This document contains slides presented at the conference Academic Demarcations: Disciplines and Interdisciplinarity, 13-14 September 2012 at the University of Oslo, and may only be quoted after informing the author:

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University mergers between Humboldt and Stanford: The construction and deconstruction of disciplines and interdisciplinarities

Academic Demarcations: Disciplines and Interdisciplinarity
Oslo, September 13-14, 2012
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Conference questions

• “Is academia becoming interdisciplinary? Or do disciplines still condition our research and teaching in profound ways?”
• “Is disciplinarity perhaps even an inherent operative mode of modern academia?”
• “If so, how and to what extent should our institutions provide for interdisciplinarity?” (or rather: how and to what extent do/don’t they)
Pariticipatory science in action study
"University in action study"
”University in action study”

“We study science in action and not ready made science and technology; to do so, we either arrive before the facts and machines are blackboxed or we follow the controversies that reopen them” (Latour 1987: 258)

“Irrationality is always an accusation made be someone building a network over someone else who stands in the way; thus, there is no Great Divide between minds, but only shorter and longer networks; harder facts are not the rule but the exception, since they are needed only in a very few cases to displace others on a large scale out of their usual ways” (Latour 1987: 259)
The Case of Aarhus University

Theo. Hum. Social Nat. Health

1810:
faculties of
- Theology
- Law
- Medicine
- Philosophy

1810: faculties of
• Theology
• Law
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Theo. Hum. Social Nat. Health

1810:
- faculties of
  - Theology
  - Law
  - Medicine
  - Philosophy
The dispute of disciplines of the modern university
Humboldt

- Friedrich-Wilhelms-Universität zu Berlin: 1810
- Immanuel Kant (Der Streit der Fakultäten, 1798)
  - The higher faculties (theology, law, medicine) – faculties of the higher authority
  - The low faculty (philosophy)
- Faculties of
  - Theology
  - Law
  - Medicine
  - Philosophy
Knowledge of the world

• Kant (1798): The university is organized in accordance with two principles: relevance (usefulness) for the government and truth of human reason.

• Relevance for the government:
  – Theology (eternal good)
  – Law (social good)
  – Medicine (bodily good/health)

• Truth of human reason
  – Philosophy

• “Everything depends on truth, while the usefulness promised by the upper faculties to the government, is only of secondary importance”
Knowledge of the world

- Schleiermacher (1808): “The philosophical faculty is the real university and the master of the others.”
- Humboldt (1810): If the university should realize “…the pure idea of science, then loneliness and freedom will be the dominating principles in the circle.”
Stanford

- Stanford University: October 1 1891
- Donator: Leland Stanford (governor/businessman)
- Basic principles:
  - coeducational, in a time when most were all-male;
  - non-denominational, when most were associated with a religious organization;
  - avowedly practical, producing "cultured and useful citizens."
- Consequently (1906): Faculties for the world
  - professional schools of medicine, business, engineering, education and law
Stanford: Knowledge for the world

• A university must be organized in accordance with the way in which knowledge should be used

• Leland and Jane Stanford (1891): A University should “...promote the public welfare by exercising an influence on behalf of humanity and civilization."

• Consequently: Schools for professions/sectors:
  – School of Humanities and Sciences
  – School of Business
  – School of Earth Sciences
  – School of Education
  – School of Engineering
  – Law School

• 2011: “...more than a century later, it remains dedicated to finding solutions to the great challenges of the day and to preparing our students for leadership in today's complex world.”
### The genealogy of university models

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Luhmann: Criteria for the construction of disciplines

• Some disciplines emerge according to "science-internal distinctions, primarily physics, chemistry, biology, psychology and sociology" (WdG: 448)

• "Often disciplines emerge in close relation to the reflection theories of social function systems": "Profession related disciplines of theology, law, medicine and since 17./18. Century also pedagogy/education science" (WdG: 447 and 448)
Emergence of disciplines

- Internal knowledge criteria
- External relevance criteria
The contingent construction of disciplines: The Case of Aarhus University

1810: faculties of
• Theology
• Law
• Medicine
• Philosophy
Reorganization of Danish Universities

• External Arguments: Based on cost-benefit and knowledge economy ideas
• Internal Arguments: Based on general management ideas (and rooted in power structures)
• No arguments concerning principles for the proper organization of disciplines
External arguments
The idea of the competition state

• From welfare state to competition state
• Research and education are means for the competitiveness of the state
State of the union speech 25/1 2011
“…nations like China and India realized that with some changes of their own, they could compete in this new world. And so they started educating their children earlier and longer, with greater emphasis on math and science. (...) The first step in winning the future is encouraging American innovation. (...) Half a century ago, when the Soviets beat us into space with the launch of a satellite called Sputnik, we had no idea how we would beat them to the moon. (...)This is our generation's Sputnik moment.”
“Globalization means that U.S. students will have to compete throughout their careers with their peers in Canada, China, India, European countries, and other rapidly developing states. As President Obama has warned, “The nation that out-educates us today is going to out-compete us tomorrow”.”
OVE K. PEDERSEN

KONKURRENCE
STATEN

HANS REITZELS FORLAG
Growth in research expenditure
Demands
Demands

- Universities must change from elite to mass universities
- Universities must change the success criterion from excellence to excellence *and* relevance
- From being single target organizations (excellent research) universities must become multi target organizations (research, development, education, advisory services, knowledge dissemination)
- From working within internally defined, well-established disciplines, the production of knowledge must be defined by reference to societal problems, sectors and professions
- From having been organizationally closed and selfreferential, universities should become organizationally open and heteroreferential
Consequently

• 2003: University management Act
  – Hierarchical management structure
  – New Public Management models: Contracts, Control, Incentives
  – Boards with external majority

• 2006-2007: Forced mergers
  – The Danish Institute of Environmental studies; Aarhus School of business; the Danish Institute of Agriculture; The Danish University of Education were merged into Aarhus University
Internal arguments
Internal arguments

• First phase:
  – “The beauty of Humboldt”
• Second phase:
  – “The appropriateness of the ‘Stanford flower’”
• Third Phase:
  – “Break down barriers”
  – “One unified senior management group”
  – Administrative coherence
  – External market incentives
  – Internal market incentives
• (The ideal of ”Stanfordian relevance” based on the structure of ”Humboldtian idealism” enforced through management tools)
The university in the ‘university’

- The emergence of an informal university (informal, dynamic knowledge system) within the formal university organization
The emergence of interdisciplinary structures

The dynamism of
Disciplines -> interdisciplinarities ->
disciplines...
Between discipline and problem orientation
Three types of interdisciplinary structures

- **Occasional interdisciplinarity**: Loan of terminology (Ex: "autopoiesis") (WdG: 457)
- **Temporary interdisciplinarity**: Problem oriented projects (WdG: 458)
- **Transdisciplinarity**: New paradigms (Ex: Cybernetics) (WdG: 458)

- The internal dynamics of the system of novelty-oriented disciplines, fuelled by problem-based incentives
- Thus: a fragile balance between a self-refering discipline system and a problem-oriented environment
Two external incentives for interdisciplinarity

• Disciplines are structurally coupled through institutional means
  – ”Medicine + anthropology will solve the mystery of cancer”
  – Internal market for interdisciplinary activities

• Disciplines are structurally coupled through common problem orientation
  – Examples:
    • School of education
    • School of business
The Danish School of Education

• From
  – Department of Natural Science pedagogy
  – Department of Reading/Writing pedagogy
  – Etc.

• Over
  – Department of Pedagogical Psychology
  – Department of Pedagogical Anthropology
  – Department of Pedagogical Sociology
  – Department of Pedagogical Philosophy

• To
  – Department of Learning
  – Department of Teaching (Curriculum Research)
  – Department of Education
The Danish School of Education

• From
  – Department of Natural Science pedagogy
  – Department of Reading/Writing pedagogy
  – Etc.

• Over
  – Department of Pedagogical Psychology
  – Department of Pedagogical Anthropology
  – Department of Pedagogical Sociology
  – Department of Pedagogical Philosophy

• To
  – Department of Learning
  – Department of Teaching (Curriculum Research)
  – Department of Education

Curriculum reflection: Subsystem of the education system
Liberation from curriculum reflection through temporary interdisciplinary constructions
From interdisciplinary constructions to independent disciplines
The fragile and dynamic balance of discipline and problem orientation
Subject based learning

Disciplines are taught by the book:
The educational reproduction of disciplines
Problem based learning

Disciplines are hidden behind the problem:
Interdisciplinarity (or non-disciplinarity) as the basic educational principle
Problem based learning
Final question: When is a university (not) a university?

RdG: ”How do we know, when we see something, that what we see is religion”
Thank you