

User Experience Research-Practice Interaction

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#UXRPI

Computer science → HCI (research)

Web usability → LIS → IA (practice)

IBM (practice) → UX

Strategic UX consulting

RESEARCH, EDUCATION + PRACTICE

Design educators and professionals are challenged with identifying what constitutes **appropriate and effective research**.

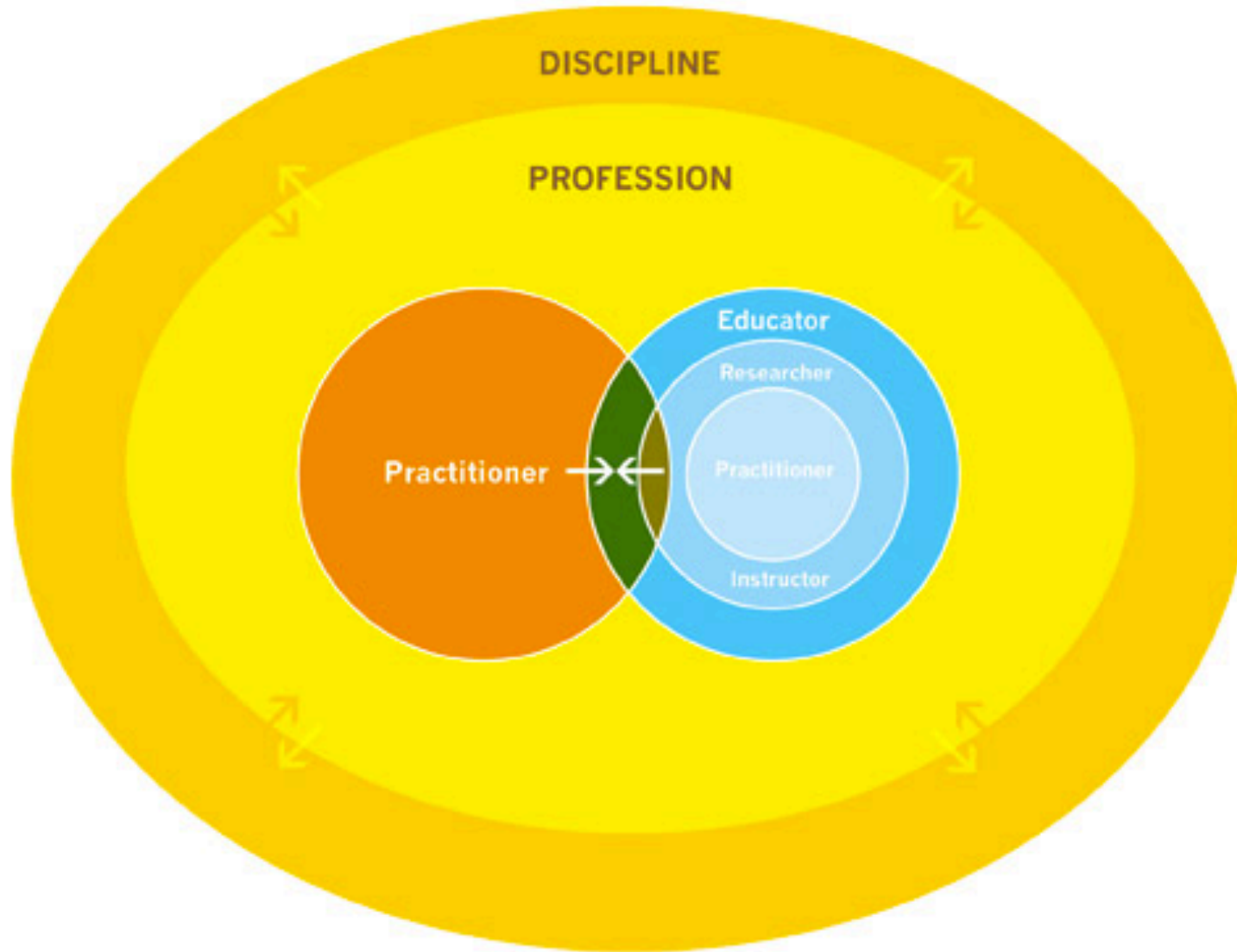
They must bring this knowledge to the classroom with the assurance it will serve students well in their practice.

Currently, most educators' methods are replete with intuition and anecdote. How might we reach a position that is academically sound and professionally valuable when put into action?

Connecting Dots explores the ideas, ideals, and practices of design educators and professionals as they together **investigate research**.

[GRAPHIC DESIGN]

[USER EXPERIENCE]
[INFORMATION ARCHITECTURE]
[INTERACTION DESIGN]
...

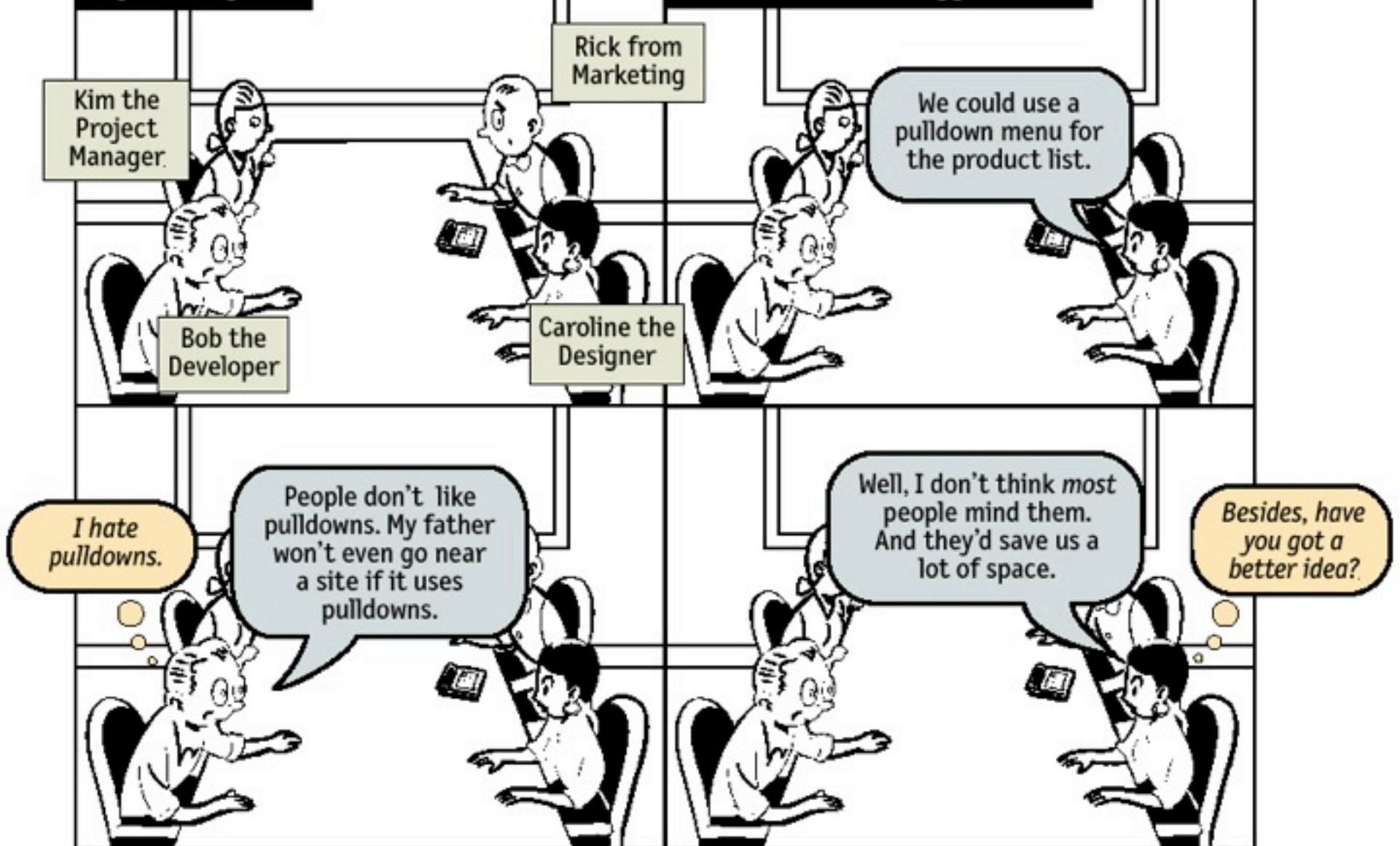


WEB DESIGN FUNNIES

Today's episode: "Religious Debates"

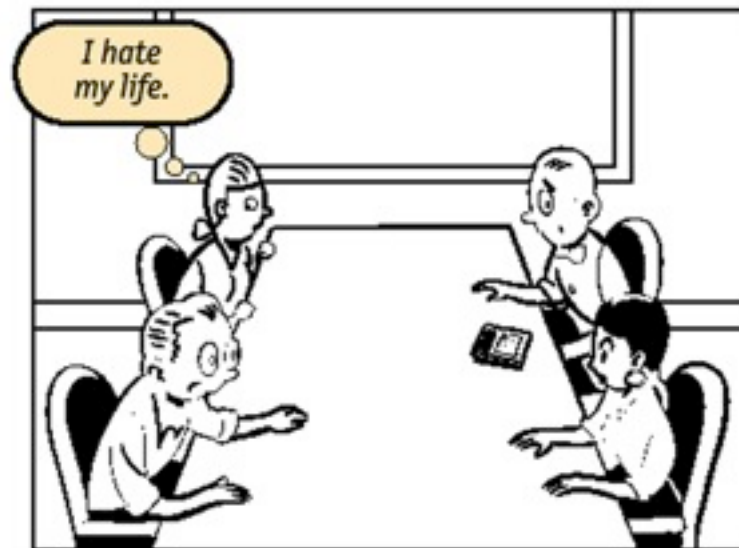
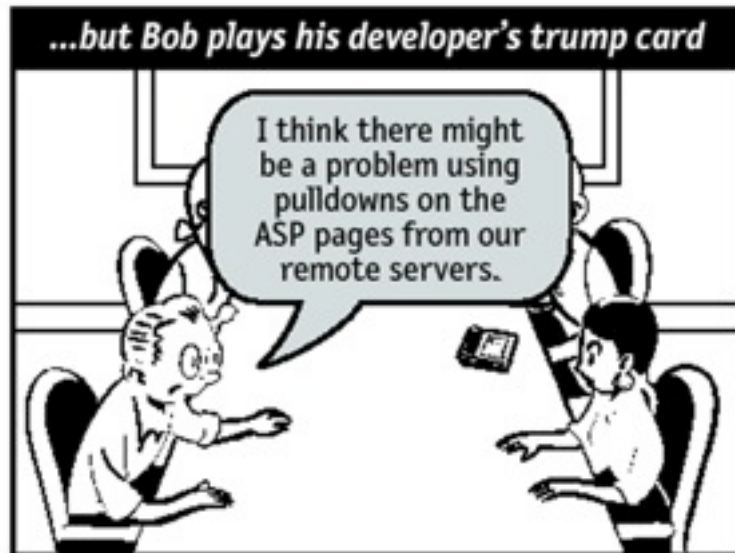
featuring...

Caroline makes a suggestion...



From Don't Make Me Think, Steve Krug







Two weeks later...

Did we ever make a decision about pulldowns?

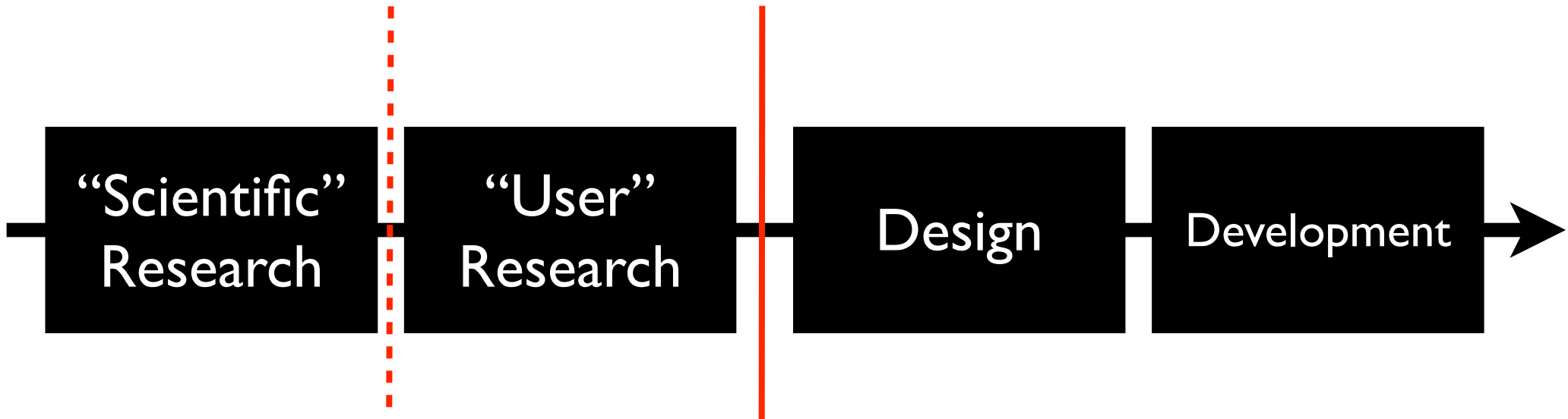
© 2001 Steve Krug

Research: the higher authority for a practitioner



Research

Practice



Similar methods
Different goals

100 THINGS

EVERY DESIGNER NEEDS TO KNOW ABOUT PEOPLE

SUSAN M. WEINSCHENK, Ph.D.



Why blinking on a screen is so annoying

People can't help but notice movement in their peripheral vision. For example, if you're reading text on a computer screen, and there's some animation or something blinking off to the side, you can't help but look at it. This can be quite annoying if you're trying to concentrate on reading the text in front of you. This is peripheral vision at work! This is why advertisers use blinking and flashing in the ads that are at the periphery of web pages. Even though we may find it annoying, it does get our attention.



FIGURE 2.1 A central vision photo used in Larson and Loschky research

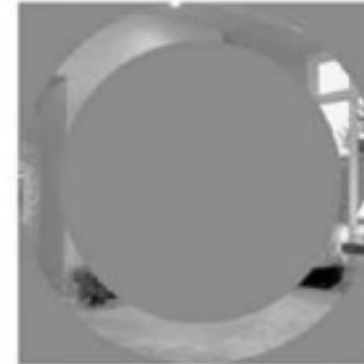


FIGURE 2.2 A peripheral vision photo used in Larson and Loschky research



Peripheral vision kept our ancestors alive on the savannah

The theory, from an evolutionary standpoint, is that early humans who were sharpening their flint, or looking up at the clouds, and yet still noticed that a lion was coming at them in their peripheral vision survived to pass on their genes. Those with poor peripheral vision didn't survive to pass on genes.

Recent research confirms this idea. Dimitri Bayle (2009) placed pictures of fearful objects in subjects' peripheral vision or central vision. Then he measured how long it took for the amygdala (the emotional part of the brain that responds to fearful images) to react. When the fearful object was shown in the central vision, it took between 140 to 190 milliseconds for the amygdala to react. But when objects were shown in peripheral vision, it only took 80 milliseconds for the amygdala to react.

Breadcrumb Navigation: Further Investigation of Usage

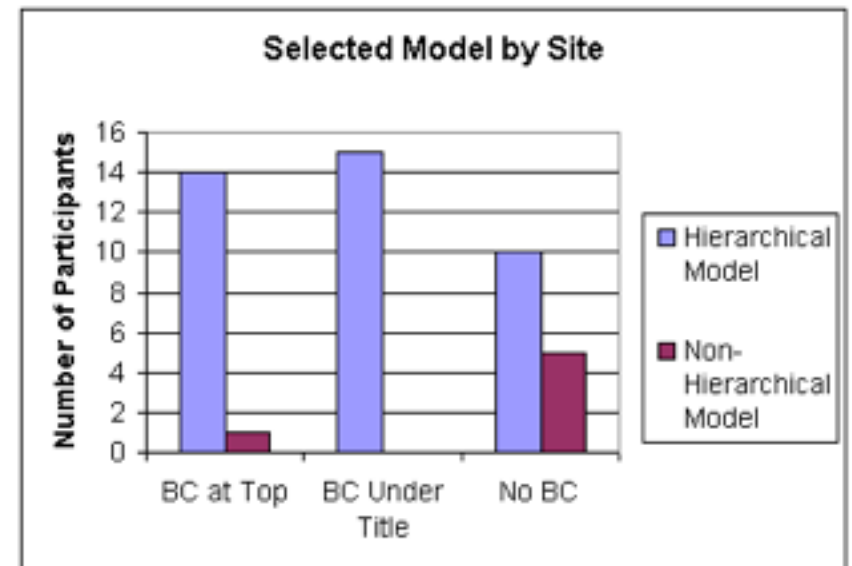
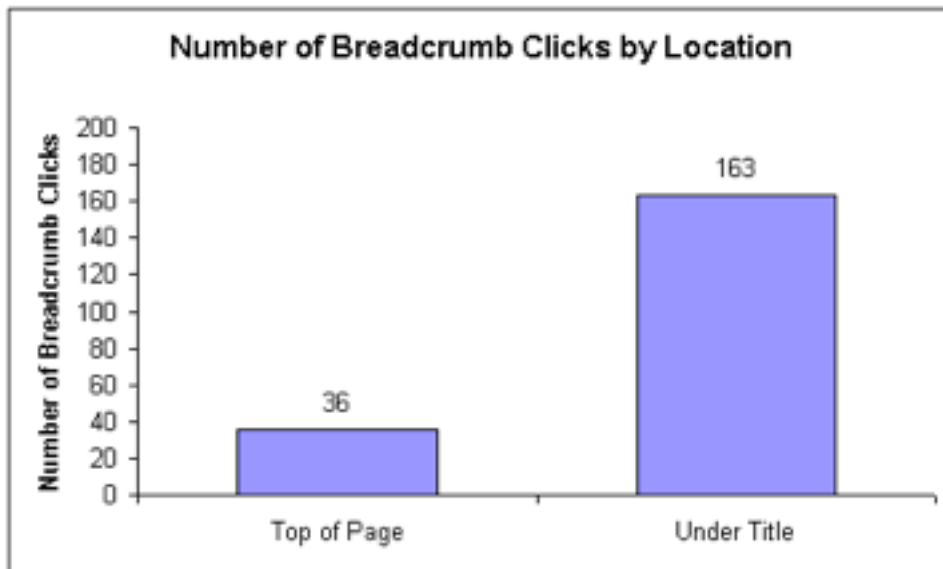
By Bonnie Lida Rogers and Barbara Chaparro (2003)

usabilitynews.org/breadcrumb-navigation-further-investigation-of-usage/

The purpose of this study is to investigate breadcrumb usage by evaluating the following research questions:

1. Do users choose to use breadcrumbs as a navigational tool?
2. Does breadcrumb usage improve navigational efficiency?
3. Does the location of the breadcrumb trail on a page effect usage?
4. Does a breadcrumb trail aid the user's mental model of the site structure?

Forty-five participants (20 male, 25 female) with an average age of 27 (range of 18 to 64) volunteered for the usability study....



SUN 9/8c MAR 16

COSMOS: A SPACETIME ODYSSEY

Presented by FOX Sun 9/8c and National Geographic Mon 10/9c

[Blog](#) [Full Episode](#) [Contest](#) [Inside Look](#) [Sneak Peek](#) [Photos](#) [C](#)

CLIPS



Reimagining The Ship Of The Imagination



Wil Wheaton @wilw · Mar 10

I have such a science boner right now. #Cosmos

Expand

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What is graphic/communication “design research”?

Research into the process of design

Research embedded within the process of design

Where does DR overlap/conflict with/supplement this HCI research view?

Is there value in separating scientific, historical (humanities/context) & artistic (practice-based) research?

What the \$%&#*! is RESEARCH anyway?

If you are a user experience practitioner:

What types of challenges do you face often that you wish you had a “scientific” answer to?

Have you tried to find answers in the research literature?

What roadblocks did you encounter when looking for answers?

What successes have you had in taking research findings and improving your practice?

If you are a researcher:

What is the value in engaging with practitioners? What is in it for you?

Do you have any examples of success stories, where your research got better because of interactions you had with practitioners?

What should students of HCI, interaction design and other user experience disciplines be taught about research to better prepare themselves for the practitioner world?

HCI research culture

Publish for researchers
Expanding field
Status within academia

UX practice culture

No time for research
Rapidly evolving practice
Status within corporations

Research culture

“Publish or perish”
Answers narrow questions
Open sharing
Experimentation

Corporate culture

“Produce or perish”
Wants broad answers
Strategic advantage
Fear of failure

HCI research culture

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Open sharing
Experimentation

Communication

Little shared language
Speed-of-operation differences
Finding each other
Fragmented professional organizations
Mapping “answers” to “questions”

Knowledge

No shared knowledge base
Hard to organize research for practical use
Multi-/inter-disciplinary

Education

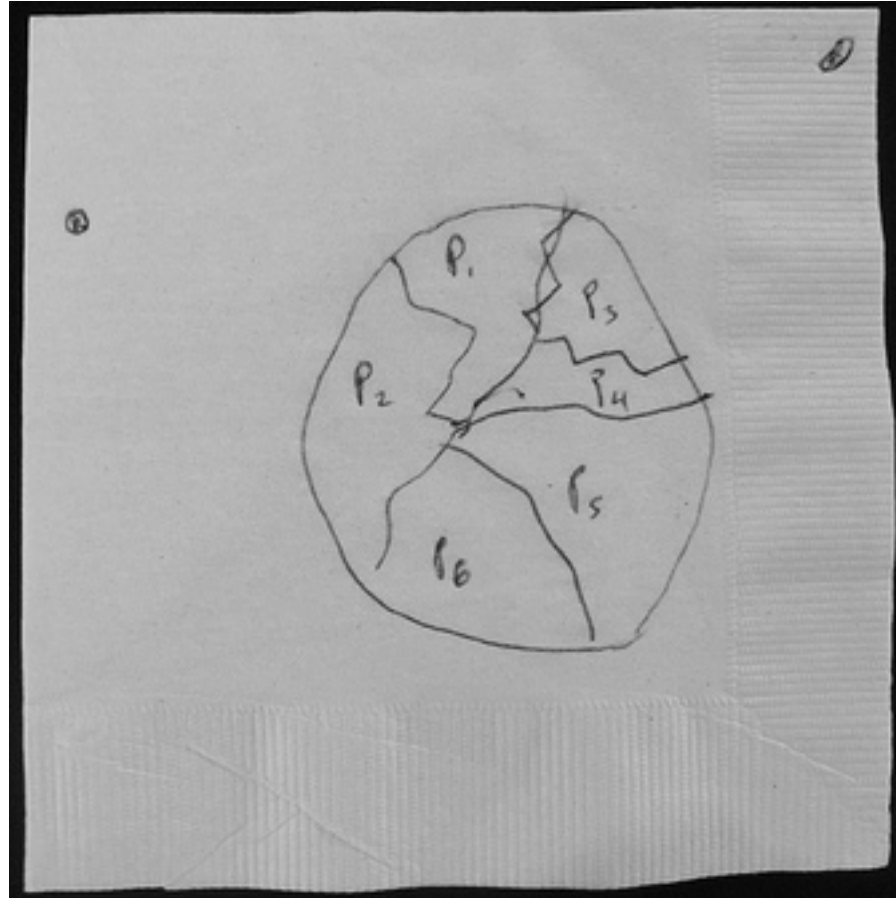
Value of HCI education to design (vs. CS)
Amateur professionals
Competing with business for training \$

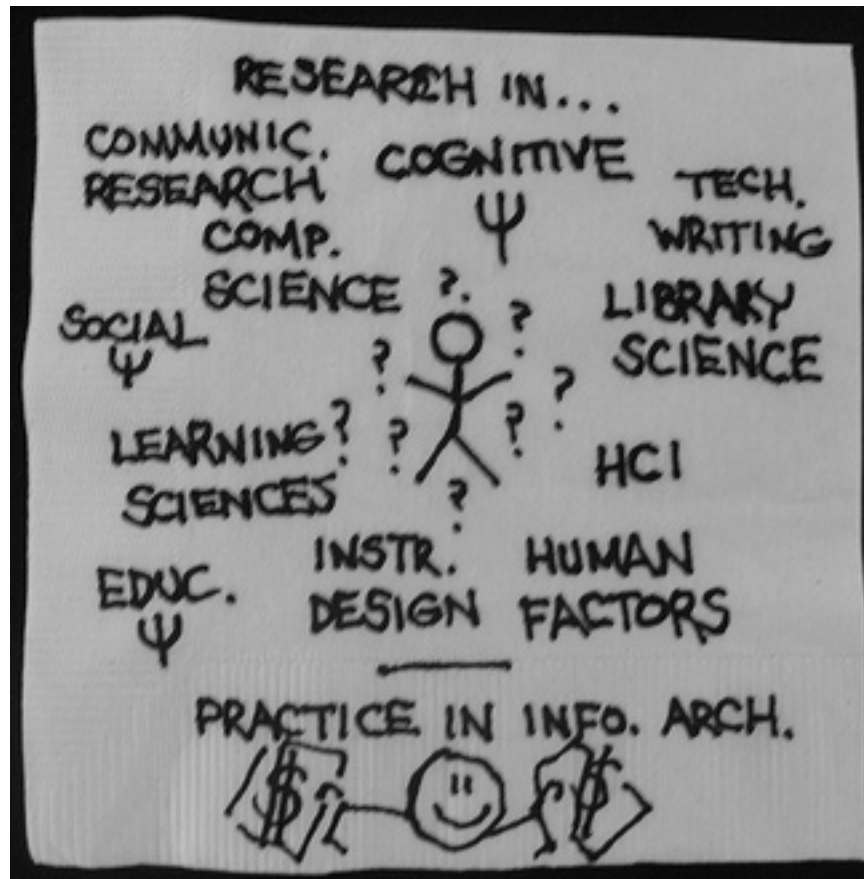
UX practice culture

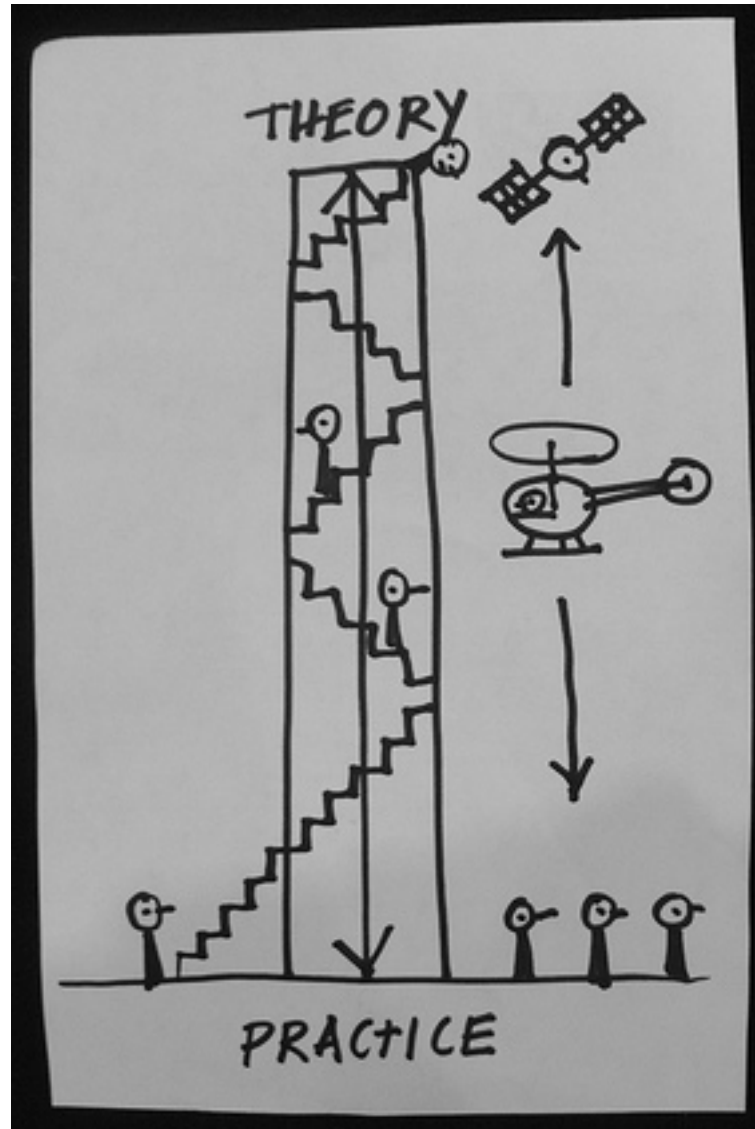
No time for research
Rapidly evolving practice
Status within corporations

Corporate culture

“Produce or perish”
Wants broad answers
Strategic advantage
Fear of failure









Do any of these problem statements resonate with you? If so, which ones?

What cultural gaps are the same? Which ones are unique to your design community?

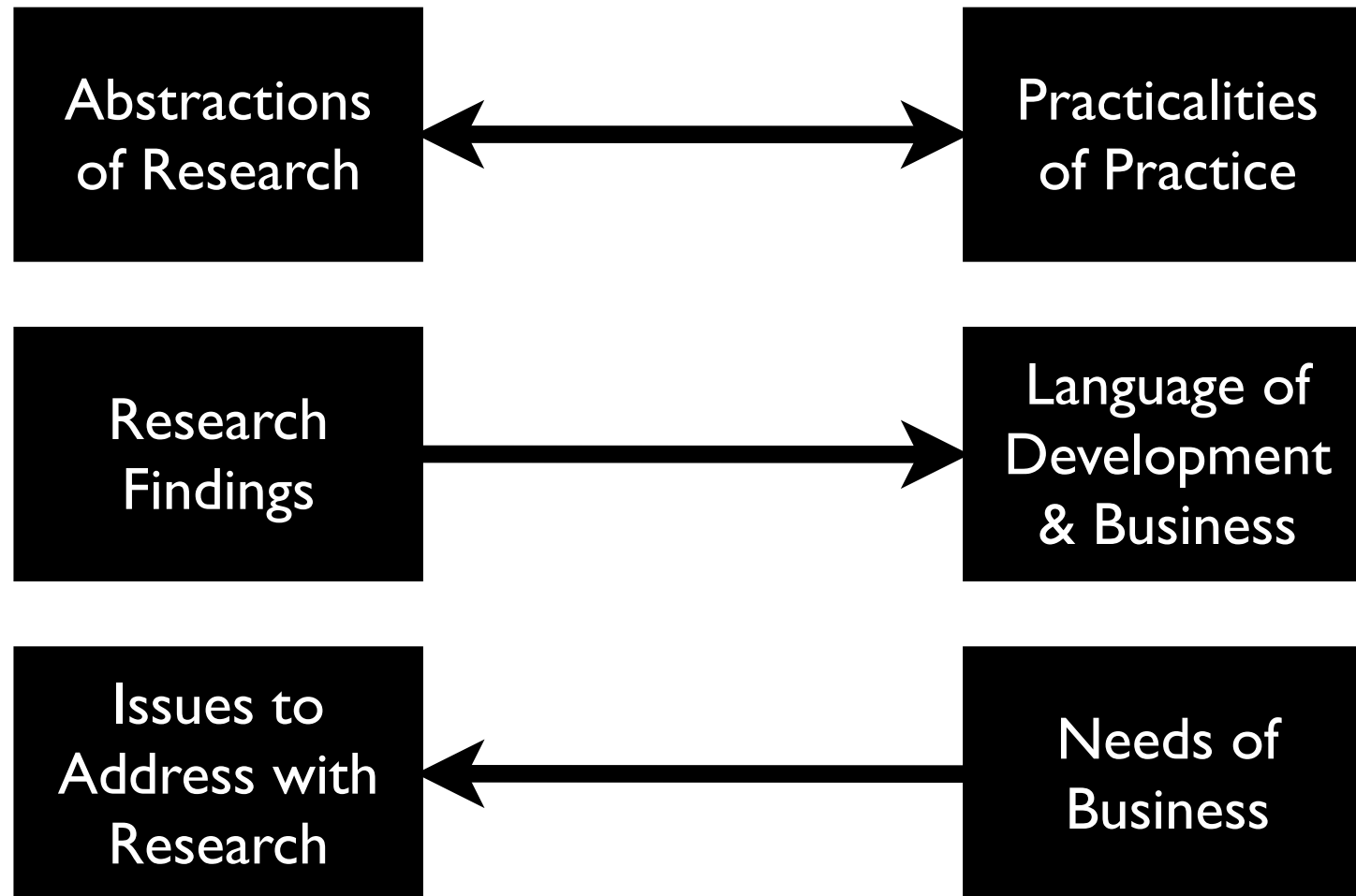
What are the research-practice problems that are most important to you? (Want to draw them on a napkin for me?)

What other UXRPI-related challenges have already been documented by AIGA Design Educators and AIGA as a whole?

A new discipline: Translational Developers/Engineers

Don Norman

“Stop pretending that researchers and practitioners speak the same language”



Research-Practice Interaction

[Community Home](#)
Basic information about the community

[Community Message Board](#)
Conversations relevant to this community

[Elections](#)
View information about the upcoming elections

[Offices](#)
View current offices and pending offices for the next election

Membership Info

You are a member.

[Leave Community](#)

you are here: [home](#) → [communities](#) → [research-practice interaction](#)

The Research-Practice Interaction Community

52 members (26 participants, 26 affiliates)

Community Information

Look [here](#) for more Research-Practice Interaction information.

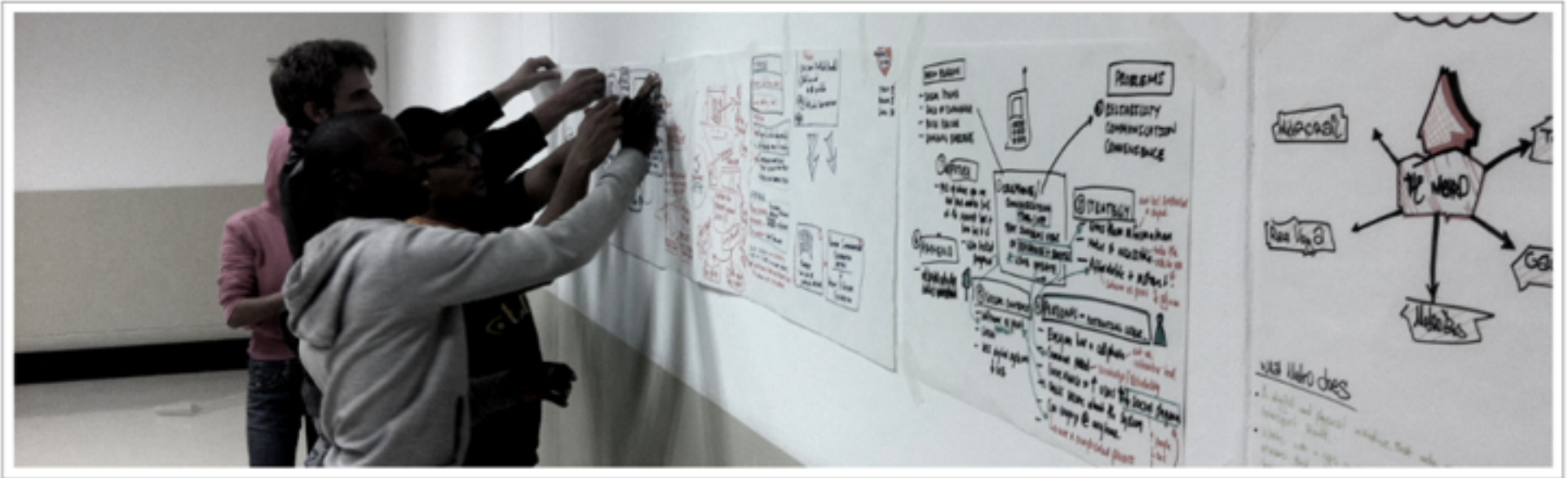
Mission

The Research-Practice Interaction community is a bridge between research and practice in HCI, including all flavors thereof (user experience, usability, interaction design, information architecture, etc.etc.). We aim to promote the exchange of information between researchers and practitioners, such that research and its results are more accessible to practitioners and that practitioner information needs are conveyed to researchers.

Officers

Chair: Jhilmil Jain

Vice-Chair: Clare Hooper



Teaching Information Architecture

The 2nd Academics and Practitioners Round Table at the Information
Architecture Summit 2014
Thursday March 27 2014, 9am — 5pm
San Diego, California (USA)

Kath Straub; Principal, usability.org; USA

Research in Practice - 2013 - Studies UX professionals should know about

Tuesday, July 9, 2013

9:00 am - 5:15 pm

TBA

Full Day Tutorial

Want to catch up on the emerging research? Tired of reading research papers that don't seem to apply? Research in Practice offers an expedient and cost-effective way update your

This annually updated UPA tutorial offers a fast-paced, an informative survey of key and emerging research that will shape your practice. We review papers about

- o Emerging and evolving research methods
- o Consumer decision making
- o The psychology of engagement
- o Information visualization
- o Cross-cultural issues in design
- o Effective leadership and organizational change

We bridge the gap between research and practice with hands-on exercises that apply the findings to real design problems.

C O N N E C T I N G
D O T S .

Putting Research into Practice – a 2-day course

contributes to HFI's Certified Usability Analyst (CUA) certification

About this course

Putting Research into Practice provides participants with an engaging review of foundational and recent research with a distinct "How can I use this?" focus.

HFI's experts provide in-depth summaries of the current literature in Human-Computer Interaction, Psychology, Computer Science, Technology, Usability Engineering, and Marketing. We present the practical implications of this research and its impact on how we conduct user-centered design.

Through discussion and lively exchange, participants learn to effectively apply exploratory research to their real-world applications.

Objective

- Get the latest knowledge of the best practices in software ergonomics
- Learn how to apply these findings to your design work

Course length

Two days: 9:00 to 4:30 each day, 1 hour lunch break

Research covered

- Memory and chunking
- Cognitive processes
- Audio/visual processing
- Optimal online text usage
- Menus, icons, breadcrumbs
- Usability methods
 - Remote vs. face-to-face interaction
 - Data gathering for children
 - Testing methodologies

Usability Body of Knowledge



Home | What is Usability? | Topics | About the Usability BoK | Glossary

About the Usability BoK

- Editorial Board
- + History of the Usability BoK
- + Our Design Approach
- + Notices

We need the help of volunteers to refine and extend the content. If you are interested in contributing, please fill out the volunteer form.

[Volunteer](#)

A Project of



UXPA
The User Experience
Professionals' Association

Sponsor

Design for Context

Home

About the Usability BoK

The Usability Professionals' Association (UPA) has initiated a long-term project to collate a comprehensive Body of Knowledge (BoK) for the usability profession, which will provide an authoritative source of reference and define the scope of the profession.

Mission

The Usability Body of Knowledge project is dedicated to creating a living reference that represents the collective knowledge of the usability profession. Such a collection of knowledge for the usability profession will necessarily be broad and inclusive in scope, because our profession is inherently multidisciplinary and draws on a wide range of other practices.

We recognize that the Usability BoK should be derived from published literature, conference proceedings, and the experiences of practitioners accumulated over many years. It is not possible or desirable for this project to duplicate all of the existing resources. Rather, the outcome will be a **guide** that contains core material supplemented by pointers to existing resources, and **continues to evolve as the practice of usability evolves**.

Defining such a guide is an important step in our development as a profession because it represents a broad consensus regarding the profession itself and the range of knowledge, skills, and methods that should be mastered by practitioners in the field.

Goals

The guide to the Usability Body of Knowledge will:

- Define the knowledge underlying the usability profession.
- Describe and provide pointers to methods, knowledge, and skills that are important for usability professionals.
- Promote the advancement, understanding, and recognition of the usability profession among those who interact with the usability community.
- Facilitate professional development for usability practitioners at any stage in their careers, as well as people who come to usability from other backgrounds/disciplines.
- Provide the basis for future curriculum development.

Smarticle

LaserOrigami: Laser-Cutting 3D Objects

notes from your group

QUESTION

CLAIRE JOHNSON
If we can get a better understanding of this work, that would be great.

REFERENCE

SIMON MCCARTNEY
I wonder how this would work in real life?

PETER D'ANCONA
I believe it could work with the right laser settings, but getting them right might be hard.

CRITIQUE

CLAIRE JOHNSON
If we can get a better understanding of this work, that would be great.

CRITIQUE

CLAIRE JOHNSON
If we can get a better understanding of this work, that would be great.

QUESTION

ABSTRACT

We present LaserOrigami, a rapid prototyping system that produces 3D objects using a laser cutter. LaserOrigami is substantially faster than traditional 3D fabrication techniques such as 3D printing and unlike traditional laser cutting the resulting 3D objects require no manual assembly. The key idea behind LaserOrigami is that it achieves three-dimensionality by folding and stretching the workpiece, rather than by placing joints, thereby eliminating the need for manual assembly. LaserOrigami achieves this by heating up selected regions of the workpiece until they become compliant and bond down under the force of gravity. LaserOrigami administers the heat by defocusing the laser, which distributes the laser's power across a larger surface. LaserOrigami implements cutting and bending in a single integrated process by automatically moving the cutting table up and down—when users take out the workpiece, it is already fully assembled. We present the three main design elements of LaserOrigami: the bend, the suspender, and the stretch, and demonstrate how to use them to fabricate a range of physical objects. Finally, we demonstrate an interactive fabrication version of LaserOrigami, a process in which user interaction and fabrication alternate step-by-step.

INTRODUCTION

Rapid prototyping is a key technique in design process that allows "getting the right design and getting the design right" [3]. While the use of rapid prototyping in HCI was initially limited to software interfaces (e.g., Denim [13] and ubiComp interfaces (e.g. ProximityToolkit [15]), researchers have recently started prototyping physical objects (e.g. Midas [22], Printed Optics [27]). Such systems use personal fabrication tools, such as 3D printers, milling machines,

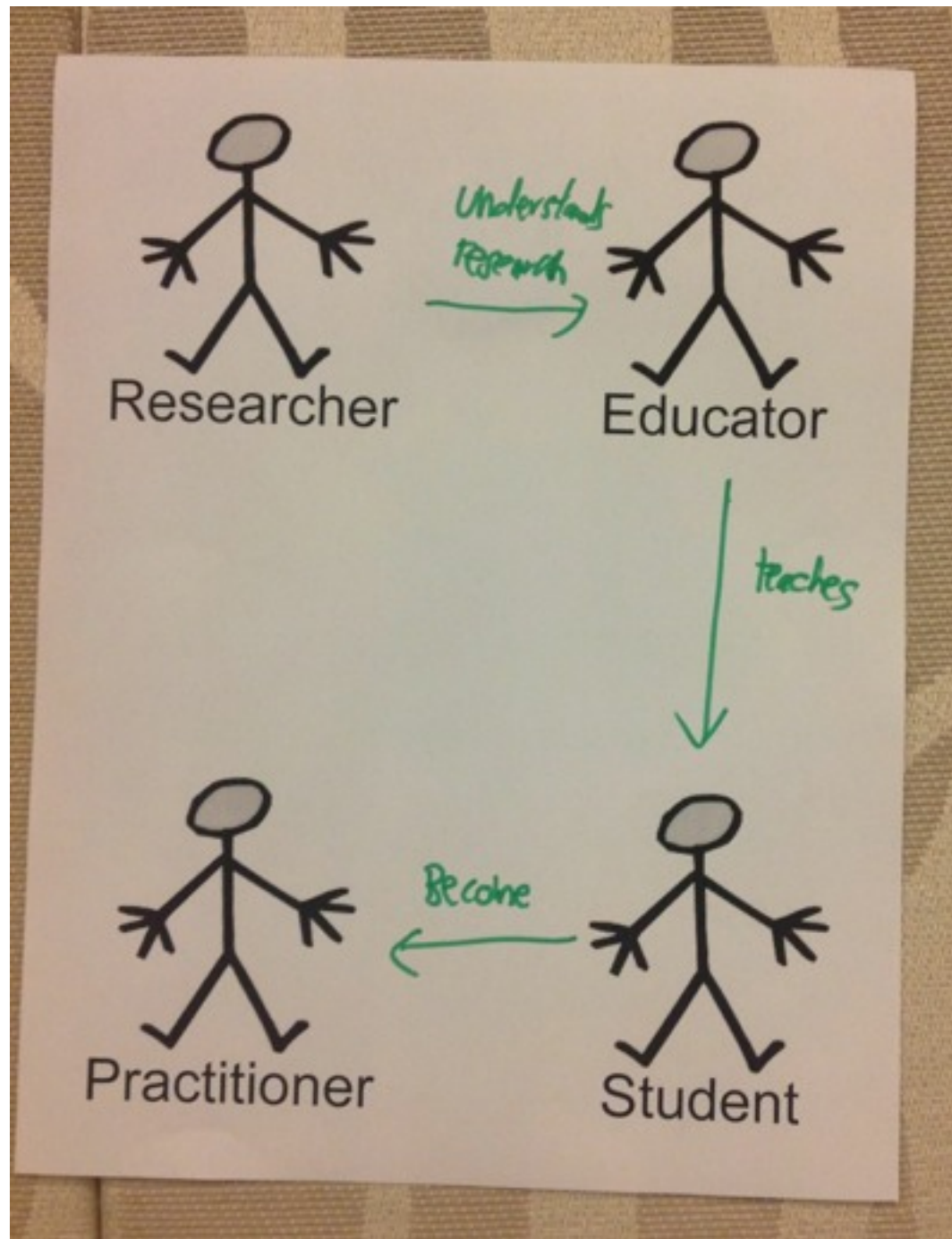
figures

Figure 8: The design elements of LaserOrigami: (a) the bend, (b) the suspender, and (c) the stretch.

Figure 9: Using bending to create this decorative city outline.

Figure 10: By slanting this workpiece 20° against the direction of gravitational force, we achieve a bending angle of 110°.

A novel interface for reading and browsing academic papers



Hubs of activities: People, places (physical, virtual) and events

Publishing: Better communication of research to practitioners (bite-sized, comics, co-authoring)

Higher education: Team teaching, multi-disciplinary projects in school

Influence decision makers: Grant funders & executives, to get at root causes of gap

Do any of these solutions resonate with you? If so, which ones?

What solutions to these problems have been tried (successfully or not), are in progress, or have been proposed?

What is AIGA doing well that the other professional organizations can leverage?

SHARON POGGENPOHL

“John Dewey’s Theory of Inquiry - UNITE!”

Bringing them together in a collaborative relationship
strengthens both

John Dewey’s Theory of Inquiry is compared to
advanced design practice and its relation to research.

Dewey’s theory seeks to unite design research and
design practice.

ELIZABETH B.-N. SANDERS

“New design research methods”

a framework for organizing, visualizing and planning
for the use of new and future design research
methods and tools.

KAREL VAN DER WAARDE

“Common core of design education, research, & practice”

Graphic design education, graphic design research, and graphic design practice are three separate professions with different goals, methods, and criteria.

recognize three different types of research, to select visual argumentation as a theoretical basis, and to consider graphic design as a reflective practice.

ANNETTE DIEFENTHALER

“Exciting changes in user research”

Using multiple different research methods, design teams get close to users, seeking to gain a deep understanding of their needs, building empathy that fuels ideas, and finding inspiration that helps them think beyond existing solutions.

JON KOLKO

“Design thinking & product management”

Design is a more comprehensive way of thinking about people and human behavior than engineering or marketing.

JORGE FRASCARA

“Evidence-based design”

Research that other people in other disciplines are developing and have developed, and my own field research connected specifically to the project at hand.

OTHER CONNECTING DOTS PRESENTATIONS

“The topic”

My notes

If there is some UXRPI common ground for AIGA Design Educators, then how does collaboration happen across disciplines and across professional organizations?

Example: What would a combined “education summit” across disciplines look like?

How do the dots get connected to help improve research-practice interaction?

Thanks!

Keith Instone
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#UXRPI