The following is an excerpt from an interview with Marc Smith. Gerry Bayne, EDUCAUSE multimedia producer, conducted the interview at the Coalition for Networked Information (CNI) 2007 Spring Task Force Meeting. The full podcast is available, in two parts, at <http://connect.educause.edu/blog/gbayne/aninterviewwithmarcsmitha/26144> and <http://connect.educause.edu/blog/gbayne/aninterviewwithmarcsmitha/27041>.

Bayne: Marc, looking at the future of mobile devices and social networking, you say we're moving from an ephemeral society to an archival society. What does this mean?

Smith: The intimations of the future are visible. What will that future look like? Right now about 1.5 billion humans carry mobile devices. Figure maybe another 1 billion will be able to afford these devices, so at some point, maybe in five to ten years, 2 billion to 2.5 billion humans will be carrying the equivalent of a supercomputer. Not just a supercomputer, but a supercomputing radio station because these will be wireless devices. Supercomputing radio stations with a key capacity: they'll notice each other.

What will that mean? A lot of the social world that goes on around us, we don't notice but our machines will, so a lot of the blur that is the background of social life, I think, is going to resolve. You will be able to go to a web page at the end of the day and say, "Who are the strangers I walked past?" You can see some of these things in commercial products already. There's a product called Spotme in Switzerland. Another one in the United States is called nTAG. These are tools for going to a conference and getting more out of it than you thought you might.

The remarkable outcome of using these tools is that at the end of the day, the tool tells you who you've been talking to and how long. "Oh, you bumped into Marc seven times, but you never talked to him for more than two minutes at a time. Oh, but you bumped into so-and-so, and you talked to him for forty-five minutes, and that was the longest conversation you had at this conference, and here's all the contact information for that person." Wow…

We're now beginning to experiment with what would happen if I put a box next to my phone. Because phones now have Bluetooth radios, in many ways they have an expansion chassis. You can create a second device, put stuff in it, and have it radio the information that it's collecting to the phone. Well, what kinds of hardware could you add to a phone? What's missing from a phone?

GPS would be nice. It uses satellites to triangulate your location. Of course, the problem with GPS is that it doesn't do everything well. Apparently, altitude is a problem for GPS—the Z direction—and so we put an altimeter onto the device as well, so we can get barometric pressure. It tells you a little bit about that with your altitude. Use that with GPS, and you get a little bit better data.

What other kinds of sensors could you add that would be worth carrying around with you? Well, what about accelerometers?…Many laptops have accelerometers, largely to notice, "I'm in freefall." On earth, freefall is almost always followed by a high impact, so it's often a good thing to have your hard disk shut itself down before it hits the ground. We've added an accelerometer to this device because now you can tell what kind of motion a person is engaged in. Are they walking? Are they running? Are they on an escalator or in a plane?

If you think about the force vectors applied to your body, many of them are unique. When you get on that airplane and it pushes you back in your seat at 1.5 g's and it puts you at an incline of about 45 degrees and then you find yourself at 36,000 feet, there's really only one thing that can do that. Well, there are two. Superman notwithstanding, though, there's really only one thing that can do that. Trains also have a very particular pattern of starting and stopping, a very slight side-to-side motion, mostly forward motion. Cars also have very distinct patterns of motion. So while these things aren't perfect, what I'm suggesting is that the mobile device is going to sprout sensors like a Swiss Army knife, and our lives are going to be self-documenting in a way that they have never been before.…

In the not-too-distant future, I suspect that most of us will leave several terabytes [of information] behind. People like Gordon Bell at Microsoft Research in San Francisco have been talking about the idea of "life logging," the idea that you will have machines that record a lot of your own experience, possibly from cradle to grave. Gordon figured that it really would only take a handful of terabytes—a low number of terabytes—to store everything you've heard, everything you've seen, every web page you've looked at, every mp3 you've played, every e-mail you've ever seen, and every step you've taken, and possibly other information. And so, in the not-too-distant future we'll be dealing with a population of hundreds of millions of people leaving terabytes and terabytes of data behind, and...
Goffman observed that people engage in behaviors that let you know, as a third-party observer, they're together. What kind of together are they? Professional colleagues, husband and wife, father and daughter—the relationship tell is something that we do consciously and unconsciously. We give and give off information, as Goffman would put it.

If we look at the Facebook users on undergraduate campuses all across America, you're seeing an incredibly high-resolution picture of who knows who, with what intensity, all across every campus in the United States. If you had required people to file a document stating everything that is on their Facebook page—if that was a government mandate—it would cause an outcry, and you would have very low compliance. I've read recently that Facebook now claims that about 90 percent of undergraduates in America have a Facebook page. That's a remarkable level of compliance.

Bayne: Never underestimate an ego?

Smith: Yes indeed. So now we have a picture of the social network relations of almost every undergraduate in the United States. The point I think that's important is that more data is almost unavoidable. You don't have to go and beg people to fill out a survey. You just simply put up a place for them to put this information, and because it has value to them for other purposes, you can get this information for social scientific purposes.

And what are those other purposes? People are wearing their MySpace page, their Facebook page, in much the same way that they wear clothing, and this again raises the importance of that great sociologist Erving Goffman, who spent a lot of time thinking about the presentation of self. How do you go about doing—being who you are? How do you convey that information to other people? The fact that the online social networking services—MySpace, LinkedIn, Facebook, those types of things—are as popular as they are is telling, considering that those systems are soon going to be in the physical world, not just online.

Because at this point I can get to your MySpace page on my phone, and in the not-too-distant future you might be emitting the information necessary for me to automatically get your MySpace page simply by standing near you. And so this is a new form of costume or a new kind of body adornment—a kind of innovation in body adornment that we really haven't seen possibly in millennia. When was the last time that we changed fundamentally the nature of clothing and jewelry, of body cosmetics?

We paint ourselves. We hang things from our wrists, our necks, our ears, our feet. We wear various kinds of textiles. There have been changes over time, but for the most part, clothing is clothing. This is a new kind of clothing, invisible to all who shouldn't see it but visible to those who should. Visible even when you're not looking at the person. Capable of conveying incredibly detailed information—about who you are, where you went to school, what kind of ice cream you like, whether or not you like the local sports team—in a way that you couldn't otherwise. If you wore all those emblems on your vest, you couldn't convey it and nobody could consume it. But as a stream of 1's and 0's, these computers will have no problem with this.

This is a big change, and I would say that it's a great time to be a sociologist, because we're at an inflection point.