

Free Agent Nation: The Game, The Prototype, and The Space

Prologue

There will be **two projects** to focus on and to serve as gateways into this debate. Both will be prompts for deeper research and broader discussion about 2 main subjects, smart technology becoming our 4th skin and automation creating new business models, shifts in the traditional supply chains, and re-structuring of the workforce itself. The first profound shift in our way of life and the first disruption in the human workforce occurred 10,000 years ago. The Agrarian Revolution, made possible by domestication of plants and animals, disrupted hunters and gatherers. Food production increased and populations grew enabling larger human settlements and eventually urbanization and the rise of cities.

The music industry did not see Napster coming.

The hotel industry did not see Air BnB coming.

The taxi companies did not see Uber coming.

The automobile industry was slow in seeing and accepting electric and driverless cars and...

We Architects and Designers do not see the disruptive forces of automation coming.



Project 1 Free Agents The Game: Design for Competition and Collaboration

Premise

Once simply a source of entertainment, games are quickly being recognized as valuable simulators for everything from teambuilding and management skills, to projecting future scenarios or missions.

In the new Free Agent Nation [Pink 2003] the traditional office has given way to the WeWorks and the SPACES of the world to such an extent that even major organizations such as Apple and Facebook have designed their campuses to mimic the workspace of free agents and failed miserably.

This semester we will ask the question "What is the workplace of the future?"

Provocations

What if a game could be used as a tool to prototype future models?

What if going to work allowed you to tap into a group intelligence?

What if there was a space that acted like the internet?

What if information could be used as currency?

Problem / Project one: Design the Game (5 Weeks)

- The first step will be to design the game board, pieces and rules for play.
- You will all work together to design 1 game. It is up to you to determine the best process to achieve this. Elect a leader, vote on changes, employ an agile system.
- Generally, the gameboard will be 4 sided with a path moving around the outside of the board.
- This path will be broken up into an even number of stops (monopoly) where individual skill cards can be purchased for information tokens.
- Each player will move around the board 4 times:
 - The First Industrial Revolution used water and steam power to mechanize production
 - The Second Industrial Revolution used electric power to create mass production
 - The Third Industrial Revolution is using electronics and information technology to automate production
 - The Fourth Industrial Revolution is characterized by a fusion of technologies (AI, VR, etc) that is blurring the lines between the physical, digital, and biological spheres
- Skills may also be traded to other players or sold back to the bank for a transaction fee.
- Once a player has acquired the necessary skills he/she earns a character card to act as his/her avatar moving around the board (clue). We will need to determine the rules for what character is associated with what skills.
- These characters can be used to add / remove / rearrange game pieces in the center of the board (mouse trap, rampage, lego, etc).
- These pieces represent scaled components of architectural space such as furniture and walls but also additional elements such as climbing walls, holodecks, low gravity zones, etc.
- At the end of each turn the player must present and defend his/her actions to the group. Once a consensus is made a note of the new configuration and the reasoning is entered into the game log and it is the next persons turn.
- What do you win? How do you win?

This game is for serious play everyday.

This game is window into wonderland

This game is a tutor and teacher and mentor

This game is a supercomputer

This game is a hyper-connected

To design this game you will have to tap into the intelligence and experience of an adult and the innocence and imagination of a child. You will learn firsthand about the Beginner's Mind, seeing as if for the first time, without expectation.

"In the beginner's mind there are many possibilities, but in the expert's there are few."

This simple sentence, spoken by the Zen Priest Suzuki Roshi, cuts through the pervasive tendency of our expectations filtering out the possibility of recapturing the open qualities of a child's mind, to experience life in a way that is unburdened by the past and by previous knowledge. How might life be different if we approached it without preconceptions or prejudice, without knowing anything at all. Every interaction with the physical world would be as it once was before our minds were forced into routines and habits unencumbered by assumptions, discovering and inventing worlds within worlds from moment to moment. Experiencing many things for the first time, approaching everything with interest and curiosity. Every day would bring learning and surprises, after all evolution made us the ultimate learning organisms, individually and collectively, fueled by curiosity and a sense of adventure. Listening with all our senses and learning about and from the outer world we apprehend our evolutionary imperatives.

Play and Learning

Play is the basis for informal learning.

Play is one of the brain's best forms of exercise.

Play is vital for problem solving and creativity.

Play is vital to the development of social relationships, at any age.

Play opens the brain to new ideas via exploration and risk-taking.

Play brings joy.

Play is about the inner sources of spontaneous creation.

Play is about why we create and what we learn when we do.

Play is improvisational activity.

Play is improvisation.

Play brings joy.

Play is vital for problem solving and creativity.

Play, at any age is vital to the development of social relationships.

Play is one of the brain's best forms of exercise.

Play is, first and foremost, an expression of freedom.

Play and Speculation

In a world where the only constant is change and its scale is reaching thresholds beyond comprehension, we become aware of the increased interest in improvisation across a wide variety of disciplines. The basis for making decisions in an unpredictable world is our core principles and placing premium on spontaneity, inventiveness, and creativity. Improvisation is as fundamental to play as play is to learning.

Play and Learning

Our society tends to dismiss **play** for adults, perceiving it as unproductive. The notion is that once we reach adulthood, it's time to get serious. And between personal and professional responsibilities, there's no time to **play**. Quite the opposite is true, **play** is very serious and essential to our wellbeing. We must continue to exercise and grow our imagination, and to do so, as we get older, we need to **play**, by suspending disbelief, opening our mind, and believing once again that anything imaginable is possible.

Many animals play but mainly to practice basic survival skills. Generally, humans have the longest period of protected play, that begins in early childhood and extends until the rites of passage in our early teens, approximately 10 years. Children play to develop imagination, creating hypothetical scenarios to test and learn. During childhood we build the brain wiring to explore. Play is sometimes contrasted with work and characterized as a type of activity, which is essentially unimportant, trivial and lacking in any serious purpose.

A New Story : a knowledge web of many collected stories

We are beginning the next phase of the human enterprise, **the fourth industrial revolution**. This will be a significant shift over time requiring a cooperative alignment of friends and strangers working with common sense of purpose and not only in the worst of times. The problem we face trying to achieve this aspirational alignment is, **we are without a common story. It's all a question of story**. The old story gave us guidance or rules, depending on your independence of mind, in reflecting on the 3 big existential questions, how did the world come to be and how did we fit into it. The answers informed by our former **stories** are no long effective. Our traditional story of the universe sustained us for a long period of time. They were written before we understood the concepts presented to us in Powers of Ten, before we knew of worlds within worlds and only of worlds beyond. The stories were written before the Fathers went into the desert to ponder the meaning of it all, had discovered the quantum universe where there is no predictable metric and uncertainty is a control point not a variable. Indeed, we need a new story so we can answer the questions of our children.

21st C Workers in a Gig Economy

Creative Sectors, arguably, provide the City with its greatest competitive advantage.

Creative Industries, Science, Technology, Engineering, Arts, and Media (STEAM) have been the fastest growing segments of the 21st C economy over the last decade, outpacing traditional economic drivers. The creative workforce and the culture they create, are what attracts others to the city.

A thriving creative workforce is a key feature of nearly every successful modern city. To grow a long-term Creative Culture with resilience, we will focus our architectural minds on the unstoppable trend in the labor force, self-employed creative workers and independent contractors choosing to be inventors rather than employees.

To put our current status in context, we are in the early stages of our centennial shifts that seem to reach full

strength in the 3rd quarter of each century, thus 50 more years of disruption. We will need to learn how to surf and creatively mine the disruption.

The First Industrial Revolution used water and steam power to mechanize production.

The Second Industrial Revolution used electric power to create mass production.

The Third Industrial Revolution is using electronics and information technology to automate production.

The Fourth Industrial Revolution is, building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres.

18th c	energy	- steam	mechanize production
19th c	light	- electricity	mass production
20th c	time	- electronics	automate production
21th c	memory	- artificial intelligence	fusion of physical, digital, biological spheres

The Avant-Garde of the 21st Century is mashing together art, science, and technology into one hybridized domain. What is the 'Architectural equivalent of this?'

20th C worker – obsolete



21st C communal work



The Fourth Industrial Revolution – a term coined by the World Economic Forum and a book by Klaus Strauss, Economist and Founder of WEF, refers to our current era that is characterized by a fusion of technologies blurring the lines between the **physical (matter), digital (light), and biological sphere**. Technological advancements have reached a point where they have enormous impact on political, economic, social systems, and cultural systems. We are at an inflection point and stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before.

We do not yet know how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive. To succeed, a cooperative collective enterprise is fundamental.

Cooperation is biological necessity and an evolutionary imperative.

These definitions are about the same thing, people working together to solve epic problems but specifically they have subtle yet critical differences.

Trans-disciplinary Research is defined as research efforts conducted by investigators from different disciplines working jointly to create new conceptual, theoretical, methodological, and translational innovations that integrate and move beyond discipline-specific approaches to address a common problem.

Interdisciplinary Research is any study or group of studies undertaken by scholars from two or more distinct scientific disciplines. The research is based upon a conceptual model that links or integrates theoretical frameworks from those disciplines, uses study design and methodology that is not limited to any one field, and

requires the use of perspectives and skills of the involved disciplines throughout multiple phases of the research process.¹

Cross-sector Research is embedded in today's research culture with increasing importance being placed on the value of research to society.

Within interdisciplinary and cross-sector projects, team members may hold distinct views on the types of impact they want to create. Set in the context of an interdisciplinary, cross-sector project comprising of partners from academia, industry and the non-profit sector.

Drivers of Social, Cultural, Economic Shifts

Toys – enchanted

Merging of physical, digital, and biological

Scientific discoveries

Environment (ecology, resilience)

Unity of Knowledge (consilience)

Biotechnology (health, wellness, and longevity)

Bio-science

Neuro-science

Energy - renewables

Communications – analogue and digital

Cooperative Technology (simultaneous non-local collaborations)

Artificial Intelligence

Mixed Realities – AR and VR

Mobility and Transportation

Data analysis (big data visualization and mining)

Governance (poly-centric, multi-leveled, or distributed networks)

Note: Multi-level governance with many interacting authority structures at work.

Assignments

Every class session we will meet as a group to express our thoughts.

Everyone, with your unique ideas must participate.

A. Reading and Research

1. Read the complete syllabus and make a list of questions.
2. Research is mandatory
3. Reading List (Available on Audible):
 - a. Stealing Fire (Report Due 1/22/18)
 - b. Free Agent Nation (Report Due Monday 1/15)
 - c. The Shift
 - d. Ready Player One
 - e. Heiroglyph
 - f. The Fourth Industrial Revolution
4. Games to research/play:
 - a. Terror in Meeple City (Board & Piece Design /3D)
 - b. Jurisdiction (Process & Board Design)
 - c. Dungeons & Dragons (Rule Design)
5. Key Terms to Define:
 - a. what is nomadic
 - b. what is communal working
 - c. what is cross sector collaborations
 - d. what is communal living
 - e. what is the Gig economy
 - f. what is the creative workforce

- g. what is an independent contractor
- h. what industries already have this structure in place

B. Personal History: Your Map of Contemporary Practice (Due Friday 1.12)

1. Pick your favorite style – approach to architecture and urban design
bring examples beginning Monday.
 2. list 2 architects whose style and approach you find compelling at the moment.
 3. Know it in context, its lineage, its philosophy – thought structures and how it is conceived.
4. What music do you listen to?
- Why?
 - Why?
 - Why?

Total Deliverables (Project 1) – All drawn to scale to fit on 24" x 36" Landscape prints

Required:

1. Complete Ready to Play Game
 - a. Rule Book
 - b. Game Board
 - c. Game Pieces
1. Game Log of 11 prototypical designs (one for each member) drawn in detail
 - a. Plans
 - b. Sections
 - c. Axos
2. Storyboards of 6 (per player) activities portrayed through the eyes of your avatar.
3. Timeline of Work
4. Timeline of Play
5. Timeline of Technology
6. Architecture in Free Agent Nation: Report (Due 1/15/18)
7. Programming for Productivity: Report (due 1/22/18)

Schedule

Fri 1.12	✓	Syllabus Read Personal History Complete Key Terms Defined
Mon 1.15		MLK Day
Wed 1.17	✓	Initial Board Design Report: Architecture in Free Agent Nation (Free Agent Nation) Due Timeline of Work due (based on Free Agent Nation)
Fri 1.19	✓	Game Piece library / list created & mocked up (See Addendum 1) Timeline of Play (history of serious gaming)
Mon 1.22	✓	Timeline of technology due (based on The Fourth Industrial Revolution)
Wed 1.24	✓	Report: Programming for Productivity (Stealing Fire) Due Initial Rule Book Created
Fri 1.26	✓	Initial dry run of game play
Mon 1.29	✓	Final Board Design
Wed 1.31	✓	Final Rule Book Design
Fri 2.2		Work Day
Mon 2.5	✓	All Game pieces modeled and printed
Wed 2.7	✓	Initial Game Log Complete (scenarios, designs, sketches)
Fri 2.9		Work Day
Mon 2.12	✓	Project 1 Final Review

2. Complete Ready to Play Game
 - a. Rule Book
 - b. Game Board

- c. Game Pieces
- 8. Game Log of 15 prototypical designs (one for each member) drawn in detail
 - a. Plans
 - b. Sections
 - c. Axes
- 9. Storyboards of 6 (per player) activities portrayed through the eyes of your avatar.
- 10. Timeline of Work
- 11. Timeline of Play
- 12. Timeline of Technology
- 13. Architecture in Free Agent Nation: Report (Due 1/17/18)
- 14. Programming for Productivity: Report (due 1/24/18)

Number of ✓'s: _____

Here is an outline for all the game pieces we will need to name, model and print. I've begun to fill it out for you but please complete it, discuss it with your peers and begin to model the pieces out.

Game Elements:

Activity: The action people are doing that you need to brainstorm supporting components and space for ie. Rock climbing requires something to climb (passive), gear to climb with (passive & active), a room large enough for the activity with a lot of light, and a soft floor or crash pad.

Active Component: A feature, appliance, or thing that adds to the experience of the activity in an active way often through electronic or mechanical intervention such as a computer, a wind tunnel, or stove.

Passive Component: A feature, prop, or thing that adds to the experience of the activity in a passive way such as a desk, table or bed.

Active Space: An interior or exterior space, enclosed or open, that provides a location for a specific or collection of activities through active participation in the activity often using electrical or mechanical systems such as a CAVE, Motion Capture Studio, or Kitchen.

Passive Space: An interior or exterior space, enclosed or open, that provides a location for a specific or collection of activities through passive participation in the activity such as a library, garden, or yoga studio.

Work

- Activity
 - Recording
 - Making
 - Modeling
 - Cooking
 - Drafting
 - Writing
 - Calculating
 - Compositing
 - Meeting
 - Brainstorming
 - Presenting
 - Producing
 - Acting
 - Programming
 - Building
 - Fixing
 - Reading
 - Predicting
 - Analyzing
 - Studying
 - Traveling
 - Networking
 - Competing
- Component
 - Active
 - 3D Printer
 - Laser Cutter
 - Vicon System
 - CAVE
 - Workstation

- Projector
 - Refrigerator
 - Stove
 - Camera
 - Microphone
 -
 - Passive
 - Books
 - Whiteboard
 - Desk
 - Sitting Desk
 - Standing Desk
 - Office Chair
 - Table
 - Dining Chair
 - Shelving
- Space
 - Active
 - Motion Capture Studio
 - Digital Fabrication Lab
 - Kitchen
 - Passive
 - Library
 - Conference Room
 - Quiet Pod
 - Phone Booth
 - Meeting Room
 - Streaming Room

Play

- Activity
 - Climbing
 - Gaming (Virtual)
 - Gaming (Physical)
 - Skydiving
 - Creating
 - Exploring
 - Flying
 - Driving
 - Piloting
 - Destroying
 - Performing
 - Traveling
 - Swimming
- Component
 - Active
 - Holodeck
 - Wind Tunnel (See iFly Indoor Skydiving Centers)
 - Computer Station
 - Pool
 - Piano
 - TV
 - Console

- Passive
 - Rock climbing Wall
 - Race Track
 - Course Gate
 - Billiards Table
 - Ping Pong Table
 - Foosball Table
 - Couche
 - Chair
 - Desk
- Space
 - Active
 - R/C & Drone Course
 -
 - Passive
 - Music Studios
 - Drone Course
 - Field (soccer, baseball, etc)
 - Court (Basketball, tennis, etc)

Heal

- Activity (What the person/people are doing)
 - Practicing (Yoga, Tai Chi)
 - Meditating
 - Sleeping
 - Eating
 - Drinking
 - Exercising
 - Socializing
 - Walking
 - Swimming
 - Breathing
 - Massaging
 - Gardening
- Component (Feature, Thing, Prop)
 - Active
 - Sensory Deprivation Tank
 - Treadmill
 - Pool
 - Stove
 - Refrigerator
 -
 - Passive
 - Massage Table
 - Yoga Mat
 - Bed
- Space
 - Active
 - Showers

- Spa
- Passive
 - Cool Down Room
 - Yoga Studio
 - Gymnasium
 - Nap Room
 - Overnight Pod
 -

Learn

- Activity (What the person/people are doing)
 - Watching
 - Listening
 - Reading
 - Practicing
 - Gardening
 - Studying
 - Presenting
 - Recording
 - Making
 - Modeling
 - Cooking
 - Drafting
 - Writing
 - Calculating
 - Compositing
 - Meeting
 - Brainstorming
 - Presenting
 - Producing
 - Acting
 - Programming
 - Building
 - Fixing
 - Analyzing
 - Traveling
- Component (Feature, Thing, Prop)
 - Active
 - Passive
- Space
 - Active
 - Passive

Project 2 Jam Pads: A workspace for Free Agent Nation (10 Weeks)

Based on prototypes found during the gaming process we will propose new co-working and communal working spaces for the growing Creative Workforce and Independent Contractors. These relatively inexpensive, inflatable structures, situated on underutilized rooftops, will have the techno-social infrastructure to support emerging inventors. These Enchanted Pebbles, are located on top of parking structures, newly constructed platforms and rooftops adjacent to major thoroughfares and intersections. There will be places for pure and applied research

focused on the arts, engineering, and media. The covered existing parking lots double as maker workshops and performance venues.

Suspended below the Jam Pads the Enchanted Pods are small (500sf) living Pods for creative workers. They will provide creature comforts and advanced technology to research immersive environments.

Over the course of this semester we will be joined by noteworthy individuals contributing to this space such as Alex McDowell & Ronni Kimm from Experimental Design, Jason Heath from the American Composers Forum, Ross Mead a robotics designer from Semio, Zachary Tate Porter from USC, Michael Malick, a real estate broker with Marcus & Millichamp, and many others.

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The Avant-Garde of the 21st Century is mashing together art, science, and technology into one hybridized domain. What is the 'Architectural equivalent of this?'

We look forward to your contributions to better understanding the future of work as you explore your own personal desires for you work whether formal or programmatic in nature.

Our framework for working on this project

Architecture – finding your voice and aesthetic.

where would you place yourself on the map of contemporary practice?

Work – reinventing how and where we work cooperatively as free Agents.

what if free agency could be stabilized for the long term?"

Games - creativity, learning, real-time strategy, culture of participation.

what if game design was a metaphor for free agency and urban design?

Systems – a whole that consists of networked interdependent parts

*what if we could visualize how **systems** work over time and within the context of larger **systems**?*

World View - a particular philosophy of life or conception of the world and our place in it.

what are the beliefs and values, inherited and invented, that are the basis for all our decisions?