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Digital Solutions in
INDIA

SPECIAL REPORT 2019

A restless publishing industry with evolving content demands is pushing India's digital solutions players to be nimble and innovative

Keeping Them on Their Toes, Guaranteed

Vendors in India are busy tweaking their playbook to fulfill demands from an evolving publishing industry

By Teri Tan

Digital Solutions in INDIA
SPECIAL REPORT 2019

A restless publishing industry with evolving content demands is pushing India's digital solutions players to be nimble and innovative
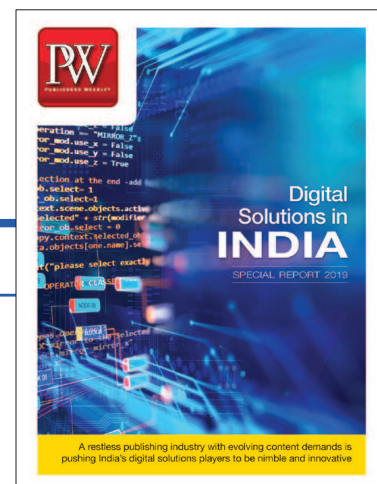
Restless is the world of publishing. Between Europe's Plan S and the Cengage/McGraw-Hill merger, the repercussions are plenty, and the reverberations widespread, affecting not just publishers but also authors, researchers, students, and digital solutions vendors. There is much cause for a considerable pause.

Plan S, which calls for open access to almost all of the scientific information across Europe, is upending the subscription business model as we know it. If Plan S gets adopted in other regions while more major institutions scrap their journal subscriptions, how would these publishers maintain their bottom line and continue to make new research information available while investing in technology solutions and new products? Speculations swirled around viable alternative business models, specifically with regard to who gets charged or paid for what. The S in the plan now seems to stand as much for *sustainable* as it does for *science*, *speed*, *solution*, and *shock*.

For India-based digital solutions vendors, their workflows have been generating, tagging, and delivering OA articles or journals for some time already. The question now is about further lowering the production costs and processing time of these OA articles and journals in order to make the whole Plan S proposition viable for the publishers. (Read the online article "Navigating the Open Access Path.")

As for mergers such as the recent Cengage/McGraw-Hill deal, these are veritable nightmares for most vendors. The overlapping publishing operations and product lines of these two big companies eventually will translate into vendor and project consolidations, which lead to a shrinking client base. Simultaneously, the time taken to straighten out the newly merged company will also mean less focus (and investment) on developing new programs or products that will go to these vendors.

In the meantime, augmenting and elevating human performance with algorithm-driven decision-making to speed up production processes continues to gather momentum. With cognitive technologies—in other words, the combination of artificial intelligence, machine learning, natural language processing (NLP), and expert systems—repetitive and rote tasks in the editorial processes, for instance, can be automated with minimal manual intervention. It makes sense given the shorter project-turnaround time, demands for more efficiency, and faster time to market. Bots, chatbots, and robots—they are all here to stay. (Check out the online article "Full Speed Ahead with AI and NLP.")

But with all the tech gadgetry and solutions comes a world full of distractions and ever-shorter attention spans. So while digitized, chunked, and enriched content is well and good, if it is not noticed, or purchased and consumed, it all comes to naught. There lies the issue of discoverability, and with it monetization. Tagging the appropriate metadata, personalizing the content, and anticipating consumer engagement are some ways to go about it. Deploying AI and chatbots to uncover new insights from patterns, trends, and overlooked data is another. (See "Enriching Content for Discoverability," p. 21.)

For digital solutions vendors, there are ample opportunities for growth and innovation in the restless and chaotic publishing world. Fishing in troubled waters, however, is not for the fainthearted. But then again, this is the same group of vendors who managed to convince publishers to enter the world of XML, HTML, and ePub (albeit reluctantly), then got them to venture further afield into the realm of augmented reality, virtual reality, and mixed reality, and have now fully engaged them in the wonders of AI and NLP. Tenacity, let's remember, is a major part of these vendors' modus operandi.

And despite the constant state of flux and frenzy, the publishing world is slowly and surely forging and defining its digital path. For most, it is about combining print with digital to hybridize new products. For a select few, it is increasingly about being digital-only. Whichever path is chosen, digital solutions vendors in India are ready to offer their collaboration and appropriate workflows, platforms, and solutions to transform sketchy ideas into solid products. So what are you waiting for? ∎

No One-Size-Fits-All Here

Vendors in India are customizing and retooling their solutions to cater to different publishing segments and content needs

By Teri Tan

Dechunk, dice, splice, and repackage—what works for publishing content now applies to vendors' own solutions. After all, one publisher's size, genre, operational needs, and service requirements differ from the next, and savvy vendors know that customization and personalization is the only way to go. As a result, workflow and content solutions in the form of modules, platforms, apps, and subscription models—mostly cloud-based, seamless, device-agnostic, and intuitive—are now de rigueur.

But with technology coming fast and furious (and often not cheap), implementing new, unique, and robust workflows and solutions often looks better on paper than in reality. There are many obstacles, big and small, lying in wait. Ironically, at the crux of it, technology poses one major stumbling block.

The Technology Conundrum

The variety of digital platforms in the marketplace means that publishers are often trying to figure out which one will work not only in terms of generating revenues for them, but also in doing so cost effectively, says Indira Rajan, CEO of Lapiz Digital. "Potential technology disruptions require us, as the digital solutions vendor, to ensure that any digital content produced is as technology- and future-proof as possible."

The shelf-life relevance of the software solutions needs to be carefully estimated as part of the investment process, says Vinay Kumar Singh, executive director and CEO of Thomson Digital. "The capabilities of a technology in resolving publishing issues have to be evaluated as well. For example, there is still a debate about the pros and cons of blockchain in the publishing world, even though the technology has been relevant and yielding positive results in other sectors such as consultancy, finance, retail, and other transactional areas."

Skepticism in embracing a new technology is normal, says Uday Majithia, assistant v-p of technology, services, and presales at Impelsys. "It takes some effort and discussions on our part to show the value of technology. But it is undeniable that digital technologies bring along operational efficiencies through automation while enabling experimentation of new business models."

Consumers are digital-savvy and want content access on the fly, in smaller bytes, and all interlinked, while content creators are playing catch up. "This is partly because consumers have constantly evolving usage patterns that require platforms that can easily evolve," Majithia adds. "And in the absence of such platforms, publishers may not see the desired ROI and are therefore skeptical."

Additionally, publishers have also been experimenting with various tools, but not all have been able to provide value. "The problems may lie in incorrect identification of company goals or choice of the right technology, or issues related to the organization's current technology stack and implementation of the new tools," Majithia explains, adding that "the lack of uniformity, cross-functionality, and awareness has created distrust about the value of these technologies."

Convincing potential publishing clients to adopt newer and better technology is always tough. "Some publishers are still stuck with the traditional way of working, while some others, over a period of time, have developed isolated tools or proprietary in-house workflows," says Nizam Ahmed, founder and CEO of DiTech Process Solutions (as well as 3ClicksMaster). "There is also the perception that certain software will only work for one publishing segment. For instance, humanities and social sciences publishers often think that platforms adopted by STM publishers will not work for them."

The fear of change is holding back the publishing industry, says Yakov Chandy, managing director at TNQ Technologies. "Our push to move to HTML-only articles through HTML typesetting, for instance, is held back by the need to keep producing PDFs, which is perceived as the format authors and readers love and will not do without. So, change that is sure to come via completely connected and interlinked articles or books has yet to happen."

Chandy also finds that technology products are still hard to sell. "Most publishers believe that the services they pay for should include the technology products that vendors have created. This is an issue as good technology products need to be constantly developed and paid for."

Then there is the customer's expectations of technology versus what vendors such as TNQ Technologies can do for them. "With the use of AI and ML [machine-learning] technologies in our workflow, we have solid offerings that are useful and attractive to new clients. But increasingly, publishers now need full-service outsourcing, a transition that has become a challenging activity for the sales process," Chandy says.

Defining the Digital Path

Since finding the perfect digital roadmap is not a simple task, adds Singh, of Thomson Digital, "publishers need consultancy, support, and partnership to work on realizing the digital results.

The cost of digitizing is one of the biggest factors for publishers to consider. It is a long-term strategic investment and may be a fiscal challenge for some publishers."

The academic and education segments are facing not just a digital issue but also other market concerns including adoption, usability, and efficacy. "Major publishers have been moving in the right direction for quite some time now and making the right investments," says Sriram Subramanya, founder and CEO of Integra Software Services.

Digital has different meanings for different segments, Subramanya adds. "For the academic segment, they can create e-versions along with print, or just e-versions. For the education segment, it is about hitting the right balance of delivering unique experiences in using products that are available in both print and digital. Their digital versions are not copies of their print products, and a lot of time and effort have gone into reimagining the digital product's learning experience, efficacy, and learning outcomes. Large publishers are able to make the right investments and have the market size to realize their ROI on their digital initiatives."

There is very little that is holding publishers back from going digital at this point in time, says Atul Goel, president at Cenveo Publisher Services. "In fact, many clients are eager to go digital-only, overlooking that there is still demand from the market for print." For now, Goel finds that streamlining the number of products being published, especially from higher-ed publishers, "means that our team is providing more and varied services for larger individual products." Accessibility, he says, "remains a secondary consideration even now, rather than the concept we have been advocating of content being 'born accessible.'"

In the STM/scholarly segment, the movement toward AI and NLP-based editorial workflow has been obvious, says Vidur Bhogilal, vice chairman of Lumina Datamatics. "Some parts of the industry are implementing workflow technologies like STEM and online editing, while general trade publishers are not making any changes except for wanting multiple outputs. In the education segment, the market is feeling its way along what models will eventually drive new forms of value: Should they be focused on subscriptions, rentals, or micro-transactions? Should they greatly lower the price of content while up-selling services? All these issues are still being sorted out, and each of these affects how every client is doing business."

Additionally, the digital learning industry, as a part of the edTech space, is particularly quick to evolve: SecondLife, adaptive learning, intelligent tutors, MOOCs, machine learning, and augmented reality/mixed reality are all advancing rapidly. "The business or instructional value of some of these technologies may not yet be proven, but companies often respond to market pressures and invest in both the technologies and training," says Goel, of Cenveo Publisher Services, adding that there remain multiple conflicting standards within the digital solutions industry.

However, many publishing clients who bet heavily on digital have successfully monetized their content. "But those who ventured in half-heartedly are not as successful," says A.R.M. Gopinath, executive v-p at DiacriTech, adding that "for many medium and small publishers, how to potentially deliver the content to their clients in a secure and commercially viable manner remains the big question. Needless to say, choosing the right partners not only for converting files but also for delivering the content to the right market is key to success."

Of Data and Privacy

When it comes to metadata, there is still much to establish from the outset, says Goel, of Cenveo Publisher Services. "Publishers still tend to rely on Word document manuscripts as the authority for all information instead of detailed header files. So information is sometimes missed, or manual intervention is required, instead of realizing the full benefits of automation."

Funding statements, for instance, are often inconsistent, possibly because peer-review systems do not enforce metadata standards for funder identity. "If this is not caught during the production and proofing process, the data can be missed or corrupted on its way to aggregators and registration agencies such as HighWire and CrossRef," Goel adds, pointing out that author names and formatting of article titles are also subject to error in untagged Word files.

For Mohanty, of HurixDigital, IP protection (vis-à-vis digital-rights management) and multichannel access to content are two main publishing issues. "Publishers are concerned about the copyright violations and online piracy associated with digital platforms, and their concerns are totally understandable. So we offer DRM protection for content to allow publishers to rest easy with the knowledge that their content is safe on our Kitaboo platform."

The General Data Protection Regulation (GDPR) restrictions "have made Lapiz Digital tread carefully and, as a result, have slowed down our sales process. We have changed our approach with existing and new prospective clients in the EU in order to comply with GDPR," v-p Meena Prakash adds.

Adhering to and complying with IT regulations is one thing—handling privacy is another. "At Lapiz Digital, we have previously handled the personal information of our clients from some of our other businesses for many years," Prakash says. "We have exercised great diligence in information security. Adapting and applying the knowledge we have gained over the years to the current European scenario was, however, a bit of a challenge. Handling data during a business process is quite different from when one encounters it for making contacts in the course of business development."

Integra Software Services, for instance, has been busy conducting workshops across its offices to ensure staff sensitivity and critical compliance to GDPR. "This regulation is very much an extension to our long-standing emphasis on data security and maintaining confidentiality of proprietary information. We are also signing mutual GDPR agreements with our customers," Subramanya says, adding that his company has a well-established personal-information-management system.

The Urge to Merge (and Control Costs)

Consolidation of small publishers, mostly through acquisition by bigger groups, has resulted in a massive volume of work heading to larger vendors. "This is a problem: the bigger vendors are often unable to match the service-level expectations of small publishers, which typically require more hand-holding and personal attention. This reflects negatively on the outsourcing industry and, in the longer run, may adversely affect the industry growth," adds Gopinath, of DiacriTech.

Mergers and acquisitions are definitely shrinking the customer base, says Goel, of Cenveo Publisher Services. "Societies migrating to commercial publishers to run their journal programs present a similar problem. At the same time, the vendor base is highly fragmented, making it easy for clients to work with multiple service providers."

For Bhogilal, of Lumina Datamatics, the aggressive consolidation and cost-cutting exercise on current businesses are in full evidence. "New forms of business only see experimental volumes. Theoretically, the spending in new digital products and solutions should exceed that of traditional publishing models. But what works versus what doesn't is still being explored, which means that publishers are understandably hesitant to commit to vast numbers of new products that would generate new forms of service."

Rising costs—of paper, printing, and shipping—and vendor consolidation definitely have an adverse effect on experimentation with new channels, such as AR/VR, says Tyler Carey, chief revenue officer at Westchester Publishing Services. "Our company is relatively shielded, since editorial and production offerings have not experienced the volatility that printing companies or publishing supply chains—let alone emerging technologies—are facing."

But as publishers continue to consolidate their vendor relationships and cluster around big technology platforms, Maran Elancheran, president of Newgen KnowledgeWorks, sees growing opportunities—and a necessity—for vendors large and small to collaborate. "Publishers are increasingly looking for unique and imaginative solutions to give them the edge in a hugely competitive marketplace, and so vendors that can work together in the best interests of the publisher will have an edge that could unlock a new level of innovation in the industry."

Cost pressure, Elancheran adds, "is a reality that we have lived with for many years. It goes together with the agenda to automate and is a necessary part of addressing the structural efficiencies in the industry. In many ways, we have been victims of our own successes in this regard, and the constant drive for efficiency is enabling us as an industry to embrace change and to continue to drive forward academic and educational endeavors around the world."

Rising production and distribution costs along with a plethora of digital avenues have created a fundamental shift in the business model, says Mohanty, of HurixDigital. "For instance, in the U.S. higher-ed publishing sector, the rise in demand for affordable study materials has created a need for alternative delivery and monetization models. New digital initiatives and platforms along with content-delivery techniques are driving the change in that market." (Mohanty and his team published a white paper, "Can U.S. Higher Education Publishers Leverage a Subscription Model?," with references to models similar to Netflix, Spotify, and the *New York Times* in March.)

Working It Out

For smaller publishers, navigating the speed bumps has affected their ability to explore alternative technologies and platforms as core needs have been in flux, observes Carey, of Westchester Publishing Services. "So by providing as consultative a solution as possible for publishing clients, Westchester continues to explore partnerships with best-in-market vendors to help augment what we can offer our clients, such as the work that Fablevision and Learnosity do to support our educational clients with their digital needs."

Having a 50-year history in providing top-notch market editorial and production offerings for printed products has been beneficial to Westchester. "We tend to have an advantage when clients begin exploring digital products," Carey adds. "Providing digital solutions for products that also have a print component is a natural extension of what we do, rather than a competitive digital-only offering. Where we see our clients wresting with challenges is usually in defining what digital products will have the most ROI for them."

One textbook publisher that Westchester works with, for instance, was encouraged by their marketing department to create customized digital editions for every textbook platform in the market. "But for a publisher their size, it may have made more sense to focus on just investing in the platforms that will generate the most revenue and exposure for their products," Carey says, adding that this is where his company's consultative stance helps to realize clients' visions, by delivering the best possible products for print and digital, and working with them to define where they are trying to go.

Building trust and confidence is often the biggest hurdle in starting any new relationship. "It takes time to develop trust, and we can only do it through experimenting and proving ourselves on those first few projects," says Elancheran, of Newgen KnowledgeWorks. "Although our technologies and services are often transformative for publishers, we never underestimate the confidence that production and editorial staff need to have to risk switching vendors and workflows. Even with existing clients, introducing new workflows and efficiencies can be worrisome when established processes are tried and tested."

Meanwhile, publishers are looking at converting their production operations to profit centers and searching for partners to help them reach those goals, says Ravi Venkataramani, cofounder and CEO of Exeter Premedia Services. "With business models changing rapidly, publishers are looking for digital solutions partners that will support them through these changes, primarily to provide technology solutions that will streamline workflows and enhance author experience."

To Poach or Not

Staff poaching remains a big issue in the highly competitive digital solutions industry since its early days. "Today, the poaching is mostly for employees with some initial experience of between six months and a year, and not the more experienced operations people," says Rajan, of Lapiz Digital.

Hiring issues are here to stay, Rajan adds. "But once they're hired—be it a fresh or a lateral hire—getting them to understand the culture of the company and the corporate work environment is a major challenge. Attracting, retaining, and engaging the millennial workforce, and bringing them together to build a successful organization, is not easy. But our induction and training programs—all based on the sense of belonging—has been proven successful."

The fight for talent is mostly about developing capabilities within the digital solutions industry. "Poaching is par for the course when there is a shortage of talent in every market segment," adds Subramanya, of Integra Software Services.

Poaching is the easiest way to develop digital solutions from scratch, says Ahmed, of DiTech. "By poaching the head of the solutions division, for instance, one immediately obtains the ideas, architecture, design improvements, and so on. But there is one big problem: everybody's solutions become indistinguishable from one another."

For DiacriTech, establishing production facilities in second-tier cities is one way of countering staff poaching and reducing employee attrition while, at the same time, improving business continuity. "Unfortunately, the development of new technology and product solutions tends to happen in main operational hubs, which are located in the major cities where poaching is rampant," Gopinath says, adding that "a sense of discipline among vendors is required to get this sorted out."

Operational Size Matters

When it comes to ramping up production during peak seasons, operational scale is always an advantage in the digital solutions industry. As a rule, big publishers tend to gravitate toward the big vendors. "But our services and offerings are not confined to big customers with huge volumes," says Singh, of Thomson Digital, which operates five delivery centers (three in India, one in Mauritius, and another in New York) and has more than 1,500 employees.

"Publishers of any size, work volume, and project complexity will be able to leverage our products and services with the same efficiencies—and our current client roster bears that out. We are aware that the viability of a business depends on work volume and that it may be challenging to work with similar efficiency with medium or small-scale publishers. However, our tools and automation are easily customizable and our efficiency is definitely not volume-based," Singh adds.

Larger customers have used the company's scale, size, and financial depth to qualify it for vendor selection, says Rahul Arora, CEO of MPS. "But that is where it ends—at qualification. Great and reliable delivery through a consultative approach powered by market-leading technology is what differentiates us. We make learning smarter, and this precise mission allows us to be focused in enabling customer success through smarter delivery and not just delivering the scope of work agreed upon."

Ten out of MPS's top 15 publishing customers are small and medium-size companies. Arora explains, "We bring not only years of experience in innovative publishing solutions, but also high ROI and robust solutions. We are not a marketing organization: we are an operations and technology company. Our work speaks for itself, further bolstering our good reputation with small- and medium-size publishers."

Online Coverage of the Digital Solutions Industry

The following articles are available online in conjunction with this print report:

- *Full Speed Ahead with AI and NLP*
- *Navigating the Open Access Path*
- *No Project Is Too Complex*

Articles in the Expert Series, penned by invited vendors, examine critical topics impacting both publishing and digital solutions industries:

- *Are You Listening?* by Jeyashree Sundaram, sales and business development manager at Lapiz Digital
- *Data Analytics, Discoverability, and Monetization* by Vinay Kumar Singh, executive director and CEO of Thomson Digital

Related Reads from *PW*:

- *BISG Explores Promise, Reality of Blockchain Technology*
- *Blockchain for the Book Biz: The Hype vs. the Reality*
- *European Parliament Approves Controversial Copyright Overhaul*
- *It's Time to Move to ePub 3.2*
- *Keeping Up with Tech Should Be a Publishing Priority*
- *Moving Metadata from How to Why*

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domain officer Shanthi Krishnamurthy says, adding that "a host of other India-based institutions are also engaged with AuthorCafé in various states of their trial programs. The platform now covers academic content such as grant approvals, theses, and dissertations."

Then there is Proof Central, which has been serving authors and publishers for more than seven years. Two million articles across 2,000 journals, 1,700 books, and 20 major reference works have been proofed using this HTML platform. The latest update includes automated bibliographic reference structuring with PubMed validation, and citation and reference renumbering. There is also the capability to edit a range of structured front-matter elements, an advanced XML editor for nuanced structuring, and real-time collaboration and feedback sharing on proofs.

RevView Central, the latest from TNQ Technologies, is a browser-based submission and peer-review platform built to help accelerate decision-making. "It uses ML, auto-structuring, and data-driven insights to present an attachment-free workflow to fast track the entire process," Krishnamurthy says, adding that RevView Central was launched in late 2018 with the Indian Academy of Sciences. "We plan to roll this out in other markets in the upcoming months."

The company, Krishnamurthy adds, "has been moving from monolithic systems to a services-based architecture in recent months. We see this trend with our clients, and so we have embarked on a model of service enablement to allow production workflows to be flexible, modular, and eventually lead to tiered workflows where publishers can choose the combination that works best for their needs."

Westchester Publishing Services

This year marks a major milestone as Westchester celebrates its 50th anniversary, as well as its fifth anniversary as a U.S. employee-owned company. "Our U.K. operation continues to grow with more university presses, academic, and trade accounts signing up," chief revenue officer Tyler Carey says, adding that his K–12/educational unit is working with more U.S. publishers as well as starting to onboard new U.K. accounts. To support the needs for a more global perspective on educational content, Westchester has hired Walter Henderson, a classroom instructor and professor of the English language, as its ELT subject-matter expert.

"We have also been migrating more customers to our cloud-based client portal," Carey says. "Early adopters gave us feedback that allowed us to customize and add new features for journal, white paper, and book-project management, and by ticking more boxes for our customers, adoption on the portal has continued and accelerated. We are quite proud that the portal has been shortlisted for the prestigious 2019 Stationers' Company Innovation Excellence Awards for technology used by the media industries."

Almost 150 accounts—and thousands of projects—are expected to use the free client portal by year-end. "Dropbox continues to be a very dedicated partner in our success with the portal. Internally, Dropbox products have made it even easier for us to disseminate client information across our global operation, and to interact with clients and their projects in a more engaging, customer-centric way."

His U.K. clients, Carey adds, are often more interested in Westchester's India Direct offerings, through which publishers engage directly with its India-based editorial and production operations. "The five-hour time difference with our Indian offices is probably the major attraction. But we do offer options that U.K. publishers can adjust, including having design, copyediting, indexing, and proofreading in the U.K., India, or the U.S. So we are seeing clients heavily customizing their workflows with us according to their content or preferences."

As its 50th-anniversary year continues and draws to a close, the Westchester management team is looking at its growth plans for the next five to 10 years. "We are eager to see what our clients, partners, and fellow vendors are doing as we all continue to expand and adjust what we do to suit the changing needs of the publishing landscape," Carey adds. ■

(l. to r.) U.K. managing director Tim Davies, chief revenue officer Tyler Carey, and company chairman Dennis Pistone celebrate Westchester Publishing Services' 50th anniversary at the 2019 London Book Fair