

Collective Intelligence Versus the Expert Paradigm



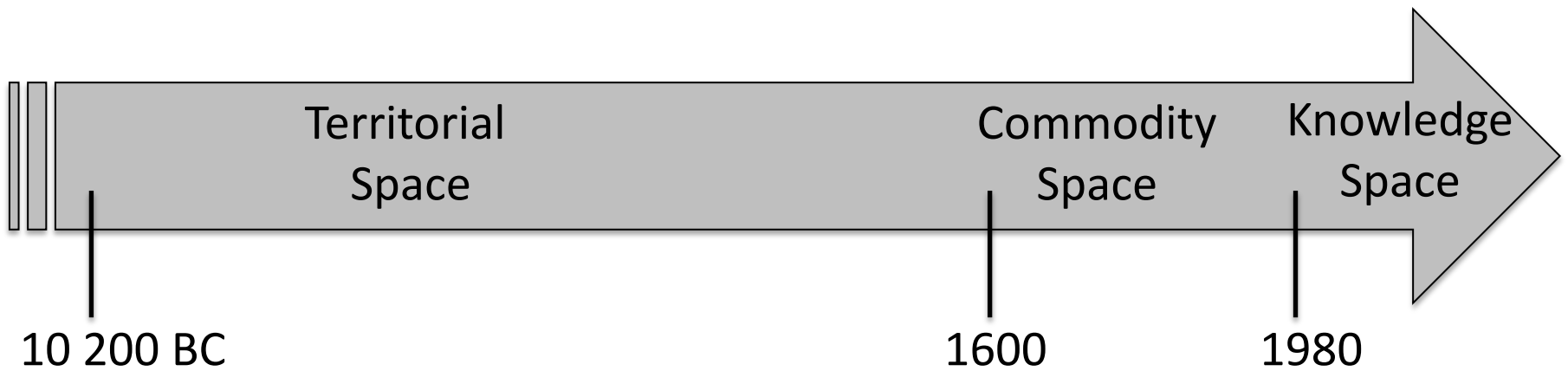
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Collective Intelligence

“A form of universally distributed intelligence, constantly enhanced, coordinated in real time, and resulting in the effective mobilization of skills” based on “the mutual recognition and enrichment of individuals rather than the cult of fetishized or hypostatized communities.”

– Lévy, 1997: 13

Anthropological spaces



Ref. Lévy, 1997: 6-8

Knowledge Space

Knowledge became predominant in our technological era for three reasons:

- **Speed:** the evolution rate of knowledge has been growing exponentially
- **Mass:** the massive amount of knowledge cannot be limited to specialists anymore
- **Tools:** instruments are invented to filter data, facilitate connections, and orientate people within the flux of information

Ref. Lévy, 1997: 8-9

The Role of Communication Technologies

Technologies allow us to:

- navigate and filter the mass of information
- coordinate interactions in the virtual knowledge space
- find solutions to complex problems in real-time
- share knowledge with others in an unbiased and democratic cyberspace
- expand our intellectual capacities (*Hypercortex*)

Ref. Lévy, 1997: 10-14

Social Implications of Collective Intelligence

Collective intelligence allows:

- humanity to enter a new phase of its intellectual and social evolution
- information to be “universally distributed and coordinated” instead of being the privilege of separate groups
- the mutual development and enhancement of our social and cognitive potential

Ref. Lévy, 1997

Social Implications of Collective Intelligence

- Replaces the *cogito* (I think therefore I am) by a *cogitamus* (we think therefore we are)
- Reshapes social structures by increasing our sense of community and facilitating cooperation
- Gives rise to a new kind of political power that challenges the hegemony of the state and corporate capitalism

Collective Intelligence & Democracy

Considering that “no one knows everything” but “everyone knows something”:

- everyone can participate to this information utopia
- others should be considered sources of potential enrichment
- people can combine their skills to accomplish something greater together

Ref. Lévy, 1997: 12-14

What Collective Intelligence Is Not



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What Collective Intelligence Is

“Far from merging individual intelligence into some indistinguishable magma, collective intelligence is a process of growth, differentiation, and the mutual revival of singularities.”

– Lévy, 1997: 17

Is Lévy's utopia of collective intelligence achievable?

Examples of Collective Intelligence

WIKIPEDIA

English

The Free Encyclopedia
4 931 000+ articles

Español

La enciclopedia libre
1 189 000+ artículos

Deutsch

Die freie Enzyklopädie
1 839 000+ Artikel

Русский

Свободная энциклопедия
1 241 000+ статей

Italiano

L'enciclopedia libera
1 214 000+ voci



日本語

フリー百科事典
976 000+ 記事

Français

L'encyclopédie libre
1 647 000+ articles

Polski

Wolna encyklopedia
1 125 000+ haseł

Português

A enciclopédia livre
882 000+ artigos

中文

自由的百科全書
833 000+ 條目

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Lévy's "Cosmopedia"

New organization of knowledge that:

- relies on the possibilities of computer technology
- combines different types of expression ("static images, video, sound, interactive simulations, interactive maps, expert systems, dynamic ideographs, virtual reality, artificial life, etc.")
- is characterized by its non-separation: "knowledge is a continuum, a large patchwork quilt in which each point can be folded over on any other"
- dissolves rigid borders between specialized fields of knowledge

Ref. Lévy, 1993: 215-217

Lévy's "Cosmopedia"

“The members of a thinking community search, inscribe, connect, consult, explore. Their collective knowledge is materialized in an immense multidimensional electronic image, perpetually metamorphosing, [...] Not only does the cosmopedia make available to the collective intellect all the pertinent knowledge available to it at a given moment, but it also serves as a site of collective discussion, negotiation, and development. [...] hierarchies between users and designers, authors and readers, are inverted. A person who decides to learn about a topic [...] will be capable of supplying new information about a given sector [...] in which he or she happens to specialize.”

– Lévy, 1997: 216-218

Lévy's "Cosmopedia"

“In contrast to the expanding complexity that we attempt to organize through transcendence or distribute within increasingly inextricable networks, the cosmopedia provides a new kind of simplicity. [...] It is through the simplicity of our immersion that we escape its complexity, its labyrinthine networks. Once within, the member of the collective intellect swims around (navigates, consults, questions, inscribes, etc.), then leaves. [...] Each one helps build and order a space of shared signification by diving in, swimming around, and simply living in it.”

– Lévy, 1993: 218-219

Spoiling *Survivor*

Social implications:

- Helps participants to understand the new kinds of power emerging from participation
- Trains participants to live in the knowledge space

Ref. Jenkins, 2006: 29

Challenging assumptions about collective intelligence

- Collective intelligence can be harmful to some people (stalking, erroneous information, etc.)
- Collective intelligence does not necessarily lead to the end of expertise (formation of “brain trusts”, secret clubs, and hierarchies)
- Knowledge communities do not have to be horizontal and leaderless (“brain trusts” protect privacy and ensure a higher degree of accuracy)

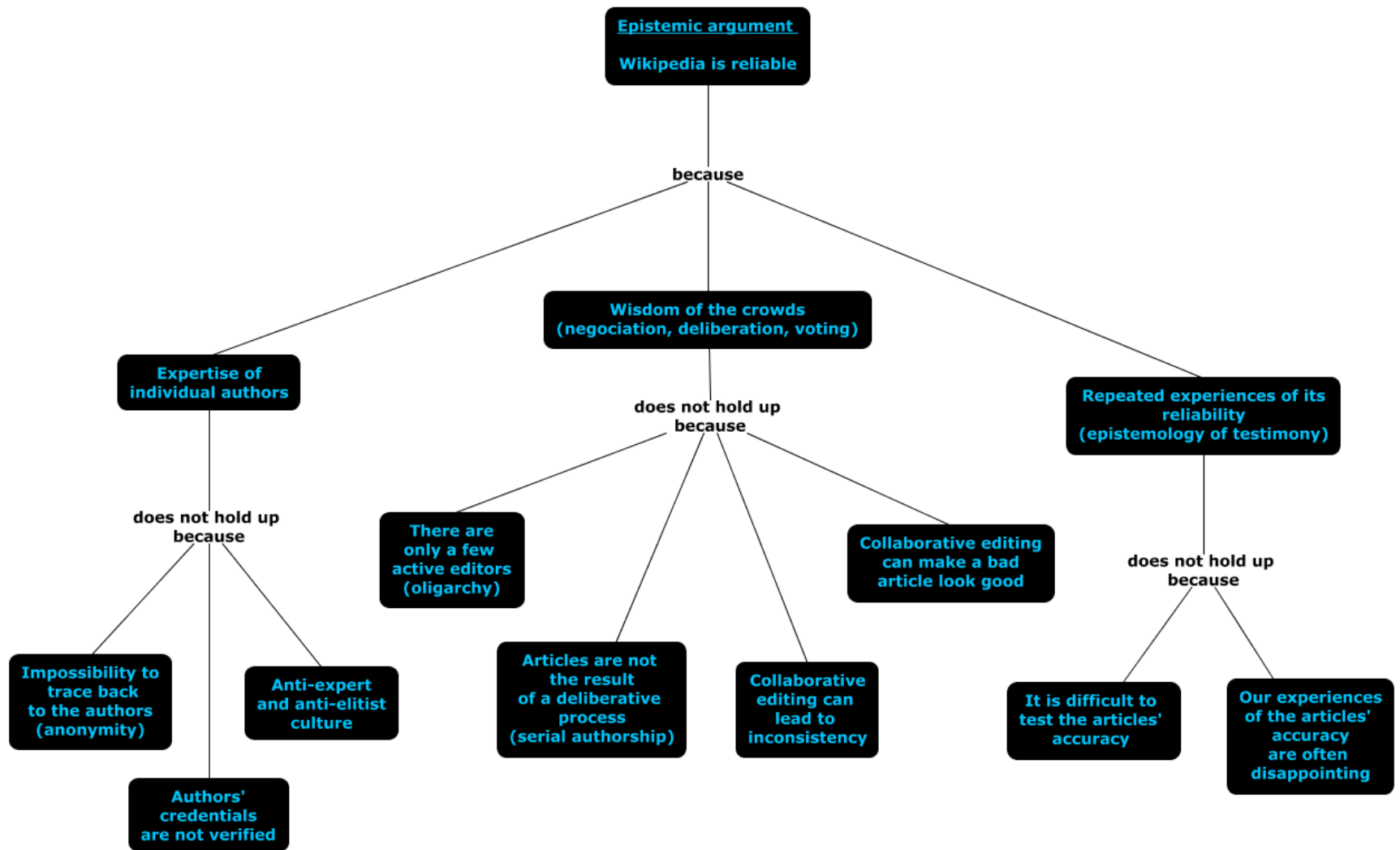
Challenging assumptions about collective intelligence

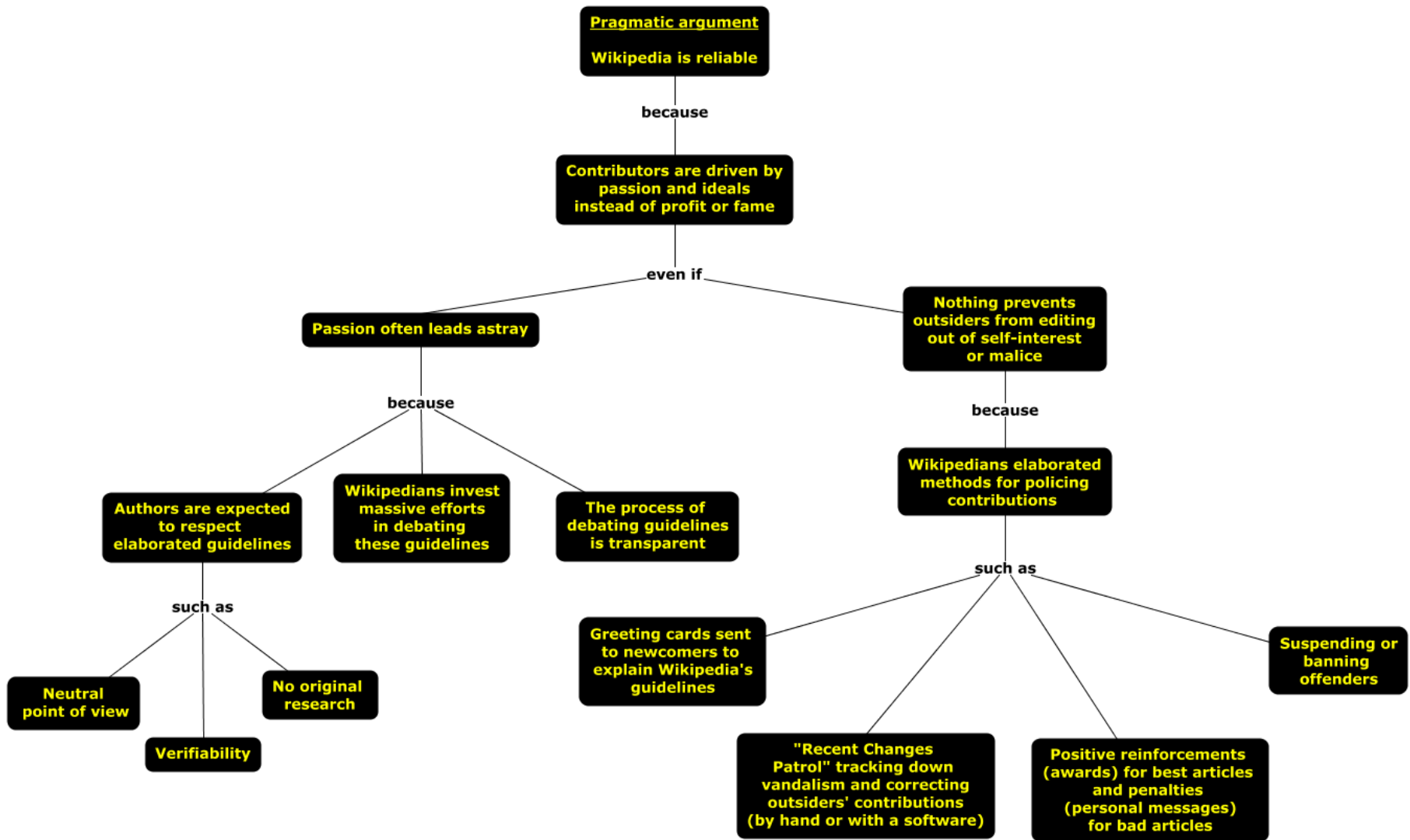
- Collective intelligence works best when participants doubt and contest every claim
- Collective intelligence is not only a goal but also a process
- Knowledge communities are also regulated by disciplinary rules (that participants constantly debate)

Conceptual mapping

“The Authority of Wikipedia”

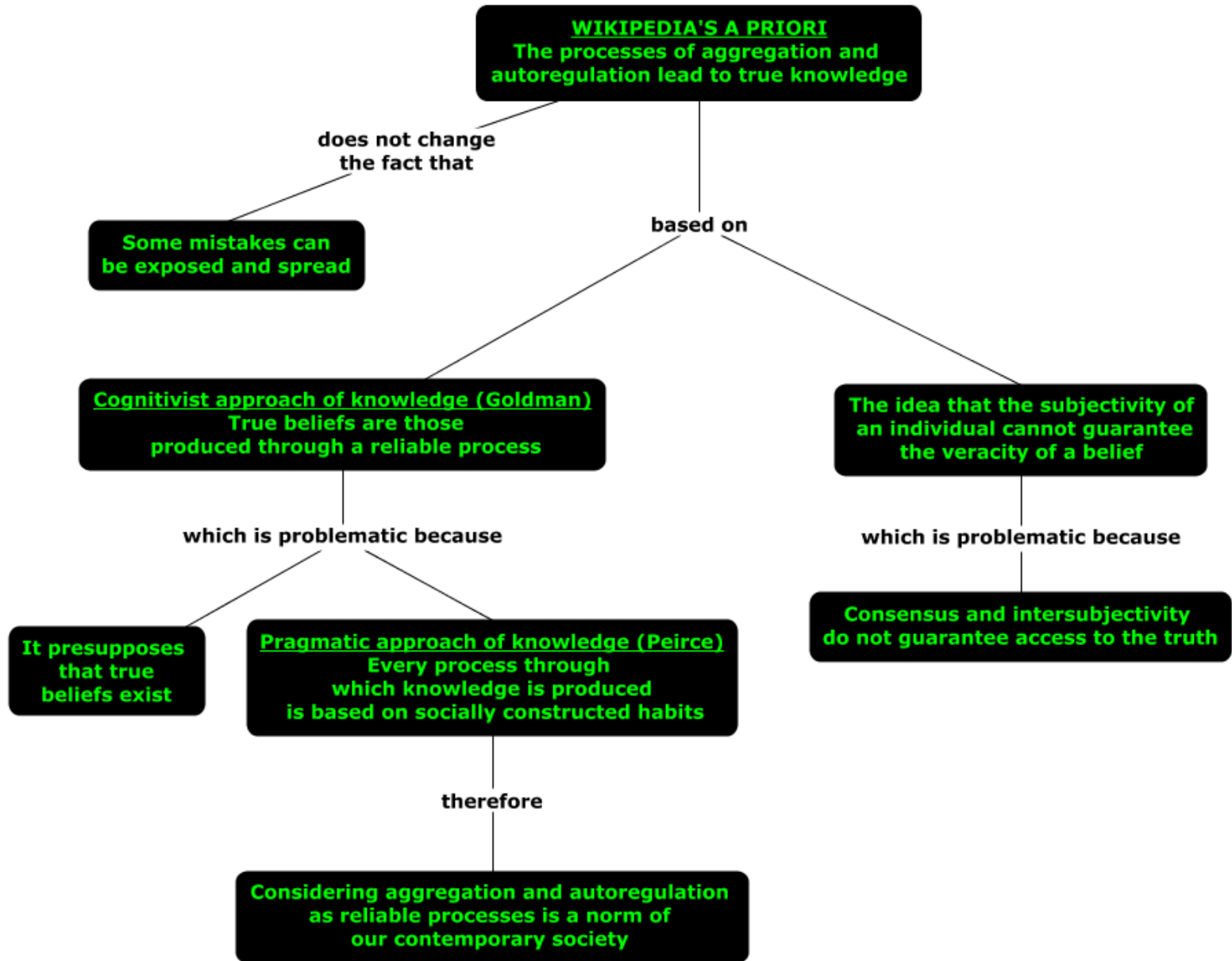
(Goodwin, 2009)





Conceptual mapping

“La sensibilité épistémique face à Wikipédia ”
(Dumais, 2010)



References

- Dumais, Fabien. 2010. “La sensibilité épistémique face à Wikipédia”. Chap in *Web Social. Mutation de la communication*, pp. 341-352. Quebec: PUQ.
- Goodwin, Jean. 2009. “The Authority of Wikipedia”. In *Argument Cultures: Proceedings of OSSA 09*, Ritola, J. (Ed.) CD-ROM. pp. 1-21
- Jenkins, Henry. 2006. “Spoiling Survivor”. Chap in *Convergence Culture. Where Old and New Media Collide*, pp. 25-59. New York: New York University Press.
- Lévy, Pierre. 1997. *Collective Intelligence. Mankind’s Emerging World in Cyberspace*. Cambridge: Perseus Books.

Additional Resources

- What collective intelligence is not:
 - Ants form a daisy chain to pull food
- Examples of collective intelligence:
 - Foldit: Solve Puzzles for Science
 - Folding@home
 - Threadless
 - Eric Whitacre's Virtual Choir
 - *Survivor* Spoilers Forum

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