Designing for Democracy

Lecture at EnvironCity festival
Prague 2017

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www.systemsorienteddesign.net

http://systemsorienteddesign.net/index.php/projects/design-for-democracy
My story (Slightly compressed):

- How to design better for high level complexity?
- Designing (with) time
- Systems Oriented design [WWW.SYSTEMSORIENTEDDESIGN.NET]
- Systemic design [WWW.SYSTEMIC-DESIGN.NET]
Generative Design

Projects: Chamberworks, Barely 1, AGORA 1
Sevaldson et. al, OCEAN Design Research Association

www.ocean-designresearch.net

Photos: Birger Sevaldson, Kim Baumann Larsen
The background

Design has spread to many fields:
- Service design
- Organisation design
- Strategic design
- Policy design
- ......
- Design Thinking
Where is design?

- Design is moving towards ever-growing complexity.
- There is an increased realisation that design is capable to take on very complex problems, but that one also needs to change and increase the capacity to do such work
Milestones in this development are:

- John Chris Jones 1970 *Design Methods*:
  ....look beyond conventional products to think about the design of whole systems or environments such as welfare schemes, banking systems, and computer networks.

- Richard Buchanan 1992 *Wicked Problems in Design Thinking*
  - Four placements of design
  - FOURTH ORDER OF DESIGN
1st Order: signs and symbols >> graphic design/2-D products

2nd Order: objects >> industrial design/3-D products

3rd Order: services and activities >> interaction design, service design/4-D (time or motion-based) products

4th Order: systems and environments >> architecture, urban planning, organizational design, systems architecture, etc. (N-dimensional, multiple axes of concerns and change including society, government, community, public policy, law, natural ecologies, etc.)

R. Buchanan 1992
Herbert Simon

Everyone designs who devises courses of action aimed at changing existing situations into preferred ones...Design so construed, is the core of all professional training; it is the principal mark that distinguishes the professions from sciences. Schools of engineering, as well as schools of architecture, business, education, law, and medicine, are all centrally concerned with the process of design.

The Science of the Artificial 1996
Tony Golsby-Smith 2010: *Fourth-Order Design: A Practical Perspective*

- Widening of the influence of design outwards into the surrounding medium – the life of organizations in the modern world, or of governments and communities.

- Just as the product is not only a thing, but exists within a series of connected processes, so these processes do not live in a vacuum, but move through a field of less tangible factors such as values, beliefs and the wider context of other contingent processes.
Design Thinking

Design Thinking has made it into the business world thanks to Tim Brown and others like Roger Martin.

But it is much older and it was a result of architects and designers to understand their particular skills and practices.

Peter G. Rowe. Design Thinking 1991
Richard Buchanan. Wicked problems in Design Thinking 1992
Goldschmidt. On Visual Design Thinking 1994
Brian Lawson. How Designers Think 1997
Design for new business

- The new shared economies are designer and experience heavy
- Technological breakthroughs are changing the way. Design is moving from project orientation towards more continuous processes. Reasons for this are:
  - Lean (continuous improvement, flexibility, worker involvement)
  - Versioning and need for greater adaptability and flexibility

“SOFT IS THE NEW HARD”
The growing challenges to design:

Design is getting more and more complex because of the growing demands from

- Globalisation
- Sustainability

Every action we take has consequences which we cannot continue to ignore.

Systems Oriented Design is a method that addresses these challenges
What is Systems Thinking?

Ecology:
The ultimate example of systems thinking.

Man is part of ecology.

(National Oceanic and Atmospheric Administration.)
System Thinking is the Science of interconnectedness
Systems theory first originated in biology in the 1920s out of the need to explain the interrelatedness of organisms in ecosystems (w)

Ludvig von Bertalanffy (1901-1972)

(Photo: Wikimedia commons)
General System Theory

- Ludvig von Bertalanffy is regarded the father of General System Theory

- **Systems theory** is an interdisciplinary field of science. It is the study of complex systems in nature, society, and science. This could be a single organism, an organism and its habitat, any organization or society, or any electro-mechanical or informational artifact.

- There are many approaches:
  - Cybernetics
  - Systems Dynamics
  - Systems Engineering
  - Systemic Design
  - ..........
Design is the science and practice of what ought to be.

The practice is important!
What is Systems Oriented Design?

SOD tries to better connect the Science of interconnectedness with the Science and practice of what ought to be.

In Systems Oriented Design we look at businesses and organisations as “ecologies”. Sustainability is not only a matter of being “green” but also a matter of technology, economy, management, culture, politics and marked.
Think of everything as being super complex:

This implies that SOD operates across the four orders of design.
Designers have some real advantages as systems thinkers:

Designers are in a position where they can influence decisions concerning industrial production.
Designers have abilities as systems thinkers:

Designers are used to engage in fuzzy and ill-defined problems in an intuitive and holistic way. (Wicked Problems)

Designers can visualize!
Visual Thinking

Process and communication.
Visual Thinking

Visual thinking gives enormous advantages
For accessing and internalising and communicating complex information.

It creates the preconditions for interventions.

(Francesco Zorzi 2009)
BUT: The designers ability to think in complex systems needs to be trained and developed further.

Designers are today not really consciously trained with specific methods to make them better in coping with very complex issues. We have developed several techniques and concepts to get better.
The difference between traditional designers and “Systems heads”.

Normally designers react to complexity.

Systems oriented Designers act towards complexity in a proactive manner.
"GIGA-mapping"

(Young Eun Choi, Birger Sevaldson, AHO 2013)
"GIGA-mapping"

GIGA-mapping might deal with relations playing out in structures over time.
"The Rich Design Space"

(Photo: Birger Sevaldson 2013)
Democracy

Democracy as public service?

The three basic forms:

- Direct democracy
- Representative democracy
- Deliberative (dialogic) democracy
History of Design and Democracy

Victor Margolin:
“Design and Democracy in a troubled world”
https://vimeo.com/51090940

• Considers democracy both a condition and a system of governance

• As a condition, it is the result of a governance process that is based on citizen participation, fairness, and justice. As a system of governance, it consists of institutions and procedures that define our personal and collective spheres of action.
The four domains of design for democracy

1) **Design of democracy:**
   - It addresses the structural elements that function as frames and regulators of human action in a democratic system. It focuses on institutions (as: branches of government, agencies, bureaus, courts, and offices) and procedures (such as: laws, regulations, rules, and protocols).

2) **Design for democracy:**
   - It increases the opportunities for citizens to participate in deliberative processes. It focuses on transparency (which enables citizens to be aware of the on-going process of governance) and deliberative methods (which means the opportunity to be better involved in decision making processes).

3) **Design as democracy: (added by Manzini)**
   - It sets a stage on which diverse actors can come together and democratically collaborate in shaping their present and future world. It engages diverse people and publics in co-design and co-production processes concerning different aspects of their everyday life.

4) **Design in democracy:**
   - It refers to all the design initiatives that are particularly responsive to the goals of democracy. It may deal with the provision of human rights, and fundamental freedoms (such as access to food, shelter, health care, and education) and, more in general, with the transition towards a more resilient, fair and sustainable society.

Margolin and Manzini 2017
Mind Lab Denmark

- [http://mind-lab.dk/](http://mind-lab.dk/)
Open Letter to the Design Community: Stand Up for Democracy

1. We are in a difficult and dangerous time. For many years, we lived in a world that, despite its problems, was nevertheless committed to principles of democracy to which human rights, fundamental freedoms, and opportunities for personal development were increasing. Today, this picture has changed profoundly. There are attacks on democracy in several countries — including those where democracy had seemed to be unshakeable.

2. Faced by these developments, we believe the design community should take a stand, speak out, and act: practitioners, researchers, theorists, students, journalists, publishers and curators — all who are professionally involved in design-related activities.

3. Beyond expounding and sharing our concern, this letter aspires to help deepen and amplify actions in which the design community, with all its richness and diversity, is already taking a stand. These initiatives and initiatives deserve more visibility.

To those members of this community who agree with the spirit of this letter, we propose the following actions:

- write a personal statement of less than 500 words;
- circulate the statement in your networks;
- organize an event in the next few months.

The aim of us is committed to collect these statements, plus information about events as they are registered, and make them visible in all ways possible.

How effective we can be in this work depends on how this letter is received, and what new energies it generates. We hope that it will stimulate designers to stand up and fight for democracy in their own communities and throughout the world.

Erizo Marziti and Victor Margolin
Chicago, 5 March 2017

Please send your feedback to erizo.marziti@gmail.com.

http://www.democracy-design.org
**RSO Symposium**

**Relating Systems Thinking and Design 6**

Oslo School of Architecture and Design (AHO)  
Oslo, Norway  
October 16-20, 2017

Following two years in Canada, join us this year in Oslo as RSO returns to its home location for the RSO Symposium.

**Quick Links to Register and Participate**
- Registration and participation
- Accommodation
- Travel Information
- Venue
- Organising Committee

**Organisers**

**Endorsed by**

**Supports**

**Design for Democracy**

Design for Democracy is an education based research program started in the fall 2016 but with several projects predated this.

The aim of the project is to develop the next generation of design for democracy. We think developing democracy is about practice and cultruring rather than about theory. In short, it is about design. Design can play a crucial role in the development of the next generations of democracy.

Here is the link to the democracy files, a collection of resources regarding design for democracy.

**The Democracy Files**

Want to study Design for Democracy?

**Design for Democracy Course Description**

Design for democracy is not new and we think we need to build on the existing work but this needs to be developed further. Victor Margolin has been important in maintaining the agenda and provides an excellent overview in this lecture from 2012.
# Election Participation

<table>
<thead>
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<th>Age</th>
<th>Percent</th>
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<td>18-19 y.o.</td>
<td>48.3</td>
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<td>20-24 y.o.</td>
<td>36.4</td>
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<tr>
<td>25-44 y.o.</td>
<td>51.5</td>
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<tr>
<td>45-66 y.o.</td>
<td>67.7</td>
</tr>
<tr>
<td>67-79 y.o.</td>
<td>75.9</td>
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<tr>
<td>80 y.o or older</td>
<td>56.8</td>
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</tbody>
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2015 Local election statistics from Tønsberg Kommune

Aslak Sødal 2016
2013 National election statistics from SSB.no

Aslak Sødal 2016
PROPOSED SOLUTION

TØNSBERG MUNICIPALITY

PRIVATE ACTORS

THE PUBLIC AND NGOs

SKJER'A TØNSBERG?
COMMON INFO-PAGE FOR ALL EVENTS, ACTIVITIES AND CULTURAL HAPPENINGS IN TØNSBERG

Aslak Sødal 2016
Interview with Jan Petter Bergan

To get a better understanding of what the municipality of Tønsberg does today to connect and distribute its information, I set up a meeting with Jan Petter Bergan, the head of information and web-editor in Tønsberg.

He helped me understand different municipal processes, and at what time people can expect to receive updates, or can contribute to them. Primarily among this was the planning process, as this was something we as a class had used quite some time to understand, is arguably one of the bigger participatory processes within any municipality.

On the next page, I’ve drawn out my final understanding of the process, along with a case study of how the municipality does its information dissemination today.

By meeting Jan Petter, and having an interview and conversation with him, many of my suspected issues were confirmed, along with some interesting new bits of information was discovered. Primarily among these that municipal documents are hard to find, but also that they are incredibly hard to read.

The municipality itself is working on ways to deal with the complexity of the language.

“People don’t really care that much for all these fancy words. They just want to know its about a ferry”

- Jan Petter Bergan
How can we make publics access to information in Tønsberg easier and more manageable?

At the third milestone presentation, two codependent solutions based on the critical findings from the research phase were proposed to the partners. To counter the fact that people find the information hard to understand, the first proposal is a digital media strategy describing how all instances in the municipality share and deal with the information that comes from them.

Proposal 1
MEDIA STRATEGY
reconceptualising civic participation in the urban planning process

Christopher Pearsell-Ross
Systems Oriented Design
The Oslo School of Architecture and Design
December 2016

http://systemsorienteddesign.net/index.php/projects/design-for-democracy/democracy-projects/future-fest
Introduction

Our local built environment is the socio-spatial system in which we live our lives. It is central to our individual and collective well-beings. It is a field of intersections; of overlapping transit systems, economic and social networks. It is where the government and the individual meet most directly.

In Norway, as in other liberal democracies, citizens have a role to play in how their built environment is formed, chiefly through municipal urban planning processes. While the ballot box can be widely seen as the primary democratic tool of the liberal democracy, the consultative processes around urban planning have an important democratic role to play, and, it could be argued, a more direct impact on our daily lives. Clearly, our cities and towns are part of larger interconnected systems, and are influenced by a complex tapestry of forces. That being said, those elements that we can effect should be capitalized on in order to improve our individual and collective quality of life. (Pacione, 2003, 2003)

With the built environment and our planning process as a focus, this project started by asking several questions, namely: how can we create a more responsive built environment?; how can our existing behaviours and collective patterns be read and used?; and finally, how can alternative conceptions of participation and engagement contribute to better outcomes and a more democratic process?

This intersection between democracy and the built environment is central to the proposed design intervention - Future Fest. Future Fest seeks to address core issues raised in the research pertaining to the effectiveness of the planning process, while also seeking to integrate the concept of deliberative democracy to create a fairer, more just, and more representative system.
Urban Planner
Public Health Worker
Architect and Senior Advisor
Developer's Association Representative
Marketing and Participation Director
Classmates, teachers, friends and colleagues

Future Fest
Christopher Pearsell-Ross
AHO - Dec 2016
Folketråkk er i gang!

Folketråkk skal bli et medvirkningsverktøy for bedre stats- og byutvikling. Foto: Sverre Dhr. Jølil

Folketråkk er en videreutvikling av medvirkningsverksemdet Barnetråkk. Nå er prosjektet i gang for alvor, og her får du en statusoppdatering.

Welcome 👋

We love all the questions and requests we get for our data. If you want to analyse how the system is used, visualize movements, build bike sharing into your apps or have other interesting ideas, we are more than happy to provide you with what you need to get started.

API
The always up-to-date overview of the city bike system

Data
Monthly data of all trips published in CSV and JSON format

You'll need an account to get the credentials necessary for using the API. Sign up for an account.

Do you have any questions relating to the data? Please send us an e-mail to developer@hololasskel.no.

Future Fest
Christopher Pearsell-Ross
AHO - Dec 2016
we need to build an atmosphere of engagement around planning
Planning meetings are not effective.

Future Fest is: Collaborative, experimental, participatory.
ACTORS MUST: TRUST, COMMUNICATE, AND WORK TOGETHER

FUTURE- FEST!

NEW PARTICIPANTS
NEW INFO

AREA PLAN / EY PLAN

Future Fest
Christopher Pearsell-Ross
AHO - Dec 2016
Image 3: Modified Three Horizons Model

Image 4: Modified Pace Layer Model

Image 5: Annotated draft of my democracy model

Christopher Pearsell-Ross 2016
http://systemsorienteddesign.net/index.php/projects/design-for-democracy/democracy-projects/folketrakk

Marie Løken 2016
The hook model

Eyal (2014), Hooked - How to build habit-forming products.
Share your opinion about your neighborhood

share
What do you like about your neighborhood?

- Vegetation
- Parking lots
- Nice houses
- Activities
- Sitting
- Shopping
- Cycling
- Transportation
Place the following marks on the map

- Most walked paths
- Favorite places
- Misliked places
HOW TO PRACTICE THE CULTURE OF EMPATHY?!
All these processes are the diversity that makes up the CIVIL SOCIETY.

Democracy is dependent on a solid Civil Society. A robust Civil Society is composed by citizens who actively co-design their lives.
Elderlies & youth together

A program where high schools & senior centers can connect people.

Workshops developed with participants from Trøleborg Senior Center and Færder Videregående Skole in Tønsberg during November 2016.

Image: Simon Sandoval 2016

http://systemsorienteddesign.net/index.php/projects/design-for-democracy/democracy-projects/a-bridge-between-people
Bibliography

Background Graphics
Francsesco Zorza
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Praveen Nahar et. al.