

The Politics of Design

by Whitney Quesenbery

Aging by Design
Bentley College/AARP
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When Beth Mazur of AARP first suggested “the politics of design” as a topic for this talk, I thought it was very appropriate for this conference in particular. As we focus on the effects of aging and the needs of older adults as they interact with an increasingly technological world, there is important design and research work to be done. But there is also a need for activism to raise awareness of the issue.

Usability and design professionals are increasingly aware of the need to do more than simply use good methods to produce usable products. Those methods need to be used – and widely used – to be effective. The frustration of those who have spent literally decades working to bring user-centered design into mainstream development organizations is palpable.



Chief Lutuli,
Nobel Peace
Price, 1960

In 1964, at the opening of his trial, Nelson Mandela quoted African National Congress leader Chief Lutuli: “...thirty years of my life have been spent knocking in vain, patiently, moderately, and modestly at a closed and barred door? What have been the fruits of moderation?”

I certainly do not want to compare the magnitude of that political struggle with the work of designing an e-commerce web site, or even a life-saving medical device. But in that quote, I hear the frustration of someone who believed he had a better idea, and also believed that his message was not being heard.

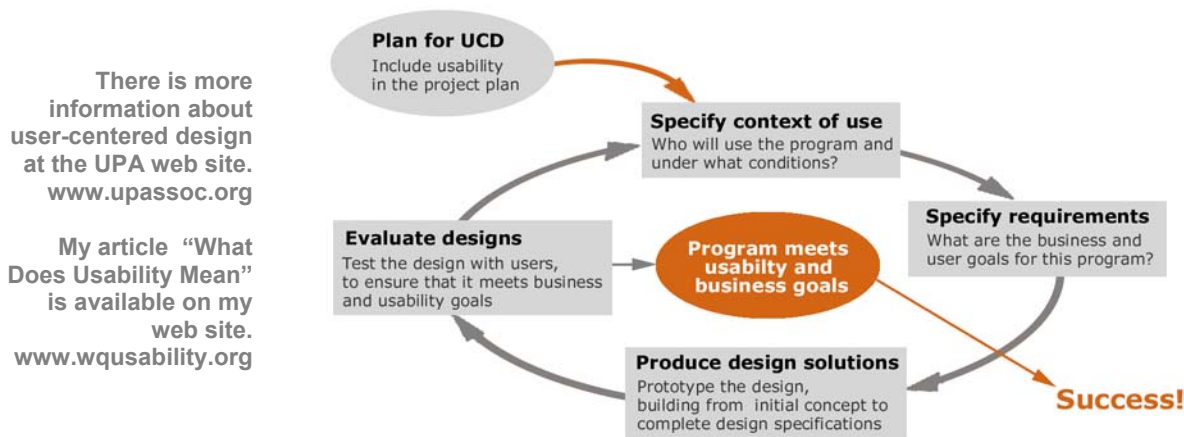
But this seems to be a future that is very much unevenly distributed. All around the industry – in fact in a wide variety of industries from software to clicks-and-bricks to manufacturing -- I hear stories about successful pilot projects in user-centered design, projects that were intended to open the door to wider acceptance of those ideas and techniques. No matter how successful those pilot projects were, there are only some companies that have made user-centered design a way of life, part of a customer-focused approach to their work. Others still can't even spell it.

There has been progress. Most of the time, I like to have a positive outlook on the data. I see a glass filling up and prefer to focus on how full it is getting, rather than how much empty space we still have to fill. But it's hard to deny that progress has been slow and uneven. And I've begun to think that perhaps it's not design – our methods and techniques – that are the problem, but that we have not mastered the politics of design.

User-centered design

Let me start by explaining what I mean by usability and user-centered design. Like many others, I use a broad definition for usability as the quality of a product – software, hardware, gadget or service – that allows the people who use it to meet their goals, working in a way that is efficient, effective and satisfying. Those goals may be very narrowly defined, a specific task, for example. Or, they might be broad and open to personal interpretation. But in the end, usability is in the eye of the beholder and must be defined for each user and context of use.

User-centered design is an approach to design that puts those users in the middle of the process, working with them throughout the process to understand their requirements and to evaluate the success in meeting the usability goals defined for the product. Although there are many detailed methodologies, most follow the general outline of the international standard, ISO 13407.



User-centered design starts from an understanding of the context of use and requirements, and iteratively tests possible designs until the product meets both usability and business goals. The terms user-centered design and usability are both a specific methodology or techniques within that process (such as usability testing) and a philosophy or basic approach to design. That philosophy is that understanding users and their goals, tasks and definitions of success leads to usable design that helps them succeed.

Definitions of Politics

It would also be helpful to take a look at what we mean by "politics." For this, I turned to the web, and found three definitions.

First I found these:

The often internally conflicting interrelationships among people in a society. --dictionary.reference.com

Social relations involving authority or power – webster-dictionary.org

They were quite comfortable definitions for me, as they both referred to human relationships. We certainly know how to analyze relationships and even conflicts

between roles. But they were too vague to really help guide me in thinking about what we mean by the politics of design. In other words, they might be a great analysis, but I could not make design decisions based on them.

Then I found this definition:

Lenin said politics was about "who could do what to whom" (Russian "Kto-Kogo" for "Who-Whom"). As political scientist Harold Lasswell said, politics is "who gets what, when and how." – www.free-definition.com

That sounded more like politics, at least in the somewhat pejorative sense that it is often used. But as fun as it can be to frame a problem in terms of conflict, that seemed to me a better topic for discussion later tonight at the bar.

Finally, I found a definition that gave me a place to start:

Politics is the process and conduct of decision-making for groups. Although it is usually applied to governments, political behavior is also observed in corporate, academic, religious, and other institutions – www.wordiq.com

This one has lots of concepts that resonated for me. First, that politics is a process. For those of us who spend time thinking about the design process, politics as a process is an easy transition. And, focusing on decision-making is also comfortable, as the process of creating a web site or any other product involves hundreds of large and small decisions.

For the next thirty minutes or so, we'll look together at many different aspects of the politics of design:

- ❑ **The politics of questions:** How the questions we ask at the beginning of a process shape the decisions we make and the product that eventually results.
- ❑ **The politics of change:** What conditions trigger change
- ❑ **The politics of convergence:** A look at the changes that are taking place, and how they affect the design process
- ❑ **The politics of corporate survival:** What creates barriers or opportunities for good design decisions
- ❑ **The politics of language:** How communications and interaction style affect the politics of design
- ❑ **The politics of politics:** A glimpse into the world of real politics and what happens when it intersects the world of design.

Finally, we will have time for what I hope will be some lively discussion at the end.

The politics of questions

There is one other important idea that is important in considering politics of design. If you think about the definitions, a simple way to define politics is the art and science of getting what you want. If politics is about decision making, negotiation and power, our goals – and how we state them, what we ask for – are important. We need to be sure that we are fighting for the right thing, because we might just get what we ask for.

Let's look at an example of how framing the design problem can have a profound impact on the results.

Some friends of mine have been involved in one of those perennial exercises: turning a barn into a theatre. This is a pretty simple problem, at least in its broad outlines. You build a stage at one end of the barn, create some seats for the audience, a place to store the scenery, and find a way to hang up some lights so that audience can see the actors. To do this, most barn theatres take a pipe or a truss and slap it across the space, over the audience, so that the lights end up in a good location as defined by the technical guidelines for angle and distance.

When spaces are adapted, the new use can conflict with the original architecture.



We're so used to this solution, that most people don't even notice that this lighting truss cuts right across the space and changes the architecture. And for many barns (or other theatres) it may not matter. A bit more clutter in a barn like this...

But the barn that my friends are working on has a very elegant architecture. The walls are each a full curve, from peak to ground, with no cross-bracing or other elements interrupting the space.

The owner of this barn started the design process off by asking a simple question, "Do we have to have one of those big light things in here?"

In the end, the answer was just as simple – and just as elegant – as the architecture itself. Chris Langhart (for those of you old enough to have this as a culture marker, he was the technical director for Woodstock) designed a series of box trusses that hugged the walls, following the shape of the space perfectly. The lights hang discretely and nothing cuts across the space.

What he did was especially wonderful because these trusses do three other things. First, they are also ladders, so the theatre technicians can work on the lights by simply climbing up the inside of the truss. It's very safe – much safer than the usual ladders. Second, they provide even better lighting positions than most theatres do. And third, the lights hang inside the truss, so the visual line is almost completely clean. The truss contains and visually hides all the “mess.” It's a solution that is visually appealing, ergonomic, safe, effective and in the end emotionally satisfying. And it all started by asking a simple question that challenged conventional wisdom.

How does this relate to the politics of design? You get the design you ask for. When you start the decision-making process, if you have not asked the right questions, if you have not considered all of the people who will use a product, all of the requirements, you will get a product that has not considered them either.

There are many other examples of designs that changed the way we think about our society, our civic space or everyday work. Many are the results of a political process that forced that change:

Picture from
Mountain State
Centers for
Independent Living
- mtstcil.org



We take curb cuts for granted in most cities and towns today. Even my small, 5,000 person borough in a semi-rural area has them. It's easy to forget that when they were first created, they were a radical idea, won through political action. Those small ramps making a transition between sidewalk and street help people in wheelchairs, but they also help anyone else with wheels: people pushing baby carriages, pulling luggage, riding bikes. Sidewalks with curb cuts, originally intended to help people with disabilities are “simply better sidewalks.”¹



The Oxo GoodGrips peeler doesn't look revolutionary, but it's another example of design that not only accommodates minor disabilities, but makes a common kitchen chore easier for everyone, by using a large handle that is easier to hold – to grip - while peeling potatoes, carrots and other vegetables.

Mail carrier's cart
from the Postal
Museum -
postalmuseum.si.edu



Another design innovation produced by political pressure was the adoption of a postal cart² to replace the heavy mail bag carried over the shoulder. These carts made it possible for women to be postal route carriers, and had the unexpected side effect of reduced injuries in men.

¹ The Electronic Curb Cut Effect by Steve Jacobs - <http://www.icdri.org/technology/eceff.htm>

There are many more examples of new designs that not only helped people use the tools better, but changed the lives of many others, people who were not the original target group for the design. This seems to be a lesson we have to learn over and over again: that good design helps many different people in many different ways.

However, what I am want to talk about today is not the substance of the designs, but how they came about, and what it will take to change the way we create new products, web sites and even services to meet the needs of all people, and specifically the older adults we all hope to be one day. We'll look at the political landscape in which design operates and how it helps – or hinders – designing for people; user-centered design.

The Politics of Change

First and foremost, what needs to change the mind-set about design. In most cases, the design process is technology or feature-and-function focused, rather than being user-focused. Even when design is central to the process, too often it centers on the designer as the interpreter of the product requirements, rather than on the person who will use the designed product. This can sometimes produce good, usable products, but usually only when two conditions are met:

- ❑ The designer must not only be skilled, but have a well-developed sense of empathy and an ability to imagine their work in use. As an e-list participant quipped, an “experienced designer.”³
- ❑ When the designer is similar to the target users, they can use themselves as the primary participant in the design experiment. The story of Rob Haitani, the designer of the Palm Pilot, walking around with a small block of wood in his pocket as a prototype for the new handheld computer he was designing is an example of this. But as successful as the Palm has been, even this design is limited by the experience of the designer: one of the problems he solved was how to fit the device comfortably into a man's business suit. Hmm. I wear one of those every day...

As important as talent and design skill are in producing both breakthrough and everyday products, they are not enough. We simply cannot count on every designer (and every design and production team) being “above average.”

All-too-often we have divorced craft skills from the use of the results of that craft, and in much software development, rows of programmers in cubicles have virtually no connection to the people who use what they create, and may have never seen the context in which their products are used.

We need to have ways to compensate for this phenomenon. The goal of user-centered design is to change this equation, and bring the user (along with their tasks and goals) back into focus at the center of the design effort.

³ Posted by Ziya to the ID Discuss email list on September 22, 2004

- ❑ In The Trouble with Computers, Tom Landauer reports that by simply observing people trying to use a word processor for 45 minutes, young programmers improved their ability to accurately identify the most usable design from mere chance to a reasonable rate of success.
- ❑ A technical communications teacher⁴ told me about asking her students to write instructional material for older adults who use the computers in a senior center. It only takes a few site visits (and a chance to watch the seniors struggling with their first drafts) to help these young (relatively, anyway) students understand that they cannot use themselves as their “model user,” but must learn about (and from) their real audience.

The “little secret” about this is how easy this change is to make, when the politics of the situation are right. The question we have to ask is how we help create those conditions, recognize when they are present, and take advantage of the opportunity they present.

The Politics of Convergence

There seems to me to be some evidence that we are at one of those times of opportunity. One thing creating this opportunity is three different types of convergence.

Since computers first appeared, there have been predictions that they will “change everything” – and this trend has only accelerated in the era of the Internet and the dot-com boom. The dot-com crash is probably not a contradiction, but a course correction in the face of “irrational exuberance.” In fact, there may be more convergence in the post-crash world. More “clicks and bricks” companies. More “old economy” companies venturing online for important parts of their business process. More web sites that have moves from mere marketing “points of presence” to places where companies – and customers – do business.

This means that marketing, sales, training and technical support are all mixed in one web site. Where it was once possible for each of these departments to work separately, now they must work together.

⁴ I have heard similar stories from many teachers who incorporate usability into their technical writing, web design and other courses. This story was told to me by Gail Lippincott, then a professor at the University of North Texas.

This home page for a mobile phone service includes marketing material, sales offers, customer service, e-commerce (for both b2c and b2b products) as well as (at the bottom of the page) general corporate information. The only sign that different phone services are not well integrated behind the scenes is that mobile, DLS and regular phone service each have separate customer log-ins.



Even within a single department, there may be different channels – for example, the web, interactive voice support systems, and customer service reps. These also have to work together as a single system. All of this requires integrated systems and databases, but is also requires a coordinated approach to designing both the business processes and user interfaces -- as well as accommodating different user preferences for how they prefer to interact with the company . We'll pick up the questions of corporate politics as this takes place in a minute.

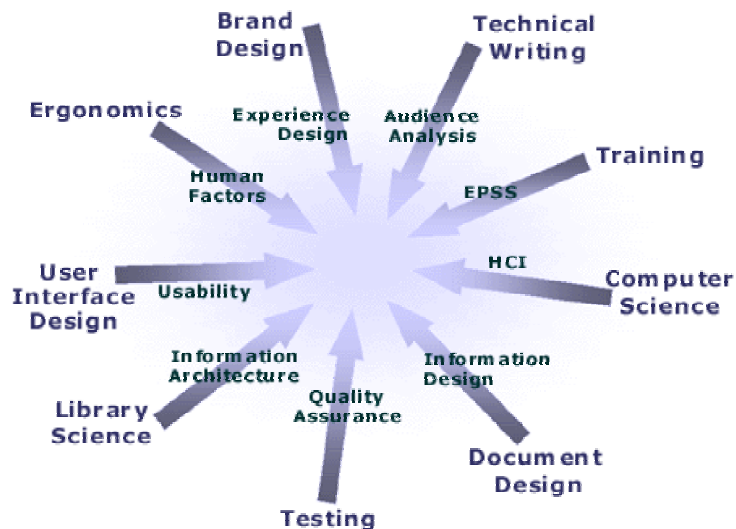


At first, I did not recognize the second type of convergence. I could follow the demographics and web usage reports to see that more older people are going online. In fact, any thought that our senior citizens don't know how to use the web was dispelled for me when my mother moved to Palm Beach County. She is not very comfortable online (yet), but her trip down to Florida was planned by a network of friends who knew just what web site had the best travel bargains. In fact, they found her a cheaper fare than I did – because they knew about the sites that catered to people with flexible schedules.

What I finally recognized is that our social worlds are converging. For my mother, the old social networks are extending their tentacles into the online world, and are all converging on that little window we call a browser. More than that, the web is no longer a place only for young people, or only for those who are early adopters of technology. We have different generations and diverse social groups converging on the web, and this will surely change how we design new web sites and services.

The final convergence effect can be seen in the different design disciplines and how they view the goals of their work. Disciplines that were once separate, with little or no overlap even when they worked on the same product, now share a goal of “better” products – even if we use different words for it. The focus of the work has begun to shift from the craft of the discipline itself to the value for users of the products we create.

This image shows just a selection of the many disciplines that are all converging on the user experience space, bringing their skills and terminology.



For example, the field of electronic performance support systems (EPSS) sprang up when trainers realized that it would be easier to teach people to use programs that more directly and effectively supported users to improve business performance. Document designers, technical writers, brand designers and more all began to broaden their view of their work to include the end result – the user experience.

Will this result in competition or cooperation? The metaphor that I like as a description of the collaboration is stone soup. We start with a pot of plain water, with each discipline adding its special ingredients and flavor to create a soup richer than any one could create alone.

The Politics of Corporate Survival

As I said earlier, one of the disappointments in the adoption rate of user-centered design has been how many very successful pilot projects never seem to spawn the broader and deeper use of these techniques throughout the company.

One of the barriers is what we might call the politics of corporate survival. When good usability and responsiveness to user or customer needs is considered in corporate rewards (both in prestige and pay), it is easy for each person to justify taking the time to incorporate user-centered design techniques into their work. Or for a manager to change the process for developing a new product. But when the company rewards only speed or technical prowess, it is difficult for user advocates to be truly heard or their ideas acted on.

What will it take?

There is already good work being done around the industry to look at the value of usable design to the company, evaluating the return on investment, improvements in the marketability and profit of well-designed products. It is important to look at our work not just as advocacy, but through the eyes of the companies for which we work.

Until we understand how our user-centered design centered design work meshes with other corporate processes, we will always be outsiders, and use external advocacy tools. To succeed, we must become insiders. I hope that some designers and usability professionals will be interested in moving into management positions, expanding their sphere of influence.

The Politics of Language

Language and its use in communication is woven through every aspect of the politics of design. It affects both how we use language in our work and advocacy and how we relate to the people who use our products.

The language of technology can be a particular challenge. It affects the ability to learn to use new products and services, and influences how people interact with you as you do.

Many years ago, when I was still working in theatre, I began exploring computers. A friend, then in a polytech computer science program, ignored my comments about my experiences. The thought balloon was pretty clear: he was working with *real machines*. He asked me what operating system I used, as a way of driving his point home. I didn't know what an operating system was, but I did know that I was working on a DEC PDP-11 running TSX. All of a sudden, his attitude changed, because this qualified in his mind as a "real" system. Nothing about me or my first tentative steps had changed, just his perception of me and my skills.



I think that this is also a challenge for usability, especially when working with people who may be on the other side of the "digital divide." During a usability test with women from 45 to 65 years old, our first impressions was that their technical capabilities were weak. We had recruited people who said that although they used the web frequently, they often found it difficult and had trouble finding information online. What we discovered, however, was they were actually quite proficient at using the browser. What they difficulty doing was talking about it. They simply did not have the vocabulary to describe the Windows and browser interface.

When we look at user-centered design and advocacy from the outside, we have similar language issues in our attempts to communicate. If we cannot speak the language of business and government, our own message will not be heard. This is a point that Phil Terry made yesterday morning, and one that I want to emphasize as well.

Language is also an issue in collaboration. Every community develops its own terminology, and its own way of talking about their work. Whatever your role, it's important to learn how to communicate with those in other disciplines who are contributing to your projects.

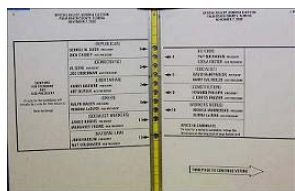
Finally, there is the question of how we communicate – especially when we are trying to instigate change. The typical business presentation shows charts and diagrams, making an argument through facts and figures. Steve Denning, and

others who work in corporate storytelling, suggest that stories might be a more effective tool. You don't change opinions through rational argument. Dialogue can work, but only on a very small scale. Stories can spark the imagination and draw both the teller and the listener in. More importantly, stories are easy to retell, and become a form of viral communication that can involve everyone in understanding the problem and creating a vision of how to solve that problem.

Steve Denning makes a persuasive argument that stories are not only a natural form of communication, but a better way to influence change. Stories spark the imagination and allow ideas to spread quickly.
www.stevedenning.com

Method	Effectiveness
Documents	Low
Charts and diagrams	Limited
Rational argument	Limited
Dialogue	Impractical
Storytelling	High

The Politics of Politics



The infamous butterfly ballot used in the Palm Beach County election in November 2000

As much as I saw the political aspects of the corporate design process, nothing prepared me for experiencing politics – real politics – as part of a design process. I was one of the many people in our field who were stunned and then galvanized by the 2000 presidential election and watching a relatively simple usability miscalculation through our country into a crisis.

Since then, I have spent much of my volunteer time working to improve the usability of our voting process and to ensure that no one is ever, as Susan King Roth so aptly put it, disenfranchised by (bad) design⁵. In those four years, the UPA Voting and Usability Project has grown from an informational web site to an active participant in work on elections both here and in the UK.

Last week, I chaired a day of public hearings on human factors and privacy in elections, gathering information that will lead to new standards for voting systems, standards that will include both usability and accessibility requirements for the first time. As a member of the US Elections Assistance Commission's Technical Guidelines Development Committee, I have an opportunity to bring our advocacy for usability as an important factor in successful elections inside the political process. Needless to say, this is a somewhat daunting prospect, but one in which I believe we may succeed.

Before I become a jaded "old voting hand" I'd like to share with you three lessons that I've taken away...so far.

1. Good intentions are not enough

The saddest words of all the many that were spoken or written about the 2000 election are these:

⁵ Disenfranchised by Design - Susan King Roth, Information Design Journal, 1998 – online at <http://www.informationdesign.org/pubs/roth1998.html>

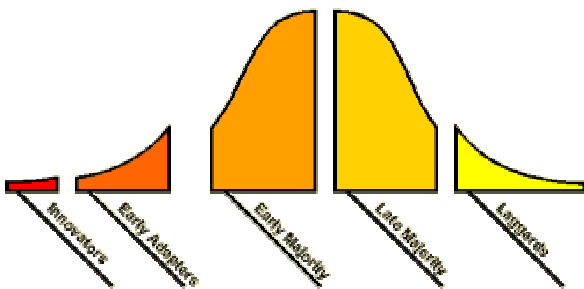
"I was trying to make the print bigger so elderly people in Palm Beach County can read it. We sent out sample ballots to all registered voters, and no one said a word." – Theresa LaPore, Palm Beach County Supervisor of Elections, November 2000

It is not enough to want to do the right thing. It takes knowing how to do the work, whether that means having the skills yourself, or bringing them onto your team. It means being open to new participants in the process, and not assuming that the way "it's always been done" is good enough. We need to look for partners who can show us new skills or new ideas – ways to solve problems we may not even know we have.

Look at what the skills of the Design for Democracy project was able to do with the same butterfly ballot, even working within the constraints of a rigid punch card system. Every project, of every kind, should be able to reach for these kinds of results.

2. Work within the system, or fight from the outside

One of the hardest questions for any political activist is whether to try to work within the system or fight from the outside. Every movement needs both. The "rabble rousers" raise awareness, and there is a long, rich tradition from the Grey Panthers to the "bra burning feminists" to the ACT-Up AIDS activists. Their function is to dramatize the issue and frame the early stage of the debate, as well as ensuring that the issue remains visible over time.



I suspect that Geoffrey Moore's analysis of the new technology introduction curve in *Crossing the Chasm* applies here as well. Moore's chasm is the gap between the early adopters and the main bell curve. He says that progress across this chasm is not a gradual or incremental process. Instead the idea must build up energy for the leap across the chasm.

One of the points that he makes is that the marketing strategy must change as a product moves from the early adoption phase, crosses the chasm into the beginning of mainstream acceptance, working its way from the early majority to the late majority and finally picks up the laggards.

In the same way, new design ideas or new awareness of under-served communities has to cross the chasm from the insiders circle of early adopters into the mainstream. Where Moore talks about marketing a new technology, we can substitute the political adoption of a new idea, from the broad ideas of user-centered design to the specific needs of groups like older adults.

There is a time when the idea needs attention for aggressive, persistent activism, for people who are willing to stand up and complain. But there is also a time for the people who can do the slower political work to build consensus and spread awareness. Just as Moore's marketing strategy changes in each stage, so too, must the tactics in the politics of design.

The work on the IEEE voting system standards and my appointment to the EAC guidelines committee gave us a chance to work from within. In following an internal strategy one of my greatest fears was that we would spend a lot of effort and accomplish little; that we would create standards that did not, in the end, really meet our goals. One of the things I have learned is that by being there, actively participating, helping push the work forward, and repeating our message, we do get heard. This strategy does not give us the visibility of an “outside agitator,” but it fit my wish to be part of the solution.

Distressingly, one of the places where we have to agitate to keep usability on the table is in technology circles. As many of us have pointed out many times, the problems in Florida 2000 were not computer problems, but an information design and usability error -- one that could have been avoided through better training and usability testing. But, the computer scientists and organizations with a technical focus, such as the ACM, are more comfortable talking about systems, security and technology solutions than about usability or human factors. I am constantly amazed by their unwillingness to look at the people who are the real core of an election, preferring to focus narrowly on the machines.

3. Celebrate unexpected successes

Sometimes successes come from places where you least expect it. It’s been a challenge to connect the work on voting system standards to the daily lives of usability professionals. But one of my favorite “small victories” is one that we can all use to show that it’s not just usability professionals who think this stuff is important...the US government does, too. The EAC published a best practices guide for election administration, and tip number eight is, “Hire a usability consultant.” They even created a wonderful description of what we do and points to UPA as a place to find these marvelous creatures...and put it right on a federal agency web site.⁶

The EAC has published a “Best Practices Tool Kit” for running elections. There are 10 core recommendations along with a collection of samples and examples culled from election officials around the country.

UNITED STATES
ELECTION ASSISTANCE COMMISSION
Best Practices Tool Kit

Main* Provisional Voting: Challenges & Solutions Checklist for HAVA Implementation Resources Acknowledgements EAC

Pre-Election Management

Issues and Shared Practices in Administration Management and Security for All Voting Systems

8. Hire a Usability Consultant.

Creating more legible polling place signs, reader-friendly voter guides, clear voting instructions, easy-to-use touch screens, and user-friendly websites will make it easier for voters to participate, reduce voter errors and build good will on the part of the voting public. Usability consultants can help identify where such improvements can be made. Usability consultants are professionals who specialize in making forms and computer interfaces easier to use; they can make everything from the voter registration application to the ballot to the DRE touch screen unit more voter-friendly. To find a consultant, go to the website of the Usability Professional's Association. You can also find guidance on ballot design in the following subsidiary pages of the UPA website: "Voting and Usability: Top ten things to read" and "Voting and Usability Project."

<http://www.eac.gov/bp/avs.asp>

⁶ The Best Practices Tool Kit is online at <http://www.eac.gov/avs.asp>

In the grand scheme of things, this one paragraph on one web page may not be much. But I'll take it. Because small victories add up to a bigger movement and to the kind of change that we are really after.

Josie Scott, one of the leaders of the Voting and Usability Project and a former elections official, said, "The real result of an election is not a count of the votes; it's a mandate to govern."

The real goal of all of our advocacy of user-centered design is not standards or guidelines. It is, instead, to change the way we think about design. To change the way we process of creating those things so that they encompass the broad, rich, wonderful diversity of all of us humans.

Thank you.

Whitney Quesenbery is a user interface designer and usability specialist with a passion for clear communication.

She is an expert in developing new concepts for product designs and has produced award winning multimedia products, web sites, and web & software applications.

Before she was seduced by a little beige computer into the world of usability, Whitney was a theatrical lighting designer on and off Broadway. The lessons and stories from the theatre stay with her in creating user experiences.

Whitney is president of UPA - Usability Professionals' Association and runs the STC Usability SIG web site. She was recently appointed to the federal Election Assistance Commission's Technical Guidelines Development Committee for voting systems.

She is the principal consultant for Whitney Interaction Design, and can be reached on the web at www.wqusability.com