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## A business model for electronic books.

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### Abstract

This paper discusses the processes and actors involved in the business models emerging in digital document publishing to reflect on their implications to access academic publications.

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### 1. Introduction

The epistemic break in publishing, caused by the inclusion of Information and Communication Technologies (ICTs) through digital formats, has been very difficult to confront (Pochoda). Commercial publishers have tried to get used to the new situation by creating their own distribution channels, most of all establishing on-line stores. However, faced with the overwhelming presence of Amazon, some old bookstores with a longstanding tradition, like Barnes and Noble, have a tendency to disappear or reformulate their business model.

Academic publishing has had extreme responses. In one side there are those that pretend to continue as if nothing happened, favored in part because scientific communication processes are usually very rigid and strict. On the other hand, free access enthusiasts appeal to a kind of digital main square, where no closed processes, such as arbitration, are supposedly necessary because the community itself sanctions errors or incorrect actions. Another main argument is that research has already been defrayed with money from public or private philanthropic funding, however forgetting these supports favor research process and few times cover the costs associated with publishing.

The objective of this study is to propose a business model for academic e-books publishing, particularly for developing countries. The intention is that academic publishers may recover the benefits of editorial tradition reconciling them with those from digital publishing so high-quality products can still be accessible to the public.

The document has 3 sections: 1. Academic e-books publishing, this section outlines the context of the current need to reformulate the business model for academic e-books publishing. 2. Digital publishing business models, this part analyzes a business model from business administration and the processes required to carry it out in digital publishing. 3. A business model for academic digital publishing, this last section considers a business model proposal for academic e-books publishing.

## **2. Academic e-books publishing**

Academic publishing is a complex matter since it is developed in a paradox composed of conflicting tensions. An issue worth mentioning is that academic publishing involves commercial and non-commercial publishers. Commercial publishers focus in the market so they should have a clear business model, therefore, these will not be included in the study. On the other hand, non-commercial publishers will be studied because they usually do not use a business model. They were created to divulge documents and articles of external and internal Institution researchers, with no cost-benefit criteria on its performance.

Even though non-commercial academic publishers are ruled by non-profit criteria, they face several problems. For example, publishing research results confronts these publishers with a major dichotomy, there is no wide market due to the degree of specialization, however they are trying to handle it according to marketing parameters, as commercial publishers do.

Another issue to be considered is the need the Institution has to get research results known, at the same time seen as a waste due to its cost and the fact that many publications end up in storage. Also, contents of academic publications have an extremely reduced audience given their high degree of specialty and because researchers do not have in mind an extensive public but their academic peers when they prepare a paper. Time and infrastructure required in academic publishing can be greater than for commercial publishers, besides an editorial board, a body of referees is needed, and though honorary, they are in contact with the publisher to follow up articles evaluation.

The previous view applies to academic publishing in print, so with the development of new document formats many of these problems have been saved. Nevertheless, people should keep in mind that academic publishing involves several parameters to guarantee the quality of its publications, specially about scholar aspects, which provokes processes may not be as fast.

The main parameter is peer review, which guarantees the article or book meets quality requirements, such as having a theoretical framework, methodological rigor, critical support, and results consistency. Peer review can last at least 6 months, consequently, even if the publication is in a digital format, it would be impossible to have it ready in less than 8 months. This fact allowed some people to state it may be feasible to eliminate this type of barriers appealing to a sort of collective review, in which web users would grade the publication as positive or negative. This kind of digital agora is suggestive and may be useful for communication papers or research papers at a certain phase of their process, however, risks are many. Among them, plagiarism, since works would be unpublished and their exchange in the web can contemplate risky situations. Another risk is if preliminary results are taken as final.

In respect to peer review, Higher Education Institutions are one of the social spaces that formally rule scientific research. Therefore, their printed and digital publications must have academic rigor, guaranteeing that knowledge generated by researchers meets scientific requirements.

Production costs should be mentioned as well. Some people indicate that publishing an e-book is less expensive than a printed book, yet this statement is not completely true. In the case of an academic book, the same production cycle is followed, contents are evaluated, the accepted manuscript is sent to proof reading, layout, and test review. Once these stages are completed, copies are produced for their distribution and selling.

In fact, some stages have changed with the use of Information and Communication Technologies (ICTs), resulting in a production time decrease, outsource of some production phases, and modifications in the way publications are marketed and distributed. Other stages, however, are still the same. In any case, distribution is what becomes less expensive and is largely modified. Traditionally, publishers -specially commercial- established the number of issues according to the estimated demand. In the current scheme, the printing option upon demand is

possible, issues are produced as buyers ask for them. This production method has a lower financial risk, avoids storage costs, and reduces losses for returns and few sales. Also, it allows texts to be reprinted, makes corrections easier, tests the acceptance of a title, and reaches new markets in several countries sending publications by courier.

Considering the abovementioned, the development of digital information supports has created challenges and an epistemic break in publishing, particularly in academic publishing. These challenges can only be confronted with a clear business model approach allowing both supports to coexist: print and digital. The following section will establish the business model characterization that may face the turbulent technological changes.

### **3. Digital publishing business models**

Recently, due to the introduction of ICTs in the publishing process, many business models exist related to the publication support: print, digital, and hybrid. Another important element in the academic publishing business model is the area of knowledge in which the publication is created. This is relevant because digital publications in hard and applied sciences had an early surge and rapidly displaced printed formats, to the extent that nowadays most of these publications became digital. Except for Economy, which has always had monographs or books as its privileged means of publication, social and human sciences continue to use printing as their most common publishing format, yet gradually electronic publications start to appear more in some areas.

There is a notable difference between journal and monograph publishers. Journal publishers guarantee the their production sale with the libraries at least once a year, whereas book publishers depend in their monthly sales income, i.e., they depend on a constant marketing for profits. Also, monograph publishers have to face intermediaries who take the books to the points of sale. On the other hand, journal publishers tend to deal directly with the consumers.

Despite of the less than favorable scenario for the academic book, currently 90% of the university press production is still printed monographs. Their argument is that the e-book market is not viable yet, so only 10% of production results in e-books (Lorimer). This small production is due to the fact that readers are not used to buy digital books, most times they just use a small part of the contents. In this sense, Amazon and Google books became favorites for consulting e-books contents, therefore, some publishers think a good alternative may be to implement a sales model where chapters or parts of chapters are offered.

According to Johnson, a business model consists of four interlocking elements, with the value proposition being the key element as described below:

a) Customer value proposition: this is the central idea of business, particularly it differentiates from the competition making customer value evident. For academic publishing, the main value offered to the customer is the quality of the publication contents, guaranteed by strict refereeing processes certified by independent organisms, such as index companies or reviewers.

b) Profit formula: here the company defines how it will create value to offer value to the customer. It consists of the following: revenue model, cost structure, margin model, and resource velocity. Academic publishers such as Oxford Press, Harvard Press, The MIT Press, etc. owe their success to a clear profit formula. Some academic publishers, specially in underdeveloped countries, have not been able to develop a profit formula because their publications have centered in divulging. The introduction of ICTs in publishing processes as well as a lower public subsidy create an opportunity for these publishers, they may reformulate their activity and establish a profit formula that guarantees their sustainability through the elimination of storage inventories and an adequate distribution in libraries. Digital formats do not reduce the costs as thought, since the only process to be eliminated is printing of issues. Consequently, the profit formula of digital publications needs to be focused towards the offering of products that take advantage of multimedia resources, such as subscriptions. Also, readers will have the opportunity to contact the authors.

c) Key resources: the focus here is on the key elements that create value for the customer and the company, and the way those elements interact. Key resources consist of the people, technology, products, facilities, equipment, channels, and brand. In digital publishing, key resources are the authors, editors, reviewers, sale persons, computer equipment, edition software, institutional websites through which publications may be known and sold, and the

brand in this case is the institution prestige in particular knowledge areas, in this sense authors are a brand too because of their influence.

Many publishers of this type feel they face a dilemma: either they deal with the demands of their traditional business as well as electronic publications, or they create a new organization to be in charge of digital products and services. Staff structure should be reconsidered in university publishers to confront this dilemma. University publishers must be seen as an organization that takes advantage of the opportunities given by the digital media, working with the authors in the establishment of new ways to work. In this respect, Wittenberg proposes the establishment of a group inside the company, focused exclusively in the development of academic communication models using technological tools and strategic alliances. She indicates that working this way, the university press will become a market niche to create alternatives in electronic publishing, by fields of knowledge.

d) Key processes: these are operational and managerial processes that allow the generation of value in a successful and replicable way. Among key processes are training, development, manufacturing, budgeting, planning, sales, and service. This element has been deeply studied by several authors. Since the European Commission report is one of the most comprehensive, it is presented here highlighting publishing processes.

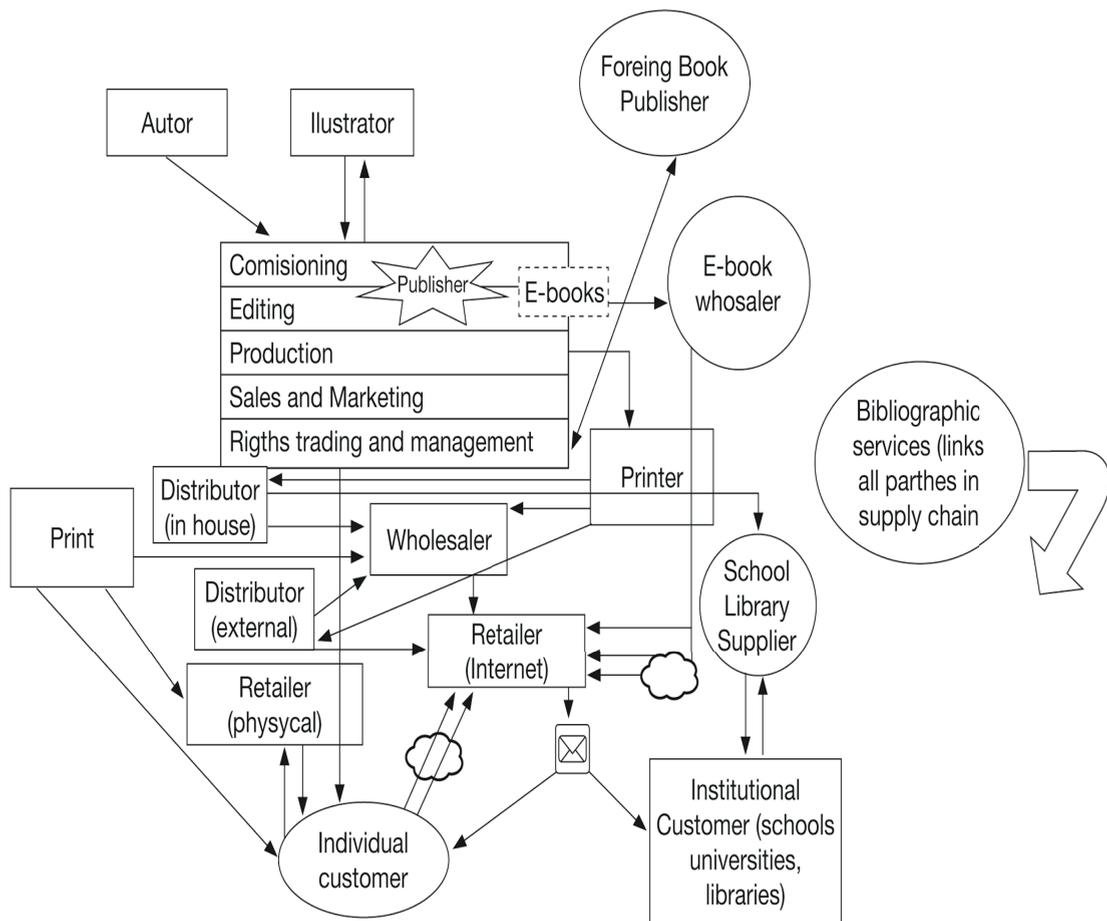


Fig. 1 E-book publishing processes. Elaborated by the authors based on the European Commission report.

In the next section the business model that academic publishers should follow will be presented, since they face the epistemic break provoked by digital publishing surge.

### 3. A business model for academic digital publishing

In the literature reviewed, the document with a typology of business models for publishing is the report prepared for the Joint Information Systems Committee published on 2009 (Houghton). These models are within the context of research communication evolution. The types of models are:

- a) Subscription, this model is typical of prints, considering document availability it has been present in pay-per-view plans.
- b) Hybrid/transition: a mix of business models with 2 alternatives, access is opened after a period of time of the document being published and access is opened according to the author's decision.
- c) Open access: this has two kinds, on one hand there are open access journals and on the other hand there are open access files obtained through databases. In this case, several services overlap: overlapping publications, peer review services, index and summaries, quality control evaluation, a new file analysis, new metrics evaluation, warning services, etc.

The authors consider that the future trend for academic publications will be open access. However, it is questionable that the supposedly original services proposed by the business models would be present only in open systems. Therefore, the reality is that maybe a business model might not be that useful for academic publishers, since what they need is an academic publishing evolution.

The authors belief, based on Johnson's theory, that the business model for digital publishing requires the following elements:

- Customer value proposition, in which the target customer must be very clear. There are three types of target customers: highly specialized researchers, bachelor and postgraduate professors and students. Another issue to have in mind is the job to be done to solve a problem or fulfill a customer's need, in this particular case, customers must be provided with quality knowledge that has undergone a strict refereeing process. The last subject to be considered is that supply is not only what is sold, but also the way it is sold. The means to make the publication attractive for potential customers are important as well as to make sure distribution channels are those closer to the market.
- Profit formula, which considers four aspects. The first aspect is the revenue model, in which the amount of issues to be produced should be very clear according to the size of the market. This will allow to concentrate efforts, specially because the highly specialized knowledge of several academic publications prevents a huge volume production or a wide circulation. Besides, a point worth mentioning is that many publications become obsolete very quickly, while others have a longer validity. This equilibrium allows to have significant documents available for the customer, but at the same time, discard the materials that no longer have interest. The second aspect is cost structure, in which both, direct and indirect costs should be kept in mind. When numbers are done it is possible to observe that the digital format only makes printing process cheaper since it is eliminated, but all other processes and supplies are necessary, such as review, editing, document formatting, etc. The third aspect is the margin model, which emphasizes the scope of producer's gain. It must be stressed that the profits of an academic publisher are not only direct economic gains, but also the recognition of its researchers, which may be reflected in the number of times a digital document is downloaded or its citations in indexes. The fourth aspect is resource velocity, which refers to how quickly supplies are available for an item production or service. In this case, a supplier and freelance directory is a must so document publishing can be quick.
- Key resources, in digital publishing key resources are authors, editors, reviewers, sale persons, computer equipment, edition software, institutional websites through which publications may be known and sold, and the

brand in this case is the institution prestige in particular knowledge areas, in this sense authors are a brand too because of their influence.

- Key processes are classified in three aspects. The first are the processes, design, product development, resources, manufacturing, marketing, enrolling, training, and information technology, which were detailed in Figure 1. The second are the rules and metrics, which are the requirements for investment margins or support funds for research, the period of time to apply resources and suppliers' terms. The third are the norms, in this case, they refer to the compliance of publisher norms from an academic publication, such as having an editorial board, a body of referees, seek to be in high-impact indexes, etc.

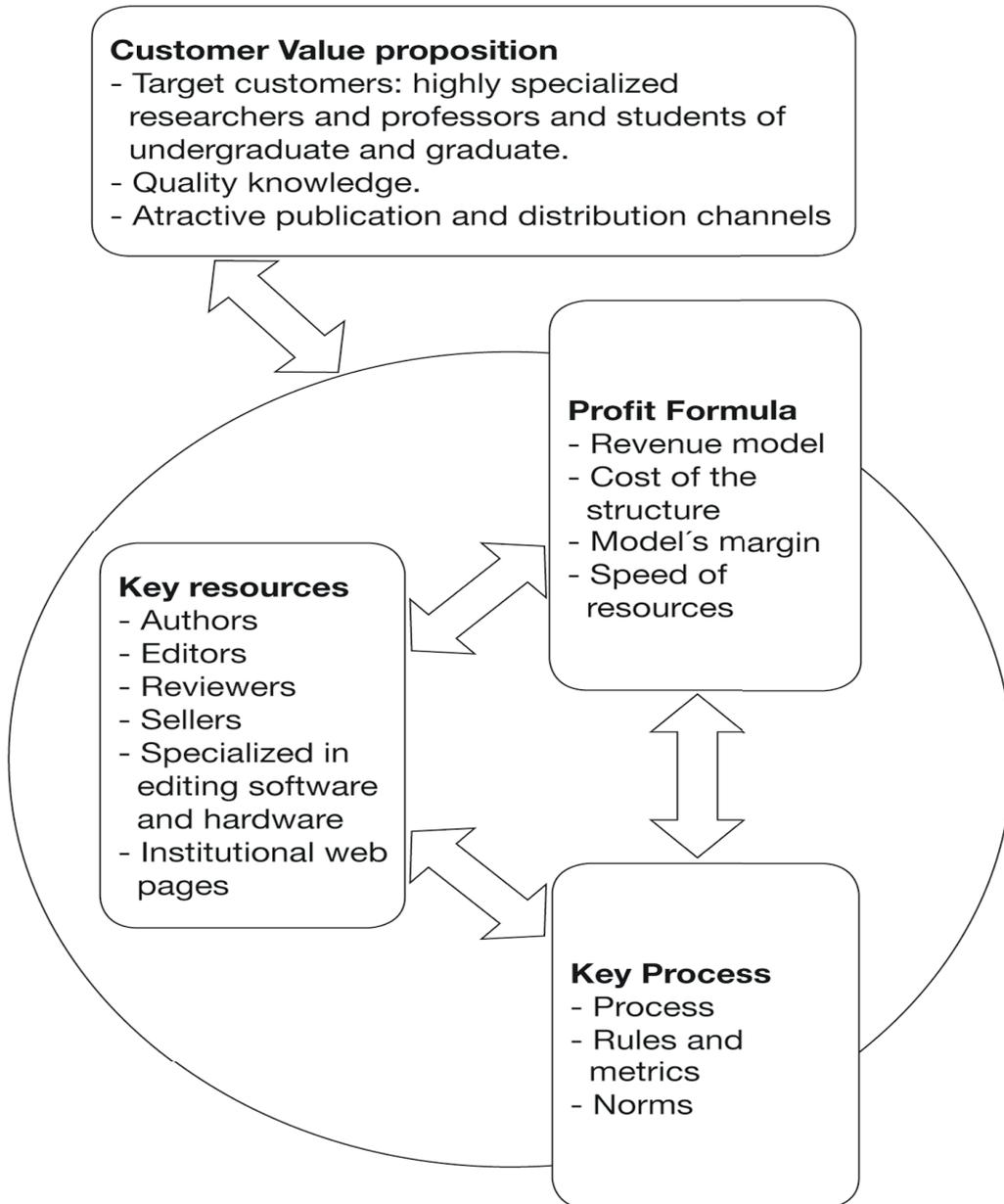


Fig. 2 Business model. Own elaboration based on Johnson

#### 4. Conclusions

In the development of this document, the need to transform several operative processes in publishing and particularly its business model has been emphasized. It is indisputable that the incorporation of new alternative formats to printing in scientific communication is a complex matter to be solved in a short term. However, the authors want to reflect in this document the certainty of the possibility to reconcile the tradition of academic publishing to guarantee the quality of its publications, with the flexibility and divulging speed offered by ICTs.

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