

Beyond the Individual: Usability, Utility and Community

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Why usability?



Why usability?

At the heart of the interest many of us take in *usability* is the desire to create technologies that people will actually *use*.



What is *usability*?

ISO 9241-11:

“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.”



What is *utility*?

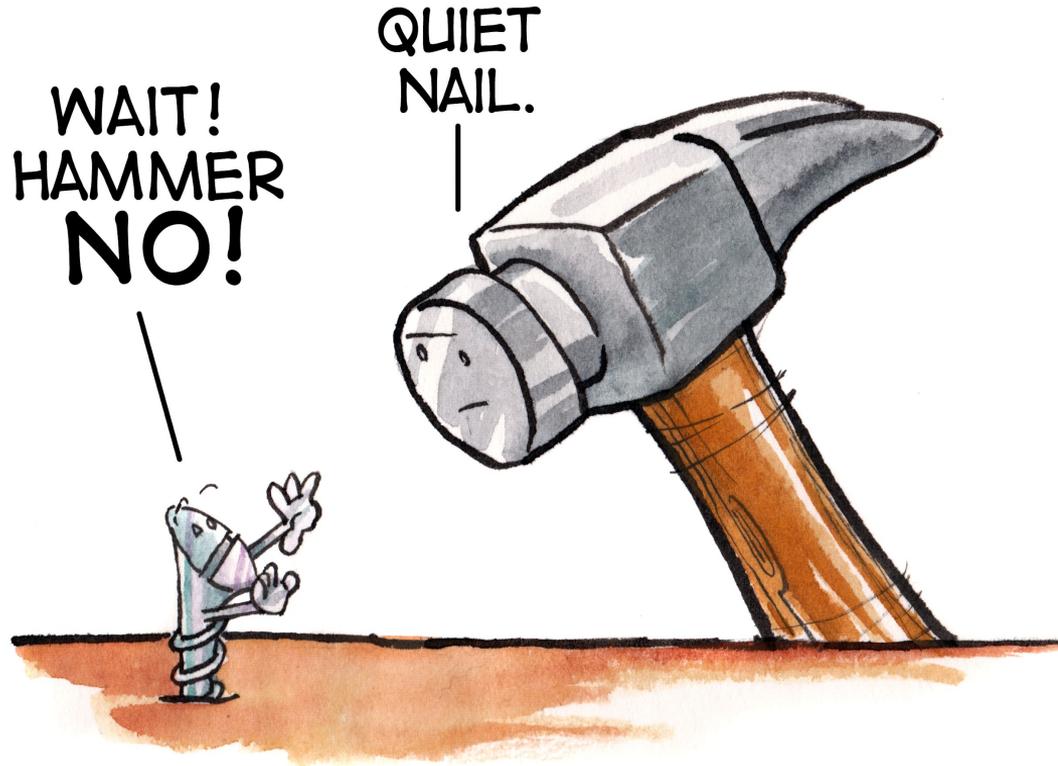
@susanemcg



Usability \neq Utility



Remembering Maslow's hammer



A hammer is a highly *usable* tool,
but it is only *useful* in the correct context.

Usability \neq Utility

but

Usability + Utility = Use



Technology Acceptance Model

The Technology Acceptance Model (TAM) is a framework for understanding why and how certain technologies see actual adoption and use. Although there are many variations, this model generally holds that actual system use depends on a combination of **perceived usefulness** and **perceived ease-of-use**.



Technology Acceptance Model

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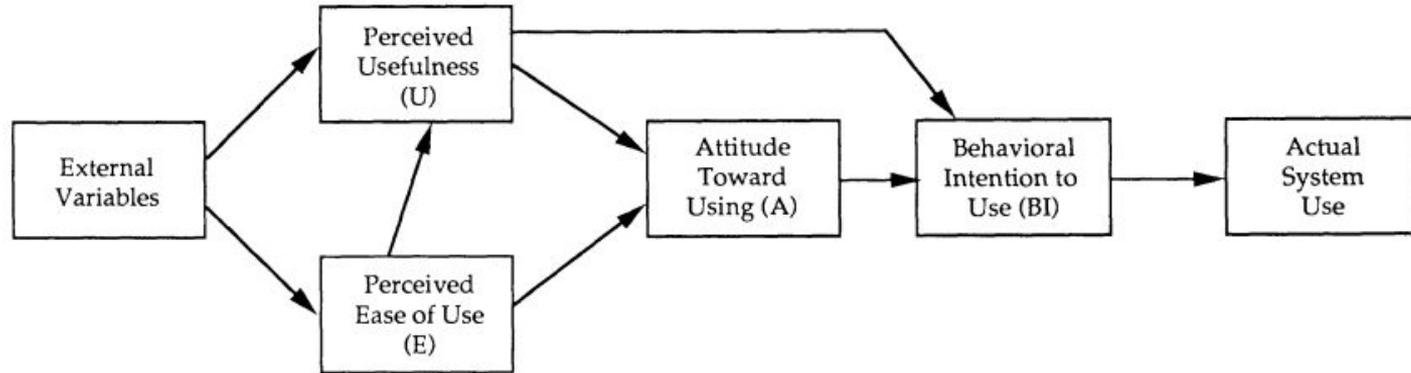


FIGURE 2. Technology Acceptance Model (TAM).



[Davis, Bagozzi & Warshaw, 1989](#)

Is there room for utility in our work on usability?



Usability revisited

ISO 9241-11:

“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.”



Who specifies?



Usually, **we** do.



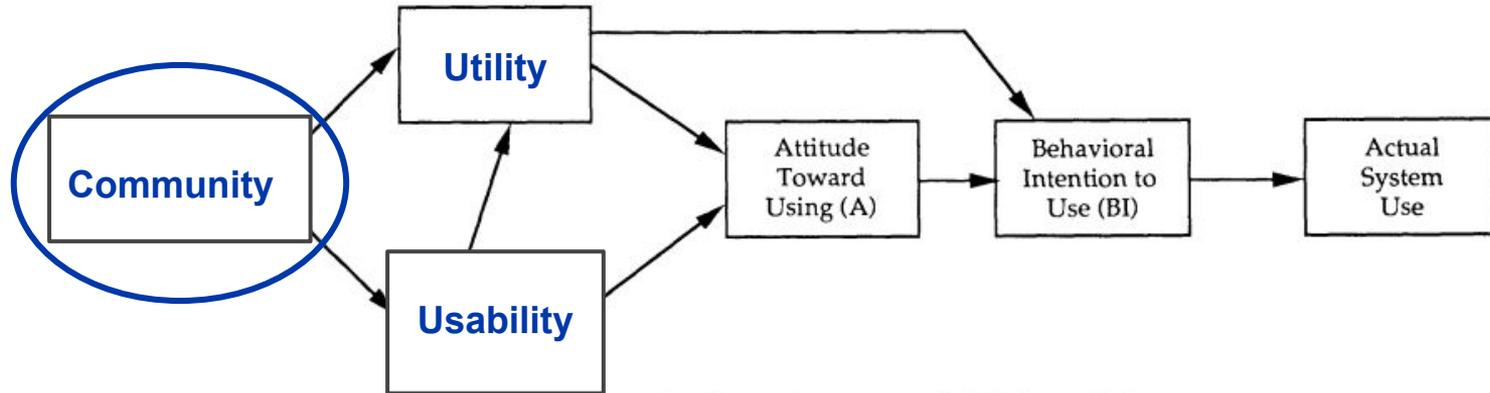
Unless the research process involves identifying users explicitly and working with them closely, as researchers, we are not the experts in what **users** are trying to do.



The proposal: A type of Technology Acceptance Model



A Modified TAM



Using community membership and roles as the context for determining "external variables" provides a coherent framework for evaluating "perceived usefulness" such that **goals, context** and **users** can all be defined in a meaningful way.



Case Study

THE PANAMA PAPERS

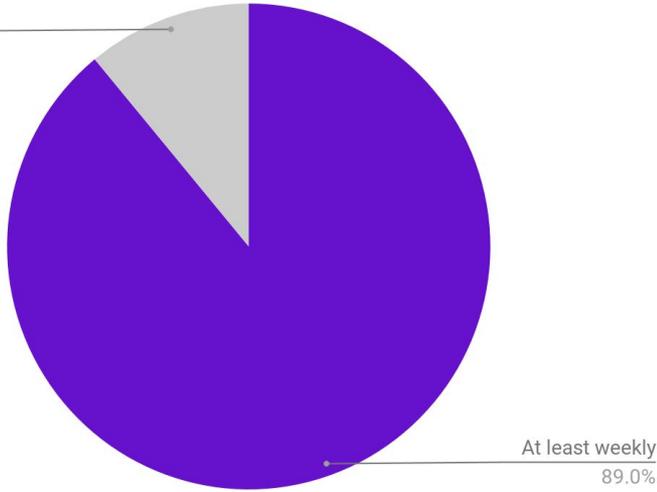
Politicians, Criminals and the Rogue Industry That Hides Their Cash

- ~400 journalists
- >120 news organizations
- >2.5TB of leaked documents
- Led by the International Consortium of Investigative Journalists (ICIJ).

Findings: ICIJ Technology Use

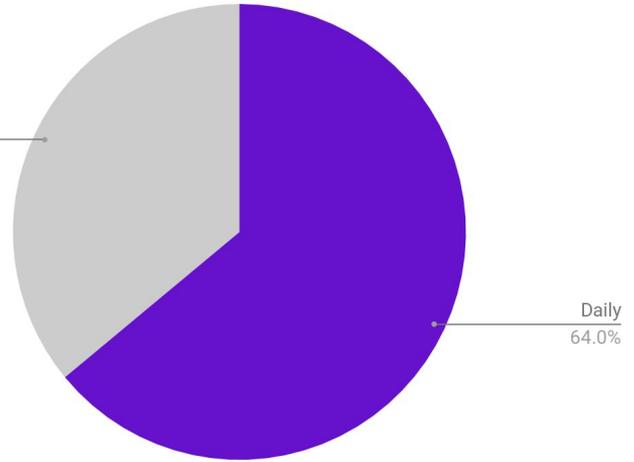
In the 3 months prior to publication

Monthly or less
11.0%



89% were using the Global I-Hub at least weekly

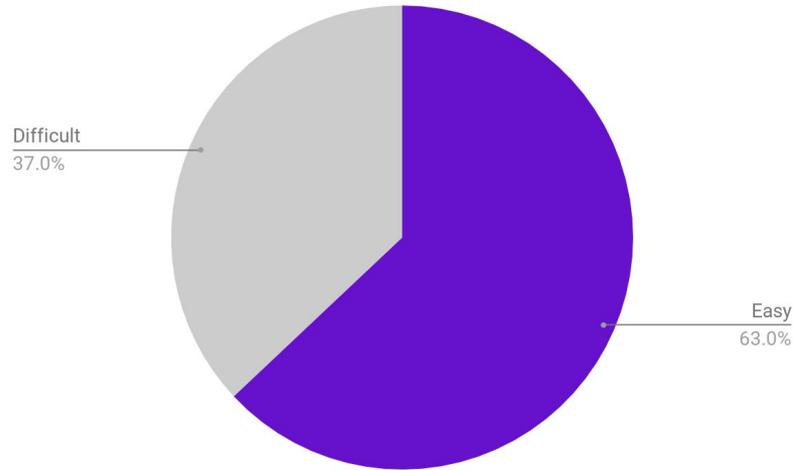
Weekly or less
36.0%



64% were using Blacklight daily

Findings: Security Technology Use

And yet...



63% rated security compliance "easy"

The Panama Papers: Achieving Utility

- Multiple forms of 2FA were tested with target users: VMs, browser extensions, smartphone apps
- Tool designers had an open feedback channel to users throughout the project; some of their most important features were user-suggested
- Collaboration was important to users, so ICIJ built a highly usable collaboration platform that *also* had stringent security
- ICIJ had worked with investigative journalists multiple times on similar projects, so had a strong understanding of needs, limitations, priorities

Why **community**?



Individuals are not monoliths

Their needs, abilities and objectives can vary even from day to day,
but community roles and goals tend to be stable for longer periods.



Even accessibility is highly contextual

An Alphabet of Accessibility Issues

by *anne gibson*

31 JUL 2014

A is blind, and has been since birth. He's always used a screen reader, and always used a computer. He's a programmer, and he's better prepared to use the web than most of the others on this list.

B fell down a hill while running to close his car windows in the rain, and fractured multiple fingers. He's trying to surf the web with his left hand and the keyboard.

C has a blood cancer. She's been on chemo for a few months and, despite being an MD, is finding it harder and harder to remember things, read, or have a conversation. It's called chemo brain. She's frustrated because she's becoming more and more reliant on her smart phone for taking notes and keeping track of things at the same time that it's getting harder and harder for her to use.

D is color blind. Most websites think of him, but most people making PowerPoint presentations or charts and graphs at work do not

Gibson, [2014](#); [2015](#)



Taking a **community** perspective
can help provide a coherent
framework for identifying users'
goals and **contexts**



Engaging Communities: A Journalist Hacks Ethnography



Engaging Communities: A Journalist Hacks Ethnography

1. Listen
2. Observe
3. Credit



Engaging Communities

1. Listen

- **Ask** community members about their needs and concerns
- Try to **elicit stories and experiences**, rather than asking why users do (or don't) use a particular technology or process



Engaging Communities

2. Observe

- With permission, **spend time observing** a group of community members to get a sense of roles, tasks and activities
- **Make notes** about anything that is unclear to you, but **don't interrupt**
- **Follow up** with individuals to inquire about anything you don't understand



Engaging Communities

3. Credit

- **Give credence to what you are hearing and seeing;** things are working the way they do for a reason.
- **Accept where users are,** without imposing where they "should" be.
- **Ask for advice before you offer it.**



An Illustrated Example: Dick & Rick

Dick and Rick want to use their design skills to help communities. But they're not sure how to go about doing that...



Dick is pretty sure he can think of a great project after seeing a story about a local community in the news.

He hasn't spent much time in the area but really wants to help.



Rick believes in the power of design and wants to support and strengthen communities.

He seeks out people in a nearby community to find out what's important to them.

Dick & Rick is a project created through a collaboration of the [Center for Urban Pedagogy](#), [Equity Collective](#), and illustrator [Ping Zhu](#).





Dick wants to ensure the community is engaged in the process, so he holds a public meeting to show off his design proposal.



Understanding that residents are experts about their neighborhood, **Rick** begins to work with the group, and asks them about the park and their community.





Dick asks for input, but is pretty confident in his proposal.

Dick gets some mixed reviews on his ideas, but he still believes that his design can have the most impact. He has the best intentions for the community.



Rick spends a long (long!) time hearing from residents, who don't all agree with each other.

He designs a way for them to work together to shape the proposal.



After many months, Dick and Rick's projects are complete!



Dick's park is pretty but fails to "activate the space," since no one seems to be using it.



Rick's park is pretty, too.

Plus, it's used by all the community members who helped to create it.



Further Considerations

- Learning about communities is time-consuming. **Select one or two** in which you have a long-standing interest
- **Seek allies** within the community who are willing to act as translators or guides, but remember that they are partners, not consultants
- **Be generous with your own expertise and connections.** Whatever comes of your own research, do your best to repay the effort your collaborators have put into it, however **they** find most useful.



Thank you!

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