

Teachers, Printers or Publishers? Relationships Between Academic Publishing Business Models and Academic Communities – Implications for Digital Printing

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Abstract

Education has always been one of the principal consumers of print media. Digital printing is increasingly being used at publishing units of higher education institutes around Europe and in USA. In this respect, academic publishing appears as a potential stakeholder for the application of digital printing technologies. Additionally, it seems that a new business model is formed, based mainly on positive acceptance of digital printing by University authorities.

An area not yet widely investigated is the specific characteristics of academic publishing using digital printing and the relationships and interactions with the end-users of the academic communities.

This paper discusses the various factors that affect the successful application, proper operation and integration of digital printing systems in the academic publishing business models such as the degree of awareness in academic communities of the possibilities for efficient support of education and research offered by digital printing. Finally the formation of a business model for the application of digital printing within academic communities is discussed.

Methodology

The research methodology used was based both on literature study as well as on interviews and questionnaires in the academic communities. Literature used concerned research and analyses from the industry for digital printing, the status and the future of academic publications.

The objective of the study conducted with the aid of the questionnaires is to explore the extend of the application of digital printing technology in the academic field and in particular, the contribution of this new printing technology in efficient support of education and research processes. For this purpose, three types of questionnaires have been developed.

The first questionnaire has been directed to academic publishing authorities regarding the application of digital printing at universities. In this extend,

university authorities have been asked to provide information whether a publishing unit or activity/process exists, and if they employ any type of printing. In addition, university authorities were asked to express their opinion on how important and useful they consider digital printing is, in supporting the education process and research in the university/institute.

The other two questionnaires were directed to students and teachers/researchers. Questions were focused in investigating whether the innovative characteristics of digital printing concern teachers, students and researchers as it regards the efficient support of the educational process and research. These questions were related with the parallel development of the on line support of the education and research process.

The results of the survey were analysed and combined with the findings of the research from literature in order to obtain final conclusions.

Specific Characteristics of Education Material in the Academic Communities

The specific characteristics of academic publishing are different from the traditional publishing processes. Although the paperless office stays as an utopia, there is an increasing demand of publications either in electronic or printed form, which can be found on the Internet.¹ These characteristics are mainly the requirements of fast upgrading the education and research content, and the small amounts of printed matters required for supporting the education process.²

In addition, the academic field is one of the most advanced one in web-based applications, with intranets and fast bandwidth and where digital content management and database printing can be effectively applied.^{3,4,5}

Digital Printing Innovative Characteristics

Digital printing has become established in the market with an added value based on certain advantages and characteristics that are important for a rapidly changing environment in print media. Some of these characteristics are, short-run printing, Printing on demand (PoD), fast delivery and personalization.⁶

In some cases, digital printing can act as an agent of structural change in organization and management. This behavior can be found in enterprises where digital printing is seen as a complement offering customers new possibilities, rather than an alternative to lithographic printing.^{7,8}

Results

Research in literature revealed that digital printing is expanding mainly in new fields and applications. This happens because new demands arising from technological and other developments are facilitated by the innovative characteristics offered by digital printing. In addition, in the academic communities, there is an increasing trend in web-based education and research. The content used for education and research can be accessed more easily on the Internet and as such it requires output in printed form as well. This is an additional reason requiring the facilitation of printing needs with low-volume, continuous upgrade and short run. This operation environment matches quite well with digital printing.

Responses from the questionnaires from university authorities and publishing units revealed that they are quite positive in developing alternative systems in supporting printing with new characteristics in parallel with traditional printing of high volumes of printing. They see that the total volume of education material to be printed can be facilitated both internally and externally, regarding the print volume and type. In addition, the vast majority of academic publishing units, administration and university authorities see the necessity for a new way of management of the educational material. Digital printing seems to be the proper technology in facilitating printed educational material.

Teachers and students are enthusiastic about the fact that they can prepare and receive printed updated copies of educational material. However they want to see it working in the real daily life. Especially teachers are worried about the possible difficulties that might be caused when they will be asked to enter a new digital environment in processing and submitting educational content for publishing.

Discussion - Conclusions

Establishments of digital printing are increasingly taking place at educational and academic organizations. This development can be regarded as a proper matching of digital printing and its innovative technical possibilities with the specific requirements for printing services required by the academic communities. However it seems that a new business model needs to be formed. The basic characteristics of this model can be the adaptation of the specific requirements of teachers and researchers regarding their printing needs in a convenient way.

In addition, the business model in discussion must face the traditional perception of people of the academic community regarding publishing and must foresee the reactions by the application of a system operating with

digital printing. The innovative digital printing characteristics should be explained thoroughly in order to gain the acceptance of the academic community.

The involvement of the academic community and in particular the publishing units must be intensive, mainly in content management, including library, teachers, the education process and combine all forms of learning (classroom, distance and web-based).

Conclusions

The research conducted resulted in the necessity for restructuring the relationships regarding academic publishing in the academic community. A structured involvement of administration, teaching and research personnel is regarded as significant. In addition, all relationships with external parties need to be reconsidered.

Digital printing is the proper technology to be installed and operate in universities for efficient support of the education process, the teacher, the students and research.

Further Research

It is necessary for more in-depth research in determining further the characteristics of the proper suitable business model for academic publishing with the application of digital printing. In addition it is required that the academic staff must be more educated and be more accustomed to digital printing, mainly in understanding what digital printing does and how the business model should be developed.

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