

AIP | Matters

Monday, May 9, 2011



Director's Matters

By H. Frederick Dylla, Executive Director

Mobile delivery

What activity that didn't exist a decade ago now takes up a significant part of our day? If you watch people walking down the street, waiting for a bus or a train, or being distracted from other activities you'll soon have your answer: using a mobile communications device.

Before any new communications tool becomes widely adopted, it first requires innovations in two essential areas: content (or software) and hardware. As the pace of innovation in hardware and content has accelerated, however, so too has the speed that these new technologies are adopted.

In the early part of the 20th century, it took 38 years for the radio to attract 50 million listeners. It took only 13 years for the television to reach 50 million viewers. Fast-forward to the end of the 20th century when the Internet was opened up to the public in 1992, and it only took four years for 50 million users to adopt this new technology (Gabay, 2000).

Technology and content. The first demonstration of radio or "wireless" communication was by [Enrico Marconi](#) in the late 1890s. The widespread adoption of radio, however, did not take place until [David Sarnoff's RCA](#) (Radio Corporation of America) mass produced affordable models in the 1920s and helped design the powerful transmitters to broadcast content to them. RCA also helped launch a number of radio stations to provide content for these new sets, which made them more attractive to consumers. There was a similar evolution with television, which saw a number of competing inventions in the 1930s both in the United States and the United Kingdom. The adoption of this technology exploded in the early 1950s, fed by whole new industries established to manufacture television sets, broadcast stations, and content producers.

The archetypical mobile communications tool, the mobile phone, was invented by [Martin Cooper](#) in 1973. But the widespread adoption of this device didn't take off until nearly 20 years later when companies like Motorola and Nokia could take advantage of advanced microwave chip technology and produce small but powerful and inexpensive handheld devices. In 2010, there were nearly 303 million mobile phones in use in the United States and three billion users worldwide ([Wikipedia](#)). And now, we are seeing that the smart phone has the potential to connect all of these users to all the information on the Web.

AIP, a content developer and provider for the scientific community, needs to pay keen attention to how we deliver this information to our end users. If we look at how someone

accesses content on AIP journals or information sent out by our Physics Resources Center, one or more of these mobile access tools may be used: a laptop computer, a smart phone, or the iPad—a tool that essentially had no market penetration until a year ago. Internet traffic from mobile devices to *Physics Today* currently doubles every eight months, for instance. Our content needs to be conveniently and easily available on all three of these platforms—and it largely is.

[Outsell Inc.](#) recently surveyed 400 individuals, with a cohort likely as "connected" as a typical AIP or Member Society constituent. Their results showed that many owned and used all three of these devices. It is interesting to speculate whether there will be a universal communications device that will replace these three tools. One of the most startling survey findings is the amount of time users spent with mobile communications devices. Respondents reported an average of 5.5 hours per day! That is more than half of a typical workday and 25% of typical waking hours. Approximately half of this 5.5



hour period was used for telephone and email communications. The other half was split among a variety of Web uses: social media (9%), information gathering (11%), product services (10%), and, of course, the bane of office supervisors—entertainment (11%). This data reveals how important communications tools have become.

The developed and developing world alike will continue to adopt these devices, as the technology will continue to evolve and improve. [AIP was one of the first](#) scholarly publishers to deliver formatted content onto the iPhone, as well as the Blackberry and the Android. We will continue to dedicate resources to keep at the forefront with these technologies.

PHYSICS RESOURCES CENTER MATTERS

LinkedIn to physicists in industry

The AIP Industrial Outreach program has been managing an [Industrial Physicists group on LinkedIn](#) for the past few years, and just last week the number of group members topped 1,000. The Industrial Physicists group enables physicists to come together to share and gather information. Members range from seasoned professionals

in the private sector to job seekers, students, and academics seeking connections and insight. Interestingly, the group is very international and relatively young. Our goals for the group are to raise awareness of AIP's Industrial Outreach activities, stimulate discussion on a range of relevant topics, drive traffic to [aip.org](#) and AIP's products and services, and add more structure and branding to the group.

Physicists canvass Capitol Hill



From the left, Jennifer Greenamoyer (AIP Government Relations) with AAS member Alberto Conti, Senator Ben Cardin (Maryland - D), and AAS members Dan Wik and Susan Kassin.

As part of the [Sixteenth Annual Science-Engineering-Technology Congressional Visits Day](#) (SETCVD), scientists from several of AIP's Member Societies, including APS, AAS, AVS, AGU, and OSA, visited congressional offices in support of science and engineering research. With Congress focusing on deficit reduction and budget cuts, now is a critical time to inform lawmakers that research is one of the engines of economic growth and competitiveness. More than 250 scientists, including at least 20 Earth scientists, 14 astronomers, and 4 vacuum scientists, came to Washington, DC, on April 7, 2011, to

communicate the importance of basic research funding and federal support for the sciences. AIP staff assisted with visits to Massachusetts, Maryland, California, Illinois, and Virginia delegations. AIP encourages participation for this annual event and is one of 30 scientific-society cosponsors. The program includes a half-day briefing and orientation before the meeting, leave-behind materials, and a Capitol Hill reception and breakfast. Please contact [Jennifer Greenamoyer](#) for more information.

AROUND AIP

Gary White received as APS fellow

During the APS April Meeting in Anaheim, CA, SPS Director Gary White received the honor of being named 2011 APS fellow. The APS Forum on Education nominated White "for inspired leadership of the Society of Physics Students, including successful efforts to facilitate the increased participation of undergraduate students in local and national activities." AIP Education Director Jack Hehn said, "The growth of the SPS under Gary White's leadership has been remarkable. APS recognized Gary's distinguished accomplishments as a faculty member and his program leadership within the student community as a career lifetime of important contributions to physics. I know that he will continue to lead in the future." Congratulations, Gary!



AIP folks at APS meeting (from the left): Cathy O'Riordan, VP of Physics Resources Center; Tom Olsen, Assistant Director of SPS and Sigma Pi Sigma; Gary White, Director of SPS and Sigma Pi Sigma, and Associate Director of Education; Jack Hehn, Director of Education.



Peter Collings (second from left), Chair of Fellows Nominating Committee for APS Forum on Education, poses with three of the 2011 APS fellow recipients (from the left): Bruce Mason, Larry Woolf, and Gary White. (The other new fellows also nominated by the Forum on Education are John Mateja, Jose Mestre, and David Van Baak.)

WHAT'S HAPPENING THIS WEEK

Monday, May 9

- Investment Advisory Committee (Chicago, IL)

Tuesday, May 10

- ACP Spring Art Opening and reception; 5:30–7:00 pm (College Park, MD)

Wednesday, May 11

- CNSF Exhibition & Reception; 5:30–7:30 pm (Rayburn House Office Bldg., Washington, DC)

Thursday, May 12

- Committee on Publishing Meeting (Melville, NY)

We invite your feedback to this newsletter via email to aipmatters@aip.org.

For past issues of this newsletter, visit the [AIP Matters archives](#).