

# The Algorithmic Medium and its Content

Rio Content Market 2014

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# The Speed of Change

- Connected world population
  - 1994, Year 0 of the Web: – 1% connected
  - 2014, 20 years later: 35% connected
  - +50% very soon
- Social empowerment
  - Free and massive distribution of emission and reception, rise of social media
  - Wordpress: 2003, YouTube: 2005, Facebook & Twitter: 2006
- Material
  - Computing: biggest part now in the cloud
  - Interfaces: domination of smartphones and tablets
  - iPhone: 2007, iPad: 2010

# An Algorithmic Medium

- **Information ubiquity**
- **General interconnection of people and content**
- **Automation of symbol manipulation: algorithms**

=>The rise of the algorithmic medium can be compared to the invention of writing 5000 years ago

⇒Toward new content, genres, institutions and techniques of communication

⇒The future global civilization is practically impossible to imagine

# New Ways to Handle Data

- Crowdsourcing
- Open Science
- Digital Humanities
- Data-Driven Journalism
- EdTech and MOOCs
- Growing synergy between
  - Personal Knowledge Management
  - Social Knowledge Management

# A Data-Centric Society

- Stigmergic Communication
  - Communication by transformation of a common environment (the digital memory)
- The power of meta-data
  - Meta-data = classification / organization of data
  - Democratization of categorization #hashtags
- Data-centric institutions
  - Organized around their meta-data, data and algorithms

# The Way to Go

- Foster symmetric transparency
- Grow the commons
- Give back their data to the people that produce them
- Democratize big data analysis
- Spread literacy and critical thinking adapted to the algorithmic medium
- Augment collective intelligence by making it reflexive

# What Is an Idea?

[Concept + Affect + Percept] + Social context

Translation in the algorithmic medium of the future:

[Category + Value + Data] + Social context

# What is Cognition?

Self-reference, growth, reproduction,  
evolution, cross-pollination  
of ecosystems of ideas

# Reflexive Collective Intelligence

- **Ecosystems of ideas** emerging from collective intelligence in a new generation of social media
- Displayed around each people, community, thing, place, work of the mind...
- Interaction through holograms in VR or AR, by Google glasses or tablet
- Embedded powerful tools for selection, exploration, analysis, synthesis, semantic distances measurement
- Symbiosis communities / ecosystems of ideas
- Symbiosis individual / collective learning



# The Content of the Algorithmic Medium

	<b>COGNITION</b> Reflexive collective intelligence	<b>COMMUNICATION</b> Interoperability	<b>ECONOMY</b> Digital information
<i>Signs</i>	<b>Categorization</b> Universal computable metalanguage	<b>Symbolic systems</b> Programming languages, robotic symbols	<b>Money</b> Cryptographic
<i>Beings</i>	<b>Evaluation</b> Semantic current in semantic circuits	<b>Human interaction</b> Social networks, Collaborative- competitive games	<b>Work</b> Collaborative learning, design, programming
<i>Things</i>	<b>Exploration</b> 3D fractal semantic sphere	<b>Context</b> Geo-localized augmented reality	<b>Capital</b> Algorithms, data