



# Information out of Information

Self-Reference and Information Growth

Jannis Kallinikos

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# Information Growth

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- Public and Private Information Infrastructures
  - The Internet
  - Corporate and Government information infrastructures
- Spectacular if not Exponential Information Growth

# Why and How?

- Three Major Claims
  - Information out of information
  - Permutability of information due to growing interoperability
  - The ephemeral nature of information and its disposability
- Humans, meaning and information

# Definitions

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- Information as Semantic Concept
  - Sign tokens (syntactics) and meaning (semantics)
  - Data, information and knowledge
    - Permanence versus ephemerality
- The Informativeness of Information
  - The news information carries
  - News and value of information

# Information out of Information

- Information as Representation
  - Capturing facts and states in reference domain
  - Referential reality versus other reference domains
  - Information as recording of changes in a reference domain (rendition of reality as information)
- Information as Structure
  - combinations of information items
  - Structural or systemic view of information
  - Constraints and combinatorial alchemy

# Reality Revisited

- The complex relationship of representing and represented
  - Sign systems and the world
  - The more fine-grained a sign system is the more reality is discovered within reality
  - There is no finite amount of information in reality that can be emptied by “exhaustive” descriptions
  - Information and certainty (with respect to what?)
    - Specific aspects of reality can be better controlled through information but the overall and wider outcome is often more uncertainty

# Information Revisited

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- The Non-foundational Constitution of Information

**–A difference that  
makes a difference**

**G. Bateson, Steps to an Ecology of Mind,  
1972**

# Permutability

- Growing Interoperability
  - Different information sources can be brought to bear upon another
  - Combinatorial alchemy and information growth
  - Older information and classification systems and interoperability
- Constraints to combinability
  - Meaning, behavioural conservatism, institutions
- Meta-devices: search engines, profiling and data mining

# Information Disposability (1)

- Information as news
  - Information, data and knowledge
- The dilution of the informativeness of information is always pending (imminent)
  - Time, contingency and information
  - More information often leads to the depreciation of the informativeness of old information (may increase the value of stored data)
  - The greater the value of information the more imminent its depreciation

# Information Disposability (2)

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- Updatability
  - The technical operations that seek to retain the value of information
  - Constantly improving updatability
- Dracula's Kiss
  - Time, updatability and nothingness
  - The post-modern condition
    - Trying to catch the wind

# Meaning and Information

- Human Purpose and Information
  - Information is a semantic concept
  - Established meaning systems and institutions as stabilizing factors
- Information Growth continues
  - Path dependence and structure, contingency, automated systems and meta-devices, complexity evading human purpose
  - Humans as accessories of larger processes
    - Meaning as fuel

# Further reading

This research is more fully described in:

“Information out of Information: on the self-referential dynamics of information growth”,  
*Information, Technology and People*, 19(1)  
March, 2006

and in the forthcoming book to be published in  
October 2006

*The Consequences of Information: Institutional Implications of Technological Change*, Edward Elgar, Cheltenham