VR Lecture DEJ (21 Nov 08)

1. Paradigms:
	1. PC: Desktop
	2. Video Games: No coherent paradigm. Elements of many.
	3. VR: Needs a decent paradigm.
2. Video clips on VR hype, lousy video game
3. Current State: many elements of VR in use
	1. G-speak: video showing
		1. multiple projectors on wall
		2. hand gestures as commands
		3. Minority Report and other similar examples
4. VR and Sensory Input
	1. Sci Am cover: guy w long hair
	2. HMD was first: Utah using tracked input
	3. CAVE: YouTube video explaining it: CAVE – a Virtural Reality Theoater (1993)
		1. Stereo glasses provide overlaid data
		2. Scale is a significant aspect
	4. Hamster Ball immersive environment
	5. Sesics: high detail with small tiled images in hi res
	6. 3D image
		1. Fishbowl display:
		2. Layers in a display to give a 3D effect
	7. Touch req’s head tracking and realtime display
	8. Contact feedback: force feedback
		1. Haptic
		2. Tactile
	9. Use accelerometers to get speed, position, etc
	10. WIIRemote YouTube Display (Johnny Lee, CMU)
		1. *Head Tracking for Desktop V R Displays using the WiiRemote*
			1. Shows camera tracking via IR instead of head tracking
	11. Handtracking:
		1. Polhemus (Data Glove)
		2. Power Glove
		3. Devices are uncomfortable and tiring to use
		4. Body tracking in animation: motion capture
	12. Sound
		1. Vets are more sensitive to audio than video!
		2. Movies use sound in a very sophisticated way
	13. Sound: very effective
		1. Common effect in movies
	14. Smells
	15. Does not include air movement and temperature
	16. Does not include treadport