



Faculty of Design, sLAB (Strategic Innovation Lab)

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Change the world through OERs (we're not kidding)! Inclusive design, accessibility, diversity, and how difference makes us stronger

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Changing Our World...

Jutta Treviranus
Inclusive Design Research Centre, OCAD University



Last Year....

- “Salad dressing, pendula, navels, scraped knees and future-friendly learning”
- (the importance of the edge)



“Change the world through OERs (we’re not kidding)!

Inclusive design, accessibility, diversity, and how difference makes us stronger”

Humbly...

“The Other IDRC”

The Inclusive Design Research Centre



- inclusive design of emerging information and communication systems, policies and practices
- or... **digital inclusion** and **designing for diversity**
- since 1993
- **open** source, open access, open standards, open data
- over 96 research partner organizations globally
- Inclusive Design Institute -
 - inclusive infrastructure



inclusive design
INSTITUTE

In our schools diversity has been regarded as an issue to be tackled, not an asset.

However, our connected society and technology-disrupted economy requires diversified, collaborative life-long learners.

Education plays a crucial role in fostering social cohesion.

Can our education systems gain the skills and knowledge needed to support our quickly evolving social and economic reality?

Last year... edge cases

This year....

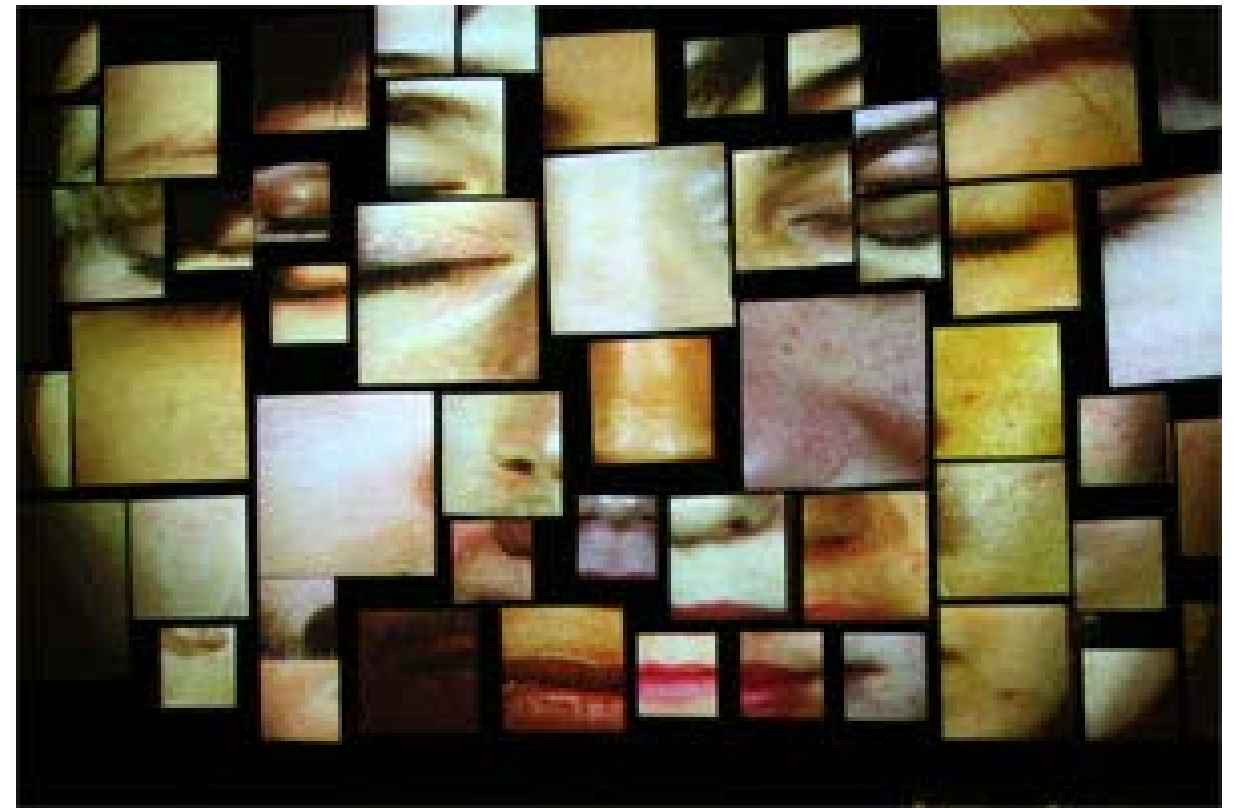
- Gnarly problems
- Navigating complexity



“Learning to Navigate Complexity
with our Simplicity Loving Minds”

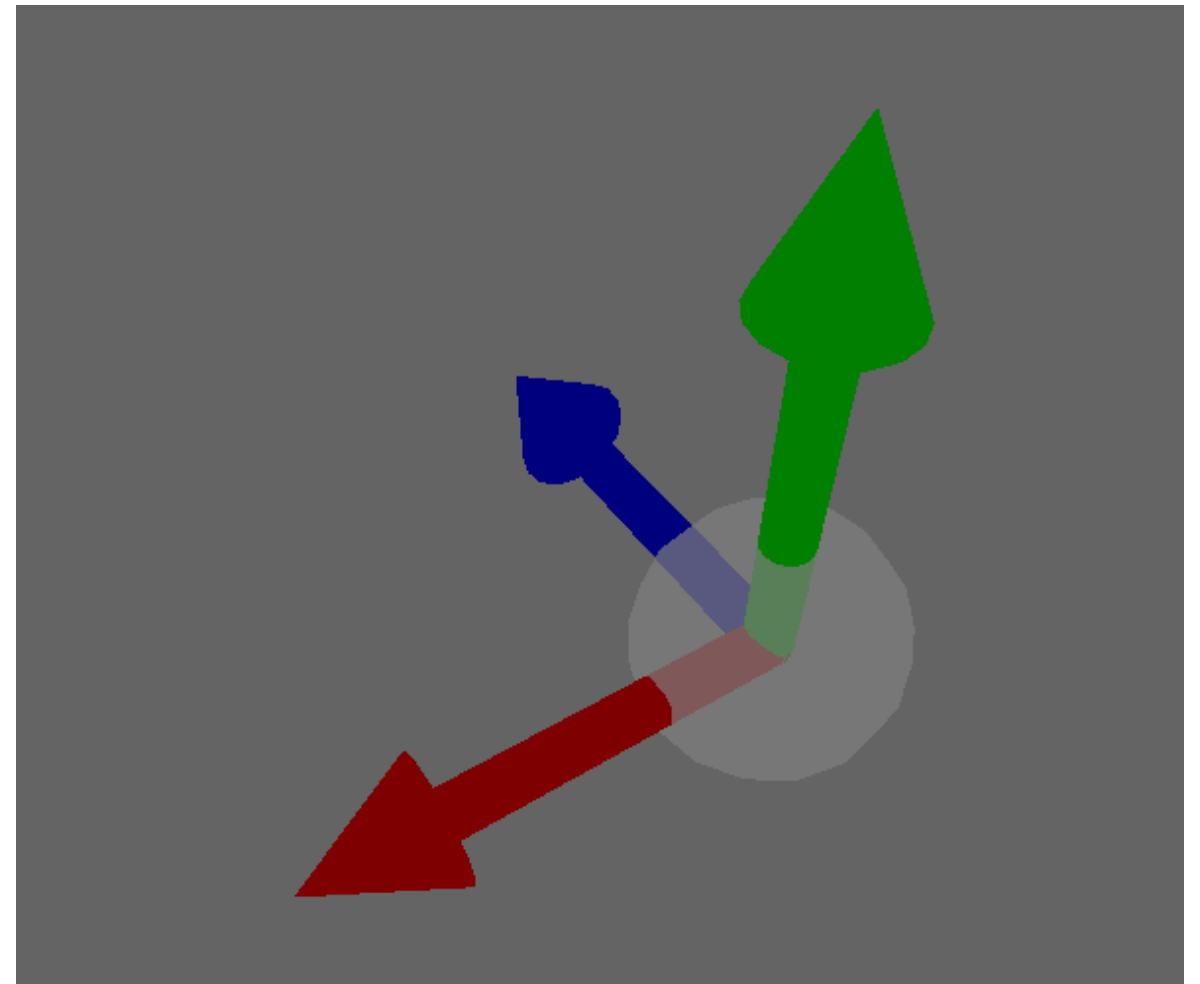
Inclusive Design

- Design that considers the full range of human diversity with respect to ability, language, culture, gender, age and other forms of human difference
- Designing for Diversity



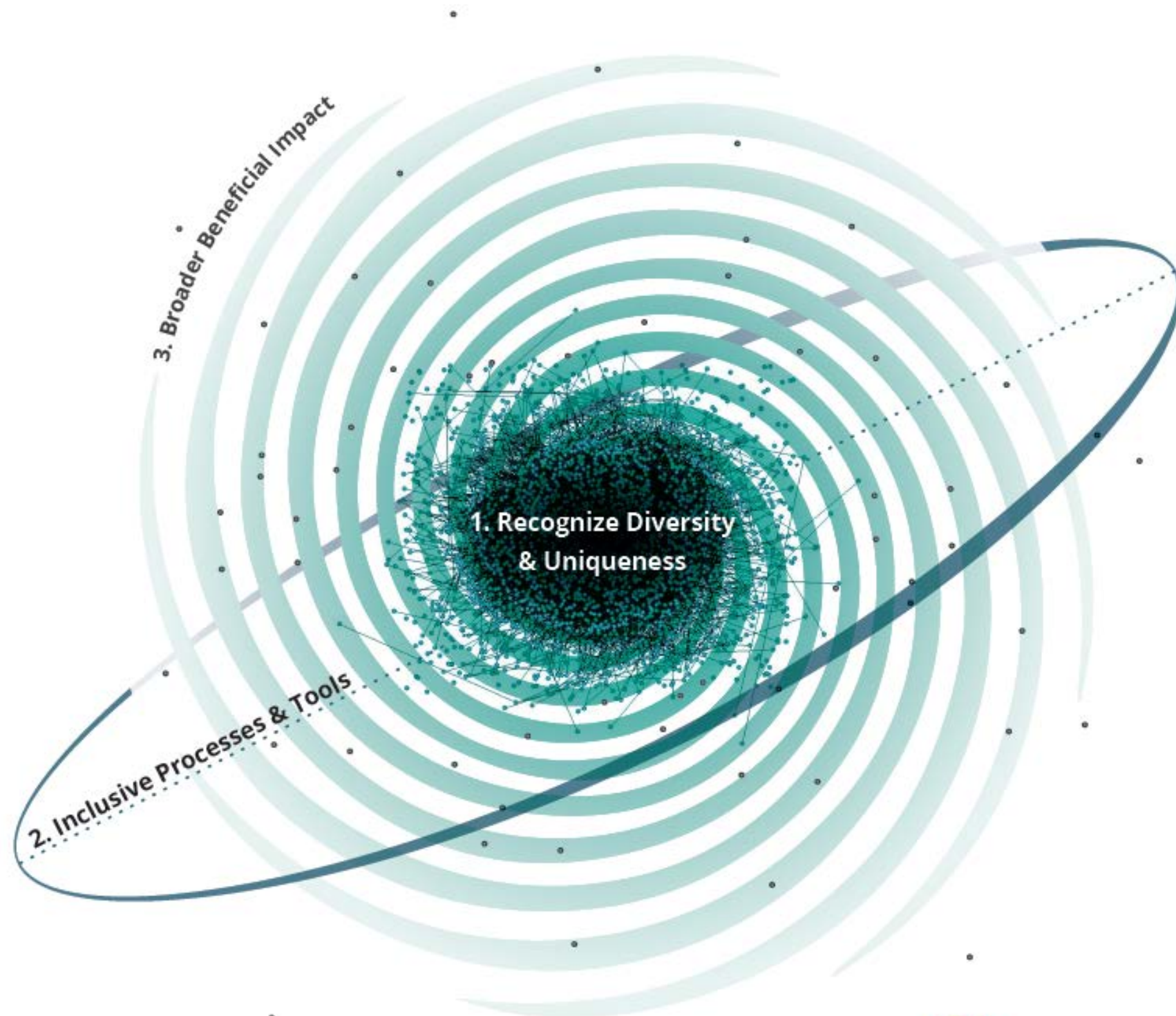
3 Dimensions of Inclusive Design...

- **Personal**
 - support diversity
 - foster self-knowledge
 - integrate don't segregate
- **Participatory**
 - “nothing about us without us”
 - **accessible tools & process**
 - learners as co-creators
- **Systemic** - cognizant of context and larger impact, supporting virtuous cycles



INCLUSIVE DESIGN

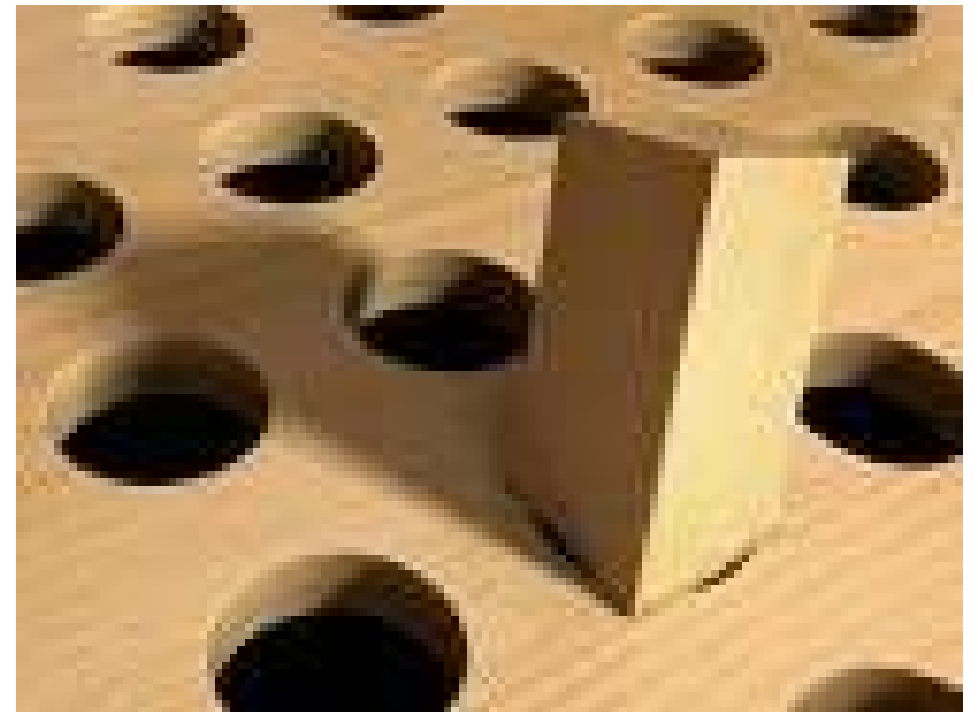
3 Dimensions



inclusive design institute

We all experience learning barriers...

- **Disability** = a mismatch between the needs of the individual and the learning experience offered
- **Accessibility** = the ability of the learning system to match the needs of the individual
- **Mismatches can be addressed by design**



Discover...

- 3 interesting things you have in **common**
- 3 interesting ways in which you are different
- 1 way in which each of you is unlike anyone else in the room

Interplay of Diversity & Commonality

- The more we make room for diversity the more likely we are to uncover deeper, more genuine commonality
- Other commonalities
 - Stereotypes
 - Conformity & peer pressure

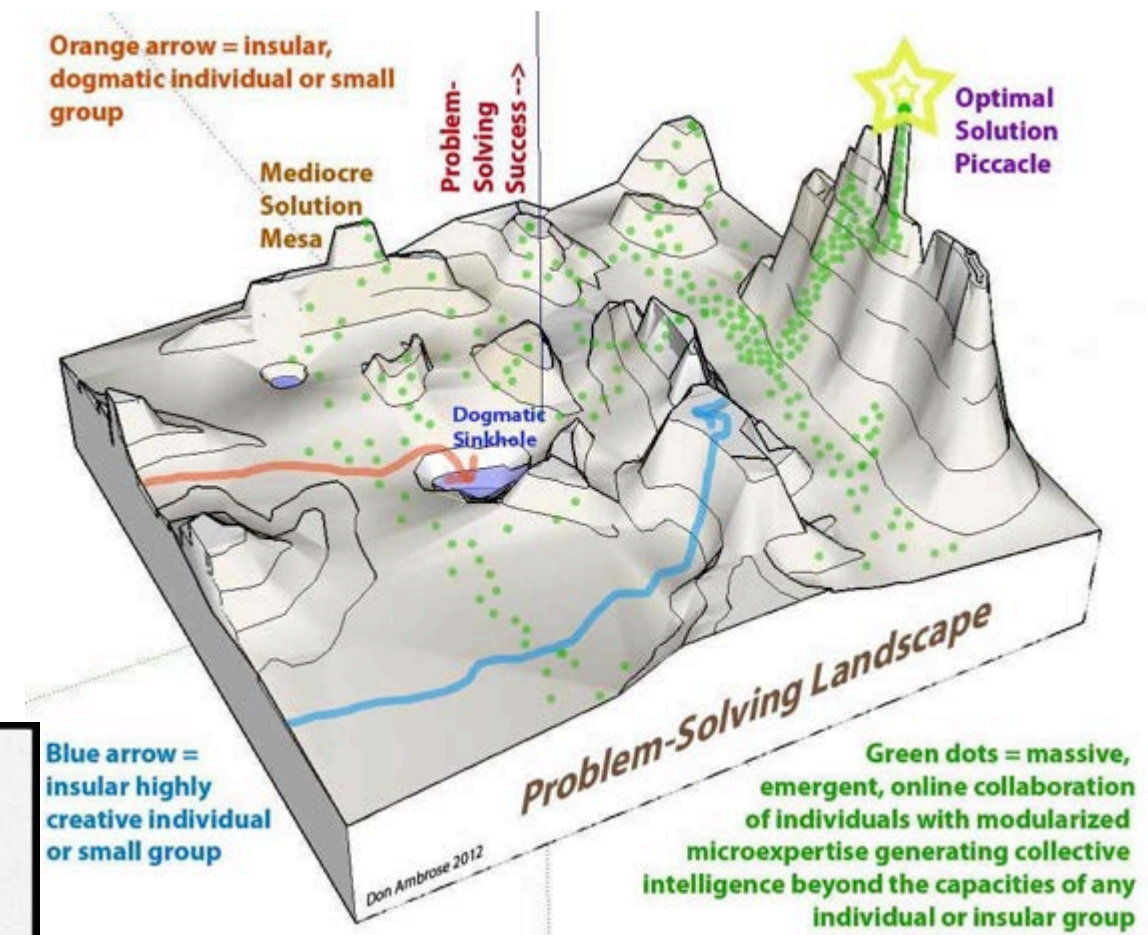
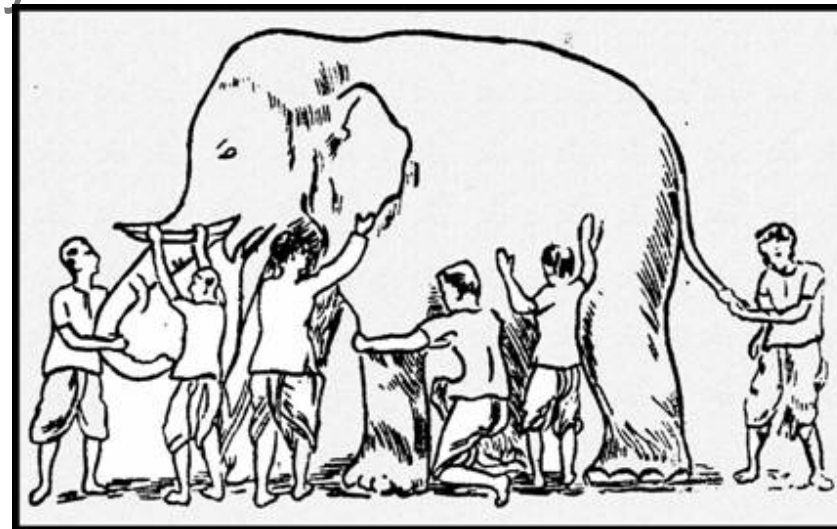


The Power of Diverse Perspectives



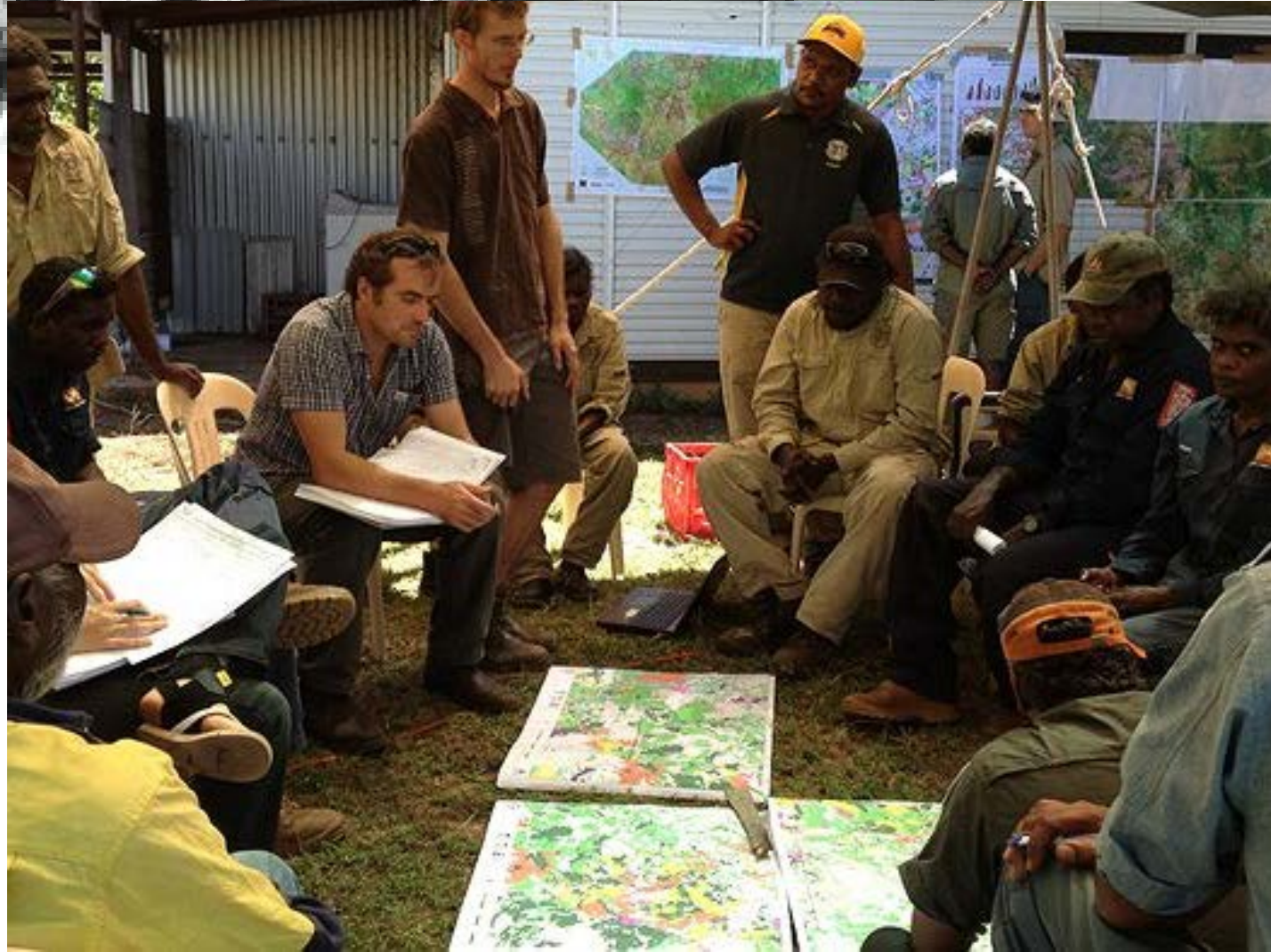
Scott E. Page
THE DIFFERENCE
HOW THE POWER OF DIVERSITY
CREATES BETTER GROUPS, FIRMS,
SCHOOLS, AND SOCIETIES.

- “Diversity Trumps Ability”
~Scott Page
- more successful planning
- more accurate prediction
- greater creativity



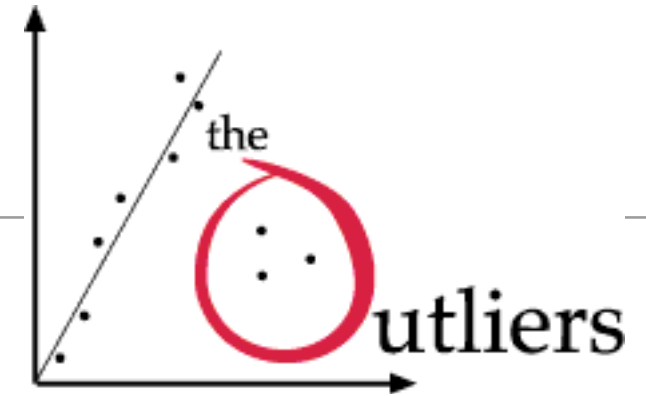
Cautions...

Designing the Table...



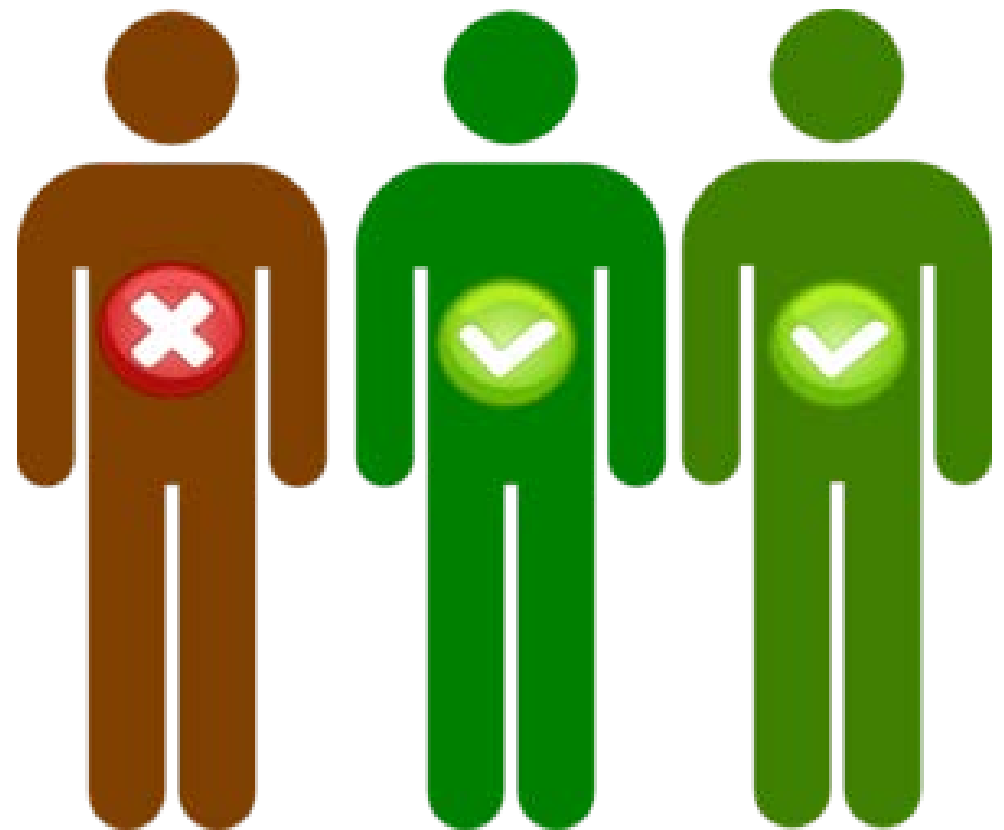
Who are we missing?

- The problem with dominant research methodologies
- Populations of one
- Timing and change
- Entanglement and context
- Society as a biased and contaminated machine learning engine



The Problem with Solutions..

- Leaving people stranded at the edges
- The more effort taken the less attention to the edges
- Success for one group at the expense of others
- Ignoring change



Wabi-Sabi & The Value of Mistakes...

- incomplete invites completion,
- the broken invites fixing,
- mistakes invite correction,
- a partial collection of examples invites more examples,
- humans call forth the greatest resourcefulness and creativity when there is an immediate and urgent unsolved problem
- the best arguments and explanations arise from disagreement and debate,
- cognitive dissonance and exposure to the counterintuitive spurs growth,
- it is better to fail early and often.





Terms of Agreement...

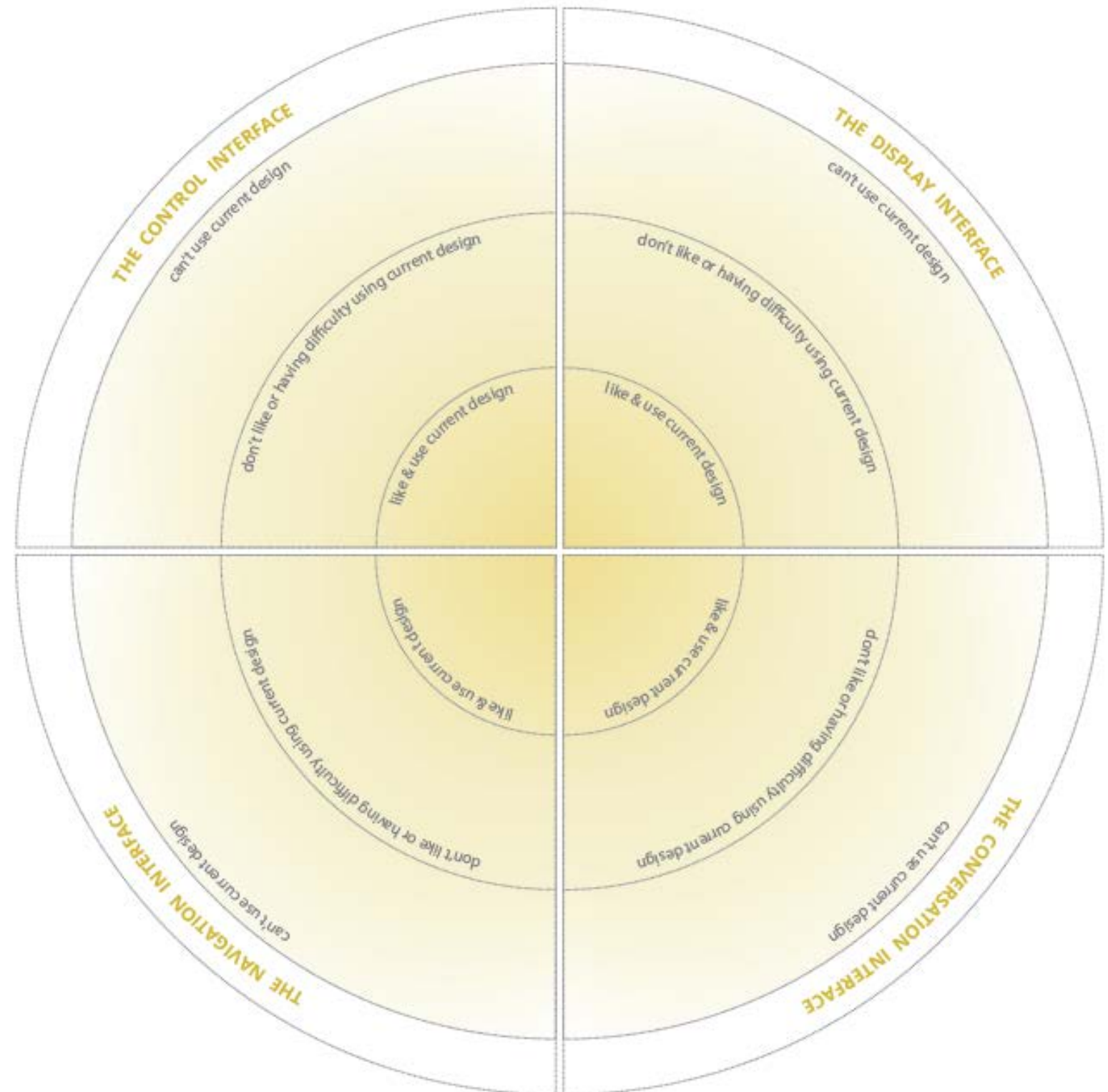
- Nothing sacred
- Everything open to respectful dissent
- Nothing static or formulaic
- Responsive and adaptive to user, goal and context
- Supportive structures that enable generative growth



What expertise do you need....

INCLUSIVE DESIGN MAPPING TOOL

- People that don't like or have difficulty using your design
- People that hate or can't use your design
- [Inclusive Design Mapping Tool](#)



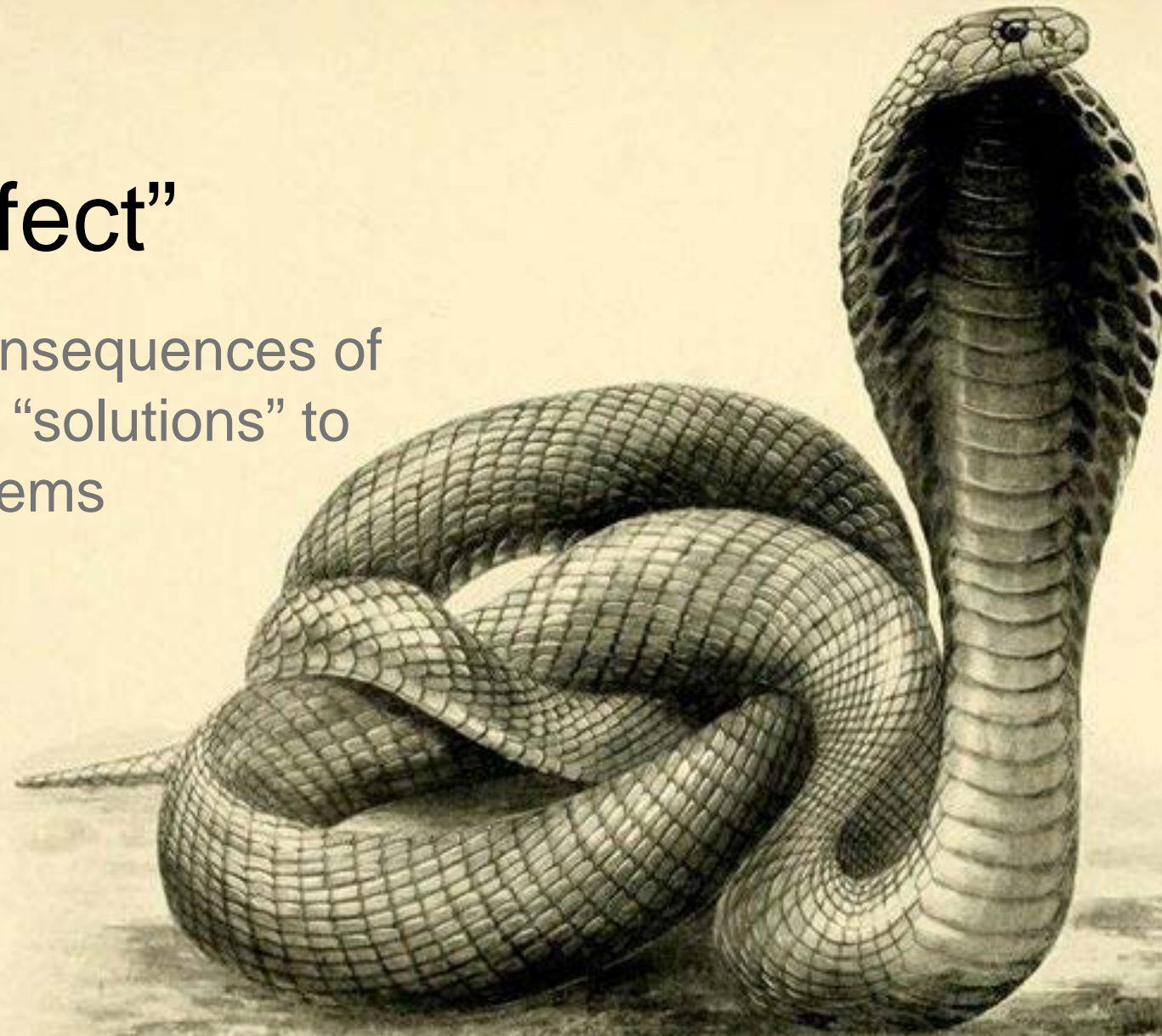
Education: A Complex Adaptive System

- Politics
- Regulation
- Economics
- Families
- Communities
- Media
- Private enterprise



“Cobra Effect”

- unintended consequences of over simplistic “solutions” to complex problems



An example....

Berkeley and the Department of Justice...

- <https://www.insidehighered.com/news/2017/03/06/u-california-berkeley-delete-publicly-available-educational-content>

The Perspectives?

The Perspectives?

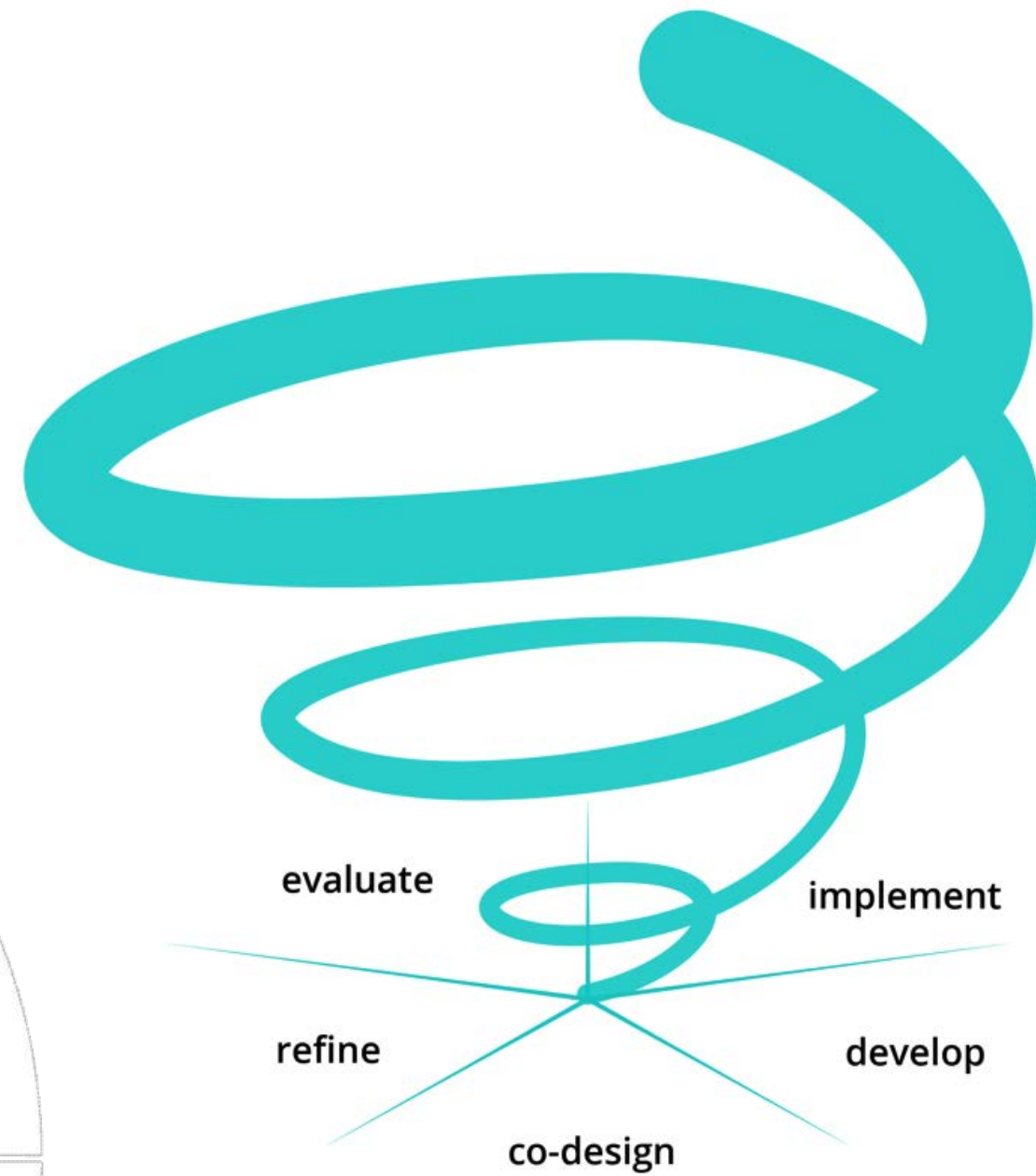
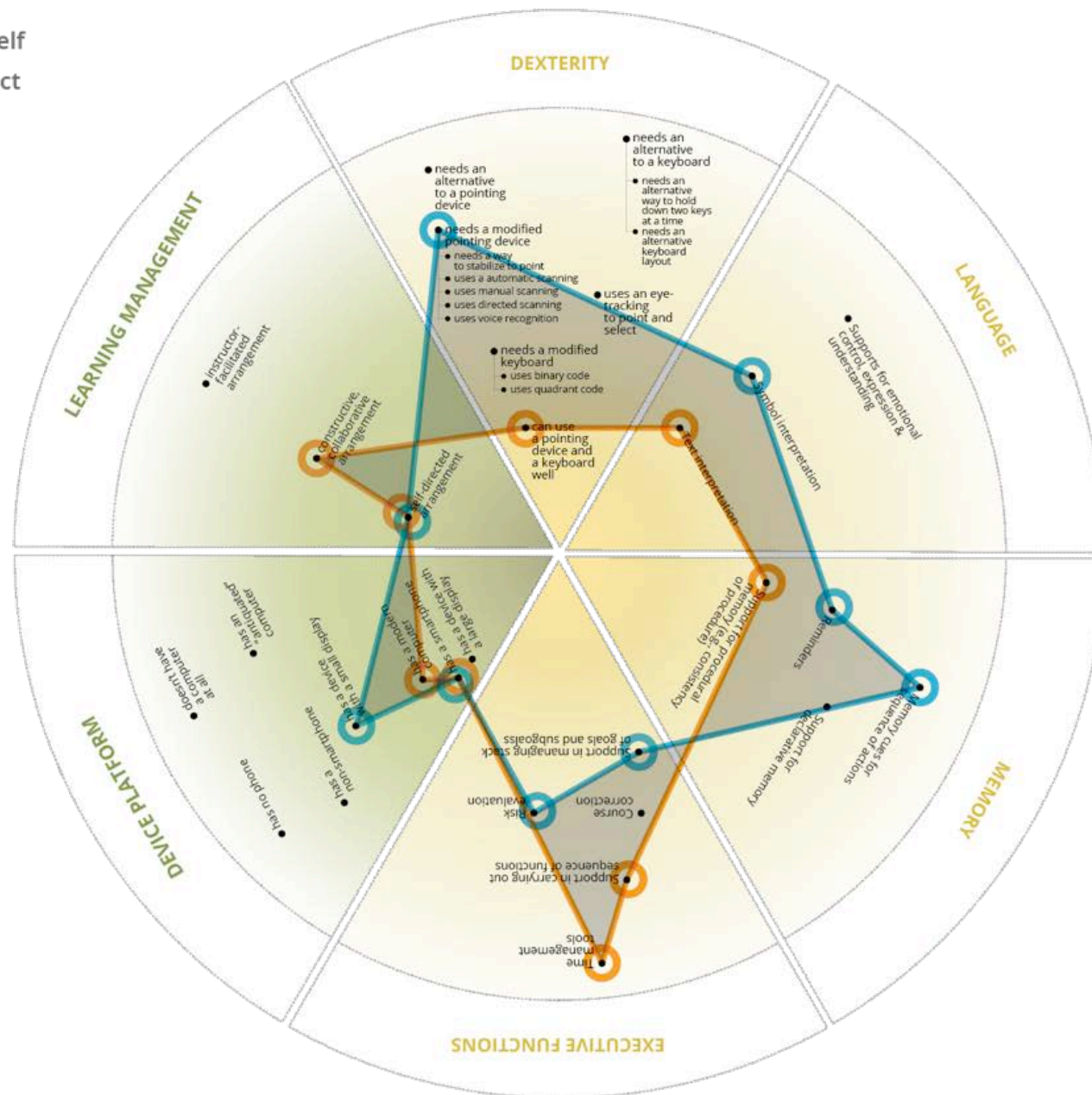
- OER community
- Accessibility community
- Professors
- Students with disabilities at Berkeley
- Students around the world
- Advocates

Stretching to the Edges...

Inclusive Design Mapping Tool

Finding the gap

 Yourself

 Product

Your Turn...

- Pick a gnarly problem
- Identify the perspectives
- Remember the edges
- Map your requirements
- Gentle, inclusive approach prototype
- Who are we missing?
- Checking with the toddler – grandparent conversation

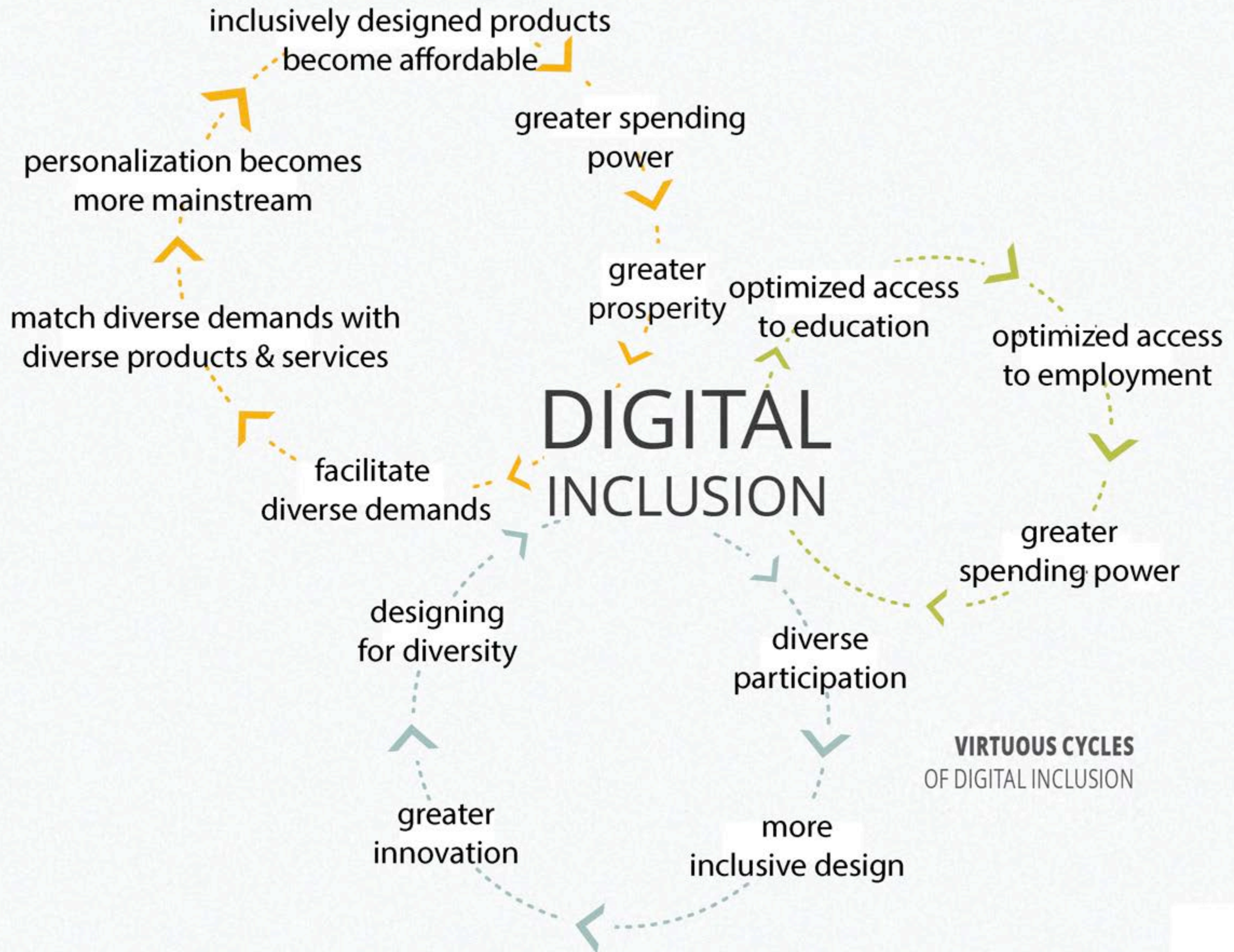


Toddler, Grandparent Conversation... "but why"



Education:

1. View learning as life-long and not a staged set of age-linked grades or degrees;
2. Empower learners to assess and guide their own learning;
3. Value and recognize a diversity of skills and competencies that is potentially as diverse as the diversity of learners; and
4. Support collaboration and collective production over competition with others.



<http://guide.inclusivedesign.ca>
