The Future of the University as a Design Problem
Undergrad Section: ARCH 5290 (35309) and Grad Section: ARCH 5290 (35309)
Professor Ann Pendleton-Jullian (Professor of Architecture)

fall 2014 (3 credits) open to juniors, seniors and grad students
M 9:10-11:55. KN 177. This time is tentative. We will arrange the most convenient time for interested students at the first meeting.

What if we create a university that is an ecology of dynamic attractors instead of a closed campus?

or . . . What if we transform the university through mechanisms that infuse serious play into all aspects of learning?

This course will take on the design of a new model for the university as a learning-focused ecosystem. It will be taught in a unique format as a “liberal education studio,” which combines the qualities of a seminar (intensive inquiry and dialogue) with an architecture studio (design of contexts in which things happen). Using many methodologies, and engaging a variety of disciplines, we will take Ohio State University as our beginning point as we work to design a research university for the world of 2033. We will be applying a rigorous but speculative design process that will entertain both the pragmatic and radical.

So, what exactly are we going to make? Beginning with an understanding of the tradition of liberal education, research, and the American land grant university, we will design new speculative models for the university working off of work that has been done in similar but different studios at Georgetown University spr 2013 + spr 2014. Students can choose to either begin over or take systems and components from previous work and turn it on end or dig deeper.
What if we design a university to create students with Hacker dispositions: highly creative, collaborative, resilient, agile, failure secure, and skilled at pushing boundaries of all sorts?

What if we use the social questing structure and learning practices of World of Warcraft or Minecraft to transform the university into a new culture of learning?

What if we build a new kind of globally distributed university that, as a network of networks, taps into a global learning ecosystem to create global communities of practice around things like data-ethics or governance or . . . ?

These were just some of the what-if propositions that the students at Georgetown University came up with as the concepts for their projects.

The course will be run interactively and flexibly; structured in three parts: precedent studies and two design phases. Design will begin with a world-building project. World building is a concept borrowed from new film production methods where whole worlds with coherent qualities are imagined as contexts within which stories happen (think *Minority Report*).

The core skills needed for this course are strong liberal education skills of critical and creative thinking, collaborative project orientation, interest in the future of education, and agile thinking at the level of living systems. *Although very helpful, no prior drawing experience is necessary.*

The design studio will accept up to 15 students. Along the way we will engage a wide range of readings, outside experts (including for midterm and final presentations), and resources on learning, liberal education, and alternative educational systems. The work is intended to be part of an ongoing national conversation on the redesign of higher education.
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<thead>
<tr>
<th>WEEK</th>
<th>CLASSES</th>
<th>% of grade</th>
<th>WORK</th>
<th>READINGS</th>
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<tbody>
<tr>
<td>1</td>
<td>INTRODUCTION + FRAMING THE DESIGN PROBLEM UNDERSTANDING THE CONTEXT</td>
<td>9.8.14</td>
<td>meeting each other + talk on the legacy of the American Univ logistics</td>
<td>assigned readings about context of 21st cent</td>
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<td>2</td>
<td>9.15.14</td>
<td>discussion on readings</td>
<td>talk on information visualization and diagramming</td>
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<td>3</td>
<td>PRECEDENTS STUDY</td>
<td>9.22.14</td>
<td>discussion on readings + precedents selected by teams of 2-3</td>
<td>assigned precedent starter readings + ind research</td>
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<td>4</td>
<td>9.29.14</td>
<td>team work sessions with desk crits</td>
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<td>5</td>
<td>PRECEDENTS STUDIES DUE THE PROJECT OF THE UNIVERSITY in 2033</td>
<td>10.6.14</td>
<td>25%</td>
<td>TEACHING EACH OTHER about PRECEDENTS PROJECT INTRO</td>
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<td>6</td>
<td>INDIVIDUAL SKETCH IDEAS PRESENTED BROKERING OF TEAMS</td>
<td>10.13.14</td>
<td>10%</td>
<td>PRESENTING INDIVIDUAL SKETCH IDEAS BROKERING TEAMS OF 3 and team work start up</td>
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<td>7</td>
<td>10.20.14</td>
<td>team work sessions with desk crits</td>
<td>talk on worldbuilding</td>
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<td>8</td>
<td>10.27.14</td>
<td>TEAM WORK SESSION IN CLASS</td>
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<td>9</td>
<td>11.3.14</td>
<td>PIN-UP and work session</td>
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<td>10</td>
<td>11.10.14</td>
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<td>(WAY PAST) MID-TERM REVIEW w/ guest critics</td>
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<td>11</td>
<td>11.17.14</td>
<td>team work sessions with desk crits</td>
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<td>12</td>
<td>11.24.14</td>
<td>PIN-UP w/ guest critics</td>
<td>debriefing, next steps and desk crits</td>
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<td>13</td>
<td>12.1.14</td>
<td>informal pin-up: working on final presentation techniques</td>
<td>work session</td>
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<td>14</td>
<td>FINAL CLASS</td>
<td>12.8.14</td>
<td>30%</td>
<td>FINAL REVIEW w/ guest critics</td>
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THE UNIVERSITY IN 2033: a design problem
readings:

“IN THE AIR”

Networks and society


Participatory everything

John Keene, “Monitory Democracy” paper and first 25-30 minutes of his lecture in Castelló de la Plana, Spain: http://johnkeane.net/04/topics-of-interest/democracy-21st-century/monitory-democracy

Resilience

C.S. Holling, “Resilience and Stability of Ecological Systems” 1973. (This is the seminal article on resilience in ecology theory.)
Ecologies: environmental, social and mental (independence of mind)


Complexity and emergence


Robert E. Ulanowicz, *A Third Window: Natural Life Beyond Newton and Darwin*. Templeton Press, 2009. Stuart A. Kauffman’s “Foreword” and “Introduction” pp. ix-xvii and 1-12. (If you like this – I believe it is an important, although little known, book – chapters 2-5 and especially 4 are good. This is a new epistemological window on the world.)

David Snowden, “How to Organize a Children’s Birthday Party.”

[http://www.youtube.com/watch?v=Miwb92eZalq](http://www.youtube.com/watch?v=Miwb92eZalq)

Knowing, making, playing


Globalism: complex problems and identity

**Equity and human development**

Amartya Sen, “Introduction” to *Development as Freedom*.
“Preface” and “chptr 1: A woman Seeking Justice” and (optional) “chptr 8: Capabilities and Contemporary Issues.” pp. ix-xii, 1-17, 143-188.

**Power**


A Pendleton-Jullian, “Power” @ TEDx GU 2012. (ppt. deck)
http://www.youtube.com/watch?v=3Q2YgeKbbt4
THE EDUCATION LANDSCAPE

Higher education is often characterized as being in a phase of “creative destruction.” This implies the unbundling and reengineering of education, as we know it. Educational drivers of change are seen as costs, technology, productivity, learning sciences, global access. There are also are social drivers. Additionally, three important and valuable mechanisms - open education, connected learning, and the move towards outcomes-based education – are moving along quick trajectories without clear understanding of what they are aiming to accomplish systemically – what they are aiming at – and what the unintended consequences of these will be. But all of these are in the education landscape now and are under discussion.

DIAGNOSES AND PREDICTIONS: Parsing the Now (Unbundling)


COSTS-ACCESS-QUALITY

OPEN EDUCATION

- UNESCO Open Educational Resources (OER)—OER Congress Declaration on Open Education Resources
- Open Educational Resource University (OERu) http://wikieducator.org/OER_university
- OERu Resource Foundation http://wikieducator.org/OERF:Home
- David Wiley blog: Iterating toward Openness http://opencontent.org

Additional:
- Hilton, et. al., The Four R’s of Openness and ALMS Analysis: Frameworks for Open Resources.
- Toru Iiyoshi and Vijay Kumar, eds. Open Education: The Collective Advancement of Education through Open Technology, Open Content, and Open Knowledge. MIT Press, 2011.
- Massive Online Open-Source Courses:
  - Udacity https://www.udacity.com/
  - Coursera https://www.coursera.org/
  - edX https://www.edx.org/
  - Open Learning Initiative
- Collections:
  - Khan Academy https://www.khanacademy.org/
  - Connexions http://cnx.org/
- Communities:
  - DS106 (Jim Groom) (Digital Storytelling Community) http://ds106.us/
LEARNING and WAYS of KNOWING

Frameworks:

- Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century
- Partnership for 21st Century Skills
- Framework for 21st Century Learning

New Learning / Media Ecologies:

- Complexity, Computing, Contemplation, Learning?
  http://learningemergence.net/2011/05/04/cccl/
- Paul Farmer, Commencement Address (starts at 11:43); Farmer is a world famous medical anthropologist who in this address discusses the need to instill the capacity for “thinking fractally” and recognizing the “adjacent possible” in order to address the world’s most difficult problems.
  http://www.georgetown.edu/video/1242670725343.html
- David Levy, “No Time to Think”
  http://www.youtube.com/watch?v=KHGcvj3JiGA
- Alex Soojung-Kim Pang, “Contemplative Computing”
  http://askpang.typepad.com/articles/c0ntemplat1ve.pdf
- Paulus and Horth, “Navigating Complex Challenges: Creative Competencies for Contemporary Leadership”
LEARNING MEASUREMENT / Outcomes-based Education

*Learning Analytics, Educational Data Mining*

- Simon Buckingham Shum, “Our Learning Analytics are our Pedagogy” [http://www.slideshare.net/sbs/our-learning-analytics-are-our-pedagogy](http://www.slideshare.net/sbs/our-learning-analytics-are-our-pedagogy)
- Learning Analytics (George Siemens, leader of the first MOOC) [http://www.learninganalytics.net/](http://www.learninganalytics.net/)
- Learning Emergence [http://learningemergence.net](http://learningemergence.net)

*Certification / Alternative Assessment*

- The [Degree Qualification Profile (DQP)](http://degreeprofile.org/) (Lumina Foundation) [http://degreeprofile.org/](http://degreeprofile.org/)
- [https://docs.google.com/a/georgetown.edu/document/d/1LgJ56eoGrTRdXtdMePc-sXHlugB9a4ppr2QrlYHDmuM/edit](https://docs.google.com/a/georgetown.edu/document/d/1LgJ56eoGrTRdXtdMePc-sXHlugB9a4ppr2QrlYHDmuM/edit)
- Jennifer Demski, “E-portfolios: Are We There Yet?” *Campus Technology* (February 28, 2012)

“Grading 2.0: Evaluation in the Digital Age,” HASTAC discussion thread.  
http://hastac.org/forums/hastac-scholars-discussions/grading-20-evaluation-digital-age

**INNOVATION: RETHINKING THE DNA of HIGHER EDUCATION**


Michael Crow, “Reinventing the Public Research University,”  


**GLOBAL CONTEXTS AND COMPETITION**

Father Nicholas, S. J., “Depth, Universality, and Learned Ministry: Challenges to Jesuit Higher Education Today,”  


Ben Wildavsky, “The New Global University Marketplace,”  

*Closing the College Attainment Gap between the U.S. and Most Educated Countries, and the Contributions to be made by the States*. (April 2010). The National Center for Higher Education Management Systems.


**HIGHER EDUCATION AS PRIVATE/PUBLIC GOOD**

http://www.pewsocialtrends.org/2011/05/15/is-college-worth-it/


Carnevale, et. al (2011). *The Undereducated American*. Washington: Georgetown Center on Education and the Workforce. [Read Executive Summary only] 