

How the Knowledge Navigator video came about

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Sparked by the introduction of Siri, as well as products such as iPad and Skype, there have been many recent posts and articles tracing the technologies back to a 1987 Apple video called "Knowledge Navigator" (<http://www.youtube.com/watch?v=HGYFEI6uLy0>). The video simulated an intelligent personal agent, video chat, linked databases and shared simulations, a digital network of university libraries, networked collaboration, and integrated multimedia and hypertext, in most case decades before they were commercially available. Having been involved in making Knowledge Navigator with some enormously talented Apple colleagues, I thought I would correct the record once and for all about what really happened:

Educom, the main higher education conference for academic computing, was coming up in October 1987. At the time, I was leading the Higher Education Marketing Group, and had been doing so since Steve Jobs and Dan'l Lewin had left Apple to start NeXT in mid-1985. Steve and Dan'l knew all the higher education influencers and decision makers from their time at Apple (Dan'l had led the creation of the Apple University Consortium), and they had been giving sneak previews of various technologies and products that NeXT was building (but had not shipped). NeXT claimed to be focused exclusively on the higher education market. Many of the higher ed influencers and decision makers were saying that Apple had no vision for its future product line. John Sculley was scheduled to be the keynote speaker at Educom, and the stakes were high for us to show some "vision" of where Apple was going. I met with John to prepare for the speech and discuss ideas of what we could do. We planned to incorporate a number of live demos of educational examples of hypertext, multimedia, and interactive learning, using professors and researchers from various colleges to do the demos. John Sculley's book, *Odyssey: Pepsi to Apple*, had just come out and John gave me a copy of it to read. I pored through it trying to find some ideas for his keynote. The last chapter was John's vision he had developed in many discussions with Alan Kay (an Apple Fellow at the

time), where he described the Knowledge Navigator and even had a rough sketch of it, with two joysticks on a screen that one would hold to "drive" through libraries of knowledge.

I discussed the concept of the Knowledge Navigator from John's book with Hugh Dubberly and Doris Mitsch in Apple Creative Services and we subsequently met with John again to review his thoughts. Michael Markman joined our team to write John's keynote speech. Together with Mike Liebhold in Apple's Advanced Technology Group, we discussed how we could make a vision video of a higher education example of the Knowledge Navigator. Hugh and Doris wrote the script with input from a number of people (see Hugh's blog for more detail on other sources of inspiration for the script and all the folks involved in the production process: <http://www.dubberly.com/articles/the-making-of-knowledge-navigator.html>) and I funded the project from the Higher Education Marketing budget. It's important to note that the Knowledge Navigator vision first articulated in *Odyssey* morphed quite a bit based on Hugh and Doris's research, inspiration and contribution from other luminaries in and outside of Apple, and our point of view from working with cutting edge researchers in higher education. We had very little time to pull this off, but sometimes having less time actually focuses the project and keeps the script tight and the length short (KN is only a little over five minutes). Hugh and Doris worked with an outside production company, The Kenwood Group, as a contractor to Apple, and turned the video around in six weeks. John did the keynote at Educom, the live demos came off without a hitch, and we ended with the first showing of the Knowledge Navigator (recall that the example is about a professor coming to work, checking his email, doing some research online, connecting with a colleague in Brazil in a live two-way video a la Skype, etc.). The higher education community received John's keynote very favorably and felt better about Apple's "vision," even though it had nothing to do with our product strategy and had been made in 6 weeks!

There was no big hullabaloo about Knowledge Navigator in the couple months post Educom (the mainstream media does not attend Educom). For Macworld Expo in January, 1988, Jean Louis Gasee, SVP of Product at Apple, was the designated keynote and was supposed to roll out Apple's new product strategy. About two weeks before Macworld in late December, Jean Louis informed John that he was not going to be ready to talk about the updated Apple product strategy. John called me and asked if we could do the Educom keynote again at Macworld, tweaking a few things for a more general audience. I called all the demoers again and they all agreed to come out to CA and we tweaked the demos to be less academic. And of course we concluded by showing Knowledge Navigator. (We took advantage of the interval to enhance the screen simulations beyond what we could deliver on the original tight schedule.). It was at Macworld that the general public, including the mainstream media and tech media, saw KN for the first time. And they immediately hailed it as Apple's new vision. John then started using KN in employee meetings, with the press, etc. He was pictured several months later on the cover of Fortune magazine holding the balsa wood model of the KN that we had used in the video shoot. From that point forward, the mythology around Knowledge Navigator has grown unabated! Among the false legends: that it was produced by George Lucas and that it was produced using Apple's Cray supercomputer.

Several months later, sparked by the widespread interest and acclaim for Knowledge Navigator, the Higher Education Group and our team in Creative Services led by Hugh and Doris, did another visionary video project called Project 2000, which featured Ray Bradbury, Diane Ravitch, Alvin Toffler, Alan Kay and Steve Wozniak (http://www.youtube.com/watch?v=VWIA_cDE5RU&feature=youtu.be). It is very cool, but never received the same notoriety as Knowledge Navigator.