



## Embracing a digital future: The role of digital-led advancements in published research

FROM THE BLOG

May 2018



This blog post article  
can be found here:

<https://corporatesolutions.wiley.com/embracing-a-digital-future-the-role-of-digital-led-advancements-in-published-research/>

Scholarly publishing facilitates the communication of critical scientific findings, thereby providing opportunities to improve healthcare outcomes. The scholarly publishing industry has evolved in response to changing needs, and digitalization has been a significant driver of these changes. This article discusses how digitalization has enhanced scholarly publishing and shares industry experts' views on how digital-led solutions will shape the future of publishing.\*

### Disclaimer

Responsibility for the content of the blog post lies with the author and publisher.

## The impact of digitalization on scholarly publishing

The technology of the printing press helped disseminate critical research findings to wider audiences, and the Internet moved everything from offline to online—by 2008, 96% of all STM journals were accessible electronically.<sup>1</sup> Today, digitalization has seeped into all aspects of research and publishing: the research cycle, collaboration, data management, journal publication workflows, content access and discoverability, research impact measurement, etc. It has also enabled publishers and stakeholders involved in clinical research to disseminate content in alternative formats, improve information discoverability and transparency, increase research outreach, and implement impact measurement tools.

## The emergence of new content formats

Did you know that today, over 63% of healthcare practitioners (HCPs) use smartphones and tablets to access information and about 70% seek information online?<sup>2</sup> Consequently, publishers, healthcare providers, and pharmaceutical companies are adopting a multi-channel marketing approach with alternative content formats—plain-language summaries, videos, scientific infographics, podcasts, etc.<sup>3</sup>—to provide HCPs and other users with “customized content in the format and platform of their choice.”<sup>4</sup> Dr. Amitabh Dash, Senior Regional Medical Advisor, Asia Region, CNS and Urology Division, Eisai Pharmaceuticals, believes that the future belongs to alternative content formats “because they help convey accurate scientific information in an easy-to-absorb way.”

## The role of social media in content discoverability and engagement

A great example of digital-led innovations is social media platforms, which now can be used for research promotion and community engagement.<sup>5</sup> According to Stacy Konkiel, Director of Research and Education, Altmetric, “Scientists are often no longer content with just reading a paper; they want the ability to re-run its code to analyze its data. Or, they may have opinions on the paper that they want to share, so they might blog or tweet their thoughts.” Speculating on the future role of social media, Dr. Chris Elliot, General and Developmental Physician and Editorial Board Member, *Journal of Paediatrics and Child Health*, says that “in the coming years, we will increasingly see peer-to-peer groups providing encouragement, support, and feedback on social media.”

## Increased transparency of research

Digitalization has enabled researchers and pharmaceutical companies to share content such as trial protocols and datasets with users. The move towards greater transparency also supports the larger cause of making research more easily reproducible.

Chris Graf, Director of Research and Publication Ethics, Wiley, and Co-Chair, Committee on Publication Ethics, believes that “The future lies in ensuring the integrity of the publishing process through embracing transparency without breaching confidentiality. Pharma has adapted to the need for transparency—pharma companies are obliged to register clinical trials and post their results, despite time constraints.”

## More avenues for increasing research outreach and impact

The increased focus on providing content based on user needs has led publishers and information providers to devise strategies to increase outreach and user engagement. Martine Docking, Vice President, Global Corporate Sales, Wiley, predicts that in the future, digital-led innovations in the publishing space will be used to “deliver appropriate multichannel marketing and education” and digital technologies will “become pervasive across all aspects of healthcare—from prelaunch discovery and the process of informing that discovery, through clinical research and clinical trial recruitment, to post-launch personalized care and services beyond prescriptions, and real-world evidence informing treatment protocols.”

## The rise of performance and impact metrics

Burgeoning publication volumes have contributed to the increased need to measure research impact. This led to the widespread use of the impact factor,<sup>6,7</sup> which dominated the performance metrics space. Digital advancements also gave impetus to additional tools and metrics like the Immediacy index, g-index, h-index, and Eigenfactor. Alternative impact indicators (altmetrics), which indicate patterns behind content discovery, citation, or access, have recently emerged as dynamic ways of tracking research outreach.<sup>6,8</sup> Today, their use in conjunction with traditional impact metrics is commonly recommended. Discussing the future of impact indicators, Deborah Wyatt, Vice President, Asia-Pacific Society Publishing, Wiley, says, “Public scrutiny of research expenditure will continue, so it will be essential to measure ‘impact’ beyond just the research community and focus on metrics like patient outcomes, evidence-based policy change, or public awareness around particular issues.”

## How digital is the future?

The role of technology in enhancing research and publication processes cannot be ignored. Donald Samulack, President, US Operations, Editage, feels that “technology will play an important role in helping us manage data better through data mining solutions.” According to Wyatt, the future “will no doubt bring further changes to the way we measure research impact.” While digitalization has introduced disruptive innovations in scholarly publishing, it has intrinsically transformed scientific communication.

Going forward, innovations powered by digital technologies will dominate all aspects of communication and content sharing in the industry as well as drive user engagement and impact.

**\*Note:** This post is based on a whitepaper – *Scholarly Publishing in the Digital Era* – that presents industry experts' views on the future of research communication, content access, and learning. The quotes used in this post have been sourced from the whitepaper. Read full whitepaper [here](#).

## References:

1. Ware, M.; Mabe, M., 2015, An overview of scientific and scholarly journal publishing, 4th edition, International Association of Scientific, Technical and Medical Publishers, The Netherlands  
[https://www.stm-assoc.org/2015\\_02\\_20\\_STM\\_Report\\_2015.pdf](https://www.stm-assoc.org/2015_02_20_STM_Report_2015.pdf)
2. Healthcasts, Whitepaper, The new rules of HCP engagement: 5 Strategies to consider in an evolving pharma landscape,  
[http://media.mmm-online.com/documents/168/healthcasts\\_whitepaper\\_41894.pdf](http://media.mmm-online.com/documents/168/healthcasts_whitepaper_41894.pdf)
3. Meadows, A., 2013, The Evolution of Digital Publishing and its Formats,  
<https://scholarlykitchen.sspnet.org/2013/12/06/the-evolution-of-digital-publishing-and-its-formats/>
4. Wiley Corporate Solutions, 2017, Helping HCPs access trusted content they need,  
<http://corporatesolutions.wiley.com/helping-hcpsaccess-trusted-content-they-need/>
5. Lupton, D., 2014, 'Feeling Better Connected': Academics' Use of Social Media,  
<http://www.canberra.edu.au/research/faculty-research-centres/nmrc/publications/documents/Feeling-Better-Connected-report-final.pdf>
6. Altmetric, Scholastica, The evolution of impact indicators: From bibliometrics to altmetrics,  
<https://www.opda.cam.ac.uk/file/evolution-of-impactindicators.pdf>
7. Wiley Corporate Solutions Blog, 2017, Maximize your study's visibility by choosing the right journal,  
<http://corporatesolutions.wiley.com/maximize-yourstudys-visibility-by-choosing-the-right-journal/>
8. Butler, J.S.; Kaye, I.D.; Sebastian, A.S.; Wagner, S.C.; Morrissey, P.B.; Schroeder, G.D.; Kepler, C.K.; Vaccaro, A.R., 2017, The evolution of current research impact metrics: From bibliometrics to altmetrics? *Clin Spine Surg.* 30(5):226–228.