HCI Goals
CS 464, Spring 2018

Learning objectives:
1. Understand common goals of designing interactive systems
2. Understand why such goals are needed
3. Understand why the common goals need to be refined
4. Understand and be able to apply the resulting refined process and goals

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Adapted from materials originally created by Prof. Jamie Ruiz
You have to see it to believe it!

Flash-Matic Tuning by Zenith

Only Zenith has it!

A flash of magic light from across the room
(no wires, no cords) turns set on, off, or changes
channels...and you remain in your easy chair!

You can also shut off long,
annoying commercials
while picture remains on screen!

Here is a truly amazing new television
development—and only Zenith has it!
Just think! Without budging from your
easy chair you can turn your new Zenith
Flash-Matic set on, off, or change chan-
nels. You can even shut off annoying
commercials while the picture remains
on the screen. Just a flash of light does it.
There are no wires or cords. This is not
an accessory. It is a built-in part of sev-
eral new 1959 Zenith television receivers.
Stop at your Zenith dealer's soon.
Zenith-quality television begins as low
as $149.95.*

If it's new...it's from Zenith!

You have to see it to believe it

*Manufacturer's suggested retail price. Slightly higher in For West and South.
Which Remote is Best?

A

B

C

D

Don’t Know
Goals of Designing Interactive Systems

Make computational artifacts that are “useful, usable, used” (Dix, Finlay, Abowd, Beale 2004)

Useful: Tool accomplishes what is required

Usable: Performs task “easily and naturally”

Used: People want to use it
Useful, Usable, Used...

**Utility**

If the system doesn’t do the job the user needs, then *nothing* can help

People may buy it, but will not use it (and not recommend it to others)

There is a term for this...
“Putting Pearls on a Pig”

Before “improving” an interface, apply the “pig” test:

• Does it address a deep, real-world, identifiable need **grounded in data and not personal experience**?

• Does it **measurably** improve the user’s accomplishment of their goals?
Avoiding Fancy Pigs

Focus on user’s goals
What are they trying to accomplish?
How do their current tools help or hinder this process?
Avoiding Fancy Pigs

We will examine all of your assignment and project submissions through this lens:

• Have you clearly identified the user’s goals?
• Does your system address the user’s goals?
• Have you demonstrated how well it addresses these goals?
Back to the Goals...

Useful
Usable
Used

So let’s make everything easy to use!
“Easy to use”
No More “Easy to Use”

From here on out, we will avoiding speaking of interfaces as being/not being “easy to use”

Why?
Imprecision of “Being Easy to Use”

Measure?
Meaning?

... different things to different people

NO actionable data!
“Usable”
More HCI Heresy...

Avoid “usable”

Intuitive concept and no precise way to measure

*It goes without saying* that we want systems that are perceived to be “easy to use” and “usable”
Getting in the Right Mindset

Identify:

*measurable qualities of the interface*
*measurable qualities of users’ tasks*

that influence the impression of a system being “easy to use” and “usable”

What are some metrics that indicate a system is “easy to use” or “usable”?
Alternatives to “Being Easy”

Must be measureable
Must give enough information to drive design changes

?
Results in a Refined Process & Goals..

1. Discover and understand user’s underlying goals and needs
2. Develop models of users, including their goals, behaviors, and context of use
3. Design to the data and the models created
4. Precisely measure what ways the new system improves the user experience
HCI in Practice...

As a professional, you may do one or all of these steps

More often than not, you will not have the luxury of being able to fully apply HCI methods

But you’ll be served well if you always remember to ask:

• “What are the user’s needs and goals?”

• “How will we know we have significantly improved their work? What can we measure?”
Image Credits

zenith: https://en.wikipedia.org/wiki/Zenith_Flash-matic