Designing Health Systems for the Future

Design Science as a Research Paradigm

UNIVERSITEIT STELLENBOSCH UNIVERSITY

From Natural Science to Design Science

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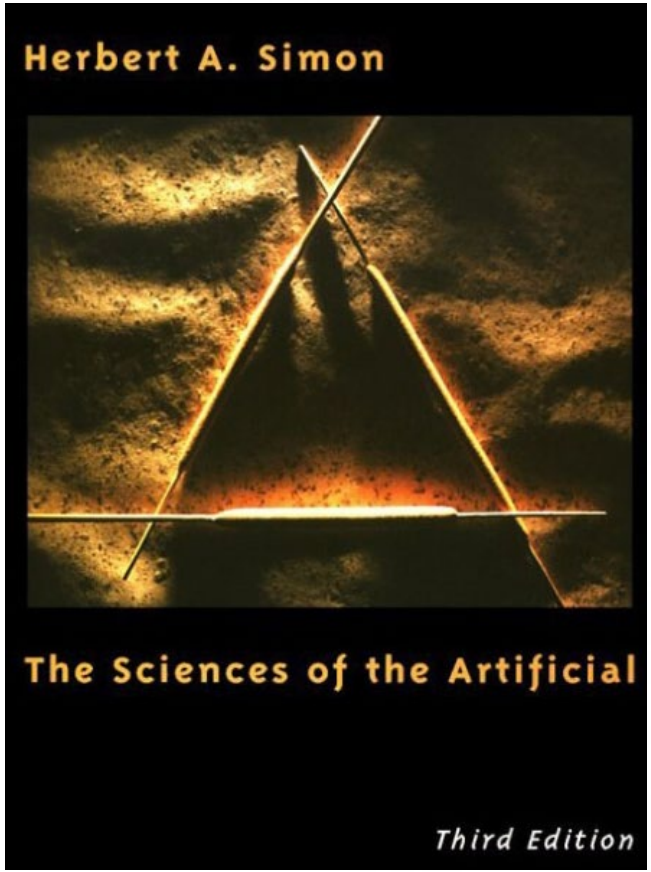


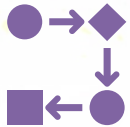
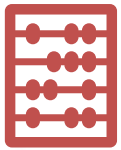
What is design?

"Everyone designs who devise courses of action aimed at changing existing situations into preferred ones.

The intellectual activity that produces material artifacts is no different fundamentally from the one that prescribes remedies for a sick patient… or a social welfare policy for a state"

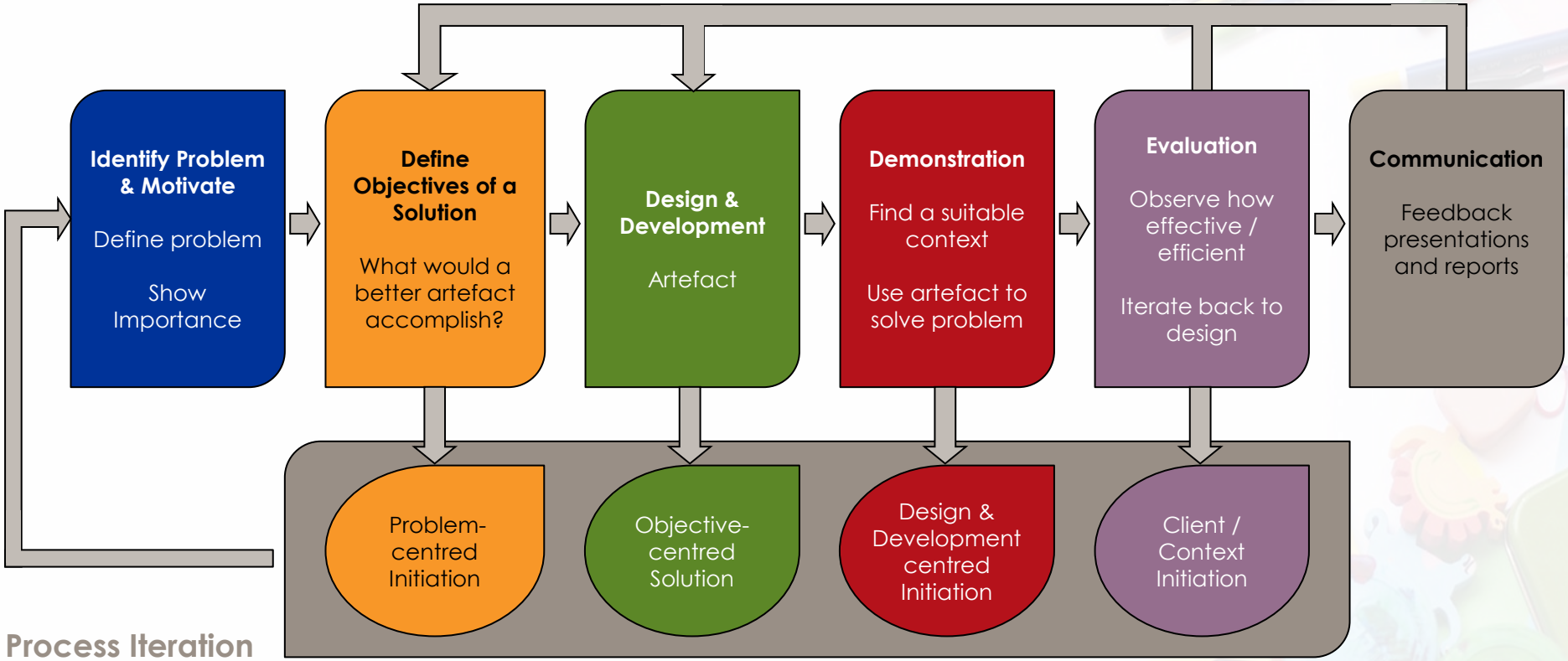
From Natural Science to Design Science

DRS is a research paradigm in which a designer answers questions relevant to human problems via the creation of innovative artifacts, thereby contributing new knowledge to the body of scientific evidence. The designed artifacts are both useful and fundamental in understanding that problem.

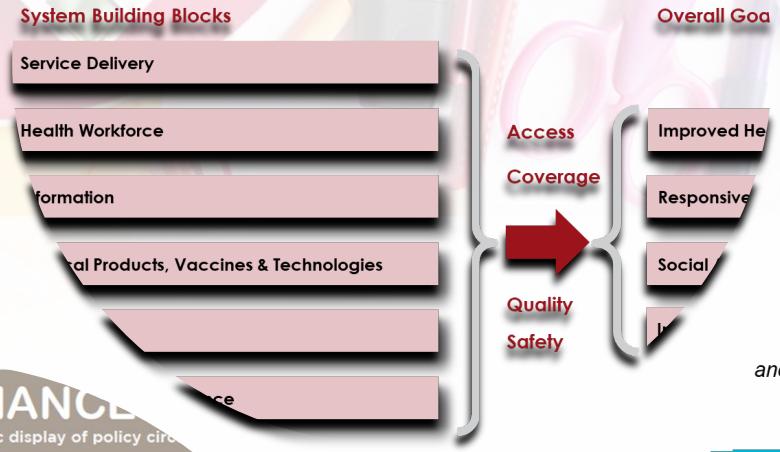



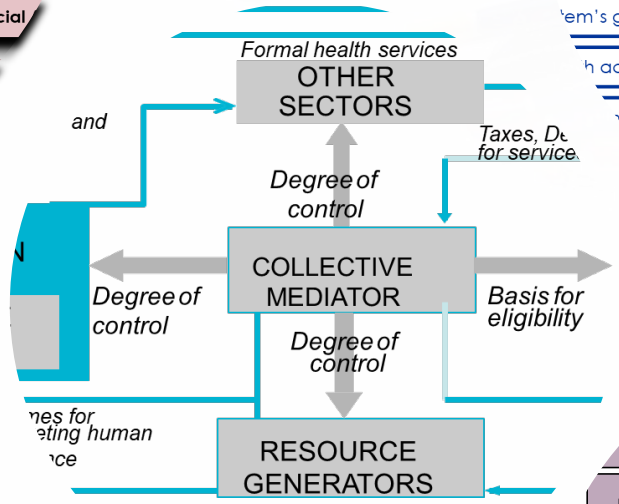
Constructs Models Methods Instantiations

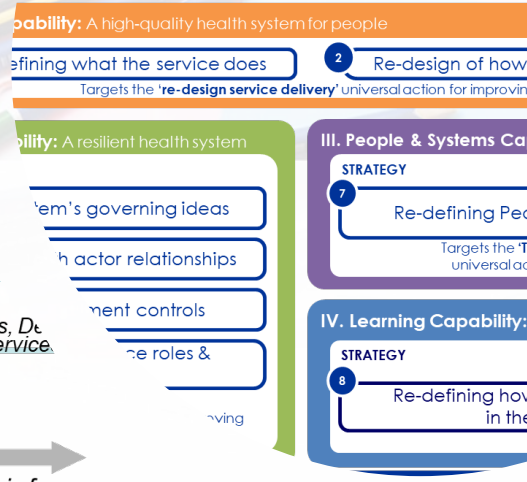
Design Science Research Process

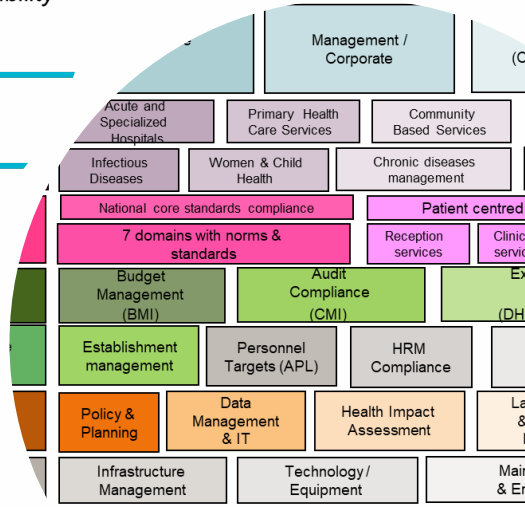


Peffers K, Tuunanen T, Rothenberger M, Chatterjee S. A Design Science Research Methodology for Information Systems Research. J. Manage. Inf. Syst. 2007;24(3):45-77



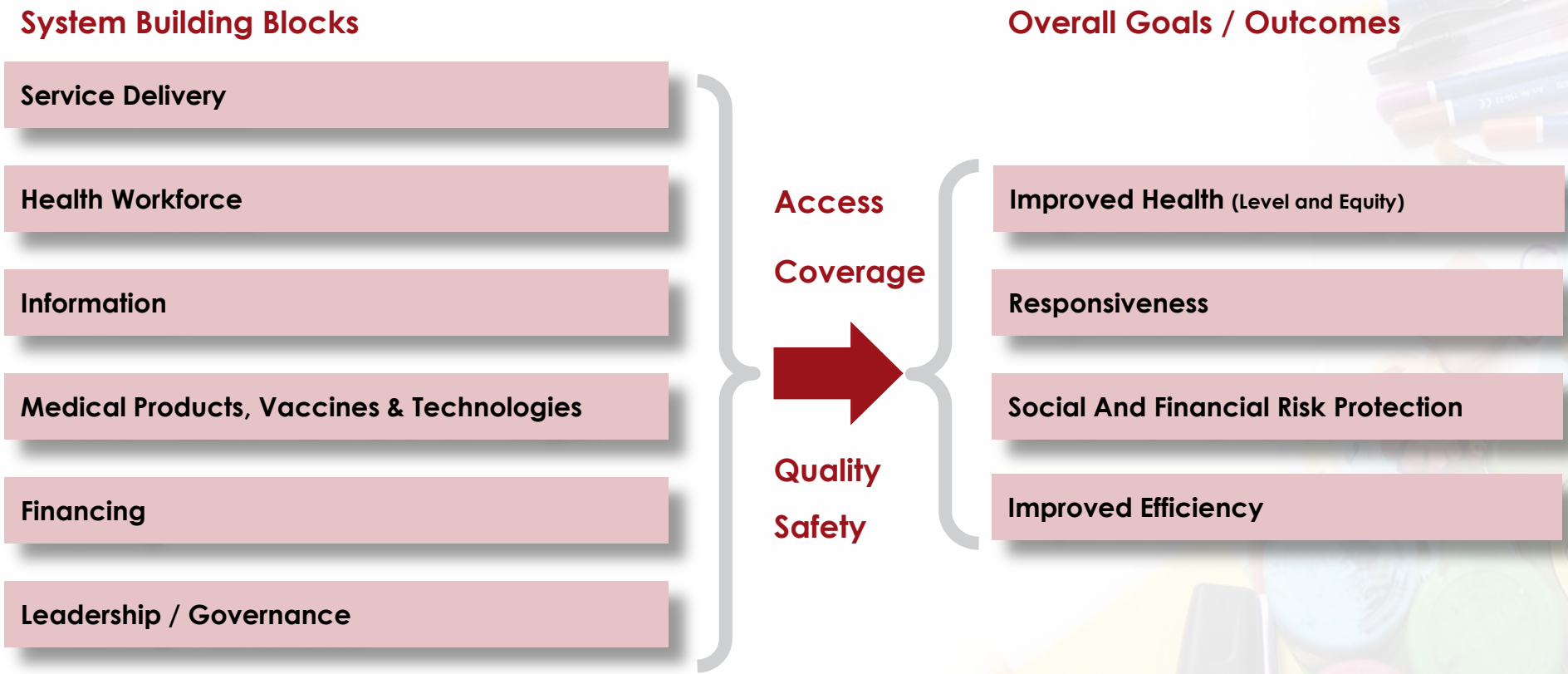




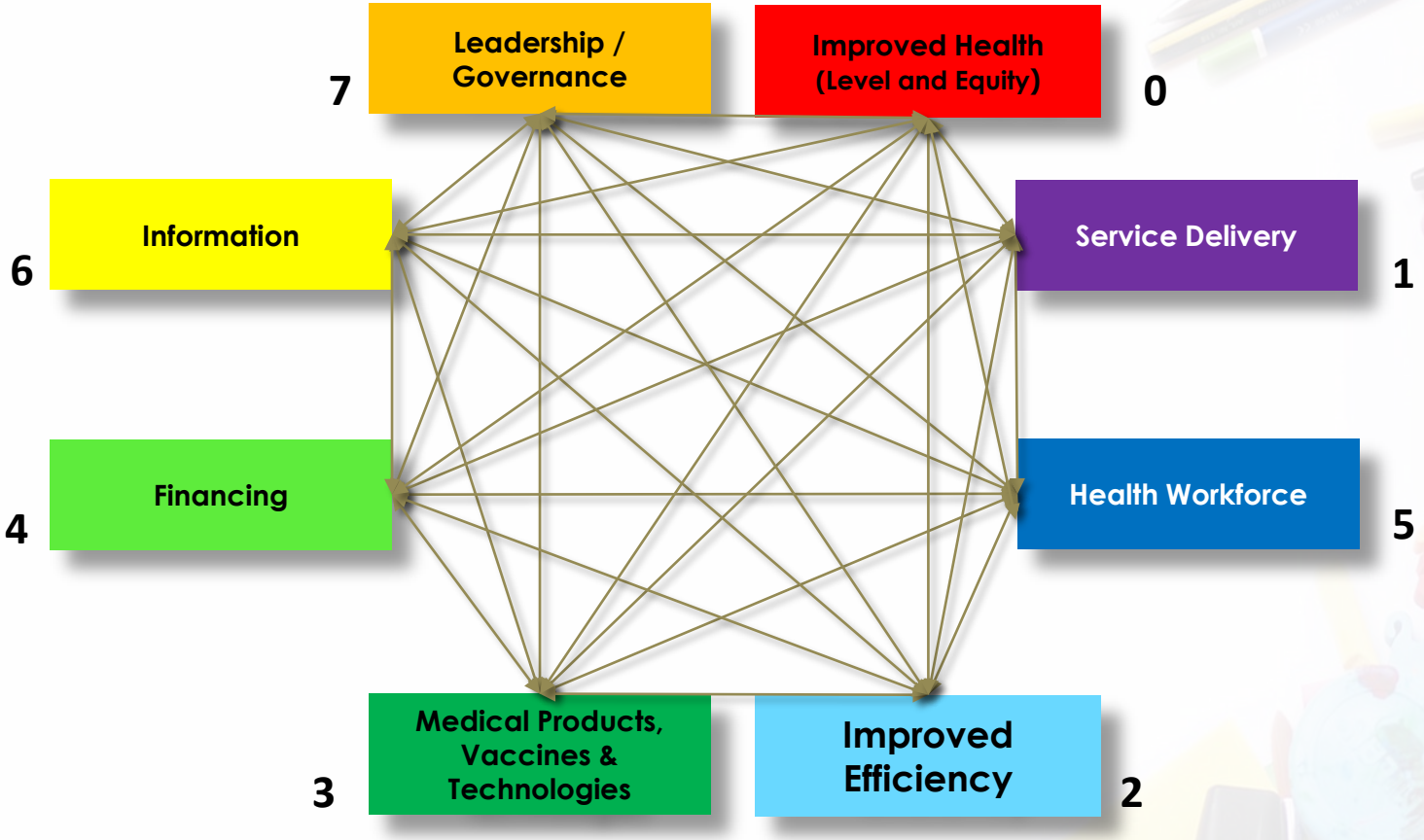


Health System models

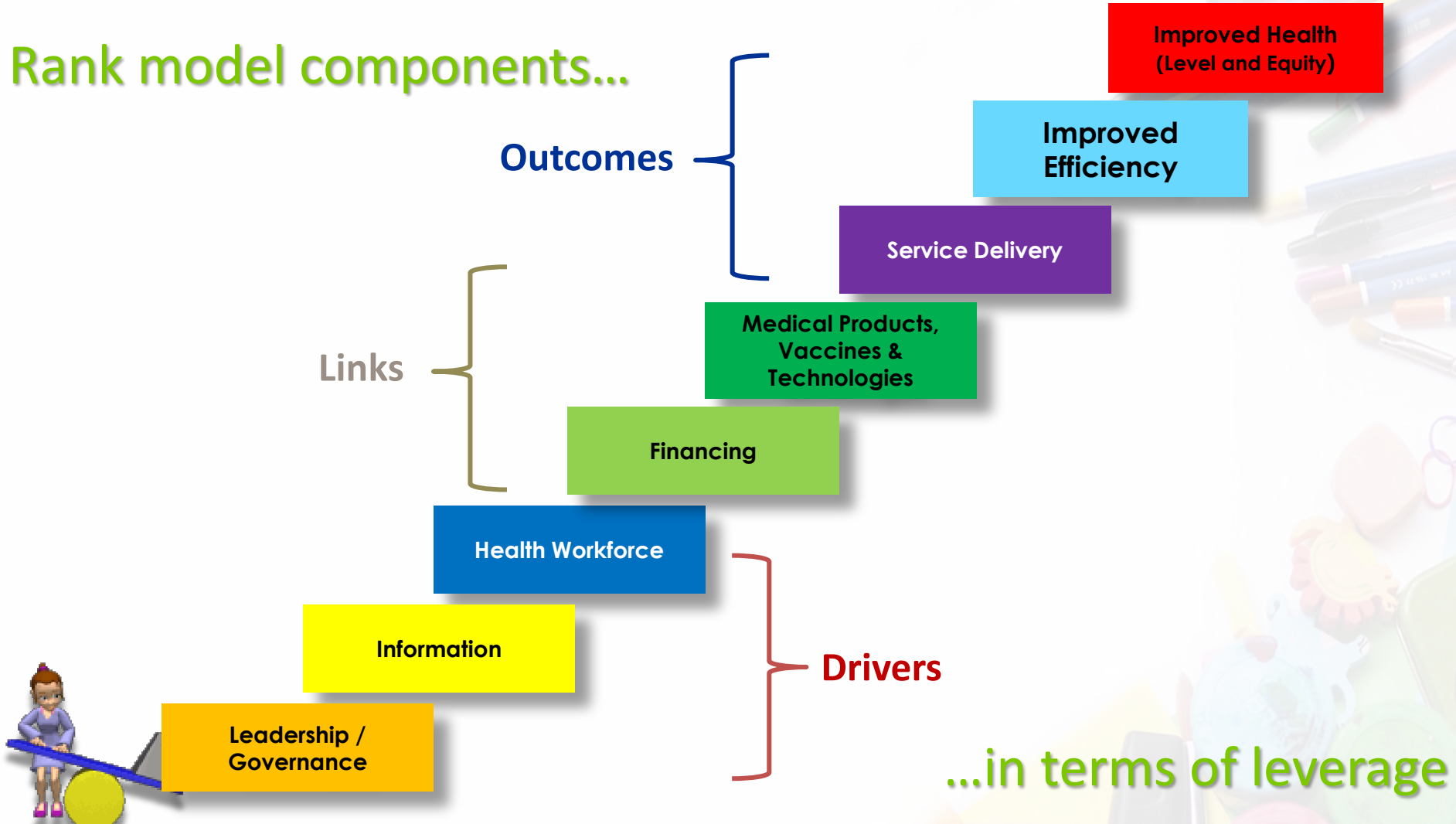
Artefact example: WHO Health System model



Explore Interconnections between model components

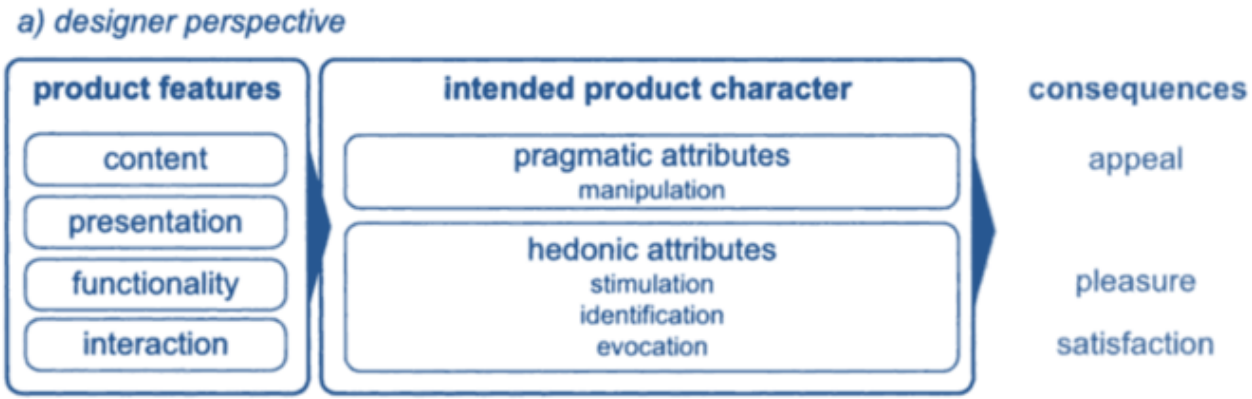


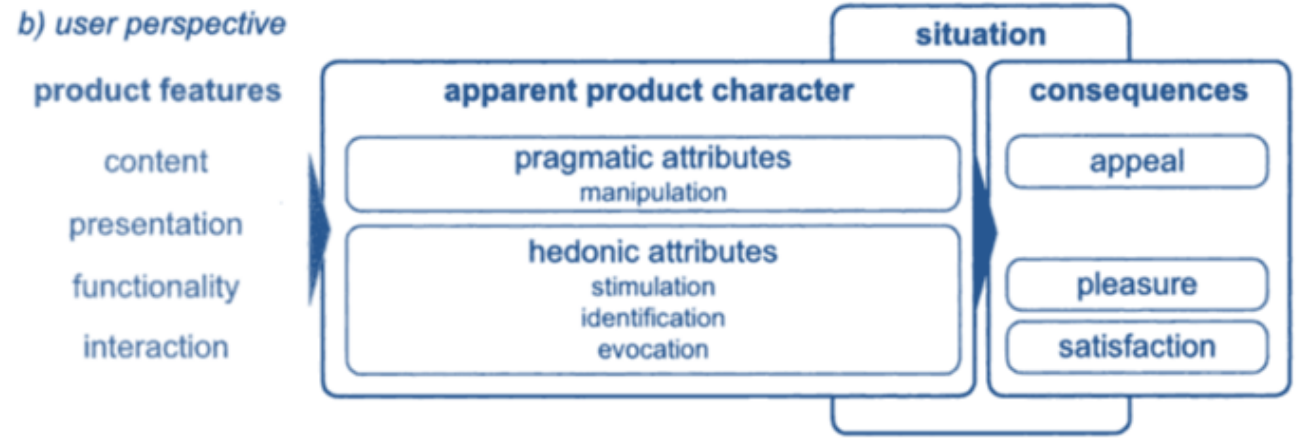
Rank model components…



…in terms of leverage

Multiple Perspectives: Designers and Users



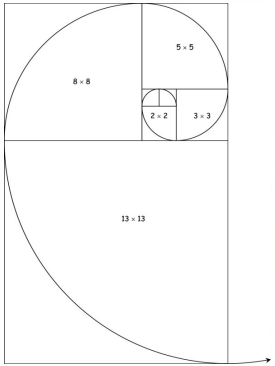


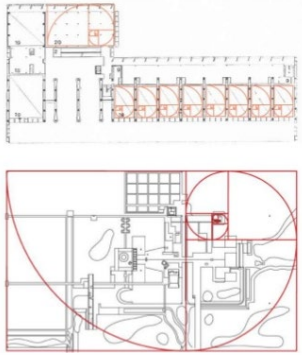
Hassenzahl's Hedonic-Pragmatic UX Model

Natural Science

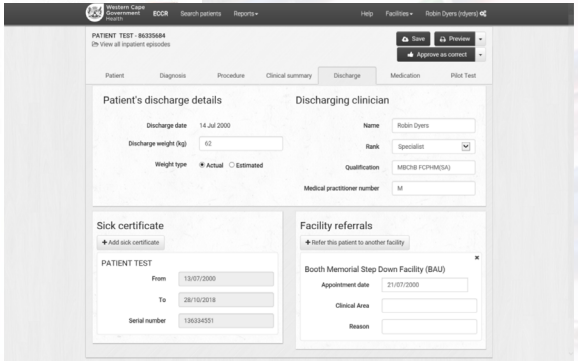
Design Science

Golden Ratio





Infrastructure Design



Interface Design

Murmuration

Decentralized Immutable Ledger for Health Information

Leadership and Governance ?

Thank you

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