

Publishing Beyond Print

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ABSTRACT: *With the advent of Information and Communication Technologies, the trend in collecting, acquiring, storing, retrieving and disseminating materials and documents has changed. E-Publishing has gained momentum in the present era. It has become the ideal form for disseminating the latest research findings and results. It is basically a form of publishing in which books, journals, and other materials are being produced and stored electronically rather than in print. E-Publishing includes the digital publication of e-books, electronic articles and the development of digital libraries and catalogues. This paper provides recent e-publishing trends and overview of e-publishing in India.*

Keywords: E-publishing, Print Scenario, Mass Media, E-book, Magazine, Web Publishing

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1. Introduction

Technology enables a major restructuring of the process of publishing and distributing paper documents. In the traditional process, the design is primarily made for high volume and high quality documents. This process has inefficiencies, like infrequent long print run requires storing documents which become obsolete between runs and the 60% of the total cost requires for delivering thesis documents spend on storage & transportation. All the obstacles like long delay, limited circulation, quality, expenditure on printing and postage etc are disappeared by producing document through e-publishing. In e-Publishing, the documents are stored electronically, shipped over a network, and printed as and when they are needed and the major benefits result from reducing obsolescence, eliminating warehouse costs Managing & reducing or eliminating delivery time. It has improved the publishing process. The biggest advantage is that correction can be done each and every stage of making revised e-book. A standards based e-publishing system has been implemented and is being used for e-publishing of ICAR publications.

India's book market is the sixth largest in the world and second among the English language ones. The statistics cited earlier came from an India Book Market Report, by Nielsen, with the Association of Publishers in India and the Federation of Indian Publishers. It values the print book market in India, including imports, at Rs 26,000 crores. Its compounded annual growth was 20.4 per cent between 2011–12 and 2014–15. Some noteworthy mergers and acquisitions have taken place in recent years. There are 9,000 publishers, over 21,000 retailers and 22 official languages, and if you include regional dialects, the total is 1,600. Literacy in India is rising rapidly, from 65 per cent in 2001 to 74 per cent in 2011, and it is predicted to reach 90 per cent in 2020. However, the Indian book publishing sector gets no direct investment from government, "a serious roadblock", the report says. Other challenges include the fragmented nature of publishing and bookselling, a tortuous distribution system, long credit cycles that make it difficult to manage cash flows, and increases in direct costs.

According to a 2014 survey from the Chinese Academy of Press and Publication, 58.1 per cent of China's reading population read digitally, an eight per cent increase from 2013, and higher than the paper reading population for the first time. Digital revenue is between three and four per cent of the total, at considerable seeming variance with the Nielsen survey numbers. Consumer data survey shows, on average, people read books 2.1 times a week, while nearly two-thirds read a book occasionally. Interestingly, 56 per cent of the respondents bought at least one e-book a year and nearly half of these bought at least three or four, indicating a growing demand here. Fifty-five per cent of trade sales are of books in English. Books in Hindi are 35 per cent of Indian language sales but the largest share of these is taken by others, despite what the report identifies as a highly disorganized local publishing sector.

2. Print Scenario

Topical surveys on the significance and use of print media prove that the need for printed publication is growing worldwide. This is indicated by the fact that at the end of the millennium Time Magazine acknowledged the socio-cultural significance of the invention and utilization of book printing and elected Johannes Gutenberg's work as the most crucial event of the millennium. The print media include all newspapers, newsletters, booklets, pamphlets, magazines, and other printed publications, especially those that sell advertising space as a means of raising revenue. Commercial printing refers to print products that are produced occasionally (e.g., catalogues, brochures, leaflets, business cards, etc.). Periodicals are printed matter that appears periodically (e.g., newspapers, journals, magazines). Publishing houses and companies are the typical clients for periodicals printing. There are number of journals, magazines, periodicals, bulletins, newspapers are being published in India in a dispersed manner by the government as well many private publishers and agencies.

3. Trends and Scenarios of print for the Future

As far as printed matter worldwide is concerned, packaging and label printing shows strong growth while the other product segments such as advertising and commercial printing, newspapers, catalogues, magazines, and books show a moderate increase. There is an enormous variation in growth between individual regions or countries. Hence the greatest future growth rates are expected in India whereas the highly developed economies will show only slight increases. The printing industry as a whole has generally been undergoing enormous structural and technological change for several years. Apart from the changes affecting the traditional printing sector, the integration of new media (e.g., CD-ROMs, online services) into existing product offers represents the greatest challenge to the graphic arts industry in the years to come.

4. Changes in the Traditional Printing Sector

The trend towards the one-man press as a result of increasing automation of all the steps in the process of a printing house will create an enormous potential for innovation in the field of machinery and equipment but also in processing in the coming years. The best example of this is in the area of prepress, where technological developments mean that the average expected product life cycle of the equipment is only eighteen months. Printing processes are being increasingly controlled and adjusted electronically, which leads to consistent high quality and greater productivity. Digital workflow also means that productions are completed more rapidly. Hence more than half of the orders for commercial printers arrive in digital form. This is the only way of shortening delivery times for print products and meeting the high customer demand for quality.

The information and communication sector is expected to provide a positive impulse for the whole printing industry. Recently, electronic publishing has revolutionized the world of prepress. The use of computer to film, computer to plate and computer to press systems is already widespread and is undergoing continuous growth. In order to achieve a smooth flow of digital data

from prepress via press to post press, the integration, networking and digitalization of all processing steps is essential.

5. Integration of New Media

Beside the classical areas of activity - the production of print media - other services are becoming more important. Hence the design of print media, the creation of multimedia products (CD-ROMs, Internet sites, print media in combination with electronic media, etc.), consulting services, and individual training are being requested more and more by the printing and publishing industry. The increasing power of electronic media (especially CD-ROM, Internet) will increase competitive pressure on the print media and partially replace print products while at the same time creating new print jobs. Despite strong growth in electronic media, the market for print media remains large and attractive since a high proportion of the ever-growing advertising expenditure flows into print media, and the demand for print and electronic media especially worldwide is increasing. As the Internet continues to grow, the sale of goods and services via data networks is increasingly regarded as a new method of generating sales by many businesses. The customer is able to choose from an almost unlimited range of goods 24 hours a day. All that is needed is a PC, which the customer uses to connect via modem to the net. There are large global differences as far as online connections but also use of the Internet is concerned. At the turn of the millennium Internet users are creating great problems for advertising agencies. In about 80% of cases they are male, around thirty years old, educated, and have a passion for computers. Sixty percent of all users visit fewer than ten web sites per month. Hence it is impossible for advertising agencies to reach a particularly differentiated target group, in contrast to the possibility of targeted advertising messages in individual print media. Whether and at what rate the Internet is exploited depends to a considerable extent on the acceptance of the new technologies by a broad population base.

6. The Evolution of Electronic Publishing

The scope of the term electronic publishing can be interpreted in many different ways. For example, it could be considered to include all forms of electronic aids to authors, from simple word processing capabilities to actual typesetting and/or mark-up tools, as well as networking support to collaborative authorship and electronic communication among authors, editors, referees, and other participants in the publishing process.

Since publishing implies production and distribution, however, the term refers most obviously to the generation of publications in electronic form or, at least, with the aid of electronics. In this more restricted sense, electronic publishing can be considered to have evolved gradually over a period of about thirty years, the evolution having the following manifestations:

1. Use of computers to generate conventional print-on-paper publications. This development can be traced back to the early 1960s. The use of electronics to print on paper is not a completely pedestrian application since it allows new capabilities such as printing on demand and even the production of customized publications tailored to individual needs.
2. The distribution of text in electronic form, where the electronic version is the exact equivalent of a paper version and may have been used to generate the paper version. For secondary publications (indexing and abstracting services), electronic distribution began early in the 1960s. For primary journals, the development occurred somewhat later.
3. Distribution in electronic form only but with the publication being little more than print on paper displayed electronically. Nevertheless, it may have various "value added" features, including search, data manipulation and alerting capabilities.
4. The generation of completely new publications that exploits the true capabilities of electronics (e.g., hypertext and hypermedia, electronic analog models, motion, sound).

7. e-Publishing Advantages

- Long delay in research paper publication: Due to heavy dependence on manual processes and postal communication for article submission and reviewing.
- Limited circulation and access: Due to printing cost considerations and limited marketing, the research journals had limited circulation.
- Problem of attracting good quality research for publication, Authors prefer to publish their research in journals that provide

them fast and professional peer review, wide distribution and online status.

- Due to higher postage costs, very few international authors working in frontier areas of agriculture and allied research used to submit their work in ICAR's Journal.
- Research article reviewing could be done only nationally due to high cost and time constraints.
- Difficult to keep track of process of article.

Strategy for e-Publishing

There is usually a delay of several months after an article is written before it is published in a paper journal and this makes journals not an ideal format for disseminating the latest research. However, scientific journals still provide an important role in quality control, archiving papers, and establishing scientific credit. In general, the electronic material uploaded to preprint database are still intended for eventual publication in a peer-reviewed journal.

Electronic Publishing is also known as:

- Online publishing
- e-Publishing
- Web Publishing

While the term Electronic Publishing is primarily used today to refer to the current offerings of online and web-based publishers, the term has a history of being used to describe the development of new forms of production, distribution, and user interaction in regard to computer-based production of text and other interactive media. New findings reveal that e-book sales are falling while sales of paper books are growing – and the shift is being driven by younger generations. While sales through shops increased 7% in 2016, e-book sales declined by 4%. It is the second year in a row that e-book sales have fallen, and only the second time that annual e-book sales have done so since industry bodies began monitoring sales a decade ago.

In 2015, the Publishers Association found that digital content sales, while physical book sales has increased. The shift was attributed to the explosion in adult colouring books, as well as a year of high-profile fiction releases. Readers take a pleasure in a physical book that does not translate well on to digital.

Nielsen's survey of 2016 attributed the increase in print sales to children's fiction and to younger generations preferring physical books to e-readers. A 2013 survey by the youth research agency Voxburner found that 62% of 16- to 24-year-olds preferred print books to e-books. The most popular reason is that one would always like to possess the printed book. Nielsen found that 50% of all fiction sales were in e-book format, only 4% of children's fiction was digital.

Young people were using books as a break from their devices or social media. Books are a respite, particularly for young people who are now busy digitally. Over the last few years, we have seen a return towards print version. As per the Nielsen survey, the mobile phones and tablets overtook e-readers as the most common device used to read ebooks, with readers favouring multifunctional devices over dedicated e-reader brands.

Reasons to adopt electronic publishing?

- Possible extra revenues
- Global visibility of research knowledge and technologies
- Quality improvements of article and authors
- Enhancement of readership and subscriber
- Efficiency gains
- Keeping up with market trends
- Green publishing

What will it require?

- Knowing the needs and demands of different stakeholders
 - Authors
 - Editors
 - Librarians
 - Readers
- Awareness of the various technology issues and alternatives.
- Continual investment as technology develops.
- Training of staff, and staff recruitment, to meet the demands of new systems.
- Increased co-operation with publishers and other partners.

It is worth noting that whilst authors can be considered as content suppliers, they should be more accurately viewed as customers. With the exception of the very top journals, authors will go elsewhere to publish if they don't receive the service they demand.

8. Paper versus Electronic Publishing

This table is a clear contrast between paper publishing and electronic publishing.

Paper publishing	Electronic publishing
Slow, post-based communications	Rapid e-mail and web-based communications
Large paper filing systems	Compact electronic filing systems
Hard to record and analyze journal information	Easy to record and analyze journal information
Editing on paper	Editing on screen
Typesetters re-key data	Typesetters use authors original data
Hard to retain control to re-use data	Easy to retain control to re-use data
Printers required	No warehousing required
High direct mailing costs	No direct mailing costs
Papers published together in issues	Papers published individually when ready according to predetermined schedules
Readers 'notice' a new issue has arrived	Readers alerted to new papers
One reader a time at an institution	Many readers at a time in an institution
Need to search out citations	Direct linking to citations
Poor data on usage	Rich data on usage
Permanent	Impermanent
Payment by subscription only	Payment by subscription, licensing, pay per view
Hard for third party to disseminate data	Easy for third party to disseminate data

9. Issues to consider for e-publishing

9.1 Selecting Technology Partners

In the earlier cases, the publisher has one less barrier between itself and its customers, it retains full control and is protected from

the collapse of a third party; but the investment, both at the outset and in upgrading, is high. The second option means a loss of control but requires less initial investment and upgrading is provided by the service provider.

9.2 Techno-savvy Staff

Traditional paper publishing requires a high degree of administration. Total electronic publication automates many of these administrative duties allowing staff to concentrate on more complex, less routine duties. Even simple electronic alternatives can reduce the need for clerical support as there is no need to hand write a letter for it to be retyped; automated e-mail lessens clerical requirements.

Staff will need to be trained and operations reviewed to allow for the new electronic systems and workflows. Staff will generally need to be more highly skilled and flexible, though staff costs overall will not be significantly reduced.

9.3 Professional Content Suppliers

Authors are generally keen on electronic publishing as it allows for speedier publication and use of their discs means less proof reading. It is possible to use highly developed manuscript tracking systems that automate all of the tasks involved in submitting and reviewing papers, e.g. acknowledging new papers, chasing referees, chasing papers being revised, monitoring the effectiveness of referees and content of the journal. These systems can remove the 'black box' element of traditional publishing whereby authors never know where a paper is after they've submitted it other than by ringing up administrative staff. They give authors a better sense of control and free up staff time for more complex duties. The downside is the high cost of purchase, implementation and use.

Middle solutions are possible that are less costly but less efficient. These tend to use e-mail as the basis of communications but still have a significant human need for administration. The 'black box' remains.

9.4 Production

On screen editing from author's discs allows the publisher to retain more control of the data. Copy editors can tag with XML or SGML as they edit to allow the data to be published directly to the electronic medium. There is no need for typesetters or printers. Proof reading costs can be reduced.

Even if paper journals remain, editing on screen allows the editor to apply XML/SGML not the typesetter (or to edit XML tagged copy from typesetters). This enables the publisher to retain a high degree of data control. XML/SGML mark up also allows for easier re-use (re-purposing) of the data for other products and for retrieval by search engines. Publication can be in PDF or HTML. The former is essentially identical to a printed page, is easy to read and print off, but has little added value. The latter is more interactive, and allows for better citation linking; but it is more expensive to produce and less easy to read when printed off.

9.5 Purchasers

Journals produced and disseminated electronically can be sold by traditional subscription models. But as one copy can be read by many people, publishers may want to consider licensing use according to the number of potential users. An alternative might be to permit pay-per-view access whereby readers pay for only what they use (there might be different rates for read-only or for read and print). A mixture of all these revenue streams could be developed to allow for different requirements of purchasers.

Note that a move away from subscription models, especially towards pay-per-view methods, would mean less up-front cash for the publisher and so make cash flow harder to control.

The method of access is also important. IP access is more secure but requires that a librarian register the range of IP addresses with the publisher. This limits access by researchers working at home or abroad whose PC is out of the IP range. Passwords enable access anywhere in the world but are less secure; and not many people want to remember all the passwords from different publishers.

Purchasers also receive electronic journals on the day of publication rather than on the day of arrival after postage. They will no longer need to worry about non-delivery, and publishers will be saved the cost of repeat postage for fulfillment of non-delivered issues.

9.6 Readers

In a paper environment, readers have to visit the library to see if a new issue of a journal has arrived and if it is available. For electronic journals, readers can be alerted of a new issue and access it immediately from their desktop. They can also select what articles they want to be alerted to according to their interests. Search engines allow them to search a publisher's offerings for papers of interest.

9.7 Marketing

Librarians can more easily monitor electronic journal usage. It is therefore important that marketing strategy is developed to encourage usage of your journal. This means attracting good authors and alerting readers to content that will interest them.

Electronic communications allow the development of targeted marketing to both readers and authors. Electronic Tables of Contents alert readers to new issues (or in a single article model, to just-published papers that interested them). Authors can be quickly and easily informed that their latest article is now published online. Authors in other publishers' journals can be easily informed by mail of the advantages with publishing with you.

Early internet marketing has tended to give away material for free until a critical mass of users has accrued. At this point, producers have tried to charge for material. The success of this strategy has generally been mixed and a downside has been an assumption that everything on the internet is free.

9.8 Operations

All operations inevitably have to become customer focused: production departments must streamline operations to provide rapid production from the receipt of a manuscript; publishing departments must work with editors to streamline the peer review process to ensure decisions are made more quickly; IT departments must develop user-friendly software that stores data for easy analysis but which fits in with internal and external operational requirements.

The functional approach, whereby papers were passed from one department to another with as little communication as possible, will not work in an electronic environment.

10. Conclusion

Technology and mobility have influenced every step of consumer's life, including the way they read books. Book readers have started to change their reading habits, opting for different types of formats of books, such as e-books. An e-book, also known as an electronic or digital book, is a digitally released version of a book, often consisting of text and images and available on electronic devices, such as specifically designed e-book readers. This shift in media consumption habits has a direct impact in the book industry. The e-book industry is here to stay, showing healthy projections. By 2018, e-book sales are forecast to account for about a quarter of global book sales. As with all strategic developments, moving to electronic publishing requires making choices together with a firm aim of where the organization is going and why. Developing an electronic publishing strategy requires a root and branch review of all operations in all functions. It is essential to be aware of what your suppliers and purchasers want, and what you have the resources to provide. In all but the wealthiest of publishers a mixed paper-electronic economy will develop (and on publisher yet has stopped printing journals); but even for a mixed approach, operations should be reviewed to ensure all areas are acting in concert to meet the customer's needs and the organization's aims.

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