

HUMAN IDENTITY

THE NUMBER ONE CHALLENGE IN COMPUTER SCIENCE

Philip Sheldrake
<https://philipsheldrake.com>

THE 17 GOALS

169
Targets

960
Events

1205
Publications

5132
Actions



Whenever we contemplate human dignity and well-being, social inclusion and equity, economics, education, democratic process, peace and justice, whenever we contemplate many of the sustainable development goals and corresponding targets, we inevitably contemplate the question of human identity in the digital age.

“... we cannot accept technology as a substitute for taking social, cultural, and political considerations seriously. Decentralized technology does not guarantee decentralized outcomes.”

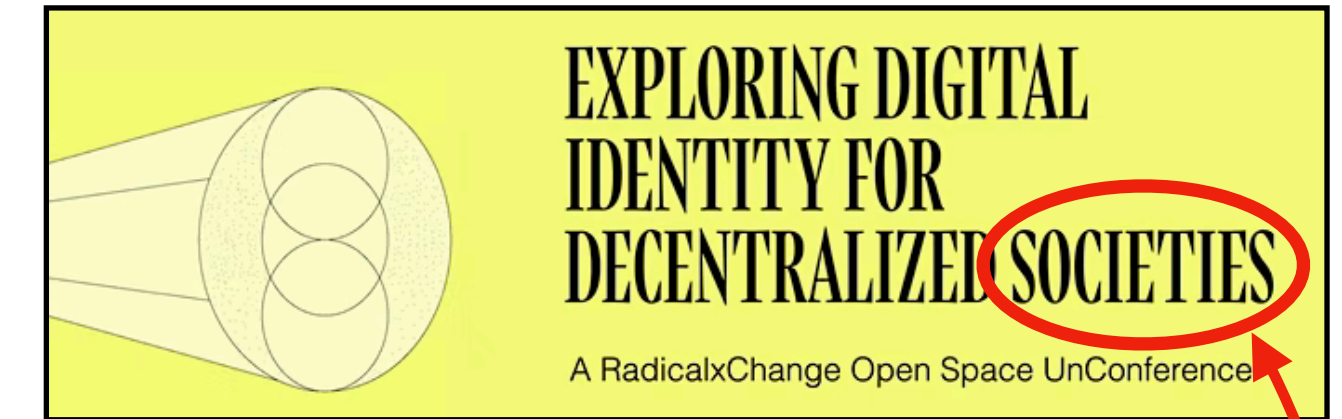
Schneider, Nathan. 2019. Decentralization: An Incomplete Ambition.

<https://osf.io/2ng9k>

identity is ...

stable	&	unstable
concrete	&	malleable
alike	&	different
within	&	without
singular	&	multiple
individual	&	collective
separate	&	connected
whole	&	partial
enduring	&	fleeting
relative	&	absolute
objective	&	subjective
cause	&	effect

! note: over-simplified!



COMPUTER SCIENCE

SOCIAL SCIENCE

predominantly Newtonian

complex

users

human beings

bureaucratic heritage

understanding community / society

hierarchical / arboreal

heterarchical / rhizomatic

addressing machines + resources

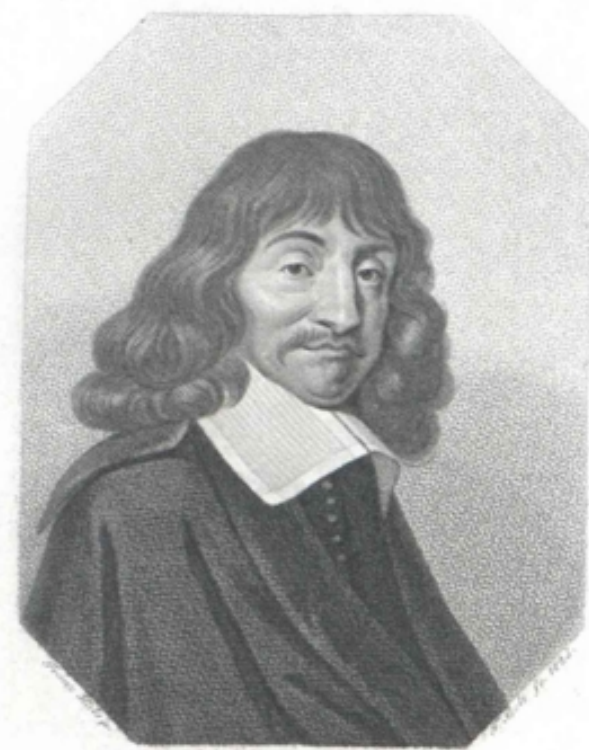
understanding relationships

computation, algorithms

cognition, decision making, behaviour

noun-like identity

verb-like identity



RENE DESCARTES.

Leitch & Co. Lith. Boston.

**Descartes didn't say
'I have a birth certificate,
therefore, I am.'**

Phil Windley



**“Out of context, the best minds
do the worst damage.”**

Wes Jackson, as quoted in (Berry 2009)

Put starkly, many millions of people have been excluded, persecuted, and murdered with the assistance of prior identity architectures, and no other facet of information technology smashes into the human condition in quite the same way as ‘digital identity’. This should give anyone involved in digital identity cause to consider the emergent (i.e. unplanned) consequences of their work.

internetome

- we are already cyborg
- the digital fabric is interwoven seamlessly
- an ecological not merely technological domain

internetome.org

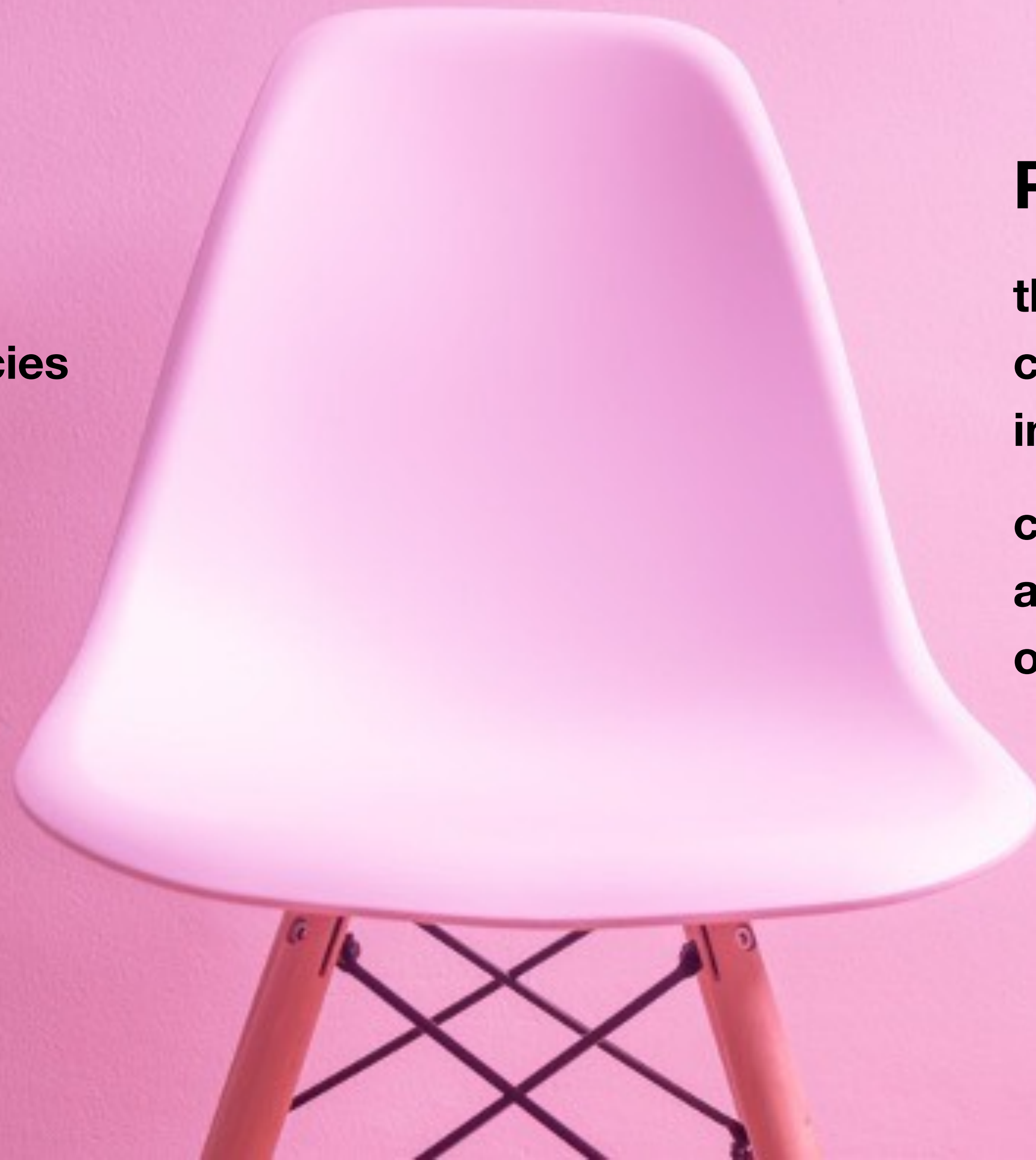
HUMAN

**a member of the
homo sapiens species**

PERSONHOOD

**the quality or
condition of being an
individual person**

**closely tied with legal
and political concepts
of citizenship**



cogito, ergo sum

INFORMATIONAL / PERSON

habeam corpus, ergo sum

PHYSICAL / ANIMAL

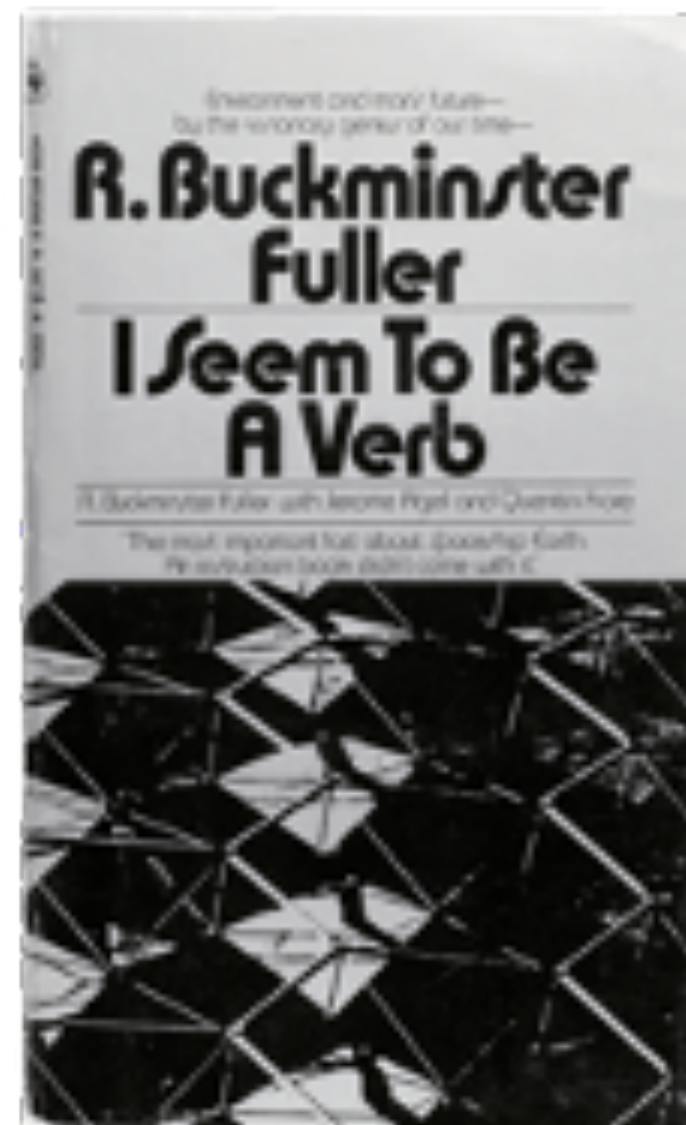
Paradoxically, information
technologists may be said
to code for the physical and
not the informational.



Computer science has two major influences when it comes to identity:

1. Their older society-coding cousins — lawmakers
2. Their heritage of addressing computers, documents, and “things”, and authenticating the credentials to do so (IAM).

At pervasive scale, these are tragic influences by themselves in the context of the human condition, human flourishing, and society.



“I am not a thing - a noun. I seem to be a verb, an evolutionary process - an integral function of the universe.”

Life uses **information** to
organize itself.

It's the medium of organizing.

Information is signal and
context to identities in
relationships.



Relationships are the pathways for organizing, required for the creation and transformation of information, the expansion of the organizational identity, and accumulation of wisdom.

They are formed with information exchange between identifying / identifiable entities in identifying / identifiable organizations.



Identity is the sense-making capacity of organizing.

Narrative in nature, identities assemble in relationships involving and producing interpersonal data / information.



Identities are immanent in the relationships immanent in information exchange, such exchange modulated by identities.

→ a continuous flux ←

→ symmathesy ←





**There was a problem
connecting with humanity.**

The system is unresponsive to the
separation of concerns design principle.
Check your principles and try again.

OK



generative identity — digitally mediated and augmented human identity approached primarily for psychological, sociological, and ecological health.

noun-like

law
computer science

verb-like

philosophy
psychology
sociology
theology
cultural studies
anthropology
ecology
linguistics
history
political science
archaeology
gender studies
human geography
art
architecture
design
economics

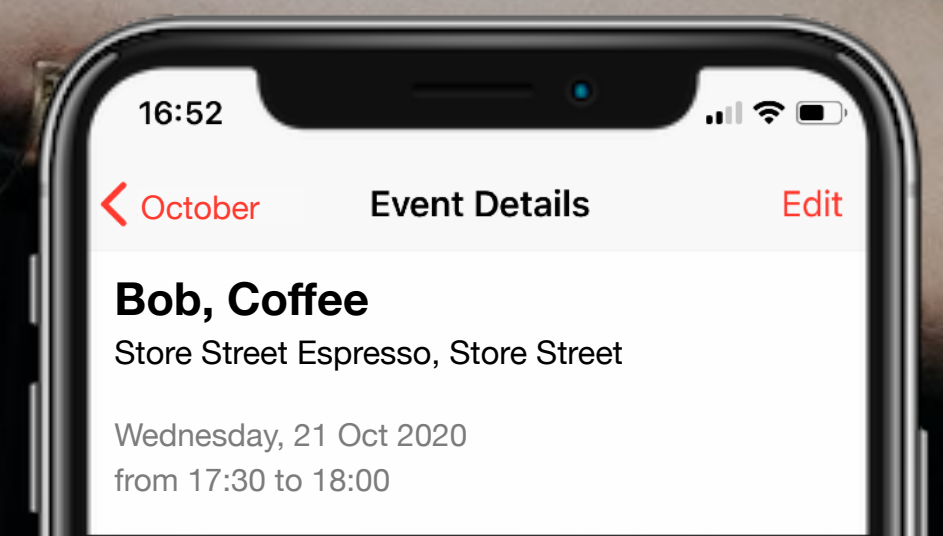
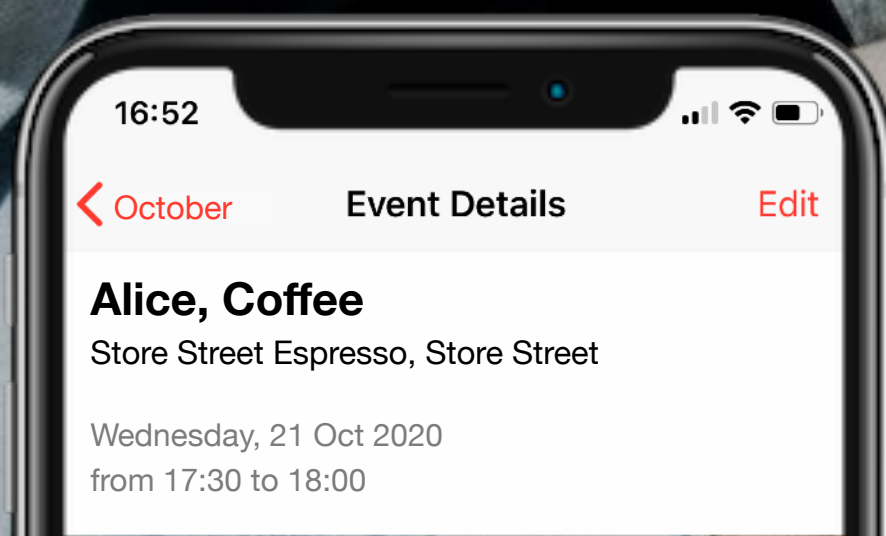
SELF-SOVEREIGN IDENTITY	GENERATIVE IDENTITY
noun-like	verb-like
persistence	change
technological	sociotechnological
technologists + lawyers	interdisciplinary
privacy / digital convenience	psychological, sociological and ecological health
mechanistic / micro	complex / macro / biomimetic
identity as an object	identity is information
own your identity	ownership is incongruous
existence / “I”	flux / structuration / “I” + “we”
self doesn’t feature	supporting narrative selves
control	agency — individual & collective
access to personal data	co-constitution with interpersonal data
relationships are an object	co-constitution with relationships
directing credentials & identifiers	informational omni-directionality
eliminating friction	friction is an important system property
universality / interoperability	generativity
can never be verb-like	may accommodate the noun-like?
will ossify, frustrating generative identity	requires commoning

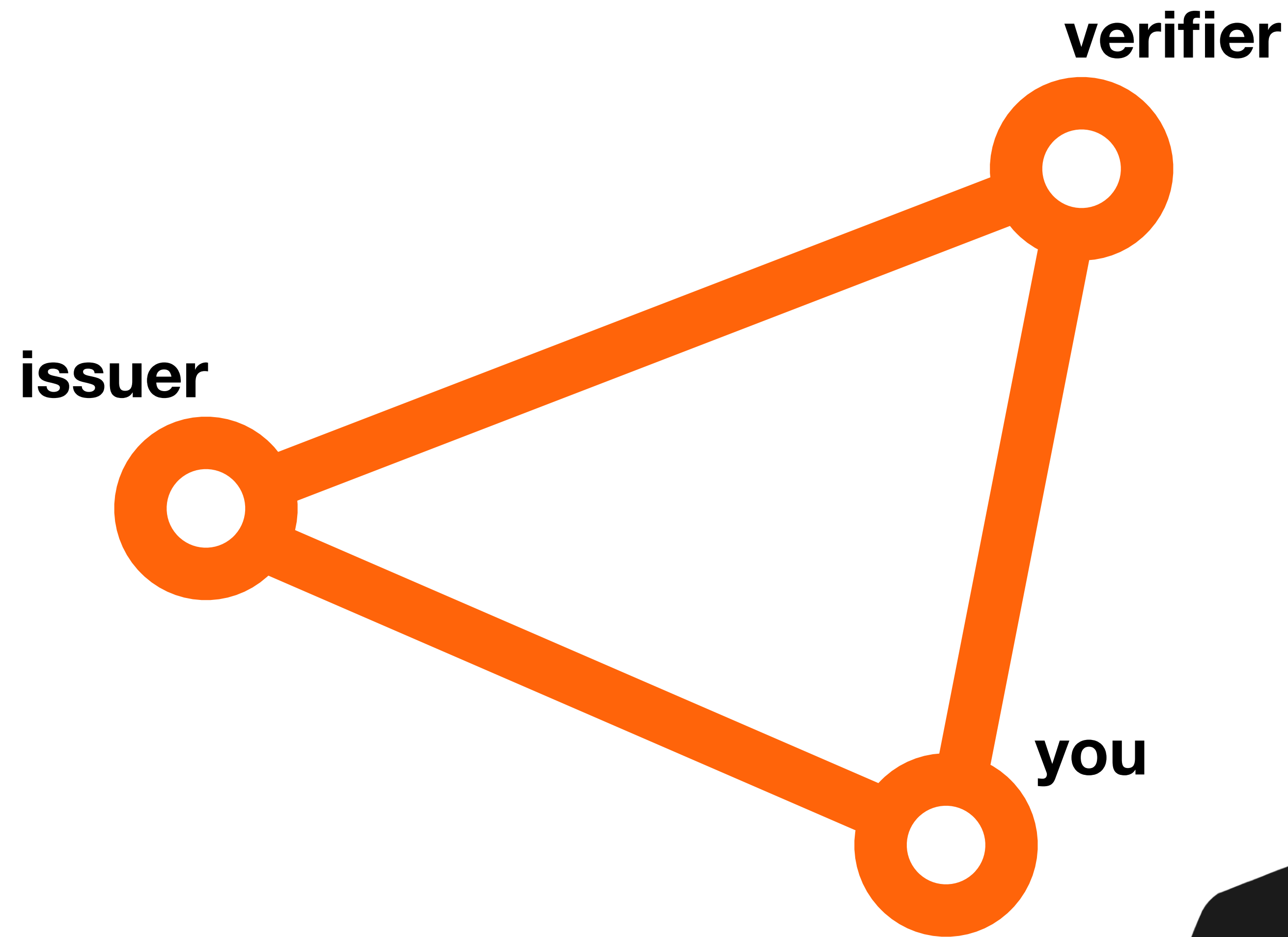
The qualities listed describe the system
in which the system is deployed
— i.e. the one that actually matters —
not just the technical system alone.

PERSONAL DATA	INTERPERSONAL DATA
legal	natural
data subjects	humans +
node-centric	edge-centric
control	agency
tree-like	rhizomatic
facsimile	cache
privacy	privacy + collective intelligence

We're social animals.

Unsurprisingly, the vast majority of personal data is in fact interpersonal data.





They call this the trust triangle,
but that's disingenuous.

Trust isn't required in
deterministic processes.

Trust is bypassed, which is
concerning given that trust is a
foundation of human
community and society.

And what if your situation
doesn't coincide neatly
with where the system
thinks you should be?

Privacy by Data Minimization

The collection of personally identifiable information should be kept to a strict minimum.

The exchange of contextual information (characterising the situation) is constrained.

Agency — a capacity contextualized structurally, both temporally and relationally — is constrained.

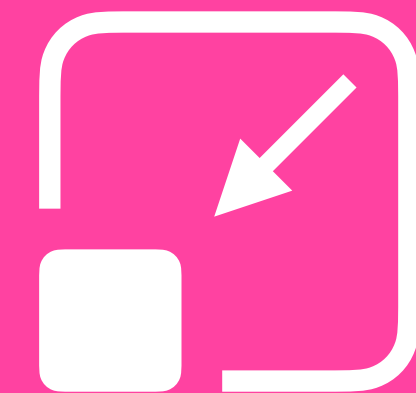
‘THE SYSTEM’



CONTEXT

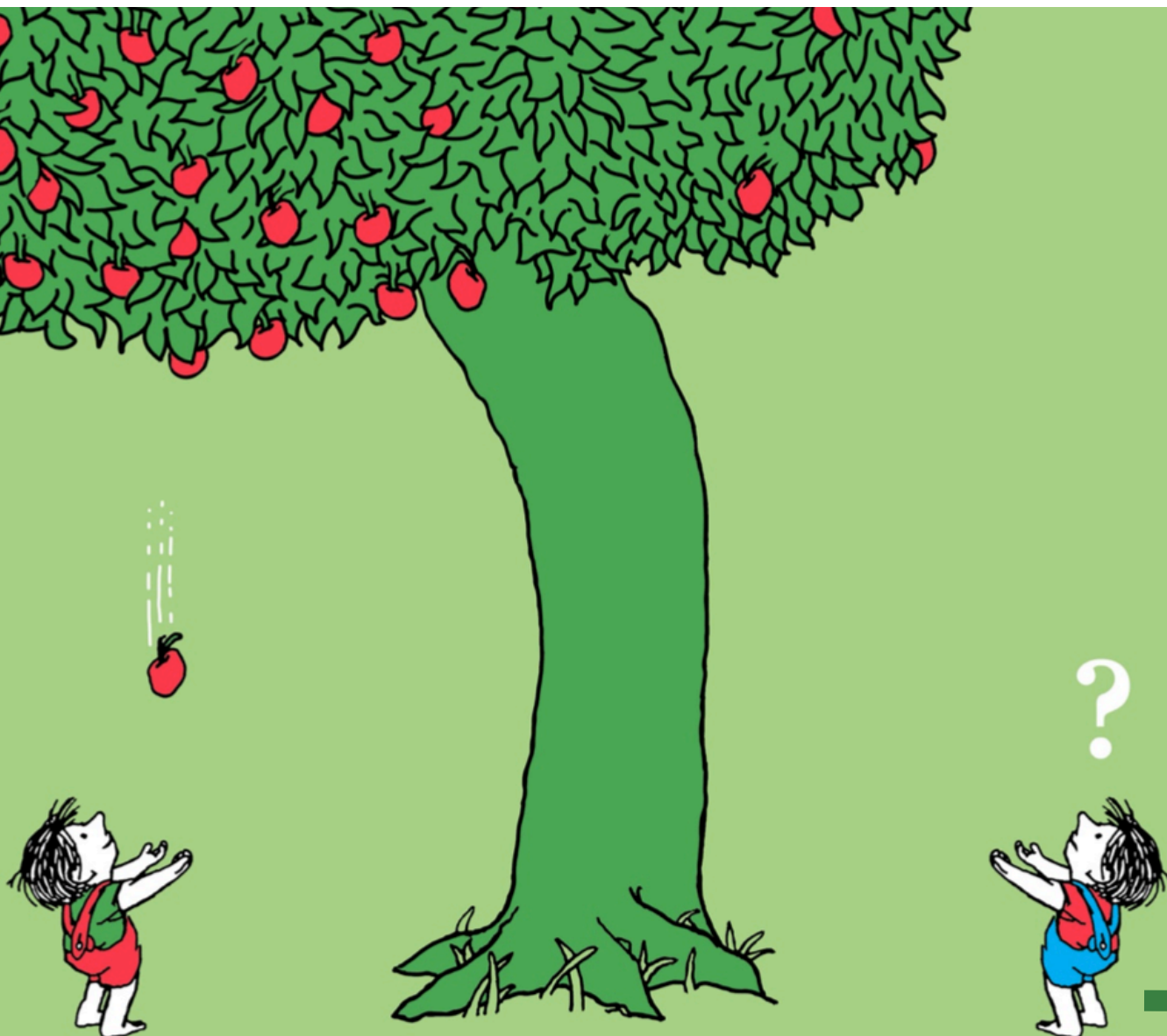


AGENCY



Inequality

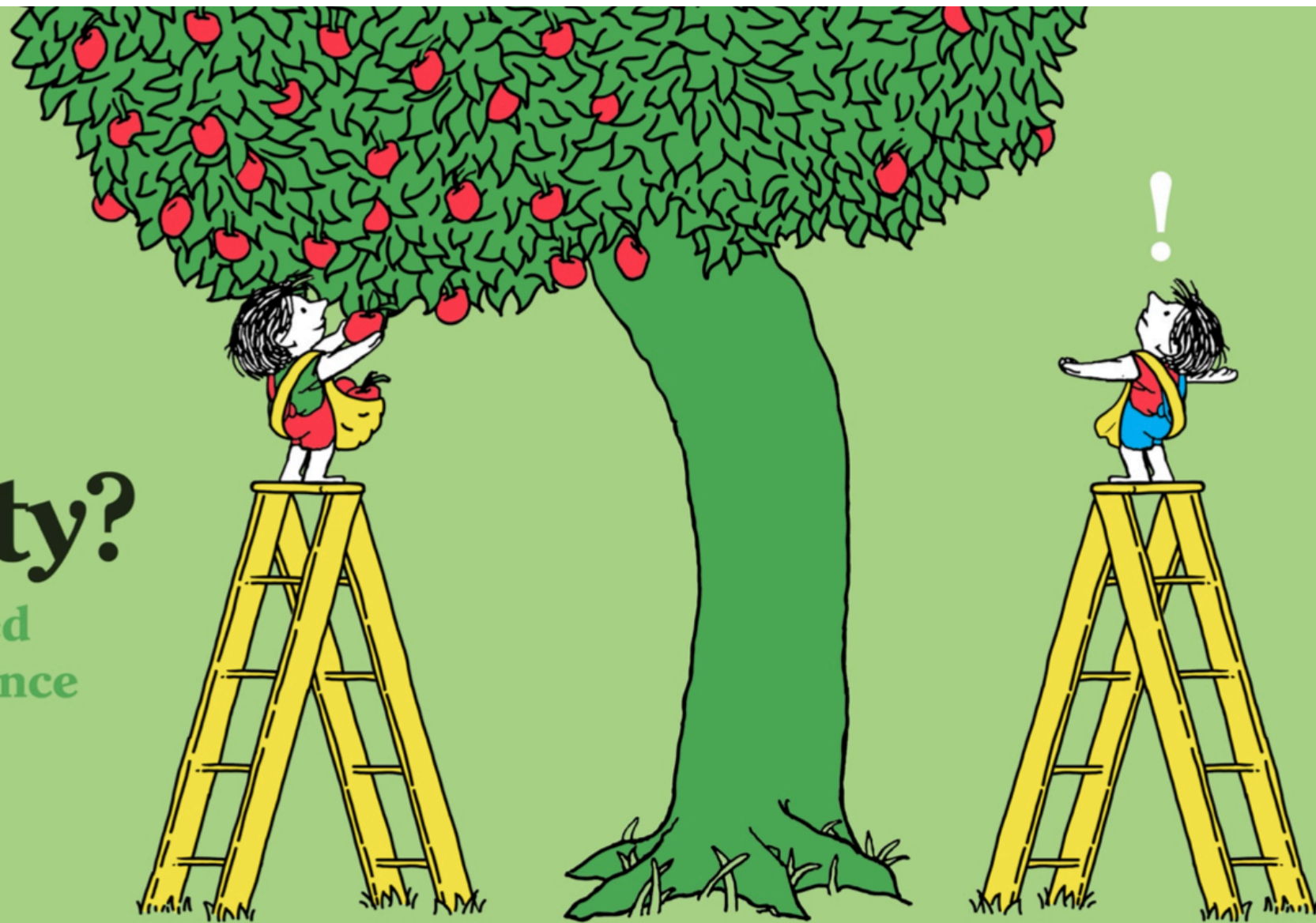
Unequal access to opportunities



2019 Design In Tech Report | "Addressing Imbalance" Illustrations by @lunchbreath

Equality?

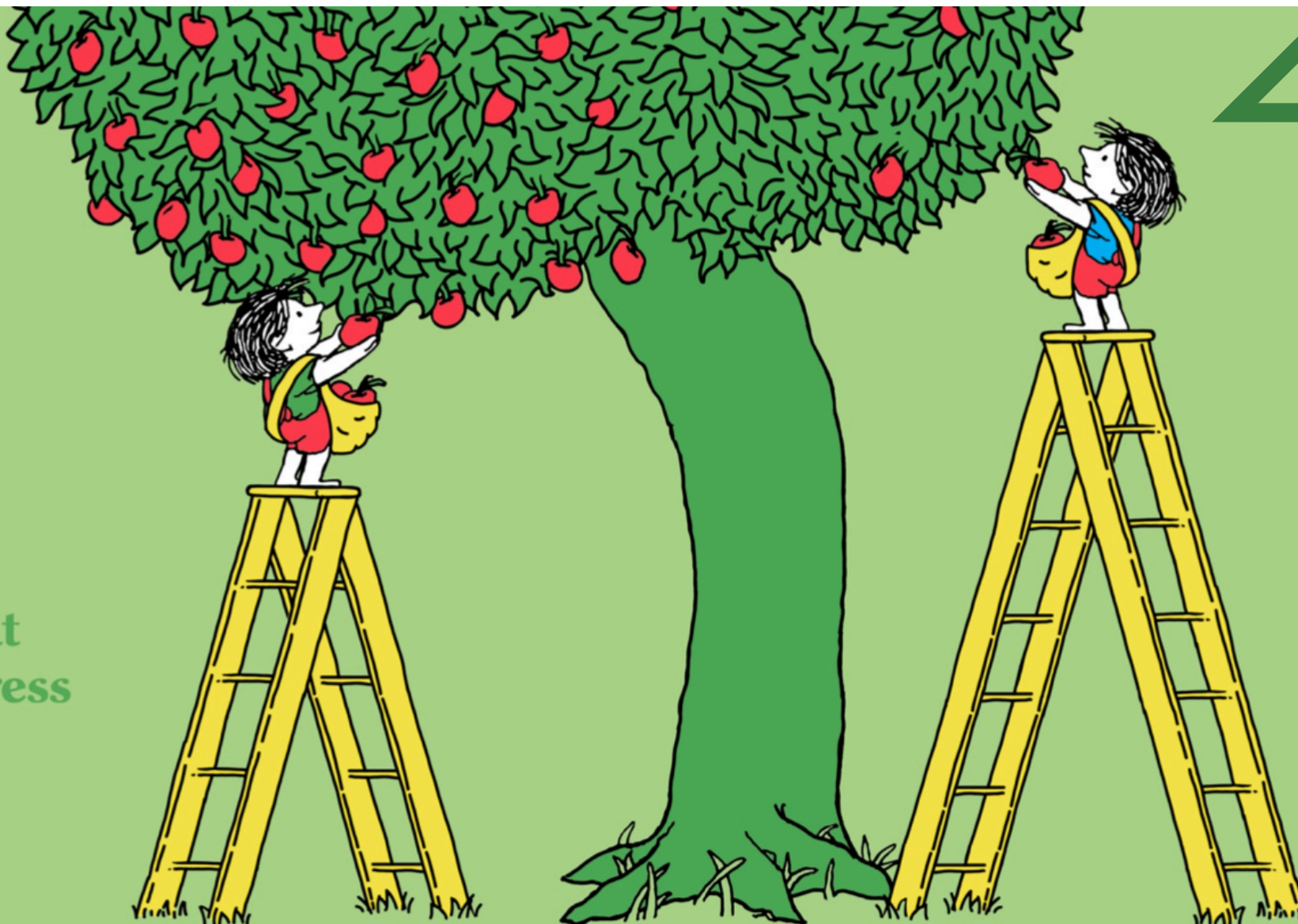
Evenly distributed tools and assistance



2019 Design In Tech Report | "Addressing Imbalance" Illustrations by @lunchbreath

Equity

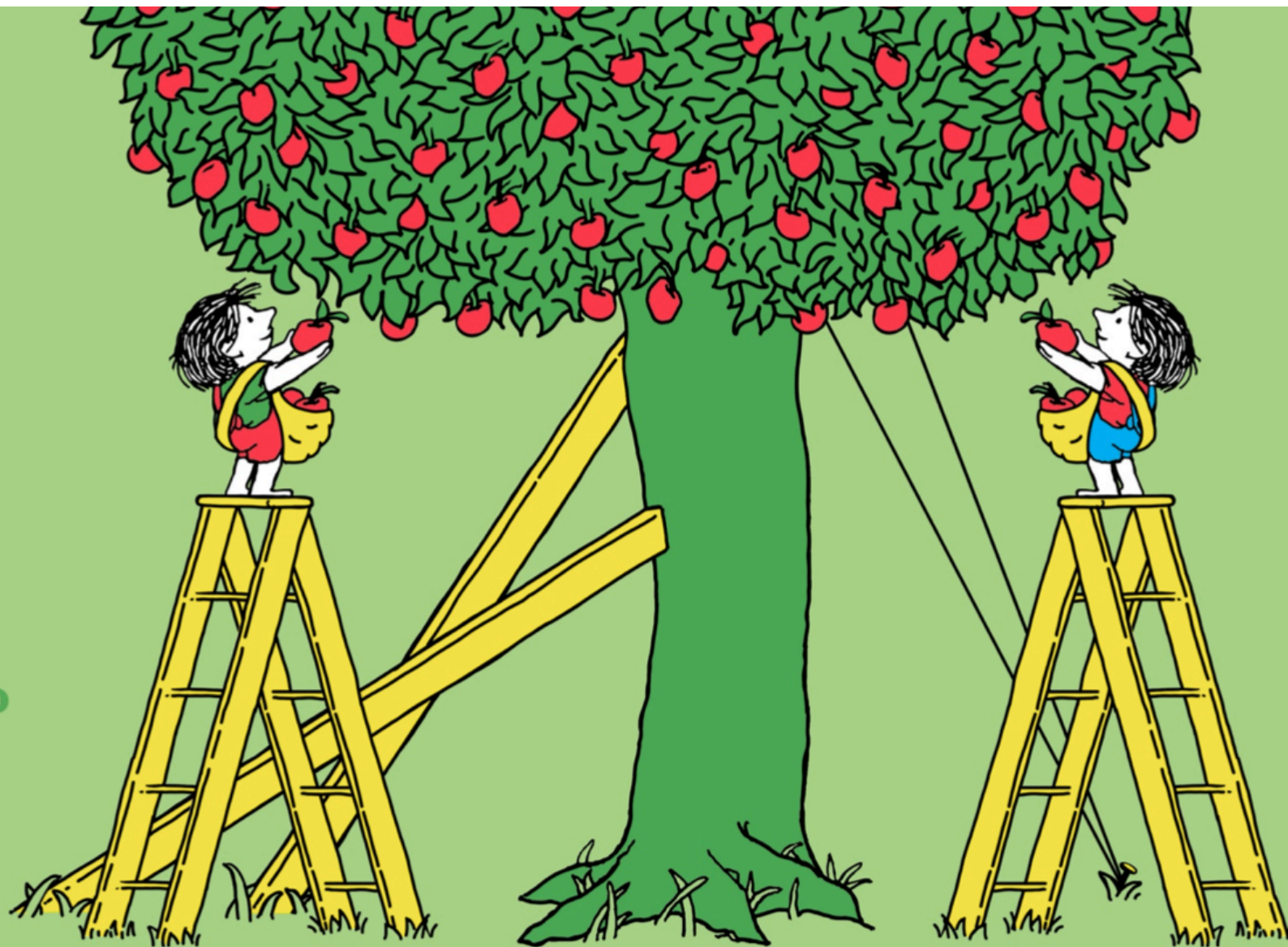
Custom tools that identify and address inequality



2019 Design In Tech Report | "Addressing Imbalance" Illustrations by @lunchbreath

Justice

Fixing the system to offer equal access to both tools and opportunities



2019 Design In Tech Report | "Addressing Imbalance" Illustrations by @lunchbreath

I do have a criminal record but please allow me to explain.

I nearly got all the way to graduating with flying colours, but both my parents died in the final semester.

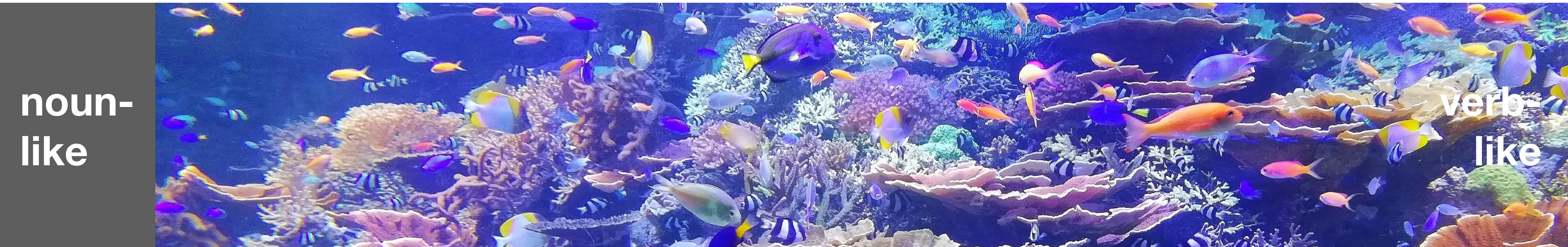
I had a great reputation at my last job, it's just that my line manager and I fell out at the end for reasons I cannot talk about.

My former housemates rate me antisocial, but it's nothing more than introversion.

Yes, I struggle with punctuality, but please know that I'm also a carer.



2020



noun-
like

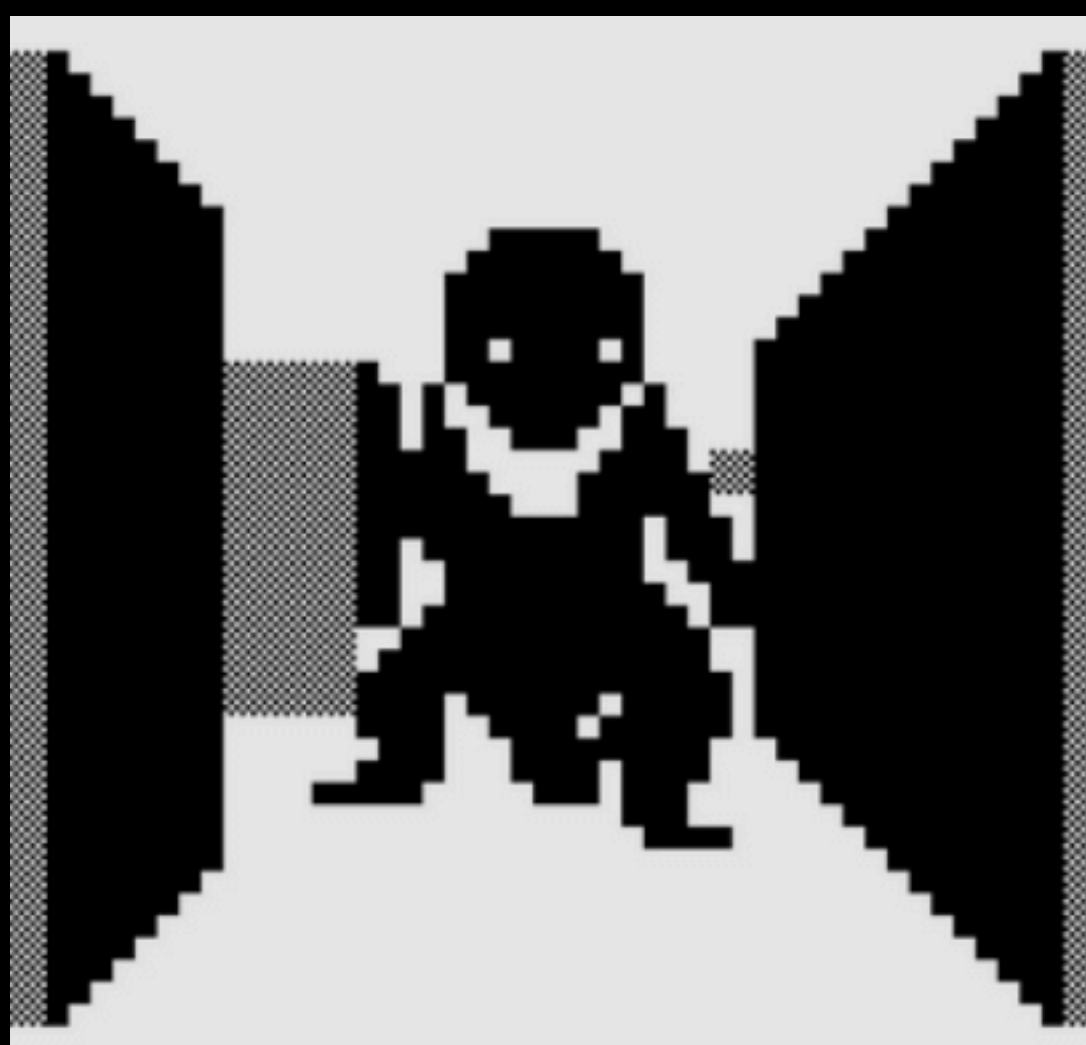
verb-
like

2030



noun-
like

verb-
like



generative identity:

digitally mediated and augmented human identity approached primarily for psychological, sociological, and ecological health.

<https://generative-identity.org>

<https://generative-identity.org/human-identity-the-number-one-challenge-in-computer-science/>

