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WEEK 10 – TOWARDS DESIGN SCIENCE I

Citizen Design Science

Citizen Design Science describes the combination of citizen science and of design science. Citizen science is an advancing movement throughout the world in which citizens of all ages and backgrounds support scientists by either collecting or analyzing data and observations (e.g. citizens collect data on birds and their habitat). The internet is crucial: millions of individual observations turn into a flow of data and information beneficial for science. We want to achieve something similar for design: millions of individual observations turning into a rich flow of data and information to improve the planning and functioning of a city.

In Citizen Designed Science, citizens are involved in the development of the proposals from the very beginning. As a matter of fact, urban development will often be most likely initiated and formed by citizens in the future. Through the mechanism of crowdsourcing and design crowdsourcing, citizens will be able to provide their view of the city, and they will volunteer data on their daily routines. They will provide more helpful or more generalizable insight into the dynamics of the city than a survey based data collection could ever provide. Citizen design science will thus offer the possibility to the inhabitants and stakeholders of a future city to take actively part in the design process.

In practical terms, with Citizen Design Science, citizens combine their individual design capacity for objects, processes or systems with their observations and data collections (G. Schmitt, 2015).

Urban governance

“Urban governance can be defined as the sum of the many ways individuals and institutions, public and private, plan and manage the common affairs of the city. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action can be taken. It includes formal institutions as well as informal arrangements and the social capital of citizens. The Global Campaign on Urban Governance proposes that good urban governance is characterized by a series of principles, which are interdependent and mutually reinforcing.” (UN-HABITAT)

UN-HABITAT. *Urban governance index*. [online]

<<http://ww2.unhabitat.org/campaigns/governance/documents/UGIndex%205%20pager.pdf>>

[accessed at 29 June 2015]

Informational City

Manuel Castells wrote the book *The Informational City: Information Technology, Economic Restructuring, and the Urban Regional Process* in 1989. Castells bases the city of a new 'informational mode of development'. This development contains the convergence through interaction of information technologies and information processing activities. He called this the 'techno-organizational system'.

The network of information flows is beyond the control or apprehension of most stakeholders in the city. Effects of this development are, among others, new urban hierarchies formed through global cities that are information coordination hubs. Besides that, new kinds of city builders develop as well; corporations who develop and market new information systems which features of real time data gathering and management of big data (Jane M. Jacobs, 2015).

Welfare-state model

A welfare state is a concept of government in which the state plays a key role in the protection and promotion of the economic and social well-being of its citizens. It is based on the principles of equality of opportunity, equitable distribution, and public responsibility for those unable to avail themselves of the minimal provisions for a good life. The general term may cover a variety of forms of economic and social organization. The sociologist T.H. Marshall identified the modern welfare state as a distinctive combination of democracy, welfare, and capitalism.

Wikipedia. *Welfare state*. [online] <https://en.wikipedia.org/wiki/Welfare_state> [accessed at 30 June 2015]

Enlightenment

The Age of Enlightenment (or simply the Enlightenment, or Age of Reason) is an era from the 1620s to the 1780s in which cultural and intellectual forces in Western Europe emphasized reason, analysis, and individualism rather than traditional lines of authority. It was promoted by philosophes and local thinkers in urban coffee houses, salons, and Masonic lodges. It challenged the authority of institutions that were deeply rooted in society, especially the Catholic Church; there was much talk of ways to reform society with toleration, science and skepticism.

Wikipedia. *Age of Enlightenment*. [online] <https://en.wikipedia.org/wiki/Age_of_Enlightenment> [accessed at 30 June 2015]

Zoning

Zoning describes the control by authority of the use of land, and of the buildings thereon. Areas of land are divided by appropriate authorities into zones within which various uses are permitted.

Thus, zoning is a technique of land-use planning as a tool of urban planning used by local governments in most developed countries. The word is derived from the practice of designating mapped zones which regulate the use, form, design and compatibility of development. Legally, a zoning plan is usually enacted as a by-law with the respective procedures. In some countries, e. g. Canada (Ontario) or Germany, zoning plans must comply with upper-tier (regional, state, provincial) planning and policy statements. There are a great variety of zoning types, some of which focus on regulating building form and the relation of buildings to the street with mixed-uses, known as form-based, others with separating land uses, known as use-based or a combination thereof. Similar urban planning methods have dictated the use of various areas for particular purposes in many cities from ancient times.

Wikipedia. *Zoning*. [online] < <https://en.wikipedia.org/wiki/Zoning> > [accessed at 30 June 2015]

Top-down planning

Top-down planning exists out of a tendency “towards centralism and de-politicizing decision-making as well as increasing the role and power of technical experts” (..). Decisions are taken on a high scale without public participation. Critics on this urban planning strategy are:

- “The model starts from the perspective of (central_ decision-makers and thus tend to neglect other actors.
- The models are difficult to use in situations where there is no dominant policy = or agency, but rather a multitude of governmental directives and actors.
- The models are likely to ignore or underestimate the strategies used by street level bureaucrats and target groups to get around (central) policy and/or to divert it to their own purposes. “ (I.A. Pissourios, 2014)

Pissourios, I.A. (2014) *Top-down and bottom-up urban and regional planning: towards a framework for the use of planning standards*. 21:1, p. 83-99, European Spatial Research and Policy. [online] <<http://www.degruyter.com/view/j/esrp.2014.21.issue-1/esrp-2014-0007/esrp-2014-0007.xml>> [accessed at 30 June 2015]

Techno-organizational system

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