



Faculty of Design

2019

## Systemic Design for democratic engagement: Where the bottom-up and top-down process meet

de la Rosa, Juan, Ruecker, Stan, Nohra, Carolina Giraldo and Grisales, Claudia

---

### Suggested citation:

de la Rosa, Juan, Ruecker, Stan, Nohra, Carolina Giraldo and Grisales, Claudia (2019) Systemic Design for democratic engagement: Where the bottom-up and top-down process meet. In: Relating Systems Thinking and Design (RSD8) 2019 Symposium, Oct 13-15 2019, Chicago, USA. Available at <http://openresearch.ocadu.ca/id/eprint/3247/>

*Open Research is a publicly accessible, curated repository for the preservation and dissemination of scholarly and creative output of the OCAD University community. Material in Open Research is open access and made available via the consent of the author and/or rights holder on a non-exclusive basis.*

*The OCAD University Library is committed to accessibility as outlined in the [Ontario Human Rights Code](#) and the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#) and is working to improve accessibility of the Open Research Repository collection. If you require an accessible version of a repository item contact us at [repository@ocadu.ca](mailto:repository@ocadu.ca).*

# What do they have in common?

---



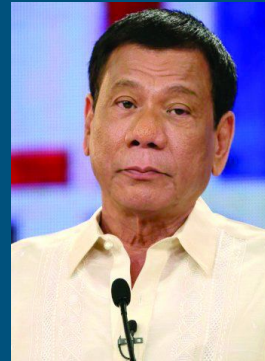
# What do they have in common?

---



# What do they have in common?


---





# Systemic Design for democratic engagement:

Where the bottom-up and top-down  
process meet





# Understanding the role of design\*

---

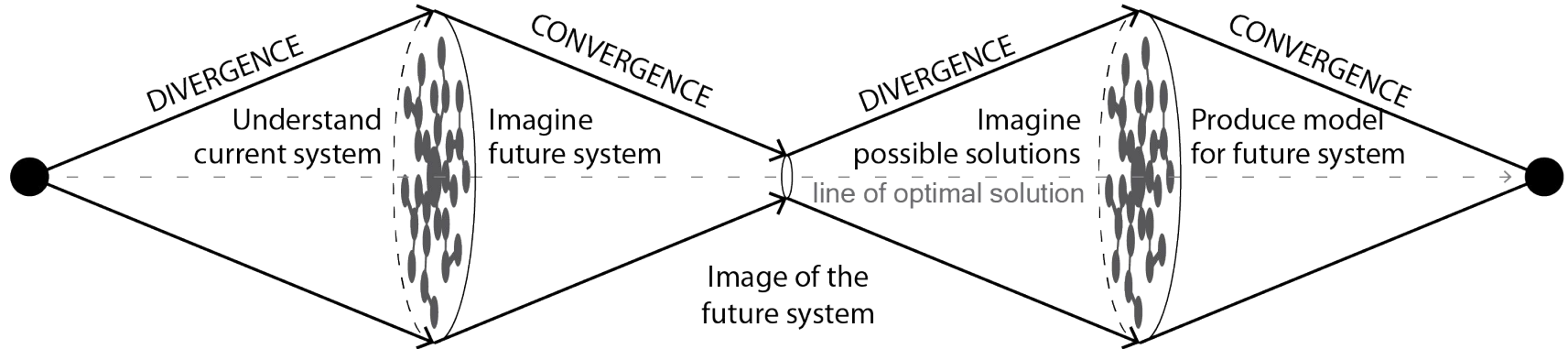
How do the objects that we design facilitate certain relationships based on the values that we have embedded on them?

How do we design for a better society by empowering communities to actively become decision-makers of their future?



# Understanding the role of design\*

Using divergence and convergence Banathy's model (1996) for design process







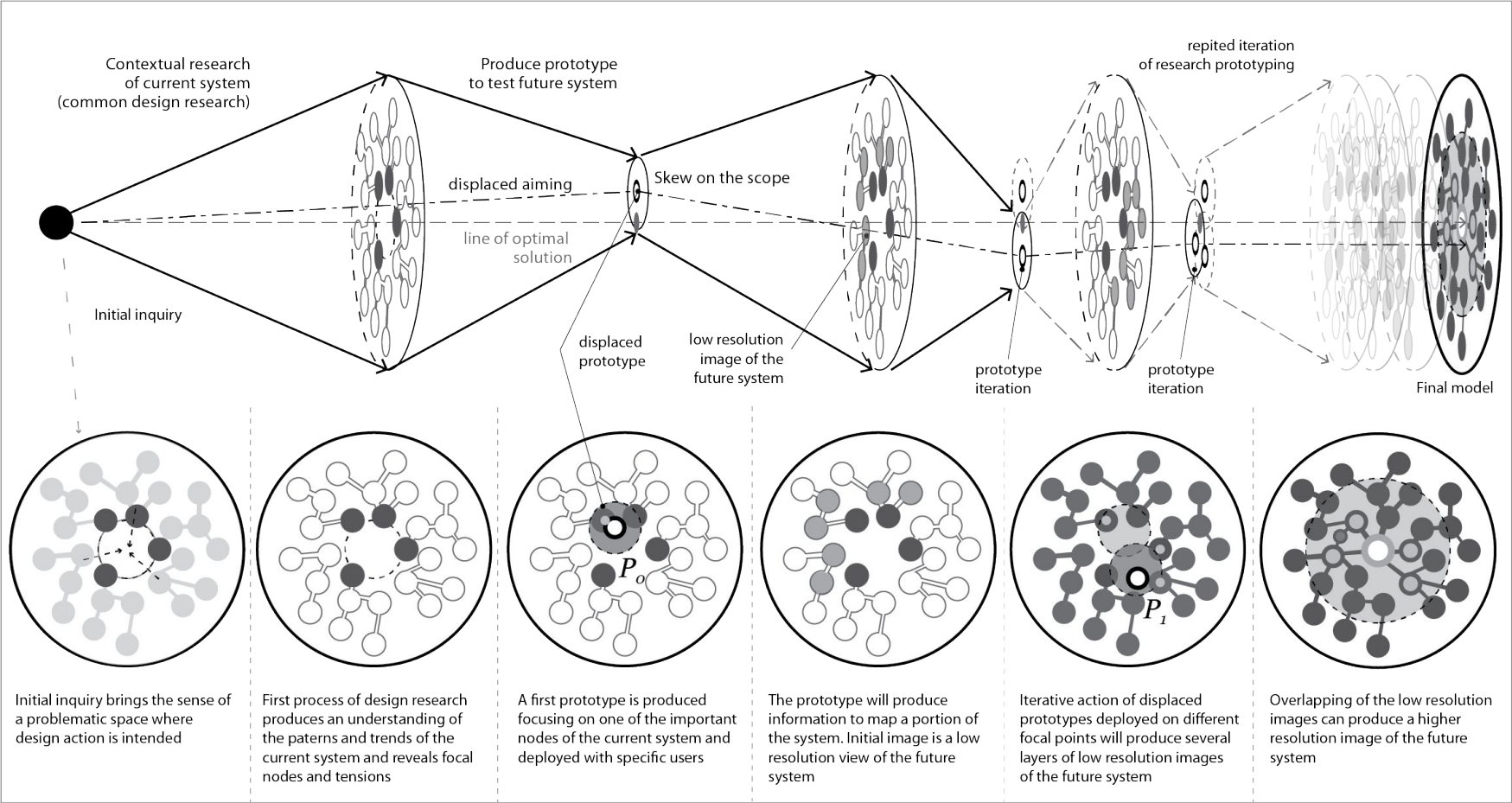
# Using prototypes to map the future

---

Bødker (1987) argues that prototypes allow users to partially experience a possible view of the future and that they are desirable tools in the process of design.

Prototypes have a special quality as '*conversational objects*', since they make tangible a specific representation of the problem or the perception of the state of the system (Galey and Ruecker, 2010) .

# ITERATIVE MODEL FOR DESIGN RESEARCH BASED ON DISPLACED PROTOTYPING



# Using prototypes to map the future

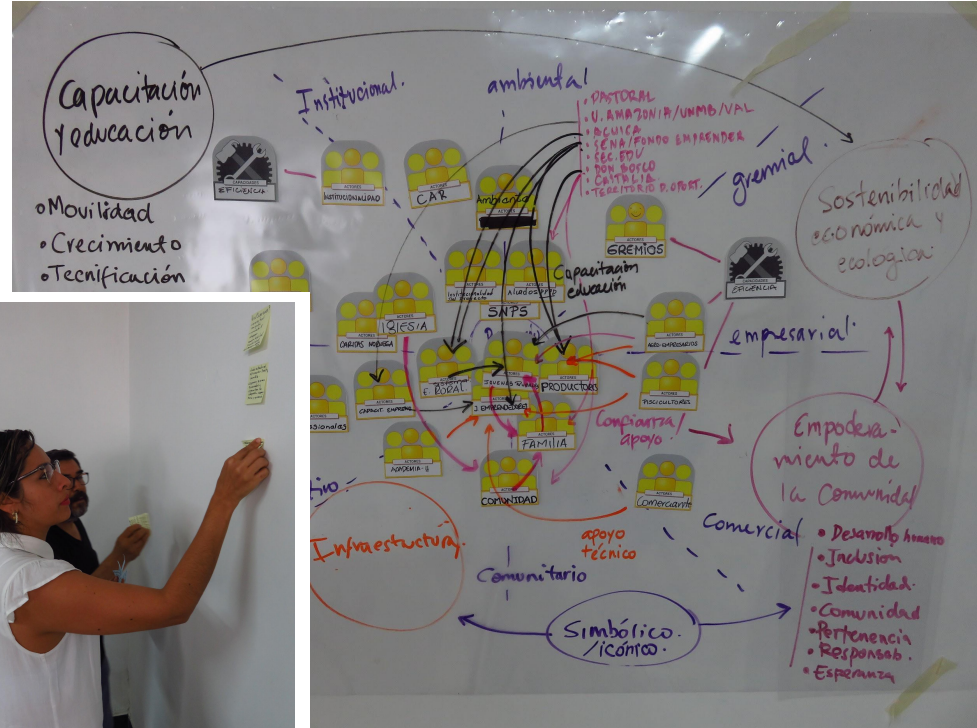
Using a participatory process allows to produce maps of the possible future state of the system that include a more detailed consideration of unintended consequences. It also include communities in decision-making and actionable transformation.



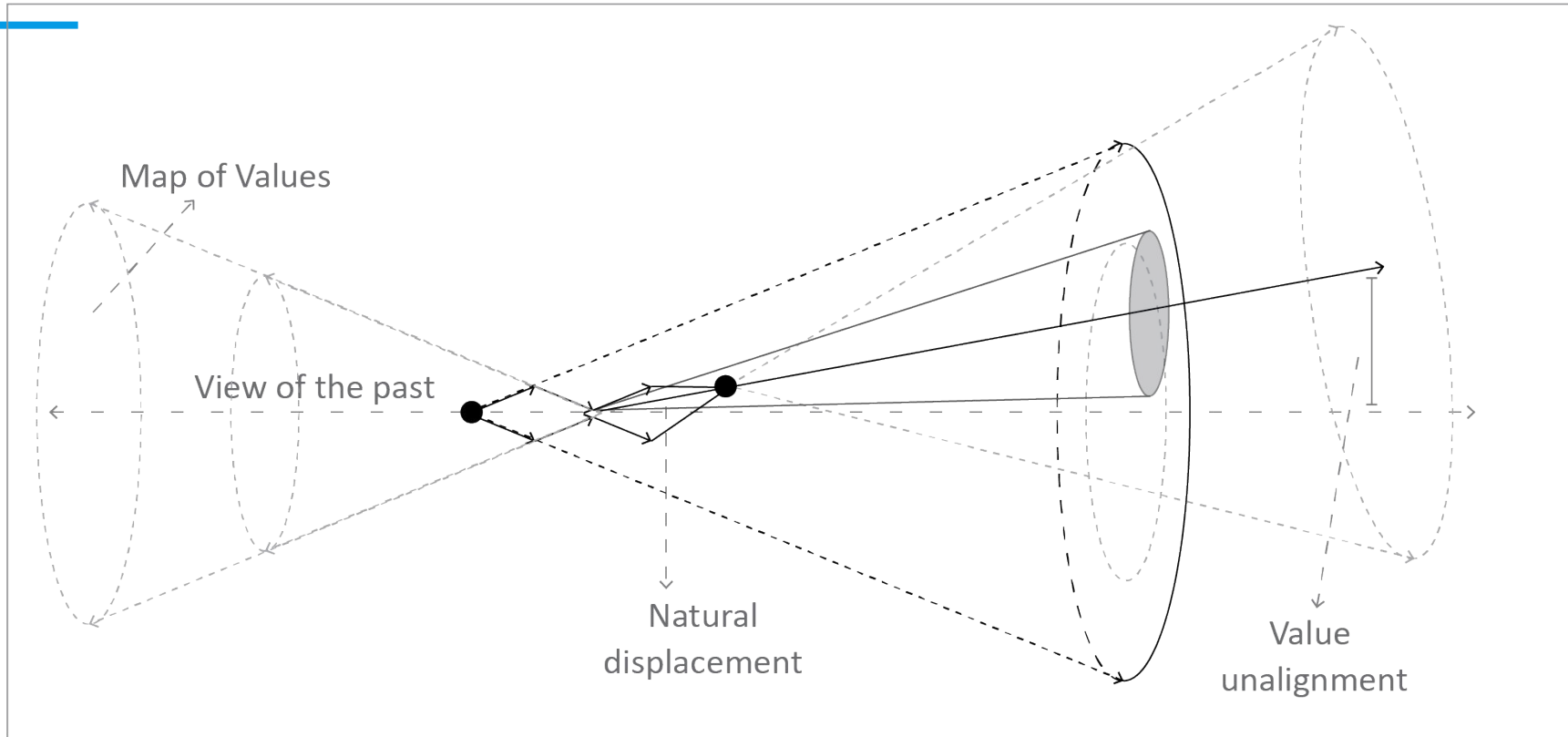
# Using prototypes to map the future

It also enlarges the view of the future and situated actions as mediators of strategic action.

Backcasting based on values changes the nature of infrastructure.



# The role of values





# What we have learned about participation

---

- Envisioning (a bigger picture)
- Individual values are confronted with common wellbeing
- Joint futures can be envisioned
- Enables extended participation
- Effect of reverberance

What do **WE** want?

How do **WE** get there?

Are needs real? (Escobar, 2007)

Are futures collective?

Is change possible?

# Democracy and the level of participation

---

What we have learned while working with governmental organizations

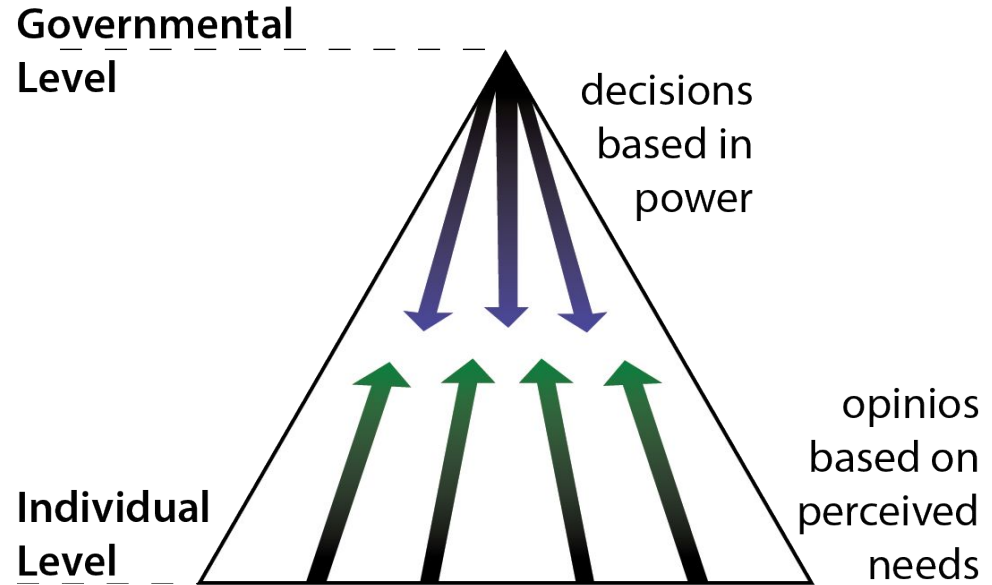
- Short term policies
- Reactive vs adaptive
- Lack of flexibility
- Partisan intentions
- Participation as validation

# Democracy and the level of participation

---

Participation does not necessarily imply a democratic process.

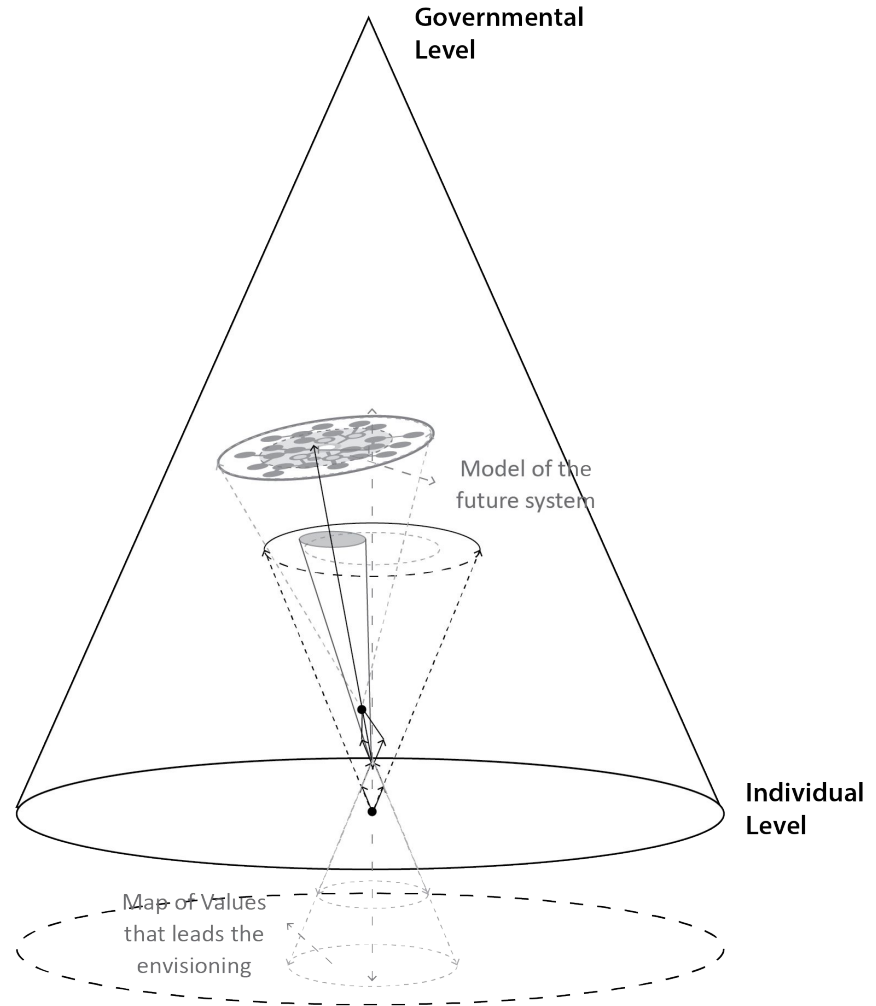
Top-down models are based on opinion-based participation and power-based decision making.



# Envisioning together

---

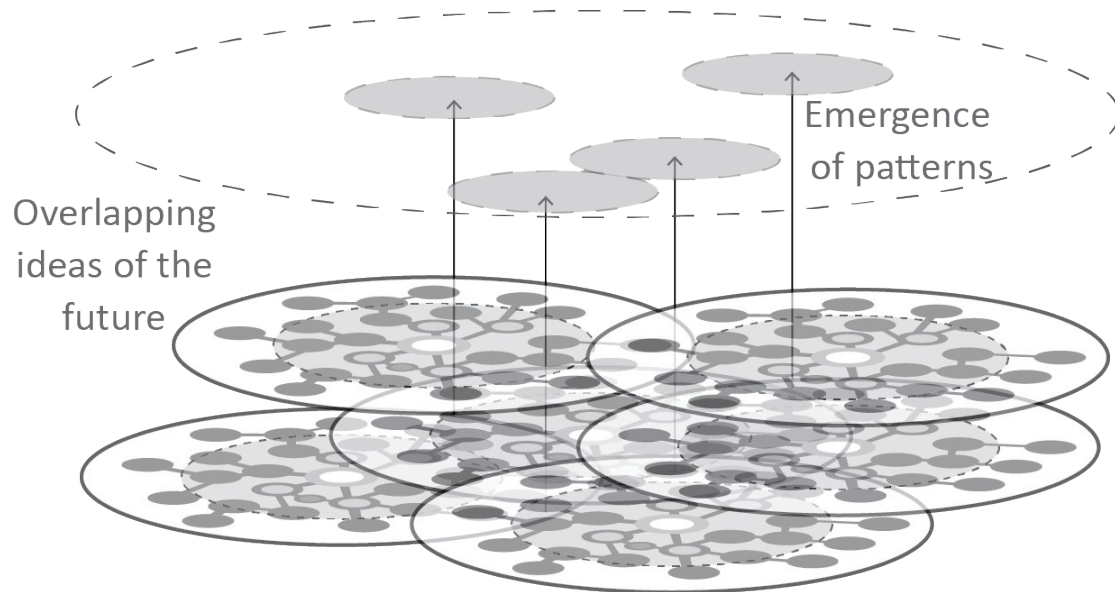
Matters of concern of society  
driven by bottom-up values



# Envisioning together

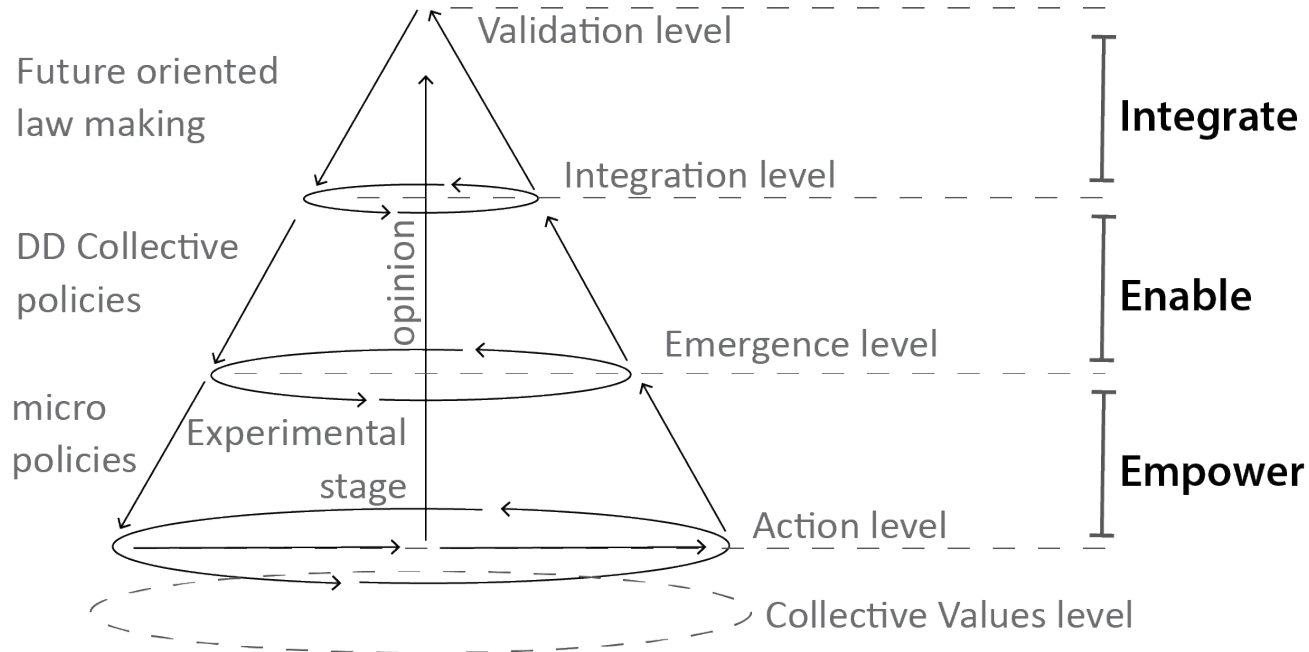
---

## Scope and resolution



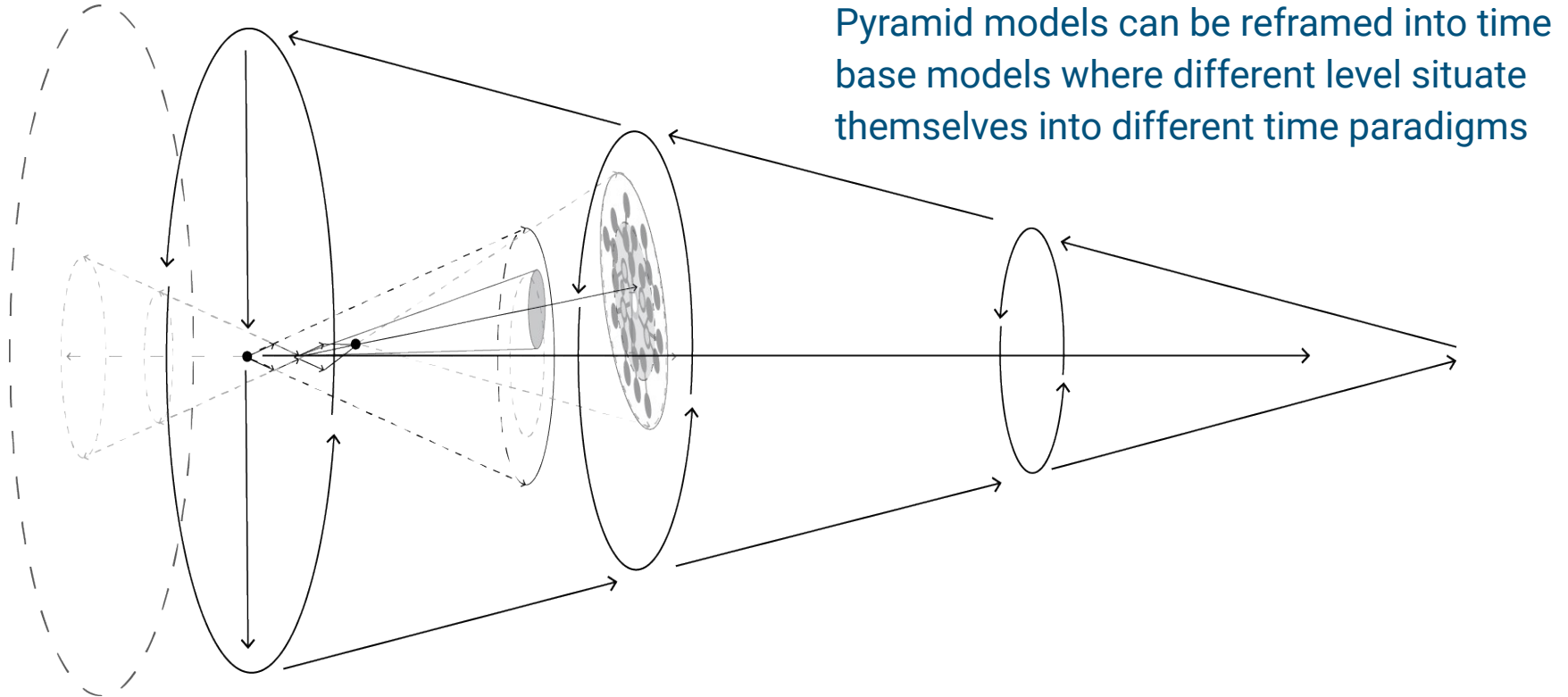


# Democracy and the level of participation



Bottom-up models do not conflict with structures, instead they validate them. They also provide enough granularity and flexibility to produce policies in an adaptive way.

# Democracy and the level of participation



# Discussion

---

Design ability to envision possible futures, include different voices and define objects of actionable transformation is a great recipe to start defining possible ways to transform social scale complex problems.

Is the design community, especially the systemic one, ready to assume the challenge.

# Thank you!

jadelarosam@unal.edu.co



**Juan de la Rosa**  
Associate Professor UNC  
PhD student UIUC



**Stan Ruecker**  
Anthony Petullo Professor  
Art & Design School - UIUC



**Carolina Giraldo**  
PhD student  
Politécnico di Torino



**Claudia Grisales**  
PhD student  
University of Illinois @UC