

IGNITING CHANGE

Villanovans contributing to the community



Setting the Standard

Digital TV pioneer Glenn Reitmeier '77 COE has built his career on technological innovation

By Suzanne Wentzel

Glenn Reitmeier '77 didn't know his decision would change his life. The senior Electrical Engineering major just wanted to enroll in the new course because the subject intrigued him. Plus, it meant he'd be taught by his beloved mentor, S.S. Rao, PhD, department chair. Dr. Rao was tough, no doubt about it. Still, the payoff was worth the head-scratching. "If you could pass his tests, you really understood the material," Reitmeier says.

But adding "digital signal processing" to his glowing resume brought Reitmeier an even bigger payoff. It launched him on a career path now studded with innovation milestones. The senior vice president, Technology Standards and Policy, at NBC Universal, Reitmeier holds more than 50 patents. He has earned prestigious awards for his visionary work in the TV industry.

And he was one of the elite engineers at the center of a high-stakes episode in the annals of telecommunications: the race to develop digital high-definition TV.

Let's get digital

The Trenton, N.J., native arrived on Villanova's campus with a guitar on his back and plans to study chemical engineering. Those plans soon evaporated. Introduced to computer programming in a freshman engineering course, he was irresistibly drawn to digital technology.

When he started his job hunt, Reitmeier sent a cold cover letter to the David Sarnoff Research Center, RCA's famed research and development facility, in Princeton, N.J. His credentials, including his Dr. Rao course, landed him an interview. In 1977, he accepted Sarnoff's offer

of a job that would allow Reitmeier to apply advanced signal processing to TV. Sarnoff also would send him to the University of Pennsylvania for his master's.

Reitmeier hit the ground digitizing. He helped develop the architecture and software for one of the first computer systems for digitizing video; picked up his first patent for picture resizing for digital video effects; and contributed to experiments that led to the adoption of a standard for component digital video interface now used worldwide. This pace never slackened in Reitmeier's 25 years at Sarnoff. His collaboration and leadership in digital video research, consumer electronics and other technologies earned Reitmeier the industry's respect—and his children's.

As youngsters, his son and daughter had asked, "Dad, what do you do for your job?" To answer, Reitmeier (who is married to Elaine Bourcet Reitmeier '78 LAS) played show-and-tell. He'd helped to develop a TV graphical-user-interface approach for on-screen controls and remote-control navigation. "I pointed to the volume slider on the screen. 'I do that.'" It was grounds for coolest-dad bragging rights.

I want my HDTV

No collaboration showcased Reitmeier's ingenuity as much as the one that revolutionized TV. In the late 1980s, a Federal Communications Commission advisory committee called for proposals for the TV system of the future. Rigorous test-

ing would determine the winner. Sarnoff couldn't pass up the challenge.

An early prophet of digital TV, Reitmeier was tapped to lead the development of the Advanced Digital HDTV system for Sarnoff and its consortium partners: Philips, Thomson and NBC. Competing against the calendar and new digital approaches from such titans as AT&T and MIT, Reitmeier's team worked feverishly to build their prototype.

By the time testing was completed, all analog proposals had been eliminated, since they couldn't send HDTV in a single over-the-air TV channel. But surprisingly, none of the four digital entries was victorious. Each had strengths and weaknesses. In a show of remarkable cooperation, the competitors joined forces to develop the optimal system. The "HDTV Grand Alliance" succeeded. Its prototype was put to the test and passed with flying, digital, high-definition colors.

In 1996, the FCC approved the resulting ATSC Digital Television Standard, the world's first standard for digital TV and HDTV transmission. All US TV stations use it, and more than 75 percent of homes have at least one HDTV set. The Grand Alliance's work set technical precedents for DVD and Blu-ray Discs; digital cable and satellite TV delivery; and video streaming over the Internet.

"The Grand Alliance was a high point in my career," Reitmeier says. "We overcame rivalries and defied skeptics' predictions."

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Their achievement earned the Grand Alliance companies an Emmy Award.

Since 2002, Reitmeier has guided NBC Universal's technical efforts regarding technical standards, policy, commercial agreements and anti-piracy operations. From launching NBC's first HDTV cable channel to driving the creation of the mobile broadcast standard, he has continued to ignite technological change. A big reason he excels is his "top-notch" Villanova education. "I can't say enough about the personal attention of the faculty and their dedication to teaching."

Good vibrations

Nor can Reitmeier say enough about the Villanova Singers. A vocalist and guitarist, Reitmeier had belonged to the all-male ensemble and directed the subset the Spires. He was famous for his Beach Boys medley and other arrangements. "Glenn was creative and technically impressive," says Bob Crowley '79 VSB, co-founder and managing partner of the Mustang Group. "You could throw anything at him, and he would figure it out."

Reitmeier stays close to past and present "Brothers in Song." He's a regular at the annual July Fool's Party, hosted by Bill "Ippi" Ippolito '72 LAS, and at events sponsored by the Villanova Singers Legacy Society, which has raised more than \$250,000 for the ensemble. For Reitmeier, this personal grand alliance, rooted in the love of music rather than professional interests, balances out his life. "It is an important part of who I am as a person."

Tom Bucaria '80 LAS, a state attorney for the New York State Unified Court System, couldn't agree more. "To me, Glenn will always be the guy with the infectious smile and funky guitar strap." ■



Left: Glenn Reitmeier '77 COE received an Emmy Award for helping to develop digital HDTV. Above: Reitmeier (with guitar, right) poses with the Spires for the 1977 Belle Air Yearbook.