

DBWeb Team

Télécom ParisTech, INFRES department

Database management and the World Wide Web

mercredi 11 septembre 2013

Relevance: What Simplicity Theory can say about it

Jean-Louis Dessalles
Telecom Paristech

jl@dessalles.fr
www.dessalles.fr

CNRS LTCI
UMR 5141

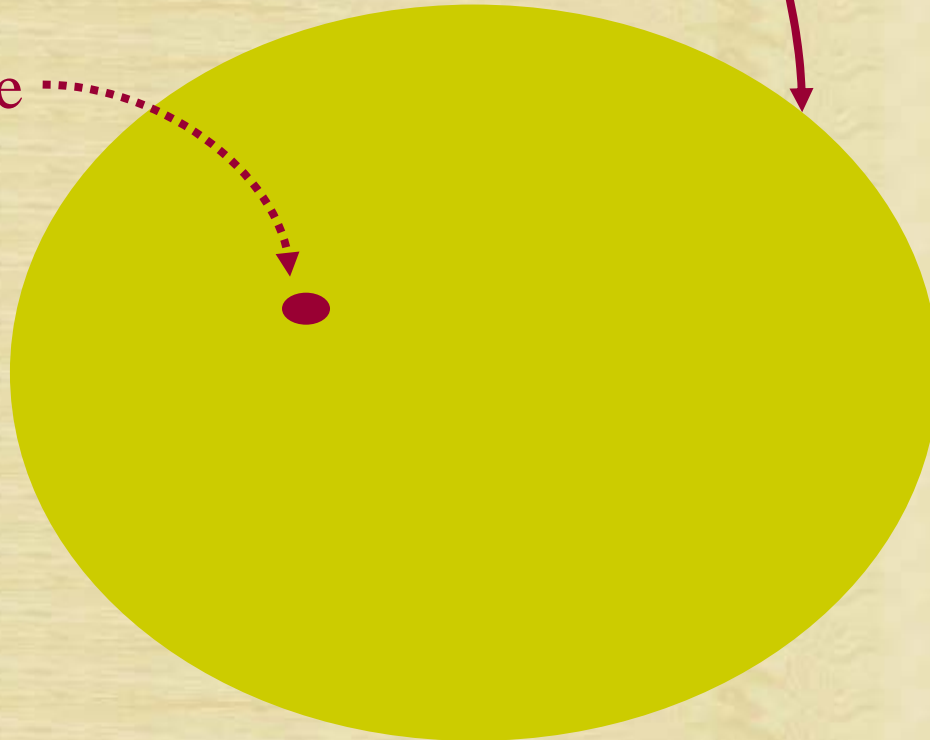


Relevance

Topic
selection

what can be said

what is appropriate
to say



What are people interested in ?



What makes a topic interesting (to humans) ?

☀ Unexpectedness

☀ Emotion

☀ relevance

Simplicity Theory

$$p = 2^{-U}$$

To know more about this:

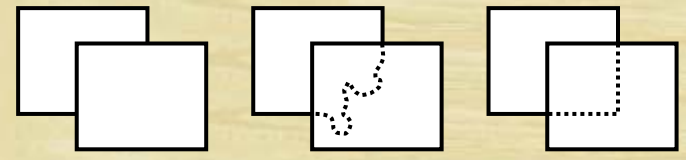
www.simplicitytheory.org

$$U(s) = C_w(s) - C(s)$$

Simplicity Theory

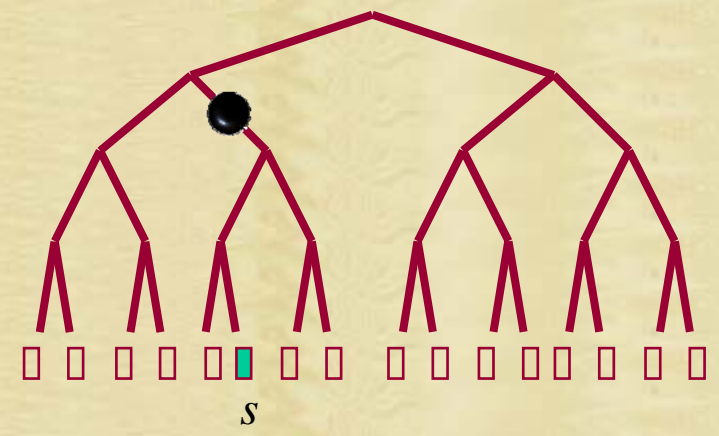
Complexity $C(s)$ of s :
size of the smallest available
description of s

← A. Kolmogorov



Le cerveau suit un principe de simplicité maximale
(ex.: reconstitution des parties cachées)
(N. Chater 1999)

Generation complexity $C_w(s)$:
parameters to be determined in
the world for it to produce s .



$C_w(s) = 4 \text{ bits}$ (4 binary choices)
 $C(s) = 0 \text{ bit}$ (single different target)