A **FAILED EXPERIMENT** THAT WILL PROBABLY BE SWITCHED OFF SOMETIME SOON
- DITTO, EXCEPT *REALITY* IS KEPT RUNNING BECAUSE ITS DEVELOPERS ARE **MORAL** BEINGS AND BELIEVE THAT SWITCHING IT OFF WOULD AMOUNT TO **MURDER**
- (CONTINUED...)

(...CONTINUED)

- *REALITY* IS SOME KIND OF "SERIOUS GAMES" WORLD THAT **EARNEST** BEINGS FROM *META-REALITY* **OCCASIONALLY** VISIT, BUT ITS BASICALLY **MORIBUND**
- *REALITY* IS A **WORK-IN-PROGRESS** AND THE BUGS WILL BE IRONED OUT IN THE NEXT **PATCH**
- *META-REALITY* IS SUCH A **GHASTLY** PLACE THAT IN COMPARISON, *REALITY* IS A **FUN** IMPROVEMENT
- THERE **IS NO** *META-REALITY*; *REALITY* IS AT THE **TOP** OF THE STACK, AND THE **REASON** ITS DESIGN SUCKS IS BECAUSE **NO-ONE DESIGNED IT**

CONCLUSION

- OF THESE, THE **LAST** ONE MAKES THE MOST **SENSE**
- **ANYONE** CAPABLE OF CREATING SOMETHING AS WELL-ENGINEERED AS *REALITY* WOULD **HAVE** TO BE CAPABLE OF TAKING A **FAR** BETTER SHOT AT THE CONTENT
- WE'VE ONLY SPENT **~30 YEARS** ON THIS TO DATE
 - WHAT WILL WE KNOW AFTER **300** YEARS? OR 300,000?
- THIS IS **ULTIMATELY** WHY I **PERSONALLY** DON'T **BUY** THE IDEA THAT THERE IS SOME **DEITY** OUT THERE WHO IMPLEMENTED *REALITY*
- SOME DEITY **THAT** WOULD BE IF I COULD DO A BETTER JOB OF IT **MYSELF!**