Vision for a digital future

Getting personal

Patricia K. Baskin, MS,
Executive Editor
Robert A. Gross, MD, PhD, FAAN,
Editor-in-Chief

Correspondence & reprint requests to Ms. Baskin: pbaskin@neurology.org

Neurology® 2012;78:2–3

The greatest opportunities and challenges for medical journals today involve how we keep pace with technology and, in particular, with the changes in digital publishing. Leading publishers are those using new technologies—such as devices and social media—to deliver the information people want and need for medical research or medical care. Pertinent content and timely delivery combine to help achieve better outcomes for patients. Rather than simply reporting research results, journals are poised to change the way medical professionals practice. At the *Neurology*® editorial retreat in March 2011, themed "Reimagining the Journal," ideas emerged regarding publication of journals in the future; we determined that *Neurology* would be a leader among specialty journals in finding ways to improve and enhance the reading experience for our readers. We have already achieved several goals set at the retreat and are planning other initiatives.

We are transitioning to different ways of enhancing the content, packaging, and distribution of *Neurology*. *Neurology* content is already on an app for the iPad, which many readers have described as the superior way to browse and read the journal. Web access is optimized for viewing on mobile phones, whatever the operating system. Our new journal, *Neurology: Clinical Practice*, will appear in print, online, and in an app for the iPad. Our correspondence section has morphed into an online interactive discussion forum, dubbed WriteClick, with feedback links incorporated into our online and iPad versions. QR codes in the print journal link our print and digital formats; these codes link to additional data or features, such as video or audio files, or to supplemental data. As these innovations suggest, your journal is moving from print and the more flexible online Web site toward a personalized digital experience, delivering timely content in a way that most meets the needs of the user. Readers have generously shared their ideas through solicited surveys, many of which informed our decisions.

Our Web site is undergoing a major redesign. Soon it will be easier to find content from any point in the site. Semantic tagging will create new connections between journal content and other information sources. Subspecialty spinoff journals and micro- or mini-sites accessible from the main journal site will make the main site a gateway for research reports and community focus points for subspecialty areas of neurology. We will make more use of widgets (self-contained modules that perform discrete functions in different contexts) to engage the reader; widgets can suggest recommended reading, related books and videos, and associated terms to those used in the article. This personalization of information becomes even more valuable with the increased utilization of personal devices with touchable screens and ways of sharing of information in real time from any location through social networks.

Sharing of information and mobility rank high among readers' needs. Digital devices, including smartphones and tablets, which more closely replicate the reading experience and still contain the flexibility of the Web, will make content readily available whenever and wherever it is desired. Cell phones now outnumber computers throughout the world; in many countries, mobile phone use is prevalent but Web access is not available, so the use of these devices will engage entirely new populations of readers. While information resources are becoming more and more mobile and "touch" is replacing "click," social networking is now replacing e-mail use to share content. Joining those who have signed up on the Web for newly released Tables of Contents and topic alerts are those who receive updates via Facebook, Twitter, LinkedIn, and other social networks.

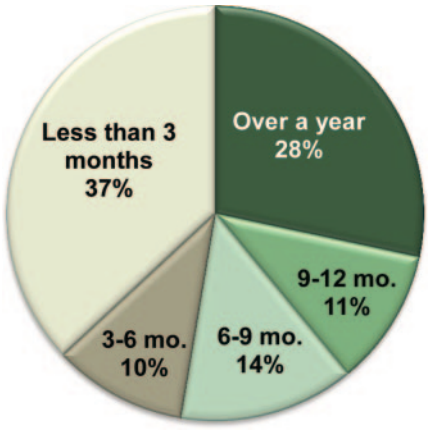
The iPad provides a very specific, digital alternative to the print reading experience. We seek further enhancements of this already widely adopted version of the journal. Besides the ability to deliver articles, features include monitoring of usage and feedback, a microphone, the rotation option, a touchscreen, Web browsing, and video and audio media. Although we may eventually create versions of the journal for other electronic tablets, we chose to create an

Supplemental data at www.neurology.org

Supplemental Data

From the American Academy of Neurology (P.K.B.), St. Paul, MN; and Strong Epilepsy Center (R.A.G.), University of Rochester Medical Center, Rochester, NY.
Disclosure: Author disclosures are provided at the end of the editorial.

Figure 1 Length of iPad ownership



Adoption of iPads by readers completing *Neurology* survey after downloading the app for the iPad from June through August 2011, courtesy of Lippincott Williams & Wilkins.

app for the iPad first because of its rapid adoption among the medical profession. Our survey regarding the app indicates that readers are adopting this device at a rapid rate (figure 1).

One of the "hot" areas evolving for digital use is visualization of and interaction with data. The amount of data available in the medical sciences is overwhelming, but making sense of these data will be critical to answering complex questions. Using digital media such as the app for the iPad, data visualization and direct manipulation become possible. For example, functional imaging papers might use images to visualize emotional activity in the brain in particular colors, with the option to select the visualization of isolated pathways; network imaging could be performed in real time to make content more dynamic and engaging and to enhance understanding of the results. Other interactive figures could be used to get instant feedback or information from illustrations that can be deconstructed or analyzed. We have included an example of an interactive figure in figure e-1 on the *Neurology*® Web site at www.neurology.org and hope to see more complex data visualization in submitted papers in the coming months using techniques now available.[1]

Developing technology will continue to bring new possibilities for other information interactions. For example, Skinput technology allows a person's skin to act as a touchscreen using low-frequency sound[2] and Microsoft Lightspace uses augmented reality to make surfaces (and spaces between them) installed in a room interactive.[3] Although it may be some time before we are able to use these technologies on a regular basis, we can see a future journal with such enhanced content that is mobile and customized for users.

Many of our users depend on the print journal or on downloaded PDF files, while many others have embraced the smartphone and iPad versions of the journal. All feel the burden of content overload. Our goal is to vet information carefully and keep the *Neurology* brand strong, but at the same time to provide *Neurology* content as conveniently and informatively as possible. Doing so means we should remain user-centric, developing best methods of content delivery, and imbuing our content with enhanced features that are visually appealing, whether on the Web or on your personal devices. It will be exciting and fun to see what the future holds. Help us build it by providing feedback on features you would like to see in your journal.

AUTHOR CONTRIBUTIONS

Drafting of the manuscript and analysis or interpretation of data: Patricia K. Baskin, Robert A. Gross.

DISCLOSURE

Patricia K. Baskin is Executive Editor of *Neurology* and employed by the American Academy of Neurology; her spouse is employed by the Department of Veterans Affairs and University of Washington and receives research funding from the Department of Veterans Affairs and NIH; he is an Associate Editor of *Endocrinology* and Executive Editor of *Journal of Histochemistry and Cytochemistry* and receives stipends for those activities; Ms. Baskin received reimbursement for travel expenses to 2 meetings in 2011 of the International Publication Planning Association, an association of industry professionals sponsored by Pharmaceutical Education Associates LLC, to present *Neurology*'s authorship policies; and consulted with no stipend or reimbursements for the Medical Publishing Insights and Practices initiative at a journal-pharma workshop in 2011. Dr. Gross has received research funding from the Department of the Army and UCBPharma; is supported for educational endeavors from the University of Rochester Medical Center's Clinical and Translational Science Award from the NIH; has conducted clinical trials over the past 5 years funded by GlaxoSmithKline, UCB, Ortho-McNeil, Pfizer, and Marinus; has served on the speakers' bureaus for Abbott, UCB, and GlaxoSmithKline and has received consultant fees from GlaxoSmithKline and Harris Interactive; since his appointment as Editor-in-Chief, Dr. Gross has ceased participation in industry-sponsored clinical trials and speakers' bureaus; and receives an honorarium from AAN as Editor-in-Chief of *Neurology*.

REFERENCES

1. Available at: www.visualizing.org. Accessed November 6, 2011.
2. Available at: http://www.physorg.com/news186681149.html. Accessed November 6, 2011.
3. Available at: http://research.microsoft.com/en-us/projects/lightspace/. Accessed November 6, 2011.