



Grantmakers in the Arts
2003 Conference

THE EDGE

Proceedings from the Conference

October 19-22, 2003
W Hotel
Seattle, Washington

THE LEADING EDGE OF TECHNOLOGY TECHNOLOGY ON THE EDGE

Off site: Microsoft Campus

From varying perspectives, panelists will give an overview of the future of technology as it affects all aspects of people's lives (home, work, and play). Their perspectives on the future will be tied to trends in the technologies currently being adopted and used by consumers, including wireless devices, tablet pc, media pc, smart phone, auto pc, and ultra mobile.

Building on the information from the panel, participants will break into smaller groups of 6 to 8 to discuss how the trends affect them personally, the impact technology has had on their lives, and their aspirations for the technology of the future. The results of the breakouts will be shared with the entire group and discussed by the panel.

Panelists then will describe current "leading edge" ("bleeding edge"?) technology that relates to what they heard from participants, and will identify some of what's down the road in 5 to 10 years that should prove exciting for individual technology users.

The session was followed by a tour of the Microsoft Home of the Future for a hands-on experience with technology of the future.

*Session Designers
and Moderators:* Sarah Meyer
Microsoft Corporation

Edie Adams
Microsoft Corporation, and Trustee, Artist Trust

Panelists: Suze Woolf
Microsoft Corporation

Marc Smith
Microsoft Corporation

Elizabeth Sanders
Sonic Rim

October 20, 2003, 3:00 p.m.

MEYER: Welcome to Seattle, to Redmond, and Microsoft. It's really delightful to have all of you out here. I'm Sarah Meyer. I'm a Senior Manager in the Community Affairs Department at Microsoft. This is my colleague, Edie Adams, who works in the Hardware Innovation group.

You may ask how did the two of us come together to put together this session, which is what we did. We have something very important in common, which is art. Edie was a long-serving member of the Art Committee at Microsoft, which, before we hired a full-time curator, was a group of employee volunteers who helped start and build the collection here at the company. If we had four or five hours with you in addition to the tour of the home, we would have had Michael Klein, the curator, take you on a tour of the collection, which is quite remarkable.

But we had to make choices. I will say that before we go to the home, everybody should walk out the door here and look over the balcony because there's a beautiful Sol Lewitt wall drawing.

So Edie's bona fides in the arts also include her role as chair of Artist Trust Board, and she's on the board of the Henry Art Gallery.

I also have some bona fides in the arts. Before coming to Microsoft I was an arts administrator for many years and know some of you from my days in New York. I'm a graduate of the Columbia Arts Management Program, and Joan Jeffries here is running that program, so there are some nice links for me into my past and present life.

In my current capacity I oversee the company's corporate giving and the employee programs here. I saw many of you pick up the collateral in the back, and if you didn't, I'd love for you to pick up our annual report and information about our new initiative called "Unlimited Potential."

I just also wanted to say the genesis of this session was Linda Breneman and Sue Coliton. I was in conversations with them close to a year ago, and they said that Seattle was the 2004 conference city for GIA. And the theme of the conference was "The Edge." They really would love for us to do something at Microsoft given that technology in many ways defines edges in this country.

So Edie and I put our heads together, and this session that you're about to participate in is what we came up with. If you love the session, all credit goes to our panelists. If you hate the session, Edie and I will take the blame. So Edie's going to introduce our panelists and give you an overview of the session.

ADAMS: I'm glad to see all of you in the room today. It's great to have this opportunity to talk to you a little bit about technology from the perspective of Microsoft, but really looking at it as that interaction between technology and grant making in the arts. We'll see what comes up in the next hour.

When we put this session together, we thought, what is it that we wanted to talk about? One of the themes of the "Edge" conference for GIA this year was "The Edge of the Digital Revolution." So Sarah and I were thinking about, what is it that Microsoft has to say to a group of arts professionals and grantmaking professionals?

We thought that what would be valuable was an exploration of technology. Not from what we were supposing you all would be expecting from Microsoft to say, here's what's the latest and greatest, and here's what's whizzy, and here's what you can expect in five years, and go away and go, "Wow, this is like way too much technology stuff."

Rather, we wanted to present technology from a very human perspective because all of us approach technology as humans first. The panel that we've put together is going to talk about how technology and humanity can evolve together, rather than saying, "Here's technology. Just deal with it." Because that really wasn't our point.

We also thought it was very important not just to say, here's Microsoft saying what our vision of technology is for the future, but to hear from you what role technology is going to be playing in your future, in your personal future and in your work lives.

So for the next 60 or so minutes, we'll have a panel discussion. Each of our panelists has put together twelve words that represent technology. After they've each talked about their twelve words about technology, we're going to break into teams of people here in the audience and we'll put together a vision or some ideas on the future of technology based on what you've heard from our panelists. Then we'll share that discussion.

So it's my pleasure this afternoon to introduce our panelists to you. With us here we have Liz Sanders, Marc Smith, and Suze Woolf.

Liz comes to us from outside of Microsoft. She's the President of a company called Sonic Rim. Liz is a leader in the field of design research with product design and information design, systems, and services, and space design, all those kinds of things. My interactions with Liz go back almost twenty years, from when I was still in grad



school. I thought the work that Liz did was just like the best thing I could ever imagine. That's how we started, and we've worked together many times since then. Liz is going to talk a little bit about her perspective on one framework for looking at how we can put together a way of understanding technology in the future.

When Liz is completed, we're going to hear from Suze Woolf. Suze is the Director of Strategic Prototyping at Microsoft. Suze is going to share some of her thoughts with us about how technology in the future can go together from her particular perspective.

Then we're also going to hear from Marc Smith, and Marc is a sociologist who's also joining us from Microsoft research today. And Marc heads up the Community Technologies group, and he's going to talk about making virtual or online communities a trusted space, and the implications of that for technology in the future.

So, with no further ado, I'm going to turn it over to Liz, and she's going to talk about twelve ideas for the future.

SANDERS: Thanks Edie. You don't really need to make notes or whatever for your part, because there will be copies of each of these slides for you to work with when you're putting your ideas together.

Today I think we'll talk a lot about how people are affected by technology, and I think in the future we're going to be talking much more about how people are going to affect the new technology in a much more proactive way. Today it's all about technology-driven innovation. We're beginning to see signs now of a human-centered design revolution, of starting with people first, people's needs and people's dreams.

In my career I've seen some tremendous changes taking place, particularly in the roles people play. By people I mean everyday people who live and work and play and use products and services that companies such as Microsoft design, and tracing it from the eighties until today.

We used to be thought of as customers or consumers, but the way that we're being thought of is undergoing dramatic changes, to being thought of as users, participants in the process. Even adaptors of what it is that's designed. I think where it's going in the future is that the people that companies such as Microsoft serve are beginning to take the role of being co-creators in that process. Not the mere consumers, but actually a part of the process itself.

Some of the signs that this is changing are what I'm going to describe in the next series of slides. There seems to be a collective thinking, an action going on. You see people on eBay, people with hobbies, sharing in ways that they could never share before.

Wikis are Web sites where the users with a password can come in and change the Web sites instantly, in the moment. So people can collectively create this community Web site.

Flash mobs are groups of people who get together for a brief moment in time and do something kind of crazy. And it's all because of the Internet that these new forms of behavior are enabled.

If you're going to buy a new product, service, or whatever, you can almost always find reviews by other people like you to inform you of what's going on. Consumption is now informed. We have a lot more information to base our purchase decisions on. I'm going to move quickly through these ideas.

We see that a democratization of goods, services, information, experiences so that maybe ten or fifteen years ago there were certain goods and services that only the elite could buy or knew where to find or could afford. Now everything is suddenly available to just about everyone.

Other signs are blurring of boundaries. We see that some of the devices that have come into our lives, such as the cell phone, have made the distinction between home and work very, very fine and sometimes blurring those two.

Male and female roles are shifting. Cultures as well have blurred to a certain extent. But underneath all of those changes, I think we see a continued and a renewed interest in matters of hearth. By that I mean the realization that family, health, privacy, security, and safety are all paramount issues in our lives.

The technology has started to reorganize how we perceive space and time. And this is a picture people have used to describe how they feel this space and time might be. So wireless and mobile devices have changed how we communicate, how we keep up with each other. The technology is everywhere, and we can, to some extent, be everywhere all at the same time.

There's a new landscape in this changing organization, and the landscape is now made up of information. I just taped a little quote from a book by William Gibson, who's a science fiction writer of a sort. "When Casey returns to the forum page, her post is there. It is a way



now, approximately, of being at home. The forum has become one of the most consistent places in her life, like a familiar café that exists somehow outside of geography and beyond time zones." So she travels so much, she never stays any one place, but the forum, the information space, is her home.

We see signs of creativity everywhere. The do-it-yourself movement is huge. People are finding many, many different ways of expressing themselves: personal Web sites, blogs, Web logs. These are sort of reconfigured PCs that people have given a new look and a new life as a form of creative self-expression.

What seems to be happening is we're moving away from this world that we have today that's all about consuming. About shopping, and buying, and owning, and having things.

People are expressing a need to be more creative. And this is not just, quote, "creative people." This is everybody talking more about doing, sharing, making, and being. Such that there may in the future be a better balance between those things that are in our consumptive mindset – shopping, buying, owning, and using – towards more creative sorts of activities. It's not that we won't be consumers, it's that we'll have the option of consuming or creating.

I see that the shift has been going from industrial tools, products, and services, toward convivial tools, products, and services. I want to read a quote here. I don't know if anyone in this audience is familiar with Ivan Illich; he was writing in the '60s. I need to read it because he says it so much better than I could.

"The convivial tools are those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of his or her vision. Industrial tools deny this possibility to those who use them, and they allow their designers to determine the meaning and the expectations of others."

So hopefully in the future we're moving away from a dominance of industrial tools toward more convivial tools.

ADAMS: I think next Marc is going to talk to us a little bit about his twelve words for technology in the future. As you listen to Liz and Marc and to Suze, be thinking about what words you would use to convey your ideas or aspirations or feelings about technology in the future. That's going to be the focus of the activity that we do after our panelists have completed. We're asking you to be thinking a little bit about what your words with technology in the future are.

SMITH: Good afternoon. I'm a sociologist, and I work with the Community Technologies group here.

There's my boy in our gallery with one of our technologies, a technology I think may come to your galleries fairly soon. It's this device. This is a pocket PC with a laser-scanning barcode reader on it. It allows people to go into galleries now and scan the tags that are on these displays, and access curatorial notes. We have curatorial notes here, including images of the artwork and details written by our curator. And then break out of the walls of the gallery, reach out to the conversation, the planetary conversation, the annotations on that are wherever they may be.

With one tap on the name Beverly Sims, you're looking at Google searches reporting her home page and tons of critical commentary on her. With one tap you can actually join the conversation about that artwork.

Now, I believe that that's a positive thing. I believe that bringing people into the process of discussing these artifacts is a useful thing. It's something that you can only partially do with paper. You can give people a catalog; they can learn about what you would like them to know about the object; they can even scribble their notes on that piece of paper. Publishing that piece of paper planet-wide is a little bit more difficult, but it's something that's enabled by mobile technologies in a very, very basic way.

Furthermore, when you go to our gallery, and you visit these things, we blog everything you've seen. What's a blog? A Web log is a blog, if you say it fast enough. And a blog is actually a very deceptively simple Web technology, it's just a piece of the Web, a Web page where you put things on the top of the page. As you add new things, you push the old ones down. So it's a most recent first listing of things.

What things? Well, anything. A typical blog is a kind of favorites list with annotations. What's a favorites list? You know when you go and say, "Yes, I come to this Web page often enough that I'd like it to be in my menu." Imagine if you wrote a little paragraph about that and then shared that list out with oh, a few dozen, or a hundred million of your favorite people. That would be a blog.

With this device, we've tied the blog to the device and tied it to a tour of your gallery, potentially, where people would now see a piece of work, scan it, learn more about it, and then have it automatically show up on their Web page.



There are interesting opportunities here. Like extending the conversation about the art back home, so that there's an opportunity to have that conversation when the kids aren't as tired, maybe they're asleep, maybe you've got a few extra minutes to sit down and actually think about what you've just seen. Including revenue opportunities. Like, I missed buying the print of that painting, and I would like it now.

So one of the social implications of all of these technologies – and I'll talk briefly about other collective technologies, community technologies – is that essentially the world is becoming a Web page. Every single object on earth is an object to click on. I can walk up to pretty much anything and scan it, get information about it, and then say something about it.

You can do this when you go shopping. The artifacts that Americans, anyway, are most familiar with are consumer objects. CPGs in the lingo – consumer packaged goods – almost all of which have machine-readable tags on them. And it's interesting to note that every object has a story to tell.

One of those stories is here in Redmond, when we go shopping... You know all of our supermarkets have Wi-Fi, don't you? What is Wi-Fi? Wireless fidelity, the wireless Internet access, so that you can go down the aisles in our supermarket – and there's actually a supermarket not far from here – and you can grab the Cracklin' Oat Bran off the shelf and scan it and what can you find out about it?

I don't know if you can read that, but it says that Kellogg USA has recalled Kellogg's Cracklin' Oat Bran. The Food and Drug Administration announced today that Kellogg's USA recalled a limited number of Kellogg's Cracklin' Oat Bran products because they (a)... If you tap, you find out eggs, milk, and almonds is the bad thing. They had a printers' error. A lot of people are allergic to eggs, milk, and almonds. And a very simple mistake was made. And that means that if every object has a story to tell, one of those stories is, "If you eat me, I will kill you."

It's worth noting that this is a big historical shift to the extent that we have technologies of literacy and representation. In many cases those technologies were wrapped up in temples of presentation, separate from the day-to-day life of society. It was a place apart, as were galleries, as were libraries.

Today that is no longer the case. Now art and all forms of representation are a part of every place. And these devices enable that connection.

What words would I use to describe this? I would certainly use the word "social." As a sociologist, I assure you that social is a keyword. Social just means that it's about doing things together. It's not being alone. It's not as Milton Berle once said about television, "It's a technology in which a million people laugh at the same joke at the same time alone."

Now we have technologies that let you, even while watching television, laugh at that joke and know that others are laughing with you. They may be your close friends. They could be your colleagues. They could be your family.

That means that these technologies are becoming more intimate. They are crawling, not all over us. I'm wearing a few computers on me. How many computers are you wearing? The answer will be, "Many" very soon.

But not only are we wearing them on the outside of us, we're going to have them on the inside of us very shortly. Those of us who have been lucky enough to have our lives extended by different technologies embedded into us know that it's not such a bad thing being a cyborg. That means that a lot of our future is going to have very intimate connections between our technologies. As intimate as blue jeans, or earrings, or jewelry, and perhaps as dominated by aesthetics as those things are as well.

It's certainly going to be collective. We heard that in the first presentation. It's about bringing large groups of people together. It's worth noting that if you are one in a million, there's 768 of you on the Internet and you can find each other.

That means that the key quality of the Net is that it's an affordance for association. It's a new architecture for being social. That means that it has all of the benefits and liabilities of being social, all the benefits and liabilities of being collective.

As Sartre once said, "Hell is other people." What he left off was, of course, that the reason people are hell is that they are also heaven. If they were uniformly hell, we would ignore them and everybody would go home happy. The problem with people is that they are also the source of all that is good. As a result, what we're looking at is the emergence in a new and heightened way of the collective action dilemma.

One of the favorite stories of any sociologist, find a sociologist, ask about this story, they'll tell it to you. The collective action dilemma is essentially the story of: why can't we all just get along? And the answer is: for a very good reason. Lots of good reasons. Lamentable reasons, but good ones.



The Net seems to be shifting the costs and benefits of association and collective action. Some of the key features of collective action have always been, "How well can I tell what others might do around me so that I can make my decision contingent on their decisions?" Of course that requires them to decide. So we often wait around while other people decide. This can have disastrous consequences at highway murders.

That's because in some ways things are anarchic. Now, I'm a sociologist and that means that that word has a very technical meaning. It doesn't mean chaos. A lot of people see anarchy and they think chaos. Anarchy means, specifically, no central authority. No central point of total control over the system. Anarchies are really the state of nature. It's what happens before somebody shows up to be in charge. And, lo and behold, the Internet is itself a kind of anarchy.

It's also laminated, which is to say that these types of devices are going to bring everything that's on the Web and glue it to every object that it's relevant to. As I like to say, if it's on the Net, it's on your phone.

It's interconnected, which is to say that we are now able to couple together systems that would otherwise be too costly to coordinate. Those costs are dropping to next to nothing.

As a result we now have new issues about figuring out what's reputable and what's not. If almost any piece of information can be glued to almost any object, what happens when I scan my Kellogg's Cracklin' Oat Bran and it turns out the FDA did not, in fact, recall that cereal? How would I know for sure that it did? Well, it might be on the fda.gov Web site; that might be a good indicator. But things like that are technical problems that need to be addressed.

Accountable, which is to say that almost everything you do in the future is going to be visible. And that means accountable to others. This is both a good thing and a bad thing.

I'd like to call it a fractal edge, not a double edge. A double edge you can at least figure out. Hold it by the flat part. A fractal edge is a blade from which there is no good grasping point. Any way you pick it up, you will be cut.

And omnimedia, rather than multimedia, I'm suggesting that we go beyond multimedia. It's not just a lot of different media. It's all media, all the time, all together, around every object.

So physical objects – sculpture suddenly moves because you can scan it and see videos about it being made, for example.

Content. Well, it's all going to be about content because now every object has these laminations all over it. And what gets laminated over those objects will be very critical in terms of evaluating the object itself and evaluating its value.

And finally, emergent properties. There are so many things changing here. It's impossible to predict. It really is. It's gotten to the point where sociologists have come up with a new term for these things: Yhprum's Law. It's the opposite of Murphy's Law. Yhprum's Law is systems that shouldn't work but do.

So think about that. eBay. I put twenty dollars in an envelope, and you send me a Beanie Baby. Now why would that work? And yet it's now a \$40 billion capitalized industry. So it does work. So, emergent properties, things that we don't expect are likely to happen.

ADAMS: Now Suze is going to share her twelve words for the future of technology.

WOOLF: I'm going to hit some of the same themes, but maybe a little bit more concretely.

In case you don't recognize some of those things – many of them are ours, but not all – you'll see that light switch over in the home when you go there. The key fob is something that we've announced. You can say, "Which news do I want to constantly get?" and they'll update.

The green egg over there is over in our conference room, my team's conference room, and we have it currently correlated with the Microsoft stock price. So if it's green, we're up. If it's red, we're down. It could be the weather. It could be whatever you want it to be.

But the point I'm trying to make is that all these things are computers. We just don't call them computers.

And they're profoundly visual. What I have there, many people now at Microsoft are using not just one monitor or two, but three, or one continuous. It turns out if you don't have to do this all the time with your Windows, you're about twenty percent more efficient.

That blinking thing up in the top is the tree map of the market from Smart Money, smartmoney.com. This is a search engine over on the left.

So the visual part of your cortex is the biggest part of your sensorium. This is going to go on being true for a very long time in many places. As much as we have little tiny things with little



bits of information, we'll have bigger and bigger surfaces that we're working with.

Computing and all the things you do with it are going to get more and more associative. This is a map of the Web, the backbones, in the lower right. That's a social computing map on the upper right.

We think associatively. Both because computers are better able to keep track of associations as they get more powerful, and because we're getting closer and closer to a neuron-level understanding of how human brains work. You will see more and more computers keep track of associations or able to offer you the kind of things that seem intuitive to you that we don't yet get from computing. Because that's the way you work.

There's an awful lot of noise. This happens to be a screen shot of my junk mail folder. It's harder and harder to make yourself heard above the noise.

I think this is going to be really interesting for artists to break through. When you have this enormous sea of information, it's harder to be original. Because there's so much thesis and antithesis and synthesis going on. And it's harder to get through the noise.

You have a lot more choices. The artists have a lot more choices. How are you going to reach people? What kind of relationships are you going to have? I don't know how you're keeping your donor lists now, but you know you have many, many more choices about how you're going to interact with your communities.

It's also a lot more complicated. Of course, I'm poking fun at us, but not fun. Trying to manage all this complexity is very difficult. The more choices you're offered, the harder it is to make a decision. So, managing the privacy of your artists, your donors, yourselves. Managing the security of anything you have online, all this is not getting easier. Yes it's our fault, but everyone in the computing industry has these same problems.

It's a general purpose machine. It's not dedicated to a particular purpose. So it can be anything you want it to be. So it's going to be complicated.

It's real time. This is a screen shot of an Internet health monitor. You can at any moment see what parts of the network are in good shape.

This happens to be an artist's piece from potatoland.org. They're actually monitoring the packets from CNN.com. If they hit a black packet it draws one color and direction, if they hit a

white packet it draws the other direction and color. And you can go to potatoland.org and find this piece of performance artwork going on in real time and see it.

So instead of going off to your garret and making something and then putting it out there for someone to see and comment about it, this is going on all the time, real time. I think that's very different for people making works of art.

It's also two-way. I don't know how many of you know this picture. This happens to be the U.S. favorite picture. But you have a dialogue with your audience that you've never had before. It could lead to all kinds of things, stronger relationships, price discrimination, things that we like, things that we don't like.

Flood of responses. How are we going to manage all that response coming back in, or are you going to go kill yourself because you've got no response?

So a whole new set of problems. Mark called it "omni-media," I'm calling it "multi-multimedia." In our field multimedia was when we got sound and pictures.

This keyboard in the upper left is a soft keyboard. It's a piece of fabric, rolls up and covers the device. There are sensing fabrics. You'll see these lights over in the home later. There's a projected keyboard. There are people experimenting with haptic sensory inputs, like press something or stroke it and it's an input to a computing device. There's even smell output these days.

So all these things I think are going to make computer-mediated art quite different from what we think of today.

Control. As things go digital and they travel over networks, we have new possibilities for both how they get away from us, and how we can attempt to control them.

This is actually in the latest version of Office, in all the Office products. You can say, I want to restrict permissions. Within a company, I want to restrict permissions to how this file is used. And that travels with the file. We had a set of templates for what our Microsoft policies are. I can decide as an individual who could open or who can't open something.

I think this has huge implications for publishing the arts. People will be able to do this. It's going to start first inside companies, but it will be quite broad.



This means not only greater opportunities for individuals to control their works, but what's our raw material? It's like everything is a synthesis on some level. But if it's been permissioned, is it going to be as easy to synthesize? I don't think it will be.

In the past painters used to grind their own pigments. I did some work in ceramics, I remember making my own glazes. But you know, artists' digital tools don't look to me like they're made by artists.

If I have one last thought to leave in your heads, there are very few places where the art people are actually helping make the tools, and that if there were an area of forward thinking places where there isn't much work yet, that's one in my mind that I'd love to see more activity in.

ADAMS: Liz is going to provide you with some direction for how we're going to go about sharing our own personal visions for technology in the future.

I'm going to hand out a set of each of the twelve words or the thirty-six words you've seen in regard to our three panelists as well as twenty-five other images which you can use. Liz will tell you what to do.

MEYER: By sitting at a certain table, you've defined yourselves into teams. We'd like to ask you to work as a team and each team can use the easel pad, or you can use the wall and pin things up to the wall.

What we'd like you to do is think about what you've heard and try to come to some agreement as to the key ideas that you heard here today. Maybe you don't get finished, because our time is limited, but I'm thinking that by going through the deck here, you can be reminded about what these ideas were.

You don't have to use the deck. You can have a discussion. But what we'd like each team to do is just feed back to us the ideas that resonated with you as people, as professionals.

What we'll do then is if teams get done, we'll have a read back to the group because we're curious in hearing what this means to you and what you think will be important for the future.

ADAMS: Why don't you take about ten minutes or so to work together in your teams.

MEYER: Who would like to go first? We'd like to hear from each team as long as you're ready to present. We'll give you a minute and a half to get your main ideas. Take it away. Thank you.

TEAM 1: Invisible. Extensive. Divisive. Adaptive. Invasive. And then this is a question, Reputable? Reviews? Curators? Editing? We're not sure. And lost hands. Artwork-wise. Hands.

AUDIENCE: Cynical people over there. *[Laughter]*

MEYER: Thank you. Very good.

TEAM 2: Can we start out with the negative? The negative is Overwhelming, Scary, Truth, Beauty, What happens there? And when we moved from that we see Anonymous, there may be a Generation Gap, it will be rather than a reality as we know it now, a virtual reality. What we call virtual reality will be real reality.

So then in response to that, we made as our central theme, reorganization of space and time. That's the central theme as we perceive it. It will be pervasive, it will be emergent, it will be visual truth and reputable. Also it will deal with a reordering of the senses, a hierarchy of the senses that will lead to true genetic change.

MEYER: Thank you. Team three?

TEAM 3: We're really tame after that group. *[Laughter]*

Democratization. Invisibility that is totally pervasive. So overwhelming, how do we do the filtering? Inclusive. Anarchic as opposed to chaotic. Opportunity/ danger. Originality. New experiences. Simulation can't replace life. Easy identification. Access please? We can never remember our code to get in. *[Laughter]* And above all else, for all of us, the content far outreaches anything else.

MEYER: Excellent. Thank you.

TEAM 4: A little bit of process as well as product here. We all picked two words and reacted to them. As a group, there was an allergic reaction to a lot of what we heard. There was definitely an emotional reaction to what we heard. So there was a discussion – again my colleagues can speak to these terms – but the whole notion of how this relates to our own work as creative communities.

What precedes the technology? What comes before the technology was a concern. Again, echoing a lot of what we've already heard. Divisive, divisive in terms of age, in terms of economics, in terms of a lot of other things.

This notion of touchability. There are a lot of people here who work in media that you touch. And so it felt like there wasn't that kind of connection.



Again, taking literally what somebody said, un-individual, that a lot of our work is done as groups, and so it's not just about the individual experience, but something that goes beyond the individual which again comes back to that favorite grantmaking word of collaborative.

There was this whole notion of filters and mediated kinds of experience. And when did you know the filters were on and when they weren't on?

The dependence on electricity which is very important. There was this notion of omnilelectrical, that everything is dependent on the ability to have a battery.

A sense of craft that we experience as artists and as becoming artists, is that a necessary set of experiences in technology?

Again, this whole notion of openness and boundaries. Anarchy reflects some of that, but I think it relates to other pieces.

These words are coming from other things and other kinds of experiences. The whole notion of the underlying values that are driving these experiences. How do we choose to spend our time, our money, our talents?

Beyond the transactions that we saw a lot of, what are the implications for relationships?

What did I leave out?

TEAM 5: Our group came up with, if this vision that we saw was utopic and so, we, in reaction to that, postulated that the technology to do all this must become as familiar to us as our own biology.

The merit of some of that technology is that there is going to be increased opportunities for customization, and the consumer becomes a partner with this technology and acts as the co-creator and therefore has opportunities for more creativity.

We saw potential problems, including, someone else mentioned generation gaps, leaving behind a whole sector of potential users. As well as socioeconomic gaps.

We also thought that the implication in the big picture is that this will redefine what it means to recognize each other as people. For instance what are the implications on what it means to relate to one another? We're already seeing that in a lot of these kinds of technology.

And also moral implications. For instance someone talked about extending life.

This is all tied together. One of the things that we were responding to on an emotional level is somehow it didn't seem intuitive enough. We also thought it was a fallacy of how anarchic it is. In other words, there is somebody controlling how we do this. So how anarchic is that?

MEYER: I'm amazed! That was so good. You guys did great. We had to really compress it. You guys were awesome!

AUDIENCE: If there were a bunch of teenagers and twenty-somethings doing this, how different would it be?

AUDIENCE: Yeah. Teenage artists.

AUDIENCE: Not necessarily artists, just kids who grew up with technology.

WOOLF: This is a methodology that Liz and I have both used in research for all different kinds of products. But we haven't asked the particular question of what is your view of technology in the future as it relates to art and arts organizations?

SANDERS: We usually give you a little more time. We'd like to, but we have an agenda so we just thought, well, let's go for it.

AUDIENCE: Suze and Liz, did you have responses to what you heard? Did it surprise you? Was it what you expected?

WOOLF: I think it's interesting what things are clearly common to everybody. Everybody's interests and fears you can see across all of them.

I must say it seems to me you are reacting as humans first and arts people second. Whereas when I set about trying to think about my words, I was trying to put myself in your shoes – which obviously I can't really do – but, you know, what it might mean for your field and your communities.

It does take a while to live in that skin and start seeing the impact over time. Whereas you're coming fresh, and coming first as yourselves.

SANDERS: Yeah, I think you hit a lot of the core issues right on the head. Some of it came out cynical, but that's part of the issue. It's scary.

AUDIENCE: Do you have artists in residence?

WOOLF: At Microsoft? No. Just us.



AUDIENCE: ...whose job is ongoing in time, because that adds to the nuance.

WOOLF: That's my point. Yeah. On the other hand, we don't make tools that artists use for the most part.

AUDIENCE: You said your reaction was that we reacted as humans first, but I think we do think about artists in terms of the social economic divide. A lot of artists are like the working poor. So what limitations will they have in this future that you are all envisioning?

AUDIENCE: Not only that but, a lot of art is interaction, with the audiences, with the art. It's not necessarily I was coming as me as an individual, I would love the idea of having the computer inside of my refrigerator. But that's me as an individual. The fact that someone might not be able to go and see live dance scares me.

MEYER: Thanks all of you very much. Thank you very much for coming out. I wanted to say thanks to our catalysts Suze and Liz. *[Applause]*

END

