The evolution of journals from print to enriched media: an assessment of journal digital characteristics

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Abstract

Objective: HCPs are shifting how they access clinical information in response to the dramatic evolution of online and mobile resources. Concurrently, peer-reviewed medical journals are adapting to effectively compete and provide useful, engaging, and informative healthcare information. We sought to understand how medical journals are expanding their use of digital media to provide enriched sources of publication content to users.

Research design and methods: We surveyed 100 medical journals to explore what changes they have made to increase their use of digital media to deliver content. In addition, we analyzed 39 medical journal websites to identify how they are using social channels and other new media to expand the reach of their content and facilitate broader, enriched, easier access. **Results:** Of the 39 journal websites surveyed, one quarter (n=10; 26%) did not have broader digital characteristics. Of the remainder, 26 (66%) solicited inclusion of digital media into publications (eg video-enriched manuscripts) or pushed unsponsored content out proactively via new media (eg podcasts). Seventeen journals (44%) had active social media channels such as Twitter or Facebook. We have solicited survey participation from 100 journals and are currently awaiting responses. **Conclusions:** Peer-reviewed medical journals are rapidly evolving to meet the needs of HCPs in accessing healthcare information through mobile and online resources. Journals report this trend will continue, as they seek ways to adapt to an increasing need for rapid and user-friendly access to data and education.

- The number of media enhancements added by journals ranged from 1–10 (median=3).
- 73% (36/49) of journals provided >1 digital offering (Figure 2). —
- Figure 2. Frequency of digital enhancements offered by medical journals (n=49)



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- A total of 85% (11/13) of journals considered a social media presence to be either "very important" or "somewhat important."
- Of the 13 journals, 4 (31%) did not use any form of social media to engage HCPs. Among the remainder, a Twitter feed (46%, 6/13) was the most commonly added social channel, followed by a Facebook and LinkedIn presence (each 31%, 4/13) (Figure 5).
- Videos (46%, 6/13) were the most frequently offered digital content delivery enhancement.
- Due to the low response rate, data were not analyzed according to high-• versus mid-ranking impact factor or therapy area focus.

Figure 5. Frequency of digital media enhancements added by surveyed journals (n=13)

Introduction

- The methods and channels by which the medical community search for and obtain their information is evolving. Online resources, including search engines, websites, mobile apps, and social media, are increasingly used by healthcare professionals (HCPs) to inform clinical decision-making and communicate with peers.¹
- Recent research conducted by Google with Manhattan Research looked at digital adoption among >500 practicing physicians and found:
- physicians spend twice as much time using online resources for clinical decisions than they do with print resources
- 87% use a Smartphone or tablet in their practice
- 55% had watched online medical education videos over the past 12 months.¹
- Moreover, 53% of HCPs use message boards, communities, social networks, or blogs on a monthly basis.²
- Peer-reviewed medical journals are adapting to effectively compete and provide useful, engaging, and informative healthcare information.



No relationship was found between the number of digital media enhancements offered by journals and journal impact factor (Figure 3).

Figure 3. Relationship between the number of digital media enhancements offered and journal impact factor (n=46)*



The type of digital enhancement added by journals showed variations by therapy area, with the overall proportion of added social media features ranging from 39–57% (Figure 4).



- Survey responses indicate trends in how journals are adding or considering the addition of enhancements to their content delivery over time:
 - Video-enriched articles are the most common digital content delivery enhancement that have been available for >2 years, having been offered by 4 journals.
 - Within the past year, 3 journals we evaluated have introduced ≥ 1 digital media enhancement.
 - Within the next 2 years, 5 journals (38%) surveyed report plans to introduce \geq 1 digital media enhancement.
- Survey responses indicate reasons for journal use of social media:
 - 23% (3/13) use social channels to disseminate information only (ie, 1way communication; pushing content out).
- 15% (2/13) utilize social features to promote dialog with physicians (ie, — 2-way communication; interactive engagement).
- 31% (4/13) use social media channels for both 1-way and 2-way communication.
- Journals use a variety of metrics on their websites, most commonly the

Objective

To understand how medical journals are expanding their use of digital media to provide enriched sources of publication content to users

Research design and methods

- KnowledgePoint360 performed an online assessment to determine whether medical journals offer mobile-optimized websites, apps, podcasts, videos, RSS feeds, and e-Alerts, in addition to opportunities for digital manuscript enrichment. Journal participation in social media (Facebook, Twitter, blogs, LinkedIn, and YouTube) was also examined.
- The initial assessment was limited to 39 medical journals but later expanded to include 60 medical journals.
- A selection of widely utilized journals, with a range of business _ models and impact factors within the fields of gastroenterology, general medicine, health economics outcomes research (HEOR), dermatology, oncology, and urology were included.
- In March and April 2013, KnowledgePoint360 also surveyed 100 medical journals to gain insight into their utilization of digital media, either as part of digital enhancements to their own websites or in providing enriched content to their readers.
- Using Sylogent's Journal Selector, journals with high- and midranking impact factors across 5 broad therapy areas (oncology, endocrinology, neurology, cardiology, and general medicine) were identified. Lower ranking journals were not included as they are not likely to be representative of journals typically targeted during publication planning. Therapy areas were chosen based on a view that such journals would be in a highly competitive market place and actively looking to shift their business model.
- The survey was conducted via e-mail using SurveyMonkey. —

Results

Online assessment of digital enhancements offered by medical journals

Of the 60 journals examined, all but 11 (82%) incorporated additional digital characteristics on their websites.

- HEOR was the only specialty area examined that added more social media than digital content delivery enhancements (57% vs. 42%), with Twitter representing 38% of all social media additions.
- The general medicine and dermatology journals sampled added an equal proportion of social media and digital content delivery features, most commonly Twitter and RSS feeds, respectively.
- Of the oncology journals examined, a slightly higher proportion of digital content delivery enhancements was added relative to social media (54% vs. 46%).
- Among the urology journals sampled, digital content delivery enhancements were added more often than social media (61% vs. 39%).

Figure 4. Type and frequency of digital media enhancements added by therapy area (n=49)



number of website visitors (Figure 6). These metrics are publicly available upon request for 3 journals (23%).



Summary

- Of the journals examined, the majority (82%, 49/60) offered their readers digital media enhancements. Of these, most (73%, 36/49) offered >1 type of digital characteristic.
- Of the journals selected for the online assessment, the type of enhancements offered was split relatively evenly between social media and digital features that enrich content (53% and 47%, respectively).
- However, when journals were stratified by therapy area, differences were found in the type and relative proportion of digital enhancements.

- We identified several digital enhancements that journals had included on • their websites at the time of our research. We classified these as either social media or digital content delivery (non-social media).
- Social media channels comprised 47% of all digital characteristics ٠ measured (Figure 1).
- Facebook was the most frequently recorded characteristic, both among all enhancements and among the social media group only. LinkedIn was the least common social media channel utilized.
- Videos were the most commonly offered digital content delivery enhancement. Quizzes/polls and mobile sites were offered the least often, each provided by only 3 journals (6%).



*Other includes audio, interactive medical cases, pharmaceutical-sponsored sections, supplemental digital content, mobile downloads, and Pinterest.

HEOR = health economics outcomes research

Medical journal survey

Of 100 medical journals surveyed, responses have been received from 13 • journals. The demographic characteristics of survey respondents and their journals are summarized in Table 1.

Table 1. Demographics of survey respondents and their journals, n (%)		
Job Title		13 (100)
	Publisher	4 (31)
	Managing Editor	2 (15)
	Commissioning Editor	2 (15)
	Head of Commissioning	2 (15)
	Publishing Manager	2 (15)
	Publishing Director	1 (8)
Therapy Area Focus		13 (100)
	General medicine/other	10 (77)
	Neurology	1 (8)
	Oncology	1 (8)
	Endocrinology	1 (8)
Access*		13 (100)
	Open-access	12 (92)
	Subscription	11 (85)
	Pay-per-view	9 (69)
	Hybrid access	5 (38)
	Delayed access	3 (23)
	One-time fee	2 (15)
*Multiple responses possible.		

Our survey of medial journals is ongoing, but preliminary results support the findings from our online assessment and indicate a continuing increase in the utilization of digital characteristics.

Conclusions

- Peer-reviewed medical journals are rapidly evolving to meet the needs of HCPs in accessing healthcare information through mobile and online resources.
- Journals report this trend will continue, as they seek ways to adapt to an increasing need for rapid and user-friendly access to data and education.
- Publication planning professionals must take into consideration the multitude of nontraditional channels by which their target audiences are accessing information.

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