Studying Beehives Not Bees

The Research Importance of Virtual Worlds

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A Tale in the Jungle

Deep within the jungle of Zul'Gurub lurks the Blood God of the trolls, Hakkar the Souflayer. Those who merely touch Hakkar become infected by the foul and highly contagious disease of the Corrupted Blood.

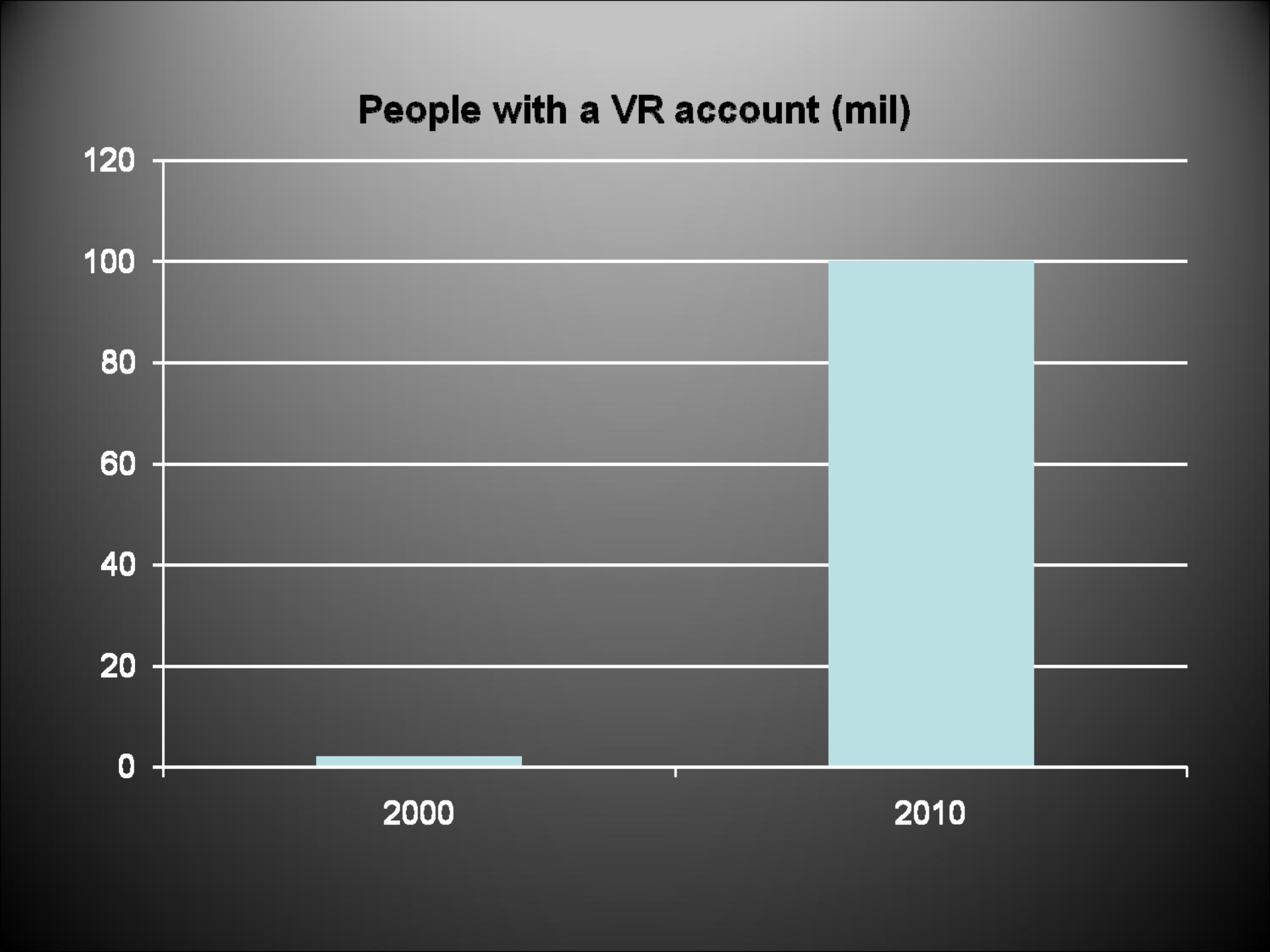
On a late summer day in 2005, a team of adventurers descended into Zul'Gurub to do battle with Hakkar. When they returned, they brought the Corrupted Blood with them and thereby unleashed the most deadly plague in the history of Azeroth…

THE LANCET
"The New Stop TB Strategy and the Global Plan, with the important new developments outlined in this issue, present an ideal opportunity to turn the tide against tuberculosis."
CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION
EPIDEMIOLOGY

How big are virtual worlds?

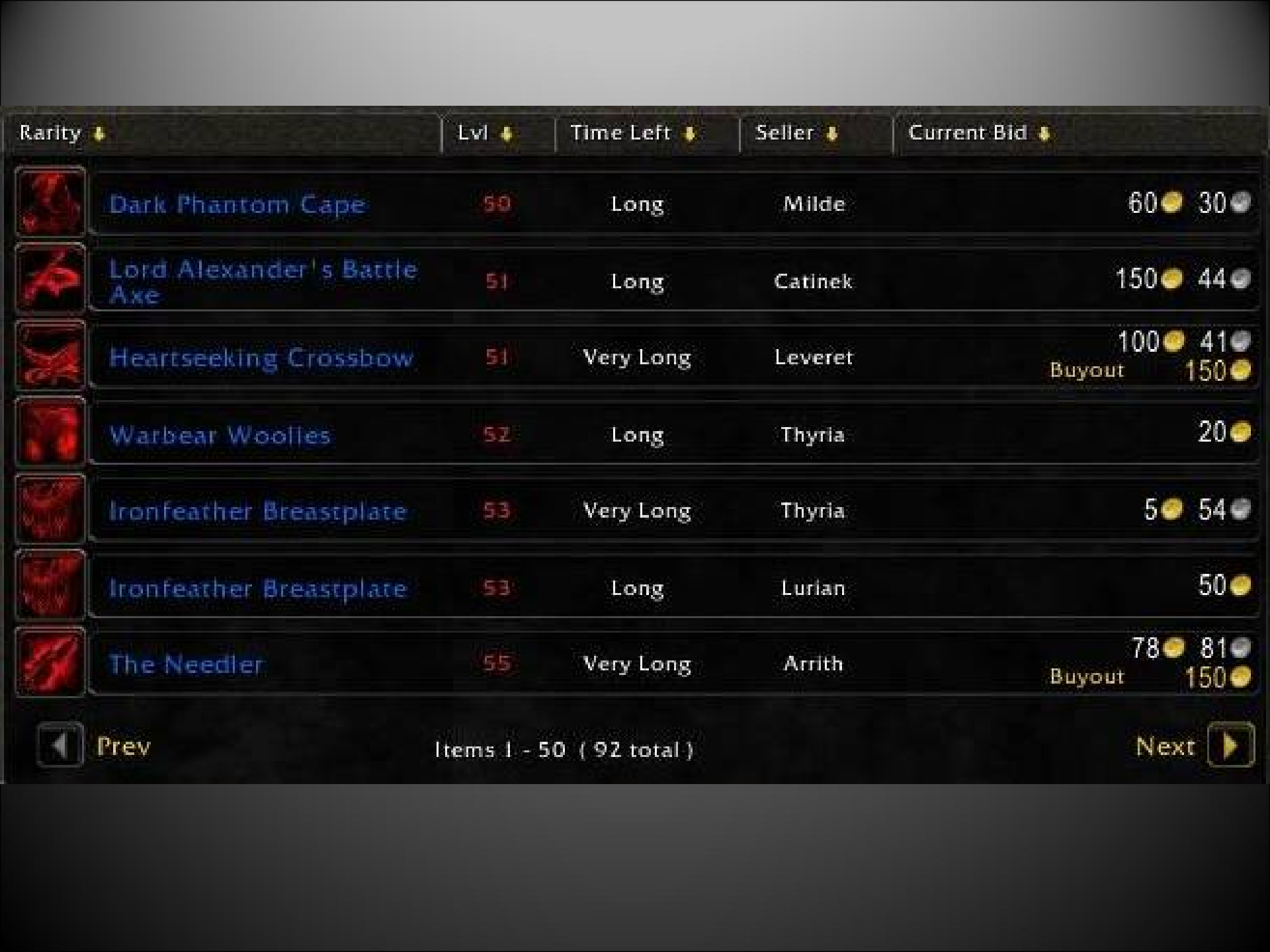
http://i.imgur.com/uBWCz.jpg

AUSTRIA
International boundary
State boundary
National capital
State capital
Railroad
Road
0 25 50 Miles
0 25 50 Kilometers
CZECHOSLOVAKIA
FEDERAL REPUBLIC OF GERMANY
HUNGARY
SWITZERLAND
ITALY
YUGOSLAVIA
NIEDERÖSTERREICH
OBERÖSTERREICH
SALZBURG
TIROL
VORARLBERG
STEIERMARK
KÄRNTEN
BURGENLAND
WIEN
Regensburg
České Budějovice
Pohořelice
Znojmo
Mikulov
Gmünd
Vilshofen
Passau
Krems
Linz
Sankt Pölten
Wels
Steyr
Baden
Wiener Neustadt
Eisenstadt
Sopron
Raubling
Siegsdorf
Salzburg
Kufstein
Bregenz
Feldkirch
Eisenerz
Bruck
Bischofshofen
Innsbruck
Landeck
Graz
Körmend
Lienz
Bressanone
Villach
Klagenfurt
Maribor
Bolzano
Tarvisio
Munich
Danube
Inn
Isar
Thaya
Morava
Mur
Drava
Enns
Traun
Leitha
Neusiedler See
Bodensee
Bernolákovo
Bratislava
VIENNA
Base 503569 12-77


People with a VR account (mil)
120
100
80
60
40
20
0
2000
2010

Philippines
POLYCONIC PROJECTION
SCALE OF MILES
SCALE OF KILOMETERS
Capitals of Countries
Provincial Capitals
Provincial Boundaries
© Copyright HAMMOND INCORPORATED, Maplewood, N. J.
PACIFIC OCEAN
PHILIPPINE SEA
SOUTH CHINA SEA
SULU SEA
CELEBES SEA
PALAWAN PASSAGE
SIBUYAN SEA
MINDANAO SEA
Moro Gulf
Davao Gulf
Sulu Archipelago
LUZON
BATANES
BATAN IS.
BABUYAN IS.
Bashi Channel
Balintang Channel
Mindoro
Palawan
Negros
Samar
Mindanao
Sulu
Sandakan
MALAYSIA
SABAH
Darvel Bay
TAWI-TAWI
CALAMIAN GROUP
CUYO ISLANDS
ANTIQUE
CAPIZ
ILOILO
CAMOTES SEA
BOHOL
NORTHERN SAMAR
EASTERN SAMAR
SURIGAO DEL NORTE
SURIGAO DEL SUR
AGUSAN DEL SUR
DAVAO
ORIENTAL
ZAMBOANGA DEL NORTE
ZAMBOANGA DEL SUR
BUKIDNON
MAGUINDANAO
SOUTH DAVAO DEL SUR
COTABATO
SULTAN KUDARAT
Basilan I.
Samales Gr.
Pangutaran Group
Balabar I.
Balabar Str.
MANGSEE IS.
TURTLE IS.
Dumaran I.
Busuanga I.
Calion I.
Semirara Is.
Masbate
Tablas
Lubang Is.
Lamon Bay
Tayabas Bay
Manila
Lucena
Boac
Iloilo
Bacolod
Cebu
Dumaguete
Zamboanga
Davao
Cotabato
Jolo I.
Tapul Gr.
Laparan Is.
Cagayan Sulu I.
Pasitan Bay
Pasitan Pt.
Mambabenauhan
Balabac Str.
Longitude 122° East of Greenwich
N

Mabynn
Auctioneer Buckler
City of Ironforge
Browse Auctions
Name
Level Range
30 - 60
Rarity
Rare
Usable Items
Search
Filters
Weapon
Armor
Container
Consumable
Trade Goods
Projectile
Quiver
Recipe
Reagent
Miscellaneous
Rarity
Lvl
Time Left
Seller
Current Bid
Dark Phantom Cape 50 Long Milde 60 30
Lord Alexander's Battle Axe 51 Long Catinek 150 44
Heartseeking Crossbow 51 Very Long Leveret 100 41 Buyout 150
Warbear Woolies 52 Long Thyria 20
Ironfeather Breastplate 53 Very Long Thyria 5 54
Ironfeather Breastplate 53 Long Lurian 50
The Needler 55 Very Long Arrith 78 81 Buyout 150
Prev
Items 1 - 50 (92 total)
Next
33 62 48
Bid
Bid
Buyout
Close
Browse
Bids
Auctions
Haya
Darkaven
Cheeks
Dizzy
Avatarr
Tayla
Belkin
Erilon
Athrin
Finra
AFK>Jeanluke
Auctioneer Buckler
Jaser
Buster
<Finra's Pet>
[2. Trade] [Reyahna]: WTS [Tiny Black Whelpling] PST
[2. Trade] [Reyahna]: WTS [Large Radiant Shard] PST
[2. Trade] [Ivelthas]: WTS [Spider's Silk] for 35s!
[2. Trade] [Ivelthas]: WTS [Spider's Silk]x3 for 35s!
[4. LookingForGroup] [Kayla]: Anyone interested in heading to Uldaman?
[2. Trade] [Lyllah]: WTS [Mechanical Squirrel Box] FREE for 2 Malachite, [Deadly Blunderbuss] FREE for 3 Medium Leather, and [Practice Lock] FREE for 1 Bronze Bar


Rarity
Lvl
Time Left
Seller
Current Bid
Dark Phantom Cape
50
Long
Milde
60 30
Lord Alexander's Battle Axe
51
Long
Catinek
150 44
Heartseeking Crossbow
51
Very Long
Leveret
100 41
Buyout 150
Warbear Woolies
52
Long
Thyria
20
Ironfeather Breastplate
53
Very Long
Thyria
5 54
Ironfeather Breastplate
53
Long
Lurian
50
The Needler
55
Very Long
Arrith
78 81
Buyout 150
Prev
Items 1 - 50 (92 total)
Next

Back to list of items Listed in category: Video Games > Internet Games > Other

wow world of warcraft 1000 gold Any US Server !!!
only accept paypal verified and address verified

Item number: 8189132852

Seller of this item? Sign in for your status

Email to a friend | **Watch this item** in My eBay

Starting bid:	**US $129.44**
	Place Bid >
Buy It Now price:	**US $129.44**
	Buy It Now > (immediate payment required)
Time left:	**1 hour 6 mins** 1-day listing, Ends May-01-05 20:45:00 PDT
Start time:	Apr-30-05 20:45:00 PDT
History:	0 bids
Item location:	Shenzhen, GuangDong United States
Ships to:	United States
Shipping costs:	FREE - Other (see description) (within United States)

Shipping, payment details and return policy

Seller information

shangguang1 (10)
Feedback Score: 10
Positive Feedback: 100%
Member since Mar-18-05 in China
Read feedback comments
Add to Favorite Sellers

1 = 7

1 = 13

$19.50

External Economy

Gold for Dollars

€5 billion

Internal Economy

Gold for Armor

€100 billion

Base 802222 (R00125) 4-94

Why Become a Hero?

† Achievement: Advancement, Mechanics, Competition

† Social: Socializing, Relationships, Teamwork

† Immersion: Discovery, Role-playing, Customization, Escapism

† n.b. Only 5% are consciously “role-playing.”

Research

Imagine what we could discover if we had several large persistent societies, with parallel economic, social, and cultural institutions. Virtual worlds as field experiment locations for the academic social sciences. Cheap testing and replication as a way to reduce the dependence on pure ideology in policymaking.

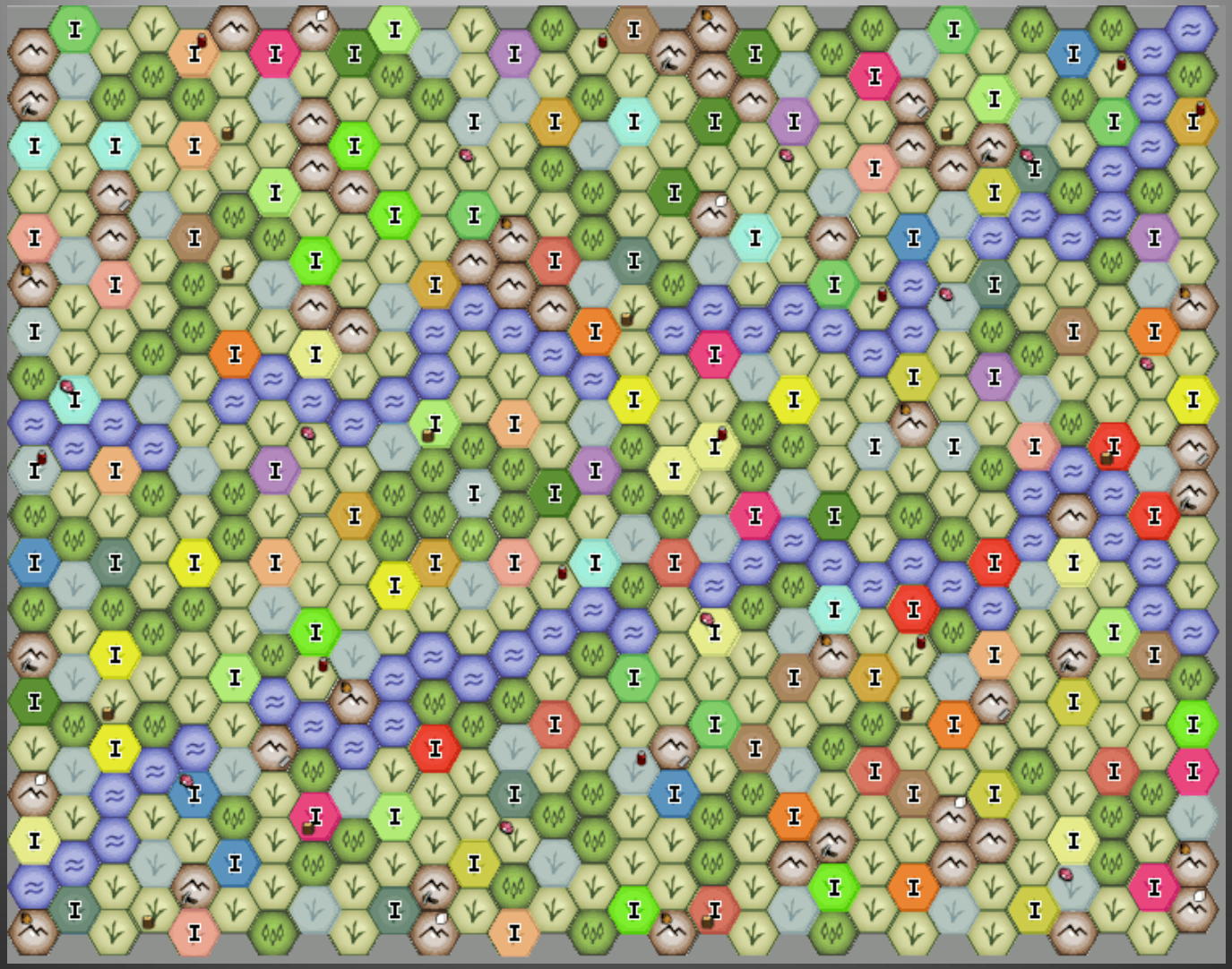
Pavel
Pavel damages Weak Skeleton: 6 (6 Physical)
Experience Points Gained: 16
Pavel killed Weak Skeleton
Weak Skeleton : Damage Immunity absorbs 4 point(s) of Physical
Talk:
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12

Arden

- † Immersive 3D Fantasy Game
- † Very Small World
- † Used File → Save As to copy
- † Potion of Cure Light Wounds
  - † World A: Price = 15 gold
  - † World B: Price = 30 gold
- † Per capita consumption 40% lower in World B

Greenland

- BBOG – Browser Based Online Game
- Strategic civilization-building
- Politics, markets, social groups
- Alpha test
  - c. 600 registrants
  - c. 100 persistent users
- A war game



Can virtual worlds be used to discover knowledge about the real world?

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People are people

Can virtual worlds be used to discover knowledge about the real world?

People are people

Good theories will cross boundaries

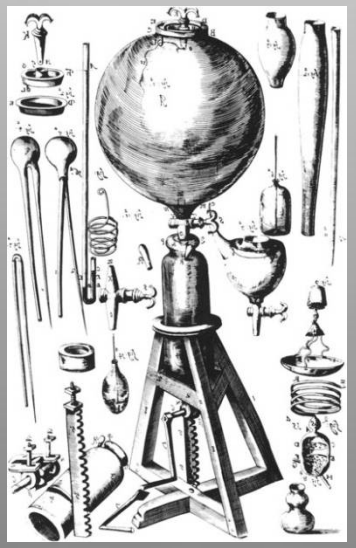
Can virtual worlds be used to discover knowledge about the real world?

People are people

Good theories will cross boundaries

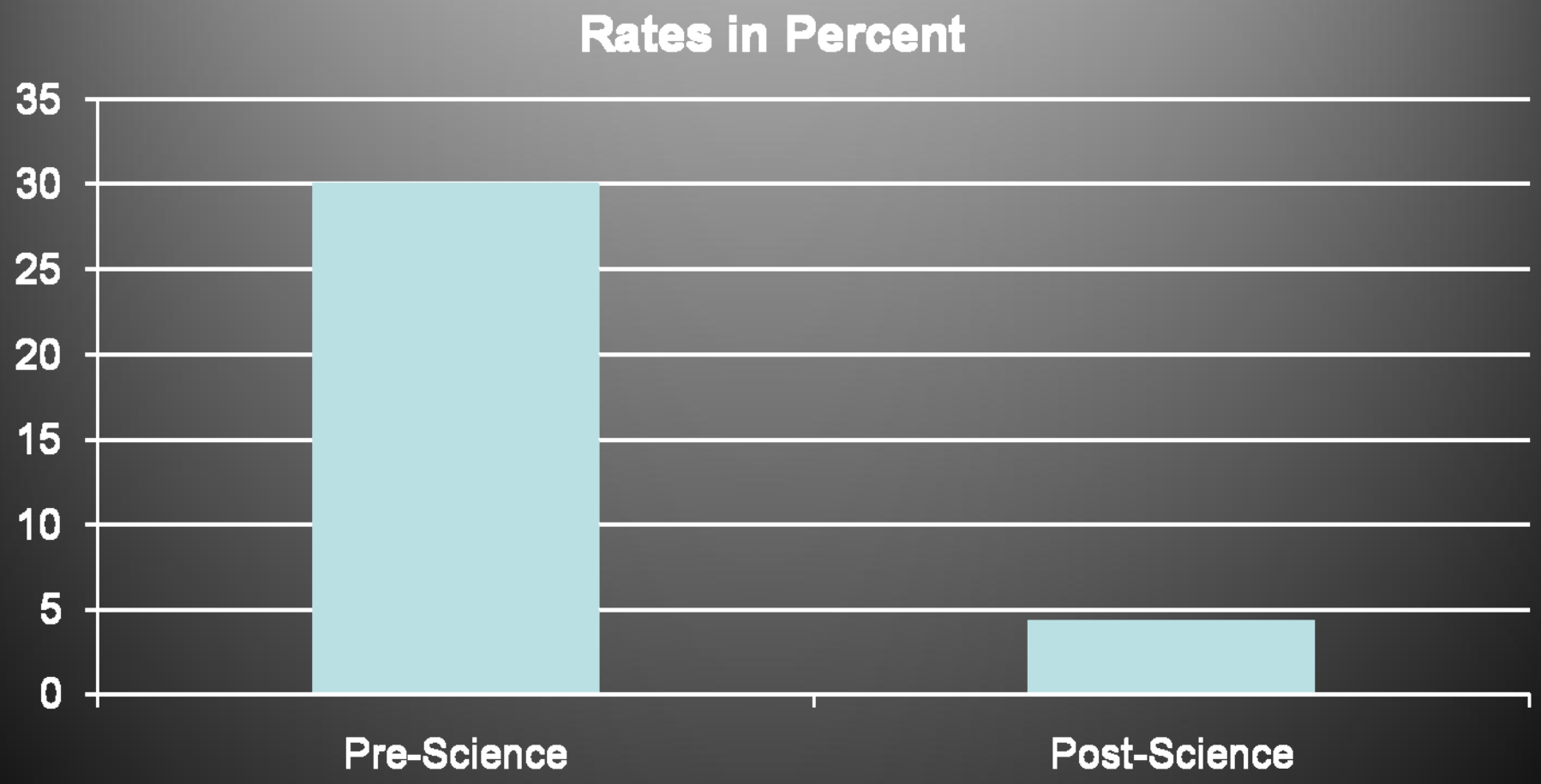
This is research, not simulation

Good research happens
when good questions
meet
proper tools



Why focus on research?

World Infant Mortality



We are losing babies today

We are losing babies today

not because of a poor understanding of the natural world

We are losing babies today

not because of a poor understanding of the natural world

but because of a poor understanding of the social world

ME-3/2/36
ME-3/2/35
ME-3/2/34
ME-3/2/33
ME-3/2/32

Small, cheap, repeated experiments

produce

shared understandings

Pitfalls

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CENTERS FOR DISEASE CONTROL AND PREVENTION

EPIDEMIOLOGY

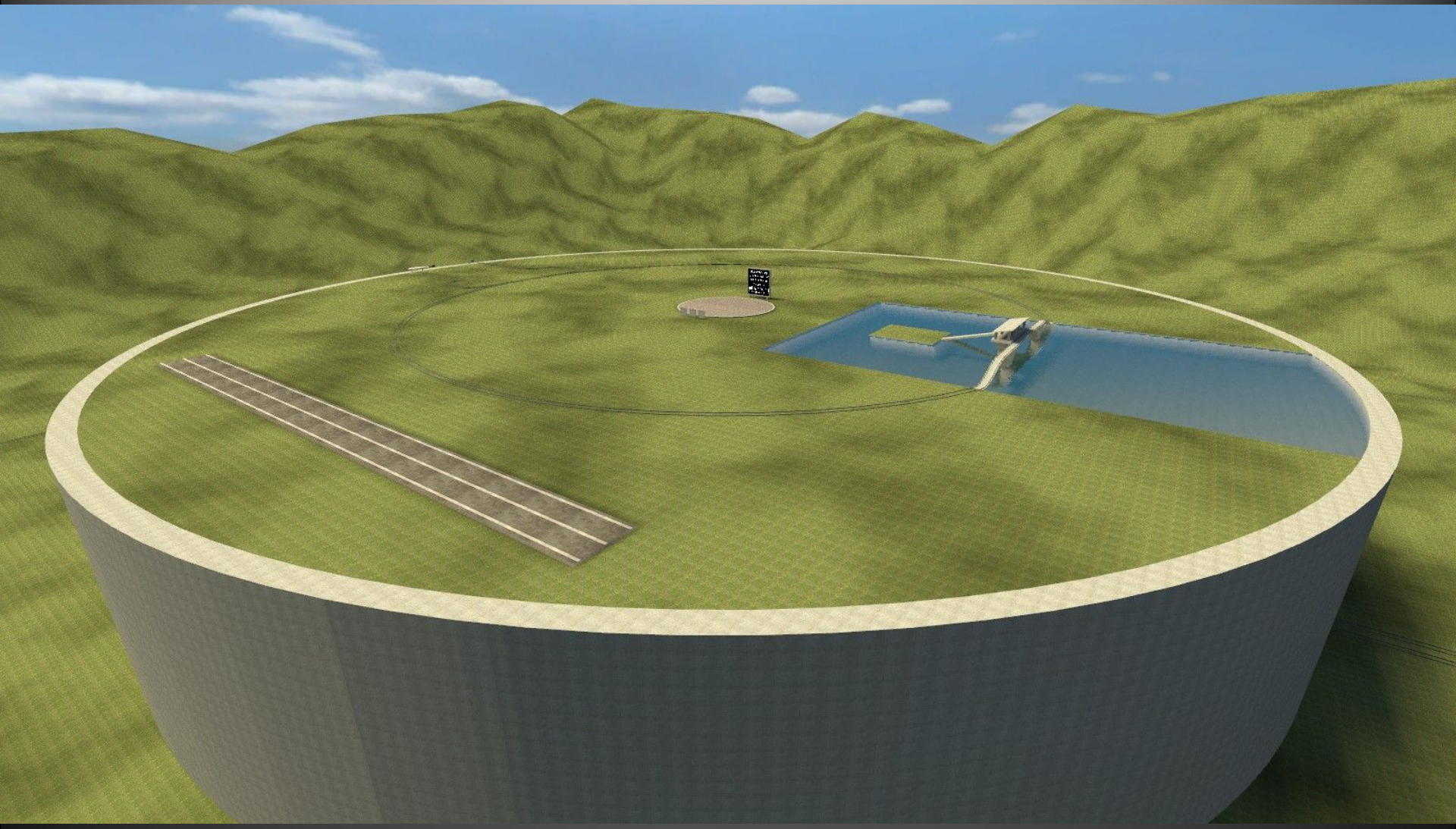
Hype

Too much vision

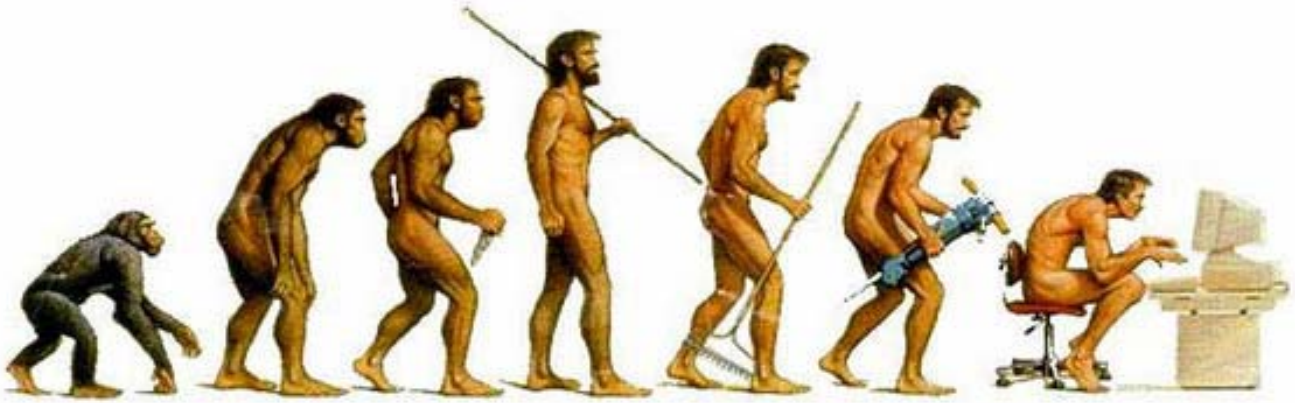
Too much agenda

Forget to game

Ignore the user



Ignore the social



Fail to adapt

Fail to test

Forget that software >> hardware

Too much reality

Not enough control

Ongoing Goals

To create small persistent societies

To seek out and develop VW middleware

To map behavior across the membrane