Third Floor Demos
320: (void?): A Cast of Characters (Bill Tomlinson et al.)
The setting is a diner occupied by three very different
autonomous animated characters, any of which a person may
“possess”.
320: Sydney K9.0 (Song-Yee Yoon et al.)
Building virtual canines whose behavior, including learning, rivals that of their real world counterparts. In connection with
this project we will also be demonstrating specific technologies
including synthetic vision, synthetic olfaction, and acoustic
pattern recognition and prosody tracking.
344: Could this be the world’s smallest video projector?
(Christopher Mclntyre)
You need a microscope to see it. It’s not yet totally
operational, but come have a look at the hardware.
344: Vision Television (Stefan Aguamarcollis et al.)
A TV set that watches you watching it. Face-finding cameras
let us link together people watching the same program, or
make programs that respond to viewer actions and identities.
344: Laser Gun Television (Dean Christakos)
Browse multicast networked TV by pointing a gun at a target
indicating the program, and then at the display.
344: Content-based Video Retrieval (Nuno Vasconcelos
and Shyam Krishnamurthy)
This is a retrieval system based on visual content or
“objects/characters” in a video clip.
344: Expressive Footwear (Joe Paradiso et al.)
Streaming 16 pieces of sensor information (positional, inertial,
tactile) at 50 Hz from each of a dancer’s or athlete’s feet to a
computer that can extract features for interactive music,
performance analysis, or training/therapy.
344: LaserWho (Joe Paradiso et al.)
Generating power for a wearable computer system through
walking in a pair of piezoelectric shoes.
344: LaserWho (Joe Paradiso et al.)
A compact, inexpensive laser ranging device that turns a large
projection wall into a touchscreen for bare hands.
344: Design and Application of Compact Inertial
Measurement Units (Art Benbassat)
This project explores the use of inertial, or rotation and
acceleration sensing, devices in human-computer interfaces.
368: Wearable Cinema (Flavio Sparacino)
We navigate real space — a museum, a city — using
wearable computing and 3D browsing. In the current “cinema
version an interactive video is synchronized with the physical
path of the wearer in a museum space.

Fourth Floor Demos
401: Internet Music Production (Nyssim Lefford)
Systems for geographically unrestricted, music collaboration
and audio recording. We are exploring new outlets for creating
musical content.
401: Digital Watermarking of Audio Signals (Ricardo A.
Garcia)
An algorithm for embedding a digital watermark into an audio
signal. It uses spread spectrum to generate the watermark and
a psychoacoustic auditory model to make it transparent.
401: Audio Spotlight (F. Joseph Pompeii)
The Audio Spotlight produces a narrow beam of sound which
behaves much as a beam of light; directing it at a person
allows only them to hear it, while projecting it at a distant
surface causes the sound to appear to originate at the point of
reflection.
420: Viewer Tracked Auto-Stereo Display (Steven Smith)
Based upon a micro polarizer backed LCD, the Head Tracked
Auto-Stereo Display renders real time updated stereo views of
a virtual museum. Future research is extending the tracked
number of viewers to 3, enlarging the viewzone and the
display.
427: Agent Stories (Barbara Barry)
Agent Stories enables writers to construct annotated multi-
threaded narratives. The story annotations can be used by
teller agents to construct a spectrum of story structures.
427: StoryBeads (Barbara Barry and Dan McGuire)
StoryBeads are an interactive story-telling wearable.
The beads, which together form a network wearable, host mobile
images, and code to encourage collection and trading of images in storytelling games.

Lower Level Demos
001: Image Maps (Erik Blankenship)
Everyday photographs tell where you have been and what you
have seen. We are creating cameras and software that show
you what was there before you were.
001: Miniswarm (Jeana Frost & Jonah Peretti)
A vision for a new kind of activity-based, augmented
educational television show that integrates digital
video/computational construction kits, and on-line interaction.
001: Speech Editor (Tara Rosenberger Shankar)
Speech Editor is a tool to help you record ideas and organize
them into a QuickTime movie without writing a word.
001: The Parent Trap (Tamara Lackner)
Enhancing children’s television by facilitating parent-child
coviewing and discourse around educational television content.
001: Narrative Navigation (Hedi Geltman)
Narrative Navigation allows viewers to indicate meaningful
moments in a television experience. The goal is to understand
how emotions are aroused during viewing and to provide tools
for producers to take advantage of these moments.

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