

Chapter 5

Hanging Out with Ted Nelson

Brewster Kahle

It's a great honor to honor a great man like Ted Nelson. I have very much enjoyed my whole relationship with him. That's why I've titled my short piece "Hanging Out with Ted Nelson" so that I can discuss what it is like to sort of bum around and hitch rides and just play around with Ted. Two stories illustrate day-to-day life with a man who has, basically, put in place a lot of the infrastructure upon which my whole career has been built.

The first was meeting him. In the mid-1990s, I was working on a system to publish over the Internet so that anybody could publish or be a publisher and be seen over this wide area network. To build this system, I, of course, studied up on Vannevar Bush and the works and ideas of Bill Dunn, the lesser-sung hero of the information age who ran the Dow Jones Information Services Group. He came up with the term "metadata" and not only understood that it was the important thing, but also said it was more important than the information itself.

Then, of course, there's Ted Nelson whose works I, of course, read. I understood a lot of the ideas behind his writing and finally got the opportunity to meet Ted in an informal setting. I think it was in a cafe in Cambridge, Massachusetts. We got to hang out for a while, and I was struck by the way I approached this conversation: I am finally going to meld minds with one of the greats, and I've got some things to say that make sense. But the problem in the whole conversation was that, with a lot of the things that I was working on—the publishing systems, the archiving systems—he said, "of course you need those, but that wasn't really the point." And it was a little, I would say, disheartening. But Ted did not say this in a negative way, as when towering men sort of dice you down to size. It was that we were talking past each other, and I came away trying to figure out why that was.

I was building a system that I think has a lot of the same characteristics of what the web became, but why was he saying something quite different from what is,

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from what we had been working on for so many years—I finally figured it out, at least I think so.

Ted was building a system for writers to express the complexity of thought and a system to express the complexity of his own mind, but I had been building a reader's system, a system for people to find information no matter where they were in the world. For me, the complexity was in the finding, but maybe not in the information itself.

Ted Nelson had versions built into his system. Of course, you have to have an archive to be able to make the hypertext system work, what with all its versioning as well as the cut-and-paste across documents, so it seemed like an obvious thing to me. But Ted had another insight, one that expressed where he wanted to go, expressed things over time, one in which people could manipulate time smoothly and as easily as reading in the present. That insight was kind of a big idea. It was part and parcel to what was necessary in his world. I came to understand it as an edit-decision list, taking the continuous playing of our lives, picking it up, moving and reshaping it, and even reordering it. This idea came from the movie world rather than from the text world. But I came away from this conversation enlightened, hopeful, spurred on to do even more.

We had talked past each other, but I realized we'd built a reading machine, which I'd say is what the World Wide Web with search engines has become. We really need a writers' machine, one that would be worthy of the vision of Ted. I could have been crushed, but the conversation was an inspiration to keep moving forward. We should not say, "Hurray! We've already done it. Look at all these users." Ted doesn't say that.

Ted started hanging around at the Internet Archive because he lives in Sausalito on a cute little houseboat with wonderful Marlene. We would be hanging out and he'd be yearning to try and get more of his ideas built. He was never comfortable with saying, "Oh yes, I've achieved great things. Aren't I terrific? Now it's time for me to hang out on my houseboat." He wanted more things done.

There's this concept of these hack days or hacker-fests where people would work for a couple days, and the lore is that great things would come out of these 2-day sessions. I would always have my little doubts of how much you could actually get done in such a short amount of time. So I posed to Ted, "How about having Ted Nelson month?" I suggested we gather together a set of programmers and a set of facilities with the Internet Archive, or at least as much as we could spare. It would be his oyster for a month.

He's always audio-recording, ever since the 1960s. What would he do with a group that could scan his tapes or go build that together into something else? Or scan the books that he's written or books that he's enjoyed? I wanted to know, if he could choose a project for such a group, what would it be? He didn't want to go backwards. He didn't want to go back through his tapes. He wanted to go forward. He wanted to build ZigZag.

I was able to recruit top people that wanted to work with Ted for a month to try to crank out his new idea. He didn't want anything old. He wanted the new. So, it was Art Medlar and Jeff Ventrella, who had built 3-D worlds. There was also

Edward Betts, and there was Ted Nelson. All of them were locked in a room to build as great a system as they could in a month. It was fun to see this team go back and forth and flexibly trade off features and come up with ideas and really do a collaborative project together. This was a true collaboration that was able, by the end of this month, to come up with a demo of this different and new way of navigating data.

I have to say that this new way of navigating was too abstract for me to really understand. Of course, Ted had it all mapped out in his head. I recognized that it was very useful, but without a demonstration, I couldn't really grasp it. He probably had been living in ZigZag land for a better part of his life, but I could not understand it until this demo came out. Only then could I understand how easy it was to move and manipulate and play in space, in data with this ingenious way of moving around.

So in Ted, we have a fun and interesting guy who is funny, but who is also able to work with others. He has a willingness to refold and re-jigger, to see what it is that could be done within a short period of time.

Ted was able to make friends. Real friends. With people in every decade of their lives. This isn't easy. At least, I find that I am locked in my own decade much more than I would like. Yet Ted would form real friendships with people twenty, thirty, forty years younger than he was.

In fact, Ted and my 16-year-old son Logan became quite good friends, and he has invited Logan to spend a week with Marlene and him on the farm in New Jersey. Logan can go and hang around Ted to learn things and look at birds. They'll just generally have a good time together. The idea of having a friend across generations requires a deep respect for how other people think and what you can learn from all sorts of people.

My hat is off to Ted. I love him dearly, and I look forward to hanging around with Ted for decades to come.

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