The Logic of Information Design

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① Premise

② Information, Uncertainty, Ignorance

③ Design of Information Flows

④ The Lambda Model

⑤ Conclusion: the Politics of Uncertainty
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Logic of information design

- formal or structural aspects
- information process
- construction not representation
Not about how information becomes available (e.g. database design), but how it becomes accessible.

More Shannon (communicating) than Turing (processing).

Part of *The Politics of Information*.
Information as answered question.
Information as answered question

Alice has Q and right A  ⇔  Alice has I
1) things that she knows, e.g., there is a monster hiding (she is afraid).

2) things that she knows that she does not know, e.g., where the monster is hiding (she is looking for it).

3) things that she is not quite sure she knows, e.g., whether her weapons are sufficiently powerful to kill the monster (she wants more).

4) things that she does not even know that she does not know, e.g., there is a magic sword that can kill the monster (she may fail).
Alice is... informed

Q + A = I
Alice is... uncertain
Alice is... ignorant
Alice's information  Alice's uncertainty

Alice has access to the questions and the answers

Alice has access to the questions but not the answers

Alice has access neither to the questions nor to the answers

Q + A = I

available information

ignorance
Available Information – Alice’s Ignorance – Alice’s Information = Alice’s Uncertainty

For Alice:
Uncertainty = questions available – answers accessible.
Simplest context: Alice’s uncertainty is binary.
More complex contexts: Alice’s uncertainty is a matter of design.

Logic of information design
Design of the information flows regulating uncertainty
Turing’s Test

\[ \lambda \]
Rawls’ Veil of Ignorance
Byzantine Generals (impossible coordination)
Collusion (successful coordination)
Informational Bias (daily me)
Confirmation Bias
Observer’s effect (aka uncertainty principle)
Observer’s effect (aka uncertainty principle)

If observer A measures electron 1 with spin up at $t_0$, electron 2 *instantly* is spin down ($\Psi$ collapses to $|+\rangle$).

Electron 2 is then *determined* to be found with spin down if measured by observer B at a later time $t_1$.

But this was not *predetermined* before A’s measurement at $t_0$. 
Prisoner’s Dilemma
Conclusion: the Politics of Uncertainty

In liberal societies, awash with information:

• power is exercised not about which questions can be asked, but about what answers can be received: transparency, privacy, right to be forgotten, freedom of speech, ownership rights

• the morphology of the flows of information is the morphology of uncertainty

• those who control uncertainty control reality.
SOURCES. This research is partly based on The Fourth Revolution – How the Infosphere is Reshaping Human Reality (Oxford University Press, June 2014).

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