



Artículo Especial

Artículo bilingüe (inglés/español)
English version

And still they say that fish is expensive.

Y aún dicen que el pescado es caro.

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Abstract

In this article, we have tried to analyse the core aspects that not only make it difficult to investigate but also transfer knowledge and technology in Spain and other countries, especially non-English speaking ones. Major factors affecting research expenses and the role of managers and mediators are analysed. The paper ends with a reflection on the importance of an appropriate relationship between editorials (publisher of books and Journals) and authors; in particular focusing on the respect that the works authorship must have, properly valuing the recognition of the effort and value of the article. It should be something that goes beyond the opportunity to publish in a good journal with a high impact factor. It should involve the recognition of authorship by a fair payment to the authors in the form of small salaries, to be given at the time that its publication was consulted and printed by other authors or institutions.

KEYWORDS

Authors; Authorship; Costs and expenses; Editorials; Publication; Research.

Resumen

En este artículo hemos intentado analizar aspectos centrales que hacen que sea tan difícil investigar y además transferir conocimiento y tecnología en España y en otros países, especialmente en los no angloparlantes. Se analizan los aspectos centrales del gasto de investigación y el papel de los gestores y mediadores en este gasto. La publicación termina haciendo una reflexión de la importancia de una relación adecuada entre las editoriales de libros y revistas y los autores; en particular incidiendo en el respeto que debe tenerse a la autoría de los trabajos valorando en su justa medida el reconocimiento del esfuerzo y valor del artículo. Debe ser algo que vaya más allá de la oportunidad de publicar en una buena revista con un elevado índice de impacto. Debe implicar el reconocimiento de la autoría mediante un justo pago a los autores en forma de pequeños emolumentos, que se realizaría en el momento que su publicación sea visitada e impresa por otros autores o instituciones.

PALABRAS CLAVE

Autores; Autoría; Coste de publicar; Editoriales; Investigación.

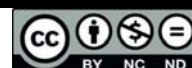


In this Joaquin Sorolla and Bastida's picture, entitled *And still they say that fish is expensive*, imagination flies to the bad-paid risk, to the superhuman effort, suggesting that quite often necessary things are poorly valued and recognized.

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Prologue:

Today, a message via the internet informing us that our work has definitely been accepted for publication in a credited journal ranking within the first decile of Food Science and Technology Area has finally reached us. I let out a shout which was even heard in Las Ventas.

It has been a long, expensive and somewhat painful “match”. Since the first version up to the fifth and indeed the last the content, and in a certain way the paper’s initial message has been changing a lot. New tables, a new figure, a shortened discussion, a statistical study that have no doubt focused work, have made it more sellable, but that has changed its original flash. In the meantime dozens of hours of work, consultations by statistic specialists, original ideas that remain canned for future publications, as well as native reviewers at extra expense have been employed to ensure the English version of the paper has been perfect. Now we expect to be cited and profusely consulted. Smiling, I remembered that paper published in the journal *Nutrición Hospitalaria* entitled *How to publish in New England Journal of Medicine and not die while trying it*¹.

We went immediately down to the school cafeteria; we ordered a coffee, juices and pastries to celebrate it, talked briefly about the issue and splashed on other things of the moment and the on-going research. The feeling was bittersweet. Sweet for having achieved it and a little bitter for having seemed to excite almost no one at that time. The idea of futility has seized me.

The cost of research:

The human being and also all of the plant and animal species that inhabit the planet base their existence on the ability to find the most effective solution in a changing environment; this certainly implies search, renovation or innovation and in many cases waiver. Specifically in animal Kingdom, these solutions depend on homeostatic balances and homeorretic adaptations². And if our acts require continuously those balances and adjustments, the disciplines where we are integrated also require them to make possible on the one hand, knowledge of them, and on the other the advancement and progression in the middle where they are located. Nowadays, any discipline demands innovation, change to environments that will increase its visibility, credibility and leadership, and this involves, in turn, acquiring capabilities and performs functions that in the field of research demands us to a) acquire knowledge; (b) be able to maintain it; and (c) be able to transfer it (**Figure 1**).

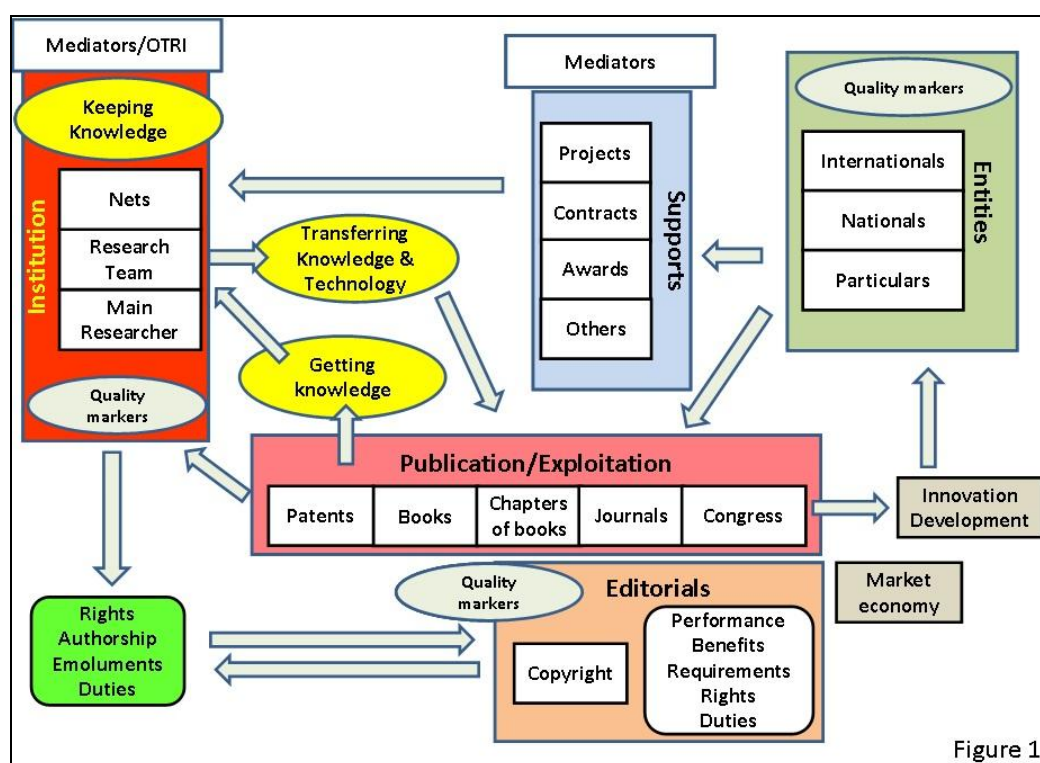


Figure 1. Multiple relationships between the supporting entities, research groups, publishers and entities that publish or exploit the means of expression of the researchers (articles, books, book chapters or even patents). Note, rights and duties of authors and publishers, where firstly, the authorship and the emoluments should prevail, and secondly their existence using benefits, performance and quality

Without any doubt, research and everything revolving around it, is a good example of discipline where, in the words of Sanchez Rom³, science, technology, society, economy, and globalization concur. This today world is moved by the threads of the economy, where productivity leads to profit. As an example some figures from a report drafted for the Battelle Technology Partnership Practice, stating that 796 billion USA \$ and the creation of 310,000 jobs have emerged from 3,8 billion USA \$ investment that the Human Genome Project demanded⁴.

Logically this which seems to be a *malabar art* or a magic game has needed much creativeness, much coordination, and much effort and of course, luck. In the words of Sacristan⁵ (*free translation*) *It needs to use human and financial resources in an efficient manner to achieve the research and to translate it into innovations that improve the society welfare*".

According to Molero Zayas⁶ the very important cuts produced in recent years have emphasized the lack of resources to undertake innovative projects. Joined to government economic retrenchment that supports competitive projects remains the difficulty of funding from industry through contracts that increasingly are more squalid and limited by economic hardship, also less frequent and almost always aimed at a concept of excellence that does not necessarily respond to the interest of the project or the research topic, but the legacy of opportunities that only will continue funding those who have achieved a practice, colloquium capacity and therefore greatly hinder the entrance of new excellent.

To the issue of economic cuts we must join the human one which involves enormous difficulties of incorporating new and young researchers at the pre- or post-doctoral level. In addition research demands to recruit personnel, what can be, at times, more than 60% of its total amount. Furthermore, sometimes the person to be contracted has no adequate qualifications, but due to *legal imperative* a researcher with preparation more in keeping with the theme cannot be incorporated into the research staff as hiring him/her would exceed by far the previous amount budgeted.

In fact the way of incorporating researchers through contracts or projects has also been reduced in recent years when the business support to the university r & d has dwindled significantly, producing a decline in r & d on behalf of the Universities⁷.

But to these human and media costs a third party has to be joined, without which there is no way to assess the research. This third "clipping", according to Molero Zayas⁵ in its analysis on University and innovation in Spain, is derived from the very high demand imposed by the transfer of technology on a large or maximum scale (Figure 1) that is already rarely free but means a significant additional cost. This transfer also has a growing number of intermediaries (Figure 1) as managers imposed by the University or the Autonomous Community, sociologists and economists that incorporate their knowledge into the market analysis, the exploitation possibilities, the costs of patents, etc. We also must not forget that in the transfer of information or technology, word of mouth or a letter communicating the discovery are not effective anymore. Therefore, it is necessary to take into account other considerable expense that we discuss below.

The "Direct expenditure" to publish and transfer technology:

After all this already commented, one should think it is difficult to investigate, produce, transmit, and transfer; however, then a new 'red line', a new deterrent comes -especially for new and modest researchers. The transfer means that the results are transferable, and therefore understandable, communicable and able to be received. In a recent article published in JONNPR⁸ the "handicap" which involves publishing in any language different from the English has been discussed. Today to be or not to be in research depends on to publish in English and in journals cited by the Journal Citation Report. Professor Grande Covian⁹ already said it, and we repeat it in our nutrition classes of the Pharmacy and Human Nutrition and Dietetics degree programs, that two equivalent studies on accessory components of nutrition (today known as vitamins) were treated very differently. Thus, the study performed by Pekelhering did not practically impact, while that of Hopking was awarded the Nobel Prize. The first study was published in Dutch, the second in English. Thus, the importance of publishing in the "official" scientific language is evident, and today this is English, and more specifically scientific American-English that even English-speakers have not mastered with the adequate scientific linguistic quality demanded by the Journals.

In this regard, journals even offer the authors a reasonable price for the service of their own editors and proof-readers to get a publication in perfect English. The supervision of work by specialists is today a widespread and flourishing business. In addition, Journals that do not request a fixed fee from the authors or a fee depending on the number of pages to be published are already extremely scarce. In the past two years a multitude of new on-line journals that invite you to publish requesting fees ranging generally from 500 to 2.000 € have flowered. There are even magazines that promise that if your publication has quality and it is widely consulted, they guarantee you the gratuitousness and maintenance of your publication on-line. It is true that the subsistence of the structure of a scientific journal is expensive. The editor-in-chief, the associate editors, statisticians, the layout, the guarantors of the copyright, lawyers, magazine connection to the advertising and transfer channels, all together demand more and more financial backing every day.

The safeguard or method of financing of the journals has focused on a) Government support, support of scientific, industrial entities; and (b) subscription for Government, Universities, research centres, industries, laboratories and even individuals (Figure 1). This last point in particular was widely amended in recent decades, where subscriptions as they were understood decades ago are much scarcer. It's worth it also to remind one of the existence, not long ago, in the library located into the Research or Teaching centres of paper publications such as Current contents or Chemical abstracts, where one could consult the summary of a given publication and that there were databases informing in which entity one could consult a specific Journal or to request a particular offprint. Today we cannot afford uncertainty of obtaining or not obtaining the required information. The new moves the "old" instantly and any delay is unforgivable. The dizziness of today's world requires a here and now already sustained by Huxley in his novel *Isla*¹⁰, which give you the ways of Internet access to electronic media who are in principle only virtual space, but which allows the required information immediately.

Immediacy also has another obligation involving cash - pay whose key is in how and who and this shows a difference between the old and the new system, primarily to individuals responsible for the publication of their data as they need from other publications in order to justify and discuss their own results and therefore to acquire knowledge and keep it

(Figure 1). This aspect sometimes implies pay amounts ranging between 75-100 USA \$ only to permit that the *paper* begins its evaluation. Others pay to access their own publication online via internet (30-60 USA \$) when free access to your publication have not been previously obtained through a 500-2000 USA \$ payment.

Having this context in mind we must not forget that due to the increase in the standard of living and imperatives of the market economy, publishers (books, magazines, etc.) if they want to survive and maintain a status of quality and excellence need institutional and other economic supports. Perhaps the safest position for the magazine is charging a "Canon" to those who want to use and benefit from the name, indexing, and excellence of the Journal. This pathway ensures a significant percentage of the financing costs of the magazine, but burden markedly to the Group and the research of this project, since 5-10 publications per project on average can reach figures of 10,000-20,000 €. To these amounts, the previous non-free multiple access to other online publications that will help to discuss obtained results (as already mentioned) have to be added, which implies, in many cases, amounts exceeding 10% on projects in national calls (e.g. of the Ministry). Equal or worse considerations arise from international projects where a Consortium is proudly powered by their relationships, but also by the number of researchers who form it and by the number and quality of its publications, and although the obtained lump-sum could be large, the corresponding aliquot part to a given task or group could be relatively small.

Rights and duties of the publishers and authors:

Two aspects still remain for discussion. The first is that publishing requires profitability in many cases. Magazines require original entity works, innovative, impressive, easy to read and in some cases meta-analysis studies. The last ones logically imply that a large part of the plural research planned in a three years coordinated or international project, should be published some years later. It is possible that this delay would be due to lack of coordination, management, overflow at all levels, involving delay, but research is not something trivial and requires verification and confirmation.

Unfortunately or fortunately some subjects, by novelty, call for prudence when it comes to being accepted for publication. Other papers fall into the hands of reviewers who don't believe the results they have to evaluate; they can even be opposed to those of reviewers have published months or days ago. It seems evident that publishing needs the ease of passage that involves using the media, means of communication for a mediator as excellent as possible, which is a known, famous and accredited magazine and certainly... be lucky.

The second aspect refers to the authorship of the work (Figure 1). To this respect there is something that remains lost, and forgotten today. The ease of passage to which we have referred, implies that the authors renounce not only his fee for the work done and finished, but also to their copyright, through predatory Journals' copyrights. It is true that these copyrights are in many cases a guarantee of the very Journal and the authors themselves, avoiding plagiarism and the nonsense of the scientific world which obliges publishing if you want to be recognized as a competitive and productive researcher. As already said by Santiago Ramón y Cajal (*free translation*) *No body ignores the value of one person that knows and acts, as compared to one who knows and falls asleep.*

And going back to the heading of this section, any work was always understood as work when you receive a remuneration, a salary that allows you to perform other activities, and to ultimately live and thrive. The non-paid work is not considered by many as such, but as social or spiritual work.

Barter unquestionably exists and has existed; but a team that is known and is able to receive money could do further research and publish it (Figure 1). But this is not incompatible with the fact of being paid for the work done. Recognition and fame are always desired and sometimes sought and many of us consider ourselves to be well-paid when our research reaches the honour of being accepted by a scientific journal placed in the first quartile ranking of journals in our field. But certainly something that would have to reward and motivate is the authorship and copyright of those professionals who *move* in the field of research; and that should be subject of respect or, at least, a topic of approach and discussion.

That is why, from this publication, we would like to arbitrate a possible solution that means no detriment to the Publisher (book or magazine), but which in turn respects the acknowledged and paid authorship to the author or authors of the work. That would mean, for example, that 10% is separate of the download full benefit of an online publication for authors. Thus, if the download online of a publication is € 50, € 45 would go to the journal and € 5 to the authors, in recognition that the content comes from work, effort, and research work of the authors, without which the magazine could not or would not have reason to exist.

Fernández Chavero¹¹ says in an online opinion article on the ethics of money that (*free translation*) *Money does not make happiness, but helps to get it. It is not easy to put yourself before the money because, even though you don't have happiness, its absence makes the normal development of life too difficult. Money is a tool of human coexistence and is good to the extent that it facilitates it. From a moral point of view, it has no value, it is neutral, not so the use that is made of it. Money is so powerful that it marks the sign of national and international relations, negotiations between employers and employees and it is impossible to escape. However, it is the tool that we have in our social relationships and we can learn to use it so that all can benefit us.*

Epilogue:

Research requires much vocation, professionalism, effort, coordination and money and what is more, appreciation, respect and protection of ideas. Without authorship there is no protection of ideas and without them there cannot also be research, although almost always one can settle for very little.

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Conflict of Interest:

Authors declare that non conflict of interest exist.

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