

Are you information fluent? Beulah Muller & Tanya du Plessis



4IR

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TODAY - 6 November 2019



Fast evolving information & digital age

Fundamental & vital asset

Information³

Critical for decision making

Increase in ubiquity

Everyone is an expert and content generator

"...without information, decision making can at best only be formalised guessing"

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(French, Maule & Papamichail, 2009)

Unregulated & decentralised internet

Information overload
Coping mechanisms

" ... there's the internet barons who for too long ignored the weaponization of social media, ... where citizens can no longer cognitively discern fact from fiction and make informed judgments essential for democracy." (Friedman, 2019) Creative tech solutions

Stanford University study tested ability of 7,800 students to reason about information on the internet. The students *were incapable of distinguishing high-quality news from lies* (Levitin, 2017) (FEI&DA = Info³ + EECG + U&DI + $\left(\frac{IO}{Cmech} \times CTecSoI\right)$ +

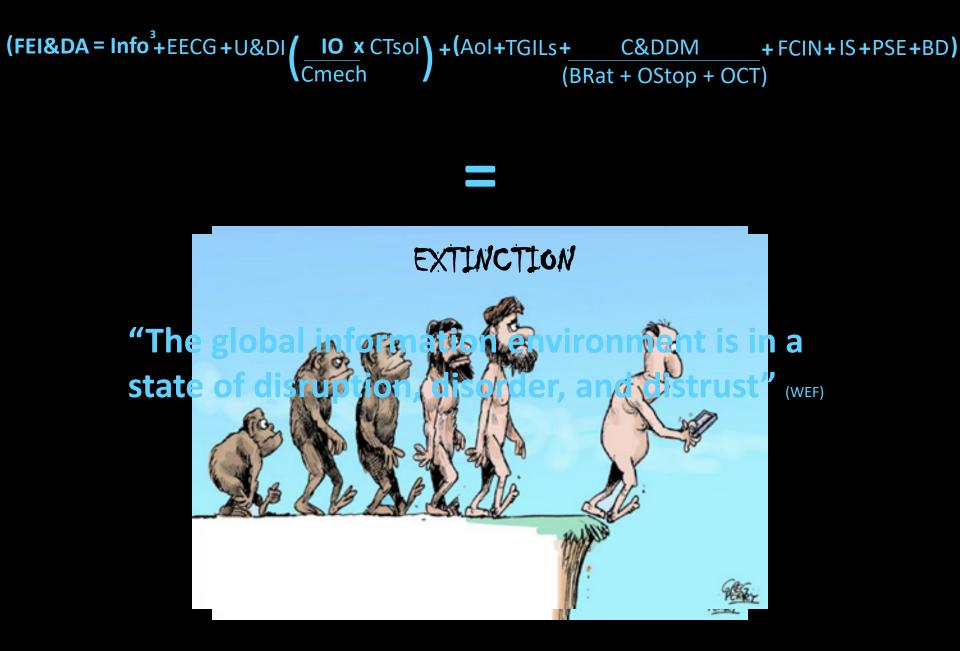
Ambiguity of information – quality, trust issues

Transferability gap and shortcomings of traditional information literacy skills

Complex & dynamic decision making

(Bounded rationality + optimal stopping + optimal complexity theory)

Bounded rationality limits rational decision making due to rationality of quality, authoritative and trusted information,
I limited capacity of the human mind to The solve complex problems, and relevancy of informatique of the problem of the p



TOMORROW = THE FUTURE

Humans in the 4IR can no longer just rely on Humating aldied to me initiant tiple as billing seilers (neither solely on machine learning)

TOP 5 FUTURE HIGH LEVEL SKILLS

Complex problem solving

Judgement & decision making

Critical, reflective & creative thinking

Cognitive flexibility

Emotional intelligence

(World Economic Forum)

SEARCHING... SEARCHING... SEARCHING...

INFORMATION FLUENCY

The ability of an agile information literate person to apply critical, reflective and creative thinking to problem solving and decision making, through the ability to ask the right questions in response to uncertainty by operationalising information literacy skills and through interpretation and synthesis create new knowledge, solutions, and concepts.

(Sharkey & O'Connor, 2013; Lombard, 2016; Gregersen, 2017; Lloyd, 2017; Noble, 2017)

INFORMATION FLUENCY ECOSYSTEM

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