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Against Softmaxing Culture: Understanding Relational Practices in Expert and Ordinary Forms of Work

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Against Softmaxing Culture: Understanding Relational Practices in Expert and Ordinary Forms of Work

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Two cheers (and provocations) for culture in practice

- ❑ There *are* cultural universals

Two cheers (and provocations) for culture in practice

- ❑ There *are* cultural universals
- ❑ The question “what is culture [in AI]?” is the wrong question to start with

What do M-Pesa and ChatGPT have in common?

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ChatGPT

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Artifacts

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Artifacts

Actors

What do M-Pesa and ChatGPT have in common?



Artifacts

Actors

Aspirations

What do M-Pesa and ChatGPT have in common?

Artifacts	Actors	Aspirations
M-Pesa mobile/USSD app (including Daraja API)	Safaricom/regulators/end-users	Financial inclusion
ChatGPT app (including various models and API)	OpenAI/regulators/data workers/end-users	Beneficial AGI for humanity

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Daniel Mwesigwa & Chris Csikszentmihalyi. “Air/time Travel: Rethinking Appropriation in Global HCI and Futures of Electronic Exchange.” **ACM CHI 2024**

Technology *is* social and cultural

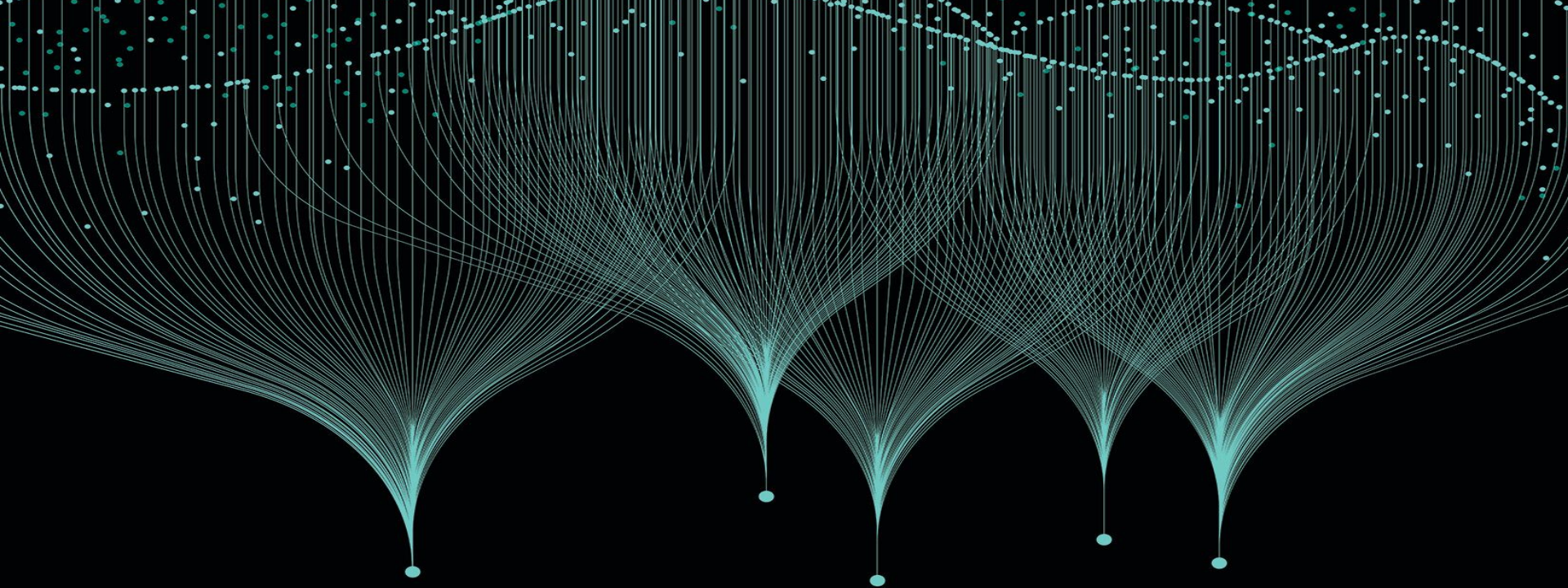
The background is a black field filled with a complex network of thin, teal-colored lines and dots. These lines and dots form a dense, interconnected web that resembles a neural network or a data visualization. The lines are mostly vertical, with some branching outwards, creating a sense of depth and complexity. A solid yellow rectangular bar is positioned horizontally across the upper portion of the image, containing the title text in black. The overall aesthetic is high-tech and abstract, suggesting themes of artificial intelligence, data science, or digital connectivity.

Large AI models as social and cultural technologies



Large AI models as social and cultural technologies

“These [AI] systems do not merely summarize [or help us interpret] information like library catalogs, internet search, and Wikipedia. They also can reorganize and reconstruct...information.” (Farrell et al., 2025)



“These [AI] systems do not merely summarize [or help us interpret] information like library catalogs, internet search, and Wikipedia. **They also can reorganize and reconstruct...information.**” (Farrell et al., 2025)

But these AI technologies potentially 'softmax' culture



But these AI technologies potentially ‘softmax’ culture

***Softmaxing* culture** is the tendency of AI systems to produce averages (or defaults) of language and media content in human-AI interaction

How AI technologies 'softmax' culture

Question: What's your favorite city?



How AI technologies 'softmax' culture

Question: What's your favorite city?

Answer:

My

favorite

city

is

New York

.



How AI technologies 'softmax' culture

Hmm, My favorite city is **Nairobi**. But NYC sounds cool. I guess I'll go with it

Question: What's your favorite city?

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How AI technologies ‘softmax’ culture



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Chatbots learned from human writing. Now it's their turn to influence us.

By Victoria Turk

The Great Language Flattening

Chatbots learned from human writing. Now it's their turn to influence us.

By Victoria Turk

Intelligencer

ARTIFICIAL INTELLIGENCE

You Are Not a Parrot

And a chatbot is not a human.



Two provocations

- ❑ Examination of taxonomies of culture in AI

Provocation 1: There are cultural universals

- ❑ Why culture is difficult to describe, design for, and evaluate

Provocation 2: The question “what is culture?” is the wrong question

- ❑ Context matters: What can we learn from fundi wa simu?

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**Textual
dimensions**

**Labor
dimensions**

**Economic
dimensions**

**Cognitive
dimensions**

**Symbolic
dimensions**

**Context
dimensions**

**Educational
dimensions**

**Technological
dimensions**

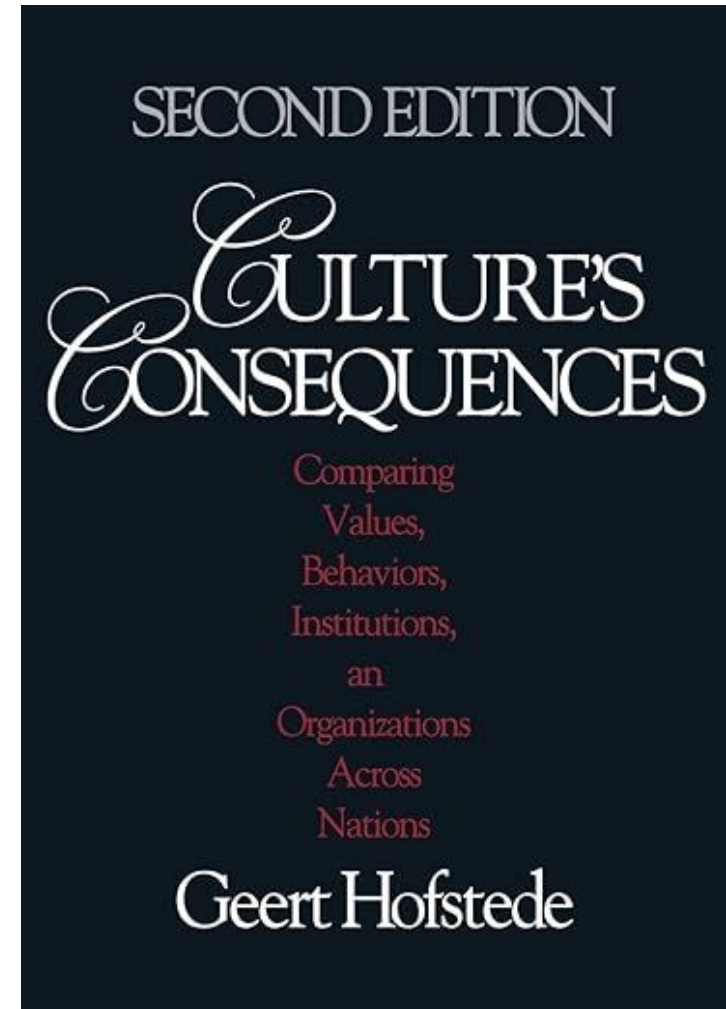
**Professional
dimensions**

**Political
dimensions**

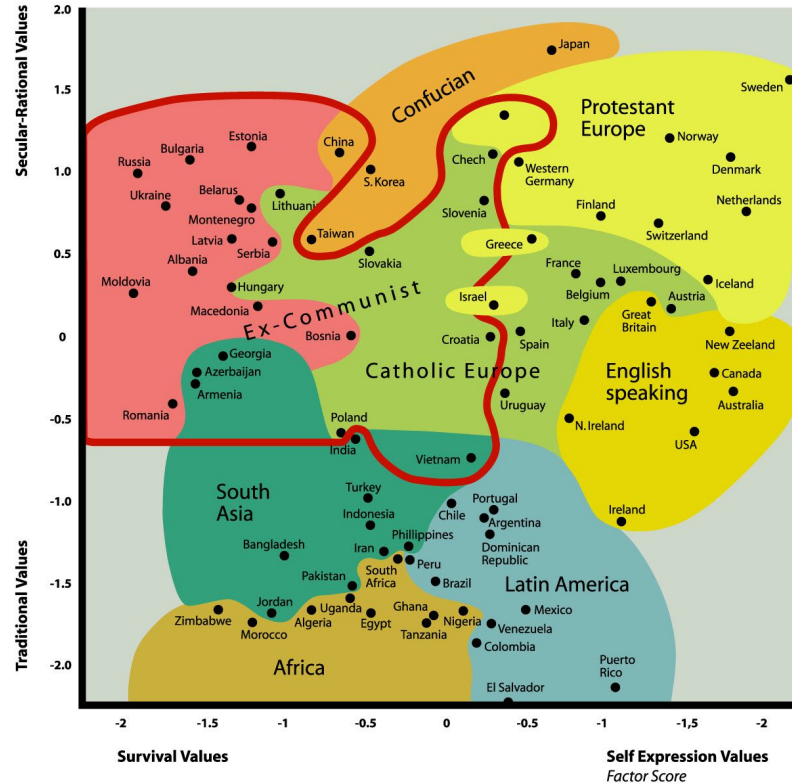
**Material
dimensions**

National evaluations of culture

1. Power Distance
2. Uncertainty Avoidance
3. Individualism versus Collectivism
4. Masculinity versus Femininity
5. Long Term versus Short Term Orientation
6. Indulgence versus Restraint



Inglehart-Welzel cultural map of the world



Culture is not trivia!

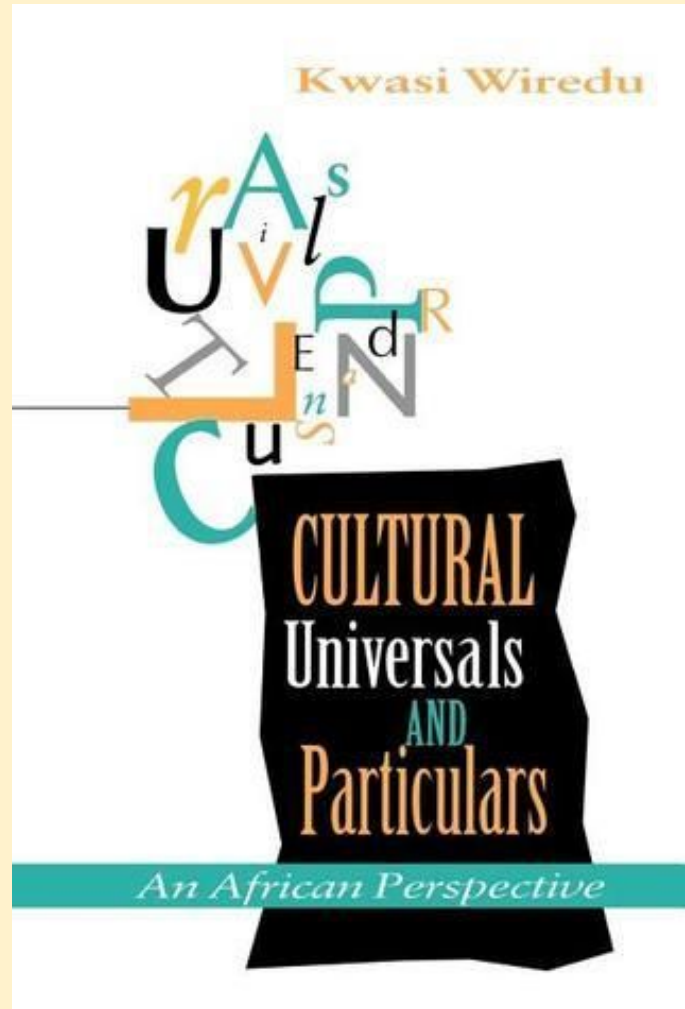
Culture is not trivia!

- ❑ Unsatisfactory definitions of culture (i.e., national)
- ❑ Data evaluation (and fine-tuning) rooted in “stereotypes”
- ❑ Author suggest “cultural competence” for NLP, with renewed attention to localization

Zhou, Naitian, David Bamman, & Isaac L. Bleaman. “Culture is not trivia: Sociocultural theory for cultural nlp.” ACL 2025

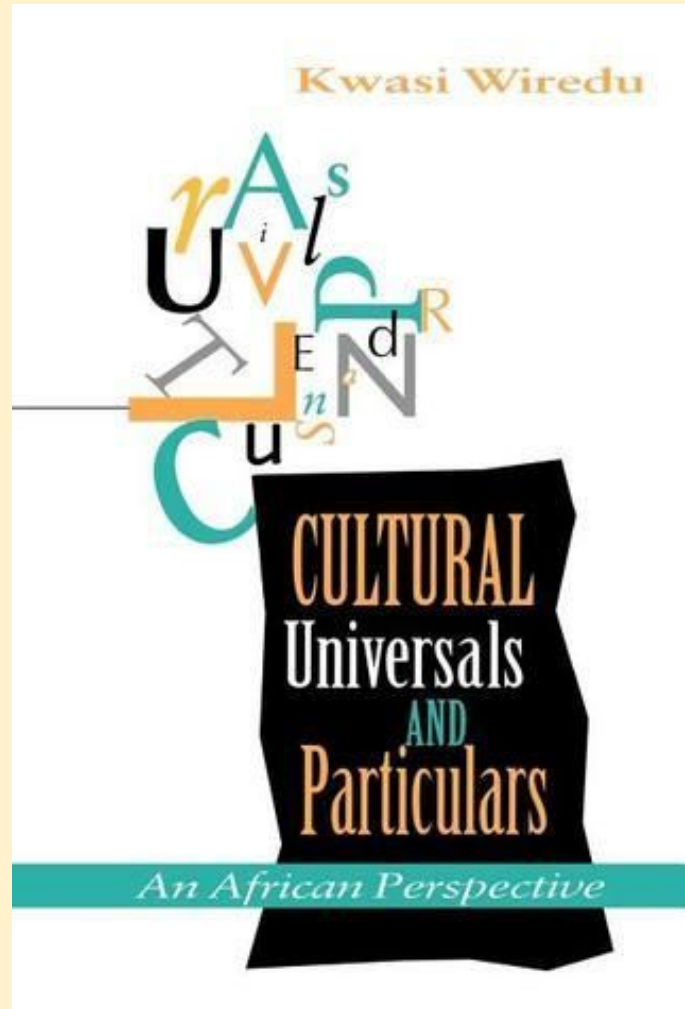
Are there cultural universals?

- ❑ Yes, otherwise no intercultural communication



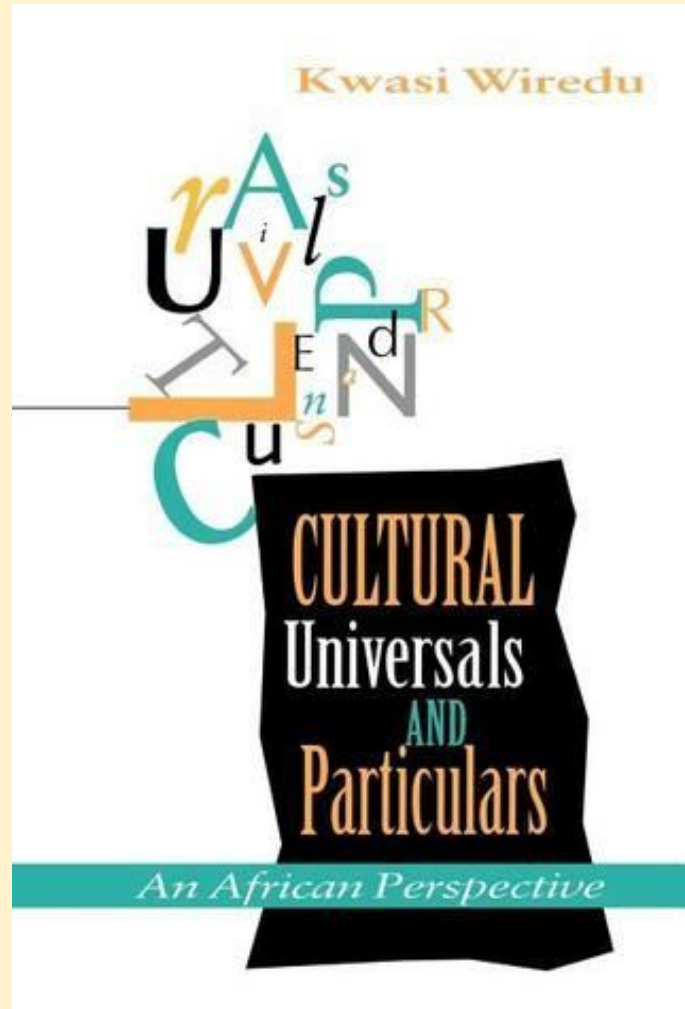
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Are there cultural universals?

- ❑ Yes, otherwise no intercultural communication
- ❑ Humans share 'cognitive toolkit'
- ❑ The principle of sympathetic impartiality



Culture is a fuzzy object

Culture is a fuzzy object



Culture is a fuzzy object



Zamfirescu-Pereira, J. Diego, Richmond Y. Wong, Bjoern Hartmann, & Qian Yang. “Why Johnny can’t prompt: how non-AI experts try (and fail) to design LLM prompts.” ACM CHI 2023

Two provocations

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Instead of asking “what is culture?”

I ask “**when is culture?**”

When is culture?

Daniel Mwesigwa & Steve Jackson. “Moral Orders of Repair: A Study of the Practical and Ethical Work of Repair in Mobile Computing Worlds in Kampala, Uganda.” **(Ongoing)**

Encountering moral orders of repair work?

Moral orders are the norms, rules, values and expectations that support and structure joint work and practice

Method and field sites



Ethnography

Conducted two rounds of fieldwork in downtown Kampala with actors in mobile computing repair worlds (Dec 2022 - Jan 2023 & Feb - Jul 2024)



Documentation

Used Straussian “grounded theory” to develop theory on moral orders of repair, accompanied by analytic memos and targeted codes

Cast of actors in repair worlds



Repairers

These include generalist and specialist technicians, and their apprentices or interns



Suppliers

These import and supply spare parts, accessories, and devices from China and Dubai



Clients

These are “final consumers” who seek repair services or buy accessories and devices



Middlemen

These are colloquially known as “abayiribi” and they connect buyers (e.g., clients) to sellers (e.g., repairers)

Cast of actors in repair worlds

“Buli omu muyiribi” (loosely, everyone is a mediator, a middleman of sorts) – Field interlocutor, Kampala, Uganda

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Three key dimensions of moral orders of repair

1. **Fair exchange**
2. **Relational accountability**
3. Collaboration across hierarchy

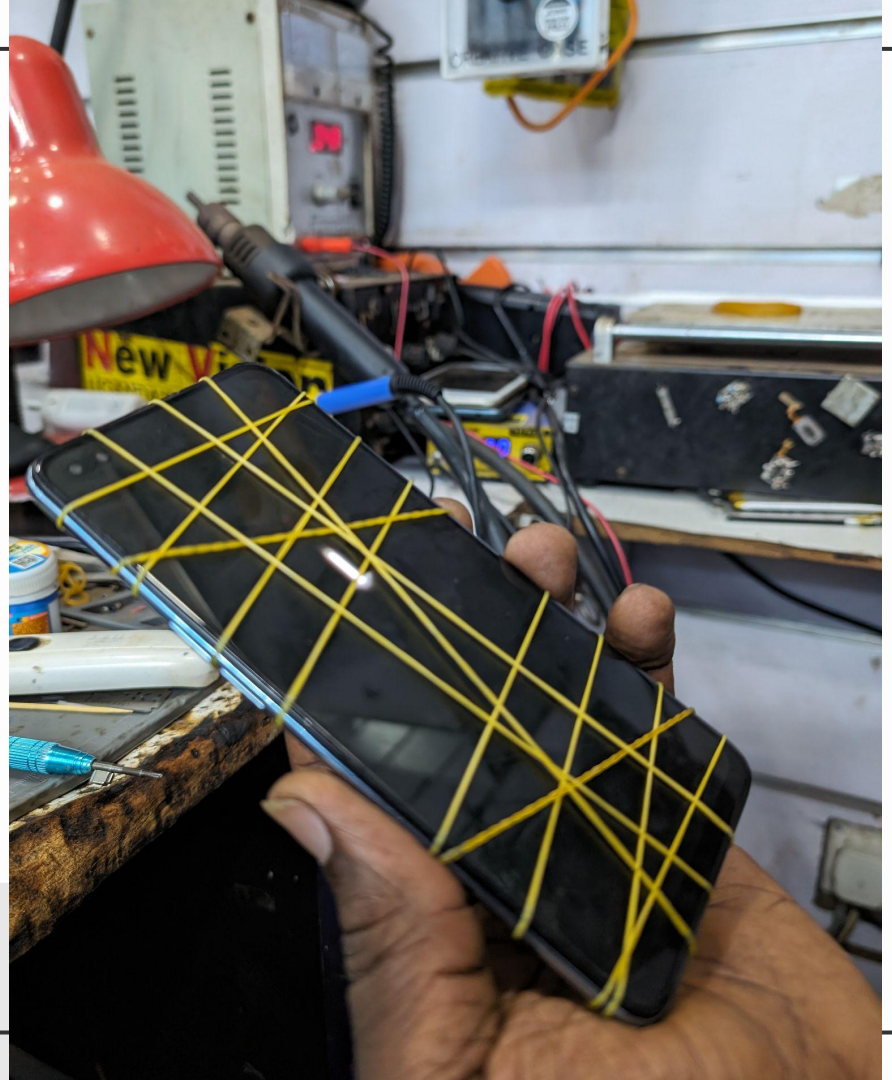
1

First exchange ?

X-Men
(*Xavier,*
***Xander*)**

What constitutes a fair exchange?

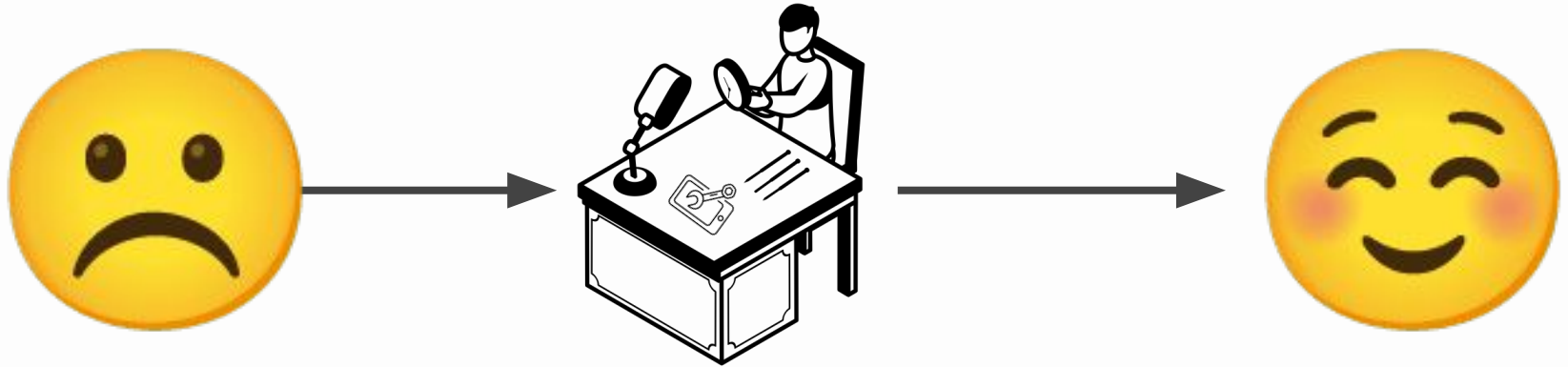
A client's Motorola phone falls down earlier in the day, and he wants an affordable screen replacement. He visits Xavier and Xander, repairers he has known for a while



The social life of a mobile phone repair



The social life of a mobile phone repair



Fair exchange

“Mostly you be knowing the client. If I charge him high, he will not pay. We had charged him 200k [Ugandan shillings], the client is like it's too high. Can I pay 170k? Xavier called me [and] made it seem like the screen price had been reduced. [Xavier says that Manda, a supplier, whom he is friends with sells this screen at 150k]. The client feels like he was not cheated. So that's how business works.”

—Xander, Interlocutor

Fair exchange?

“**Mostly you be knowing the client.** If I charge him high, he will not pay. We had charged him 200k [Ugandan shillings], the client is like it's too high. Can I pay 170k? Xavier called me [and] made it seem like the screen price had been reduced. [Xavier says that Manda, a supplier, whom he is friends with sells this screen at 150k]. **The client feels like he was not cheated. So that's how business works.**”

—Xander, Interlocutor

2

Relational accountability?

Who is responsible for whom (and what) in repair worlds?

The curious case of Jama, a sign-holding young man who humanizes sign posts, leading clients to his repairer “boss”





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Who is responsible for whom (and what) in repair worlds?

The curious case of Jama, a sign-holding young man who gets in trouble with law enforcement, and doesn't get support from his “boss”



Relational accountability



Three key dimensions of moral orders of repair

1. **Fair exchange**

- ❑ Fair exchange *is* horizontal, flattening real or perceived differences between clients and repairers, and generating a sense that exchanges are conducted on even grounds

2. **Relational accountability**

- ❑ Relational accountability *is* vertical. It is about claims made by actors against those whom they consider to be (hierarchically) above them

3. Collaboration across hierarchy

Moral orders of repair: **takeaway**

By studying practice and life in mobile computing repair worlds, I show that moral orders, while multiple, opaque, and overlapping, are **internal** to the worlds of repair (they emerge from social, cultural, and economic conditions) but are **externalized** through locally situated practice. More concretely, my work on moral orders helps account for the **hidden rules that are co-constituted within the practical and ethical work of repair**, highlighting how transactions and exchanges are negotiated, how collaborations are sustained across time, and what actors owe and how they stake their claims to each other

What can human-AI interaction research learn from the practices of *fundi wa simu*?

Design & evaluation **implications**

1. Understanding context is supreme

- ❑ Cultural contexts are dynamic and complex

2. Systematize data collection for model fine-tuning and evaluations

- ❑ There is nothing like free lunch (raw/free/decontextualized data)

3. Integration between social and humanistic inquiry with ML and data science

- ❑ Empirical triumph of theory is a good chance for integrations

Thank you!

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Thank you!

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1. **Daniel Mwesigwa** & Chris Csikszentmihalyi. “Air/time Travel: Rethinking Appropriation in Global HCI and Futures of Electronic Exchange.” **ACM CHI 2024**
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“You shall know a word by the company it keeps”

– Firth, J. R. (1957)

The meaning of 'orange'

He wore a bright **orange** shirt to the wedding .

The meaning of 'orange'

He

peeled

a

juicy

orange

for

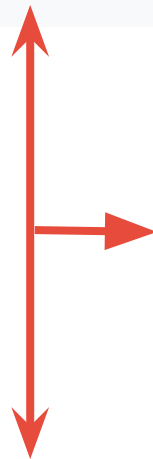
his

snack

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.

He wore a bright orange shirt to the wedding .



Orange means different things in either sentence

He peeled a juicy orange for his snack .