

# MASSIVELY MULTIPLAYER ONLINE ROLE-PLAYING GAMES

VIRTUAL WORLDS, REAL MONEY?

16<sup>TH</sup> MAY, 2006

CENTRE FOR THE STUDY OF FINANCIAL INNOVATION

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## INTRODUCTION

- SO WHAT ARE **MASSIVELY MULTIPLAYER ONLINE ROLE-PLAYING GAMES?**
- I GUESS THE **SMART** THING TO DO IS TO FIND OUT HOW MANY OF YOU ALREADY **KNOW**...
- SO, WHO HERE KNOWS WHAT A **MMORPG** IS?
- **JUST** AS I THOUGHT...
- I'M GOING TO CALL THEM **VIRTUAL WORLDS**,  
THOUGH, AS THEY'RE **NOT** ALL GAMES  
– AND I CAN **PRONOUNCE** "VIRTUAL WORLDS"

#### WHAT ARE VWS?

- PEOPLE **PLAY** VIRTUAL WORLDS BY CONNECTING THEIR **COMPUTER** TO A **SERVER** OVER THE **INTERNET**
- VIRTUAL WORLDS ARE **PLACES**
- BEING PLACES, THEY HAVE A NUMBER OF PLACE-LIKE **FEATURES**
  - YOU CAN **VISIT** THEM
  - **OTHER** PEOPLE CAN **ALSO** VISIT THEM
  - AT THE **SAME TIME**
- VIRTUAL WORLDS ARE, HOWEVER, **NOT REAL**
- THIS SEEMS LIKE A MAJOR **DISADVANTAGE**
  - HOW DO YOU **VISIT** SOMEPLACE THAT **ISN'T REAL?**

#### ANSWER:

- YOU USE AN **AVATAR**



ABOUT AVATARS

- FAR FROM ITS BEING A **DISADVANTAGE**, PEOPLE OFTEN **LIKE** USING AN AVATAR



FURTHERMORE...

- SOME PEOPLE **PREFER** IT TO REALITY



#### INTERACTION

- THROUGH THEIR AVATARS, PLAYERS OFTEN ENJOY **INTERACTING WITH** EACH OTHER



#### HOWEVER

- THEY **DON'T** SO OFTEN ENJOY BEING **ACTED ON** BY EACH OTHER...



IN ADDITION

- **MOST** PLAYERS REGARD VIRTUAL WORLDS AS BEING BASICALLY **GAMES**



BUT OTHERS

- BUT OTHER PEOPLE JUST LIKE THE **THRILL** OF EXPLORING SOMEWHERE **NEW**



SOME THEORY

- WE CAN **PLOT** THESE BEHAVIOURS ON A **GRAPH**:



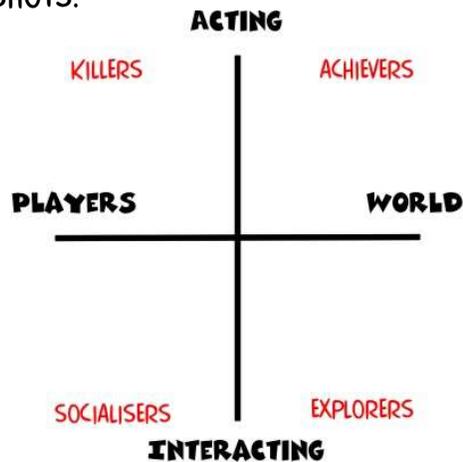
FURTHERMORE

- THIS DISTRIBUTION OF *fun* APPLIES ACROSS **ALL** VIRTUAL WORLDS



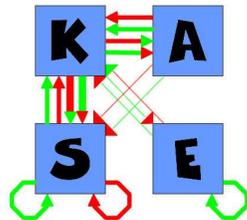
FORMALLY

- OR, IF YOU PREFER IT WITHOUT THE MINI-SCREENSHOTS:



MORE

- DESIGNERS NEED TO ACCOMMODATE **ALL FOUR** TYPES TOGETHER BECAUSE THEY EXIST IN **BALANCE**
- IT TAKES AN ENTIRE 3<sup>RD</sup>-YEAR LECTURE TO EXPLAIN **WHY**, THOUGH...



- ALL WE NEED TO KNOW RIGHT NOW IS THAT IN **MMORPGS, MOST** PLAYERS ARE **ACHIEVERS**

## WORLD OF WARCRAFT

- **WORLD OF WARCRAFT, BLIZZARD, 2004:**



## STATS

- **WORLD OF WARCRAFT HAS OVER 6,000,000 PLAYERS WORLDWIDE**
  - MORE THAN LIVE IN DENMARK, FINLAND, SLOVAKIA AND ABOUT 80 **OTHER** COUNTRIES...
- **PLAYERS PAY \$15 A MONTH TO PLAY**
  - \$13 IF BUY 6 MONTHS AT ONCE
    - SOMEWHAT **LESS** IN CHINA...
- **IT COST SOMETHING LIKE \$30M TO DEVELOP**
  - I'VE SEEN ESTIMATES BETWEEN \$25M AND \$70M
- **WOW IS BASED ON EVERQUEST**

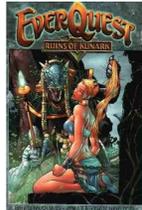
## EVERQUEST

- **EVERQUEST, SONY ONLINE ENTERTAINMENT, 1999**



## STATS

- **EVERQUEST HAS AROUND 300,000 SUBSCRIBERS**
  - THAT'S STILL MORE PEOPLE THAN **ICELAND!**
  - IT HAD **480,000** AT ITS PEAK
- **OVER \$3,000,000 A MONTH IN SUBSCRIPTIONS**
- **SUPPORTS ACTION FIGURES AND COMICS**



- **EQ IS BASICALLY A GRAPHICAL DIKUMUD**

## DIKUMUD

- *DIKUMUD, COPENHAGEN UNIVERSITY, 1990*

lx2l 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.

lx2l 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

## STATS

- IN 1994 (IMMEDIATELY PRE-WWW), **10%** OF **ALL** INTERNET TRAFFIC BELONGED TO **TEXTUAL** VIRTUAL WORLDS
- AT LEAST **20** OF THESE ARE **STILL WITH US**
- OVER **1,700** ARE OPEN TO THE PUBLIC
  - THE FIGURE HAS HELD STEADY FOR OVER A DECADE
  - MOST OF THESE ARE **FREE** TO PLAY
- SEVERAL **HUNDRED** ARE *DIKUS*
- *DIKUMUD* IS BASED ON *ABERMUD*

## 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 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

>
```

## STATS

- **ABERMUD** WAS DEVELOPED AT THE UNIVERSITY OF (YOU GUESSED) ABERYSTWYTH
- IT SPREAD ACROSS THE NASCENT INTERNET **VERY** QUICKLY
  - BECAUSE IT WORKED ON ANY **UNIX** SYSTEM
- TODAY, ITS AUTHOR IS IN CHARGE OF **LINUX**
  - LINUS THORVALDS = KING
  - ALAN COX = PRIME MINISTER
- **ABERMUD** IS BASED ON *MUD*

## 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* ISN'T BASED ON **ANYTHING**
- HOW ABOUT THAT? VIRTUAL WORLDS ARE A **BRITISH** INVENTION!

## VWS TODAY

- VIRTUAL WORLDS TODAY ARE WHERE **MOVIES** WERE IN ABOUT **1920**
- THERE IS **MUCH** MORE TO COME
  - THE POPULATION OF SOUTH KOREA IS 48,000,000, AND OVER 50% HAS PLAYED *LINEAGE* AT LEAST ONCE
  - VIRTUAL WORLDS ARE AFFECTING **VIEWING FIGURES** FOR **TV** PROGRAMMES IN AMERICA
- THEY'RE PLAYED BY PEOPLE OF ALL DEMOGRAPHICS
- AS THE POPULATION BECOMES MORE **GAME-SAVVY**, THESE WORLDS WILL BECOME EVEN **MORE IMPORTANT**

#### PROPERTY

- **THIS** IS WHAT'S PROBABLY GOING TO INTEREST YOU...
- CHARACTERS IN VIRTUAL WORLDS **OWN** THINGS WITHIN THE CONTEXT OF THE VIRTUAL WORLD
  - SWORDS, HOUSES, **MAGIC WANDS**, ...
- DO THE **PLAYERS** OWN THESE THINGS
- DO THE PLAYERS OWN THE **CHARACTERS?**
- AT THE TIME OF WRITING, THERE'S A CHARACTER FROM *WORLD OF WARCRAFT* FOR SALE ON EBAY FOR **\$1,600**
  - THIS IS ACTUALLY ABOUT \$1,000 **MORE** THAN THE GOING RATE, BUT IT HAS **VERY** GOOD GEAR

#### WIDESPREAD

- **ALSO** ON EBAY:
  - *EVE ONLINE* INDUSTRIALIST BUILDER **\$1,275** (11 BIDS)
  - *RUNESCAPE* LEVEL 115+ CHARACTER **\$1,025** (29 BIDS)
  - *MAPLE STORY* LEVEL 80 BANDIT **\$610** (13 BIDS)
  - *GEMSTONE IV* LEVEL 59 WIZARD **\$550** (0 BIDS - YET)
  - AND **HUNDREDS** MORE
- THOSE ARE **CURRENT** BIDS - THEY'LL ACTUALLY **SELL** FOR **MORE**
- IN-GAME **CURRENCY** ALSO FOR SALE
  - *EVE ONLINE* 5 BILLION ISK **\$500**
  - *ULTIMA ONLINE* 100 MILLION GOLD **\$199.99**

## UNREAL

- THINK ABOUT THIS A MOMENT: PEOPLE ARE PAYING **REAL** MONEY TO BUY **IMAGINARY** MONEY
- ALSO IMAGINARY **PROPERTY**:
  - *KAL ONLINE* GENERAL OF ANCIENT BOW **\$840** (64 BIDS)
  - *HABBO HOTEL* 14 THRONE SEATS **\$450** (1 BID)
  - *ULTIMA ONLINE* HAT OF THE MAGI **\$31** (15 BIDS)
    - THAT ONE USED TO SELL FOR MORE LIKE **\$165**
- AND IMAGINARY **REAL ESTATE**:
  - *ULTIMA ONLINE* VENDOR PROPERTY **\$125** (1 BID)
- **WARNING**: *PROJECT ENTROPIA* PROPERTY SALES ARE REGARDED WITH **SUSPICION** IN THE INDUSTRY...

## ANALYSIS

- EBAY IS **NOT** THE MAIN MARKETPLACE
- **IGE** HAS **100** PEOPLE IN CUSTOMER SERVICE ALONE
- **ITEMBAY** MAKES MORE MONEY IN **COMMISSIONS** THAN ALL THE VIRTUAL WORLDS IT SERVICES DO IN **SUBSCRIPTIONS** - COMBINED!
- IF YOU ADD UP ALL THESE SALES OF VIRTUAL GOODS, THEY MAKE FOR A TOTAL **GDP** GREATER THAN THAT OF **NAMIBIA** AND **JAMAICA**
- *GDP PER CAPITA* IS ON A PAR WITH THAT OF **RUSSIA**
- SO WHY DO MOST VIRTUAL WORLDS **BAN** RMT?

## BANNED

- MAIN REASON: IT'S **CHEATING**
  - THE *MONOPOLY* EXAMPLE
- “I WANT TO TRADE, YOU WANT TO TRADE, WE BOTH GAIN. WHAT'S NOT TO LOVE?”
- IT RUINS THE GAME FOR THE **90%** OF PLAYERS WHO **DON'T** TRADE IN VIRTUAL GOODS, **THAT'S** WHAT!
  - REMEMBER, MOST PLAYERS ARE **ACHIEVERS**
- BUT IS SUCH A BAN **LEGAL**?
  - EVERY PLAYER SIGNED AN **EULA** ACCEPTING THE BAN
  - THE PLAYERS **DON'T OWN** WHAT THEY'RE SELLING ANYWAY
- OR **DO** THEY?

## COMMODIFICATION

- AS FAR AS SOME PEOPLE ARE CONCERNED, IF IT **LOOKS** LIKE A DUCK, **WALKS** LIKE A DUCK AND **QUACKS** LIKE A DUCK, IT'S A **DUCK**
- VIRTUAL GOODS **LOOK** LIKE REAL GOODS, ARE **TRADED** LIKE REAL GOODS, SO **REAL** PROPERTY LAWS SHOULD APPLY
  - AND REAL **TAX** LAWS?
- “THERE WASN'T A LEVEL 50 BATTLEMAGE IN THE BOX WHEN I BOUGHT IT. I MADE IT, SO IT'S **MINE**”
- UNFORTUNATELY, IF THIS WERE **TRUE** THEN VIRTUAL WORLDS WOULD **DIE**

#### IMPLICATIONS

- IF I BOUGHT A UNIQUE MAGIC SWORD FOR \$1,000 AND THE NEXT DAY THE DEVELOPER CREATED 20,000 **IDENTICAL** SWORDS, COULD I **SUE**?
- IF I HAVE **INVENTORY** I COULD SELL FOR \$250,000 AND THE DEVELOPER ANNOUNCES THEY'RE GOING TO **CLOSE** THE GAME, CAN I FORCE THEM TO **STOP**?
  - ON MARCH 15<sup>TH</sup> 2004, EBAY USER SHAKTI\_122 PAID **\$3,000** FOR AN ACCOUNT ON **EARTH AND BEYOND**
  - ON MARCH 16<sup>TH</sup> 2004, ELECTRONIC ARTS ANNOUNCED THEY WERE **CLOSING** *EARTH & BEYOND*
  - EA **ALSO** ANNOUNCED THEY WOULD **NOT** BE LICENSING THE SOFTWARE TO **ANYONE**

#### WHY WOULD THIS BE BAD?

- IF PLAYERS COULD SUE IF THEY LOST SOME OF THEIR INVESTMENT, VIRTUAL WORLDS COULD NEVER **EVOLVE**
  - **EVERY** CHANGE AFFECTS SOMEONE ADVERSELY
  - "NERFING"
- IT WOULD **ROB** DESIGNERS OF ARTISTIC FREEDOM
  - J. K. ROWLING COULD **LEGALLY** DISTRESS **MILLIONS** BY KILLING OFF MISERABLE WHINER **HARRY POTTER**
  - WHY CAN'T VIRTUAL WORLD DESIGNERS UPSET A **FEW** PLAYERS WHO BUILT THEIR VIRTUAL HOUSES ON THE SLOPES OF A **VOLCANO**?
- IT WOULD BE **IMPOSSIBLE** TO DEVELOP A GAME WITH A THEME SUCH AS "ESCAPE FROM COLDITZ"

#### IT GETS WORSE

- SOME PLAYERS WHO "FARM" GOLD OR OBJECTS CAN **TIE UP** THE MARKET
  - IF YOU WANT SOMETHING, THE **ONLY** WAY TO GET IT IS FROM ANOTHER PLAYER WHO HAS A PROGRAM RUNNING THE **WHOLE TIME** GETTING IT AUTOMATICALLY
- PLAYERS WANT THESE PEOPLE **BANNED**
  - CHINESE ADENA FARMERS IN *LINEAGE 2*
- YET *DARK AGE OF CAMELOT* WAS **SUED** FOR BANNING ACCOUNTS RUN BY **BLACK SNOW**
  - A COMPANY RUNNING A GOLD FARM OUT OF **TIJUANA**
  - NEVER WENT TO COURT
    - BLACK SNOW **DIDN'T PAY THEIR LAWYERS...**

#### COTTAGE INDUSTRY

- FOR SALE 2004 ON EBAY: ONE *UO* GOLD FARM!



#### SUMMARY

- FOR **NON-GAME** VIRTUAL WORLDS, EG. *SECOND LIFE*, REAL-MONEY TRADING IS USUALLY **FINE**
- FOR MMORPGS DESIGNED TO **SUPPORT** RMT, EG. *ROMA VICTOR*, IT'S **ALSO** FINE
- FOR **ALL** OTHER VIRTUAL WORLDS, IT'S **NOT** FINE AND PLAYERS WOULD BE *livid* IF IT WERE MADE LEGAL
- SONY **ALLOWS** RMT ON 3 OF ITS *EQ* SERVERS, AND THEY'RE PRACTICALLY **EMPTY**
  - RMT CONTINUES ON SERVERS WHERE IT'S **FORBIDDEN!**
- ULTIMATELY, IT'S **CHEATING** AND THAT'S ALL THERE IS TO IT!
  - AND **THAT'S** WHY IT'LL CONTINUE