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From Ethics to Politics: If Design Is Problem Solving, What Then Are the Problems?

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Conclusion

Design decisions affect people and/or society,
therefore they have a political aspect.

A most critical step is problem definition:
It most often implies a limitation of the solution space.

Distinguishing between what is considered changeable
and what is alleged to be unchangeably set
(by economy, technology, society, law, users, clients, …)
is a political decision – even if made unconsciously.

Design education should encourage conscious decisions.

My Premises / Assumptions

The world is in a less than perfect state.

It is possible to improve it.

It should be improved.

Design (education) can contribute to improve it.

Design (education) should contribute to improve it.

My Premises / Assumptions

The world is in a less than perfect state.

It is possible to improve it – *No, it cannot!*

It should be improved – *I don't care / it's OK anyway.*

Design (education) can contribute to improve it.

Design (education) should contribute to improve it.

– *Maybe it could, but it's not the designer's job to do so.*

HfG Schwäbisch Gmünd

4 BA Programs: Communication, Product, Interaction, IoT

1 MA Program: Strategic Design

600 Students

23 Professors

100 (Guest) Lecturers

40 Admin Staff

1776 Drawing School

1926 Class for »Industrielle Formgebung«

1972 Reform after HfG Ulm modell

1999 Information & Media Design class

2007 Bachelor Interaction Design

The Critical Design a/b Manifesto

(a)	(b)
affirmative	critical
problem solving	problem finding
design as process	design as medium
provides answers	asks questions
in the service of shareholders	in the service of society
for how the world is	for how the world could be
science fiction	social fiction
futures	alternative worlds
fictional functions	functional fictions
change the world to suit us	change the us to suit the world
narratives of production	narratives of consumption
anti-art	applied art
research for design	research through design
applications	implications
design for production	design for debate
fun	satire
concept design	conceptual design

The Critical Design a/b Manifesto

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~~affirmative~~	critical
problem solving	problem finding
design as process	~~design as medium~~
provides answers	~~asks questions~~
~~in the service of shareholders~~	in the service of society
~~for how the world is~~	for how the world ~~could~~ be *should*
science fiction	social fiction
futures	~~alternative worlds~~
fictional functions	functional fictions
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narratives of production	narratives of consumption
anti-art	~~applied art~~
research for design	research through design
applications	implications
design for production	(design for debate)
~~fun~~	~~satire~~
concept design	conceptual design

Design History

The great design movements were
utopian,
political,
or at least reformist.

design = »material culture« + »how do we want to live?«

Design History

Arts and Crafts
product quality, impoverishment, alienation

De Stijl (1917-1931)
visions of future living, »collective future«

Bauhaus (esp. the late Bauhaus since 1928)
rational and cooperative design, affordable housing

Design History

Ulm School of Design (1953–1968)
technology as culture and agent for societal change
rebuilding the country, politically and materially

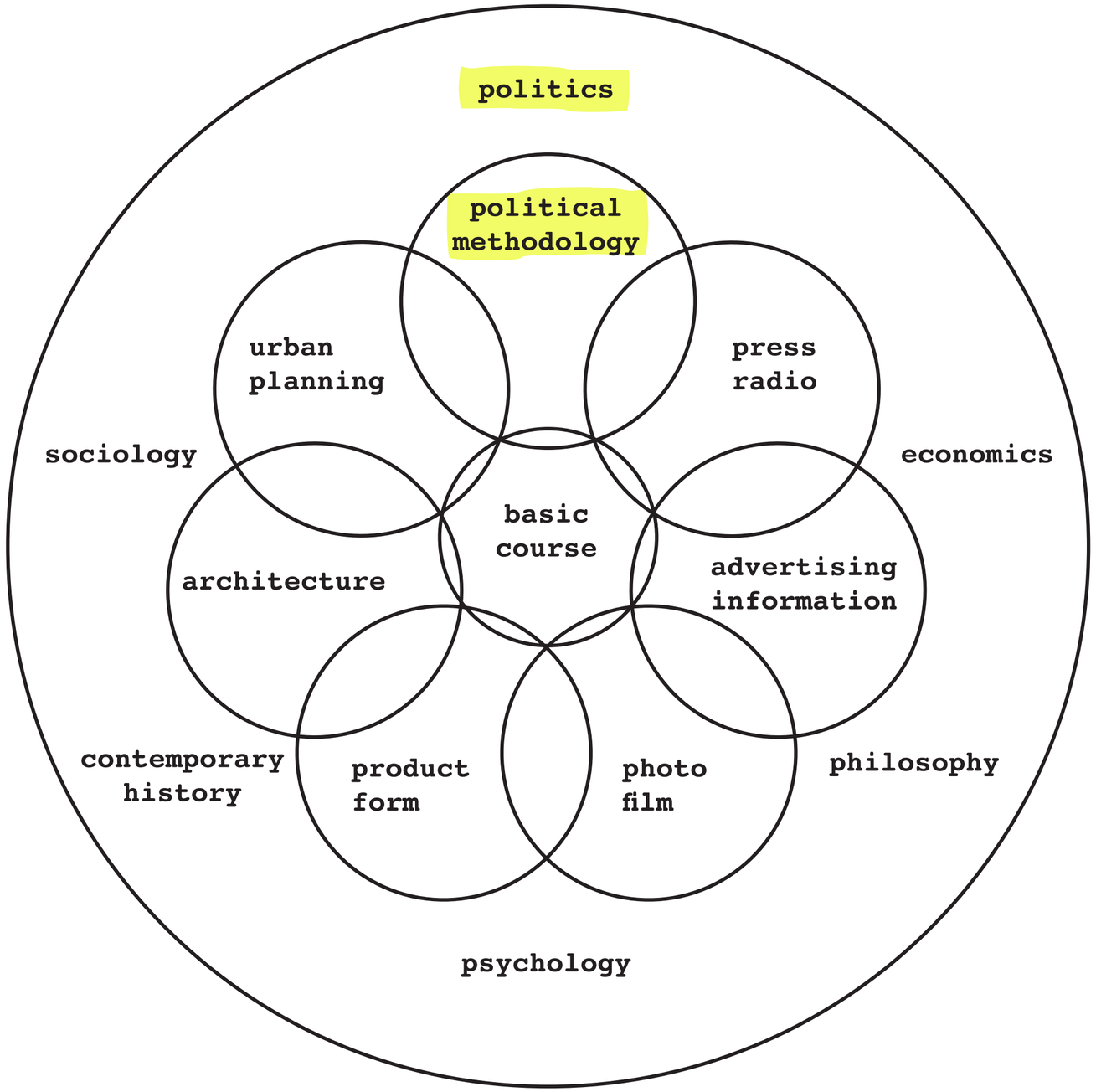
Early Ecological Design (1970s)
low-tech solutions, reuse of material

Early Participatory Design (1970s)
shifting power from ‘decision makers’ to workers and employees

Initial Ulm School Concept

In 1950, 7 subjects are planned:

1. Politics
2. Journalism
3. Broadcasting
4. Photography
5. Advertising
6. Industrial design
7. City planning



Design History

The great design movements tackled
the specific pressing problems of their times.

Design As »Problem Solving«

The great design movements tackled
the specific pressing problems of their times.

Do we do that today?

If design is problem solving, what then are the problems?

Problem Solving Today

global problems with complex systemic implications

are not addressed by
user centred methods and user experience approaches

focus shift from »the user« to a more systemic level,
to community, society, resources centred approaches

Systemic Constraints

»when they design a tin can opener,
[they accept] the configuration of the can.

The tin can designer in turn,
accepts the configuration of the can opener.
This is a constraint.«

Lucius Burkhardt

Systemic Constraints

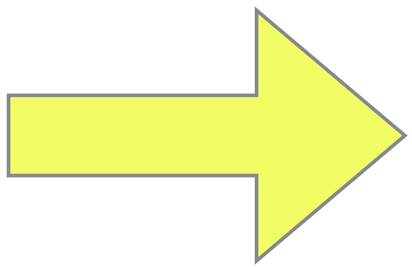
»Improvements« by user centred approaches may lead to more comfort, but also to more energy and resource consumption and waste!


Dosenöffner
im Test
2015
Dosenöffner
KUHN RIKON
Can Opener
HANDY
CAN OPENER

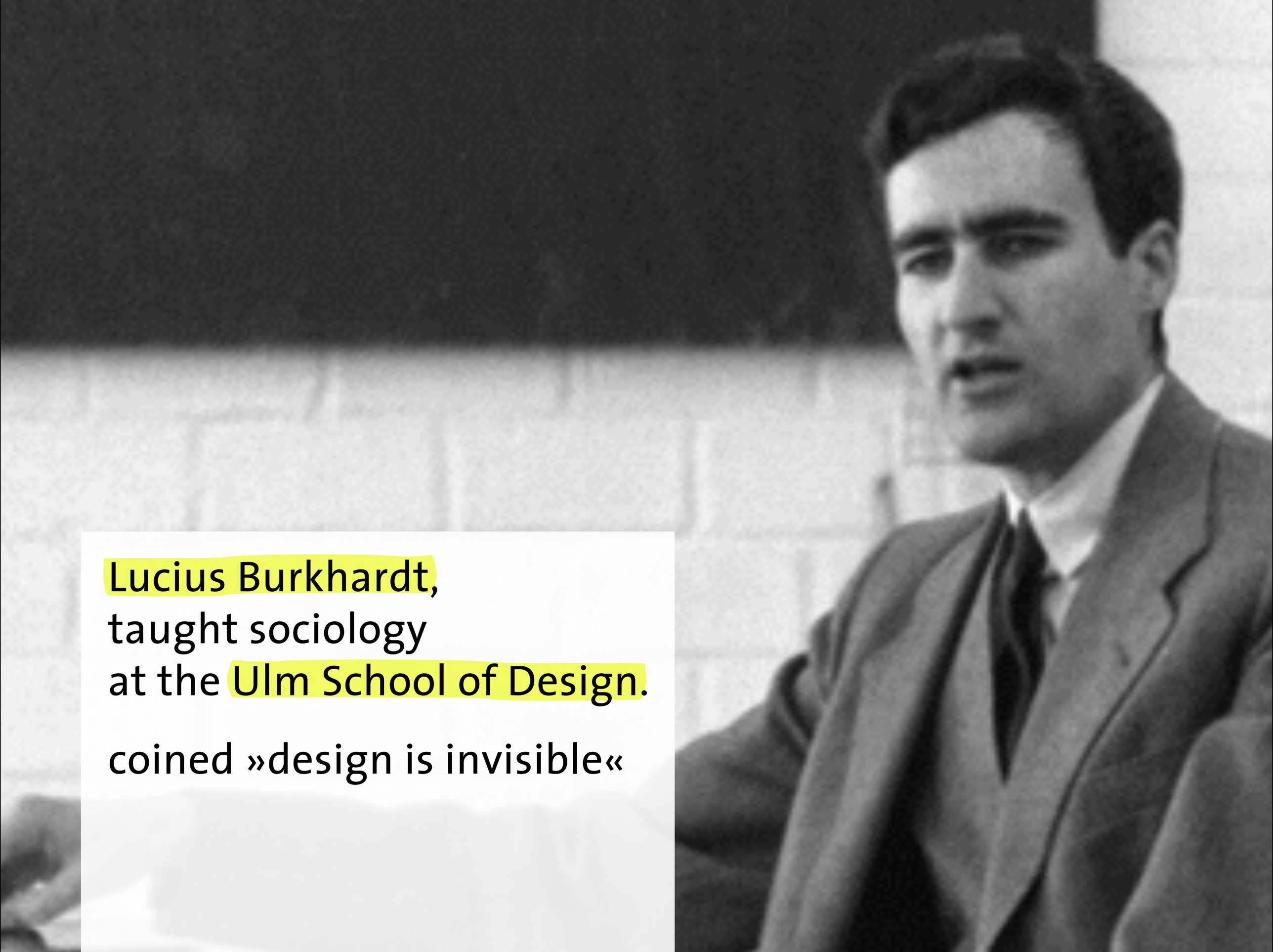
Systemic Constraints

Addressing the problem on a higher systemic level may lead to novel ways of …

food preservation,
storage,
distribution,
or eating habits
and community rituals

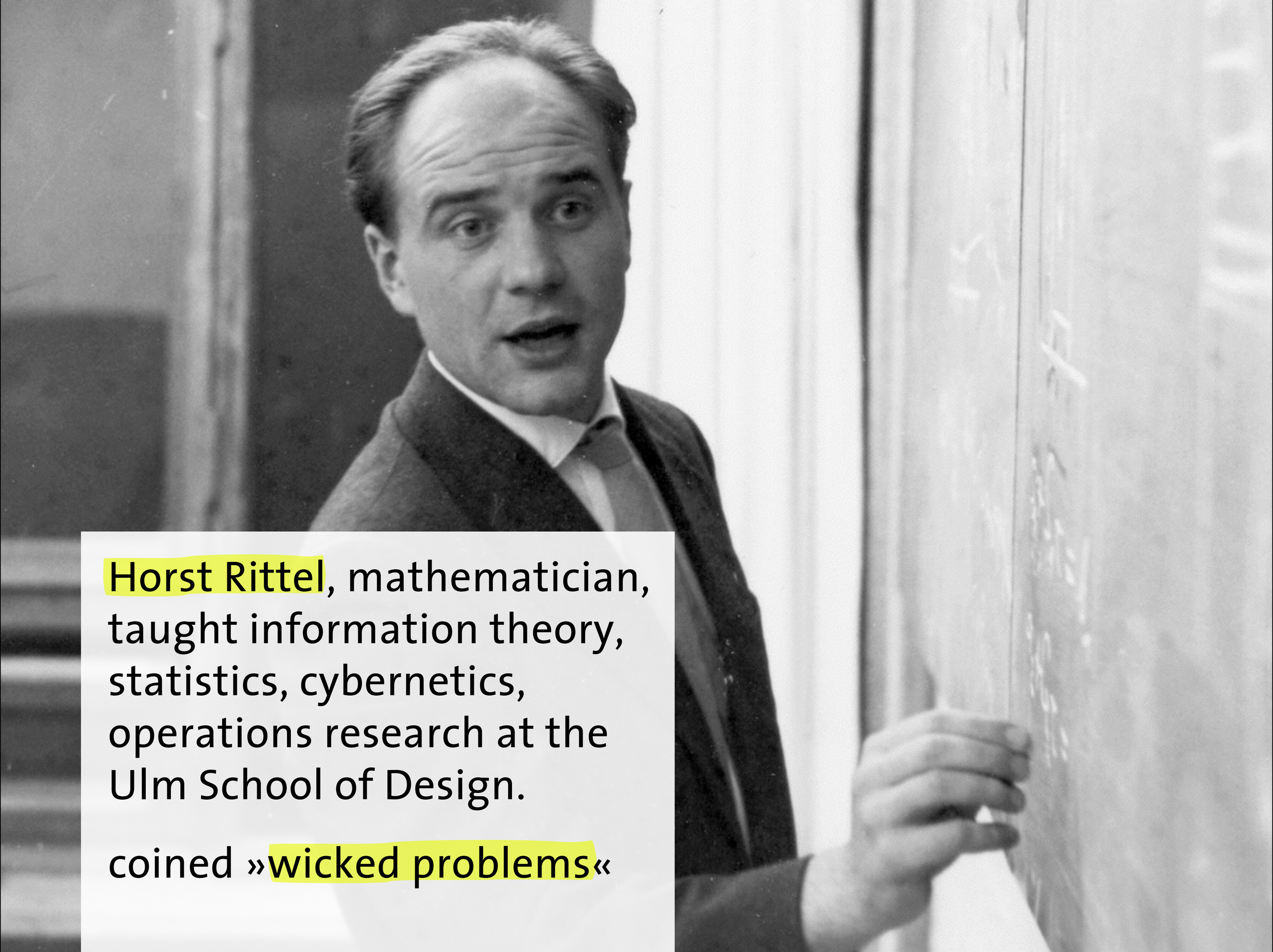


more complexity
more work
less money



Lucius Burkhardt,
taught sociology
at the Ulm School of Design.

coined »design is invisible«



Horst Rittel, mathematician,
taught information theory,
statistics, cybernetics,
operations research at the
Ulm School of Design.

coined »wicked problems«

The Problem Definition Problem

»*Learning what the problem is IS the problem*«

Horst Rittel

Decisive Problem Definition Step

»the division of phenomena into changeables and invariants.«

Horst Rittel

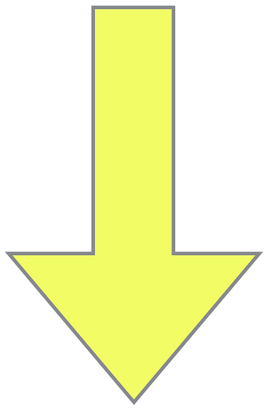
Urban Planning Example

A preferred solution conflicts with the Building Code.
The solution space differs strongly if you …

… accept the Code

… negotiate an exception

… engage for legislation change



+ solution space
+ complexity
+ work

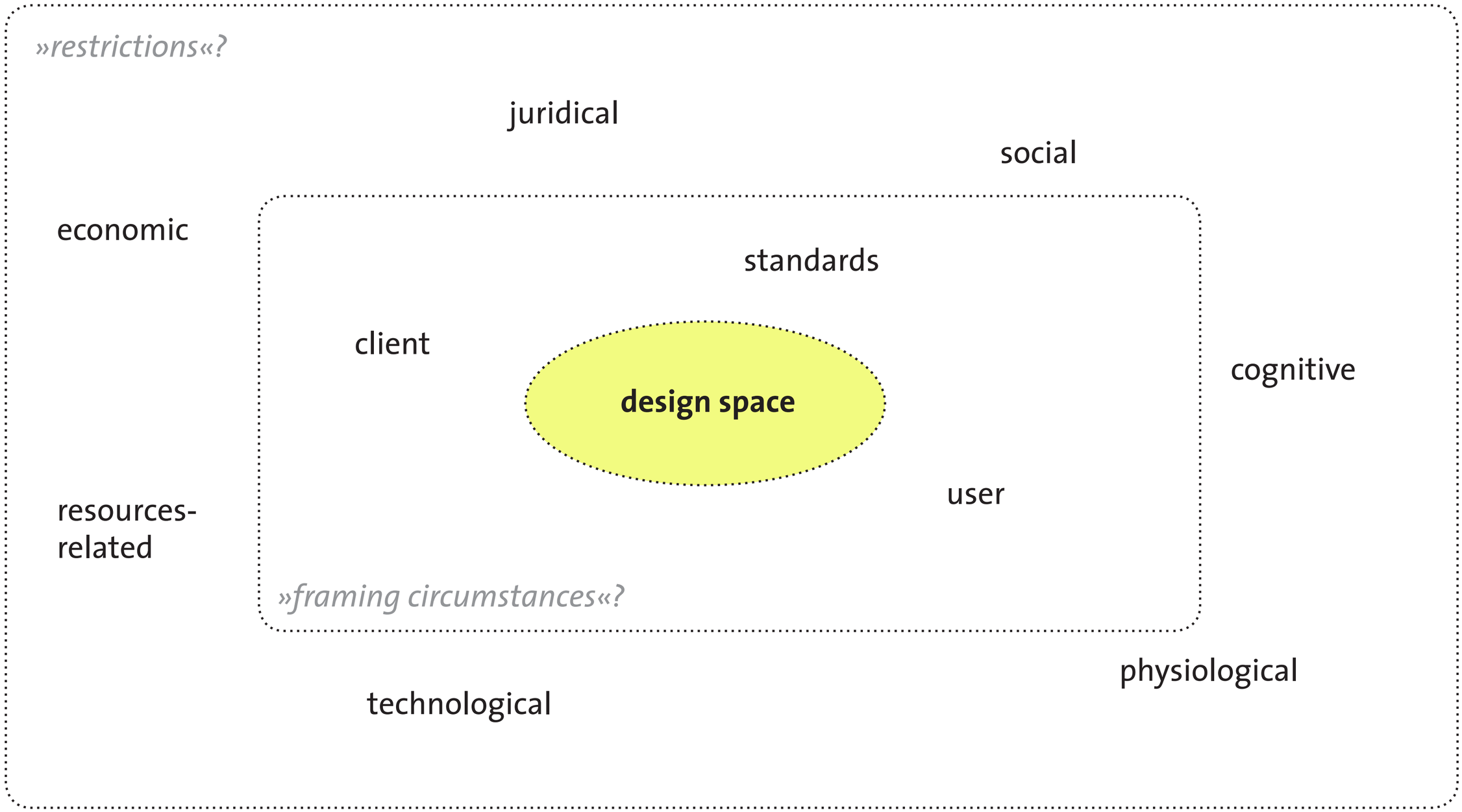
Systemic Constraints

»Constraints are decided, selected, and self-imposed, and not implied, derived or logical necessities.

Every constraint is something the designer does not want to change.«

Horst Rittel

The Design Space and its Constraints



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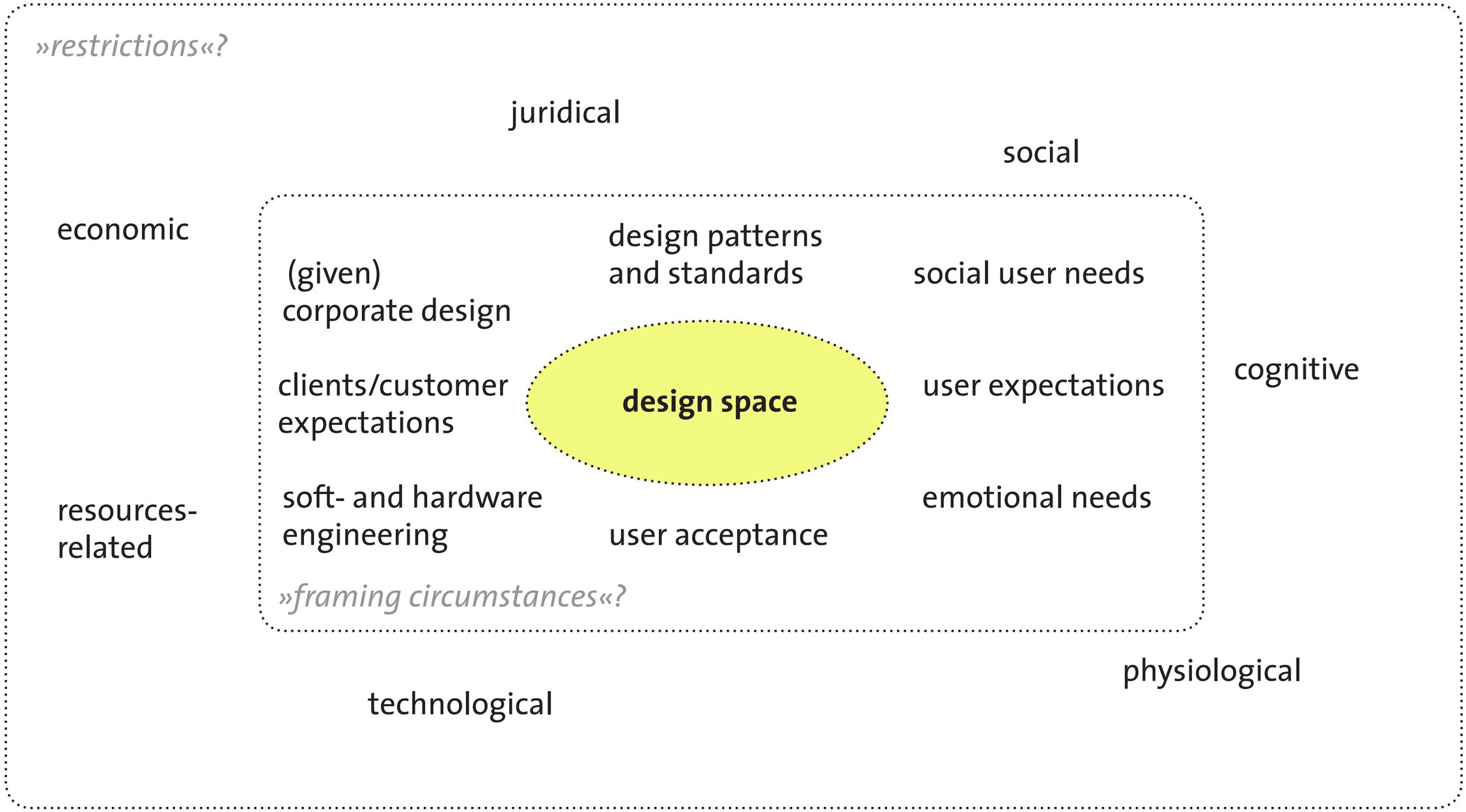

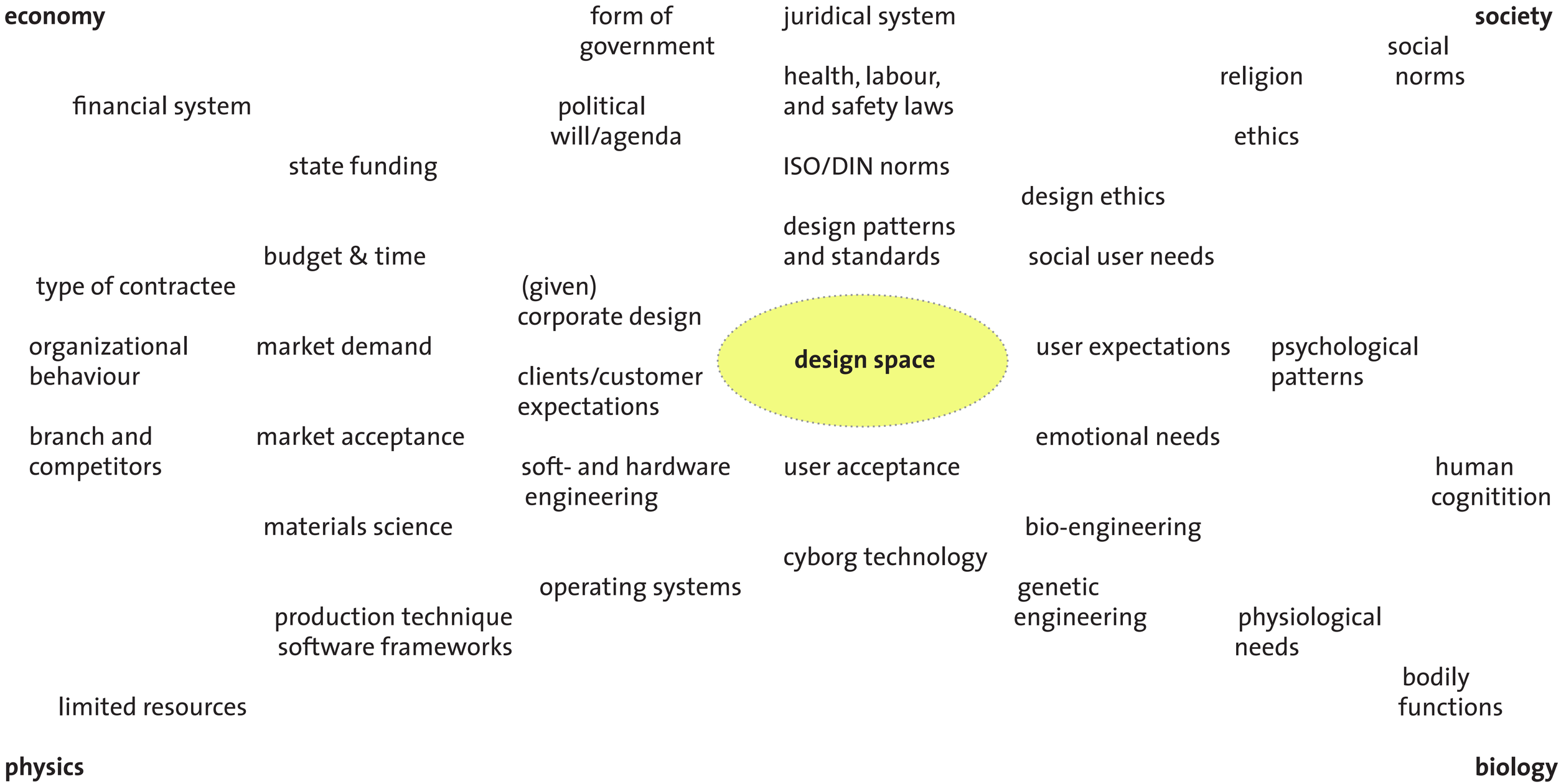
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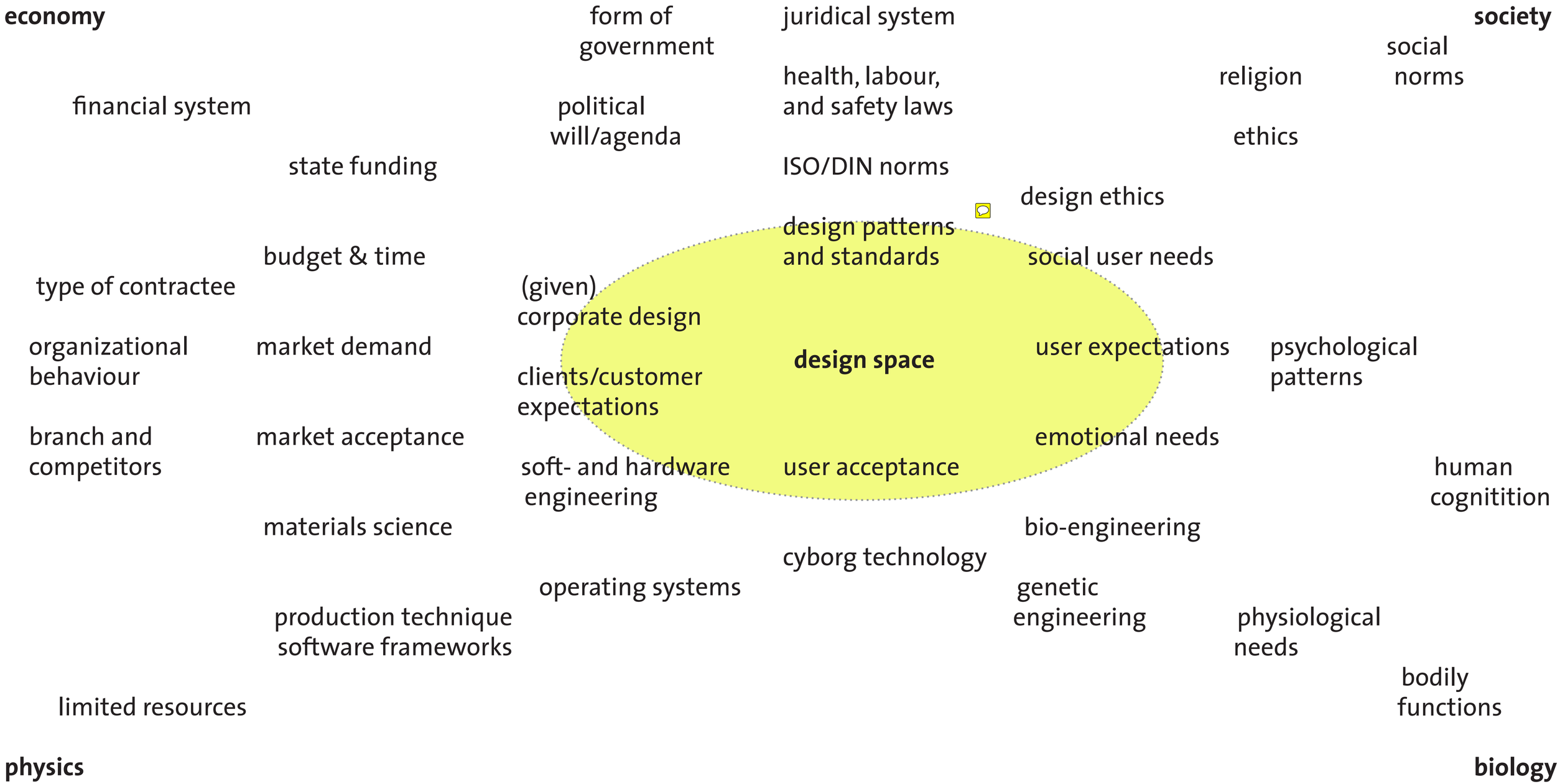
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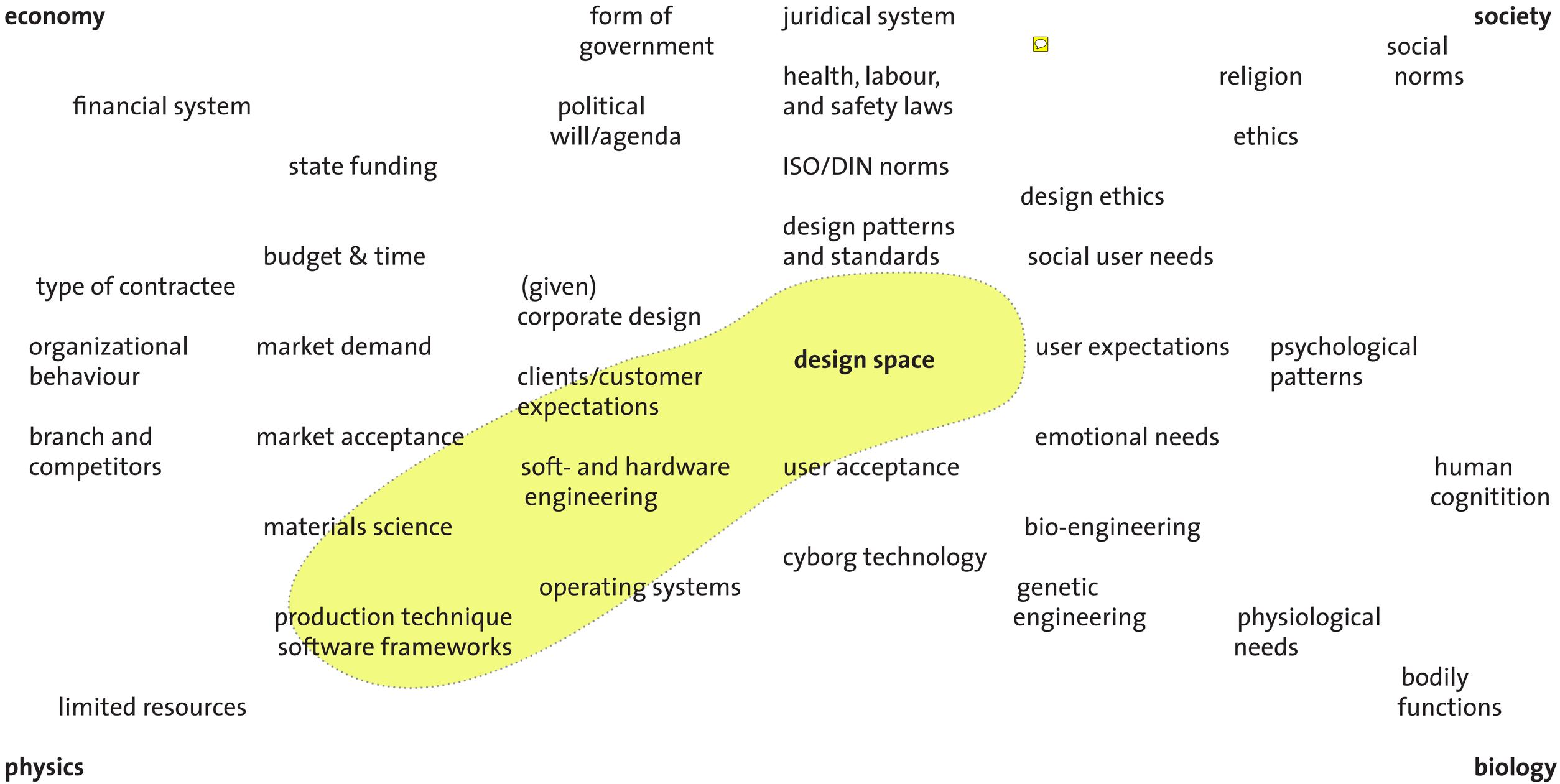
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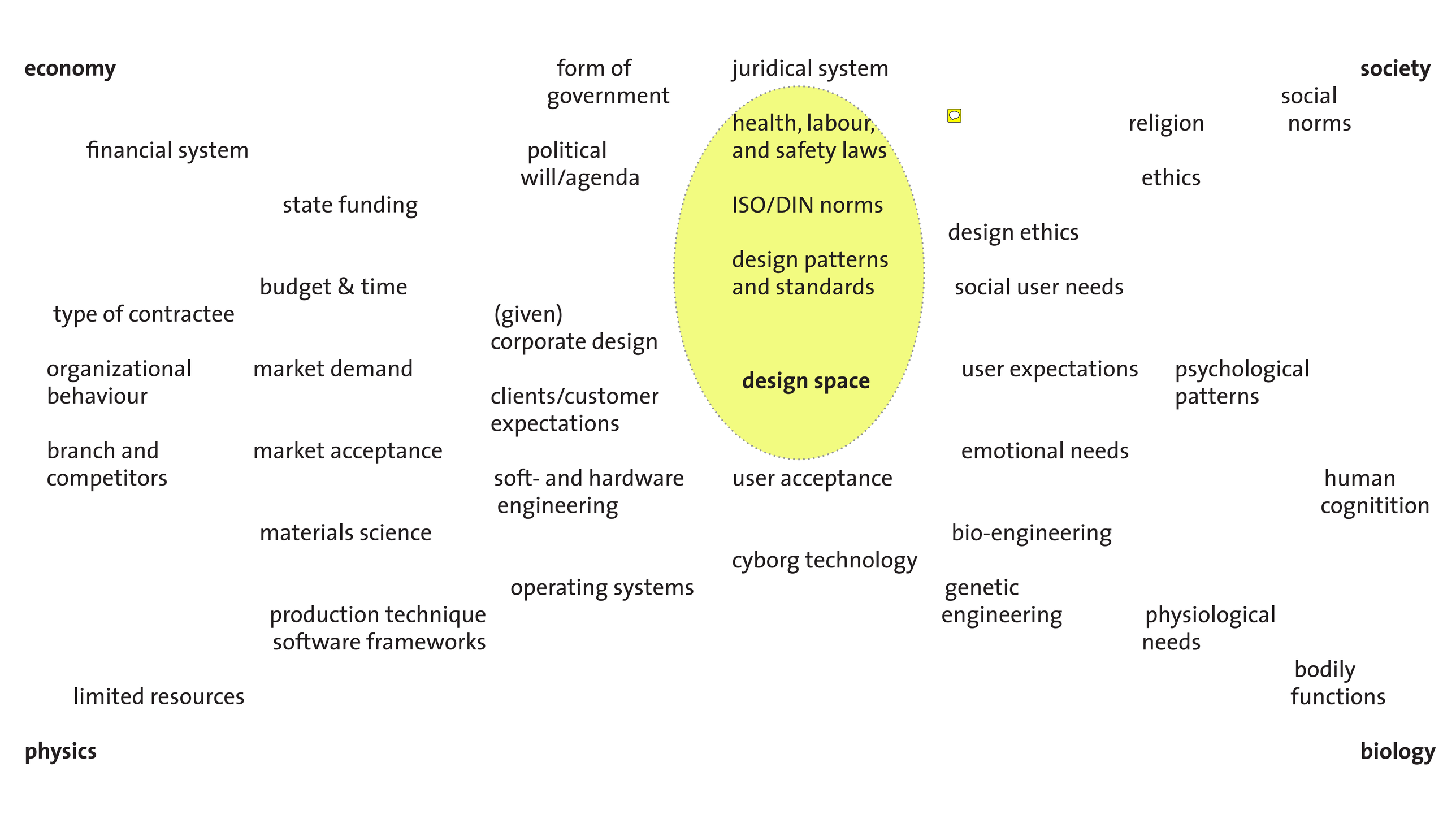
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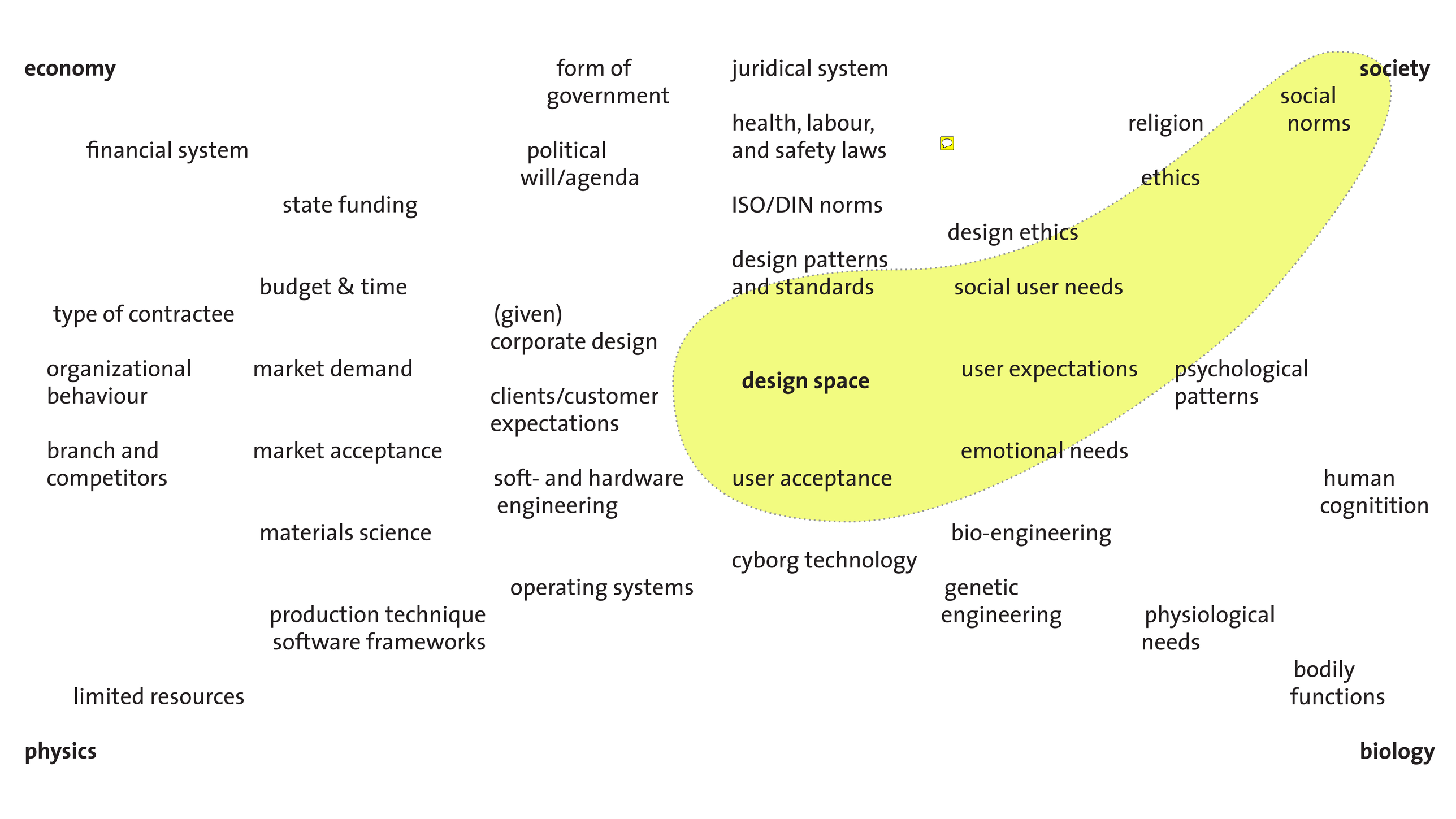
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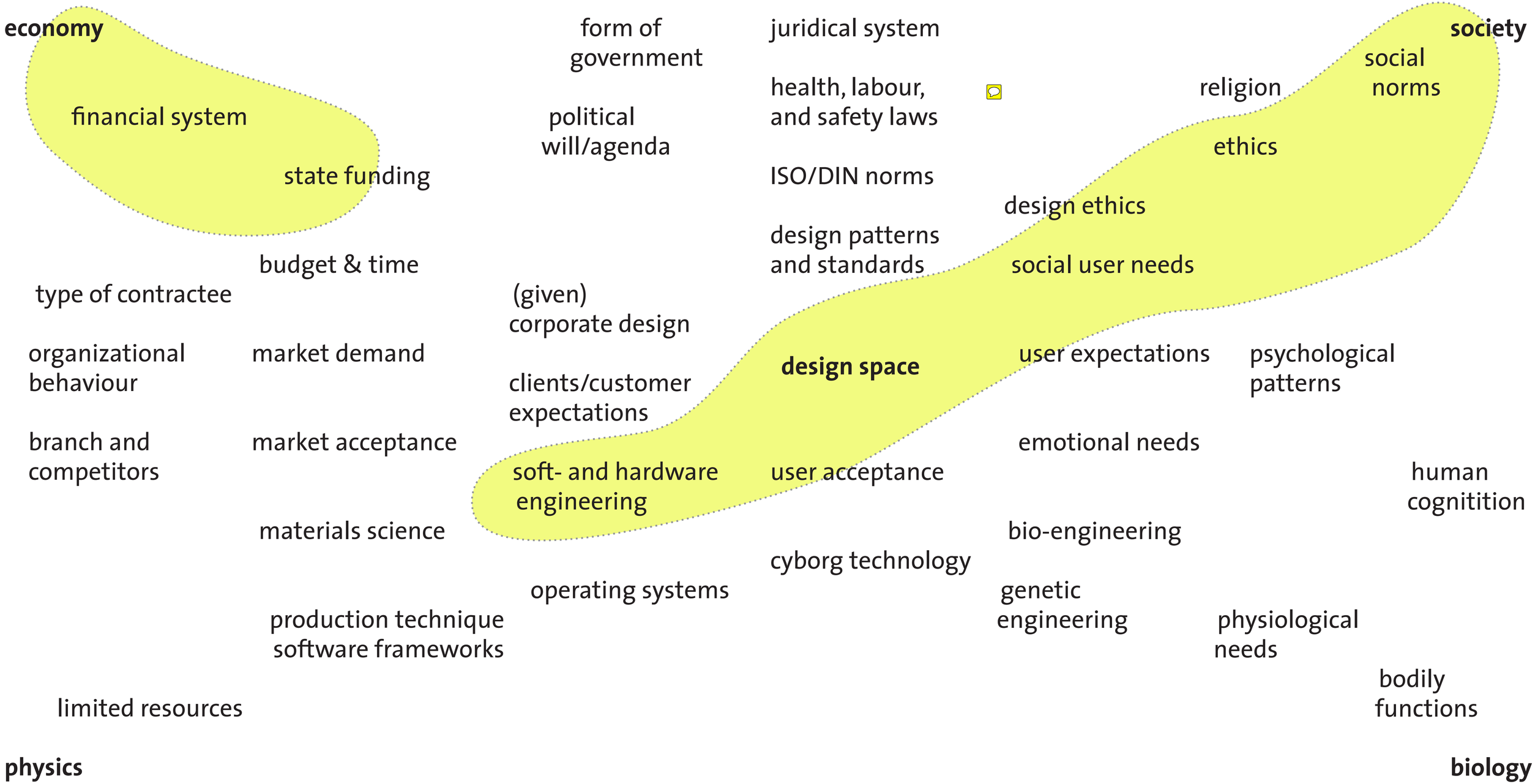
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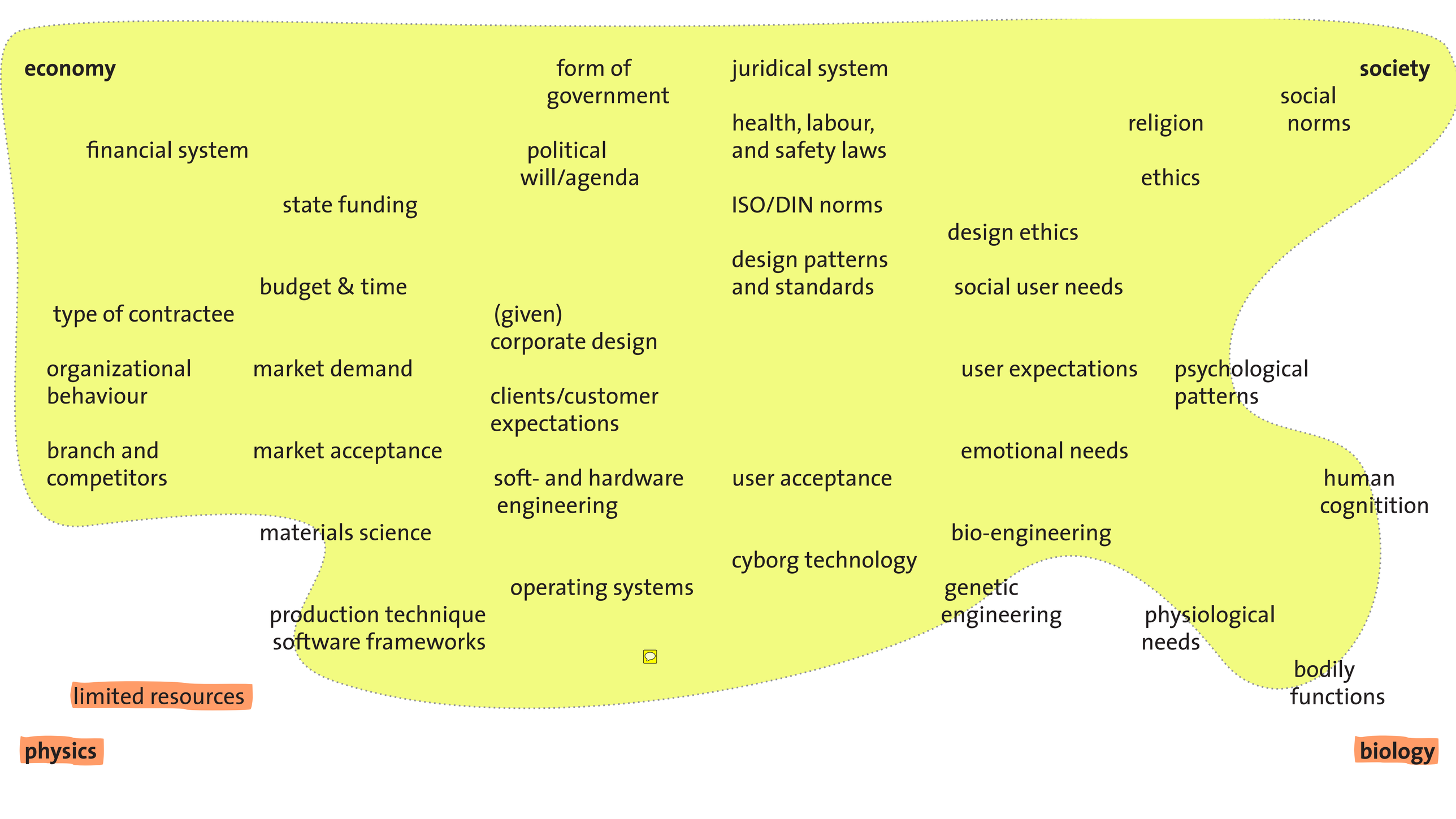
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Conclusions for Design Education

Deciding what we consider invariant,
sets our political position
– and if we contribute to evolution, revolution or desaster.

Suggestions for Design Education

Encourage conscious decisions about how problem-space is defined and what is considered a constraint.

Routinely seek problem sources at higher systemic levels. Reformulate problems accordingly. Propose alternative solutions.

Anticipate potentially undesirable side and after effects at different systemic levels in near and distant future.

Everything that has a beginning has also an end …

thank you!