

“Strategic energy planning in a legal and municipal perspective”

4DH PhD seminar

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Research area work package 3.1

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The legal obligations of district councils are considered and a comparison is made of the obligations and the actual behaviour of councils.

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Problem question/research area

1. Legal aspects of future strategic energy planning.
2. Heat planning is challenged by outdated and obsolete plans
3. Coordination problems – Weakening of plans jointly made by municipalities, supply companies and other parties
4. Change – price (markets), technology, land use (architecture)
5. The Legal obligations and the actual behaviour of councils.

Problem question

Old version:

“How do we design planning laws to best reflect technological changes in the energy sector so as to best support strategic energy planning and greater cooperation in municipal energy planning through the modelling of municipalities responses to regulatory constraints?”

Hypothesis

“Given the potential of alternative regulatory channels to shape human behaviour in a similar manner to the law, a re-examination of energy law through the lens of the New Chicago School approach to regulation represents a better means of analysing and developing strategic energy planning as a legal concept.”

What is the New Chicago School?

1. Regulation is interpreted through the **behaviour of individuals**.
2. Individuals are assumed to **act rationally**.
3. As behaviour is rational, it can be aggregated across society and used to **predict legal outcomes**
4. Law is **not the only channel of regulation** (norms, markets and architecture); have similar regulatory effects
5. Law is not only a regulator, but a **meta-regulator**.
6. Legislators ought to use the law as a means of **indirect regulation** by impacting upon the other channels

Step 1

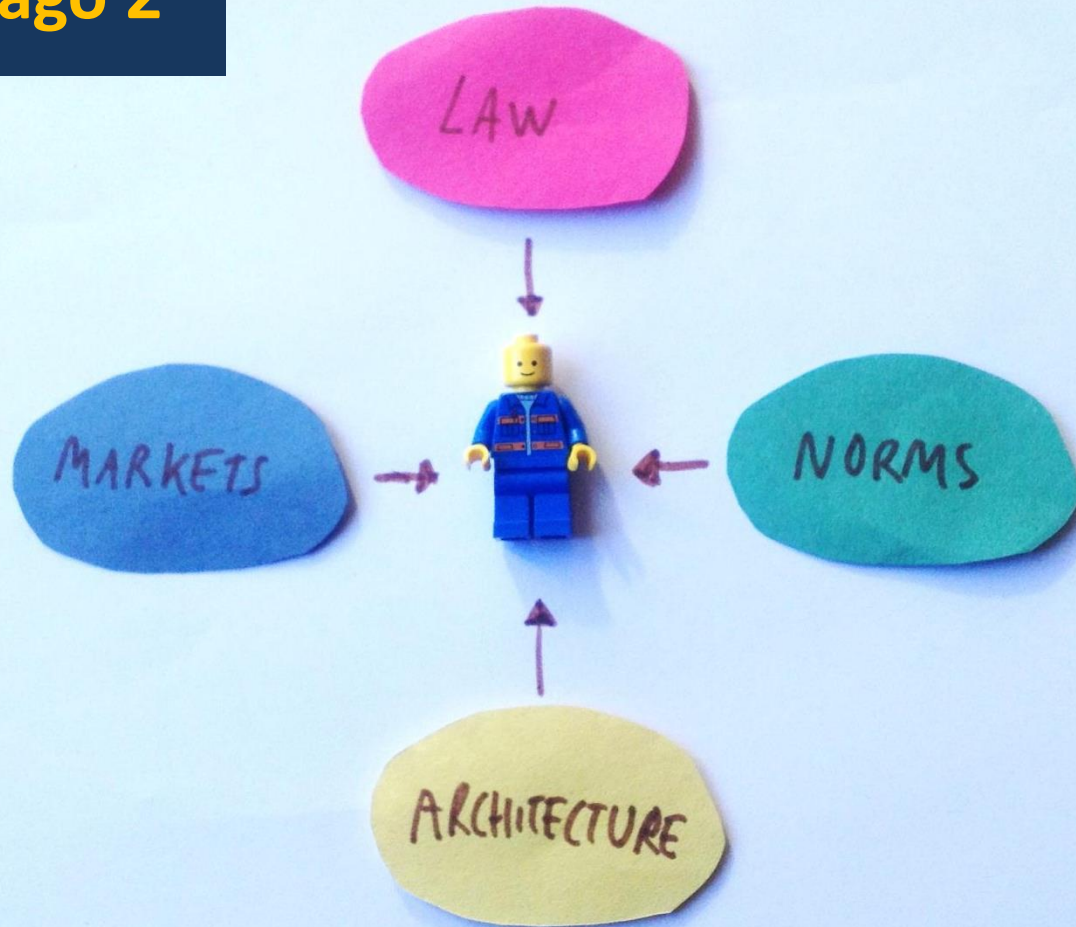
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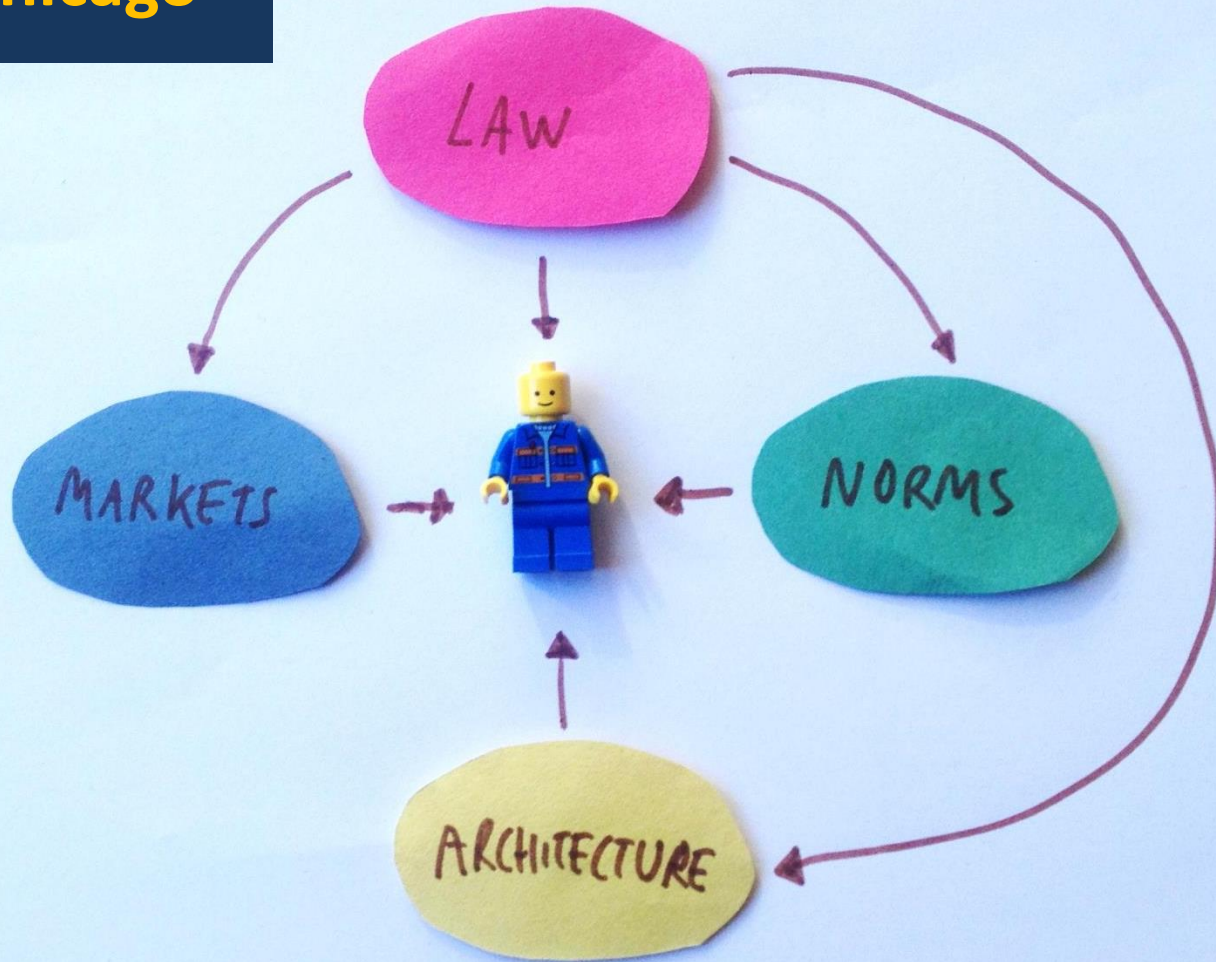
Old Chicago



Old Chicago 2

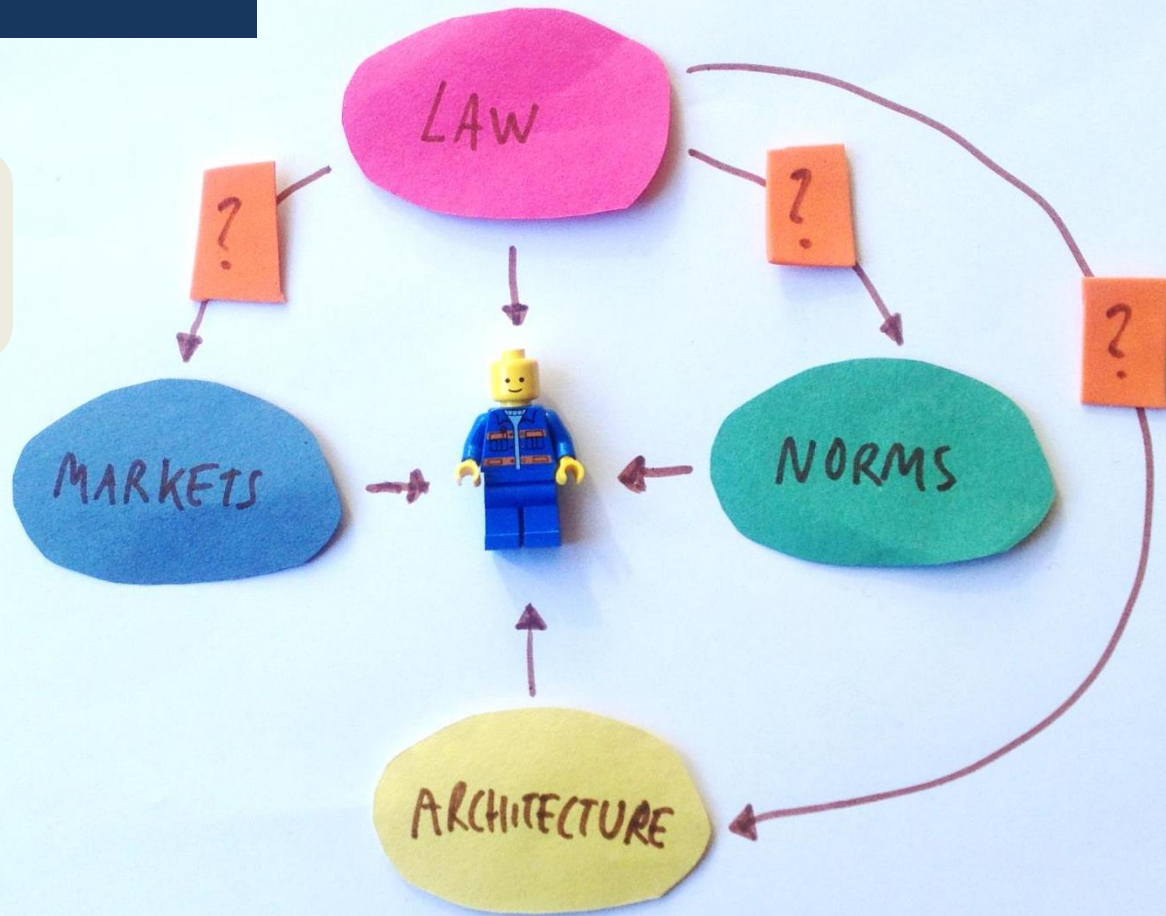


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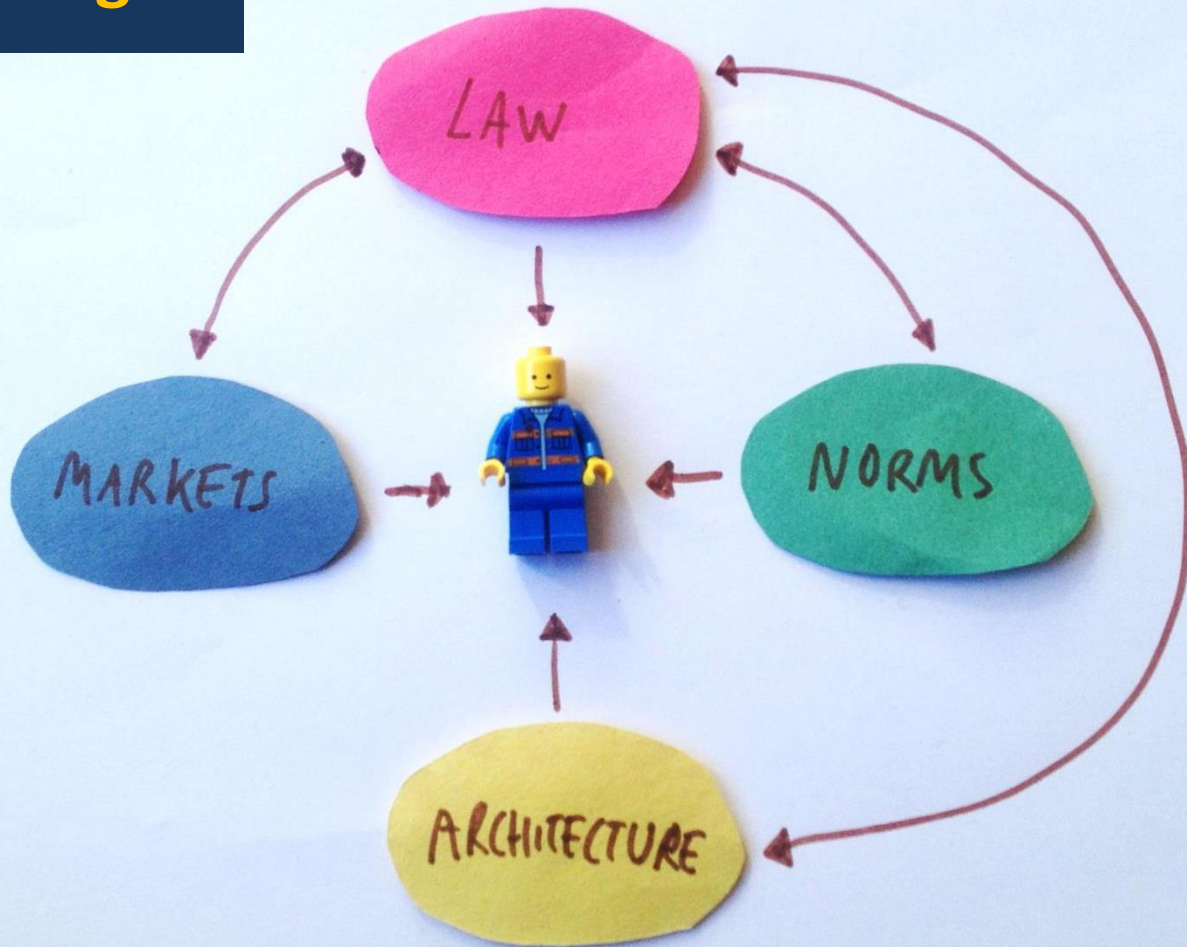
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Stickiness?



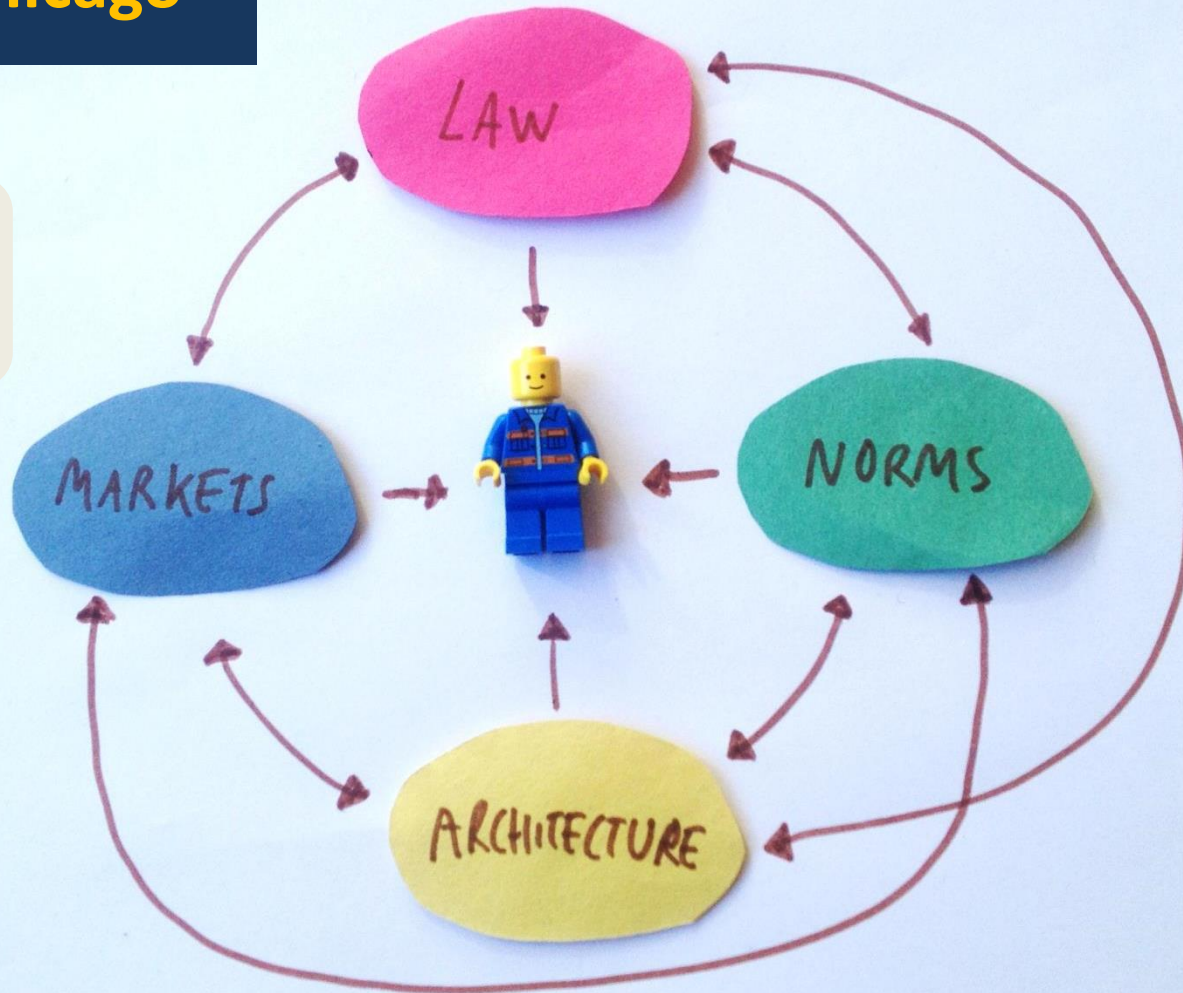
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Meta-regulated



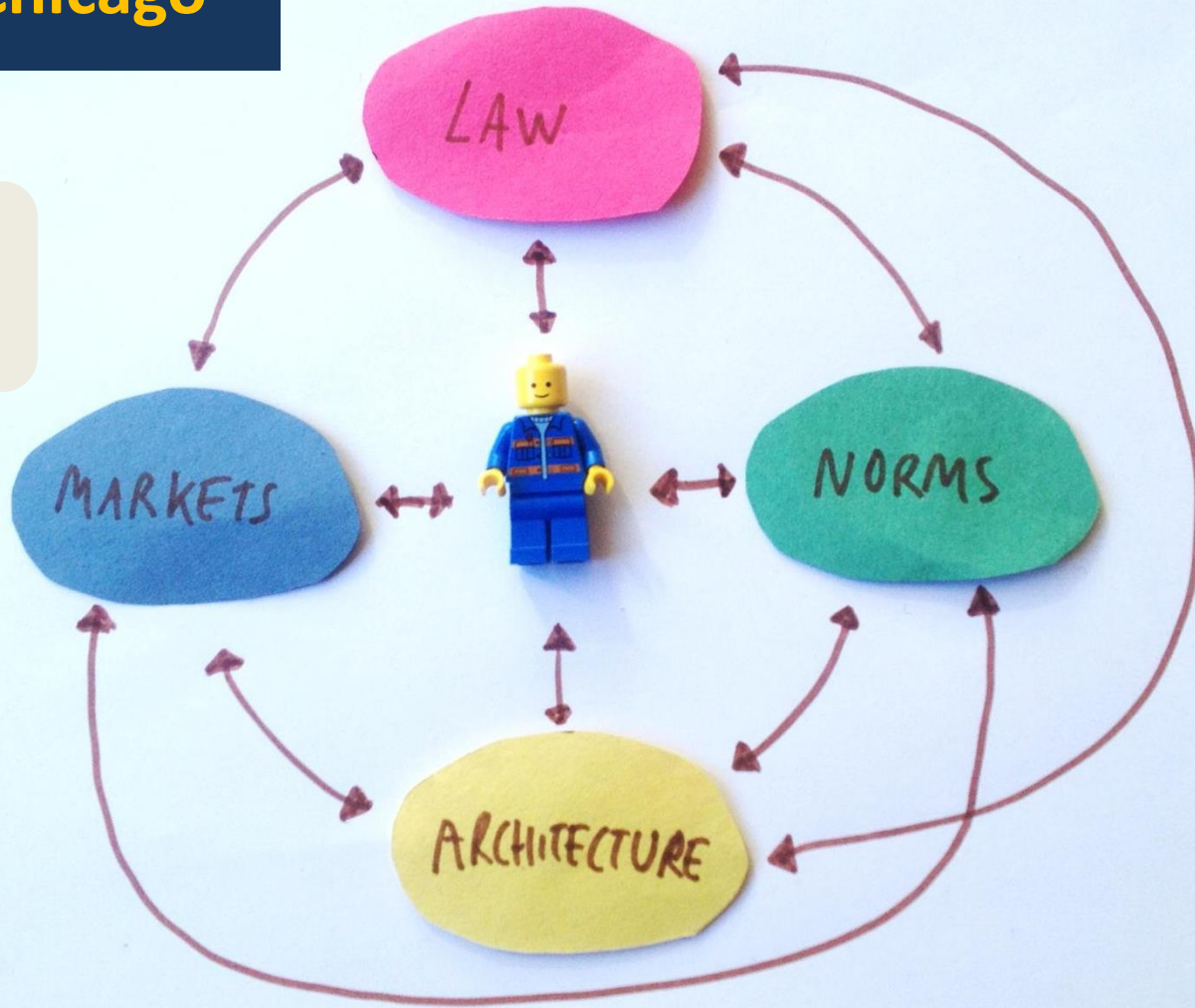
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Meta-regulated 2



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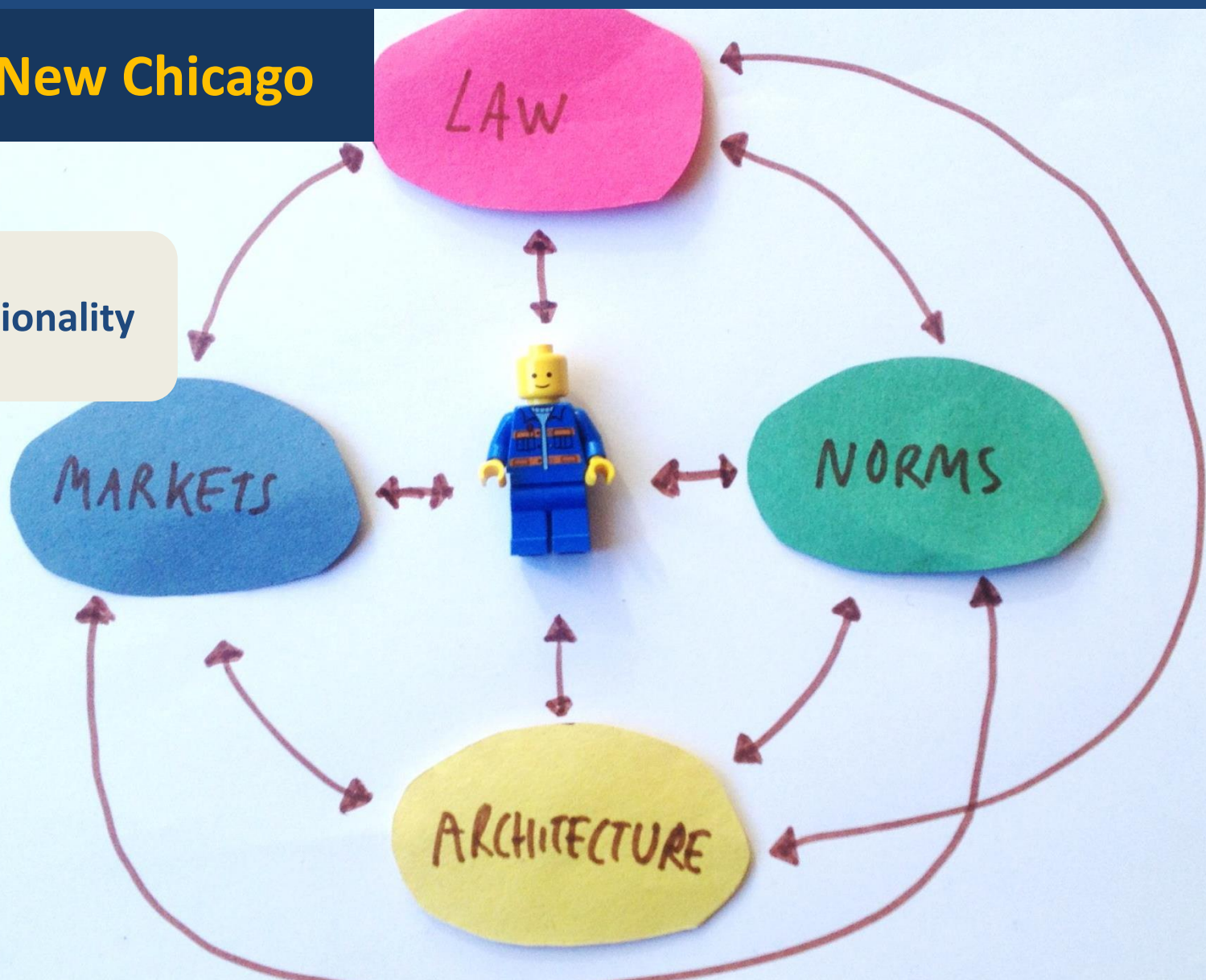
Meta-
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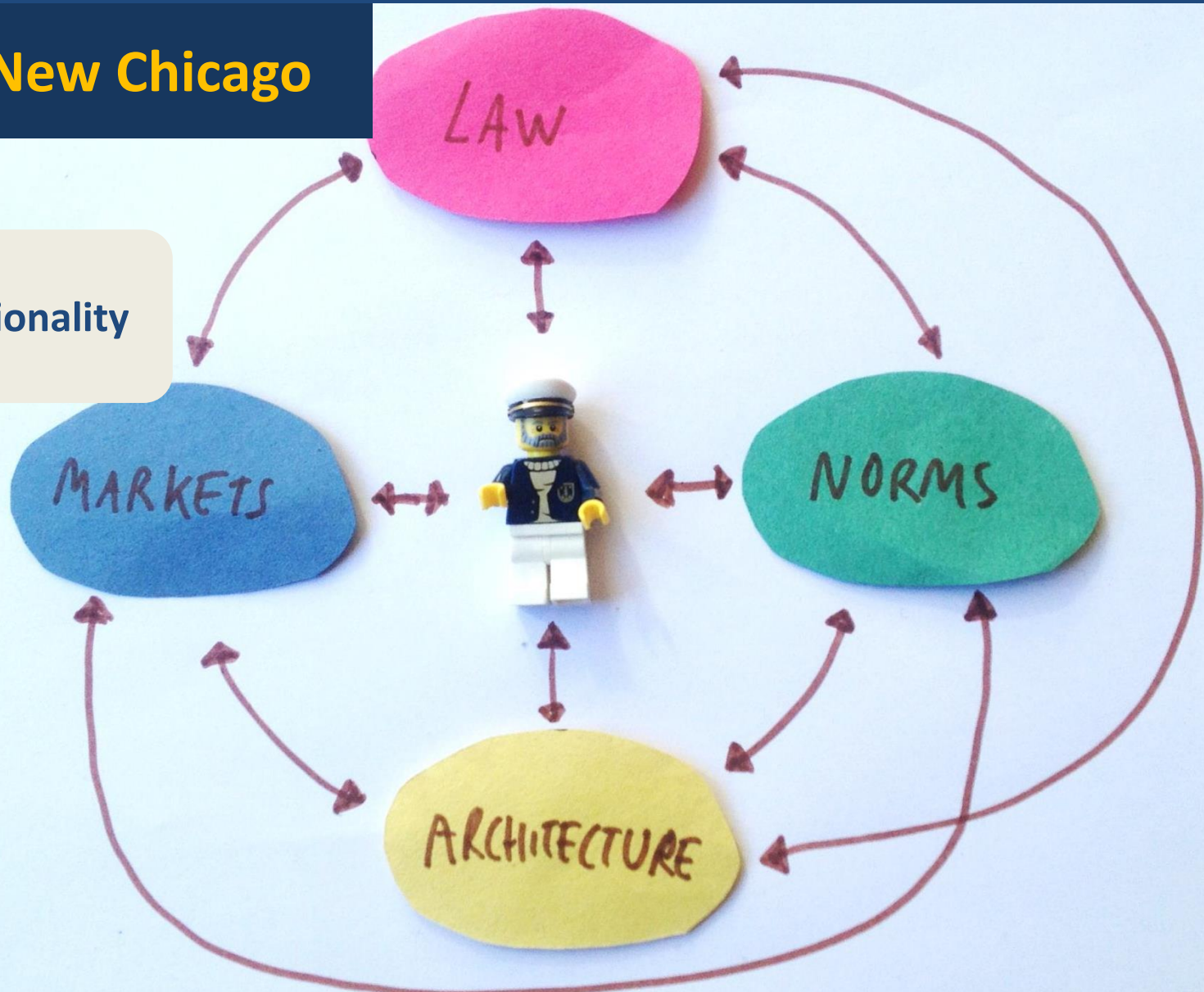
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Rationality



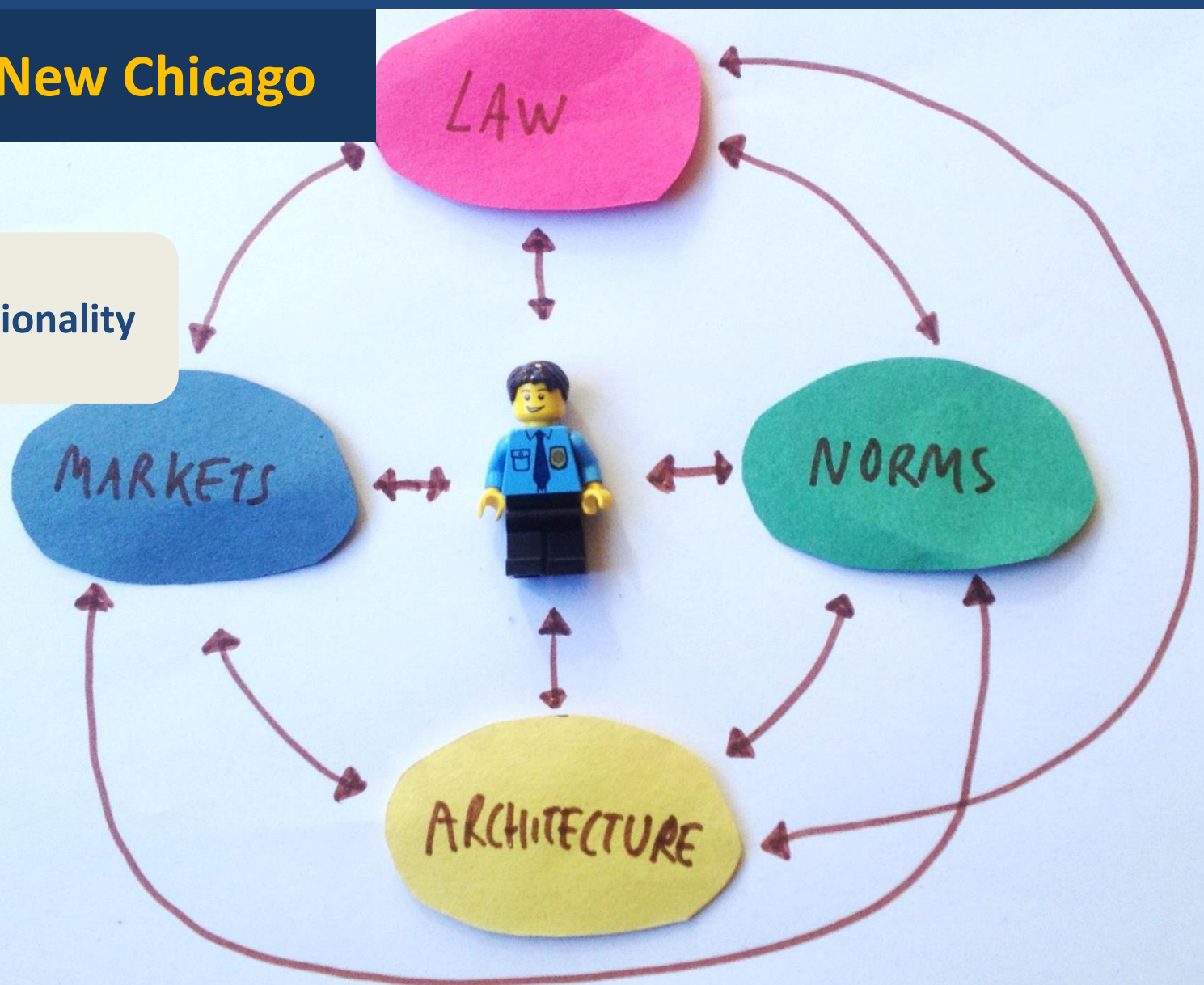
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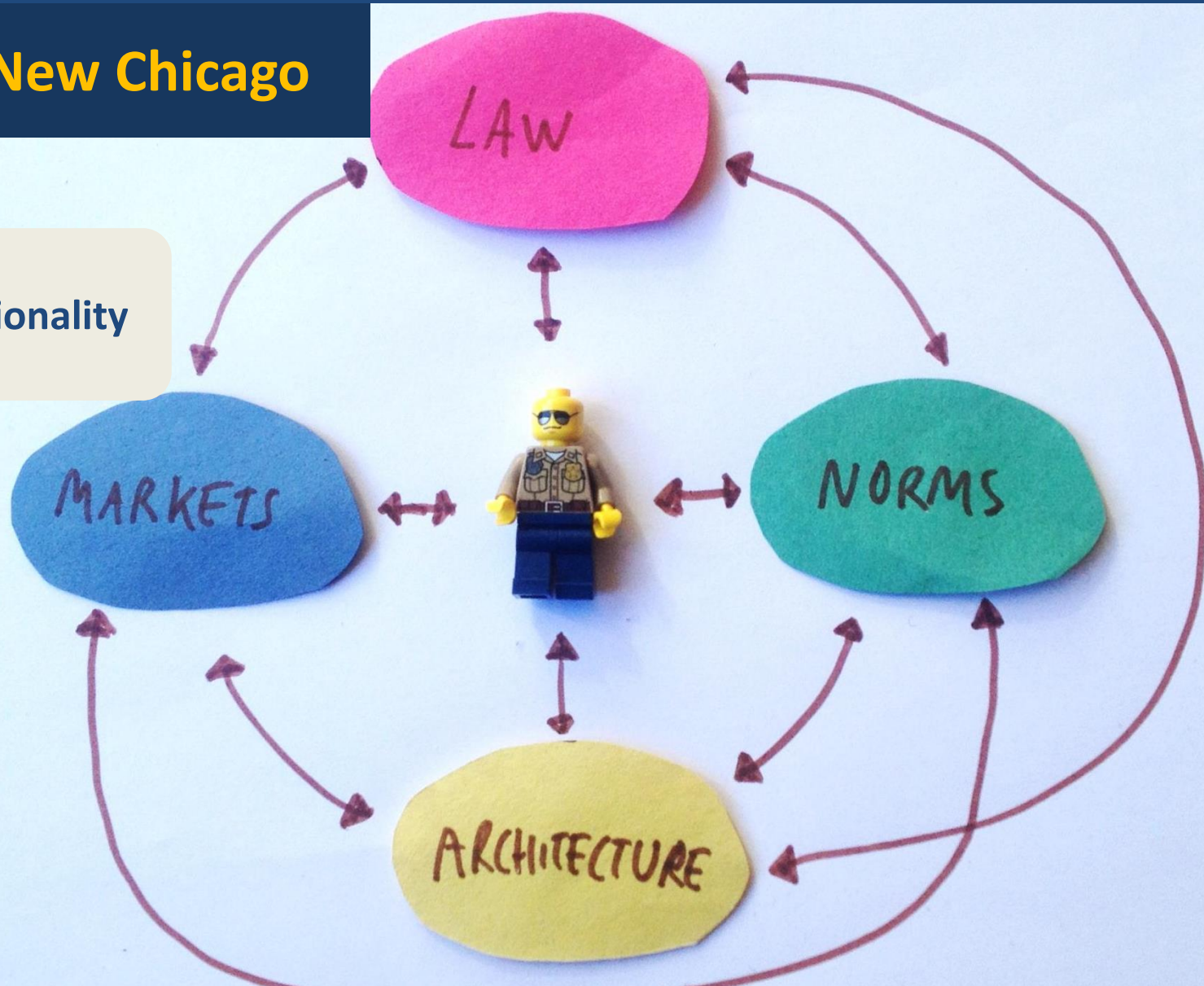
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Rationality



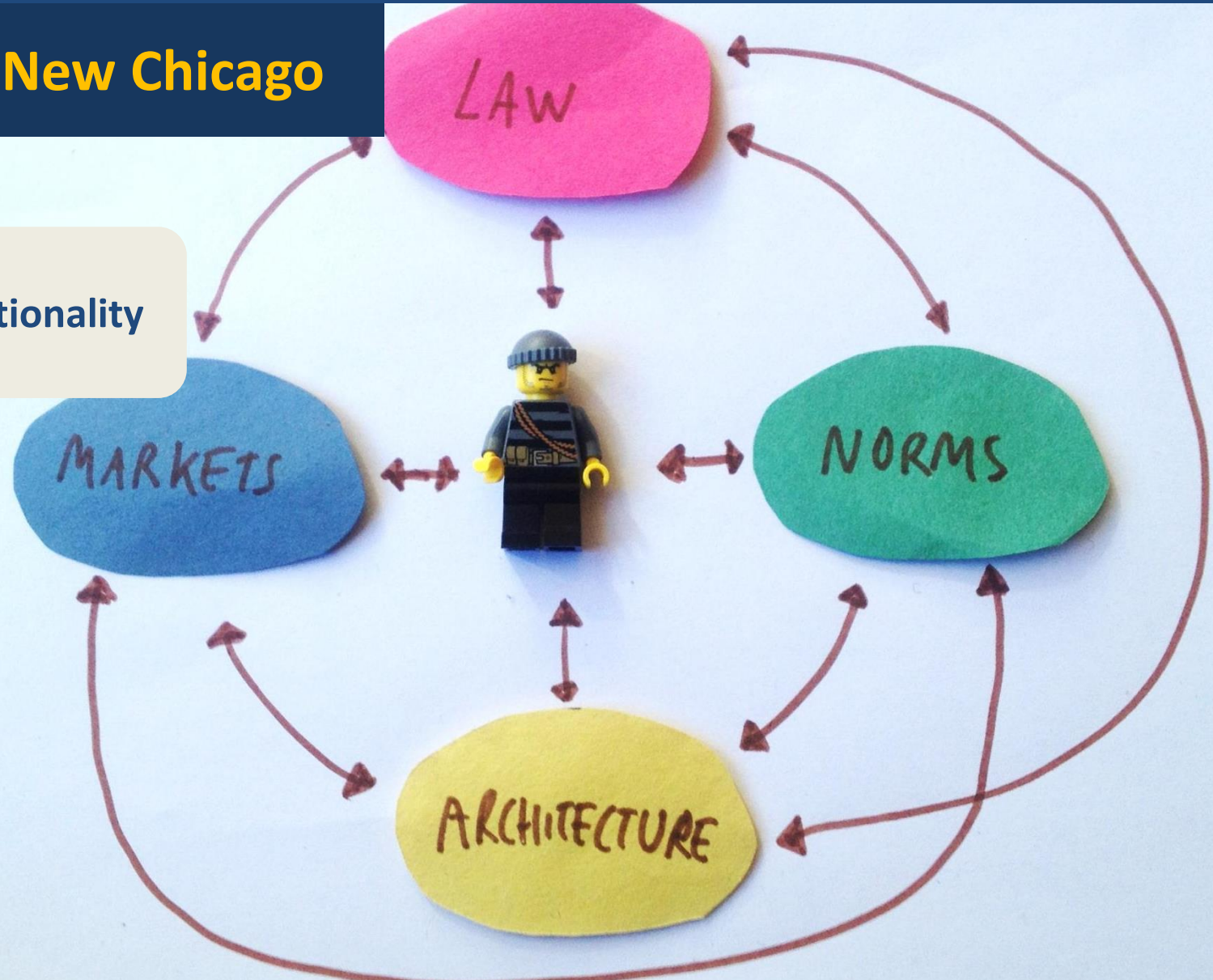
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Rationality



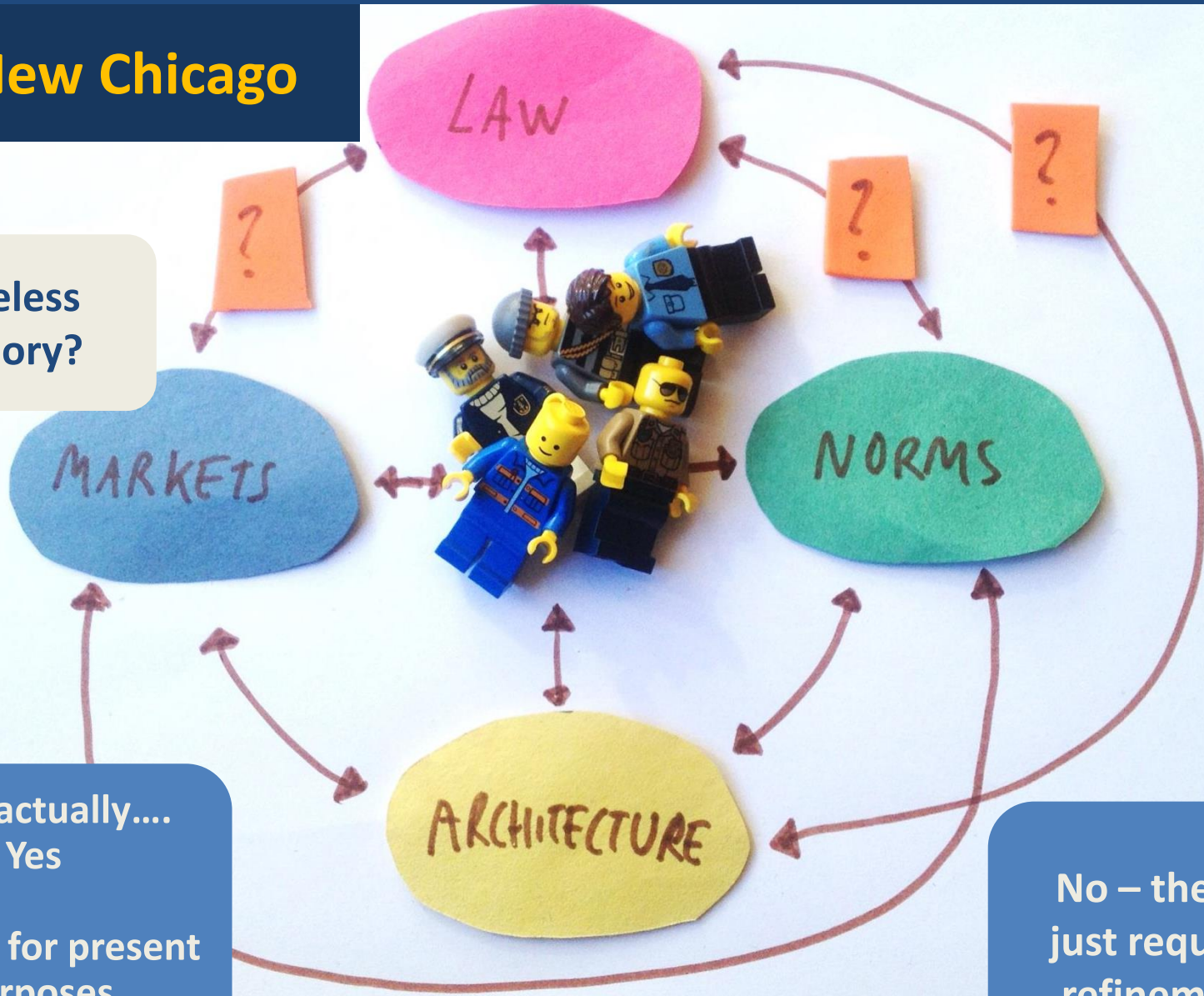
New Chicago

Rationality



New Chicago

Useless theory?



Well, actually....
Yes

At least for present
purposes

No – theory
just requires
refinement

Problem with New Chicago School

- Is too broad – it offers a way of understanding the structure of regulation, but the weaknesses in the system need closer attention
- These weaknesses are such that they will require too much time to examine
 - Disparate fields
 - Outside my research competences
 - Outside the research goals of 4DH
 - Will mean writing two or three theses instead of one

Problem question

New version:

“If strategic energy planning be used to better adapt to technological changes in the energy sector and thereby promote cooperation in municipal energy planning to the extent necessary to achieve the broader societal goals of energy planning, how can the law be used to support this?”

Purpose of energy law – The why

- Both Elforsyningsloven (Electricity Supply Act) §1 and Naturgasforsyningsloven (Natural Gas Supply Act) have same societal purpose
 - Ensuring energy security, net social benefit (samfundsøkonomi), environmental protection, and consumer protection
- Varmeforsyningsloven (Heat Supply Act) §1
 - Mentions samfundsøkonomi
 - Coproduction of heat and electricity (§1(2))

Purpose – Cost benefit analysis

Guidelines from Danish Energy Agency on cost benefit analysis

”Formålet med samfundsøkonomiske analyser af projekter er at forbedre grundlaget for en kvalificeret samfundsmæssig prioritering af knappe ressourcer”

Best societal use of scarce resources

Electrification/renewables – the how

"...I 2020 vil **vindkraft** derfor dække halvdelen af elforbruget, og forventningen er samtidigt, at en relativt større andel af Danmarks samlede energiforbrug – bl.a. til transport og **opvarmning – vil være elbaseret frem mod 2020**. Det udfordrer det elsystem, vi har i dag. Vi er vant til at regulere elproduktionen efter elkundernes forbrugsmønstre, men store mængder **vind- kraft og stigende andel solenergi** fordrer et mere fleksibelt elforbrug."

From Energistyrelsens Smart Grid Strategi

Trends in energy sector

- Localisation (municipal involvement)
- Increased use of renewable energy sources
- Increased integration between energy sectors and development of smart grids

These trends impact upon how we regulate and organise the energy sector – forces that will shape energy strategies

Strategic energy planning

- Fund announced in Energy Agreement 2012 (energiaftalen)
- Promote conversion to a more flexible and efficient energy system with more renewables
- Strategic energy planning (SEP), shall support municipalities in the planning of the energy system in the most socially beneficial manner
- Voluntary
- SEP covers all forms of energy consumption and supply within a municipalities geographic boundaries

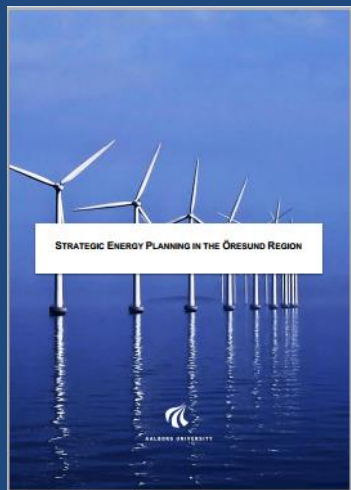
Strategic energy planning

Key elements guiding the fund

- Introduction of renewables
- Coordination
- Long term planning
- Reach societal goals

Defining strategic energy planning

- Guidelines from the Danish Energy Agency detail the nature of the process and the rationale for SEP
- Definition of the process from Rasmus Lund, Brian Vad Mathiessen, David Connolly, and Karl Sperling
“Strategic Energy Planning in the Öresund Region”



“The process where municipalities are planning for the development of energy supply and demand within electricity, heating, mobility and other relevant sectors, based on long term scenario analyses, in coordination with the relevant municipal departments and external actors including the local communities, to reach long term societal goals in the most feasible way.”

Strategic energy planning in a legal perspective

- Important to consider from a legal perspective with regard to overall energy policy/strategy
 - Liability/responsibility
 - Delegating an important area of social responsibility to the civil service
 - Binding agreements between municipalities?
 - Adequate tools to carry out the job
 - Understanding the term can help streamline the process

Possible constructions of SEP with regard to strategic competences

Strategy implies *power*, planning implies a *function*, energy implies a *jurisdictional* boundary

- Definition one – *strategic planning* of the energy system
- Definition two – *strategic* direction of energy-planning
- Definition three – *planning* of strategic energy *projects*



Central government
 Central government has the final say in deciding upon overall energy policy, with political priorities for energy policy implemented via laws and statutory orders.

Danish Energy Agency
 The Danish Energy Agency, operating under the Ministry for Climate, Energy and the Environment, is in charge of overseeing the Danish energy sector and has responsibility for developing policy in this sector

Municipal government
 With increasing dependency upon locally produced renewable energy, municipalities are playing an growing role in the development of energy policy. However, municipalities must work under the framework conditions set by central government and the DEA

Energy planners
 Energy planners have expertise in the operation and implementation/installation of energy projects. However, rather than developing strategies for the energy sector at a national or local level, they are primarily tasked with implementing the strategies of others

Full control over strategy

Zero control over strategy



Little engagement with project planning

Full engagement with project planning

**Control over energy policy
 Strategy vs planning**

Strategic energy planning - hierarchy

Currently researching the links between hierarchy and exercise/nature of strategy

- Strategy – the executive
- Strategic planning of energy sector – Danish Energy Agency
- Strategic use of energy planning – municipalities
- Planning of strategic energy projects – planners in municipalities

Control over strategy drips down from the top?

Strategic energy planning

Strategic energy planning is the management and delegation of responsibility for strategy and planning in the regulation of the energy sector in a manner that promotes cooperation over competition between energy actors, yet still is geared toward the achievement of broad societal goals set at the highest levels of the hierarchy.

Thanks for your attention

Any advice?