



> Emerging trends in Education Publishing

Education is a vital part of any society. Formal institutions of education are among the largest consumers of published materials. Without them book publishing would be a very different business. Even in a Web 2.0 world, most educational institutions still find printed publications to be essential to the process of learning. The combined print publishing market for the education industry is in the range of \$12-14 billion per year in the U.S. Education publishing companies are in the process of experimenting with implementing new forms (e.g., electronic) of published material in their practices.

Today, technology is increasingly becoming a means for empowering students, and is a method for communication. The digital divide, once seen as a factor of wealth, is now seen as a factor of education: those who have the opportunity to learn technology skills are in a better position to obtain and make use of technology than those who do not. Next-generation publishers will see much less distinction between print and digital.

Innovation and creativity are becoming paramount. There is also an increased interest in just-in-time, alternate, or non-formal avenues of education, such as online learning, mentoring, and independent study. Time to market is crucial: By leveraging technology to create materials. Products can be delivered by parallel development processes, which in turn shrink lifecycles from two to three years to six months. Agility in product development is the way ahead.

Emerging trends in Education Publishing Space

The coming year promises to be one of significant change for educational technology and e-content within the education publishing market. The education publishing space will witness an irreversible shift toward “container-less” education on several fronts, and by year’s end, there will be noticeable changes in the way e-content is created and distributed. With this broad perspective as a backdrop, here are the expected trends for 2010.

Current Crisis

Nevertheless, it is a closed market, one that is very susceptible to political and socio-economic forces, as well as lower profit margins (due to the need for inexpensive educational books for students and schools). At the moment, the biggest issues faced by education publishing companies are -

- High cost of text books Vs low-cost interactive Web-based curriculum
- Industry concentration
- Enhanced offerings -- due to the advancement of technology in education (usage of personal devices, products designed to accompany textbooks, CD-ROMs and other instructional supplements)
- Labor-heavy practices in the industry.

Lack of overall school funding is a major issue faced by this industry. IT departments in the K-12 sector are facing shrinking budgets and are looking to simplify security without sacrificing control, while making full use of existing infrastructure. At the same time, Internet-based risks are increasing and students continue to use the Web as their preferred form of communication.

Schools need comprehensive, easy-to-manage solutions that enable IT staff to focus on one primary objective: providing a safe and available network for learning.

Industry Driven

- **Increase in Non-traditional Commercial Publishing Companies:** Last year, Flat World Knowledge made a big splash with its new business model -- free e-books with the option of a print textbook purchase. The reality is that these new content companies, by designing primarily for digital distribution, have reduced production costs significantly and developed more flexible models for content packaging and customization.
- **Increased industry spending and usage of digital content:** Educators continue to use digital content resources (e.g., short videos) as supplements to core curriculum in order to improve instruction. For example, Pearson's digital revenues have increased from £857m in 2005 (21% of sales) to £1736m in 2009 (31% of sales).
- **Growth of the E-textbook Market:** 2010 will mark the beginning of the new e-textbook era in educational publishing. This era is being ushered in by increased title availability from traditional publishers, improved online e-book platform solutions, aggressive moves by e-reader makers Amazon and Barnes and Noble, and the rapid growth of the netbook and tablet markets.
- **Utilization of partnerships to expand into new markets:** Education & Training providers are increasingly refining their strategies to enter new and emerging markets, such as India and China. The use of partnerships and other joint ventures has increased as both global and regional E&T providers look to expand into new markets. Such global learning environments give students an opportunity to expand their portfolios to include experience that is valued in today's workforce
- **Personalized multimedia based educational content:** The next wave is personalized, media-rich education content, which will fundamentally transform how users transfer content across the converged network -- whether these users are students, teachers, administrators or parents. Unified, multimedia communications provide opportunities to enrich the learning experience -- motivating students, optimizing teaching and proving administration and overall responsiveness.

Technology Driven

- **Personal Devices Will Infiltrate the Classrooms:** The range and number of educational applications for personal devices is growing at a rapid pace. The available choices for staying connected while on the go are many — smart phones, PDAs and the iPad, which has heralded a new class of devices that blend the functions of all of them. This influx has also enhanced mobile learning (commonly referred to as m-learning), creating new channels for content delivery, video expansion online, and podcasting. Access to the Internet is no longer beholden to a tethered connection, with the rise of smartphones and wireless technologies. Mobile devices being small, inexpensive and manageable (less fragile and longer battery life) devices are a good substitute for laptops and computers in classrooms
- **Augmented reality (AR):** AR has become something anyone can use, thanks to the convergence of three technologies — GPS, video, and pattern recognition — and the applications seem endless. Combined with mobile technology, AR becomes a portable tool for discovery-based learning, enhancing the information available to students when visiting historical locations, doing field work, interacting with real-world objects, and even paging through books.
- **Resurgence of Interactive Whiteboard Apps:** There will be a big revival in their use, and this is expected to continue in 2010. These large, interactive display systems allow teachers and students to work together in ways that traditional blackboards cannot. Credits go to federal economic stimulus funds for helping to advance the use of whiteboards, many of which are just now being installed and used in the nation's K-12 schools. There has been a revival of Interactive White Board display systems in classrooms due to federal economic stimulus funds. These systems also allow educators design lessons with custom content to better streamline their preparation.
- **Open Source is the way ahead:** Publishing companies are going to be more open, more creative, and able to engage multiple communities with the same content. Even as

content will come from the “usual” sources such as OpenCourseWare initiatives and traditional repositories, but we will also see more open content created and shared “loosely” by individuals through new social learning networks and existing social networking platforms.

- **Game based learning:** Games are expected to see much broader use in pre-college education over the next two to three years. They span the range from single-player or small-group card and board games all the way to massively multiplayer online games and alternate reality games. Those at the first end of the spectrum are easy to integrate with the curriculum, and in many schools they are already an option; but the greatest potential of games for learning lies in their ability to foster collaboration and engage students deeply in the process of learning.
- **Using Social Networking tools & Web 2.0 based Apps in Classrooms:** With Web 2.0 technologies and social, students and teachers collaborate on ideas, and provide feedback in real time. Content and web sites need to be re-engineered to support or enable rich user experience. Blogs and wikis are increasingly used, as well as new online video repository and delivery websites such as YouTube, and iTunes U. With these technologies and applications being used in full force, the Internet landscape has transformed classrooms and universities. Right from lesson planning to homework assignments, to how students communicate with their teachers and peers. Many Web 2.0 sites have become highly flexible and customized to meet the needs of today's educators.
 - Engrade, for example, allows students to check grades, attendance, and also their homework while enabling professors to publish grades, attendance, and homework assignments, as well as email weekly progress reports to students.
 - Chalksite lets students discuss homework problems and enables professors to set up workspaces for each class. This promotes one-on-one or group discussion similar to the sites students flock to for fun, like MySpace or YouTube.
 - Thumbstacks encourages the use of online feedback and blogs to promote learning through collaboration.

Most of the Web 2.0 sites are designed to help students learn in an environment that they are comfortable with. Twitter is another website being used extensively in classrooms. Additionally, the ubiquity of laptops and smartphones have made the integration of Twitter

In enhancing the learning process in many ways --

- Virtual staffroom for teachers – to access a stream of links, ideas, opinion and resources from hand-picked selection of global professionals.
- Potential to reach very large international audiences - Understanding of educational systems and practices across continents (GPS-enabled devices like iPhones and the advanced web search facility allow searches which tell you what people are tweeting within a certain distance of a location, so if the other side of the world isn't your bag, you can stick with your own patch.)
- Great medium for sharing ideas and getting instant feedback between teachers and students.

Through similar sites like MySpace, Classroom 2.0, and iGoogle, new opportunities abound for people to conduct research, dynamically communicate with each other and collaborate on ideas.

- **Edutainment:** Television broadcasting companies such as the BBC, MTV, NBC, and ABC are quickly developing more methods to integrate broadcast media with higher education. This trend supports the increase in the use of multimedia devices on college campuses where content is accessible through computers, but also through TVs and smart phones. Campuses are evaluating and utilizing the benefit of broadcasting campus TV programs over IP networks
- **Cloud computing:** This transformed the way we think about computing and communication, data storage and access, and collaborative work and is another approach that may potentially lower IT costs. Cloud-based applications and services are available to many school students today, and allow computer users to access desired applications without the necessity of purchasing the software, the frustration of installing it or the hassle of taking up computer memory with support software. What still remains to be developed are the capacity for the cloud to help students engage in real research and participate in global learning communities

In Conclusion

The educational publishing industry is rapidly evolving with newer forms of electronic publishing for education and this offers great opportunities. Technology will play an increasing role in education. Creating innovative services from current and future technologies requires a powerful, reliable, expandable, and secure IT infrastructure that has adequate bandwidth, quality of service, and storage.

There are now dozens of cost-effective ways of implementing technology into the classroom which will *enhance* not *replace* the teacher. Asking the students to be reflective in their learning by blogging, working collaboratively by using wikispaces and allowing more creativity in assessments (podcasts, videojournals, etc. in lieu of another multiple 'guess' test) are just a few ways that the learning process can more readily engage students and allow them to demonstrate their learning without the added anxiety of taking a test. The design of technology – based innovations can enhance engagement and learning in a range of educational contexts thereby enhancing “scalability”.

Today, teachers and students have been exposed to the internet and also have access at home or at school. Even more exciting than this is Wireless technology, with schools being able to purchase a 'Portable Classrooms'. Owing to various methods of digital innovative education solutions, there is increased flexibility in education being anytime and anywhere.

These developments offer greater access to information, an eager motivation to learn, a jump-start on marketable job skills and an enhanced quality of class work.

About the Information, Media & Entertainment (IME) Practice

Cognizant's extensive experience spans each of the industry's sub-segments – Information Services, Publishing, Advertising, Filmed Entertainment, Broadcasting and New Media. The practice works with leading Media and Entertainment companies on organization's business initiatives, from strategic consulting to application maintenance support. The IME practice is one of the fastest growing practices within Cognizant with over 4000 associates working on various client engagements and contributing over 7% of total revenues. Leading IME customers include Houghton Mifflin Harcourt, Harris Broadcasting. Visit us at www.cognizant.com for more detail.

About Cognizant

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting, and business process outsourcing services. Cognizant's single-minded passion is to dedicate our global technology and innovation know-how, our industry expertise and worldwide resources to working together with clients to make their businesses stronger. With over 50 global delivery centers and more than 85,500 employees as of March 31, 2010, we combine a unique onsite/offshore delivery model infused by a distinct culture of customer satisfaction. A member of the NASDAQ-100 Index and S&P 500 Index, Cognizant is a Forbes Global 2000 company and a member of the Fortune 1000 and is ranked among the top information technology companies in BusinessWeek's Hot Growth and Top 50 Performers listings. Visit us online at www.cognizant.com.



Europe HQ

Cognizant Technology Solutions
Zuidplein 54
1077 XV Amsterdam
The Netherlands
Ph: +31 20 524 7700
Fax: +31 20 524 7799

Global HQ

Cognizant Technology Solutions
500 Frank W. Burr Boulevard
Teaneck, NJ 07666
Ph: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

Asia Pacific

Cognizant Technology Solutions (I) Pvt. Ltd.
#5/535, Old Mahabaiapuram Road,
Thoraipakkam
Chennai, 600 096 India
Ph: +91 44 42096000
Fax: +91 44 42096060