Not Your Father's Training Anymore

Jack Thorpe

4 March 2003

Key Points

- Who is today's learner? *Someone different*
- NDIA 2000 - *Consoles, PCs, Online*
- NDIA 2003 - New Gaming technology: *MPPWs*
  - Background
  - Attributes
- Example: *America's Army*
- References

- Recruiting
- Selection
- Basic Training, Acclimation, Socialization
- Systems Training
  - Weapons
  - Tech School)

- First Unit Assignment
- Team & Unit Training
- Practice
- Rehearsal
- Execution
- After Action Review
- Historical Documentation

Who’s the fighter pilot?

Doesn’t read the manual

Jumps right in - Fearless!

Expects the system to be designed intuitively

If it is not obvious, goodbye

When stuck:

- FAQ
- Online chat
- 24x7 reference
- Online, oncall mentors

Shares solutions with others

Opens own www site

Explores, experiments, pushes the limits, hacks the system

Discovers previously unknown capabilities

When motivated, will have a voracious appetite for more Information

Students who need to be trained?

OR

Autodidacts who are ready, willing, and able to teach themselves

Plays Games!

Games!

Games!

Games!

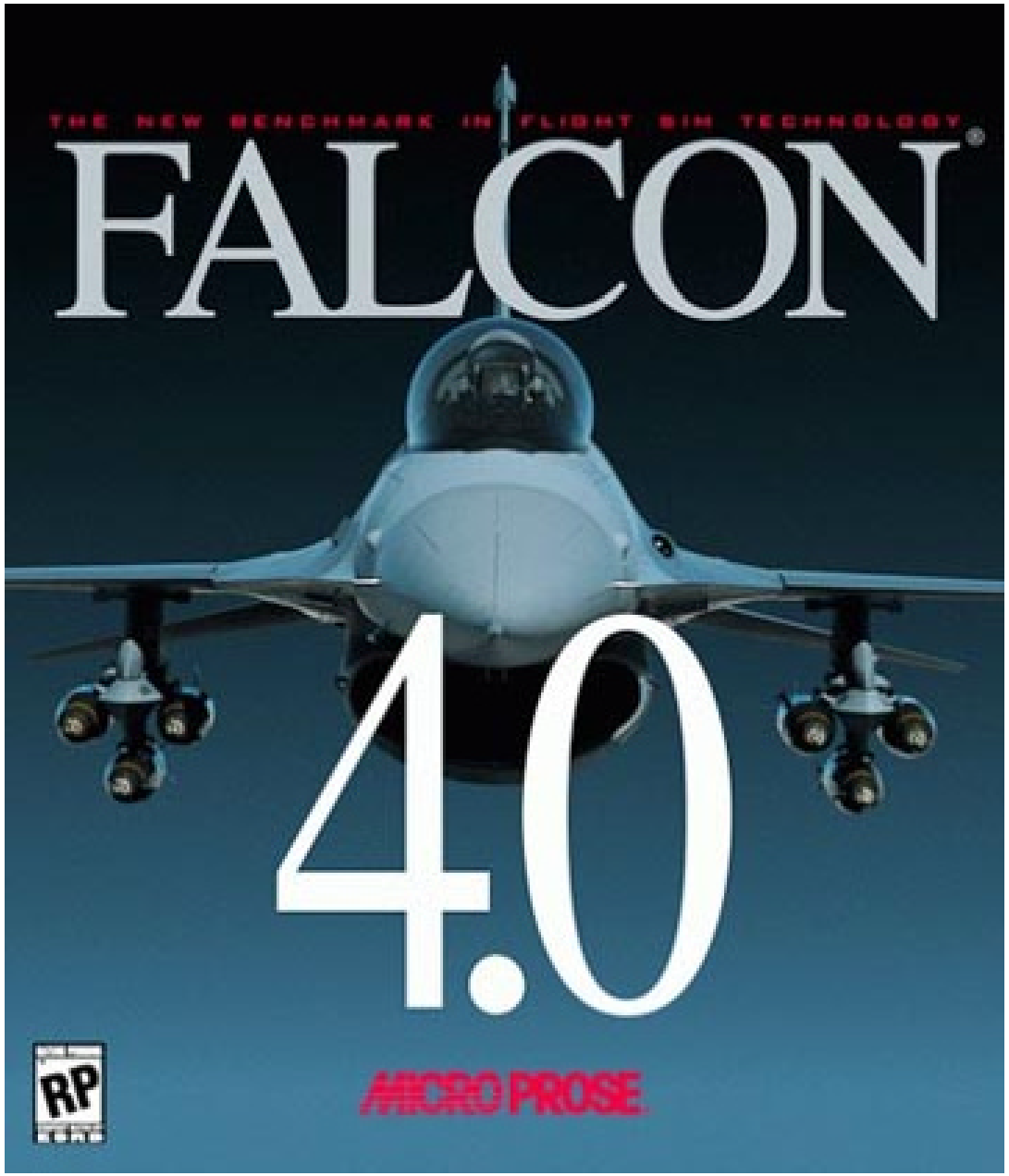
Games!

Games!

Games!

Games!

Games!



$49.95

Spin off from DARPA

The Mario Brothers Go To War (?)

Dr. Jack Thorpe

NDIA Presentation,
May 2000

Game Consoles (game stations)

PC-based Games

Internet Online Games

Internet Multi-Player Collaborative Games

Game Consoles (game stations)

PC-based Games

Internet Online Games

Internet Multi-Player Collaborative Games

Team Fortress II

Team Fortress II

Team Fortress II

Team Fortress II

Team Fortress II

Team Fortress II

Game Consoles (game stations)

PC-based Games

Internet Online Games

Internet Multi-Player Collaborative Games

Good News: WarBirds - Multiplayer

PC & Mac

B10 1
ORDNANCE
BOMB BAY DOORS
braker
1.5
AUTO
BRAKE
BEACON
21 24
CLIMB
FLYING FORTRESS
SLIP INDICATOR
MPH
OFF
100
IDLE
75 ENG
50
UP
FLAPS
DOWN

kapsyl
2
sarun
1 4
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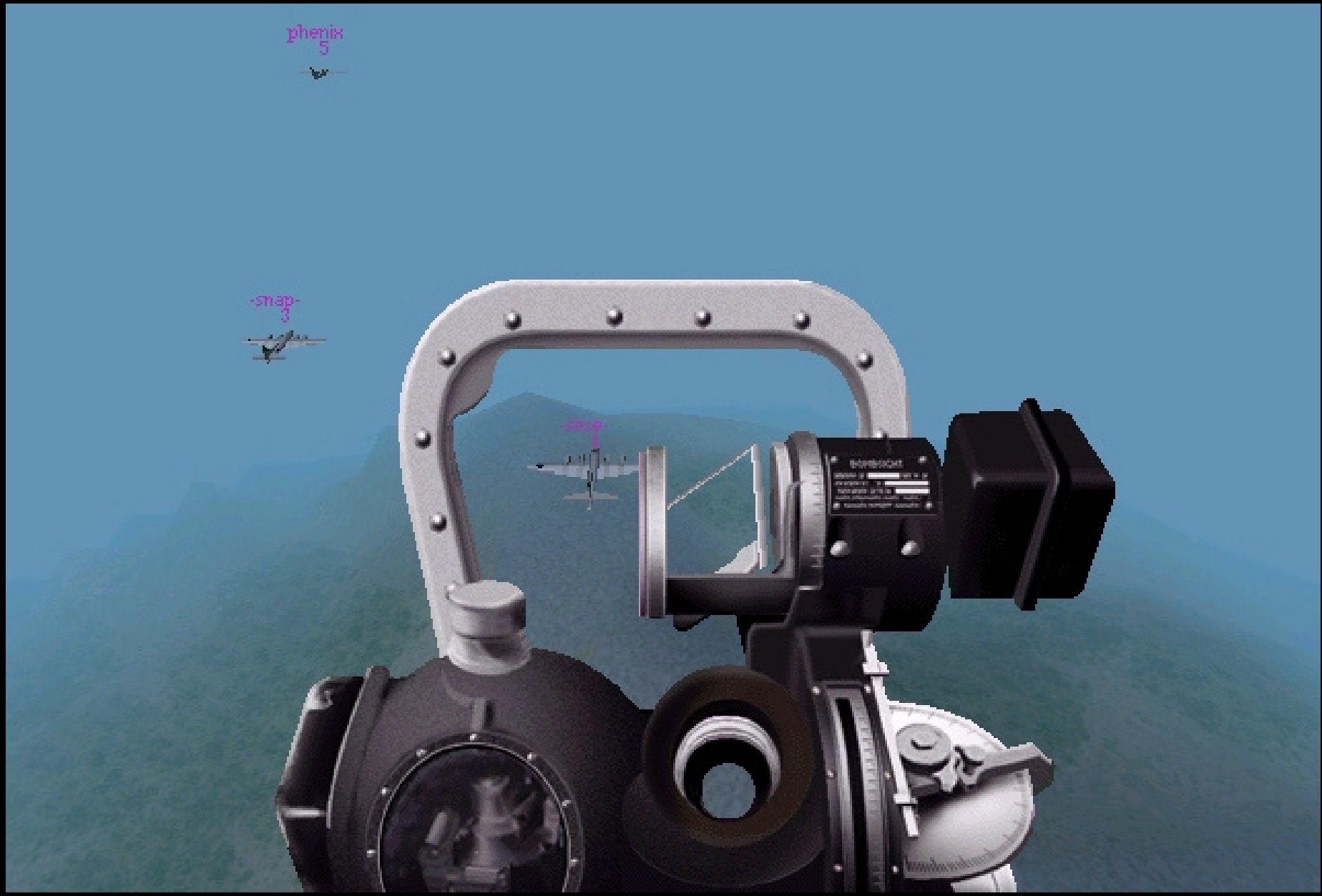
phenix
5
-snap-
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Game Consoles (game stations)

PC-based Games

Internet Online Games

Internet Multi-Player Collaborative Games

Internet Massively Multiplayer Persistent Worlds (MPPWs)

MPPW, aka

- Secondary World (Tolkien, 1939)
- Virtual Words
- Persistent worlds
- Persistent online worlds
- Persistent state worlds
- Massively Multi-Player persistent universe
- Massively Multi-Player Online Role Playing Games (MMORPG)

Massively Multi-Player Persistent Worlds (MPPW)

There is a place……

400,000 registered citizens

60,000 are there at any one time

Typical citizen is there 22 hours per week

1/3 spend more time there than at work

1/5 describe it as “their permanent place of residence”

The Economy

Its currency is traded on exchange markets for USD 0.0107

- - higher than the Yen and Lira

GNP per capita lies between Russia and Bulgaria

- - higher than China and India

It is the virtual world of Norrath within EverQuest (Sony Online)

Largest of 18 virtual worlds (40 more in development)

- - 2001 revenue estimated at $1B (Earth money)

~5,000,000 players subscribe to virtual worlds altogether

- - typically $10-15/month

Players believe and behave as if they have investment, value, and rights that transcend the vendor

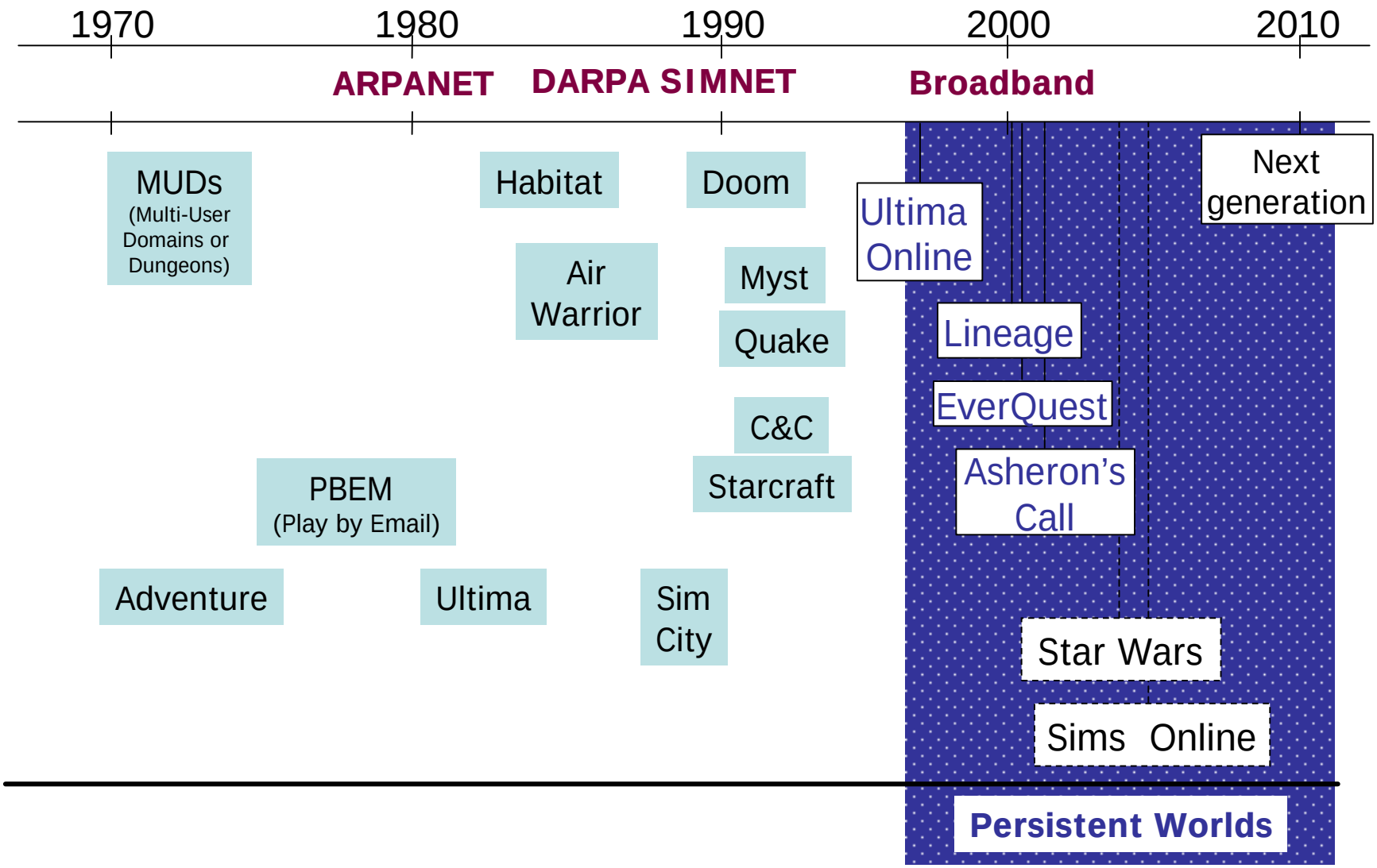
Enabling Technologies

Networking

Improved Processing
(better AI)

Separate Dedicated
Graphics Processor
=
More Processing
=
More AI

Persistent Worlds - A Relatively Recent Development



Attributes: Persistent Worlds

- Large numbers of players inhabiting a space or world simultaneously (100s - 1000s)

- The activities of the world continue even when an individual logs out
  - Grass continues to grow
  - Sheep continue to eat grass
  - Wolves continue to eat sheep

Attributes: Persistent Worlds

- Player is a character….these are Role Playing games
  - Character has functionality defined by attributes, abilities, skills, e.g. “Level 45 Warrior”
  - Character is persistent, too
- Generally, no victory conditions…. it’s about character development
- Gamers have a lexicon = like military operators
- 24x7 ops = like military operations
- In short, these worlds as have:

  - Interactivity
  - Physicality
  - Persistence

Some Current Worlds & Their Attributes

	Date/ Operator	~Subscription/ ~Hourly online	Noteworthy Features
Ultima Online	1997 Elect Arts	225,000 10,000	1st; political revolt within game (mass vomiting in the castle)
Everquest	1999 Sony	410,000 60,000	Must be social to thrive & survive
Asheron's Call	2000 Microsoft	100,000 ???	Encourages external economy
WW II Online	2001 Playnet	<100,000 100s	Player oriented (you are the soldier); historically based
Lineage	1999 NCsoft	3,000,000	Clan warfare; 2.5M Koreans

Behaviors - Internal
(within the persistent world)

DOS VPI

(Denial of Service Vomiting Protest Incident)

- Organized externally by guilds & game-focused discussion boards
- Action taken internally against the publisher using publisher's own tools

- Players planned ahead
  - Brought adequate brewing supplies
  - Coordinate arrival for maximum effect
  - Took actions that would do max harm to system (barfed)

Behaviors - External
(actions outside the game)

External Behavior - Team Formation

Over 41,664* player run organizations, or guilds, permeate the landscape of Ultima Online

* as of 4/13/02

External Behavior: Services for Sale on eBay

Item # 1335598934

Consumer Electronics:Video Games:Internet Games:Other

Currently	$14.99	First bid	$14.99
Quantity	1	# of bids	1 bid history
Time left	1 days, 8 hours +	Location	Luclin
		Country	USA
Started	Feb-25-02 16:00:10 PST	mail this auction to a friend	
Ends	Mar-07-02 16:00:10 PST	watch this item	

Seller (Rating) luckythedruid (756)

Seller's Store Lucky the Druid's Store | Visit my eBay Store!

view comments in seller's Feedback Profile | view seller's other auctions | ask seller a question

High bid jamez3365 (8)

Payment See item description for payment methods accepted

Shipping Seller ships internationally (worldwide). See item description for shipping charges.

l responsibility for listing this item. You should contact the seller to resolve any questions before bidding. Auction cu
e noted.

Description

BUY IT NOW at Lucky's eBay Store!

LUCKY THE DRUID'S Ultimate Guide to EverQuest Platinum

Hi there! I'm Lucky, a level 60 druid, and your guide!

I have been wandering Norrath from the very beginning. Now, I spend all of my time in Luclin, and I've put together quite the bag of tricks in my journeys there. I have compiled the **ultimate** guide to making platinum in EverQuest. **I know, I know,** you see these platinum guides *everywhere!* And guess what? I've bought and read

User's Guide

$14.99

External Behavior: Character for Sale on eBay

Everquest L59 Rogue w/ epic, 40 War Ayonae Ro

Item # 1337612418

Consumer Electronics:Video Games:PC Games:Games:Role Playing

Currently	$350.00	First bid	$350.00
Quantity	1	# of bids	0 bid history
Time left	6 days, 13 hours +	Location	Norrath
		Country/	USA/Sacramento

Started Mar-05-02 21:19:10 PS
Ends Mar-12-02 21:19:10 PS

Seller (Rating) brack_funk (13)
view comments in sell

High bid --

Payment Money Order/Cashier
Shipping Will ship to United St

Seller Services Revise item

Seller assumes all responsibility for listing this item.
Auction currency is U.S. dollars ($) unless other

I am selling a Level 59 Wood Elf Rogue on the Ay
stripped, but the Rogue has some nice equipment. I
boots. Some of his other equipment is Mithril Legs,
obulus mantle, mrlokar bracer, assassin sleeves, ass
beetle mask. He also has several hundred plat in the
questions. if you are successful in this bid, i prefer c
login/pass thanks and good luck!

External Behavior: Advanced Operations & C2

ddress: http://www.geocities.com/neferaza/raids.html

Apple Adobe Delta Google Yahoo! Live Home Page

Welcome to Neferti's Everquest

Hello and welcome to my Everquest raid page, I am the human enchanti
world of Norrath - Tallon Zek server, where we love to whack the less
good information about various zones on message boards like The Safel
tips from many people in guilds I was in and friends. Don't get lost, try t
map sites are EQAtlas and EQMaps.

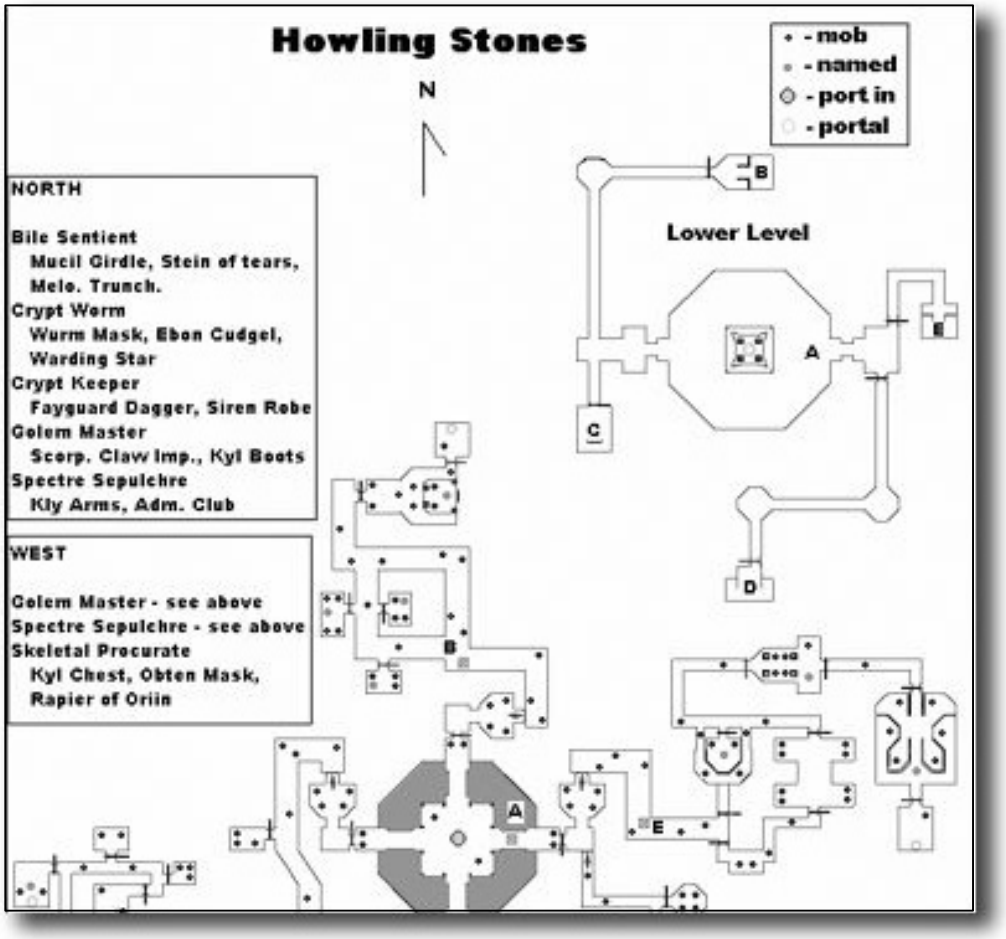
Raid notes.

By Neferti - Tallon Zek

If you cooperate well, have a good class balance and improve your tact
succesfully! So lets get right to the point!

Preparations before the raid

- Make level, class and resist requirements for a raid. For example
for some people due to being short on certain classes. You can a
- Do not take too many people with you, if you have enough of on
work in Starcraft but are no fun and take way too long to organis
can has become a form of art.
- Make sure everyone is on time for the raid and you are not missi
the guild motd and in guildspeak so they have plenty of chances t
day!
- Research the zone and the mob you are raiding very well. Some
complete heal, gate and such, let people know this so they can pr
every weakness and ability of the mob and every corner of the zo
wearing today.
- Buy your components beforehand and take your resist gear from
an empty stomach!



America’s Army

www.americasarmy.com

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SOLDIERS

Build and train your soldier as you experience the full range of basic training and military life. more >>

DEV TEAM INTEL

LATEST GAME UPDATES FROM THE DEV TEAM.
CLICK HERE

NEWS / PRESS

New AOT Support System
February 12, 2003
Due to a high demand from users who want to play America's Army: Operations combined with the higher system requirements of the advanced engine, traffic has been high in the Army's AOT Technical Support system.

New Advanced Operation's Servers
February 07, 2003
The Army recognizes that virtual Soldiering, like real Soldiering, is a result of training and skill.

Active Duty Soldiers - Show Your Pride!
February 05, 2003
For all of you in active military duty, you can now add veteran tags to your in-game name and have them show up on the score screen.

HOOAH to Homelan!
February 05, 2003
HomeLAN has just released a new web-based tool for account

EVENTS

S	M	T	W	R	F	S
						01
02	03	04	05	06	07	08
09	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

◄ MARCH ►

UPCOMING EVENTS

12.13.03	LAN PARTY
05.13.03	CONVENTION
11.15.03	LAN PARTY

see all events >>

AMERICA'S ARMY

SOLDIERS

SOLDIERS COMING SOON

Soldiers: An immersive role-playing sim. Build and train your soldier as you experience the full range of basic training and military life. Live the code of the Army: loyalty, duty, respect, selfless service, honor, integrity, and personal courage. The path to success is within grasp. Take it.

SCREENSHOTS

FEATURE

LANDING IN AFGANISTAN, A SOLDIER'S ACCOUNT.

DEV TEAM INTEL

LATEST GAME UPDATES FROM THE DEV TEAM.
CLICK HERE

America's Army has been rated "Teen (T)" by the Entertainment Software Ratings Board (ESRB) due to depictions of blood and scenes involving aggressive conflict. Titles rating "Teen (T)" have content that may be suitable for persons ages 13 and older.

Credits Legal & Privacy © America's Army 2002 The presence of logos, URLs or other information identifying private companies or other non-federal entities does not constitute an endorsement by the Department of the

AMERICA'S ARMY

DOWNLOAD THE FREE GAME

DEV TEAM INTEL

LATEST GAME UPDATES FROM THE DEV TEAM.
CLICK HERE

AFGANISTAN WEBLOG

The Army is always changing. So is the news—especially if it's happening with *America's Army*! This page will bring you up-to-date information on what's new with the game. It will also host Weblogs from a real Soldier and member of the *America's Army* game team stationed in Afghanistan!

CURRENT ENTRY

Enemy Contact

Bouncing along a dirt track in our HMMMVs (pronounced HummVee and standing for High Mobility Multi-purpose Medium Weight Vehicle), we were moving in daylight to a new position to continue our mission.

read more >>

PAST ENTRIES

Stories from Afghanistan

Written by a real Soldier and member of the America's Army game team, this Weblog chronicles Scorpion's deployment to Afghanistan in early August 2002 to assist in Operation Enduring Freedom (OEF).

Combat Patrol

read this entry >>

Return to Firebase

read this entry >>

Under Fire

read this entry >>

A Shooting Day

read this entry >>

Helo ride

read this entry >>

Firebase Arrival

PHOTO GALLERY

An amazing collage of images from a Soldier's mission in Afghanistan.

click to see photo gallery >>

VIDEO GALLERY

Video clips from Scorpion's deployment in Afghanistan.

click to see video gallery >>

AMERICA'S ARMY OPERATIONS

SOLDIERS
THE ROLE-PLAYING SIM
COMING SOON

DEV TEAM INTEL
LATEST GAME UPDATES FROM THE DEV TEAM.
CLICK HERE

AFGHANISTAN WEBLOG

Check out our hand-selected photos from Afghanistan.
Photo credits: Scorpion, Pugsley, Striperdog

PHOTO GALLERY

Page 1 | 2 | 3 | 4 | 5

TEEN T CONTENT RATED BY ESRB

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U.S.ARMY

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MAR.2.2003 - 23:54

AMERICA'S ARMY

OPERATIONS

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AFGHANISTAN WEBLOG

Check out our hand-selected photos from Afghanistan.

my.com | Parental Information

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TOP STORY

Active Duty Soldiers - Show Your Pride!

February 05, 2003 - by Triston

For all of you in active military duty, you can now add veteran tags to your in-game name and have them show up on the score screen.

read more >>

play America's Army:
equirements of the
rmy's AOT Technical

istan

and member of the
am, this Weblog chronicles
Afghanistan in early
Operation Enduring
Freedom (OEF). Be sure to check out the galleries of photos and videos shot while Scorpion was in Afghanistan.

view the weblog >>

Active Duty Soldiers - Show Your Pride!

February 05, 2003 - by Triston

For all of you in active military duty, you can now add veteran tags to your in-game name and have them show up on the score screen.

read more >>

HOOAH to Homelan!

February 05, 2003 - by Triston

Prima Games Q&A Session

Prima Games is responsible for publishing the Official America's Army Strategy Guide. David Laprad, a writer for the Adreneline Vault Web Site, took some time to talk to Michael Knight of Prima Games and learn more about the guide.

read the interview >>

DEV TEAM INTEL

LATEST GAME UPDATES FROM THE DEV TEAM.
CLICK HERE

COMMUNITY

Welcome to the Community Section, Soldier. Here you can use your R&R time to check out fan sites, the forum pages and other interesting links.

FORUM / IRC

Forum go >>
Read about the latest Army game topics.

Dev Team Intel go >>
Read the latest from the Dev Team.

IRC go >>
Chat with your friends about America's Army:
irc.homelan.com

Community chat:
#americasarmy

read the rules >>

FAN SITES LINKS

AAFiles go >>
Central repository for all AAO files.

AAOHQ go >>
All things AAO related.

Militarysim.com go >>
Comprehensive source for fans of military sims.

IntelRecon.com go >>
Tactics, etc.

AAO Dropzone go >>
AA:O news site.

Fan Site Kit download >>
Package of Graphics for Fan Site creation.

Link to America's Army go >>
HTML code that links to the America's Army site.

Get your site added to this list >>

RELATED LINKS

Go Army go >>

MOVES go >>
Game developers of *America's Army*.

NVIDIA go >>

GameSpy go >>

HomeLAN go >>

GoAmericasArmy.com go >>
Rent your own *America's Army* game server!

America's Army Development

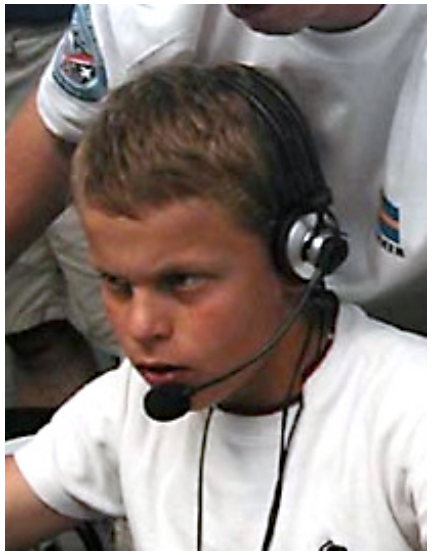
Sponsor: Recruiting Command
Overall Manager: USMA (Col Casey Wardynski)
Developer: Naval Post Graduate School (Mike Zyda)

- Recruiting
- Selection
- Basic Training, Acclimation, Socialization
- Systems Training
  - Weapons
  - Tech School)

- First Unit Assignment
- Team & Unit Training
- Practice
- Rehearsal
- Execution
- After Action Review
- Historical Documentation

THIS IS THE ENVIRONMENT OF OUR NEW LEARNER

In Summary

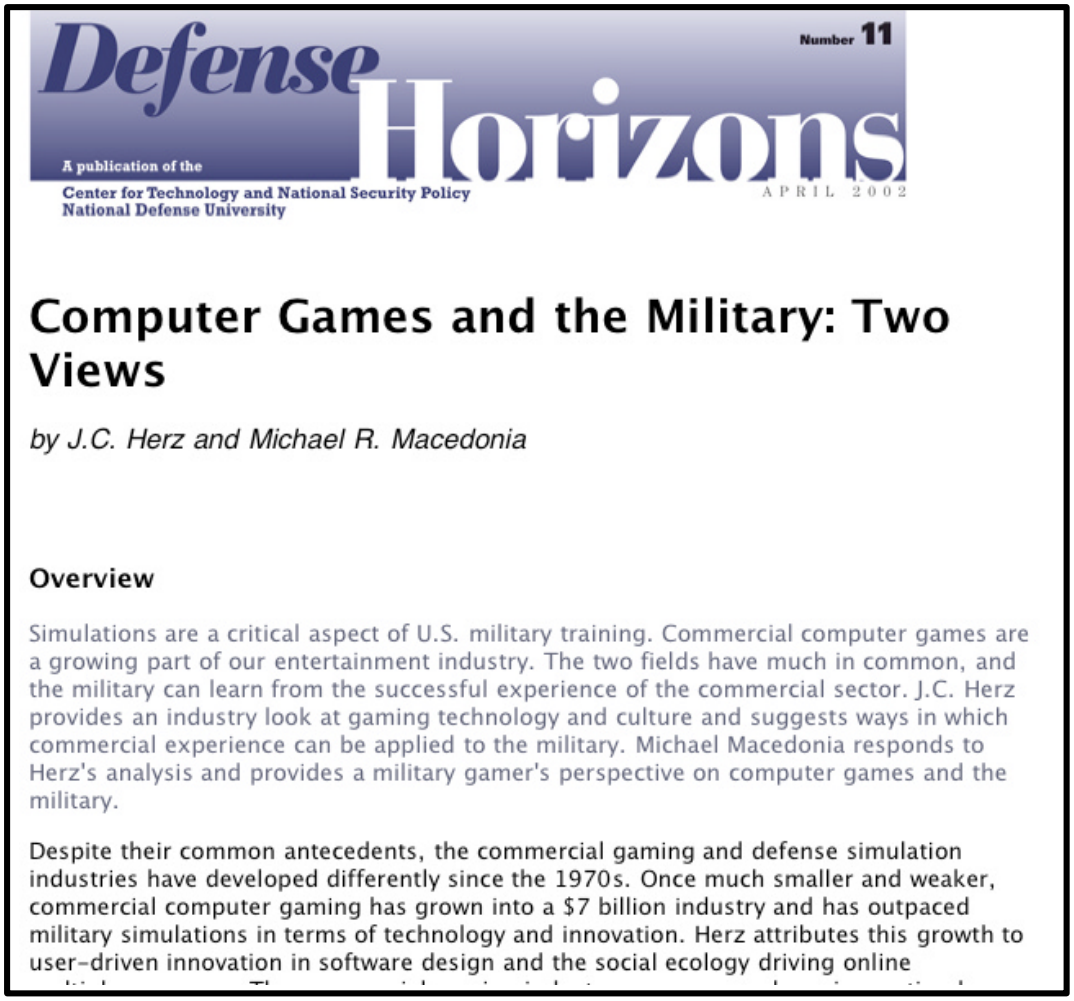


- Today's learner is different
- Sophisticated user of IT
- Plays games
  - Expects military systems to be like games
  - Does not see a difference
  - Expects systems to be easy to understand
- Game technology is very advanced
- Games and "real systems" are converging
  - Same information infrastructure
- Are we at Ender's Game?

REFERENCES

www.americasarmy.com

References (Con't)



Defense Horizons

Number 11

A publication of the
Center for Technology and National Security Policy
National Defense University

APRIL 2002

Computer Games and the Military: Two Views

by J.C. Herz and Michael R. Macedonia

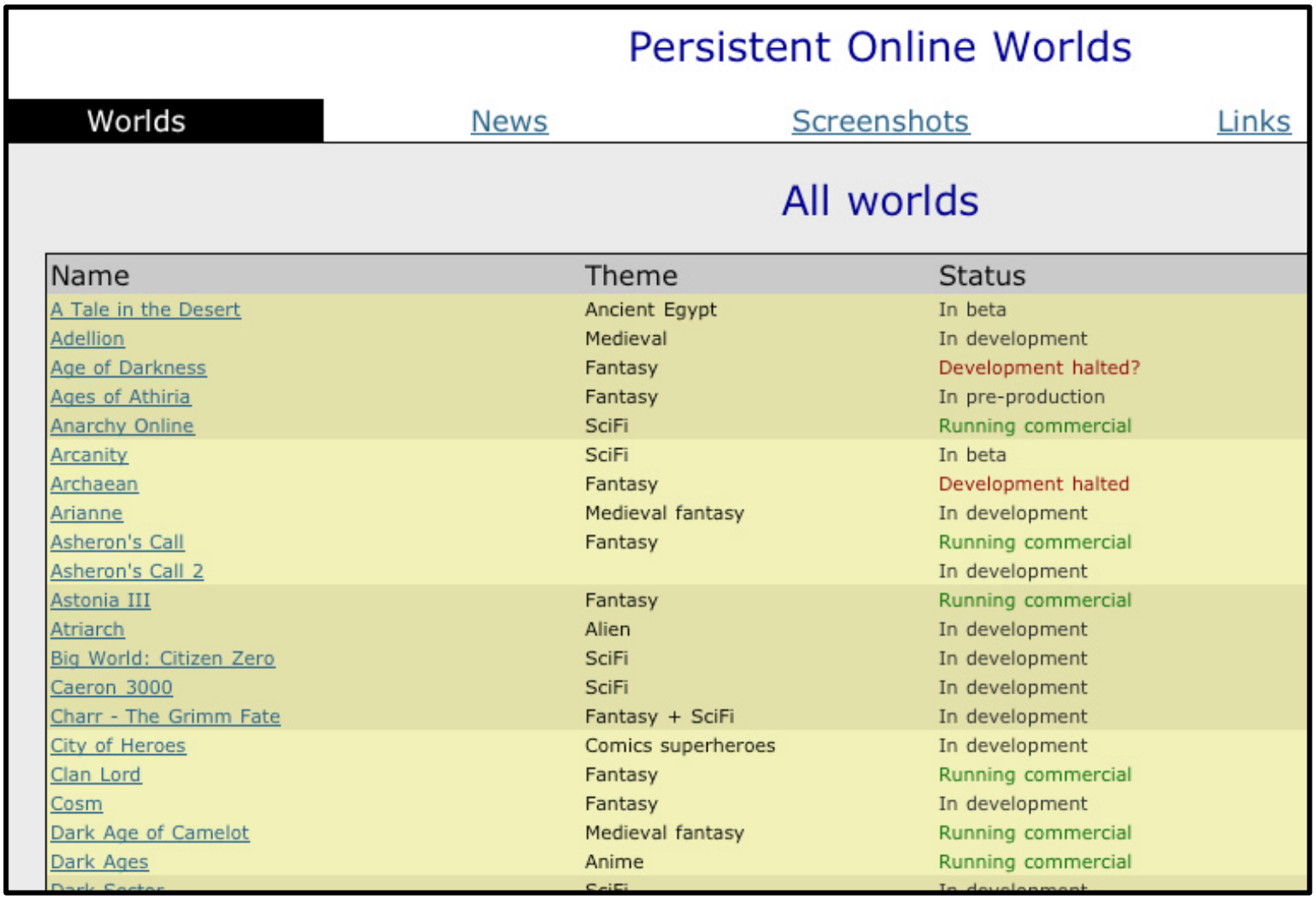
Overview

Simulations are a critical aspect of U.S. military training. Commercial computer games are a growing part of our entertainment industry. The two fields have much in common, and the military can learn from the successful experience of the commercial sector. J.C. Herz provides an industry look at gaming technology and culture and suggests ways in which commercial experience can be applied to the military. Michael Macedonia responds to Herz's analysis and provides a military gamer's perspective on computer games and the military.

Despite their common antecedents, the commercial gaming and defense simulation industries have developed differently since the 1970s. Once much smaller and weaker, commercial computer gaming has grown into a $7 billion industry and has outpaced military simulations in terms of technology and innovation. Herz attributes this growth to user-driven innovation in software design and the social ecology driving online

http://www.ndu.edu/inss/DefHor/DH11/DH11.htm

References (Con't)



Persistent Online Worlds

Worlds | News | Screenshots | Links

All worlds

Name	Theme	Status
A Tale in the Desert	Ancient Egypt	In beta
Adellion	Medieval	In development
Age of Darkness	Fantasy	Development halted?
Ages of Athiria	Fantasy	In pre-production
Anarchy Online	SciFi	Running commercial
Arcanity	SciFi	In beta
Archaean	Fantasy	Development halted
Arianne	Medieval fantasy	In development
Asheron's Call	Fantasy	Running commercial
Asheron's Call 2		In development
Astonia III	Fantasy	Running commercial
Atriarch	Alien	In development
Big World: Citizen Zero	SciFi	In development
Caeron 3000	SciFi	In development
Charr - The Grimm Fate	Fantasy + SciFi	In development
City of Heroes	Comics superheroes	In development
Clan Lord	Fantasy	Running commercial
Cosm	Fantasy	In development
Dark Age of Camelot	Medieval fantasy	Running commercial
Dark Ages	Anime	Running commercial
Dark Sector	SciFi	In development

http://hem.passagen.se/ulkis/onlineworlds/index.html

References (Con't)

Worlds | News | Screenshots | Links

Anarchy Online

Updated 2001-06-30

Click to enlarge

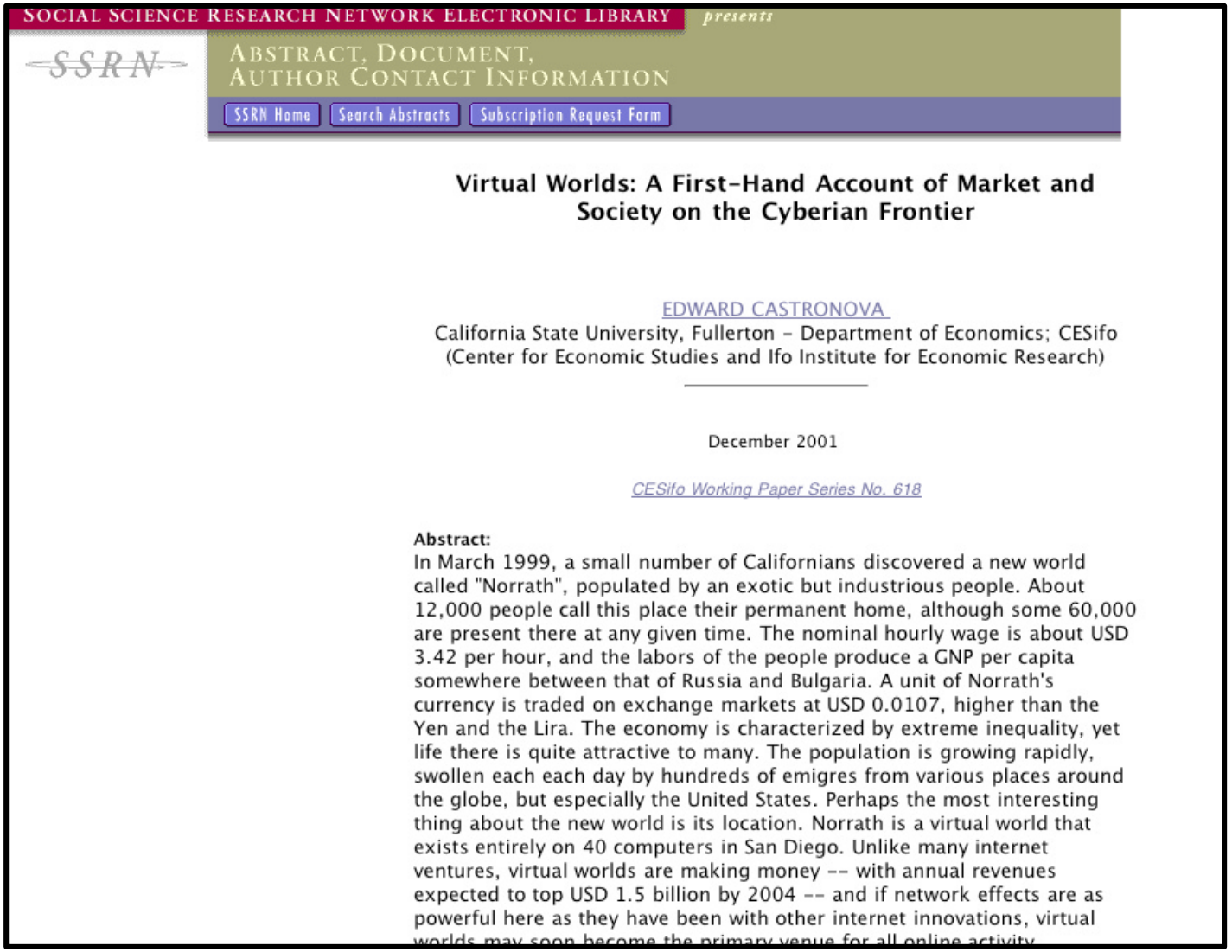
Description	Impressive Sciens Fiction world there thousands of people meet on the playing fields. The massive world contains futuristic cities Choose your own unique character and personalize it as you like. Use characters body language to express yourself. Each player demand due to a complex auto-generated content system - never before implemented in massively multi-player games.
Theme	SciFi
Graphics	3D
Platforms	Win9x, WinME, Win2k, Linux
Arrival	2001-06-27
Status	Running commercial
Cost	$49.95
Developer	Funcom
Publisher	Funcom
World URL	www.anarchy-online.com
Comment	Anarchy Online is the fourth of the really big scale MMORPG's to hit the commercial market, and the first one with a science fictio

See also

Anarchy Online Vault at ign.
AO Basher - lots of news, links and screen shots.
Preview at Daily Radar (March 2001).

http://hem.passagen.se/ulkis/onlineworlds/index.html

References (Con't)



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Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier

EDWARD CASTRONOVA
California State University, Fullerton - Department of Economics; CESifo (Center for Economic Studies and Ifo Institute for Economic Research)

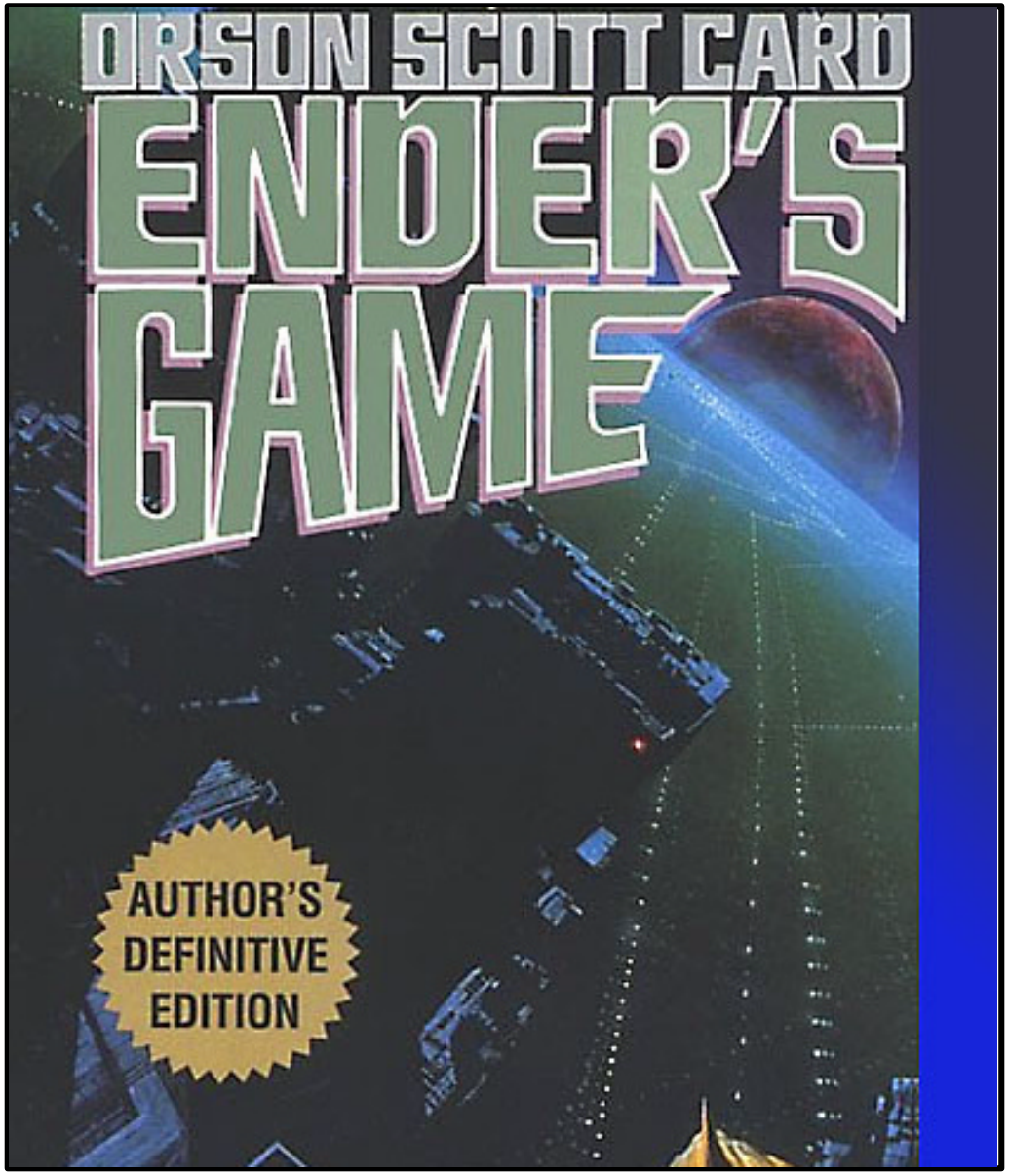
December 2001

CESifo Working Paper Series No. 618

Abstract:
In March 1999, a small number of Californians discovered a new world called "Norrath", populated by an exotic but industrious people. About 12,000 people call this place their permanent home, although some 60,000 are present there at any given time. The nominal hourly wage is about USD 3.42 per hour, and the labors of the people produce a GNP per capita somewhere between that of Russia and Bulgaria. A unit of Norrath's currency is traded on exchange markets at USD 0.0107, higher than the Yen and the Lira. The economy is characterized by extreme inequality, yet life there is quite attractive to many. The population is growing rapidly, swollen each each day by hundreds of emigres from various places around the globe, but especially the United States. Perhaps the most interesting thing about the new world is its location. Norrath is a virtual world that exists entirely on 40 computers in San Diego. Unlike many internet ventures, virtual worlds are making money -- with annual revenues expected to top USD 1.5 billion by 2004 -- and if network effects are as powerful here as they have been with other internet innovations, virtual worlds may soon become the primary venue for all online activity

http://papers.ssrn.com/abstract=294828

References (Con’t)



Q & A