



From knowing that to knowing how: the future of digital proficiency

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One idea

Education as linguistic proficiency

Two consequences

Education and semantic capital

Education and identity



One idea

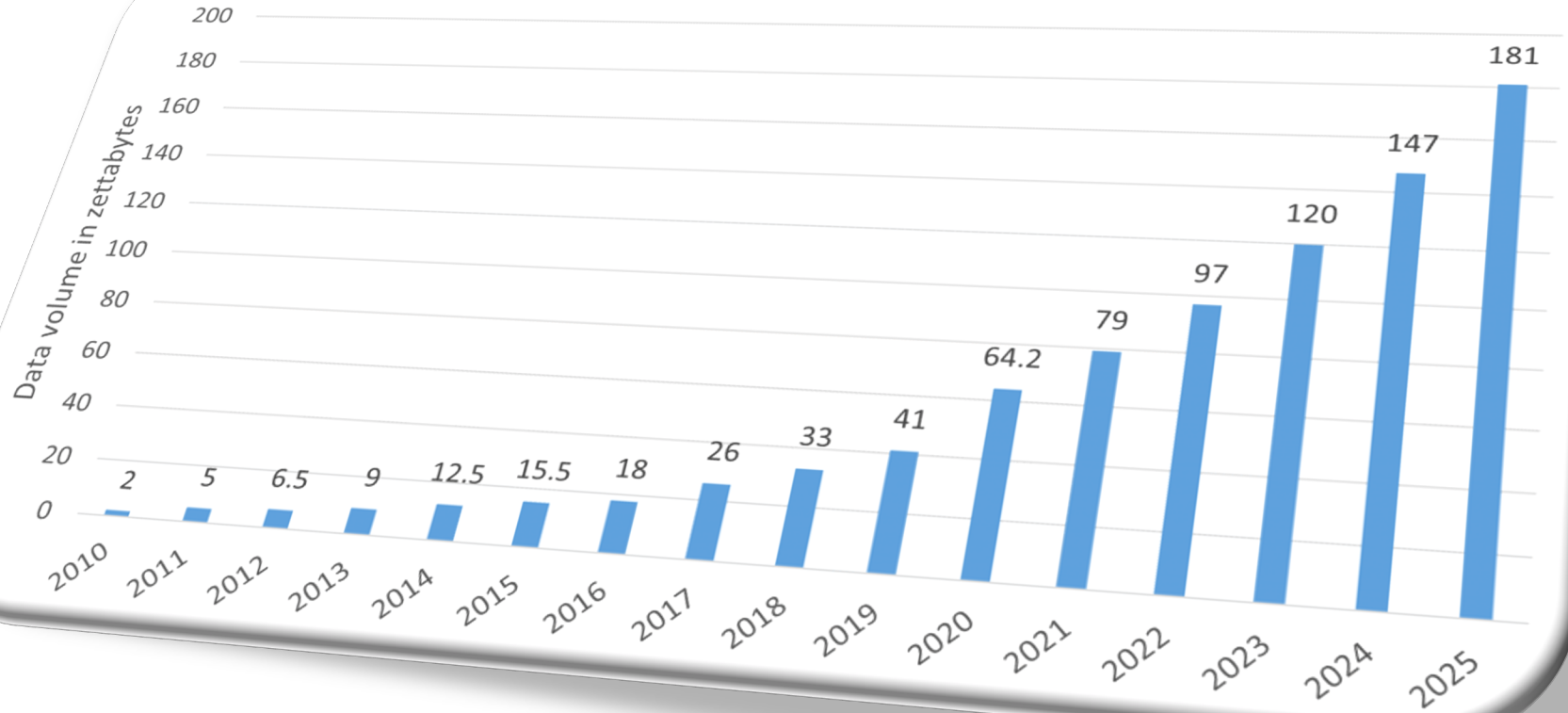
Education as linguistic proficiency

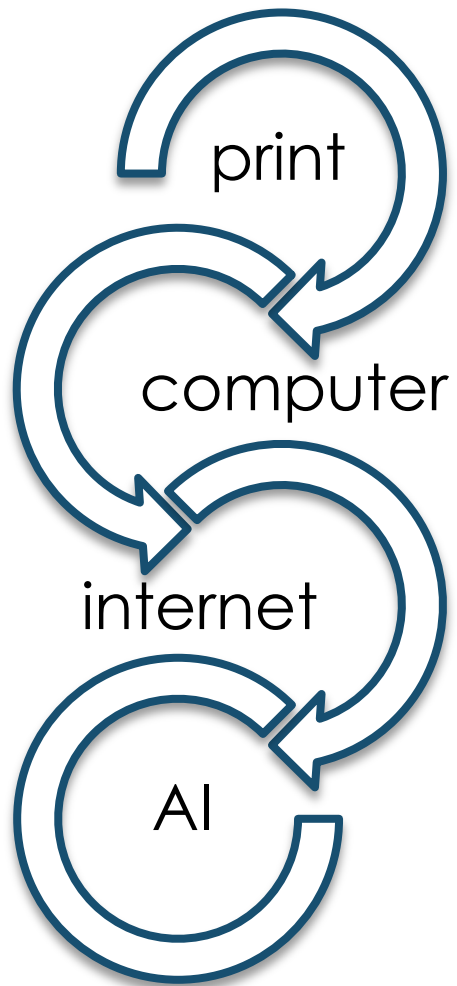
Two consequences

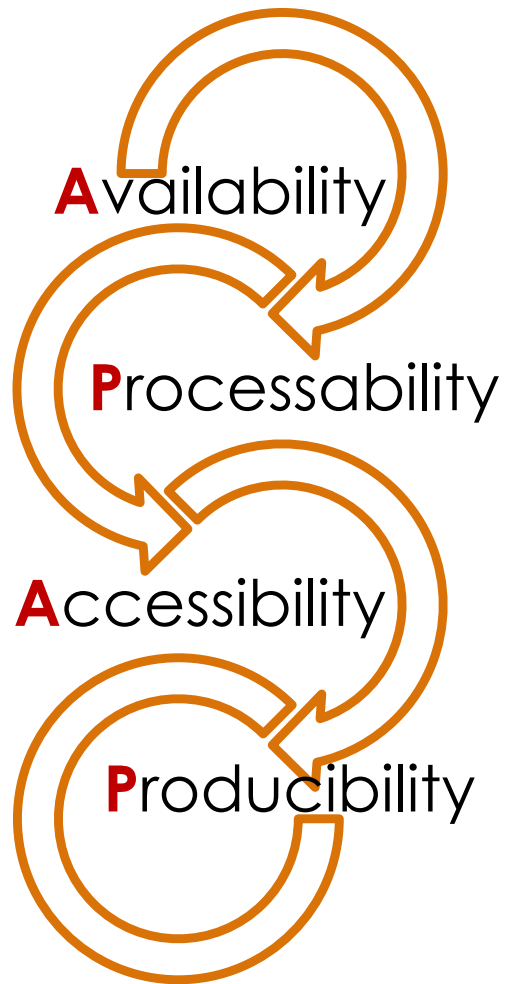
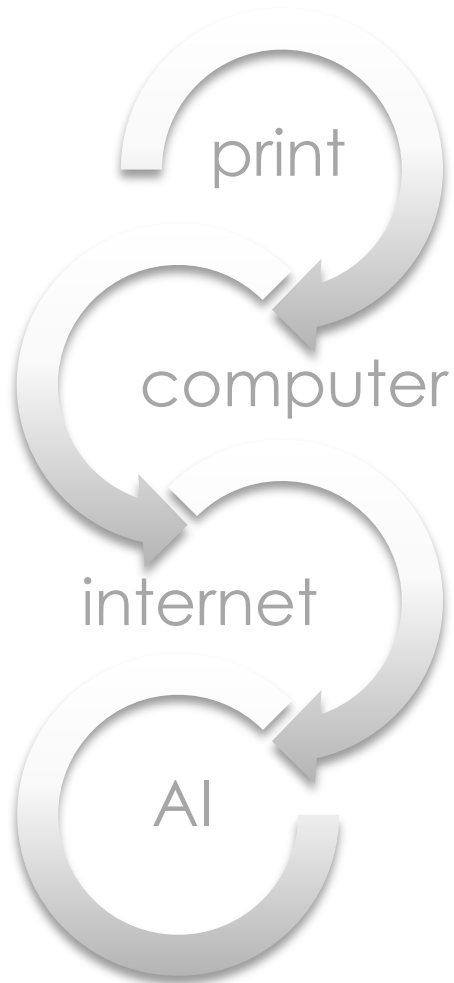
Education and semantic capital

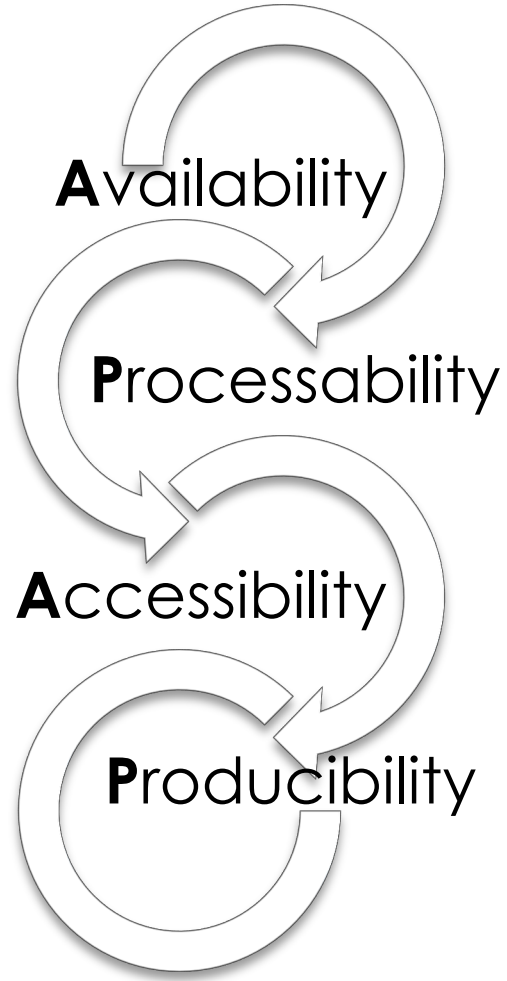
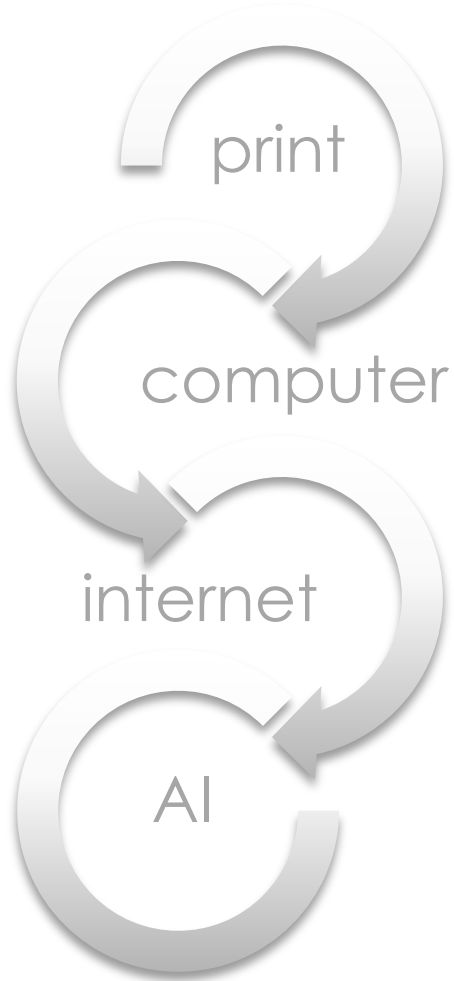
Education and identity

Volume of data created and replicated worldwide (source: IDC)










Post-APAP
Education?



Tension between facts and skills.
Both essential to win the game of knowledge.
APAP moves from know-that to know-how but
tends to privilege **passive know-how**.
Risk: a culture of **users** and **consumers**, not
designers and **producers** as well.



Information societies **neo-manufacturing**

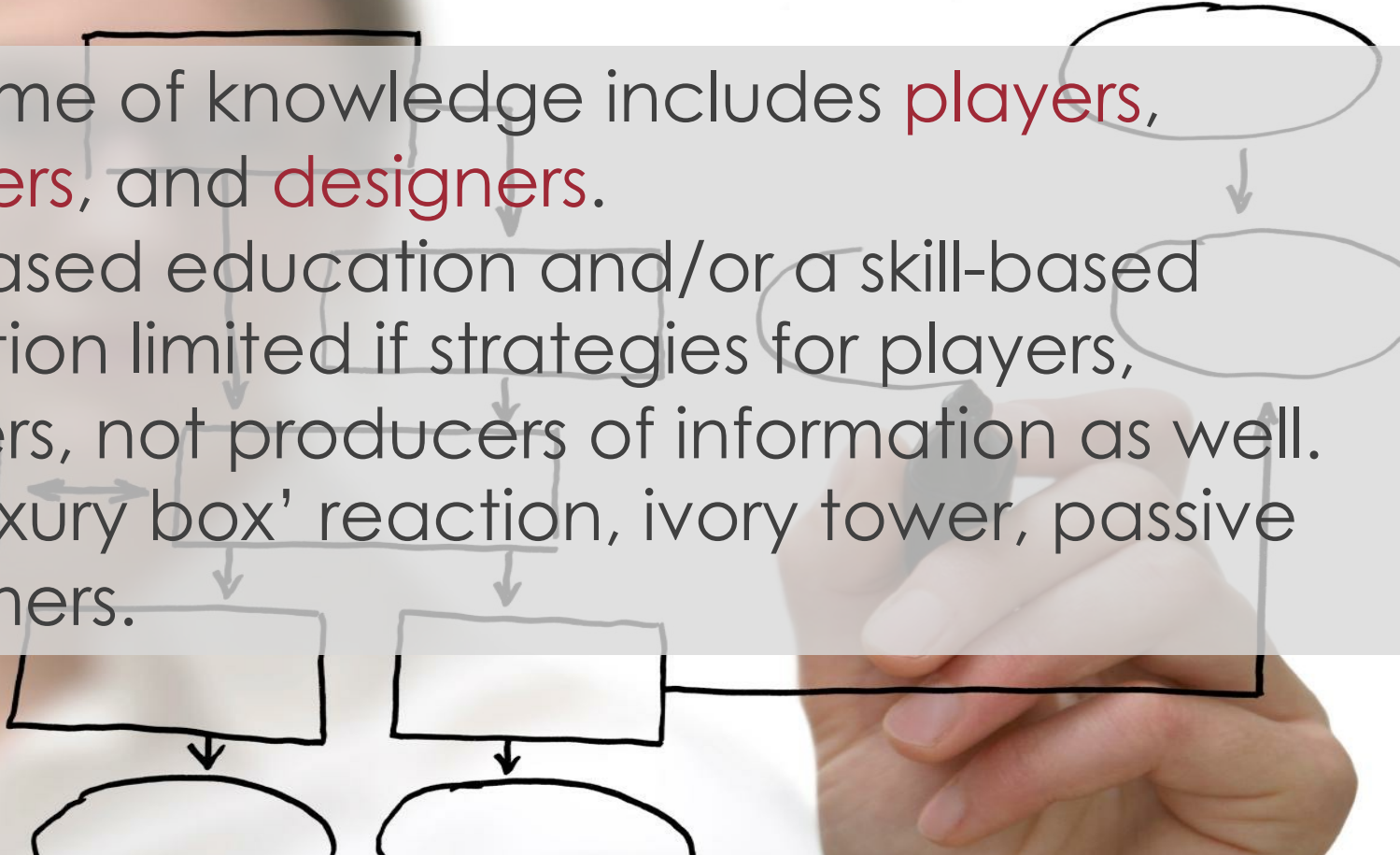
Information both the raw material and the finished good.

“**Maker’s knowledge**”: create, design, transform, curate end communicate information.

Greek problem: divide between episteme (knowledge that) vs techne (knowledge how).

The game of knowledge includes **players**, **observers**, and **designers**.

Fact-based education and/or a skill-based education limited if strategies for players, i.e., users, not producers of information as well. Risk: 'luxury box' reaction, ivory tower, passive consumers.



Alice-the-user

how to play the game successfully


Alice-the-intellectual

how to study the game critically

Alice-the-designer

how to devise the game properly.



A group of people are sitting on a light-colored wooden floor, looking at a laptop screen. The text is overlaid on the image. The text reads: "The natural and artificial languages through which information is created, manipulated, accessed, consumed, and shared: natural languages, English, mathematics, music, programming, graphics, statistics...". The words "natural and artificial languages" are in red, while the rest of the text is in black. The background shows the legs and hands of several people sitting around the laptop, which is open on the floor. One person is wearing a blue sweater and jeans, another is wearing a blue cap, and another is wearing a plaid shirt. The floor is made of light-colored wood planks.

The **natural and artificial languages** through which information is created, manipulated, accessed, consumed, and shared: natural languages, English, mathematics, music, programming, graphics, statistics...




Languages of information

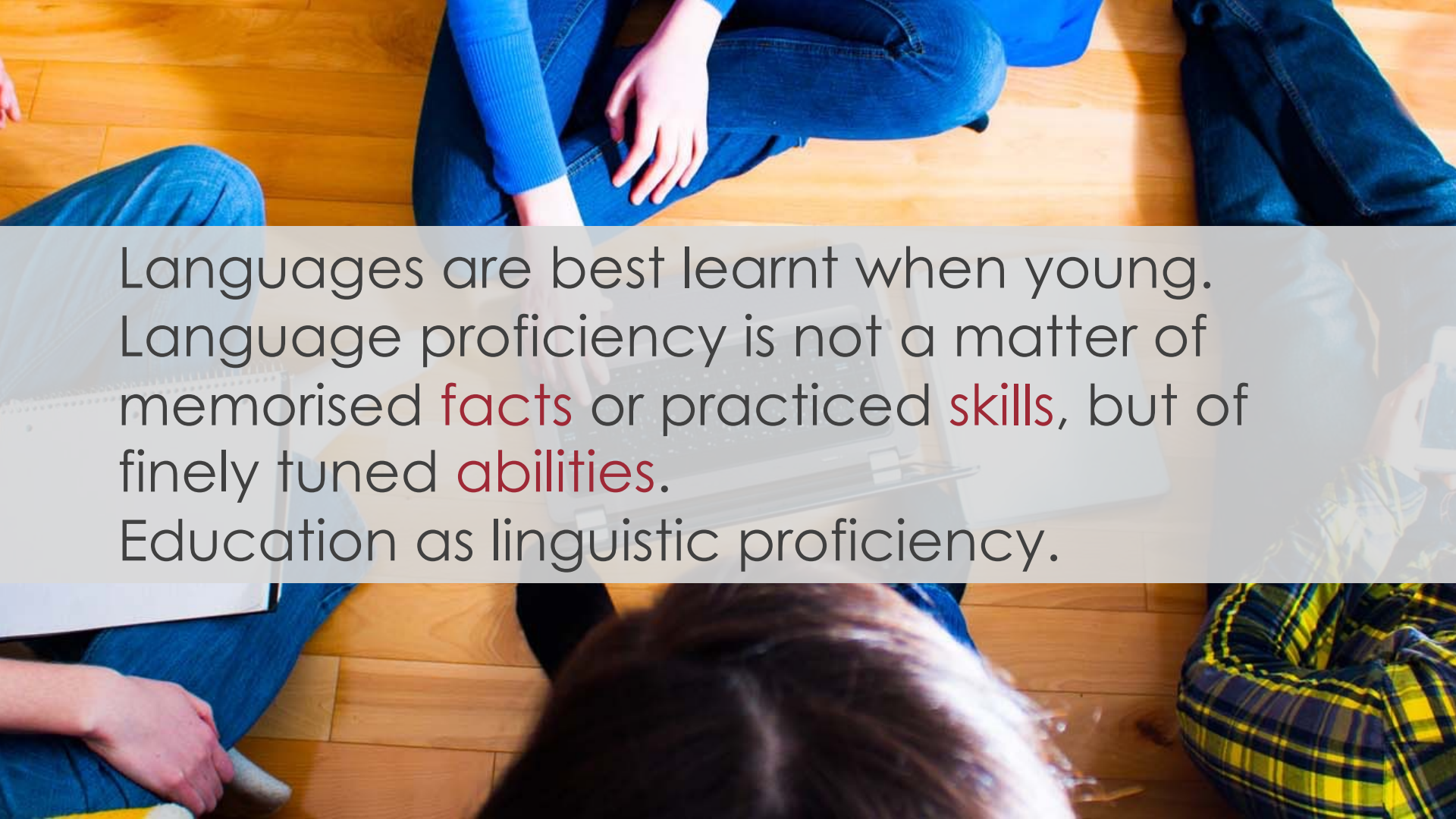
notational (e.g., chess, music)

constitutive (e.g., natural language)

calculative (e.g., arabic numbers)



Education: reading and writing, to gain create, design, understand, use and communicate information.



Languages are best learnt when young.
Language proficiency is not a matter of
memorised **facts** or practiced **skills**, but of
finely tuned **abilities**.

Education as linguistic proficiency.



To paraphrase Wittgenstein: **the limits of one's languages are the limits of one's education.** Alice needs to learn to speak the languages of information. ICTs are going to increase the demand for e-ducators as “languages” teachers.





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Semantic capital

A wealth of intangible products – including ideas, insights, discoveries, inventions, traditions, cultures, languages, arts, religions, sciences, narratives, poems, customs and norms, music and songs ... – that we produce, refine, consume, transmit, and inherit as humans.



Semantic capital

We use it to give meaning to, and make sense of our own existences, the realities surrounding us, and develop an individual and social life. It also contributes significantly to define who we are.

A blue-tinted photograph of a group of people working together at a table. In the foreground, a person's hands are visible typing on a laptop keyboard. Another person's hand is pointing at the laptop screen. The background shows other people and papers, suggesting a collaborative work environment. The overall mood is professional and focused.

Semantic capital

Education: How to gain, curate, create, and transmit our semantic capital.



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A top-down view of a person with blonde hair sitting on a blue sofa, typing on a silver laptop. The scene is overlaid with various digital icons: a cloud in a circle, a person icon, a cloud with a tree structure, a smartphone, a monitor, and a laptop. There are also dotted lines and arrows connecting these icons, suggesting a data flow or network. The overall color scheme is blue and white.

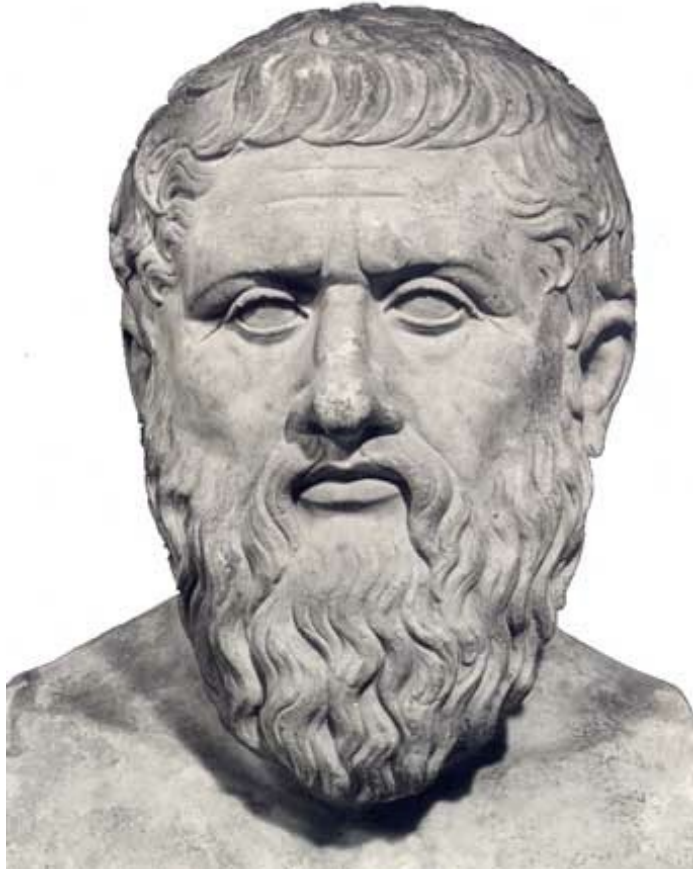
information + identity = data subject
data patient, data citizen, data worker...

A top-down view of a person with blonde hair, seen from behind, sitting in a blue armchair and typing on a silver laptop. The person is wearing a grey long-sleeved shirt and dark pants. The background is a blue carpeted floor. Overlaid on the image are several semi-transparent digital icons and symbols, including a cloud, a person silhouette, a server rack, a smartphone, and various arrows and dots, suggesting a digital or networked environment.

The limits of my language
are the limits of my world
(Wittgenstein)



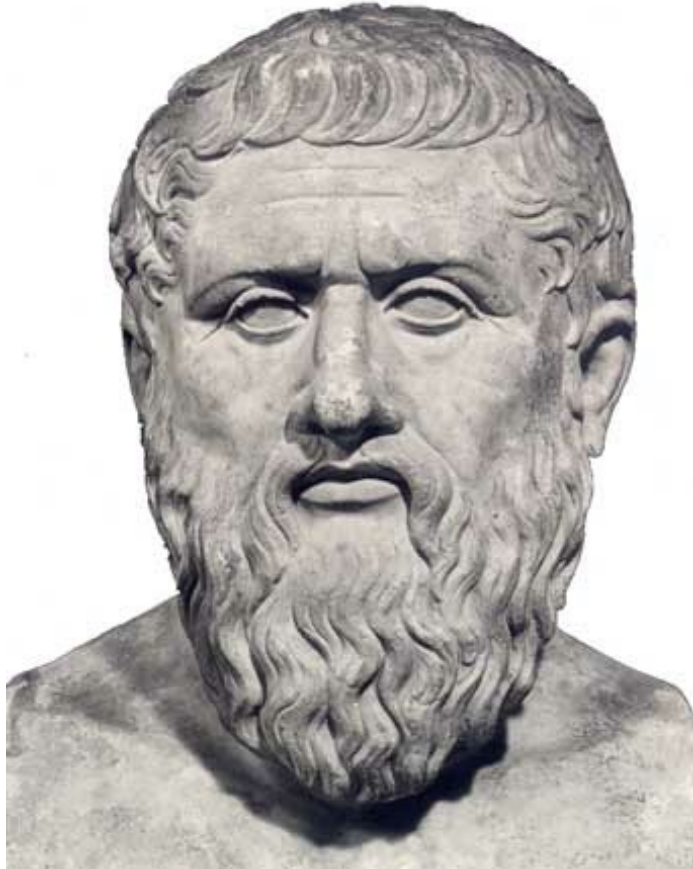
The limits of my information languages
are the limits of my education and my identity.



a knower is
“the man who knows
how to ask and
answer questions”.

the right

Plato, *Cratylus*, 390c



The sort of knowledge we require [...] is that in which there happens to be a union of *making* and *knowing* how to use the *thing* made. *information*
Plato, *Euthydemus*, 289b



Thank you

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