

VIRTUAL MONEY IN VIRTUAL WORLDS

INTERESTING STRANGENESS FOR ECONOMISTS

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WORKSHOP ON ECONOMIC HETEROGENEOUS INTERACTING AGENTS

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INTRODUCTION

- OK, I'LL FESS UP: I'M **NOT** AN EXPERT ON ECONOMIC HETEROGENEOUS INTERACTING AGENTS
- I'M A **COMPUTER GAMES** DESIGNER
- MY SPECIALIST FIELD IS **VIRTUAL WORLDS**
 - FEAR NOT! AN EXPLANATION FOLLOWS SHORTLY!
- I'M HERE TO OUTLINE THE RECENT **COMMODIFICATION** OF VIRTUAL WORLDS
 - **DAVE BIRCH**, TALKING NEXT, LOOKS INTO THE WIDER AND FUTURE **IMPLICATIONS** OF THIS
- IN ESSENCE, PEOPLE ARE BUYING **NON-EXISTENT** STUFF FROM OTHER PEOPLE WHO **DON'T OWN** IT

DEFINITION

- VIRTUAL WORLDS ARE ONLINE COMPUTER GAMES
 - **MMORPGS** – MASSIVELY MULTIPLAYER ONLINE ROLE-PLAYING GAMES
- NOTE: ONLINE GAMES ARE **NOT** ONLINE GAMING
 - I'M NOT TALKING ABOUT **GAMBLING** HERE
- THESE GAMES SUPPORT **LARGE** NUMBERS OF PLAYERS **SIMULTANEOUSLY**
- THE PLAYERS USE **CLIENT** SOFTWARE TO CONTACT **SERVERS** OPERATED BY THE GAME'S **DEVELOPER**

HISTORY

- VIRTUAL WORLDS BEGAN WITH **MUD1** IN 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.

*

- TEXT-BASED, UP TO **36** PLAYERS SIMULTANEOUSLY
- CREATED BY TWO STUDENTS HERE AT ESSEX UNIVERSITY
 - ROY TRUBSHAW AND RICHARD BARTLE (THAT'S ME)

ASCII GRAPHICS

- GAMES SOON APPEARED WITH primitive GRAPHICS

```
[ ][ ][ ][ ]- -[ ] orc sword shield chain
[ ] A      S [ ] A Jennie.c
/ >  +++++ [ ] A 2 skeletons
[ ]      +++++ [ ] B trolls
[ ] B      dn [ ]
[ ][ ][ ][ ][ ][ ][ ]

Swing hits with moderate damage
Skeleton is slain
Orc is blocked by your armour
Troll: kia ardata luuppatar ne

>throw bottle at troll
R mace Hits Hits On Stamina Exper. M. Pnts.
L bottle 35 5 10 6523 9
```

- *ISLAND OF KESMAI, 1981*

2D GRAPHICS

- 2D GRAPHICAL GAMES SHOWED UP IN THE EARLY 1990S



- *KINGDOM OF DRAKKAR, 1992*
- BUT IN 1994 (IMMEDIATELY PRE-WWW), **10% OF ALL** INTERNET TRAFFIC BELONGED TO **TEXT MUDS**

ULTIMA ONLINE

- THINGS CHANGED WITH *ULTIMA ONLINE*, 1997



STATS

- PEOPLE PAY A **MONTHLY FEE** TO PLAY *ULTIMA ONLINE*
 - \$12.99 A MONTH AT THE MOMENT
- IT GARNERED **100,000** SUBSCRIBERS WITHIN A YEAR
- NOW, **8 YEARS LATER**, IT HAS SOMETHING LIKE **170,000** SUBSCRIBERS
 - AFTER PEAKING AT 250,000 IN 2003
- IT **STILL** TAKES OVER **\$2,000,000** A MONTH
 - AND IT'S BEEN RUNNING FOR **100 MONTHS!**

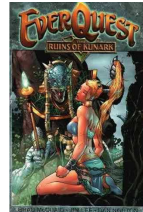
EVERQUEST

- *ULTIMA ONLINE* RULED UNTIL *EVERQUEST*, SPRING 1999



STATS

- *EVERQUEST* HAS AROUND **460,000** SUBSCRIBERS
 - THAT'S MORE PEOPLE THAN LIVE IN **ICELAND!**
- OVER **\$5,000,000** A MONTH IN SUBSCRIPTIONS
- SUPPORTS **ACTION FIGURES AND COMICS**



- THERE ARE PLENTY OF OTHERS LIKE IT
 - *SW:G* 250K, *FFXI* 550K, *DAOC* 175K, *RUNESCAPE* 340K, ...

NOT FORGETTING...

- OH, AND *WORLD OF WARCRAFT*



- **1.5 MILLION** PLAYERS AS OF MARCH
– RUMOURED TO BE **1.8 MILLION+** NOW

BUT ELSEWHERE...

- *WOW* IS JUST A PIPSQUEAK COMPARED TO **LINEAGE**



- *LINEAGE* (1997) HAS OVER **4 MILLION** PLAYERS

STATS

- *LINEAGE* (IN THE PROCESS OF MIGRATING TO *LINEAGE 2*) HAS A POPULATION GREATER THAN THAT OF **EIRE**
 - *LINEAGE* HAS 2 MILLION, *LINEAGE 2* HAS 2.2 MILLION
- **50%** OF THE POPULATION OF SOUTH KOREA HAVE TRIED *LINEAGE* AT LEAST **ONCE**
 - POPULATION OF S. KOREA IS ~48 MILLION
- OTHER **>1 MILLION** FAR EASTERN VIRTUAL WORLDS:
 - *LEGEND OF MIR*
 - *FINAL FANTASY XI* (AGAIN)
 - *MU ONLINE*
 - *RAGNAROK ONLINE*
 - *KINGDOM OF THE WINDS*

PROPERTY

- WHERE DOES COMMERCE COME IN HERE?
- WELL, 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 EVEN OWN THE **CHARACTERS**?
- AT THE TIME OF WRITING (YESTERDAY), THERE'S A JEDI GUARDIAN FROM *STAR WARS: GALAXIES* FOR SALE ON EBAY AT **\$2,000**
 - NO BIDS YET. IT MIGHT SELL, BUT THE GOING RATE IS ABOUT \$1,250 (DOWN FROM \$1,500 IN MARCH)

WIDESPREAD

- **ALSO ON EBAY:**
 - *GEMSTONE IV* LEVEL 100 PALADIN **\$1,500**
 - *ANARCHY ONLINE* 220 MARTIAL ARTIST **\$800**
 - *LINEAGE 2* LEVEL 74 HAWKEYE **\$800** (DOWN FROM \$1,250)
 - *RUNESCAPE* LEVEL 104 WITH 1,400+ SKILL POINTS **\$1,000**
 - AND **HUNDREDS** MORE
- IN-GAME CURRENCY ALSO FOR SALE
 - *EVE ONLINE* 2.5 BILLION ISK **\$585**
 - *EVERQUEST* 5,000 GOLD **\$420**
- THOSE WERE **CURRENT** PRICES – THEY'LL ACTUALLY **SELL** FOR **MORE**

OTHER SALES

- THINK ABOUT THIS A MOMENT: PEOPLE ARE PAYING **REAL** MONEY TO BUY **IMAGINARY** MONEY
- ALSO IMAGINARY **PROPERTY**:
 - *SW:G* JETPACK **\$300**
 - *GEMSTONE IV* 9XHEAVY CRIT-PADDED CUIRBOUILLI ARMOUR **\$700**
 - *ULTIMA ONLINE* ORNAMENT OF THE MAGICIAN **\$215**
- AND IMAGINARY **REAL ESTATE**:
 - *ULTIMA ONLINE* CASTLES AT **\$1,000** AND **\$950**
 - BUT I'LL LET **DAVE** TELL YOU MORE...

NOTE

- 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!
- THE OVERALL SIZE OF THE MARKET IS **HUGE**
 - AGAIN, DAVE HAS SOME MIND BLOWING STATS FOR THIS

BUT

- THE THING IS, MOST VIRTUAL WORLDS **BAN** VIRTUAL OBJECT SALES
- MAIN REASON: IT'S **CHEATING**
- SUPPOSE 4 OF US ARE PLAYING **MONOPOLY**
 - THE TOP HAT OFFERS **MAYFAIR** FOR SALE
 - I OFFER **£1,000** FOR IT
 - YOU OFFER **£100** FOR IT, PLUS **£5** IN **REAL** MONEY
 - THE TOP HAT ACCEPTS **YOUR** OFFER
- THE SCOTTIE DOG AND I ARE GOING TO BE **VERY** UNHAPPY
 - ESPECIALLY IF IT'S **HIS** SET!

EXCUSES

- “**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!
 - IT BREAKS THE **MAGIC CIRCLE**
- IF LETTING PEOPLE HAVE WHAT THEY WANT WERE **HARMLESS**, DEVELOPERS WOULD DO IT FOR **FREE**
 - YOU WANT A KICK-ASS SWORD? HERE, HAVE **10!**

BUT

- THIS IS WHY DEVELOPERS GENERALLY **BAN** THE SALE OF OBJECTS/CURRENCY/CHARACTERS/ACCOUNTS
 - EVEN THOUGH THESE OCCUR **OUTSIDE** THE GAME
 - IN-GAME TRADE USING GAME CURRENCY IS **FINE**
- 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?

AT PRESENT

• RUNESCAPE CHARACTER SALE SMALL PRINT



Disclaimer: I can not sell any character or item, as Jagex Owns all my Characters and all the items in their inventory.

Please read this description carefully (especially between the lines) as I don't want my Chars or your future Chars banned. So for the record, I am not selling any of Jagex Property, I am selling the time it has taken to master the art of leveling, packaged for you to use **immediately** upon receipt of payment (after you do some things to set up the account, such as changing the Password and Recovery Questions and Activating the membership). This item is sold with no refunds, but you will be happy you made the choice. Trust me (look at my feedback, not alot, but I am at 100% and would not jeopardize that). Winner is expected to leave positive feedback and in turn, if Payment is made promptly, so will I.

I guarantee if you are the winning bidder, you will have a Combat Level 104 Main Character on Runescape 2 with a fully stocked bank and lots of items within 24 hours of confirming your payment. This is not a scam, but this description is worded very carefully so that this auction is kept open and no accounts will be banned in Runescape. I take no responsibility if you do something to get this account banned after I turn over the information you need to setup your login and **IMMEDIATELY** have the stats and items listed here.

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 A JUDGE MIGHT DECIDE **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 15TH 2004, EBAY USER SHAKTI_122 BID **\$3,000** FOR AN ACCOUNT ON **EARTH AND BEYOND**
 - ON MARCH 16TH 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 UPON LOSING 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** FOOLHARDY PLAYERS WHO BUILT THEIR **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 RECENTLY ON EBAY: ONE *UO* GOLD FARM!



LOATHED AND DESPISED

- MANY PLAYERS **LOATHE** AND **DESPISE** COMPANIES SUCH AS IGE
 - THEY REGARD THEM AS "LEECHES", "PARASITES", "THIEVES" ETC.
- IGE HIRED THE WELL-RESPECTED **THEMIS GROUP** TO IMPROVE THEIR PR THROUGH MARKETING
 - THEMIS PULLED OUT AFTER 3 MONTHS AMID RUMOURS THAT ASSOCIATION WITH IGE WAS HARMING ITS **OWN** REPUTATION
- YET IGE IS ONE OF THE MORE **RESPECTABLE** COMMODIFIERS
 - OTHERS **ROUTINELY** RUIN FREELANCERS BY BUYING STUFF FROM THEM THEN **CANCELLING** THE PAYPAL PAYMENT

AND YET...

- A **FEW** VIRTUAL WORLD DEVELOPERS **EMBRACE** COMMODIFICATION
- *SECOND LIFE* IS AT THE **FOREFRONT** HERE
 - BUT IT'S NOT A **GAME**
- *ACHAEA* SELLS OVER **1.5 MILLION** ITEMS A YEAR TO ITS OWN PLAYERS
 - AND IT'S A **TEXT** GAME!
 - IT DOESN'T LET THEM TRADE BETWEEN **ONE ANOTHER**, THOUGH
- *ULTIMA ONLINE* WILL **FAST-TRACK** CHARACTERS THROUGH THE FIRST 25 LEVELS FOR A **FEE**

THE TIDE TURNS

- LAST MONTH, SOE (EQ, SW:G) **CHANGED ITS MIND** AND SAID IT WOULD **SUPPORT** REAL-MONEY TRANSFERS
 - IT GOT A **VITRIOLIC** REACTION FROM ITS PLAYERS
 - AND **ALSO** FROM SOME OTHER **DEVELOPERS**
- SOE **CLAIMS** ITS BOWING TO PLAYER DEMAND
 - BUT SAFE TO ASSUME IT WANTS A PIECE OF IGE'S **ACTION**, GIVEN IT CAN'T **STOP** THESE TRADES
 - ALSO, ITS PROFITS **PLUNGED** WHEN *WOW* STOLE ITS *EQ2* CUSTOMERS...

SUMMARY

- THERE IS A **VIBRANT** TRADE IN VIRTUAL OBJECTS
 - IGE (UNDER-)ESTIMATES \$880 MILLION WORLDWIDE PER YEAR
- MOST PLAYERS ARE **AGAINST** THIS TRADE
 - BECAUSE IT SPOILS THEIR FUN
- MOST **DEVELOPERS** ARE AGAINST IT TOO
 - BUT SONY ONLINE ENTERTAINMENT HAS **BROKEN RANKS**
- THERE'S NO PROBLEM IF DEVELOPERS **WANT** TO EMBRACE COMMODIFICATION
- THE PROBLEM IS WHEN THEY **DON'T** WANT IT BUT **GET IT ANYWAY**
- AS ALWAYS, IT'S A **GOOD** TIME TO BE A **LAWYER...**