Industry Leaders' Perspectives on the Digital Transformation Journey in Publishing

WHAT'S IMPORTANT AND WHY—
STRATEGIC INSIGHTS FROM THE FRONT LINE

▶ *We speak with 25 industry leaders in STM, Trade and Education.*

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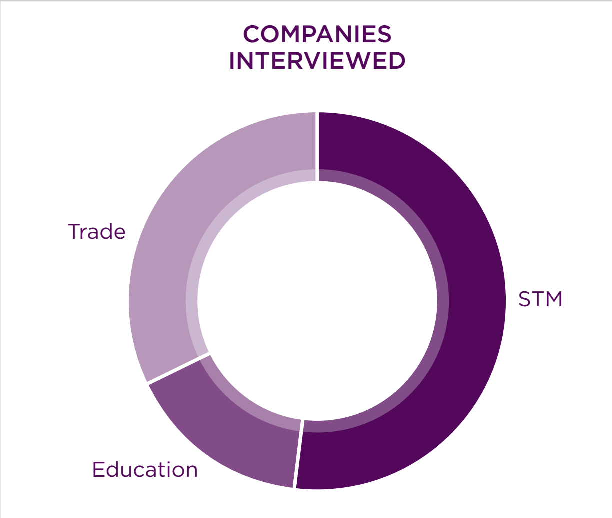
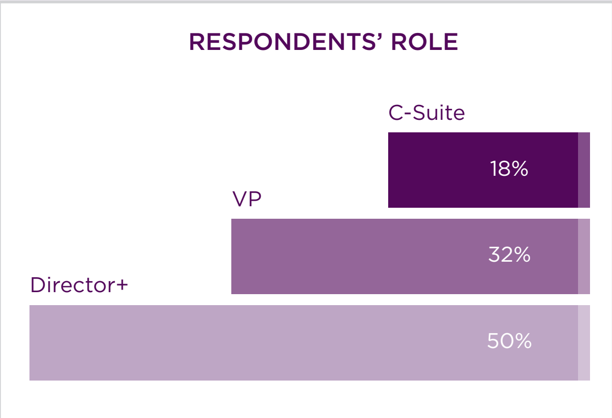
Introduction to the Research and Respondents

The insights generated in this whitepaper are based on in-depth interviews with publishers from the STM, Education and Trade sectors. The respondents were senior leaders of their organizations currently holding “C-Suite,” Vice-President and Director+ positions.

All interviews were conducted by Imbue Partners’ senior strategists during the month of February, 2017.





The objective of this research was to gain insights from a select group of publishing executives regarding five core elements in the digital transformation journey: Content Storage, Metadata, Content Agility, Discoverability (beyond search) and Collaboration. We asked two question sets:

- How important are these elements to their business and how do they rate their current capabilities in those elements?
- What recent and projected (next 3 years) investments have their organizations made in each of the five elements?

Quantitatively, our first question set had two dimensions: “level of importance” of [element] to their organization and “level of current organizational capability” for the [element].

Each leader was asked to rate the elements on “level of Importance” to their business using the following scale:

1	2	3	4	5
Not Important	Nice to Have	Require-ment	Important	Essential to Business

Immediately following, we asked for an assessment of “current organizational capabilities” for each element using the following scale:

1	2	3	4	5
Needs Improve-ment	Making Progress	Right Where We Need to Be	Above Average	Setting the Standard

Our second question set was more anecdotal as we asked each participant to describe recent investments their company has made in 1) improving the capabilities and 2) reaping the benefits of each element. The leaders were then asked to describe plans or projections for investment in the next 3 years. All responses were aggregated into percentages of past/recent investments compared to future/planned investments in each element.

Executive Summary

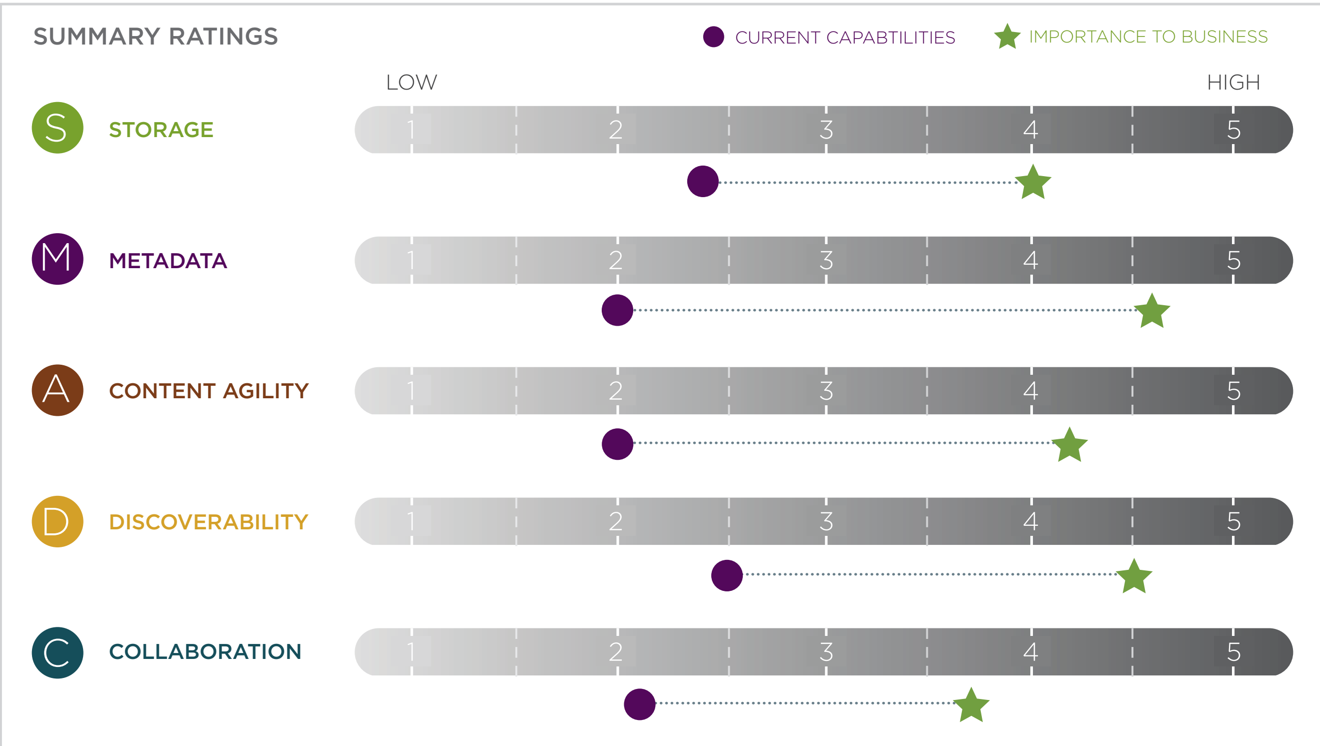
According to the 25 executives we spoke with, the phrase "digital transformation in the publishing industry" is both aspirational and nebulous. Unanimously, our respondents associate digitization of their businesses to growth and market differentiation. They are also experiencing some confusion and frustration at the complexity of the journey and the perceived rate of change (slow).

This is in large part because digital transformation is a non-linear journey, not a destination. Our interviewees also used the terms 'iterative and incremental' – particularly for an industry steeped in antiquity. Modern, large-scale technology and organizational change feels difficult and is expected to take many years to implement. Regardless of the challenges and barriers these publishers experience, the primary drivers for digitization were clearly stated and prioritized. Their organizations expect digitization to address ever-changing and often indeterminate customer preferences, emerging competitive threats, new technology capabilities and shrinking budgets.

We asked our audience to describe five key areas of transformation in terms of importance to the business and current capability. The five elements were: content storage, metadata, content agility, discoverability, and collaboration. In aggregate, metadata was chosen as the top business priority and greatest gap in current organizational ability. We discovered greater variances in priority and current ability based on the publisher type: STM, Trade and Education.

Many of the leaders in technology-oriented roles highlighted challenges related to interdependencies between each of these five areas and expressed the need for appropriate prioritizing and sequencing the transformation journey in order to optimize its benefits. Format and storage standards, interoperability, and content rights management were raised to us as further areas of improvement in transformation efforts.

Overall, the publishing industry has a vision and a set of priorities for the digital transformation journey, however, they did not mention a unified, multi-year plan that integrates all of these key elements in a dynamic way. When we asked these leaders what they wished they had known at the outset of their digitization journey, a theme emerged: "ask for help. You don't need to go at this alone." In other words, ask questions, challenge legacy assumptions, train and hire new skill sets and seek outside advice.



How is "Digital Transformation" Defined by Publishers in 2017?

We asked 25 senior leaders for their perspective on the state of digital transformation in publishing. Unanimously, they described it as "a global, burning issue" that can mean "many things to many different people." And so, we posed the question, "What does "digital transformation" mean to you and your organization?"

It's worth recognizing the vast history of this industry to truly appreciate the stress and volatility recent digitization has created. Collection and dissemination of information has been a linear process around for centuries. Even some of the companies from our research have been in business for nearly 200 years. Conversely, the industry's entre into the digital economy began a short 10-15 years ago, as new technologies are evolving to connect customers with content in a host of new ways. In this context, we can better appreciate the scope and pressure that a digitized global society has placed on an industry with such legacy.

So, what does digital transformation mean in the publishing industry? Most respondents aligned to the notion that digital transformation was not about adding a new channel or product type but more about fundamentally changing the way they do business.

Some cited that digital transformation is about the ability to meet consumers' changing demands. *"It is the process oriented to better serving our customers by using all digital advantages in our processes."* (General Director, Trade)

For all publishers interviewed, "digital transformation" incorporates new digital technologies to improve customer responsiveness and business operations. It has been going on for years and will continue to re-shape the publishing industry.

▶ *"For me, it's an all-encompassing term which includes process, products, sales models for publishing platforms, innovation opportunities, meeting end-user requirements, and providing avenues for cost reduction throughout the ecosystem."*

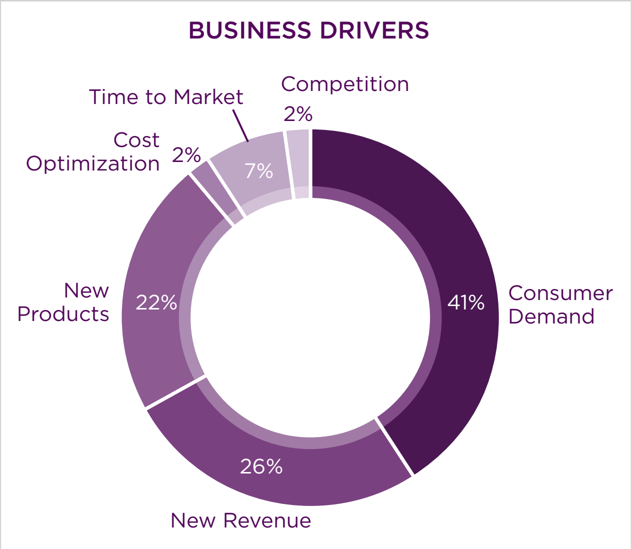
Nisha Doshi, Digital Development Publisher, Cambridge University Press

What's Driving "Digital Transformation"?

The top three motivations for evolving the publishing business model were cited as:

- responding to consumer demand
- creating new revenue streams
- developing new product opportunities, respectively

...as exemplified in the fundamental shift from product-focus to customer-centricity. Seventy three percent of all interviewees are focused on improving their ability to understand and serve their consumers. Consumers now expect easy, immediate, inexpensive access to content in many formats and across many channels.



In the not-so-distant past, publishers were considered the gate keepers of information. Recent trends like MOOCs (massive open online courses), self-publishing, different distribution channels and new digital competitors are challenging the status quo. They are forcing publishers to increasingly demonstrate their value in the process because the barriers to market entry are eroding.

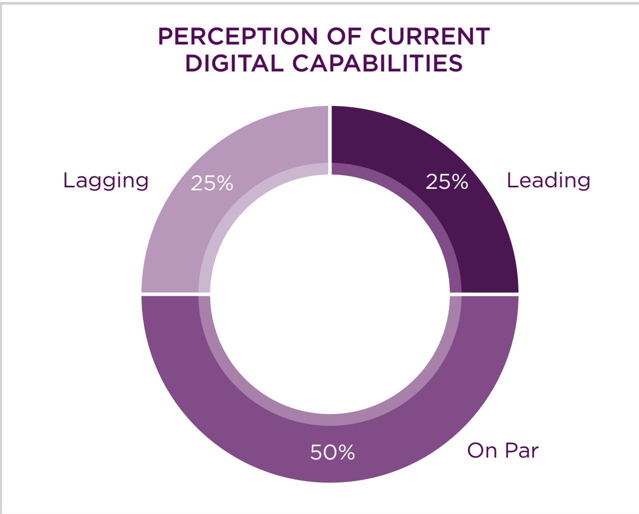
Fifty percent of publishers interviewed are looking for ways to replace declining revenues from print and advertising, with 41% looking to new product options. Media buyers want to invest where they have opportunities to target ads and review detailed success metrics. Digital content is easier to export to other regions or countries, thereby opening up new markets. Digital content can also be re-purposed to create new products in a less laborious, more cost-effective manner.

> *"There are megatrends—whether you like it or not—that are changing the way that people live now. There is no avoiding this."*
>
> **Managing Director, STM**

One respondent said, *"It's not about bringing in a new tool set. It is about preparing your company to play in the evolving digital economy."* (CTO, Trade)

HOW DO PUBLISHERS FEEL THEIR ORGANIZATIONS ARE PROGRESSING ON THE DIGITAL TRANSFORMATION JOURNEY?

Half of the interviewees believe their current transformation efforts were 'on par' relative to peers in the publishing industry. STM organizations cited significant investments in 3 of the 5 transformational areas over the past few years, bolstering their claim to "lead" the rest of the industry. Conversely, over 30% of Trade and 50% of EDU respondents feel that their companies are lagging the industry on the transformation journey.



What is the Real Status on Storage?

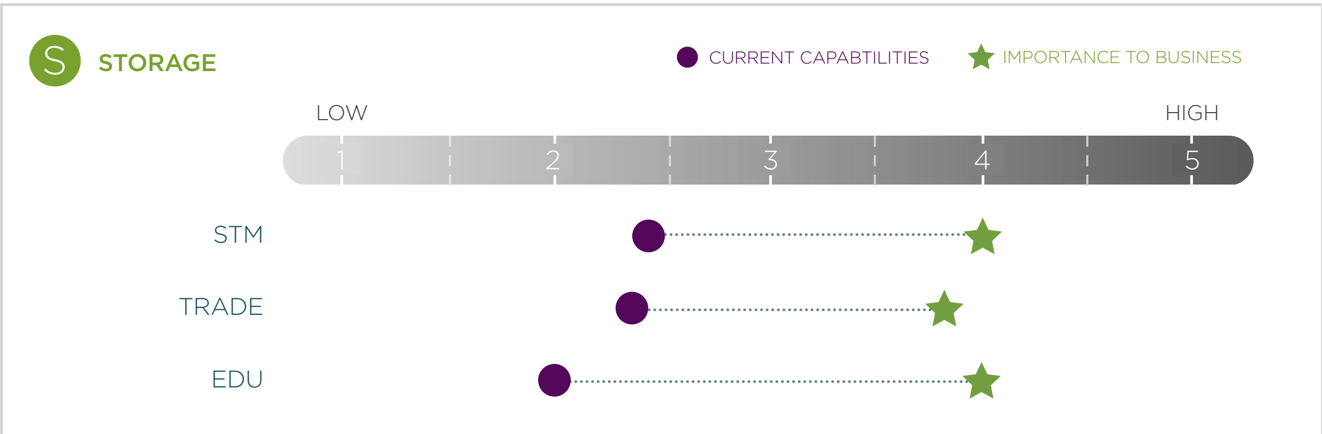
The first element considered in our interviews was content storage. We established a baseline definition of storage as "the places in which your business content lives." Respondents across STM, Trade and EDU gave similar responses: "Content storage spans multiple platforms, locations and departmental silos." Examples included ERP systems, file shares, drives, web CMS, and shared drives. None of our respondents have a global storage strategy or utilize a global, centralized repository.

Current challenges with content storage include the 'gluing together' of multiple systems and sources and the move to more granular content (e.g., XML, XHTML). Collaboration with 3rd party vendors – specifically accessing stored content - is an added challenge. The lack of standardization regarding how and where content is stored complicates external workflow and ease of doing business.

Despite these issues, content storage was ranked second to lowest on "importance to the business" as most publishers feel they have been investing in content storage capabilities for several years with mixed-to-minimal success. Many of our respondents have recently rolled out new platforms within the last two years. Sixty percent of these publishers are using cloud storage solutions.

Interestingly, although the challenges are real, developing a centralized content repository was not a focal point – in large part because our audience did not believe that a single, federated view of all stored content is possible. Our respondents said they will continue to invest in and improve content storage capabilities but their focus has shifted to a "more current" topic in digital transformation: Metadata.

> *"The important take away is that 'where' you store your content is not as important as your 'ability to access' that information."*
>
> **CIO, Education**



What's the Scoop on Metadata?

Metadata is hot. It was characterized as a key market differentiator.

> *"Getting metadata right is where this battle will play out."*
>
> **Tim Britton, Managing Director, Springer Nature**

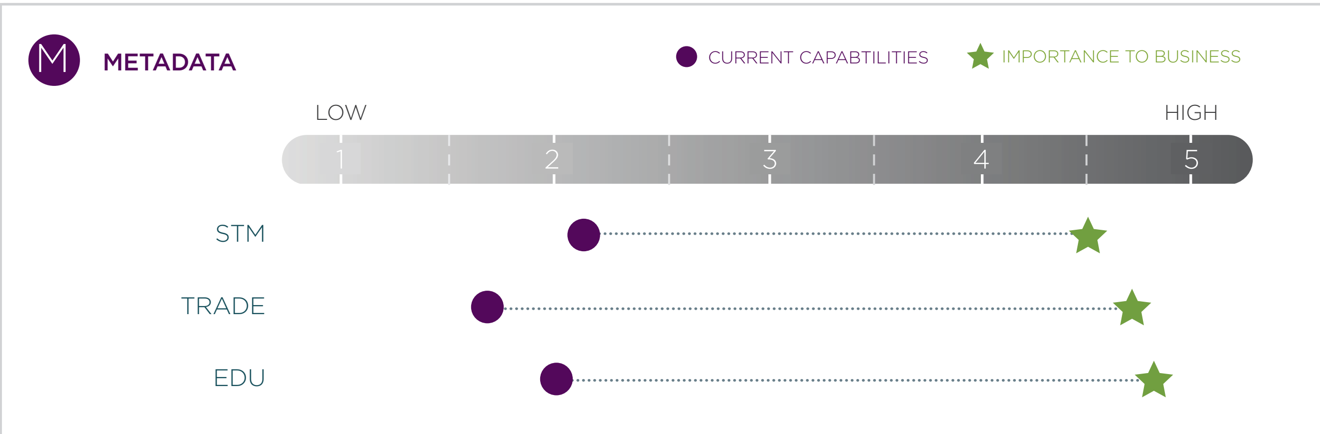
At the time of this research, metadata was considered of highest importance in digital transformation – a 4.6 out of 5 – and had the second lowest rating for current organizational ability – a 2.0 out of 5. The greatest distance between "essential element to our business" and "our capabilities need improvement" is awarded to metadata at a variance of 2.6. Why?

Publishers perceive metadata as hard to do and even harder to do right. Challenges such as inconsistent standards, updating archives, leading cultural change, requiring new skillsets, and evolving technologies are expected to pose a problem for the next five years. Metadata standards, internal to the organization or external to partners such as PubMed, National Library of Medicine (NLM), Google, or Amazon, are in a constant state of fluctuation. The lack of consistency across and within 3rd party partners increases integration challenges.

Additional challenges include up-leveling employee skills and mindset to better describe their content. Most content is still tagged manually which is a cumbersome process and a huge effort to consider tagging a company's biggest asset, their archives. Previous metadata standards may not have accounted for Search Engine Optimization. Publishers are in the early stages of evaluating new technologies to help with semantic enrichment and automated ways to add metadata.

For as difficult as it seems, returns from investments in metadata are expected to significantly improve internal operations and new product development as well as propel end-user discoverability. Some publishers are currently engaged in multi-year projects to improve taxonomies and varying types of metadata including asset, subject, relational, and use. One comprehensive metadata project was described as taking up to five years, allocating the first 1-2 years to buy and rollout the tools/platform and another 3 years to tag content.

Only one publisher felt that their capabilities in creating and leveraging metadata was "where they wanted it to be" and considered it their "powerhouse." The remaining 24 respondents will continue to focus and invest in improving the utility and sophistication of their metadata, including the tagging process.



How Agile is Content Today?

We described content agility to our audience as the ability to easily reuse and repurpose content to optimize the advantage of organizational information and assets. This capability has real business benefits such as shortening the time to market, enhancing new product development, and improving customer-facing elements like personalization. For example, agility enables the same content to be utilized across multiple channels and formats allowing for powerful reuse. The prerequisites for content agility are format, storage, tagging and discoverability.

"We're moving towards content that is like Lego bricks of different sizes, colors and shapes. They can all snap together to create different results."

Peter Marney, SVP Global Content Management and Technology, Wiley

Based on our research, content agility ranked as the third most important attribute in transformation journey overall but varied in priority across STM, Trade and EDU. Education highlighted content reuse as a key enabler to personalized learning, targeted content and predictive analytics about learner needs. These are essential to eLearning. Content agility was rated less important for general audience book publishers and had the second widest variance between importance and current ability, just after metadata.

"Our industry hasn't had a need to think this way before and our people, culture, and skills need to keep up."

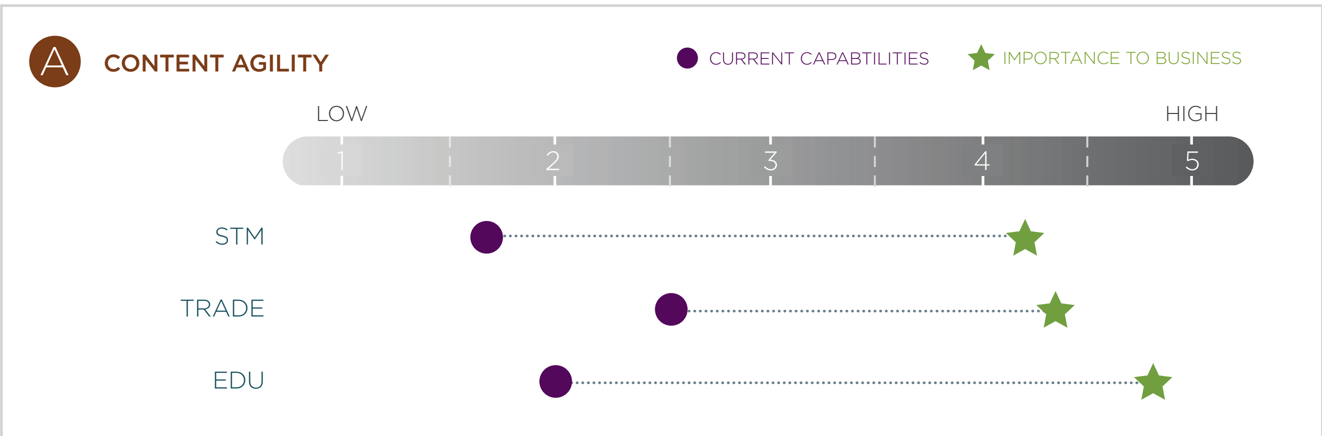
CTO, Trade

A primary challenge described in improving content agility relates to the right sequencing of elements such as improving storage, tagging metadata, and then enabling discoverability. Another major challenge discussed was content rights management and permission-to-use select pieces of content. Requirements for reuse of definitive content such as an article, a graphic, a quote, or similar is becoming more common and requires usage rights at a more granular level than ever previously provided (i.e., the entire PDF).

The current process for repurposing content was presented as highly manual. One publisher named "employee knowledge" as the tool for knowing where, what, and how content can be reused. Another publisher admitted to paying for documents to be entirely recreated just to ensure they have the correct content and associated rights for usage. This audience's frustration with current ability to reuse existing content was summarized well by a Vice President at an STM publisher:

"Right now, we are hand-cuffed and can't generate new products because content is not agile enough."

VP, STM



Why is Discoverability Difficult?

Discoverability rated a 4.5 out of 5 in "importance to business" – the second highest of the five digital transformation elements. These publishers also assessed their current abilities at 2.5 out of 5, the highest rating of all the transformation areas surveyed. Those publishers who have recently improved their content storage and metadata feel stronger about discoverability. Thirty percent of publishers interviewed discussed recent efforts in platform, widget, and partner services that are improving discoverability. An additional 30% of our audience noted that they are actively reviewing additional tools to help end users discover content.

Discoverability includes the organization's ability to locate content for production as well as end-user ability to find content. The ability to find content varied across products, for example, journals were noted to have better discoverability than books.

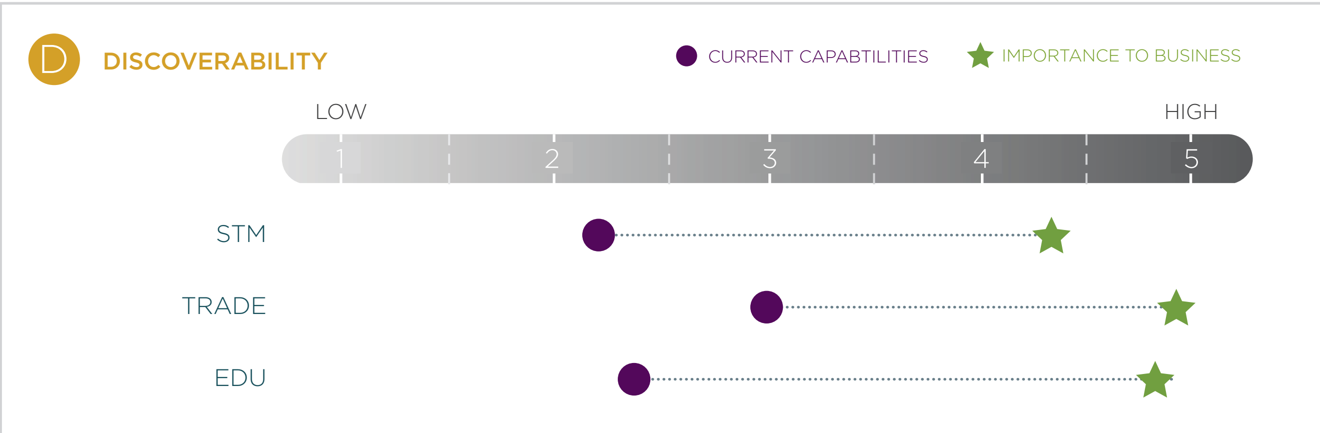
Internal discoverability is limited when content is stored across silos and metadata from various platforms is not aligned.

"In the future, natural language processing and machine learning could help to illustrate the correlations that are not structured or intuitive."

Ryan Pugatch, VP Strategic Technology, Hachette Book Group

End-users have multiple channels to discover content. In STM, end-users can access content via established workflow within their institution by searching Google or PubMed. Additionally, eAlert and eTOC tools can prompt the end users with direct links to content without any additional searching. Publishers described end-user frustration with their websites citing too many clicks to get to where they want. As end-users move outside of institutional workflows or libraries, additional challenges arise related to authentication.

Publishers believe that their discoverability capabilities will continue to improve as they solve challenges around storage (including format) and metadata.



The Truth about Collaboration

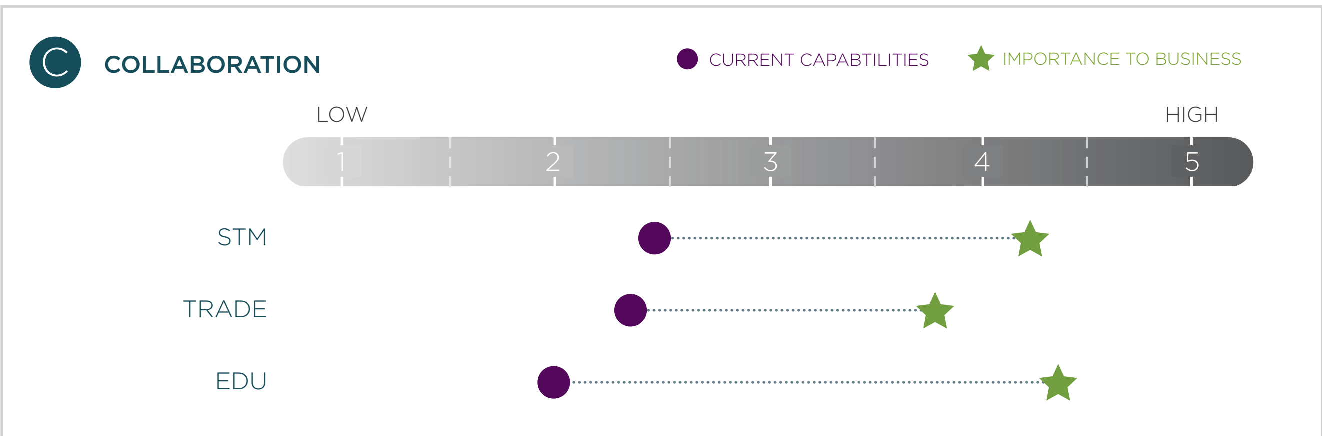
Publishers used the terms “fragmented,” “inconsistent” and “limited” to describe current automated collaboration abilities. Despite this sub-par experience, email and Excel are widely considered sufficient tools for content sharing. Of the five elements discussed in our interviews, collaboration ranked last in ‘importance to the business’ for STM and second to last for Trade and EDU. Only one publisher felt their dedicated collaboration platform provided them with above average capabilities and access to new revenue opportunities when working with authors.

Why did this audience of industry leaders think so little of collaboration compared to the other four elements discussed? Company culture and enterprise-wide employee training were cited as the two primary challenges in enhancing internal collaboration.

Company culture – a combination of legacy systems (processes and tools) and mindset (people in the ‘we’ve always done it this way’ rut) – was raised as an important issue numerous times in our conversations across all three publisher types. Culture seems particularly problematic for collaboration because without top-down change leadership (advancing the goals and rationale for change) supported by requisite processes and technology (defining how we will work together), changing behavior can be a difficult endeavor. Our respondents also cited generational issues as a contributing barrier to collaboration. Employees with longer company history may be less open to changing collaboration and sharing habits than relatively new hires. Preferences and behaviors of Baby Boomers and GenXers were described as significantly different than those of Millennials.

Implementation of an automated collaboration system is believed to require a large-scale training initiative of employees located around the world. Implementation of an enterprise learning solution is perceived to be equally time intensive and costly as collaboration.

Despite our research suggesting that automated collaboration is largely considered a lower business priority and viewed as a cost optimization initiative, there are specific, department-level initiatives getting rolled out. One Publisher described such an effort, several years in the making, to develop a revolutionary, proprietary system that links content in the workspaces so that any micro-changes, whether in the customer derivatives or in new derivatives, will trickle down to all products interacting with that information. Another Publisher discussed their strategic priority of improving the way they work with Authors based on a fundamental shift toward treating them like customers rather than suppliers. The industry leader in this example is increasingly focused on driving customer-centricity such as responding to customer demands or shortening time to market. In these ways, collaboration is expected to improve content creation and time to market.



Culture is a Gating Factor

Leaders spoke at great length about the challenges of cultural change within publishing. Change naturally takes time and significantly longer in large organizations. Global publishers are organizations of thousands of employees across hundreds of countries who work with large networks of partners.

Effective change at large scale organizations requires change leadership (clarity and direction) as well as change management (governance) across People, Processes and Technology – the key elements of the modern organization. When the future is unexpected and subject to changing dynamics, it is essential for an organization to be able to adapt and cope with change.

> *"The relationship and balance between technology and business demands constant attention. All transformations require communications and building comfort within the organization."*
>
> **Managing Director, STM**

> *"Never underestimate the cultural change that's required. There is lot more work required to win the hearts and minds of your colleagues. The reality of the change management is far deeper than any scenarios you plan for. Be humbled by the change journey."*
>
> **Max Gabriel, CTO, Taylor & Francis**

As previously stated, a critical outcome from digital transformation is the shift from product orientation to customer centricity. The traditional publishing process was linear and focused on pushing a product out to market. Today, customers pull content from myriad sources and expect information flow to be fast and flexible to best meet their needs. It has become essential for publishers to understand their customers' ecosystem, multiple personas and usage preferences. Publishers are seeking a visceral understanding of their customers' desired experience with content and a clear path for how they can deliver that experience at a price the customer is willing to pay.

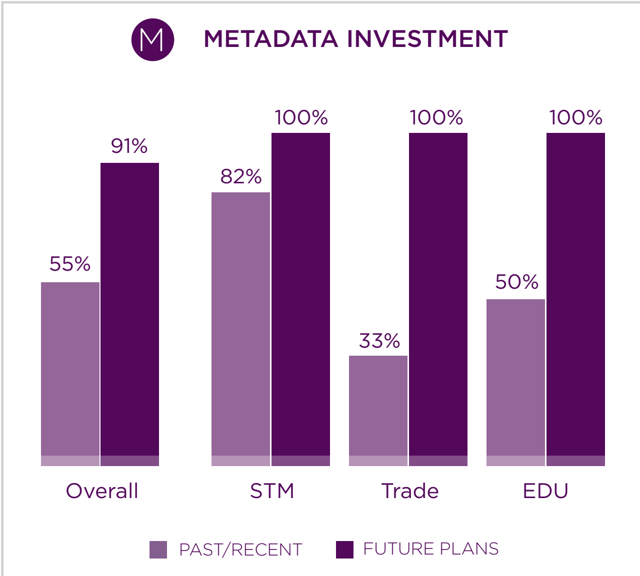
Ranking Digital Transformation Initiatives

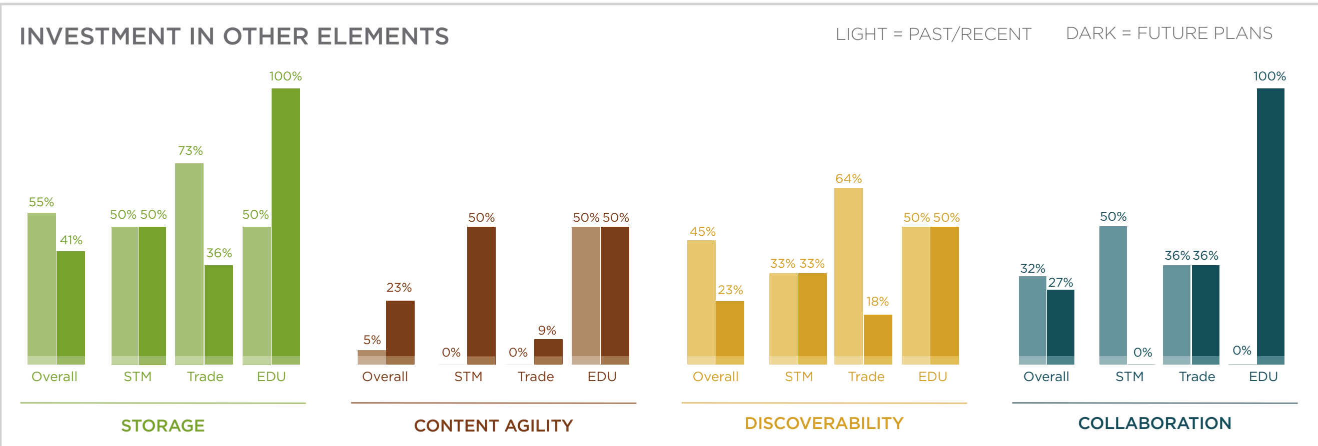
As the closing assessment for each transformation element, we asked our interviewees to rank order (1 = most important, 5 = least important) the five elements having discussed each in detail. Publishers in STM and Trade ranked metadata as the number one, most important element to their business followed closely by discoverability. EDU publishers prioritized content agility as most important to their business. Each type of publisher had a unique priority ranking in this final valuation.

Anecdotally, interviewees shared their organizations' recent investments and projected plans for each transformation area. Most publishers cited having already made investments across the five transformation elements with even greater plans for evolving their journey in the next three years. STM publishers emerged as having invested more heavily in digital transformation journey than Trade or EDU.

Although budget limitations were mentioned as a challenge, over 90% of the publishers plan to invest in metadata over the next three years. Other planned areas of investment generally referred to implementing new tools, platforms, or services. Improving content agility was the least discussed element for investment, possibly due to the perceived lack of digital solution versus the current, manual process. In addition to technology tools, publishers plan to hire and/or train employees with more relevant skills to help achieve transformation goals. These last points – overcoming a long-standing, manual process and hiring/training employees with digital acumen and skills – speaks to the prevalent need for cultural change and the pivotal role it plays in the digital transformation journey.

OVERALL RANKING	STM RANKING	TRADE RANKING	EDU RANKING
M METADATA	M	M	A
D DISCOVERABILITY	D	D	D
A CONTENT AGILITY	A	S	M
S STORAGE	S	C	C
C COLLABORATION	C	A	S





The Best Advice from Transformation Leaders

Beyond "understanding your customer" and "address your company culture," the transformation leaders we spoke with offered advice in these other categories:

Don't underestimate the effort it will take to make a change. Prepare yourself for a marathon and stop obsessing over quick wins. Building an organization that can think differently takes a lot of effort and time. Be prepared to spend money. On the surface, things might look simple but once you get into it you will end up spending more time and money than planned.

Question everything. Challenge the legacy assumptions and ask a lot of questions to better understand the business and relationship with the customer. Be sure you are clear on the business objectives and assess the impacts of making – or not making – changes. Ask for advice. There are so many new options that there is too much expertise required in too many areas. You can't be expert in everything so seek advice from people who know.

Use what's available. Start with 'off the shelf' before customizing. Look to use standards that improve interoperability. Try a few strategies and learn from mistakes. Don't get bogged down with how you prefer to do business – the users don't care, they just want simplicity and accuracy.

What's the Projected Wildcard Over the Next Several Years?

If provided a view into a crystal ball, publishers would like to know content consumption preferences and patterns and how the competitive landscape will evolve. Also, what will learning look like? How will students interact with information? What will millennial customers read, in what formats, and where? They want to know, who will challenge Amazon and when? What will the publishing ecosystem look like in the next ten years given the volume of technology based start-ups and continued M&A activity?

Additionally, publishers said they want to delve deeper into evolution of content standards and improvements to interoperability across all the different connection points. It's important to point out that lack of interoperability – globalized content storage and sharing – continues to negatively impact workflow and output within departmental and enterprise operations as well as with external partners and customers.

▶ *"The things that we do in our personal lives are affecting what we expect in our professional lives. People are expecting the same types of experiences at work. When we are at home, we are like the Jetsons. When we go to work, it's like the Flintstones."*

Peter Marney, SVP, Global Content Management and Technology, Wiley

Conclusion

"Digital transformation" is an ongoing evolution of all businesses. Publishing, a long-standing, established industry, must overcome its historical mindset and linear thinking to keep pace with current and future customers and technologies.

Again, the leaders we interviewed all have a vision for the digitized future of their organization, even if the path to achieve that future feels challenging or even blocked. Each respondent shared their perspective on level of importance and capability assessment of five key elements in digital transformation. The investment they're making in new platforms addresses one or two elements (e.g., content storage, improving discoverability beyond search, etc.) but they do not address all areas of transformation. It strikes us that an understanding of how each of these five elements – and others – dynamically work together to enable growth (respond to consumer demand, develop new revenue streams and enhance new product development) needs to be clarified and communicated.

Some of the leaders we spoke with feel their organizations have been evolving their digital platforms over recent years and believe, with additional investments, they are on the cusp of a big step forward (moving from "lagging" to "on par", or from "on par" to "leading") on our industry spectrum.

We also observed that, due to heightened consumer-driven dynamics in the industry, the timing for a shift (involving people, processes and technology) from product-focus to customer-centricity is now and it is as much about human factors (change leadership, change management, skills and competencies and mindset) as it is about technology and organizational capabilities (storage, metadata, content agility, discoverability, collaboration and more).

We learned that industry sectors (STM, Trade, EDU) have nuances related to consumer demands, desired experience, usage preferences and technology solutions. Insights regarding the criticality of understanding sector-specific personas and competitive landscape were winnowed out of the collective, cross-sector interviews. Additionally, STM, Trade, and EDU publishers offer a variety of products; platforms are focusing on new products before addressing massive archives.

Industry mergers and acquisitions also increase the complexity and scope of major transformation efforts. New companies born in the digital economy provide potential solutions as well as competition for traditional business.

▶ *"The publishers that are able to innovate and effectively progress in their digital transformation will be successful in the long term."*

Ryan Pugatch, VP Strategic Technology, Hachette Book Group

... And based on our research, the rest are at heightened risk of consolidation.

This research was sponsored by CCC and Ixxus.

ABOUT COPYRIGHT CLEARANCE CENTER

Copyright Clearance Center (CCC), with its subsidiaries RightsDirect and Ixxus, is a global leader in technologies related to content workflow, document delivery, text and data mining, and rights licensing. CCC's solutions provide anytime, anywhere content access, usage rights and information management while promoting and protecting the interests of copyright holders. CCC serves more than 35,000 customers and over 12,000 copyright holders worldwide and manages more than 950 million rights from the world's most sought-after journals, books, blogs, movies and more. The company has locations in the US, the UK, the Netherlands, Spain, Romania and Japan.

Copyright Clearance Center

ABOUT IXXUS

Ixxus is a leading global provider of publishing solutions that reinvent the way organizations produce content to drive new revenues and enhance product and content agility. Ixxus has roots in both traditional and digital publishing, delivering award-winning solutions that accelerate digital transformation and create competitive advantage. Ixxus is working with 40% of the world's top 25 publishers including some of the biggest names in the industry, such as Pearson, Wiley, Penguin Random House and Cengage Learning.

ixxus REINVENTING CONTENT

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Imbue Partners is a management consultancy that works with clients to drive profitable, sustainable growth through strategic planning, organizational capability building and process improvement. Imbue partners with its clients to optimize customer engagement and develop actionable insights through cross-functional team collaboration and proven commercial excellence. Founded in 2009, headquartered in Middleton, MA, Imbue Partners is an SBA-certified Woman Owned Small Business (WOSB).

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