ABSTRACT The social organization of modern labor can make our daily work as an infinite succession of mechanic tasks. This paper aims to bring some other view, from a different perspective, using a functionalist and comparative/historical approach for getting the answer to basic questions: what are we doing? Where are we going to?

What is the nature of the complex relationships between the actors of the Information industry: the librarians, the Ministries of Education, the academic departments, the authors, the publishers and the subscription agencies? Can we try and define the present situation of the Information industry also from a Social Sciences angle? What is this industry main function?

Taking a more Political Science direction, the paper then looks at the agents able to ameliorate the flow of information inside a civilization made of various groups, and between people in general.

Besides the new "hi-tech" developments in the information industry and trade, some problems jeopardize the information access to all. What are the possible solutions to cure the problem? And is there place for state intervention in a free market?

INTRODUCTION

It looks sometimes that our lives are controlled by what we have created, and we tend to forget the general purpose, the whole, complete puzzle of our daily and small actions; the social organization of modern labor can make our daily work, of each of us here under this roof, as an infinite succession of mechanic tasks. When watching our daily work in the industry of Information, I would like to bring today a view from a different perspective; this perspective has its roots in one of the disciplines belonging to the Social Sciences, which is the Political Science. When surfing in this dimension, I would like to try and answer some main and basic questions sometimes hidden by the daily routine of e-access problems and print distribution issues, among others; these questions are the following:

1. What is the specificity of the information industry today? Can it be compared to other industries?
2. Where can we locate today's industry of information on a time line and how does its future look like? This will lead us to a general understanding of the importance of the Information for Man’s future.
3. In this perspective, can we identify major problems darkening the future, and which directions could be advised so that we may improve the general shape of the industry we belong to?
METHODOLOGY
The methodology used in this paper comes from the Social Sciences, which are looking at the society via various filters. One of these filters is the Political Science discipline, looking more at the systems inside a society; in our case, the systems in place could be The Ministries of Education, The Ministries of Development, the teachers and writers and authors, (we may call them the creators), the students and teachers (we may call them the consumers), the publishers, the subscription agencies etc. Overlapping in defining the sub-systems and the actors is allowed, and even makes the analysis richer.
Inside Political Science, there is a special branch called Political Communication; the process of its analysis gives priority to the communication links existing between the systems or sub-systems, such as government, Public (people in general, NGOs etc.), the economic forces and the Media itself with its various channels. Through these filters, I would like now to watch the Information industry.
Therefore, my main concern is now to observe our industry from this specific angle, simplifying the chain linking writers and readers, watching its main cornerstones; my final target will be the identification of the obstacles to the current flow passing from the author to the user of this industrial chain, with some possible solutions to improve the highway between them.

DEFINITION OF THE SCIENTIFIC LITERATURE - A COMPARATIVE APPROACH
So as to be able to isolate the specificity of the Information industry, first, let's give it a general definition; for this purpose, I have chosen the comparative approach; in social sciences, the comparative approach emphasizes the methodological need of comparing an issue with others, so as to get some qualitative perspective; like any other material dealing with creation, sales and competition, Information is an industry. As everything can be seen as an industry, I will start with a somehow curious example, which may seem to you far from the information, but is easy because of its simplicity; I would like to ask you to think about a fruit that each of us here has already handled in hands and eaten, such as a banana; this fruit is produced in some specific countries. There, the farmers sell it at a specific price, let's say 100 currency units, when this price can be decided by a local cooperative of banana producers or by a single and independent farmer; the banana price can vary upon the countries of origin, seasons and quality; passing from middle-men to others, its price can jump to ten times its original value, depending on the freight expenses (distance, refrigeration technique etc.) and commissions in the way. In this case, the pricing is characterized by local producers, distance and distribution networks, and by the law of "offer and demand". The production chain is quite simple: producers on one side, intermediates in the middle, consumers at the other extremity.
Let's go now one step further: the grape industry would have more or less the same characteristics as the banana's, but when it arrives to wine, you can easily lose your mind from the new ways opened in front of you: links with chemical industry, glass industry, food industry, airplane industry, holidays industry etc... Dyonisos reveals himself as an excellent trader.
when we see his inclusion in the territories of all the other gods, taking his
shares from so many other industries, cleverly mixing himself to many
events in Humans' lives. Here, wine fees have an additional dimension:
Broader demand, quality hierarchy and taste fashion playing a major role
in the price of the beverage. To the simple chain we have seen before, we
have now to add additional dimensions: more varieties of the product,
hierarchy between them, all these influencing the fees: one liter of grape
fruit can, depending upon various factors, be sold a few Euro cents or
hundreds of Euros.
You may think about any industry in the same optic: If we leave the red (or
white) nectar for the black oil, and look at the petrol industry, for instance,
we may more focus on the organization of its producers, and the
relationship between international relations and the use of the product
pricing as a tool; if you think about precious stones and diamonds, think
about the freight issue to bring a gross stone from Southern Africa to
exclusive intermediary in Belgium or India, where the rocks are dressed off
from their gross aspect and metamorphosed into artistic jewels arriving to
the finger, sometimes to the fingers, of many lucky women all over the
world.
Let's now look at our industry, this of the Information: First, let's put aside
all the branches of information and focus only on scientific literature,
dropping in the way the Press, the Television news and other formats of
political and international update of the population on earth,
cinematography, and all other artistic media. Let's keep only scientific
literature that I would define, at least for the purpose of this paper, as
following:
Scientific literature is the analysis of specific topics or issues, written by
specialists in a variety of academic fields, covering all disciplines; the
specialists' analysis constitute the production, which is consumed by a very
specific public, usually linked with the narrow discipline or sub-discipline
the writer himself or herself comes from; moreover, we could speak here in
the majority of the cases about "indirect consumption" since the user
himself does not directly get the product, but by the intermediary of a
library or information center, without which he would probably never
reach the source he needs.
Another specificity of the industry of scientific literature is in its pricing;
the laws of the offer and demand proper to almost all the industries on the
globe are not really working here; true, some literature is more expensive
than others, depending in this in the demand from the consumers, linked
with the language or the topic, even with a certain monopoly obtained by
clever commercial publishers; price increase, as in other industries, can also
be determined by the technical devices used to improve the quality of the
creation "freight" to the user: new version of an Internet navigator,
improved service for a fast service in print dispatch etc. Please note that the
original creation itself is not changed whatsoever, only its path to the
consumer is subject to changes. On the road, or even sometimes making the
roads themselves, we find the subscription agencies, as Swets Blackwell for
instance, administrating the circulation of the product on a network of
what I would call "highways".
At the side of the chain including the consumer, another original specificity
is to note: the user, indeed, does not pay directly; the centralizing body
distributing the information to the users, let's say the library, totally
depends on a general budget coming from political or hierarchical
instances inside an organization (university, for instance), and, at the very extremity of the chain, from the political instances of the consumer country itself, like the Ministry of Education for instance, or the Ministry of Development in some cases. I shall come back later on the links between these decision-takers and the consumers' representatives.

To conclude this definition of scientific literature, I would like to recall the four main cornerstones of its industrial chain.

1. One extremity is constituted by the producers, those I have called the creators, e.g. the authors and publishers. The relationship between authors and publishers often looking like the delicate balance existing between the script-writer and the directors of the movie production industry, when both depend on each other in a sometimes confused relationship.

2. The consumers, where we find the academic researchers, students, using the resources of the libraries and information centers. The paradox of the authors who are sometimes both consumers and creators, with the copyright issue unifying or opposing them to the publishers, is to be reminded here. But it is the library who is the main consumer, with its centralized and specialized network of services.

3. Third, the budget decision-takers, those people handling the "purse", and decide of the quality and quantity of the information which will be available to their public, are the rectors of the institutions, as well as various ministries, and hopefully sometimes international organizations, as the European Union various branches for instance, when they insert oxygen into the system.

4. Last, but not least, the subscription agencies, mediating between all the sides of the chain, sometimes created by them to allow a easier flow of the information.

Before watching the flow and the obstacles between these four cornerstones, I would like to bring some time dimension to the picture I am drawing with you.

WHAT IS THE SUPREME GOAL OF BRINGING SCIENTIFIC LITERATURE INTO THE ACADEMY? AN HISTORICAL APPROACH

In social sciences, it is the historical approach which can bring some time perspective, some vertical dimension to an analysis. The fact that scientific literature is to be considered as an industry like others, but with its own patterns, is understood; the basic scheme of this industry flow, as well. Let's try now to define why our industry is so important for the development of human civilization. Indeed, if we can understand the major goal of this industry and identify the problems, the last steps of advising for priority solutions should be easier.

As a child, I was very impressed by the works of two persons that I considered as pioneers in the field of Information, that I was calling then Human communication: the first was St. Jerome who was one of the major translators and commentators of the Bible from Hebrew into Latin, an important bridge builder between two religions as the Bible was THE book at this time around 380-390. The second person whom I saw as a complementary "colleague" of St. Jerome was Gutenberg: Gutenberg by his creation of the Printing industry let the European best-seller book of
Europe at this time, the Bible, be available to many more, faster and at cheaper prices. By metaphor, if St. Jerome is to be seen as an importer, Gutenberg, then, is a highway constructor.

Along the centuries, Information in general and scientific literature in particular have been going from one point of the globe to the other via various "importers" and "highways constructors"; this population of information providers can even include traders, like Marco Polo or Christophus Colombus, exchanging not only goods but also ideas, ways of life and sciences from other countries; information was not their prime goal, but we owe them many discoveries; Pathe Marconi for the sound or the Lumiere brothers for the cinematography may also be seen as highways constructors; And along the years, information invaded all the activities of Human beings, and scientific literature specific branches of these activities; this thematical dispatch was accompanied by new labels such as: Competitive intelligence for the industrial spies and informers, News for the mass-media, intelligence warfare for the military... All these and others are well implanted everywhere; we can say today that scientific literature is the top-quality of all these circulating news, when quality is monitored by the following tools:

1. The specialty of the writer in a specific field
2. A text which is reviewed by editors and selected by publishers/leading to a competition between the writers, making them even more excellent than what they are.
3. International analyses, panels and exchanges, leading to comparative approaches based on geographical differences on the globe.
4. The transcultural analysis and meetings, innovating multi-disciplinary conventions, where, for instance, medical and engineering specialists can meet and develop new technics for watching inside the human body without being in the necessity to proceed with chirurgical intervention; or agricultural and electronic specialists thinking together how creating a special sound taking the bugs away from the crops without chemical use. Just name fields you may think absolutely disconnected and I will find scientific literature, showing that specialists in different domains have already combined their minds to create a better world, without neither thematical, nor geographical borders.

Trying to define scientific literature through an historical approach, I would conclude as following:
It is the continuation of basic literature and mass news, where specialists from all the globe and from all existing domains, meet. Scientific literature is the deepest analysis made by the best specialists in their fields. As an analysis, it is the achievement of all which is known in a certain point of the time in a certain domain by Man; as a creation, it is a window to future thinking and implementation for ameliorating the world we are living in, through a multi-disciplinary and international perspective.

Each scientific article is a message from people to people, from a person (or group of persons) to others; the quality of this message is assured, due to various control tools such as the specialty of the writer, exchanges with scientists from other cities and disciplines, and the selection operated by editors and publishers. Since the message is dealing with a specific problem and is trying to advise for solutions, it is a message which is necessary to bring to the students who have decided to engage themselves in a certain
discipline, as the students of today will be those responsible on solving the problems tomorrow and for the future generations.

Scientific literature is today at the top of the technical tools at our disposal, using the best "highways" to carry the messages: educational TV, electronic formats via Internet, fast dispatch via print etc.

However, some problems can be noticed. Some traffic-jams exist on the "highways", making the scientific news not always available easily to all. Trading information for a subscription agency assumes a moral role in solving these traffic-jams. "No news is bad news", meaning: "no scientific literature is bad news", because we fail when the messages from our best specialists on earth can't always reach their colleagues, neither their students. I would like now to see how, as an information trader and a Political Communication scholar, I perceive these traffic-jams and the possible solutions suggested by this Political science discipline.

A POLITICAL COMMUNICATION PERSPECTIVE ON PROBLEMS AND SOLUTIONS IN THE INFORMATION INDUSTRY

Let's start by a positive point: the source of our industry, which is the brain of our writers, is like a gold mine, whose precious material can't stop running. More than this, the more we go in the time, the richer it is. Moreover, the demand for our products, the articles or messages I have defined before, should go and grow together with the growth of the number of students and researchers. At both extremities of our chain, all looks good and I would mention only two points that I wish to develop in a further paper: the first would be on the production side, with the relationship between the authors and the publishers; the second would be on the consumption side with the issue of the writer and his rights to use his creation. Both points are linked with the copyright and foreign rights fields, subject which has occupied me a few years in this industry, and I would like to keep it aside for the moment, hoping to come back to it in a further research.

Hence, the main obstacle I see in the flow of scientific literature is, how not surprising, linked with a pricing issue: one side, the publishers, usually commercial and "for-profit" companies, have to keep and maintain a certain income. Time is not always easy for them in this period where so as to survive, companies from all industries have to merge at national and international levels. The "freight" expenses, especially in the e-access fields, are also very expensive to develop, as the need for more friendly and complex "navigators", those gateways to the scientific messages via Internet, is expressed by the customers. On the other side of the chain, the consumers, usually "not-for-profit" libraries, keep requiring lower prices, when the libraries have the difficult task of providing more information every year, not always with more budget, and face a general inflation present in all industries. People on both sides of the chain understand that the necessity they have to reach an agreement is not an easy task in these conditions: on one side commercial companies trying to keep their financial balance with positive figures in a difficult economic time for the publishing industry; on the other side, public libraries requested to have more material, and barely receiving the necessary budget for it. Representatives and negotiators on both sides understand the hard task they are required to carry, and we are happy to see every year more agreements between the
two sides, leading to more literature flowing on our highways. Again, it is not only a trade task for subscription companies, but also a moral mission towards future generations to keep this flow on.

Therefore, I would like to focus on the other obstacles I see, all linked with "political communication" between some of the sub-systems. As I will be dealing with the "production-bloc" and the relation between publishers and writers in the future, I would like to focus on some problems I see on the consumer side, problems which touch me very closely as a Political Science scholar.

1. Students training: The first point deals with the homogeneity of the consumer; it looks sometimes that the librarians are fighting for bringing more literature, but students very often do not appreciate the value of this "gold" they have in the library. I have the habit, each time I am visiting a library, to stop and discuss with students. I have done this always, and many times already, in many cities, including of course Greece and Cyprus... it would be an interesting task to conduct a statistic survey to confirm the basic assumption I have checked on the base of random interviews: students still see in the library a place to visit before exams only, and not on a regular basis; moreover, the issue of e-access is something they usually are not familiar enough with. I would call this issue "students training". From the perspective of Political Communication, the solution here would be providing special training fund and staff to the library, in coordination with the teaching staff; in the information time we are living in, knowledge about library material should be a part of the obligatory classes that students must follow in the course of their studies. This would also lead to more use of the scientific literature, pushing the usage statistics up.

2. National consortia: so as to get lower prices, we have seen libraries inside one country gathering together in what we call a "purchase-club" or consortium; it is true that the first impression is that such an organization at a national level is made to exercise pressures on the other side of the chain, the publishers; however, the consortium is not aimed to put pressure on the publishers; for publishers, it is even easier to deal with one consortium than with each institution separately; the real strength of the consortium is by the success of the library, as a department inside an organization, to unify itself with other libraries, and by doing so, more easily lobbying at a national level; as new needs are required by the academic staff, I would even speak about the library rights, as without the appropriate budget, they do not have the tools to fulfill the mission as they are requested.

3. International consortia: As we can see more merging between publishers on an international dimension, like in all major world industries today, it looks like the national consortia will have no choice but joining their forces on an international level, as well. We can already see the first steps in this direction. No more a purchasing club at a national level, international consortia will act at a regional level on the globe; I would like to keep my view on the possible developments of such an organization for another conference, when I shall look at it comparing it with international unions of authors and libraries. I would just mention here the basic difference of lobbying targets between a national and an international consortium: while a national consortium is lobbying for appropriate budget to the ministries of its own specific country, via the political actors inside the institution, international
consortia have more lobbying targets: indeed, the political communication message of such consortia should stress the importance of knowledge, education and science on a planetary or regional level, and join the efforts of ministries to get more budget from international organizations: not only from the European Union agencies, but also from the United Nations. Not only from public funds but also from private funds; the role of the library should be stressed as the "temple of knowledge" both for researchers and students; I would see as a necessity the inclusion of a special "Public relations" department in the organizational chart of international consortia, with a sub-department dealing with fund-raising in various countries under the label of "friends of...". This is a model I have met already in various parts of the world, both in academic and non-academic organizations.

CONCLUSION

The major efforts I can see as necessary in today's chain of the information industry, and foresee in its probable future organization, are the following:

1. More budget to libraries for training their public to use print and e-access material, so as to guarantee an adequate and useful use of scientific literature, which should lead us to more qualitative societies both at human and professional levels.

2. The creation of promotion departments, that we may call Public Relations Departments, or "friends of..." departments, which would be in charge of explaining the work of national and international consortia of libraries, by lobbying and bringing funds from more public organizations, as well as from private donators or foundations.