



**upa**

**usability professionals' association**

# Starting from People

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**Promoting  
usability  
concepts and  
techniques  
worldwide**



# UPA Voting and Usability Project

- Project founded in late 2000
- Focus on the user experience of an election and what knowledge and skills usability professionals can bring to improving the elections process
- Interested in guidelines for usability testing of voting systems
- Cooperation with other efforts, such as the Design for Democracy , AIGA and ACM SIGCHI
- International e-list provides a discussion forum and a place for researchers in usability in e-voting and e-participation to meet

[http://www.usabilityprofessionals.org/upa\\_projects/voting\\_and\\_usability/](http://www.usabilityprofessionals.org/upa_projects/voting_and_usability/)



# Is usability important?

How hard is it to put  
an "x" next to your  
candidate's name?  
Most people manage  
it just fine!

Usability is the last  
thing we should be  
worried about...if we  
can't trust the  
technology nothing  
else matters



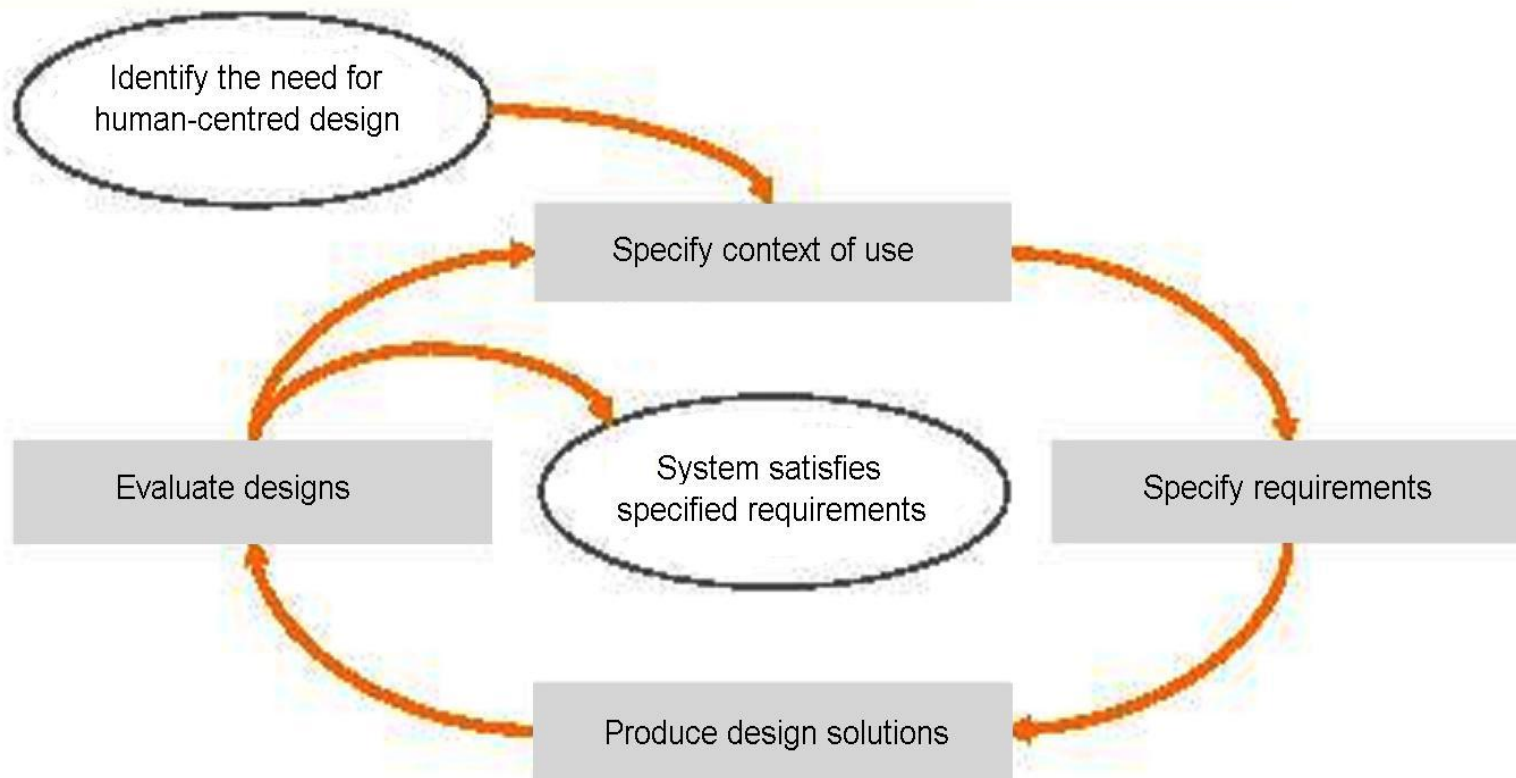
## A different view

Usability and the entire user experience, not technology, should be the starting point for the design of any voting system.

Only through a user-centered design approach can we design voting systems that meet the needs of all the people who use it:

- voters
- officials
- candidates
- society as a whole

# A user-centered approach



ISO 13407 - Human-centred design process



# What is usability?

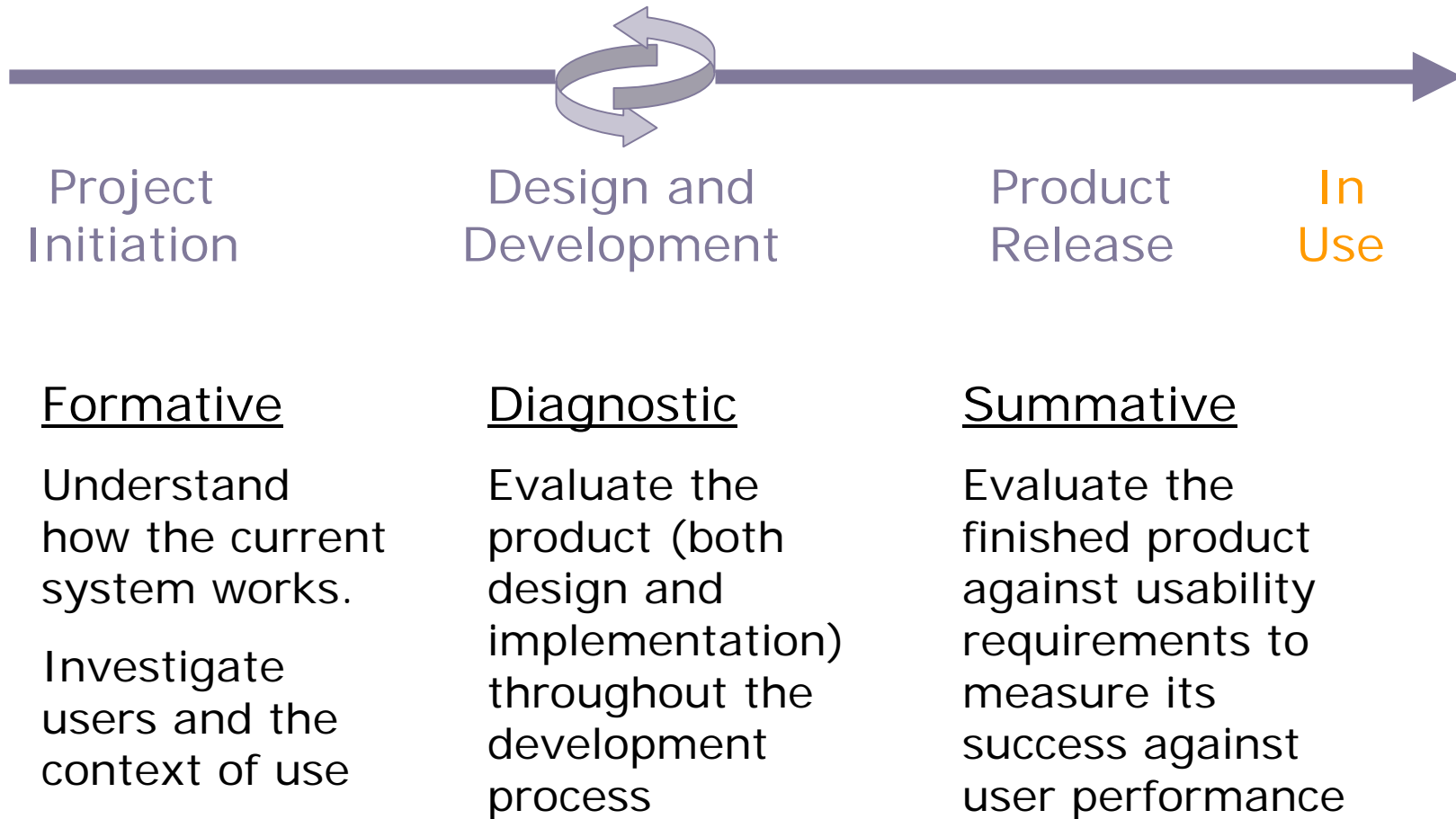
Usability:

The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

ISO 9241-11



# Usability testing



# Quality and usability are different

ELECTORS for PRESIDENT and VICE PRESIDENT	(REPUBLICAN) GEORGE W. BUSH- President 3→ DICK CHENEY- Vice President	←4	(REFORM) PAT BUCHANAN- President EZOLA FOSTER- Vice President
	(DEMOCRATIC) AL GORE- President 5→ JOE LIBERMAN- Vice President	←5	(SOCIALIST) DAVID McREYNOLDS- President MARY CAL HOLLIS- Vice President
	(LIBERTARIAN) HARRY BROWNE- President 7→ ART OLIVER- Vice President	←8	
		←9	
		←10	
		←11	

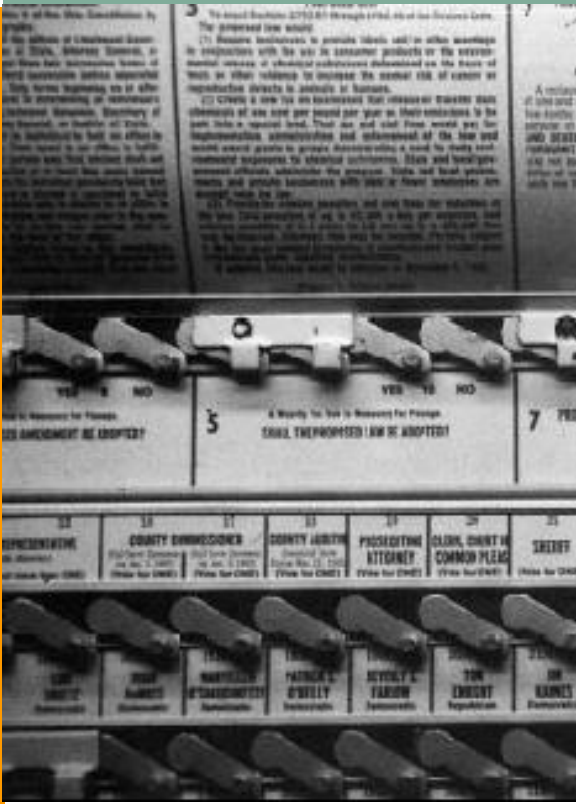
MSNBC Cable illustration

- Quality looks for
  - Correctly spelled names
  - Approved position on the ballot
  - Relative font size
- Usability looks for
  - Unambiguous voting process
  - Readability of text
  - Successful performance





# It's important to watch voters in context




photos from  
Susan King Roth  
"Disenfranchised by Design"  
in IDJ, 1998

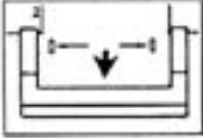
# Good design supports usability

**Voting Instructions**

**STEP 1**  
Using both hands, insert the unfolded ballot card all the way into the votomatic. If ballot card is folded, you will not be able to vote.




**STEP 2**  
Be sure the two holes in your ballot card fit down over the two red pins.



**STEP 3**  
To vote, hold the voting instrument straight up. Punch straight down through the ballot card for the candidate of your choice.

**Do not use pen or pencil**



**STEP 4**  
Vote all pages.

**STEP 5**  
After voting, remove the ballot card from the Votomatic. Then fold the long stub down over the face of the voted ballot for privacy.

**Note:** If you make a mistake return your ballot card and obtain another.

**AFTER VOTING, CHECK YOUR BALLOT CARD TO BE SURE YOUR VOTING SELECTIONS ARE CLEARLY AND CLEANLY PUNCHED AND THERE ARE NO CHIPS LEFT HANGING ON THE BACK OF THE CARD.**

**voting instructions**  
instrucciones para votar

**1**  View both sides. Insert ballot card with printed instructions facing you. View instructions. Instructions in Spanish are also available. Instructions facing outside.

**2**  Remove the red pins on through the holes. Align holes to pins. Insert top of ballot card into slot.

**3**  Hold the punch straight up and down. Punch all pages (only). Punch a hole at position of choice. Punch all pages.

**4**  After voting, check both sides of the holes. Be sure instructions are clearly punched and there are no loose bits of paper. Remove the ballot card from the votomatic. Fold the long stub down over the face of the voted ballot for privacy.

**If you make a mistake, please ask an election judge for a new ballot.** **If you make a mistake, please ask an election judge for a new ballot.**

From Design for Democracy project case studies

# Usability testing after release



When should a ballot be usability tested because the election requirements change the context of use?



Dorothy Tirpok, Hunterdon, NJ County Clerk



"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  
Supervisor of Elections  
Palm Beach County

November 2000



# Usability Professionals' Association

The UPA supports those who promote and advance the development of usable products, reaching out to people who act as advocates for usability and the user experience. Members come from across the broad family of disciplines that create the user experience.

The goals of the UPA are to:

- **Provide an international network** through which usability professionals can share information about the techniques and methodologies in the profession.
- **Create an inclusive community** for those interested in usability, whether it is their primary focus or related to another discipline.
- **Change new product development processes** to include a concern for the people who use them by presenting the business case for usability in product development to colleagues, customers, the public and governmental agencies.
- **Increase the body of knowledge** about usability and user-centered design through professional education, meetings and conventions and other professional interchanges

Promoting usability concepts and techniques worldwide  
[www.usabilityprofessionals.org](http://www.usabilityprofessionals.org)