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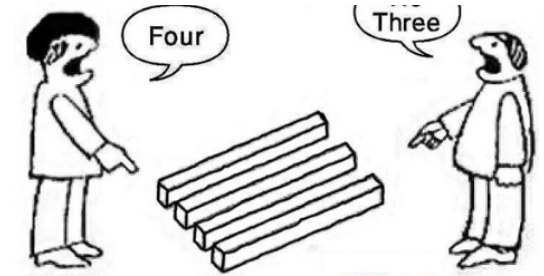
Community-based co-design

presented by
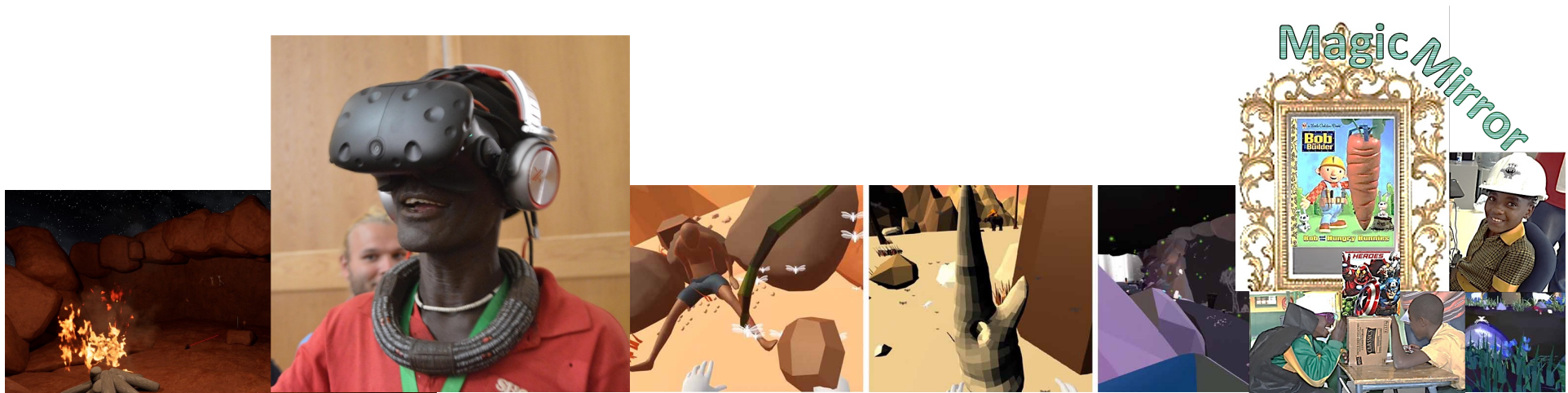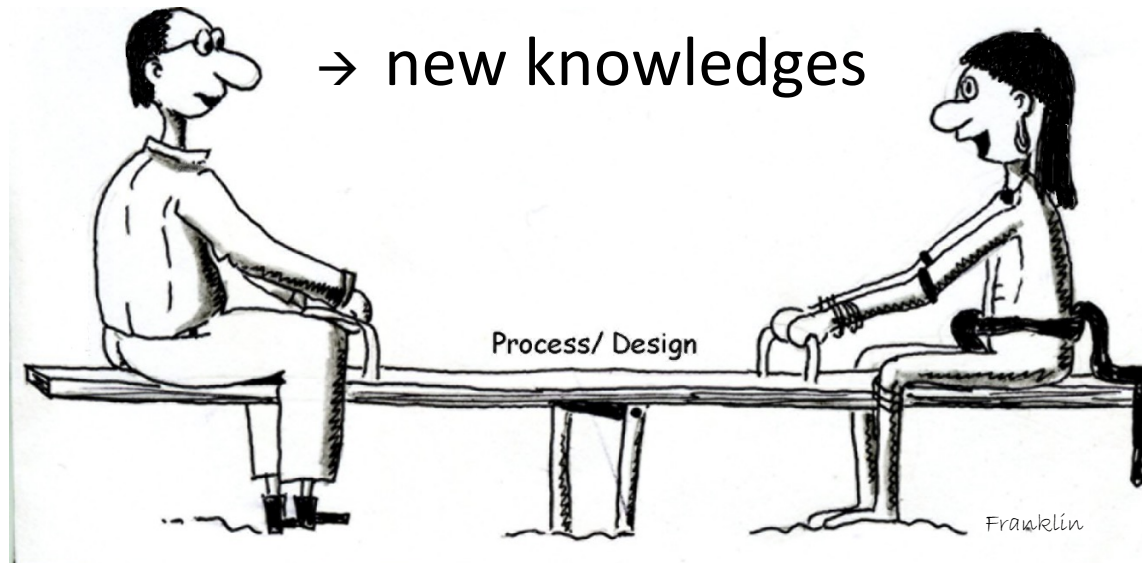Prof Heike Winschiers-Theophilus

Afriachi 2023
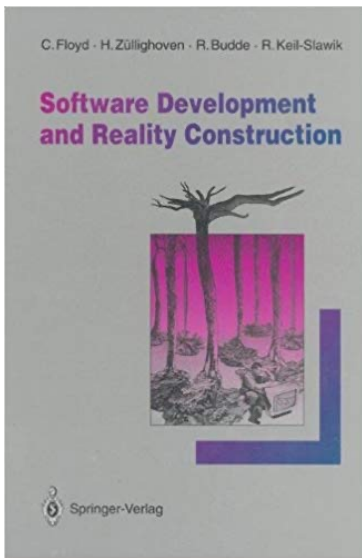
Premise

Technology design
continuously creates new realities
by the people involved,
in the design, the technology development
and the usage context
requiring novel interventions, designs and methods

Winschiers-Theophilus, H., Jensen, K., Rodil, K. (2012) Locally Situated Digital Representation of Indigenous Knowledge in *CATAC 2012*, Aarhus, Denmark
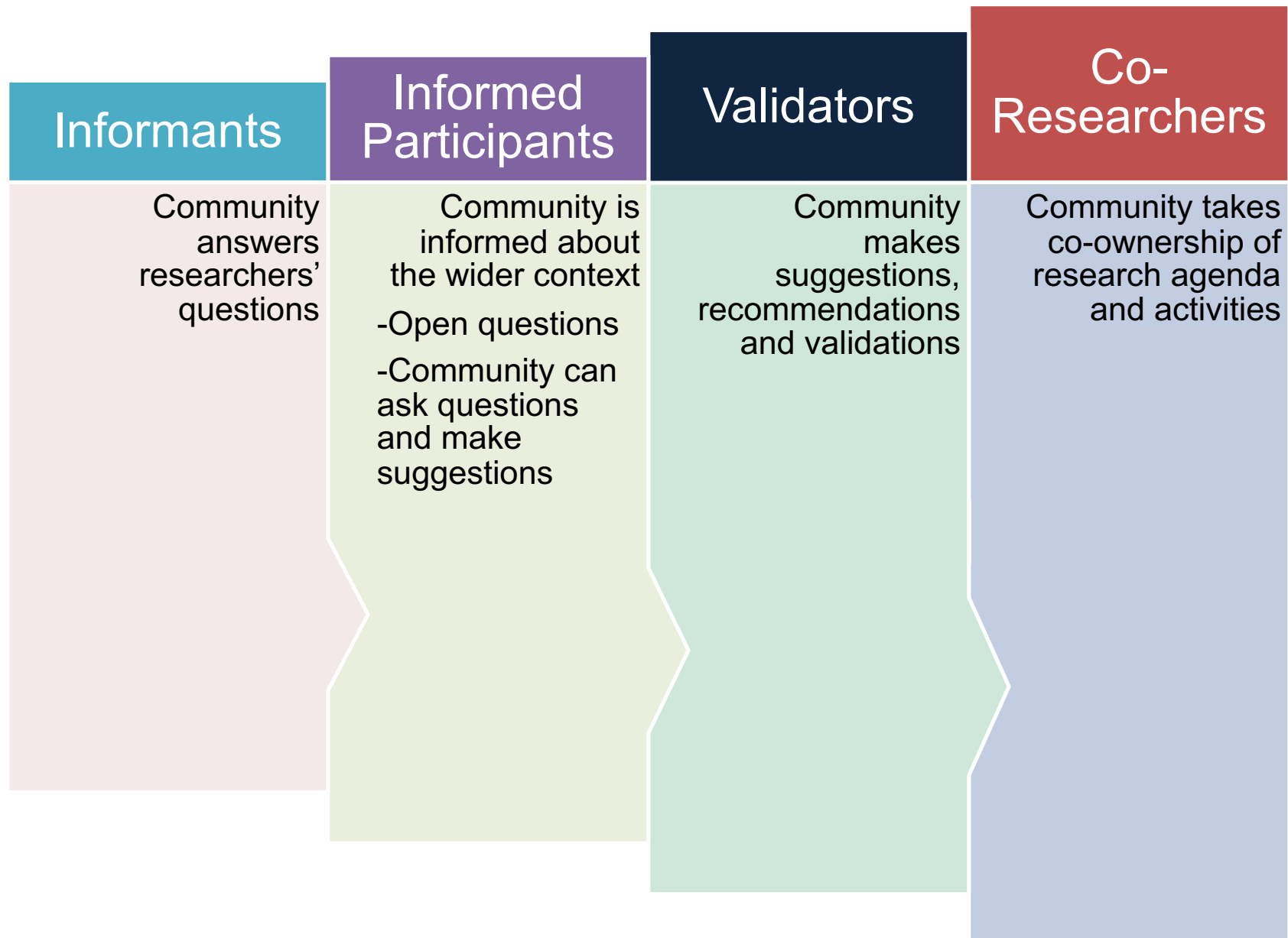
Co-Design is not a luxury
but a necessity

Co-design with indigenous and otherwise under-represented people leads to

→ new insights and perspectives to the dominating design

→ re-positioning of participating communities

→ creation of alternative futures

→ new knowledges

Process/ Design

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Degree of Community Engagement

Informants	Informed Participants	Validators	Co-Researchers
Community answers researchers' questions	Community is informed about the wider context -Open questions -Community can ask questions and make suggestions	Community makes suggestions, recommendations and validations	Community takes co-ownership of research agenda and activities

Metaphor				
Cultural Approaches	Cross-cultural: difference between cultures	Inter-cultural: cultures interacting	Multi-cultural: Co-existence of cultures involved in joint efforts	Trans-cultural: Validity across cultures being independent of a specific culture
Human Computer Interaction	Wave 1: Cognitive science, humans as subjects	Wave 2: Collaboration and Interactions	Wave 3: Embodied experience and new meaning making	
Design paradigms	User-centred Design: User and cultural models	Participatory Design: Engagement, Empowerment	Interaction Co-Design: User experiences, Reciprocity	Community-Based Co-Design: Unity of epistemologies
Community narratives	Narratives by "the other"	Counter-narrative	Harmonious narrative	Reflected narrative

Winschiers-Theophilus, H. Zaman, T., Stanley, C. (2017) A classification of cultural engagements in community technology design: introducing a transcultural approach in *AI & SOCIETY* 1-17

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We advocate

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Indigenise
Indigenous people are co-creators
Situated in Local Epistemologies
`Community Validity

Community-based technology co-design

Innovate
New meanings
Resilient solutions
Bridge gaps
Indigenous technologies
New designs
Novel approaches

Impact
Alternative futures
Re-position IK and IP
Self-reflection
Empowerment
Capacity building
Community wellbeing
Digital Transformation
Knowledge Economy
Sustainability
Livelihood

Winschiers-Theophilus, H., Zaman, T., Stanley, C. (2017) A classification of cultural engagements in community technology design: introducing a transcultural approach, in Ai & Society, 1-17

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Framing research in Afrocentricity (Asante)

- Ukweli: **Truth** grounded in community experience

  → Communities' validation vs researchers' frameworks

- Uhaki: Maintenance of group **harmony**

  → Consensus building vs individual aggregation

- Kujitoa: **Knowledge construction** vs objectivity

  → Introspection and Retrospection vs scientific objectivity

- Ujamaa: **Merge** of researcher into community

  → Cultural and social immersion vs scientific distance

- Utulivu: **Justness** of research ensuring group harmony

  → Inclusion vs Selection

Reviere , R., 2001. Toward an Afrocentric Research Methodology, in Journal of Black Studies, Vol. 31, No. 6 (Jul., 2001), pp. 709-728, Sage Publications.

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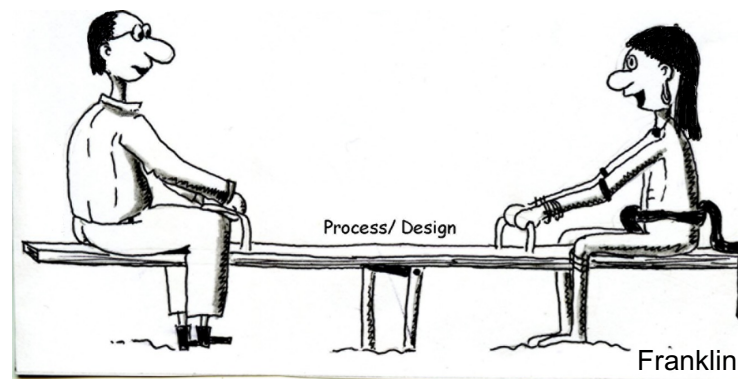
Community-based co-design

1. How do we ensure communities' logics and values are ingrained in technology products?

   → **Indigenous people and communities are research partners and co-creators of technologies**

   → **Situating design concepts and methods in a local epistemology**

2. What are suitable participatory methods to engage communities in the design of tech innovations?

   → **Explorative methods and probes, adapted and created methods within the context, as well as established co-design tools**

3. How can we ensure technology appropriation?

   → **Technology design enables communities in reflecting on their own context, making new meanings and take conscious decisions as to technology design and use**

4. Can we obtain cross-contextual transferability and dependability of results as a basis for theory building?

   → **Participatory Action Research can achieve local workability and contribute to cross-contextual extendibility.**

   → **Research needs to be reframed in alternative paradigms**

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In all **long term partnerships**,
roles, responsibilities, expectations and benefits
have to be **continuously renegotiated**
within a **fluctuating context** influenced by outside
parameters (such as funding and politics) as well as
researchers joining and leaving the different projects.

Research output
Technologies
Grants
Planned activities
Institutional ethics
Need for
data/information
…

Learning
Safeguarding IK
Participation
Harmony
Cultural protocols
Values
…

Process/ Design

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Kapuire GK, Winschiers-Theophilus H, Blake E (2015) An insider perspective on community gains: A subjective account of a Namibian rural communities' perception of a long-term participatory design project. International Journal of Human-Computer Studies 74:124-143
Winschiers-Theophilus, H., Bidwell, N., and Blake, E. 2012. Community Consensus: Design Beyond Participation, *Design Issues 28,*3 (2012), 89-

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PictIT: Community representations

Winschiers-Goagoses, N., Winschiers-Theophilus, H., Rodil, K., Kapuire, G.K., Jensen, K., 2012. Design democratization with communities: Drawing toward locally meaningful design. International Journal of Sociotechnology and Knowledge Development (IJSKD), 4(4):32-43.

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Thank You