

## Video Games

### *Introduction*

Who I am- Dan Vilter  
A Homeschooling Parent  
Entertainment Professional  
Techno geek- with lots of computers

### *What this session is about*

**The heart of Video Games**  
A look at possible thoughts and processes during play  
Confronting fears about video games  
A look at a few games

### *What this session is NOT about*

A search for "safe" games  
Determining how much time "on the computer" is healthy

## Video Games are Games

*Strategy and role playing games have been apart of our societies since we've had societies*

Chess  
Go  
Tag

*Video games are the games of the current media*

## Computer is an interactive medium

*People play –*

no civilization without it  
with a high level of emotion and fantasy  
Playing Catch-becoming sports hero  
involves high levels of stimulation  
We learn by doing-rat & human studies

*Progression of media*

Great great grand parents–Newspapers  
Great grand parents–Radio  
Parents and grand parents–TV  
Today computers are second nature

*Natural experience*

Kids use and understanding–nonreaders use  
Communication medium

*Environmental bias against it*

Biased towards what you grow up with  
Reading or even TV is much more acceptable  
"he is just a zombie in front of it"  
Parents are unsettled by kids becoming excited about the unknown

"Homing" instinct catches moving objects-TV in Bar

*It has become increasingly more transparent*

We have moved from the mechanics towards a more natural experience

Hunt the Wampus vs. Kung Fu Superstar-iToy:Play  
technology—uses a camera to capture movement that  
controls the game  
Terminal line commands vs. immersive PS II, Nintendo,  
or Xbox

*It is just so darn Flexible*

Can react to choice that a player makes  
Ability to adjust

Users set up the kind of game they want  
Programming learns a players style  
It can change at any moment like an ever  
changing Chess board that takes advantage of  
the players situation.  
Concept of Levels and redoing what has just  
been mastered

Is planned to be replayed

Matthew's first 360 Game finished in one day  
"It's very replayable"  
Black and White -Playing as good guy then as  
the baddest guy and understanding the  
differences.-developing the understanding of  
the gray world.

*Becoming a better play because of it  
Seeing the other guys point of view*

**It is a social activity on multiple levels (not necessarily  
face to face)**

*Players can play with 1,000 of others, the same game MMG  
Small groups, same game, Gaming parties  
Small groups, same game, through the internet  
Individual play of the same game as peers  
Players have the social reference of the gaming experience  
Interaction during play. A group dynamic.  
Communication during play  
Part of a social network  
Experiment with social interaction-in near anonymity  
What Works  
What Doesn't  
How to handle others*

**Music of Video Games**

*Identify with many non-pop music styles  
Philharmonic Concert of the music  
First live orchestra concert for many  
All age groups*

*Energy and audience feed back at unprecedented levels for classical music.*

## **What Users do while playing**

*Simultaneous thinking during game play (borrowed from "Your Brain on Video Games" by Steven Johnson [Discover 9/05])*

### **MANUAL INTERFACE**

To control the movements and actions of your on-screen character, you must memorize several dozen distinct button combinations on a video console handset or a PC keyboard.

*That's a far cry from the simple jump-or-shoot interfaces of primitive arcade-style games.*

### **CHARACTER VIEW**

As the game progresses, you take in a shifting landscape of information about the virtual world, such as the sudden appearance of enemies, visual cues that suggest the existence of a puzzle to be solved, and overlaid interface elements that track your character's health.

### **INTERNALIZED MAP**

Most games involve exploring vast worlds as you struggle to learn the rules. You must remember all the twists and turns you've made, or you'll get hopelessly lost.

### **BALANCING ACT**

Playing complex games involves juggling multiple objectives, choosing what to prioritize and what to defer. The goals affect decision making on other conceptual levels: which buttons to press, how you interact with other characters, and which areas you choose to explore.

### *Regime of competence*

**Simple tasks build in complexity –dependent on the aptitude of the player**

*New studies suggest that video games build rather than diminish cognitive skills*

**Tetris Players and Cerebral glucose levels in PET scans  
Novice players struggling to comprehend the game – high glucose consumption  
Month later after performance increase by a factor of 7 showed a decrease in consumption**

in much the same way a fit body uses less energy to get more work done than an unfit body

They push you to the edge of your abilities where you thrive. Not frustrated, not bored. On the edge.

The Tetris blocks speed up as you get better at manipulating them

## *Skills*

**Hand/eye coordination** Yes, but it's not the point in gaming

It is not even a factor in the most popular series of "Sims" games where the player is juggling the activities of many characters

But then again...

Laparoscopic surgeons who played games for more than three hours a week made 37 percent fewer errors than their non-gaming peers

**Visual perceptions tests of deaf subjects**

A lab assistant who was an avid Video gamer scored off the charts

*On dull test like find the color of the letter, how many objects.*

**In a study of White collar professionals, [John C Beck & Mitchell Wade: Got Game How the Gamer Generation Is Reshaping Business Forever]{Harvard Business School Press} 3 groups: frequent, occasional and non-gamers:**

The gaming population turned out to be consistently more social, more confident, and more comfortable solving problems creatively.

They also showed no evidence of reduced attention spans compared with non-gamers.

*They also showed an increased appetite for risk & unexpected leadership skills*

**In Games performance matters: they teach:**

*The star's role is to succeed*

*To be an expert*

*Failure is not the end of the world*

*Everything is possible*

*Trial and error is almost always best*

*Practice makes perfect*

*You can bond with those who share your experience- not necessarily your national or cultural background*

**Problem solving**

**Meaning**

**Probing**

Discovery  
Identity  
Culture  
Complex relations  
Active critical review  
Simulation  
Tactics

Deductive reasoning  
Logical evaluation  
Budgeting

## Violent Play

*The majority of video games on the best-seller list contain no more bloodshed than a game of Risk.*

*We are a violent species*

It has always permeated our societies

Homo sapiens have made war since the beginning. The latest theories speculate that the Neanderthals were driven to extinction by homo sapiens (us)

We would be the dominant species of the planet today without violence.

Gaming is a way we neutralize it.

There is a difference between Aggressive play and aggressive behavior

Without distinction the value of play is lost

*University of Texas study found no correlation subject matter and level of aggressiveness*

Truth about VG Article

Slides of Dept of Justice Statistics

Losing generated aggression

*There is no REAL aggression in video games*

Only digital enemies and victims

*Real violence and something else*

Grand Theft Auto stepped over a perceived line for many people when Cartoonish Animation Became realistic 3D animation

News footage vs representations

Almost all entertainment use elements of conflict and resolution to spin compelling storytelling experiences

Shakespearean tragedies

Catharsis

The three stooges- + Newer Reference

Bugs and Elmer

## Addiction

USC researchers [Peter Vorderer and René Weber] were looking at brain activity using an MRI during play of violent video games. Found them so entranced by the gaming that looked beyond the noise, confined space and discomfort that drove virtually all other subjects out of the machine.

Many studies show that VG playing triggers a release of the neurotransmitter dopamine

Dopamine plays a key role in exploration and reward

[Gregory Berns, a neuroscientist at Emory University School of Medicine] "The game world is teeming with objects that deliver clearly articulated rewards: more life, access to new levels, new equipment, new spells. Most of the crucial work in game interface design revolves around keeping players notified of potential rewards available to them and how much those rewards are needed."

Dopamine is also involved in the addictiveness of drugs. "The thing to remember about dopamine is that it's not at all the same thing as pleasure"

"Dopamine is not the reward; it's what lets you go out and explore in the first place. Without dopamine, you wouldn't be able to learn properly."

Study subjects didn't need to get out of the machine because the game stimulated the mind with dopamine to learn and explore  
**NOT BY SHORT CIRCUITING IT WITH EXTERNAL DRUGS.**

Extreme cases grab the headlines and water down or eliminate the distinction.

[Dr Margaret Shotton, author of Computer Addiction? {coined the phrase}] says that playing video games speed up your neural pathways and that it allows knowledge to travel around quicker, thus speeding up judgments and decisions

## Games to demo

**Puzzle**-360-Collumns-Matthew

-PC - Pinball-Rose

**Racing**-360 Burnout II-Rose

-PC -Track Mania-Matthew

**Adventure**-360-Camio-Rose

**Turn Based Strategy**-PC-Civilization IV-Matthew

**God Game**-PC-Sims II-Rose

**Role Playing**-360-Oblivain-Matthew

**1<sup>st</sup> Person Shooters**-PC-Call of Duty-Rose

-360-Perfect Dark Zero-Matthew

## Topics to cover while switching between games

It's an involved process that isn't easily stopped or started.

In the 6<sup>th</sup> inning "we have to go. turn it off."

*Game play reaches into life subjects. Information questions about:*

Specific WWII arms

What a Torrent is {P to P downloading protocol}

What Aloe Vera is – it was a healing herb in a game

### *Costs*

#### Hardware

New Gaming consoles cost \$200 to \$600

Last generation cost as little as \$40 (\$60 for a game cube)

New Computers \$700 to \$7,000

#### Games

New Popular Titles \$20 to \$60 Each

*Licensing fees help pay for the console*

Last generation cost as little as \$5

Older edutainment can cost as little as \$.01

+shipping Amazon/Ebay/half.com

#### Compare costs

Movie tickets- \$10 for 2 hours of entertainment for one person with very little social interaction.

### *Classic Edutainment titles*

Zoombinis

Thinkin' Things 1, 2, 3

Cosmic Osmo

Oregon Trail etc

I Spy

Spelunx and the Caves of Dr. Suedo

Living Book – Tortoise and the Hare etc

Reader Rabbit

Manhole

Sim City

Sim Ant

Sim Farm

Sim Tower

Sim Town

Sim Copter

KidPix