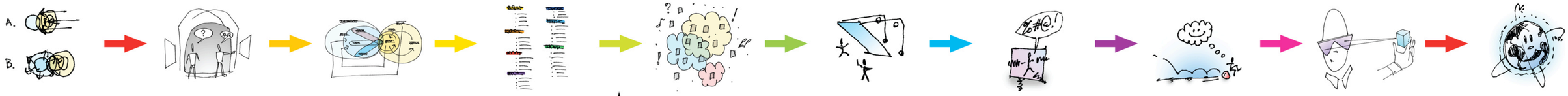
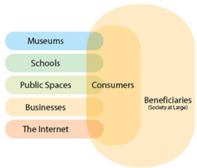
Design Strategy Overview: *The Ultimate Aesthetic Experience*

Knowledge of Existing
Perceptual Robotic Systems

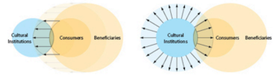
Contextualize → Intuit → Strategize → Inspire → Visualize → Realize → Evaluate → Refine → Implement → Experience



The many institutions that distribute cultural heritage include museums, schools, libraries, etc. Some percentage of society consumes this knowledge, but all members benefit.



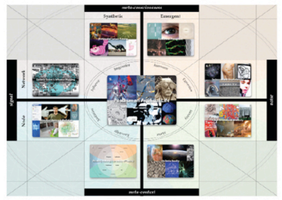
I propose two ways to promote cultural growth through the use of technology:



A) Help consumers overcome impediments to cultural access

B) Encourage creativity

Each of the nine trend areas identified in the previous phase has been researched and expanded in depth (publication forthcoming). An overview of relationships between aspects of *The Technocultural Condition* is provided in **Image 3**. This conceptual framework has been plotted according to two principal axes of engagement with technoculture: *simulation* (vertical axis) and *stimulation* (horizontal axis).



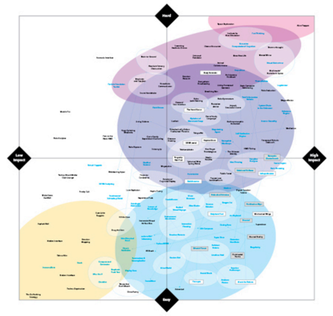
High level findings from each trend area include the following:

i) There is much in the universe that we do not understand.
ii) We transcend our bodies through awareness of becoming them.
iii) Our virtual "mask" is always on.
iv) We inhabit a social marketplace of ideas.
v) We are liberated by technology to fight against it.
vi) We are thrilled with ourselves.
vii) Our imaginations become us.
viii) Shock is beautiful.
ix) We will soon be superintelligent robotic cyborg zombies. (Or extinct).

Concepts have been generated on the basis of the opportunity areas from the previous phase.

For example,
"How perceptual robotic technology could be used to Speak with aliens?"
→ Brainstorm of 100 Ideas → 5-10 Refined Concepts

So far this process has resulted in over 250 concepts. Each concepts has been sketched, scanned, and stored in a database system that allows them to be ranked, tagged, and filtered. 2-dimensional output of this system is shown in **Image 4.**



We are here.

Enabling cultural change means creating interest in culture, which requires understanding the interests of culture. Culture is an idea market.

What fascinates us?
What do we enjoy doing?
What are people talking about?

For three weeks in early 2008 I took extensive notes (on sticky-notes) everywhere I went. These notes focused on the following areas:

- Interesting concepts and discussion topics
- Seminars and activities pertaining to perceptual robotics
- Personal fascinations, brainstorms, streams of thought
- Advertisements, films, movies, magazines, online experiences, etc.
- Repeated conversations with professors, colleagues and friends
- Observations of things that people like myself seem to enjoy doing

These notes were placed, unorganized, on boards something like this:

Next, the notes were synthesized into "clusters" based on similarity. Nine clusters of trends were identified:

These nine groups of trends represent a cross-section of what I have called "The Technocultural Condition." They represent opportunity areas for the design of Innovative Perceptual Robotic Systems.

For each of the identified trends, specific areas of opportunity have been identified that would satisfy it. For example, in the case of *Multimodal Fantasy Futures*, the following questions were identified:

How could perceptual robotic technologies be used to...

- Probe Experiential Narrative Fictions
- Design for the Kids of Tomorrow
- Incubate Fantasy
- Create Surreal, Transcendant, Breathtaking Experiences

A second round of synthesis grouped these 52 key questions into clusters indicating seven major areas of action:

How could perceptual robotic technologies be used to...

i) Explore the outer limits
Speak with aliens
Believe in mysteries
Conjure new forms of life
Create surreal, transcendent, breathtaking experiences
Design new kinds of emotions
Revel at the complex beauty of nature
Evoke compassion for the artificial and natural world
Fall in love

ii) Engineer the perception of change
Innovate
Mediate change
Advance creative change
Embody brand experience
Engage in the commerce of beauty
Make money
Design human intuition (universal heuristics)
Perform cheap, illicit, technoart interventions
Shock the system

iii) Investigate consciousness
Confuse and elude the senses
Unchain expectations from perceptions
Deprive the senses
Experience mindfulness
Heighten embodied awareness
Map awareness
Distill the essence of being

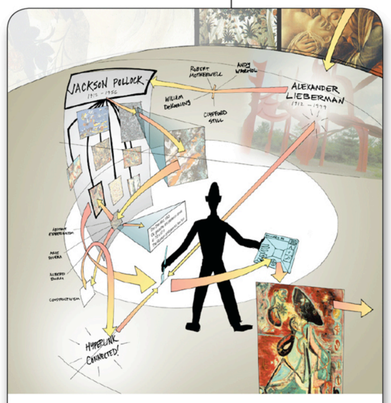
iv) Make meaning
Map systems of influence
Open the source
Raise and challenge roboethical questions, beliefs and concerns
Investigate symbologies, archetypes, languages and signs
Be useless
Incubate fantasy
Touch the heart

v) Pioneer multimodal interactivity paradigms
Allow user-identity extension (and play)
Orchestrate drama
Force evocative multimodal juxtapositions
Probe experiential narrative fictions
Exploit visceral reality
Seamlessly interact with the virtual
Question conventional cyber-etiquette
Provoke, excite, stimulate and arouse

vi) Save the world
Do good
Fight for a cause
Stop global warming
Spread wellness
Empower others
Enable emotional choices
Express individual and cultural identity
Design for the kids of tomorrow

vii) Be bad*
Kill eachother
Expand our ego
Eliminate the soul
Extinguish humanity
Do evil

**The intent of this category is to explore and understand the ethical issues involved with the design and development of new multimodal experiences, not necessarily to develop them (unless they so extremely dangerous that not developing them first would be dangerous).*



Favorite concepts are expanded. Physical concepts are prototyped quickly, and virtual concepts are drawn into storyboards. The most promising virtual concepts are programmed directly in XVR and tested in an immersive display system.

As new ideas are integrated into the immersive multimodal experience system they are evaluated by a small group of test users who provide feedback such that the design may be improved.

Robotic art is an iterative cycle. Physical prototypes fail and are re-built. Virtual prototypes add to the robot's expanding base of knowledge such that the system will provide a more optimal experience.

When a deadline arrives by which a system must be integrated, working physical prototypes are frozen and software is written to unify the remaining virtual features established to date.