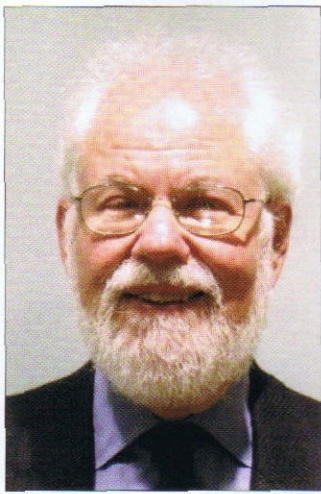


Two Sides to

Dave Says: Cable Was the Obvious Choice for Pictures and Sound



Dave Waks, Consultant, System Dynamics Inc.

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A broadband industry pioneer, Dave has worked on residential broadband for nearly 20 years. In the 1990s he directed several of the earliest residential cable modem trials, and later helped MSOs plan and deploy broadband services. When Dave is not busy consulting for clients or co-writing the Report on the Broadband Home, he tests new broadband-related products and maintains the multiple Web sites he's created.

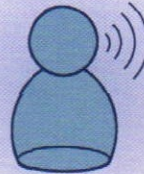
When I signed on as one of Prodigy's founding employees in early 1984, our business plan called for

advertising and transactions to form a large part of the revenue stream. Our planned user interface, while innovative for the time, included only text and graphics. Since our advertising revenue would have to be taken from other consumer media, I believed our service would have to include pictures, sound and video to be competitive with magazines and television.

As R&D director, I put together a team to look into how to create and deliver "multimedia" content. While the mainline development group focused on delivery over the latest 1,200 bps dial-up modems, the R&D group believed we'd needed much fatter pipes to deliver competitive digital services. I started recruiting people to work on cable applications in 1985, and our meeting with Walt Ciciora at ATC in Denver was my first with an MSO.

In 1987 we installed the original 500 kbps Zenith cable modems in our lab, and did a small-scale technical test with a local MSO. By 1988, we felt ready to do a field trial and hoped to launch Prodigy over cable in parallel with the mainline launch over dial-up planned for the fall of that year. Media General Cable had a working two-way system in Fairfax, VA, and we held several three-way meetings between Prodigy, MGC and Zenith. Tom Waldrop and Don Mathison were enthusiastic about using the Fairfax system to deliver Prodigy to MGC customers. But we found that MGC was way ahead of the industry — the larger MSOs had not committed to deploying two-way and probably would not start doing so for years to come. So we reluctantly put our early cable efforts on the back burner.

Following some exposure at the 1992 Western and 1993 National shows, we again approached



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MSOs to do a market trial of Prodigy delivered over cable modems. After talking with several other MSOs, we found ourselves in Jim Robbins's office at Cox in Atlanta. Jim quickly agreed to the idea of running the first residential cable modem trial, and he selected Cox's San Diego system. Prodigy wanted to announce the trial at the 1993 Western Show, but Jim insisted that we couldn't announce it unless we had it working in his customers' homes. The Prodigy and Cox San Diego staff worked very hard over the next few months (I personally recruited the first seven participants from my kitchen telephone) and the service was up and running in Cox San Diego's first active fiber node by Thanksgiving — just in time to announce it in Anaheim the

next week.

At the 1994 Western Show, Prodigy demonstrated how cable modems could be used to deliver digital video. We hired Paul Maxwell to go out on the show floor with a camera crew interviewing people, then overnight created an on-demand MPEG video stream delivered the next day to many booths on the show floor as part of an enhanced Prodigy service. I left the company at the end of the year, so this proved to be my swan song.

In 1995, I was engaged to participate in several meetings where telephone companies discussed what they might do to respond to high-speed services delivered by cable companies. My role was to present the argument that cable could succeed at that effort. But the senior telephone technical executives all agreed that the cable plant couldn't carry reliable high-speed services. Fiber-to-the-home was the best way, and they'd probably have lots of time to deploy it. If they were wrong, they'd reluctantly use DSL — but they didn't think they'd need to.

The telcos were wrong. Cable has proven to be a great way to deliver high-speed data and all forms of digital media. I'm delighted to have been part of it — and it's not over yet.

Every Story

Sandy Says: I Thought Telcos Would Pave the Path to Multimedia

Ten years ago the cable world was a foreign place to me. I had spent almost 20 years in the telco business and never imagined being part of the cable family. The summer 2007 issue of *Broadband Library* finally brought home how much I (and the industry) have changed. As I flipped through the annual cartoon cover issue, I was struck by how many of the cable industry authors I have gotten to know over the intervening years.

Until 1996 I worked for AT&T (the “classic” version, not the new one). I was accustomed to laced-up trade shows full of technical talks and very proper people, decked out in corporate attire. I viewed telephone companies as the likely creators of the next generation of personal communications.

Meanwhile Dave, who had gotten involved with cable in the mid-1980s, talked about how the cable plant could be the ideal path for transmitting pictures and sound to personal computers in people’s homes and how that could transform the way we shopped, banked and were entertained at home. I was not persuaded. I thought it was more likely that giant AT&T, with all its resources, would be the place to create such a large-scale transformation. Some industry projects seemed to be on the right track. US West did early VOD trials and was working on caller ID to the TV set. AT&T funded fledgling interactive services at a New York location we called “Downtown Digital.”

In 1996, AT&T was split into separate businesses and I knew it was time to throw in the towel. All my work in corporate strategy over the previous few years had been focused on pulling together the strengths of the individual business units to create end-to-end offers — which we called “bundles.” It was clear my agenda had not won, so I “retired.” But there was no way I was ready to leave the exciting world of telecom and entertainment.



I viewed telephone companies as the likely creators of the next generation of personal communications.

Dave had left Prodigy to help vendors and service providers roll out residential broadband services. I watched as he started consulting for some of the great people he had met from the cable world. He was already working on cable modems with Motorola and high-speed data services with Media General Cable. Remembering Dave’s description of the cable industry being like a family, it sounded like a welcome change.

Even so, when I joined Dave in the consulting business, I wasn’t prepared for the transition to the cable world. It was a shock. All these people kissed and hugged, partied and had fun — in addition to getting their serious work done. The comparison with the telco world was startling.

Cable was at the very start of the transition to digital services, VoIP and VOD, so I could learn along with everyone else. My AT&T background on early VOD trials, the requirements of communications services and my experience with traffic engineering ended up fitting well with the new directions being taken by cable.

Fast forward 10-plus years and it’s hard to remember being new to cable, having made so many friendships within the industry. I’m delighted to see that the vision of bundled services for consumers has turned out to be a winning one. The old AT&T didn’t do it, but cable has some real competition from the new one. With telco video services a reality, mobile becoming part of the game, and revenues for advertising and interactive services as the next battleground, it looks like the next few years will not be boring.

Dave and I sometimes have to share our thoughts on things we think cable might be doing better, but that is also the role of family. Thanks to Cathy and the *Broadband Library* family for inviting us to open up our dinner table debates and share them with you in these pages. It is an honor to be part of this group of people we respect and admire.



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A telecom industry veteran, Sandy spent 18 years with AT&T before moving to the broadband world. She joined her husband Dave Waks in their consultancy, System Dynamics, in 1996 and has been focused on consumer broadband ever since. Sandy splits her time between consulting, co-writing a monthly report on new broadband developments, and being a Skype video-addicted grandmother.