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# Which economic model for Google Books? From the user-producer to the pollen society



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## Abstract

Can this internalisation strategy carried out by Google via notably its Google Books' service then be considered as predatory? Formulated in a different way, can the value deductions that Google makes at the occasion of the return of its services be considered as destructive towards the socio-cognitive ecosystem which allows the creation of value itself; or else, on the contrary, does it enhance it or renew it ? We

will uphold the thesis according to which we are, on the contrary, in the heart of its economic model which can be defined as the strategic gathering and the development of the contributivity of the user-producer within a society dominated by the numerous externalities which aren't often taken into consideration by trade. In fact here, Google reaches an upper stage of the learning firm of contemporary cognitive capitalism: by digitizing and making available to the Internauts librarian funds, it invests in the maintenance and the renewal of the socio-cognitive ecosystem itself, by positioning itself directly in a contributive within the pollen society, with an economic model allowing it to benefit from it. Even if we can maintain that the Google firm, on a micro-economic level, develops its activity of value sampling in a contribution economy depending on a mode relatively non-predatory, the question of macro-economic balance remains whole (or even finds itself revived) depending on at least two modes: the regime of intellectual property associated to the traces left by the contributors-browser, and the question of the remuneration of these *homo-contribuens*.

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The already rather bustling landscape of intellectual property rights under the impact of the digital revolution<sup>1</sup> has recently been disrupted in the domain of freedom and copyright. The Google Books project launched has aroused in the United States as well as in Europe reactions of violent rejection from the libraries as well as from the publishers. For the Mountain View firm which imposed itself as the world's leader search engine, do this offensive on digitization and the free availability of a large number of books which entered the public domain, are orphans or even covered by reproduction rights, constitute a subordinate element of strategy ? A sort of research of cultural respectability thwarted by protests against its dominant market position or against its use of data protected by the respect for privacy

(Google Street)? We will uphold the thesis according to which we are, on the contrary, in the heart of its economic model which can be defined as the strategic gathering and the development of the contributivity of the user-producer within a society dominated by the numerous externalities which aren't often taken into consideration by trade. What we call a contribution or pollination<sup>2</sup> society.

In the first place we will present Google's *basic* economic model, based on the contributory production of pertinence and the attention economy.

Secondly we will develop why Google Books can be considered not as a secondary activity but rather as a *sketch* of Google's economical model, coupled to a form of strategic reorganization.

We will conclude on the question of the macro-economic closure associated to such an economic firm model, with the associated problems of predation and of payment.

## 1 - The economical model of Google Search: revelation of the underlying demands and promotion through dynamic advertising

A first simplified presentation of Google's fundamental economic model can be expressed in the following way:

1. The firm offers the Internet users free services with a strong value in use and with a marked social efficiency. These services allow the gathering of a public, constituting on the one hand an audience and on the other hand a *productive mobilization of contributory multitudes* (which is at the root of the management technique called crowdsourcing) ;
2. These two intangible assets are each subjected to a market promotion. On the one hand, through the constant improvement of the use value of the services offered thanks to this mobilization of the multitudes (incorporation) which are both user consumers and co-producers; On the other hand, a promotion is carried out by the almost simultaneous selling of the attention of these Internet users mobilized to a « pertinent » advertising exposure as if the virtual advertising spaces were created as one goes along the (navigation) road chosen by the user.

## Dynamic virtual advertising spaces

When you take a road with your car, the advertisements can be of two orders: relating to territory resources (for example castles, buildings, gastronomic specialties, cultural specialties, objectively present), or else to supposed objective needs of the consumer in places supposed to attract naturally (objectively) the eye. Admittedly, with *Adwords* in Google the advert is singularized, but this singularization is produced by *means infinitely more associative* (the language, its concatenation which can do associations by metonymy or metaphor). On the road (here, the navigation road) the adverts which appear do not reflect an objective reality external to the driver, but follow its thought associations. You're looking for a notion in relation with what we think we know about your profile (for example an economist who seeks information on the GDP or on private accounting) but along the way you turn off according to the whims of your mind (thought associations, affects etc..) about the Balearic Islands, the little piece of furniture you must put in your bathroom... and advertising hoardings appear on your road. *You create advertising spaces*. The publicist modelizes by imitating, copying and miming your behavior and no longer through objective data, which only represent one hundredth of your percepts and affects.

Two value creation processes deserve to be clarified. Let us first ask ourselves how Montain View's firm manages to develop dynamics of continuous improvement of the use value of the services for the Internet users by mobilizing their *invisible* contributivity ; and then seek out how the firm achieves a market promotion of this *public* by anchoring itself in the mechanisms of a complex attention economy.

### 1.1 - The mobilization of an invisible contributivity of multitudes : the gathering process

First of all, we will tackle the analysis of Google's search engine's service<sup>3</sup>. The *use* value of the search service offered to the user can be usefully appreciated through the characteristics of exhaustiveness and pertinence<sup>4</sup>. The exhaustiveness to which we refer isn't an objective whole, independent of the user (all the knowledge and steps of use notably on material supports), but all the users who have been included in the shared digital network either directly by connection of the user, either indirectly by references, quoses, redirecting by means of hypertext links.

However it's on the pertinence point of view that the contributivity of the Internet user seems the most remarkable. This contribution operates through two different processes<sup>5</sup>.

The first leads to the continuous improvement of the use value of the service thanks to the promotion of the actions of exploration of the

results of the research offered by the system. This process is achieved automatically via an algorithmic process, PageRank, generally considered as the technological heart of the firm. The click of the user among an item of the (ordered) list of answers to an expressed request constitutes an act of (contextual) *validation* of a degree of (semantic) *pertinence* between the request and the answer. The integration of these *semantic inputs* stemming from the multitude of Internet users in the innovative device PageRank allows an improvement of the - socially confirmed - pertinence of the answers proposed referring to the request. The accumulation of these validations improves continually the performance of the system.

The second process takes part in the use value of the research device through the permanent Crawling<sup>6</sup> of the Web that Google's robots do by going through the Internet from hypertext link to hypertext link. It is all about the well known process according to which the number of Web sites sending back, via an hypertext link, to a studied website is regarded as an indicator of the centrality of this Web site in a given *field* of words, and consequently as an indicator of the (socially founded) pertinence of this website as answer to a given request. The more an Internet user enhances the Web by inserting links from his site to those of others, the more he contributes to the refinement of the pertinence of a research realized on Google.

That's how the pertinent characteristics of Google's search system have gradually and socially been built through the use of the same device. We are in the dynamics of Increasing Returns to Adoption (IRA), but more powerful than that described by Arthur (Arthur 1994) because it includes the contributivity of the user- adopter to the continuous improvement of the technological process itself (in fact, of the socio-technical process) (Jollivet, 2005).

Two points are left to be clarified: the « invisibility » of the contributivity of the Internauts, and the internalization of the externality of use realized by Google. The free character of the service offered by the firm to the Internauts final-users is frequently mentioned. Is more seldom clarified *the form* of gratis offered by the contribution of the Internauts-users to the constitution itself of the value of the concerned service. It's generally what is left *unsaid*, or even *unthought of in* the economy of the Web, that the term Crowdsourcing<sup>7</sup> approaches but doesn't exhaust.

Thinking this « invisible » contributivity (as many processes of creation of value of cognitive nature) requires the mobilization of the concept of externality, of its internalization and of its promotion. The use by a given Internaut of a service made available for him such as *Google*

*Research* generates in the first place the satisfaction of the final « consumer » (by providing answers to his request). But how can the *transaction* and its balance be defined when the concerned servicial productive activity isn't the subject of a direct monetary compensation, since it is *free* ? To be really meticulous concerning the theory of externalities, we should define the limits of the transaction to which we refer here to define what is external to it. It would be necessary to tackle the compensations paid off by the Internaut for the use of the good, and this beyond the gratuitousness displayed, what would require the mobilization the attention economy. The latter will be analysed later in the text. In fact we are here confronted to a theoretical limit of the traditional theory of externalities when the transactions lean back on *derived* economic models, such as that of Google. Indeed the market promotion isn't achieved on the occasion of the transaction itself and as its extension but through a double level of externalities which are associated to it<sup>8</sup> : the externality of use linked to the selective validation of the pertinence of the answers offered on the one hand (invisible contributivity) and the externality of attention linked to the à la composition of a public. As in the theoretical metaphor of the pollination by the bee (Moulier-Boutang 2010) where the main part of the production isn't in the honey harvest (which is however the transaction's subject) but in the pollination (which isn't its subject) the use of the research technology isn't charged on the Internaut, but some effects external to this use will be, on *other* protagonists (in this case not the consumer but another producer), and that with remarkable returns. A non affiliated non merchant model « B to C » can be translated as follows : the consumer can use for free a platform which allows him to contribute and, in doing so, to produce two types of externalities that we have distinguished. Subsequently in a second analytical stage (almost real-time), these externalities are re-incorporated by Google to supply a merchant model "B to B". The merchant product of this model « B to B » then allows the funding of the first non merchant model of offer of free services. The first part of the complex model, the non merchant and « B to C » model can be described theoretically as a platform or a hub of pollination. The free character isn't therefore a simple initiation as in the launching campaigns or in the industrial dumping. It constitutes a fundamental and undeletable part of the model.

## 1.2 - The mobilization of an invisible contributivity of the multitudes: the model of promotion of the externalities of use and attention

After having analyzed the externalities of use in gathering (or capturing) process of the Google Search service, we can focus ourselves on *what is collected*, or more precisely on *what gives value* to

what is collected.

We have started a first answer in the previous paragraph: what gives value to utilization traces collected by the service provider would lie in the continuous improvement of the pertinence of the used service itself. But this doesn't exhaust the Google model, especially when it comes to the market promotion *via* advertising exposure.

We must enter somewhat in the « black box » of the cognitive process carried out by the Internaut using the service to understand the value of the traces of its use. The (contextual and individual) pertinence of the submission to advertising exposure, which allows a certain minimalism in solicitation, is in fact *at the heart of the competitive advantage and of Google's differentiation* on the advertising management market. Google wins on two of the key parameters of attention economy, the attention being rare and popular. On the one hand, the gathering of the Internaut's attention is of an even better quality (intensity) when it echoes his main interests, however tacit they would be. On the other hand, the *necessary* intensity of the sensorial advertising solicitation (by the visual space occupied, the sound, the movement...) is all the less when the interest of the Internaut is likely (when his receptivity to the message is more important)<sup>9</sup>. We enter the domain of the *soft advertising solicitation* (by opposition with the *hype's hard selling*): a solicitation that consumes only a little part of the consumers' resource in attention and that produces many merchant effects<sup>10</sup>. The eviction effect to which is confronted every announcer or advertiser, by which the consumer tends to flee the advertising solicitation when it exceeds a certain quantitative and intensity threshold, is here stamped out to a large extent by the minimalism of the solicitation and of its (contextual and individual) pertinence. This increased pertinence - for the Internet user - of the advertising exposure gives a higher merchant value of this exposure, whether it is in terms of banner visualization or of links (cost charged for 1000 visualizations of the advert by an Internet user supposed single for example)

1.3 - What the Internaut says and does when he searches (what is gathered): production, revelation and promotion of tacit knowledge of the researcher

Google's basic economic model, focused on the Search service, therefore isn't founded on the market promotion of the service itself, but of the associated externalities of use and attention, with other protagonists such as announcers, forming a derived model.

But a question remains without a satisfying answer: why do other economic protagonists (of the announcer kind) promote this production

of externalities that Google resells to them? What contents gives, in their eyes, such an economical value to these externalities?

#### 1.4 - The marketing research, critical stage of the value chain of the innovation process

The contemporary capitalism, characterized by an abundance of industrial production of goods and a relative saturation of the basic solvent needs is, we know, focused on the ever renewed stimulation of the expectations and desires, in order to recreate *constantly* a demand<sup>11</sup>, allowing the feeding of the continuous growth intrinsically necessary to its dynamics.

A modality particularly prized is, speaking of the offer, the constantly renewed alimentation of a *flow of innovations* (functional or of design) and, speaking of the demand- , of a *stimulation of the desire* for these goods, through marketing and advertising in particular. A *path of growth* is thus outlined. However the enterpriser is thus subjected to a double radical economical uncertainty: an uncertainty about the offer, concerning notably the technico-economical feasibility of the goods planned for the production, and a (growing) uncertainty about the demand, relative to the existence itself of a demand, potential or latent, for the concerned goods. The neo-fordism, consecrated by the toyotist turn of the industrial organization during the eighties, has revealed the prevalence of the uncertainty of the demand and that of the industrial offer<sup>12</sup>. The central question of the enterpriser contemporary is therefore: « How can my double uncertainty be limited as much as possible? ». The main answer to this is : « by identifying as best as possible the latent demand for innovating goods which isn't yet satisfied, and by integrating these expectations the more downstream as possible to the value chain of the innovation process, right from the conception stage ». The *marketing research* becomes the cornerstone – or the critical stage of the value chain - of the management of innovation and of the industrial organization *driven by the demand*.

The answer to the question « what gives value to these externalities of use » associated to Google's services to economical agents appears as follows: these externalities and their promotion answer to the crying demand of the enterprisers for the *robust revelation* of the latent demands, of the solvable expectations, allowing a certain *endogeneization* of the demand in the value's creation process, and a reduction of the entrepreneurial uncertainty, for moderate costs.

It's this offer of services based on the industrialization of the *revelation* of the non satisfied expectations of the *prosumer*<sup>13</sup> that the Google firm gives to economical agents via a socio-technical activation of the

contributivity of the multitudes (*crowdsourcing*).

### 1.5 - The expectation revelation process: what the Internaut says and does when he searches

How does the *revelation* process of the prosumers' non-satisfied expectations work? When an Internaut searches, that is to say when he expresses a request on Google Search, he makes explicit and *verbalizes* an interest, an attention for a subject. When more than 80% of the world's Internauts do that<sup>14</sup>, they objectivize, make explicit and reveal genuine social expectations, or even emerging tendencies, resources so much looked for by research-marketers<sup>15</sup> feeding the innovation processes<sup>16</sup>.

Where the market fails to provide *signals* of non-satisfied demands, of non-realized expectations, or of non-satiated desires, the mobilization of the contributivity of the multitudes via socio-technical devices succeeds in doing it. The main part of the production of value (in use and then merchant) is realised *behind* the provision of a *direct* service provided by Google's *search engine*. Because the engine on its own isn't actually relative to the research, but to the answer: provided that a research, a request, a question, individually and socially pertinent, is *presented* (or submitted) to the engine. The essential value added of Google Search concerns in reality the *gathering* of individually and socially pertinent researches<sup>17</sup>, via the free availability of socio-technical and economical device of platform of *expression* of the interests and attentions of a population, enables their resale. The value added of the *producers* (or user-producers) of Google's devices, lies in the verbal (written and open, therefore *computable*) explicitation of a tacit or an implicit, first individual, and then social, once « aggregated » or rather *socially searched*<sup>18</sup>.

## 2 - The specificities of Google Books' economic model in a capitalism of cognitive regime: the contrib'reader or la consumption producing goods - knowledge

We formulate the hypothesis that the Google Books service doesn't constitute an *excrescence* of Google's basic economic model but on the contrary its heart or its sketch, within a capitalism which is from now on of a cognitive regime. We will see how the reader can be considered, on a theoretical level, as a contributor of goods- knowledge (pending, the book) thus accomplishing a *pollination* of a sociocognitive ecosystem.

## 2.1 - The contrib'reader at the risk of the theory of the ... numerical literature

| Thanks19 |

The book presents at first sight a frozen, restrained and finished character (its materiality, its beginning and its end, its copyright) quasi-definitive, which leaves little hold to any contributive and modifying action. Though, the literature theory opens us spaces for the construction of a shape of a contrib'reader.

The essential idea of our speech seems to be that of interpretation, whether taken in its cognitive or more directly artistic meaning. Every work can only be interpreted: a musical work by an instrumentist or literary work by a reader.

Thus, Umberto Eco (Eco & Bouzaher 1985) shows that a *model reader* is always registered in the text and that an interpretative cooperation is established between the model reader and the real reader on the occasion of the reading act. Stanley Fish (Fish 1998) pushes the perspective to the point of claiming that the reader *creates* the text.

The reader of a literary work could be considered as the *necessary* contributor to the work, the latter somewhat never being finished, and requiring from the reader a - productive - activity of enunciation (even inwardly) on the occasion of which the reader's interpretation gives it an existence.

Couldn't the author then be approached, in our perspective, as the producer of a *platform of development* of an interpretative creativity from the reader?

These theoretical perspectives allow a better understanding of the success of the comments of the readers and of associated forums organized on Amazon's commercial platforms, beyond the only economical analysis of the revelation of the quality of a good (Akerlof 1970) intense in knowledge.

We find here again the privileged role of the numerical and sociotechnical technologies of the Web 2.0 in particular, to make the verbalization of the implicit, of the tacit, incorporated in the reader, *by* the reader easier. This consideration is of importance because this verbalized explanation will be the condition to its transformation, then to its promotion, via advanced economical model.

One could retort to us that all this is only literature, that these activities

are recoverable – at best – only by a restricted circle of literary people, buyers of paper books, species that are, on top of that, doomed to disappear. In short, our analysis would only reach a restricted segment of the market of the sector of cultural goods, whose profitability is limited and whose special features forbid all generalization. And yet, it consists in much more than a simple question of « how to promote the expression of literary interest centers by selling books » (following the example of Amazon). Indeed, in a learning economy (Lundvall 1995) in line with a capitalism of cognitive regime (Moulier-Boutang 2007; Azaïs et al. 2001) the cultural industry becomes a prevailing model of modality of creation of use as well as merchant value (Stiegler 2004).

We can now come back to a theoretical, more directly economical field, by trying to enhance our analysis at the prism of a few innovative theories on the matter.

## 2.2 - The contrib' reader at the risk of the economy of experience goods and of the functional economy

Within the framework of the standard economical theory, books can be considered as experience goods<sup>20</sup>. The reader forums, such as those existing on Amazon, can then find their theoretical justification in the sense that they *reveal* the pertinent characteristics of the concerned good (the book) by thus making the triggering of the buying act easier. But as much as this theoretical interpretation can seem fruitful in the case of the marketer Amazon, it only brings a little contribution to that of Google Books. Indeed, the revelation of the characteristics is just easier for the latest – as much thanks to the possibility to look through all or part of a (digitized) book than thanks to frequent mentions of bibliographical notices of librarian sources – but it doesn't find any *success* on the form of a triggered sale. The service only mentions different sellers (but also libraries) where the Internaut can, if he wishes to, buy the book.

Amazon *ultimately* only promotes the selling of books, which are, on top of that, to a large extent material. In Google's case, the selling of paper books (Google Bookshop) is a "derived product" of Google Book, and not the contrary<sup>21</sup>. This inversion of importance and of meaning of the relation between economical value of the product and derived product is linked to a merchandization of the *meta level* of the possible conditions of emergence of any product. We can speak of a shifting of the market on a meta level or of a genuine meta market<sup>22</sup>. It's in this context that we can say that the derived product constitutes the main part of the value as in finance! Indeed the value of the book product as printed paper is feasible only if the book has, as a knowledge good, already went round the minds and been the subject of a convergence of

desires, of favorable opinions. The preliminary sampling of taste reveals itself to be the true driving vector. But it can only operate if a large free distribution has been organized previously to any sale. The economical viability of such a profusion of digital samples is possible owing to the scale change (a multiplication by a thousand at the very least of the digital stream in comparison with the « material » stream of the product). Shall we take a paper book of which we could expect to sell 1000 copies before the digital distribution under *creative commons* (license 2: paternity, non modification, non commercial use) if the digital distribution is multiplied without additional costs<sup>23</sup> by one thousand, that means that one million people will have to know it and will be able to examine it at leisure. If half a percent of these people decide to buy it to read it in a practicable format then that is enough to sell 5000 copies of it.

The transaction carried through by an Amazon type the book seller only represents, according to us, the sale of honey in a pollen society: the main part of the creation of wealth is elsewhere. It is in the pollination of the multitudes (and by it) that allows the access to culture.

The validity of this interpretative model can be considered as exclusively limited to books, or restricted to cultural goods. These results would already be non negligible. Though, we think we can go further. By following the perspective traced out by the functional economy (Giarini & Stahel 1993), (Bourg et al. 2006) named *service economy* in the Anglo-Saxon literature, and the extensions given by Rébiscoul (2010) in terms of outcome vs. *output*, and by Moatti (2010) in terms of useful effects, almost *all* the driving goods of contemporary capitalism reveal themselves to be able to be qualified of *experience goods*. But the experience, of indicator prior to the consumption of a utility which exceeds it, here becomes consubstantial with the consumption itself: there, the experience *is* consumption. And yet, faced with such types of goods, the user-consumer reveals himself playing a most particular role: the consumption of the good that he does is far from being destructive to the good itself - as for the goods qualified as *normal* -. *The good builds itself on what the user-consumer experiences with it*. The experience being by definition singular, contextual, and partly tacit, the user is *always* co-producer. What's more, in case of the "misappropriation" of use, the user becomes an *experience innovator*.

Here, thanks to a theoretical line of thought through the functional economy, we strengthen our economic model of the contribution within the pollen society: the user of experience goods- or even just the user-pollinates the good - whether it is a pure service or a good hybrid system - and gradually pollinates the economy in its entirety. But all

the same, the concerned ecosystem is self-generated, and the market promotion of its fruits must be compatible with its reproduction... without predation. The analysis of the internalization strategy carried out by the Mountain View firm will provide us a few answers.

### 2.3 - The contributive platform and « learned » contents' internalization strategy: stretch the control of the gathering of the contributivity of the multitudes... and contribute to Internet's sociocognitive ecosystem

Why is the Google group now developing its strategic positioning towards sites or contributive contents platforms, or even towards « learned » contents platforms (like Google Books' documentary base of funds of academic libraries) whereas its success was until now mainly based on the exploration and indexation of the contents of... others? We can try one's hand at the following explanation. The heart of Google's line of work (a search engine based on the indexation, the *ranking* and the research service) is exposed to a *competition by innovation more and more threatening*, Microsoft's new search engine, Bing<sup>24</sup>, being a concretization of this. Google finds itself face to a contradictory tension proper to a economic model including a strong opening of its « sources » (the Web sites subjected to an indexation) and the *crowdsourcing* (exploitation of the contributivity of the Internet users) : the rivals have, them as well, potential access - at least legally and technically- to the material and to the human resource mobilized<sup>25</sup>. To become emancipated from this competitive pression, maintaining or renewing of the leader position on the Internet passes , from now on, by a - selective - internalization of the *production* of the sites themselves, especially of the contributive platforms (such as YouTube), allowing to the search engine a gathering more or less exclusive<sup>26</sup> of the contributivity of the Internet users.

The case of Google Books is to be analyzed in this global process. The originality of this service is in the research method strictly speaking (similar to that of Google Search) as well as in the documentary fund on which the research is about. The underlying « learning » documentary base is formed by the aggregation, the structuring and the indexation of digitized academic librarian funds, according to des legal terms allowing a certain temporal exclusivity<sup>27</sup> to the beneficiary (Google). Therefore it isn't a directly contributive site. Why then such an interest from Google for this service ?

Let us attempt to do a bold hypothesis : the Mountain View firm would here show its ability to abstract itself more and more from the productive process, by investing the conditions themselves of the production of wealth, namely by renewing the possibility of creating

cognitive wealth. By freely making available to the reader-Internaut a librarian fund incomparable to what he could access until then, Google renews the conditions themselves of the pollination by the *homo-contribuens*<sup>28</sup>.

Yet, is this « free » availability really philanthropic? One should be quite naïve to think so. For at least the time of the exclusive exploitation of the base by Google's research service, the interest that the firm draws at the opening of these funds is patent. In its economic model, such as analyzed in our first part, the economical value lies in a large extent in the "transformation" of the implicit/tacit in explicit/codifiable, but in dynamic competition (always renewed, the competition on the codified exhausting itself without superprofit). With an important eco-systemic condition of this renewed competitiveness: at the same time, a permanent renewal of this production of implicit and of tacit must be done. Without guarantee of universal return (for whatever institutional form that this macro-economical resource transfer takes) such a continuous renewal of externalities gathered by Google-type firms (emblematic process of cognitive capitalism in a pollen society) isn't possible. Otherwise the non-merchant contribution at the root of this model is quickly subjected to an over-predation and to a tragedy of the merchant society and not to a « community tragedy».

### 3 - Conclusion

Can this internalisation strategy carried out by Google via notably its Google Books' service then be considered as predatory? Formulated in a different way, can the value deductions that Google makes at the occasion of the return of its services be considered as destructive towards the socio-cognitive ecosystem which allows the creation of value itself; or else, on the contrary, does it enhance it or renew it? We persist in our hypothesis. In fact here, Google reaches an upper stage of the learning firm of contemporary cognitive capitalism: by digitizing and making available to the Internauts librarian funds, it invests in the maintenance and the renewal of the socio-cognitive ecosystem itself, by positioning itself directly in a contributive within the pollen society, with an economic model allowing it to benefit from it.

Even so, is the mass of the macroeconomic sealing off given? Not in the least. Even if we can maintain that the Google firm, on a micro-economic level, develops its activity of value sampling in a contribution economy depending on a mode relatively non-predatory, the question of macro-economic balance remains whole (or even finds itself revived) depending on at least two modes: the regime of intellectual property associated to the traces left by the contributors-browser<sup>29</sup>, and the

question of the remuneration<sup>30</sup> of these *homo-contribuens*.

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<sup>1</sup> For example Y. Moulier Boutang Moulier Boutang Y. (2007) « Los nuevos cercamientos : nuevas tecnologías de la información y de la comunicación, o la revolución rampante de los derechos de propiedad », in Miguel Angel Rivera Rios & Alejandro Dabat (coordinadores), Cambio histórico mundial, conocimiento y desarrollo, UNAM, IIE, pp. 181-214

<sup>2</sup> Y. Moulier Boutang (2007B et 2010).

<sup>3</sup> We will carry out, in a second part, an analysis of the Google book service. A similar analysis could be done on the Gmail service.

<sup>4</sup> These two « pertinent characteristics » (Lancaster 1966) are directly linked to the traditional categories used in the science of information and communication of noise and silence (Bodin & Roux-Fouillet 1992).

<sup>5</sup> The user also has a contribution to the exhaustiveness, but less original.

<sup>6</sup> The crawling generally refers to a systematic exploration of the Web -or of a subsection - by an automaton.

<sup>7</sup> The American journalist J. Howe is considered as the first user of the term, in the

magazine Wired (Howe 2009). A more academic presentation is done by Tapscott & Williams (2010)

8 We will see that this aspect is particularly marked in the case of the Google Books service.

9 Here we can refer to the traditional theory of the industrial economy facing the advertising phenomenon (Kaldor 1950; Telsler 1964): advertisement as a mean to inform the consumer about the pertinent characteristics of the offered good, and not as the (only) special strategic modality of fence erection at the entrance and of prevailing position constitution.

10 This merchant effect can notably be appreciated when compared with the rate of clicks by advertising exposure on the one hand, and the buying rate following a click on the other hand, both constituting pertinent characteristics of the services offered to announcer by the advertising management on the Internet.

11 See notably Stiegler (Stiegler 1998; Stiegler 2004) and Moatti (Blondel et al. 2009) and generally the literature on the post-industrial and post-fordist society.

12 See notably B. Coriat (Coriat 1991)

13 See (Toffler 1981)

14 See (NetMarketShare 2010)

15 Research Marketer or specialist of upstream marketing, by opposition to downstream marketing, or operational marketing.

16 This vision, exclusively « mercantilist », of Google's contribution, the firm has tried to free itself from it, notably by proving its social utility in the epidemiological pre-diagnosis of the avian influenza pandemic, à through the tracks left by the Internauts searching practical information on its symptomatic manifestations.

17 The case, already mentioned, of the monitoring of the flu epidemic by Google through the information researches done by the Internauts concerning the analysis of symptoms is particularly eloquent on the subject.

18 We here refer to the disciplinary realm and to the développements commonly named social mining (by distinction with the data mining, generally translated into French by « fouille de données ») at the intersection between the engineering practices of Network Sciences and the questioning of the researcher in social sciences. In France, the collective runned by Franck Ghitalla, first within the Costech laboratory (RTGI group), then within the WebAtlas association and the LinkFluence firm, develops such an approach (Ghitalla and al. 2004).

19 Our thanks to Serge Bouchardon for our stimulant discussions about this topic. The interpretation stays, of course, of our responsibility.

20 Goods distinguished from goods said normal in so far as their pertinent characteristics can only be revealed through the experience of their consumption or use (Shapiro 1983).

21 Google Bookshop now seems to redirect the Internauts more and more often towards Amazon or directly towards the distributors of the publishers.

22 Moulier Boutang & Rébiscoul (2009).

23 Today, a manuscript is provided under digital format to the publisher and then to the printer. Putting it on an already existing Web site and making it available by downloading has almost no additional cost and increases the attractiveness of the site, what is likely to lead to a larger popularity and possibly to advertising contributions.

24 Even if the worldwide use proportion of the search engine Bing, launched officially in summer 2009, only reaches, in June 2010, a modest 3,39% (NetMarketShare 2010) and that the tendency on a year shows a rather small growth on the world level, certain experts (Needlem 2009) and pioneer-users (some of our students preparing a Master's degree in computer engineering) infer that it is a sizeable innovative differentiation, potentially dangerous for the leader Google.

25 It is here necessary to mention Apple's position, especially concerning its initiatives of platforms of commercial contributive distribution (AppleStore) and, more recently, of commercialization of editorial contents (book and other) associated to its « electronic slate » (IPad). The apple firm shares with Google a model involving a promotion of certain forms of contributivity of the Internauts: the success, of use as well as commercial, of mini-applications « registered » by outsiders on the AppleStore proves this. But, notably because of the proprietary character of the platforms and terminals (iPhone & IPad) of the corporation, its business model can resemble the tithing of a productive flow passing through its territory. Nevertheless, it forms just the same one of Google's rare credible competitors nowadays, and a strong incitement to differentiating innovation for this latest, notably through politics of « free » licensing.

26 Many social sites for example do not make their contributive contents available to the crawl of external search engines. These sites can be found in position of strength to negotiate selectively the opening with external engines (see FaceBook's strategies notably).

27 This exclusive can be limited (AFP). We will come back to this point later.

28 The reader is for the digital library what the bee is for the flower field. The selling of honey corresponds to the selling of the book « associated » to its consultation, possibly partial, online. The pollination of the field by the bee corresponds to ... the social return of education, of culture by creative learning, related to the mechanism of non destructive consumption (reading), or even of creative consumption (from the annotation à to the creation passing by the reading note) in terms of knowledge.

29 It is here question of an aspect of what is at stake with the digital intimacy: a private non-appropriability by third party of personal data in the form of traces on the Web.

30 We evoke here the questions of guaranteed unconditional return (Monnier & Vercellone 2007) and citizenship return (van der Veen, 2004) by lighting them up like contributivity return in a pollen society.