

End-users in Practice

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"Darn these hooves!
I hit the wrong switch
again! Who designs
these instrument
panels, Raccoons?"

- ❖ End-users
 - Postal workers
 - Neurosurgeons
 - Shippers
 - Financial reps
- ❖ Access
- ❖ Lessons

Why work with end-users?

End-users are not designers, but...

- ❖ Domain & process expertise
- ❖ Inform design
- ❖ Validate design ideas
- ❖ Reveal problems & omissions

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Postal workers

- ❖ 30,000 POS installations (US)
- ❖ Well-trained, knowledgeable
- ❖ Customer-focused, but...
- ❖ Rules-oriented
- ❖ Repetitive, rote, shortcuts
- ❖ Constrained, led, directed
- ❖ Ask for advice, defer problems

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Neurosurgeons

- ❖ Very few
- ❖ Trained, educated, skilled
- ❖ Particularly task-focused
- ❖ Procedure- and role-oriented
- ❖ Assisted by specialists
- ❖ Master, leader, director
- ❖ Give orders, solve problems

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Shippers

- ❖ Corporate consumers of Fed Ex
- ❖ Range of novice to expert users
- ❖ Range of responsibility
- ❖ Range of repetitive use
- ❖ Task focused
- ❖ Motivated by deadlines, scheduling

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Access to end-users?

To:

- ❖ Build requirements
- ❖ Validate decisions
- ❖ Evaluate usability

Denied because:

- ❖ Shop culture
- ❖ Schedule (costs)
- ❖ Perception
- ❖ Inconvenience

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Access to neurosurgeons

Strong case:

- ❖ High cost of errors
- ❖ Zero tolerance
- ❖ Participants? No.
- ❖ Interviews? No.
- ❖ Observation? Yes.

Solution:

- ❖ Observation in OR
- ❖ Technologists as design participants
- ❖ Beta test site

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Access to postal workers

Strong case:

- ❖ High cost of errors
- ❖ Magnified by volume
(1 min = 32,500 hrs)
- ❖ Many available users

Solution:

- ❖ Subject-matter expert
- ❖ Video tape (existing)
- ❖ Scheduled reviews

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Access to shippers

- ❖ Conduct usability test with end-users
- ❖ Address Book: well-defined, small area
- ❖ Post-design (hi-fi prototype)
- ❖ 16 end-users over 4 days

- ❖ Satisfactory results?

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Access to financial reps

- ❖ Intranet trading application
- ❖ Assumption: branch reps are end-users
- ❖ Design-by-committee: stakeholders
- ❖ Minimal access to end-users

- ❖ Fallout?

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Lessons learned

Shop culture is a barrier to end-user access

Dismantle shop culture barriers:

- ❖ Be flexible and innovative
- ❖ Demonstrate value
- ❖ More end-users more often

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More lessons

End-user input is valuable

- ❖ There are few “textbook” cases
- ❖ Test early and often
- ❖ Get a broad perspective
- ❖ Solve the right problem
- ❖ Use a variety of means
- ❖ Be task-focused