UC Berkeley, Jacobs Institute for Design Innovation, 2024 Cohort

Emerging Technologies Map

Input **Affordances Ubiquitous Sensing:** Sensors: - Visible Spectrum - Handles - Levers - LIDAR, RADAR - Orientation - Keys - Satellite Multi-band - 3D Image Scanning - Joysticks - Acceleration - Mouse Pointers - 3D Video Scanning - Toilet-sensors - Humidity - Pens - Touch Pad - Chemical Sensing - Microphone - Pulse oximeter - Blood Glucose - Motion (Steps) - Brian Waves - GPS (Location) Throughput **Digital Twins:** AI: ML, DL, CV, NLP GenAI: LLMs Internet: Data Storage: **Comparators:** IoT Devices - Text Recognition - Float Valve - Solid-state Drives Data Lakes, - Fly-ball Governor - Text-to-image Voice Recogntion Predictive Modeling, Cloud Computing - Face Recognition - Text-to-video Live Feeds - Thermostat Low code; no code - Text-to-2D objects - Al Gadgets - Text-to-3D objects Hypertext 2.0 - Text-to-Proteins - Text-to-Voice **Comms Protocols** Image-to-text **Game Engines:** Voice-to-text e.g., Unreal, Unity - Bluetooth - Text-to-code LED Walls - BLE (Low-energy) 3D Avatars - UWB (Ultra-wideband) - 5G **Ubiquitous Computing: VR**: AR, MR, XR Wearables: Intelligent Agents **Actuators:** - Glasses - Transparent Screens - Chat Bots - Headsets - Magnet Vector Databases - Flexible Screens OLED Wallpaper - Gloves - RAG - Speakers - micrOLED (ultra high-res) - Digital Personas - Variable Refresh Rates - Projectors - Holograms **Spatial Audio:** - Selective Noise Canceling - DAW (Digital Audio Workstation)

Technologies Augment Human Senses, Intellect, and Muscles

