



LEUPHANA

Digital School

Digital Agenda Assembly 2012

21 - 22 June

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MOOCs to the rescue?

**Emergent forms of connectivist teaching
and the German use case**

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1st Internet of Education conference

Ljubljana, November 11-12, 2013



Agenda

- 1 MOOCs in Germany:
A disruptive innovation?
- 2 The case of “Think Tank Cities” MOOC
at Leuphana University
- 3 Learnings and Challenges



Emergent formats of academic teaching and learning: Massive Open Online Courseware

	narrow definition	loose definition
Massive	Unlimited number of participants	“many” participants (>100)
Open	access is open to all comers at no charge	Openness of learning goals, choice of topic, forms of participation
Online	Teaching and interaction is taking place primarily online	“Blended” learning may combine on-site instruction with online teaching
Course	Course-like format	Emphasis on Community and Collaboration, loosely structured

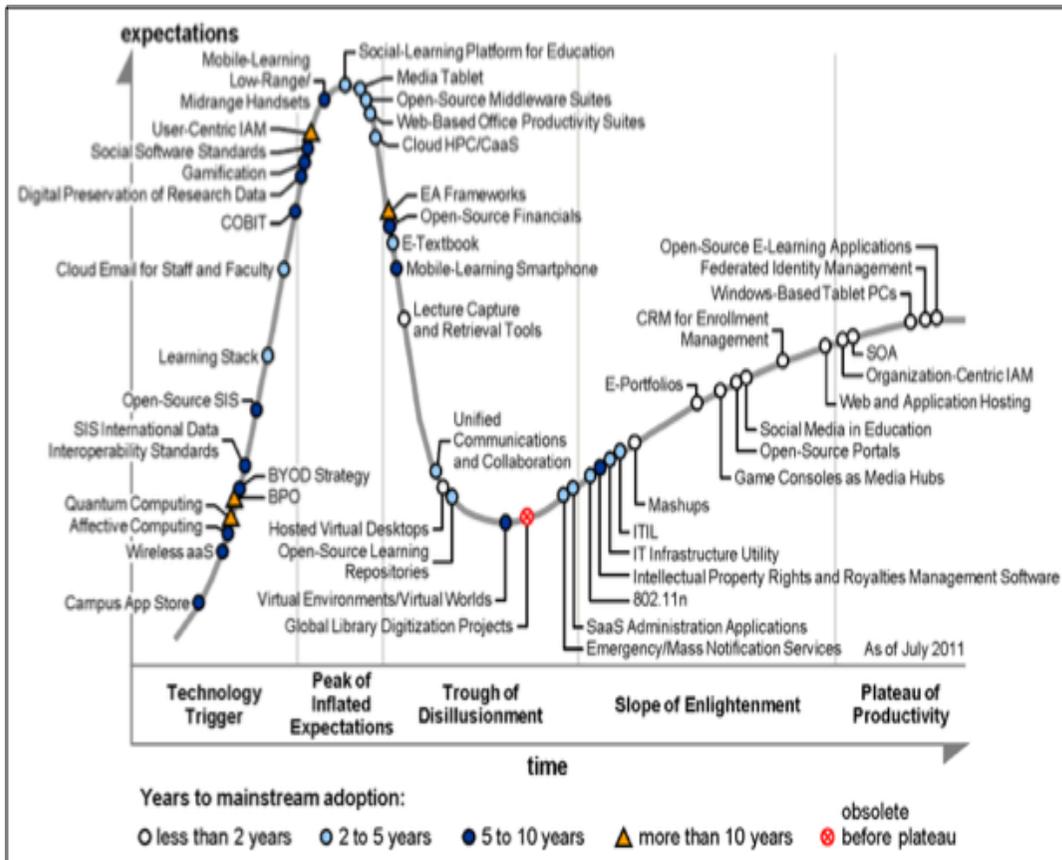


MOOC: roots & predecessors

- e-Learning/distance learning
- Open Educational Resources (OER)
Open Courseware (OCW), Open Access (OA)
- Educational theories:
Legitimate Peripheral Participation (Lave/Wenger 1990)
Connectivism (Siemens 2006, 2007, Cormier 2008)
Conversational Framework (Laurillard 2001)
- Digital Literacy: Generation Facebook
- Big Bang in 2011: Sebastian Thrun at Stanford University



The MOOC hype and the MOOC backlash



John Hennessy, Stanford: „There is a tsunami coming“

Tom Friedman: „Revolution hits the universities“

Time Magazine: „Ivy League for the Masses“

New York Times: 2012 is “Year of the MOOC”

duz 7/13
“Verderben Videos die Lehre”?



MOOCs in North America and the UK

- Stanford/Silicon Valley: Udacity (Thrun), Coursera (Koller, Ng),
- MIT/Harvard: EdX (non-profit)
- UK: FutureLearn (Open University/BBC)

In the anglo context, MOOCs address the spiraling (private) cost and increasing (public) demand for quality higher education; a business model is emerging under conditions of an “educational market” with transparent political implications



MOOC in Germany

- MOOC Production Fellowship of **Stifterverband der Wissenschaft** in conjunction with **iversity**, 10 grants of 25.000 EUR, launched October 2013
- **German Academic Exchange Service (DAAD):** Conference in Bonn in November 2013
- Conference **CHE/Stifterverband** in Berlin, November 2013
- **Conference of University Presidents:** MOOC whitepaper to be published in May 2014
- **Federal Ministry of Education:** Research forum “Digitalization of Higher Education” starting January 2014, 36 months, 2.3 Mio EUR

In the German context, MOOCs appear to be a (fairly expensive) solution looking for an (ideologically suspect) problem



The (very) big picture: A (too) brief history of higher education in Germany

- structures and institutions of German higher education today are shaped by a history of secular emancipation from the religious roots of liberal arts education in medieval feudalist society (CLARKE 2006)
- contemporary “knowledge factories” (RAUNIG 2012) serve to normalize and control the canonic knowledge of industrial capitalism (FOUCAULT 1977)
- continuous metamorphosis of higher education from the post-war “multiversity” (KERR 1963) to the neoliberal “entrepreneurial university” (ETZKOWITZ 2000) where students are considered „customers“
- ubiquitous information and digital culture based on rapid innovation cycles demand suitable modes of academic teaching and a revised concept of knowledge

Institutional framework and established academic formats (e.g. teacher-centered, ex cathedra teaching formats such as lectures) are poorly suited for motivating and empowering students to take responsibility for their education and for civil society



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‘ThinkTank Cities’ was offered as a massive open online course (MOOC) from January 9th to April 28th as the pilot course of Leuphana Digital School.

“Think Tank Cities” was taught under the aegis of Prof. Daniel Libeskind and enrolled 3.500 students, some 450 of which completed the course with a certificate.





Leuphana has previously developed a number of award-winning large-scale (offline) courses and has gained substantial distance learning experience.

1.200 – 1.800 students, within one week, jointly ...



... restructure a public theater to avoid its closure (2007)



... design measures to protect the labor market during a period of drastic downturn (2008)



... promote the work of renowned street artists by creating films (2009)



... work with world-class landscape architects to re-design the University campus (2010)



... conceive a just and financeable public health system for Germany (2011)

Leuphana is ...

... a long-term provider behind Germany's only dedicated distance learning university in public service, FernUniversität Hagen



... the European Commission's hub of the Innovation Incubator encompassing a substantial public eLearning initiative



EUROPÄISCHE UNION
Europäischer Fonds für
regionale Entwicklung



Europa fördert
Niedersachsen



Offering a free online course minimizes the threshold to high quality education and simultaneously sets new standards for online collaboration.

We are

- Using Social Media for team learning
- Working in small international teams on projects of true relevance to mankind
- Providing a platform to collaborate with world-leading academics, artists, and decision-makers in each field
- Free to everybody

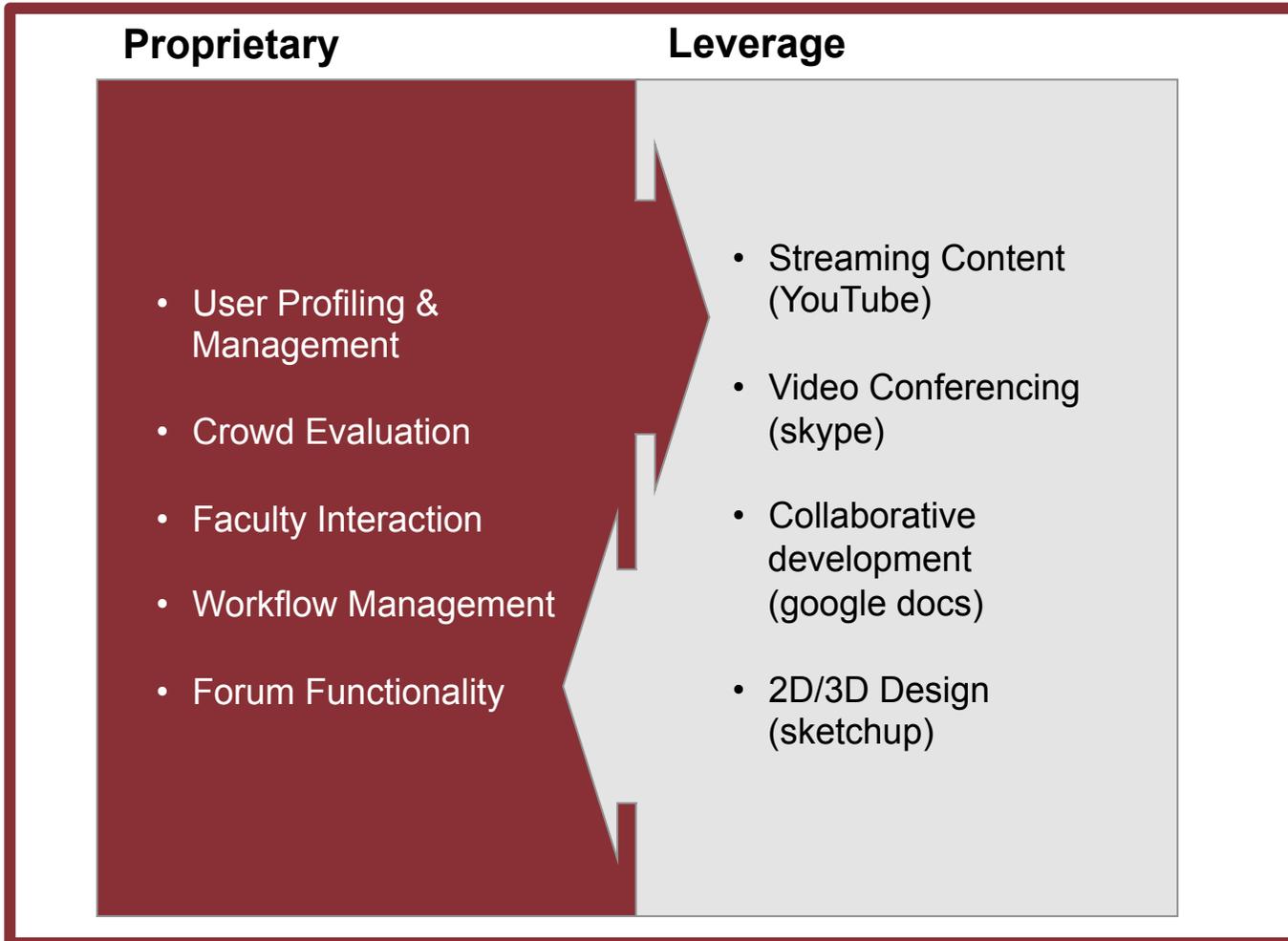
How it works

1. Are you interested in designing a city from scratch? This is the project of our pilot course.
2. Then sign up on leuphana.de/digital-school. There are no entry restrictions, and participation is free, as we are a European public University.
3. Starting January 9th, 2013, you will then collaborate with 5 team members on a series of assignments, leading to a 3D model of your envisioned city.
4. During the process, your work will be reviewed online by your team members, your peers from the many other multi-national teams, as well as from the University faculty.



Our core MOOC platform is a lean content and process management system that leverages existing functionalities from market-leading internet businesses.

Leuphana ThinkTank Framework





The course was structured in seven topical categories, the collaborative teaching team is located all over the globe.



Teaching categories:

- Architecture
- Cities as Economic System
- Social Science
- Cultural History
- Infrastructure
- Sustainability
- Public Health



Leading scholars and experts in the field collaborated with Daniel Libeskind and recorded a large number of video lectures especially for the course.

Architecture



Prof. Daniel Libeskind
Architecture
Leuphana University



Parag Khanna, PhD
Geo-Strategy
Hybrid Reality Institute



Uwe Jean Heuser
Behavioral Economics
Die Zeit



Prof. Philipp Misselwitz
Marginal Cities
Stuttgart University



Gerhard Stryi-Hipp
Energy Systems
Fraunhofer-Institut, Morgenstadt



Dr. John Beard
Cities for an Ageing Population
WHO



Bart Brands
Karres en Brands
Landschapsarchitecten
RMIT University in Melbourne



Prof. Jiang Lin
Special Development Zones
Lingnan College,
Sun Yat-Sen University



Prof. Elliot Sclar
Urban Planning
Columbia University



Prof. Jürgen Kluge
Principles of Effectiveness
and Efficiency
TU Darmstadt

Infrastructure



Henry Ritchie
Infrastructure
McKinsey & Company

Cities as Economic Systems



Jaana Remes
Economic Development
McKinsey Global Institute



Ayesha Khanna, PhD
Mobility
London School of Economics



Prof. Dr.-Ing. Wilhelm Bauer
Technology Management
Fraunhofer Institute for industrial
Engineering IAO



Diego Pavia
Smart Cities
KIC Innoenergy



Dr.-Ing. M.Sc. Tobias Hegmanns
Urban Logistics
Fraunhofer Institute



In conjunction with extensive digitized reading material, the international faculty provided a multi-perspective approach on a complex topic.

Cultural History



Prof. Michael Schefczyk
Political Philosophy & Ethics
Leuphana University



Prof. Beate Söntgen
Experiential Geography
Leuphana University

Public Health



Prof. Wulf Rössler
Clinical and Social Psychiatry
University of Zurich



Prof. Gerd Folkers
Pharmaceutical Chemistry
Collegium Helveticum & ETH Zurich

Social Science



Prof. Saskia Sassen
Sociology of the City
Columbia University



Prof. Timon Beyes
Creativity
Leuphana University /
Copenhagen Business School



Prof. Scott Lash
Creative Cities
Goldsmith University London



Prof. Avner de-Shalit
Citizenship, Civicism
Hebrew University, Jerusalem



Prof. Jeffrey Shaw
Art and Cities
City University Hongkong

Sustainability



Jonathan Woetzel
Resource Productivity
McKinsey & Company



Prof. Daniel Lang
Transdisciplinary Sustainability
Leuphana University



Prof. Manfred Laubichler
Sustainable Cities
Arizona State University



Prof. Sander van der Leeuw
Sustainable Cities
Arizona State University

Operational Course Head



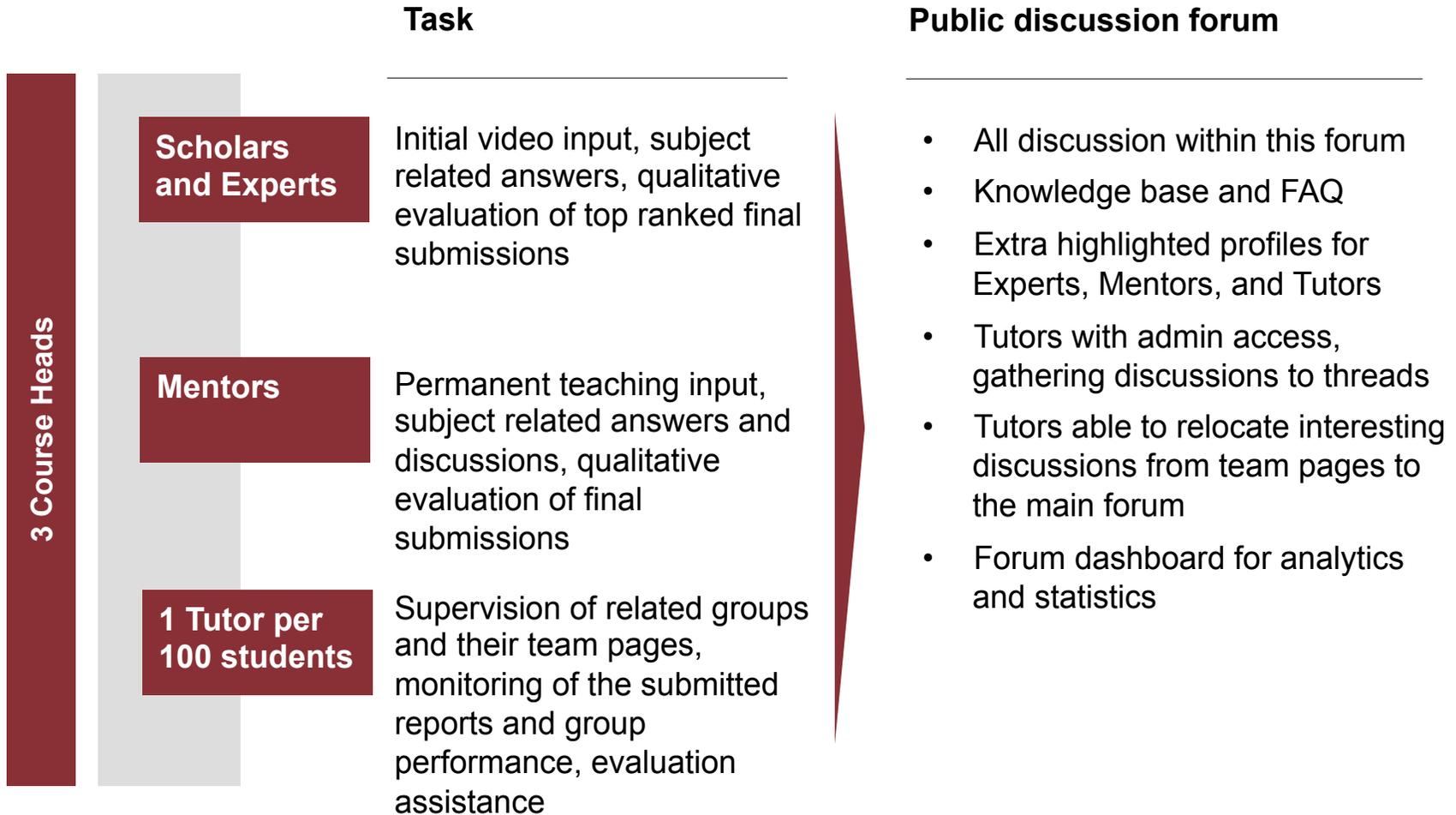
Dr. Carsten Siebert
Philosophy and Philanthropy
Daniel Barenboim Stiftung



VP Holm Keller
Course Development
Leuphana University

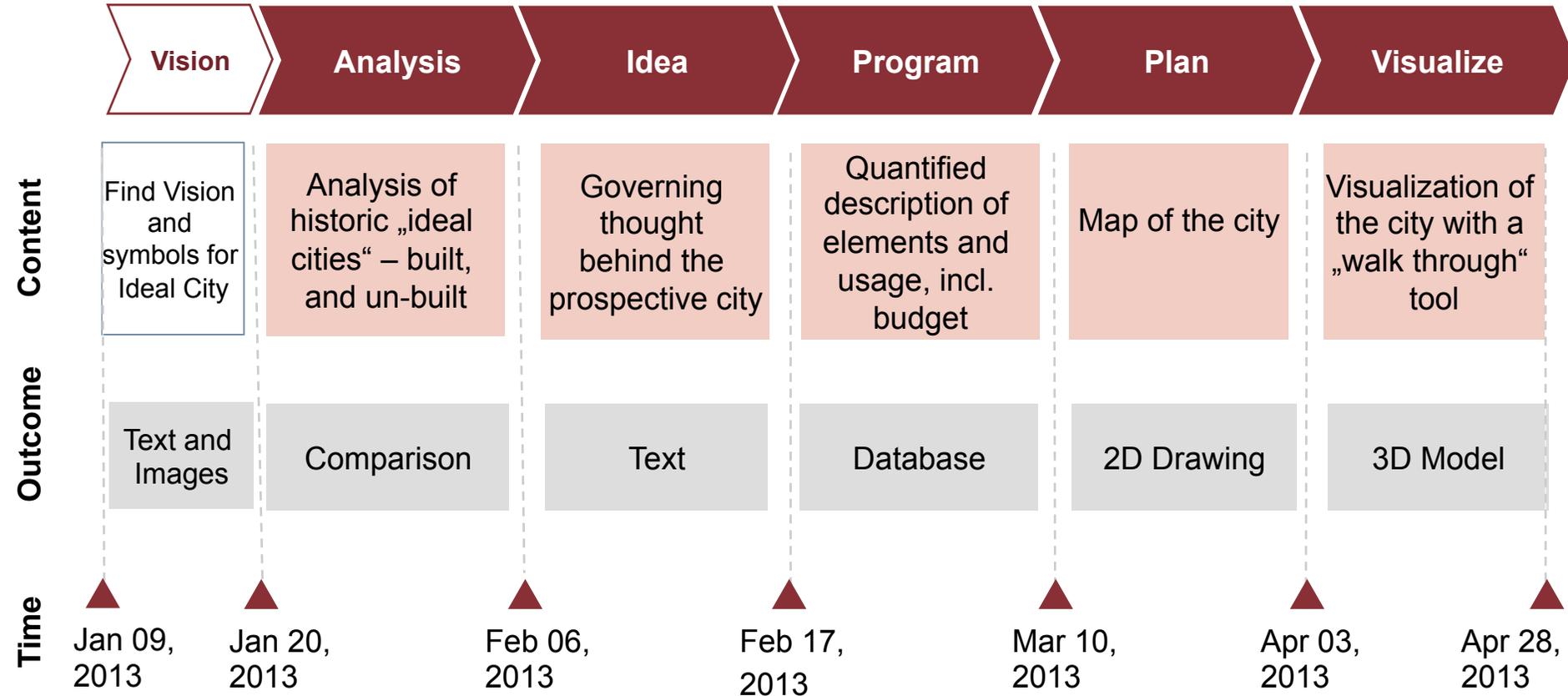


A clearly structured assistance model assures ease-of-interaction between participants and experts and transparent communication in a public forum





The actual ThinkTank didactic flow is structured in a pre-phase, followed by a sequence of five assignments each with distinctive products.





During each assignment cycle, students completed one team task and uploaded artefacts (essay, map, design, etc.) for peer-review and grading into the MOOC platform.

Significant Detail

Planned Cities

Vision for Society

The List

Interaction in the City

Your City



Your City: The Visualization

Your Assignment



The Visualization

Deadlines

Submit to Peer Review	23 Apr 23:00 CET
Evaluate teams	25 Apr 23:00 CET
Final hand-in	27 Apr 23:00 CET

Study in Library

Discuss in Forum

Dear students,

As we approach the end of this course and your final assignment, it is time to change gears once again. Up to this point, you have been dealing mostly with concepts and facts, with pieces of information that you have organized according to various methodologies, theories or ordering principles. This was true even when you worked with images, since the task was always to illustrate a specific idea or element within a larger system. In Assignment 6, we ask you to move beyond this taxonomic or prescriptive method, and let us really "experience" your city.

This task is both easier in some ways, and far more difficult than the preceding assignments. It is easier because its end result is more intuitive than the previous analytical assignments. In this sense, it is more closely related to our everyday experience. We do not generally perceive the places we live in as a concatenation of internally complex elements or as implementations of specific models of city life that we happen to agree or disagree with. We experience them as a whole, as a *Gestalt*, as psychologists might say. Most cities have a very specific feel, a holistic experience of just what it feels like to be immersed in them. We do not need to analyze individual elements to have an intuitive understanding of how being in, say, Mumbai is different from being in

FAQ



The submission for each assignment combines a peer-review and revision phase to maximize connectivist learning and peer discussions.

1. Draft deadline → 2. Peer Review → 3. Submission deadline → 4. Revision



Jan 15 Draft deadline	Feb 01 Draft deadline	Feb 12 Draft deadline	Mar 05 Draft deadline	Mar 29 Draft deadline	Apr 23 Draft deadline	
Jan 16/17 Peer Review	Feb 02/03 Peer Review	Feb 13/14 Peer Review	Mar 06/07 Peer Review	Apr 30/31 Peer Review	Apr 24/25 Peer Review	
Jan 18/19 Submission deadline	Feb 04/05 Submission deadline	Feb 15/16 Submission deadline	Mar 08/09 Submission deadline	Apr 01/02 Submission deadline	Apr 26/27 Submission deadline	
Jan 20 Revision	Feb 06 Revision	Feb 17 Revision	Mar 10 Revision	Apr 03 Revision	Apr 28 Revision	
▲ Jan 09, 2013	▲ Jan 20, 2013	▲ Feb 06, 2013	▲ Feb 17, 2013	▲ Mar 10, 2013	▲ Apr 03, 2013	▲ Apr 28, 2013



Unique to the MOOC format, students can contribute their own research to the class, and review or comment on each other's work results, using the Discovery module.

Explore Students

Refresh

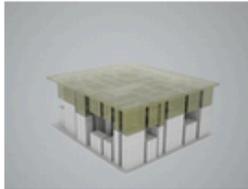


Frederik Saalbaum
0 posts 6 submissions

Interaction in the City - ...
Interaction in the City - Debrecen
Visional group Urban and Rural
Our ideal city, Debrecen should
dissolve the conflict of urban and
rural. Believing in its future
complexity, people should find
their own inspiring environment
in their h...



Mariana Otegui
3 posts 5 submissions



ΠΟΛΙΣ 548
4 members 27 comments

Interaction in the City
PART 1: Most salient elements of
Nang Lang Nang Lang's most
salient elements are its
multicultural, intelligent people
(society); its citizens' shared
desire for sustainable and
transparent living; its resilient
approach towards sustain...

Interaction in the City
Part 1: Structured List Of
Outstanding Elements. -city-wide
information network: info kiosks,
walls and tellers (automatic and
operator aided) where everything
about the city is contained, like
maps, links to police, fire and
rescue, posit...



Myriam Forstel
7 posts 6 submissions

Team #523 - New Port C...
The Map: Interaction in the City
Javier Architect in Berlin -
Germany Bianca Student in
Frankfurt (Oder) - Germany
Martina Analyst in Hamburg -
Germany Esteban Architect in
Buenos Aires - Argentina Eric
Architect in Boston - U.S.A. ...



Sabine Mokros
2 posts 6 submissions



Elina
rated 9



Mirjana
rated 8.7



Tim
rated 9



Agnieszka
rated 9



Lorraine Anderson



Philipp
rated 8.3



Gudrun
rated 6




Networked City for Self-...
3 members 16 comments





Participants interacted with teaching staff and each other in on online discussion forum.

LEUPHANA digital

Home Syllabus Library **Forum** Discovery

Assignment Phase 6/6

Forum | Most Recent Posts

Search

General discussions

Category	Description	Topics	Posts	Views
Organization & Process	<i>Please post all questions in regard to process and administration here</i> Last Post: LDS ALUMNI -- What happens after April 28th? by S PICY about 6 hours ago	59	664	2548
Resources Discussions	<i>Please post all your questions about library resources here</i> Last Post: Saskia Sasson 4/6 - City & Social Change by Nino Chachava about 11 hours ago	296	716	2399
Technical Support	<i>Please post all technical questions or bugs here</i> Last Post: lost matter in the lab by Agnieszka Kubara about 12 hours ago	79	483	2170

Your City

General Discussions	<i>Please post all your questions about this course phase in this topic</i> Last Post: Can't save evaluations by Antje Bräuer about 14 hours ago	4	13	57
Questions to teachers	<i>Here you can post any questions to teachers</i> Last Post: Felix Seyfarth by Mia Wood 3 days ago	1	17	49
Resources Discussions	<i>Please post all your questions about library resources here</i> Last Post: hearing the city by Marina Rossow 4 days ago	3	15	79



Two-fold results: Artefacts and Networks

New Port is a multi-cored city from sketch which serves the purpose to have manageable sized cities accommodating 15 million inhabitants.
 In New Port City, the slogans intelligent growth, renewable energy, electric mobility, change of habits and technological innovation become visible in an unexplored dimension and get a new meaning through implementation of already available inventions.

Transportation:

All the districts will be involved in the network of the city in order to allow free movement of people from one side to another. The urban design will accommodate different scales of speed and distances.



Short distances between corners and concentration of mixed activities – commerce and services - along main streets, connecting squares and parks, through which the urban tissue will breathe. The city has bike lanes and a public system of bike renting and sharing as well as pedi cabs and other facilities. Public transportation by surface and underground will be the key to mass transit. A dense streetcar system combined with a BRT (Bus rapid transit) system will allow the to be simplified to a few lines that will connect those strategic points of the city that are not able to be connected on the ground, for reasons of distances, scale or topography. Stops and stations will be along main streets so that from any point of the domestic urban tissue there will be not more than 10 minutes walking. In order to reduce carbon emissions and improve city environment, for individual cars, will promote peer to peer car sharing (PHEV), hitchhiking, carpooling, etc. combined with control of pollution, taxes, advantages for eco-vehicles, restricted eco-zones and campaign to implement the needlessness of private cars.

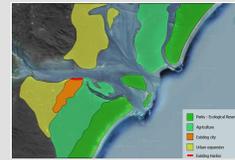
Team #523 stood out in their comprehensive version for a place that feels grounded, tangible and solid. Presenting a suggestive narrative, the submission helps New Port City become a specific place rather than a mere bundle of concepts. Judicious use of multiple media – maps, line drawings, renderings, schematic sketches – takes the viewer from the big picture to well-chosen details in a coherent and convincing manner. Last not least, the submission is impeccably sourced, with a sound bibliography that cites both relevant literature and digital resources.

Team #523 Cookbook: New Port City

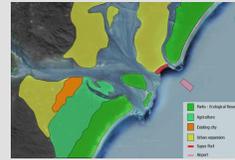
Harbor/Superport:

The need for a modern international port facility is the central economic purpose behind the foundation of the New Port City. The Nation, the State, and Private industry will form multiple agreements and "Public Private Partnerships" to assemble the investment in the key elements of the economic engine that will sustain the city and enable it to grow. PPP administration challenges conventional government approaches to development and presents brings risk with reward. The harbor is both industrial engine and natural resource. Open to the public as promenade and as a place for meeting. A port as an open door to the world, a strategy to generate a space where exchange goods and ideas flows.

The working port is located upstream and protected from storms. It is important to maintain a natural buffer between the city and the ocean. Industrial activity can be integrated with landscape and recreation.



Scheme 1: Batista's Açú and "urban cookbook" plan of a striped city pattern.



Scheme 2: New Port grows with replaced deep water port and airport.



City squares and plaza creating public space and make a city breath.



Parks and natural space in the city play important role in management of water runoff.

Public Space:

The empty space, that is mostly public, should be the main area of the city and will characterize it from the ground level. The built substance can be reconstructed and changed over the years following economic prosperity, however empty space (public) will always remain empty and will serve in a continuous dialogue, spreading and contracting, good pulse and breathing. Creates a network of parks with public maintained spaces for sports, recreational and social. Also there will be urban gardens supplying some of food the city needs. All people have access to the beaches and the sea. The natural environment will be protect and promoted as a cultural and natural heritage, specially the coast in which inland nature and the see nature meet, will be protect and stimulated as a natural scenery of a way of life.

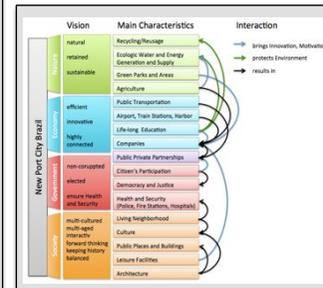
Bianca Kindler (D), Martina Helms (D), Esteban Fernandez Rosso (ARG), Javier Pérez-Lanzac (E), Eric Reinhard (USA)

The diversity of Team #523 Cookbook is not only culturally determined but also in terms of their industry and academic level. Bianca Kindler is a German student of Cultural Sciences with an interest in Urban Studies. Martina Helms works in Logistics in Germany. Argentinian Esteban Fernandez Rosso teaches Urban Design and Architectural Design at the University of Buenos Aires. Javier is Spanish architect and also student of Energy Efficiency and Bioclimatic Architecture, currently living in Germany. American Eric Reinhard is an Architectural Designer and artist.

Housing Compensation: Urban river connects promenade and city center. One of the challenges within Brazilian cities is the large number of Favelas which arise from urbanization.



To avoid the strengthening of gap between prosperity and poverty the city builds privately financed residential areas which will be well connected to the port as cities' most important employer. The long term goal for housing in Harbor City is to develop reasonable, energy and space efficient neighborhoods gently and in possession of the public sector, but firstly financed by loans from private sector.





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Learnings

- peripheral participation (90 - 10, 80 - 20) highly relevant
- “eventedness” (Anderson 2008, White/Cornu 2010)
- digital literacy and other aspects of inclusion
- Interdisciplinary and intergenerational teaching

==> applicable for “peripheral” teaching?

==> Corporate Training, Corporate Communications?



Challenges

- Technological infrastructure and operational funding
- Technological know-how
- Media literacy and MOOC pedagogy
- Institutional incentive structure

==> intervention on federal or European level?

==> resource-sharing and best-practice policies?



Hypotheses

1. The innovative potential of MOOC is primarily pedagogical, not technological. Sensible use and widespread institutional adoption will therefore depend on pedagogical strategies and concepts.
2. MOOC make teaching transparent and offer especially medium-sized and smaller universities in Europe the opportunity to manage and showcase quality in teaching to a global audience, which positively impacts internationalization efforts and life-long learning programs.
3. Visibility of German (insert your preferred non-English language here) universities in particular can benefit from German (or other non-English) language MOOC. In the case of German, this is especially true for humanities and cultural sciences, but not limited to them.
4. Connectivist MOOC pedagogy results in highly useful network artefacts which may be maintained throughout the entire educational lifespan of “students” provided they retain relevance.



Contact

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