WHY ARE WE HERE?

28TH OCTOBER 2005
AUSTIN GAMES CONFERENCE

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INTRODUCTION

- IT IS A TRUTH UNIVERSALLY ACKNOWLEDGED...
- THAT I'VE CALLED THIS TALK "WHY ARE WE HERE?"
  - I INCLUDE AS "WE" THOSE WHO **WOULD** HAVE BEEN HERE IF THEY HADN'T BEEN OUT **"NETWORKING"** UNTIL 2:30AM THIS MORNING
- I **DO** MEAN THE QUESTION QUITE LITERALLY: WHY ARE **ANY OF US** IN **THIS** LOCATION RIGHT **NOW**?
- THIS **IS** ACTUALLY A MEANINGFUL QUESTION...

IN LOVING
MEMORY
OF

YOU

LATE 20TH C
TO
LATE 21ST C

REST IN BITS

PUT ANOTHER WAY

- POINT OF FACT: YOU ARE **ALL** GOING TO **DIE**
- GIVEN THIS INFORMATION, WHY ARE YOU **HERE**? IN THIS CONVERTED **BALLROOM**?
- WHY **AREN'T** YOU IN
  - PARIS?
  - CHINA?
  - DARFUR?
  - BED?
  - *WORLD OF WARCRAFT*?
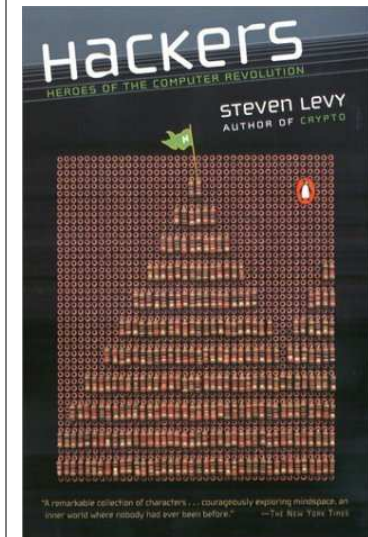   - HMM, I GUESS SOME OF YOU **ARE** IN THERE...

- WELL, YOU'RE HERE BECAUSE YOU'RE **MMORPG DEVELOPERS** AND THIS IS A MMORPG DEVELOPERS' **CONFERENCE**
  - OFFICIALLY, "NETWORKED GAME DEVELOPMENT" CONFERENCE...
- [ASIDE: I'M GONNA CALL THEM **VIRTUAL WORLDS**, NOT **MMORPGS**]
  - I'M NOT GIVING UP ON MY BOOK'S TITLE **YET**, DAMMIT!
- BUT THIS LEADS TO **ANOTHER** QUESTION:

- **WHY** ARE YOU [MMORPG] **VIRTUAL WORLD** DEVELOPERS?
- WHY **AREN'T** YOU
  - REGULAR GAME DEVELOPERS?
  - NOVELISTS?
  - TRUCK DRIVERS?
  - NUCLEAR POWER STATION SOFTWARE ENGINEERS?
  - LAWYERS?
  - LEVEL 80 ON **RUNESCAPE** WITH 2 BLUE MASKS, 2 GREEN MASKS, 2 SANTA HATS AND A **RED PARTY HAT**?
    - "BECAUSE IT WOULD COST ME $5,100 ON EBAY" (44 BIDS, 13 HOURS TO GO, AND SIMBATAMER **REALLY WANTS** IT)

NOTICE THE SUBTITLE

Hackers
HEROES OF THE COMPUTER REVOLUTION

steven Levy
AUTHOR OF CRYPTO

"A remarkable collection of characters ... courageously exploring mindspace, an inner world where nobody had ever been before." —THE NEW YORK TIMES

ANSWERS

- SOME **POSSIBLE** ANSWERS:
  - YOU'RE A VW DEVELOPER PURELY BY **ACCIDENT**
  - YOU WANTED A NEW **CHALLENGE**
  - YOU GET TO **CREATE** WHAT YOU LIKE TO **PLAY**
  - YOU'RE only obeying orders
  - IT'S PART OF YOUR GRAND SCHEME FOR **WORLD DOMINATION**
  - DEVELOPING VIRTUAL WORLDS IS FUN!
- AN **IMPOSSIBLE** ANSWER:
  - FOR THE **MONEY**

- OK, SO LET'S SAY YOU'RE HERE **WILLINGLY**, AND YOU'RE DEVELOPING VIRTUAL WORLDS BECAUSE YOU **WANT** TO
- THIS **SAYS** SOMETHING ABOUT YOU!
  - OF ALL THE THINGS YOU **COULD** HAVE DONE, YOU CHOSE **THIS** PARTICULAR THING
- YOU REMEMBER THE **TOMBSTONE**, RIGHT?
- WHY IS CREATING VIRTUAL WORLDS SO **IMPORTANT** TO YOU YOU'LL SPEND SOME OF YOUR ONE AND ONLY* **LIFE** DOING IT?
  - *MILEAGE FOR YOUR RELIGION MAY VARY

- SAID HE WAS LAWFUL GOOD, ACTED CHAOTIC GOOD

- BACK IN THE EARLY DAYS OF COMPUTING, A **HACKER CULTURE** DEVELOPED IN COMPUTER LABS ACROSS THE GLOBE
  - DESCRIBED IN STEVEN LEVY'S BOOK, **HACKERS**
- THIS WAS **BEFORE** THE WORD "HACKER" WAS **STOLEN** BY THE MEDIA TO MEAN "A **NERD** WHO DOES **BAD** THINGS TO **COMPUTERS**"
- **ORIGINAL** HACKERS WERE PEOPLE WHO **PLAYED** WITH COMPUTERS JUST FOR THE SHEER **JOY** OF IT
- **I** WAS SUCH A HACKER

- YOU ONLY GOT TO **BE** A HACKER IF ANOTHER HACKER **CALLED** YOU A HACKER
  - YOU COULDN'T DECLARE **YOURSELF** TO BE ONE
  - A BIT LIKE THE WORD **COOL** AT PRESENT
- MY HACKER QUALIFICATION: THE **NEW HACKER'S DICTIONARY** DESCRIBES A PROGRAM I CO-WROTE AS A **HACK**
- QUICK SHOW OF HANDS: HOW MANY OF YOU **KNOW** WHAT A **HACK** IS?
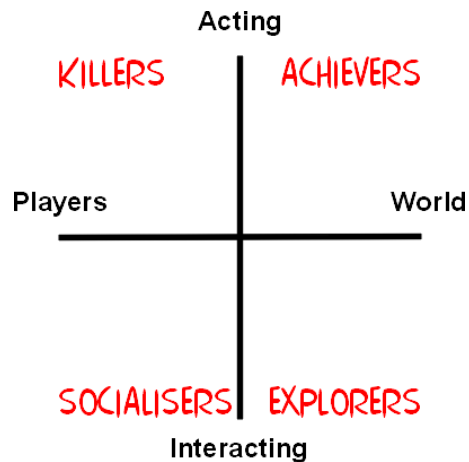- HA! I **THOUGHT** AS MUCH!

- LEVY IDENTIFIED THE **HACKER ETHIC**
  - ACCESS TO COMPUTERS SHOULD BE **UNLIMITED** AND **TOTAL**
  - ALWAYS YIELD TO THE **HANDS-ON** IMPERATIVE
  - ALL INFORMATION SHOULD BE **FREE**
  - MISTRUST AUTHORITY - PROMOTE **DECENTRALISATION**
  - HACKERS SHOULD BE JUDGED BY THEIR **HACKING**
  - YOU CAN CREATE ART AND *Beauty* ON A COMPUTER
  - COMPUTERS CAN CHANGE YOUR LIFE FOR THE **BETTER**

- WHERE DID THE HACKER ETHIC **COME** FROM?
- ANSWER: THE HACKERS BROUGHT IT **WITH** THEM
- WHEN I ARRIVED AT ESSEX UNIVERSITY IN 1978, THERE WAS AN **EXISTING** HACKER CULTURE ALREADY IN PLACE
- I DIDN'T **ADOPT** IT, THOUGH — I ALREADY **HAD** IT
  - THE HACKER ETHIC WAS JUST PLAIN **OBVIOUS**
  - IT WAS **MY** ETHIC AS FAR AS I WAS CONCERNED

- THIS IS OUT OF DATE NOW

Acting

KILLERS   ACHIEVERS

Players   World

SOCIALISERS | EXPLORERS

Interacting

- 25 YEARS AGO, PROGRAMMING WAS NOT AS IT IS TODAY...
- FEW **TOOLS**, FEW **LIBRARIES**, FEW **RESOURCES**, FEW **TEAMS**...
  - I WROTE A **COMPILER** AS MY FINAL-YEAR PROJECT
- YOU COULDN'T SUCCEED AS A PROGRAMMER UNLESS YOU **LOVED** PROGRAMMING
  - UNLESS YOU REGARDED IT AS **FUN**
- ONLY PEOPLE WITH AN **INNATE** HACKER'S ETHIC WERE **IN** THAT POSITION
- PROGRAMMING **SELECTED FOR** HACKERS

NOWADAYS

- IN **D&D** ALIGNMENT TERMS, THOSE ORIGINAL HACKERS WOULD BE **CHAOTIC GOOD**
  - MADE THEIR **OWN** RULES
    - BECAUSE THEY KNEW **BEST**!
  - ACTED FOR THE **BENEFIT** OF HUMANITY
- NEXT GENERATION WERE **LAWFUL GOOD**
  - TREATED PROGRAMMING AS **PUZZLE**-SOLVING
  - WERE STILL IDEALISTIC
- TODAY'S COMMERCIAL PROGRAMMERS ARE **LAWFUL NEUTRAL**
  - DO WHAT THE **SUITS** SAY, **WHATEVER** THEY SAY

IN DEFENCE OF SUITS

- IN COMMON WITH MANY OLD-TIMERS, I'M NOT ACTUALLY **AGAINST** SUITS *PER SE*
  - WHERE **ELSE** WOULD YOU GET **$30M** TO DEVELOP A GAME?
- CREATIVE PEOPLE ARE **RARELY** GOOD AT COMMERCE
- **BUT** COMMERCE-SAVVY PEOPLE ARE EVEN **MORE RARELY** GOOD AT CREATIVITY
- IT'S NOT **SUITS** I OBJECT TO, IT'S SUITS WHO CALL THE CREATIVE SHOTS

- SO WHERE HAVE ALL THE HACKERS **GONE**?
  - CAN THEY REALLY HAVE JUST **DISAPPEARED**?
- WELL, THEY'VE NOT SO MUCH DISAPPEARED AS **MIGRATED**
- IS THERE ANYWHERE TODAY THAT AN IDEALISTIC, MAVERICK, CREATIVE **GENIUS** WITH A LOVE OF PLAYING WITH SYSTEMS CAN **GO**?
- YES, THAT'S RIGHT, THEY GO INTO **VIRTUAL WORLD** DEVELOPMENT
  - THERE'S ACTUALLY A **REASON** FOR THIS

- NOTE THAT THEY **DO** GO ELSEWHERE TOO
  - AT THE **FRONTIERS**, EG. MOBILE PHONE GAMES
  - **ACADEMIA**, ALTHOUGH THAT'S OFTEN DISPIRITING
- THERE'S A VERY **HIGH** CONCENTRATION IN **VIRTUAL WORLD** DEVELOPMENT, THOUGH
- THIS IS **NOT A COINCIDENCE**!
- HOW DID **YOU** GET INTO THE INDUSTRY?
- FOR MOST PEOPLE HERE, IT'LL BE BECAUSE YOU **PLAYED** THE **GAMES**

WORLD OF WARCRAFT

- *WORLD OF WARCRAFT, BLIZZARD, 2004:*

EVERQUEST

- *EVERQUEST, SONY ONLINE ENTERTAINMENT, 1999*

• *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*, 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 furled umbrella lies here.

Obvious exits are:
North : Welcome Center
South : Forest Track
 Down : Forest Track

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


>
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MUD

- *MUD*, ROY TRUBSHAW & RICHARD BARTLE, 1978
  - USUALLY CALLED **MUD1** THESE DAYS

```
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.
*
```

PERPETUATION

- ISN'T SELF-AGGRANDIZEMENT WONDERFUL?
- I'VE TOLD YOU ALL THIS BECAUSE **SOME** OF THE **DECISIONS** ROY AND I MADE WHEN WE WROTE *MUD1* ARE STILL **INTACT**
- EXAMPLE: WHY DOES *WOW* HAVE **LEVELS**?
  - BECAUSE *EQ* HAD LEVELS
    - BECAUSE *DIKUMUD* HAD LEVELS
      - BECAUSE *ABERMUD* HAD LEVELS
        » BECAUSE *MUD1* HAD LEVELS
- *MUD1* HAD LEVELS BECAUSE I **GAVE** IT LEVELS

- MUCH OF THE **ARCHITECTURE** AND **GAMEPLAY** OF TODAY'S VIRTUAL WORLDS IS THE WAY IT IS **ONLY** BECAUSE, ULTIMATELY, THAT'S HOW IT WAS IN *MUD1*
- NOT **ALL**, OBVIOUSLY
  - *DIKUMUD* INTRODUCED CLASSES AND RACES
  - (*M59* AND) *EQ* INTRODUCED GRAPHICS
  - MANY **OTHER** REFINEMENTS
    - LATER DESIGNERS OFTEN DID IT **BETTER** THAN THEIR "PARENT" WORLD

- IT'S NOT **JUST** THE CODE, THOUGH
- WHY DO PLAYERS OF *WOW* CALL MONSTERS "MOBS"?
- BECAUSE WHEN I ADDED **MONSTERS** TO *MUD1*, I CALLED THEM **MOBILES** (FOR "MOBILE OBJECTS")
  - WE GOT THE WORD **NEWBIES** THAT WAY, TOO
- THE **CULTURE** OF VIRTUAL WORLDS **ALSO** PROPAGATES FROM PARENT TO CHILD

- THIS IS THE CURRENT VERSION
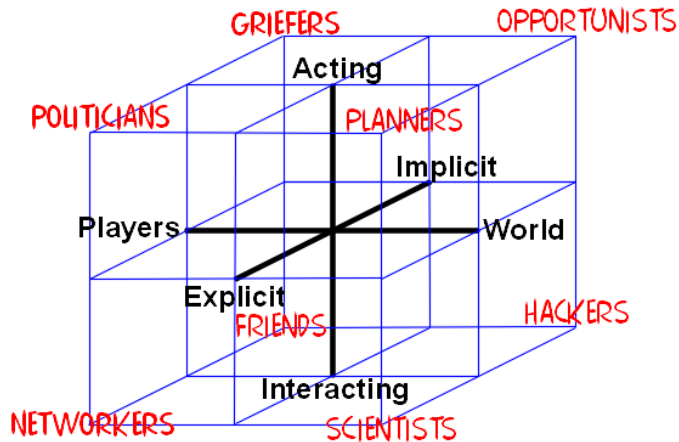
- THE BEHAVIOUR OF PLAYERS IN A VIRTUAL WORLD IS **SHAPED** BY ITS `code` AND ITS `culture` (WHICH ARE **INTER-RELATED**)
- **BOTH** OF THESE ARE, TO A LARGE EXTENT, **INHERITED** FROM THE **PARENT** VIRTUAL WORLD
  - IMMIGRANTS FROM THE **REAL** WORLD BRING A **TON** OF CULTURE WITH THEM TOO, OF COURSE
- *MUD1* DIDN'T **HAVE** A PARENT VIRTUAL WORLD
  - SO WHERE DID **ITS** CULTURE COME FROM?

- *MUDI* GOT ITS CULTURE FROM THAT OF ITS **DESIGNERS**
  - ROY TRUBSHAW AND I
- IN OTHER WORDS, FROM THE **HACKER** CULTURE OF THE TIME
- IT WASN'T ALL **INCIDENTAL**, EITHER
  - HACKER CULTURE DIDN'T GET IN THROUGH MERE **OSMOSIS**
  - WE **DELIBERATELY** PROMOTED HACKER IDEALS
  - SOME OF THESE **PERSIST** TO **THIS DAY**

- EXAMPLE: **FREEDOM** OF **IDENTITY**
- I SAW *MUDI* AS A WAY OF GIVING PEOPLE THE FREEDOM TO BE WHO THEY **WANT** TO BE
  - IN OTHER WORDS, WHO THEY REALLY **ARE**
- I THEREFORE MADE IT AS **OPEN-ENDED** AS POSSIBLE
  - NO NARRATIVE, NO RAILS TO RUN ON
- VIRTUAL WORLDS STILL VALUE FREEDOM TO **BE**
  - DETERIORATING AT THE **EDGES**, THOUGH
    - CLASSES, RACES, INSTANCED DUNGEONS, STORY ARCS...

POLLY'S STORY

- DO I HAVE TIME TO TELL **POLLY'S STORY**?
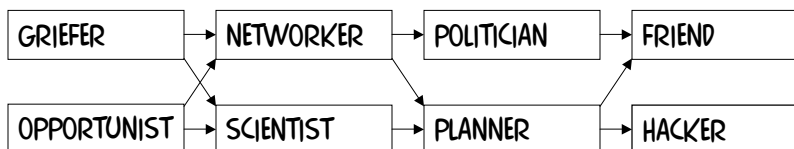

FREEDOM

- I WANTED PEOPLE TO **EXPERIENCE** FREEDOM THROUGH PLAYING VIRTUAL WORLDS
- WITH FREEDOM COMES **UNDERSTANDING**
- FURTHERMORE, WHEN PEOPLE ARE **FREE**, THEY WANT **OTHERS** TO BE FREE
- PEOPLE WHO HAVEN'T KNOWN **TRUE** FREEDOM ABSOLUTELY LOVE IT WHEN THEY FIRST GET IT
  - BUT THEY HAVE TO **LEARN** WHAT IT MEANS...
  - AND THAT FREEDOM IS EASY TO **LOSE**, TOO...

- PEOPLE BRING MUCH **REAL-WORLD** CULTURE INTO VIRTUAL WORLDS
  - LANGUAGE, MORALITY, SOCIAL **NORMS**
- HOWEVER, THE TRAFFIC IS **NOT** ALL ONE WAY
- PEOPLE **CHANGE** IN VIRTUAL WORLDS
  - THEY BECOME **MORE** OF WHO THEY **ARE**
- SOME OF WHAT THEY **LEARN** THERE, THEY BRING **BACK** TO THE **REAL** WORLD
- AND **WHAT** THEY LEARN IS INFORMED BY (ULTIMATELY) **HACKER ETHICS**

- WHEN THEY PLAY VIRTUAL WORLDS, PLAYERS FOLLOW **DEVELOPMENT TRACKS**

| GRIEFER | → | NETWORKER | → | POLITICIAN | → | FRIEND |
| OPPORTUNIST | → | SCIENTIST | → | PLANNER | → | HACKER |

- THEY START OFF ON THE **LEFT** AND WORK THEIR WAY TO THE **RIGHT**
- TWO END POINTS: **FRIENDS** AND **HACKERS**
  - THAT WORD "HACKER" WAS CAREFULLY CHOSEN...
- THE HERO'S JOURNEY — VW HACKERS **ARE** HEROES!

- **YOU** HAVE PLAYED ONE OR MORE VIRTUAL WORLDS **RIGHT** THE WAY THROUGH
- YOU'VE **GROKKED** THE CONCEPT
- YOU ARE, FOR VIRTUAL WORLDS, A **HACKER**
  - OR A **FRIEND**
    - OR PROBABLY **BOTH**, AS THE DEVELOPMENT PATHS EXTEND A LITTLE FURTHER RIGHT ONCE YOU'VE "WON"
- OK, SO YOU'D PROBABLY HAVE BEEN A HACKER **ANYWAY**, GIVEN THE CHANCE
- BUT VIRTUAL WORLDS **GAVE** YOU THAT CHANCE!

A NEW PATH

- I DIDN'T WANT TO DISAPPOINT YOU...
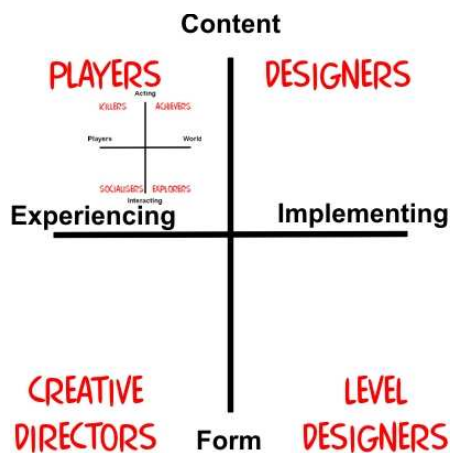
THE WHEEL TURNS

- **YOU** KNOW WHAT VIRTUES VIRTUAL WORLDS DELIVER, SO NOW YOU WANT **OTHERS** TO EXPERIENCE THEM
  - FREEDOM, TOLERANCE, INDIVIDUALITY, IMAGINATION, ART, REBELLION, **UNDERSTANDING**
- THE BASIC IDEALS THAT **YOU** INSTIL IN YOUR GAMES WILL AFFECT **YOUR** PLAYERS
  - **MILLIONS** OF THEM
- SOME OF **THOSE** WILL BECOME DESIGNERS AND PASS THESE SAME IDEALS ON TO **THEIR** PLAYERS
  - AND SO ON, *AD INFINITUM*
    - YOU THOUGHT MY REFERENCE TO **WORLD DOMINATION** WAS A **JOKE**?

UNTOUCHABLE TRIO PLUS I

- AWARE THEY'RE CHAOTIC GOOD, UNAWARE OF THEIR EFFECT ON THE WORLD
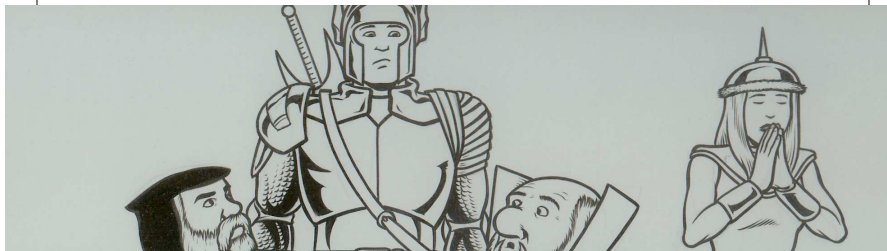
- OK, SO WE'RE **CLOSE** TO ANSWERING THE QUESTION "WHY ARE WE HERE", BUT WE'RE NOT **QUITE** THERE YET
- IF HUMANISTIC ALTRUISM WAS **ALL** THERE WAS TO IT, YOU'D BE IN **DARFUR**
- ASSERTION:
  - **PLAYERS** PLAY VIRTUAL WORLDS TO EXPLORE THEIR IDENTITIES
  - **DEVELOPERS** CREATE THEM FOR THE **SAME REASON**

THUS:

- YOU CREATE VIRTUAL WORLDS BECAUSE YOU CAN PUT A PIECE OF YOUR **SOUL** INTO THEM
- YOUR **VIRTUAL WORLDS** ARE AN EXPRESSION OF **YOU**
  - YOUR WORK **REFLECTS** ASPECTS OF YOUR IDENTITY, BELIEFS, HOPES, FEARS, DEMONS...
- **THROUGH** DEVELOPING VIRTUAL WORLDS, YOU DEVELOP **YOURSELF**
- THIS PUTS YOU IN A **RARE** AND **PRIVILEGED** POSITION:
  - — THAT OF **ARTIST**

- SO, **WHY ARE WE HERE?**
- WE'RE HERE BECAUSE WE **CREATE VIRTUAL WORLDS**
- WE CREATE VIRTUAL WORLDS BECAUSE THAT'S THE LATTER-DAY HACKER'S MEDIUM FOR **SELF-EXPRESSION**
- AND WE **USE** THAT MEDIUM BECAUSE WE **ARE** SUCH LATTER-DAY HACKERS
  - AND WE'RE **HACKERS** BECAUSE VIRTUAL WORLDS **SELECT** FOR HACKERS

- CONSIDER WHAT'S GOING ON HERE:
- **YOU** PUT A **PIECE** OF YOURSELF INTO YOUR VIRTUAL WORLDS
- PEOPLE WHO **PLAY** THOSE WORLDS **ATTUNE** TO THAT
  - YOU **SPEAK** TO THEM THROUGH YOUR GAME
- YOU'RE TALKING TO AN AUDIENCE OF **MILLIONS**
  - **ALL** OF WHOM WANT TO LISTEN
- YOU HAVE **REAL INFLUENCE** HERE!

- PEOPLE: THROUGH YOUR **VIRTUAL** WORLDS YOU HAVE THE **REAL** WORLD IN YOUR HANDS
  - NO, REALLY, YOU **DO**!
- YOU HAVE **GREAT POWER** AT YOUR DISPOSAL
  - MATCHED BY YOUR **GREAT RESPONSIBILITY**
    - YOU MAY BE **CHAOTIC**, BUT YOU'RE CHAOTIC **GOOD**
- **YOU** CAN change THE **WORLD** – THE **REAL** WORLD – FOR THE BETTER
- JUST SO LONG AS YOU **RECOGNISE** WHAT YOU CAN **DO** THROUGH YOUR VIRTUAL WORLDS...

- ...AND SO LONG AS YOU **DON'T** LET THE **SUITS** DESIGN THEM!