# **Usability Basics**

Beth Tucker Long

#### Who am I?

- Elizabeth Tucker Long (Beth @e3betht)
- Editor-in-Chief php[architect] magazine



Want to write? See me after.

PHP Essentials
 Instructor





Freelance consultant

# **Audience Participation?**

 Yes, there will be. So, when I ask the audience a question, don't be shy about answering.

# Usability

- According to Wikipedia:
   Usability is the ease of use and learnability of a human-made object.
- According to Beth:
   Usability means structuring things so you don't leave your users angry, frustrated, and complaining about you on Facebook or Twitter.

# Importance of Usability

 What is the first thing people will do when a site is difficult to use?

#### Where to Start

- Who are your users?
- What do you want them to do on your site?
- What do they want to do on your site?
- How tech-savvy are your users?
- Where will your users go if your site isn't working for them?

# Once You Have a Design

Jakob Nielsen's Five Quality Components of Usability:

- 1. Learnability: How easy is it for users to accomplish basic tasks the first time they encounter the design?
- 2. Efficiency: Once users have learned the design, how quickly can they perform tasks?
- **3. Memorability**: When users return to the design after a period of not using it, how easily can they reestablish proficiency?
- 4. Errors: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
- **5. Satisfaction**: How pleasant is it to use the design?

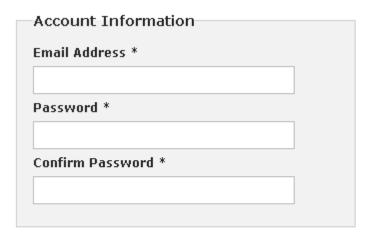
### **Common Problems to Avoid**

Know your user, and you are not that user.

Don't overwhelm the user.

Consistency, consistency, consistency.

Minimize the need for a mighty memory.

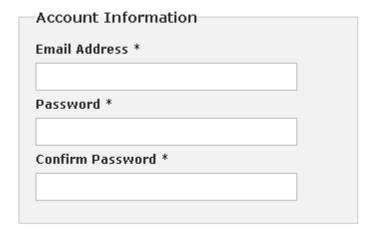


First Name *	Last Name *
Address Line 1 *	Address Line 2
City *	State *
	Select a state
Zip *	Country *
	United States



First Name *	Last Name *	
Beth	Tucker Long	
Address Line 1 *	Address Line 2	
123 Street Boulevard		
City *	State *	
That Place	That State	
Zip *	Country *	
12345	United States	

Your passwords do not match. Please try again.



First Name *	Last Name *	
Address Line 1 *	Address Line 2	
City *	State *	
	Select a state	
Zip *	Country *	
	United States	

Don't delete good data. If it's good, keep it. Don't make the users do any more work than is necessary.





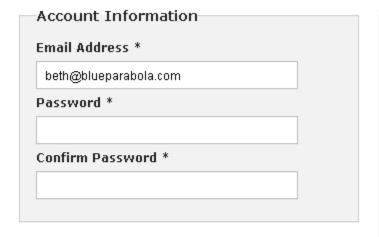
#### Please choose a State



First Name *	Last Name *		
Beth	Tucker Long	Tucker Long	
Address Line 1 *	Address Line 2		
123 Street Boulevard			
City *	State *		
That Place	Select a State	<b>v</b>	
Zip *	Country *		
12345	United States	<b>-</b>	

Error messages should actually mean something to the user and tell the user how to fix the problem.

Please choose a state. For security reasons, please reenter your passwords.



First Name *	Last Name *	
Beth	Tucker Long	
Address Line 1 *	Address Line 2	
123 Street Boulevard		
City *	State *	
That Place	Select a State	<b>~</b>
Zip *	Country *	
12345	United States	<b>v</b>

Please choose a state. For security reasons, please reenter your passwords.



First Name *	Last Name *	
Beth	Tucker Long	
Address Line 1 *	Address Line 2	
123 Street Boulevard		
City *	State *	
That Place		
Zip *	Country *	
12345	United States	<b>~</b>

# Be Forgiving and Empowering

- Everyone makes mistakes, so every mistake should be fixable.
- The user should control the system. The system should not control the user. The user is the boss and the system should show it.
- User should be able to do what they want.
- Alert users to an error before things get worse.
- Strive to empower the user, not speed up the system.



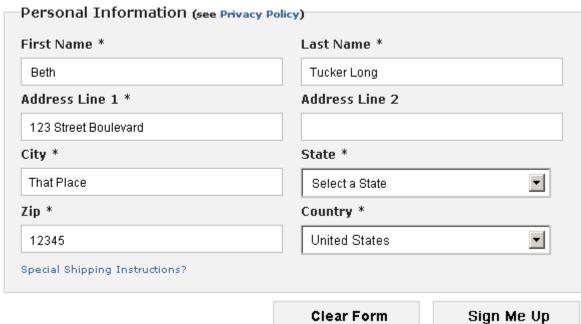




First Name *	Last Name *	
Address Line 1 *	Address Line 2	
City *	State *	
	Select a State	▼
Zip *	Country *	
		•
Special Shipping Instructions?		
	Sian Me Un	Clear Form

#### Please choose a State





Keep things consistent. Users click without reading. Users don't want to have to read before clicking.

count Information	Personal Information (see Privacy Policy)	
nail Address *	First Name *	Last Name *
ssword *	Address Line 1 *	Address Line 2
Confirm Password *	City *	State *
		Select a State
	Zip *	Country *
	Special Shipping Instructions?	
		Country *

**Clear Form** 



# **Great Expectations**

#### Resources:

- A Day in the Life of an Astronaut
- Biography of Neil Armstrong
- Early photos of astronaut training
- Buzz Aldrin, in his own words

# **Great Expectations**

The user should always know what is happening.
Surprising things can be scary.

# **Great Expectations**

The user should always know what is happening

#### Resources:

- A Day in the Life of an Astronaut
- Buy the Biography of Neil Armstrong on Amazon
- Early photos of astronaut training (slideshow)
- Buzz Aldrin, in his own words (PDF)

#### Welcome, Friend

**Create an Account** 

This site is an awesome place to do things and buy stuff and you should visit it every day. This site is an awesome place to do things and buy stuff and you should visit it every day. This site is an awesome place to do things and buy stuff and you should visit it every day.

We have an awesome catalog of **great products** 

Sign Up Today

Have you checked out our **newsletter**?

Sign Up Today

Learn more about how awesome our **great products** are!

**Check Them Out** 

Browse our awesome catalog of **great products** 

**Check Them Out** 

Users should always be able to find out what to do next just by skimming the page.

#### Welcome

#### Create an Account

This site is an awesome place to do things and buy stuff and you should visit it every day. This site is an awesome place to do things and buy stuff and you should visit it every day. This site is an awesome place to do things and buy stuff and you should visit it every day.

#### Learn More About Our Products

We have an awesome selection of products. They are just the greatest in the whole world. We have an awesome selection of products. They are just the greatest in the whole world. We have an awesome selection of products. They are just the greatest in the whole world.

Read Reviews

View Catalog (PDF)

#### More Information:

If you would like more information, we offer a weekly **newsletter** as well as a printed **catalog of our products**. Both are free of charge.

Sign Up Today

Welcome to our site! It looks like you don't have an account yet, be sure to sign up for an account to receive the maximum benefits from our site. Also, we have a great newsletter that you can sign up for as well. We have some great reviews of our products on this site, and you can click here to view the products we have available for purchase.

Welcome to our site! It looks like you don't have an account yet, be sure to create an account for an account to receive the maximum benefits from our site. Also, you can sign up for our great newsletter as well. While you are here, you can read product reviews as well as browse our products that we have available for purchase.

#### Unicorn Puke

Welcome to **our site**! It looks like you don't have an account yet, be sure to **sign up** for an account to receive the maximum benefits from our site. Also, we have a great newsletter that you can sign up for as well. We have some great reviews of our products on **this site**, and you can **click** here to view the **products** we have available for purchase.

#### Unicorn Puke

Just Don't.

Things that look the same should act the same. Things that look different should act differently.

### **Lost in Translation**

The information for the decision must be there when the decision is needed.

Pizza Size:

012"

018"

024"

Pizza Crust:

oJoe's Specialty

oThe Original

oThe New Original

### Lost in Translation

The information for the decision must be there when the decision is needed.

Make sure you are using the language of your users.

# Lost in Translation

Pizza Size:

012" (feeds 1-2)

o18" (feeds 2-3)

o24" (feeds 3-4)

Pizza Crust:

oJoe's Specialty

Hand-tossed with cheese baked into the crust.

oThe Original

Traditional thin crust.

oThe New Original

Our traditional thin crust, now with special seasoning baked in.

# How to Test

- Create Personas
- Create a script/list of the most common procedures or tasks on your site
- Identify success criteria
- Sit down with users individually and give them one task at a time

# What to Test?

- Old design
- Competitor's websites
- Sites popular with your users
- Proposed site

# Design in Stages

- Create your design
- Test it on users
- Improve your design
- Test it on users
- Improve your design
- Test it on users
- And so on...

# Keep It Simple

 The more often your user has do something, the easier it should be to do.

• Don't waste clicks, keystrokes, and time.

# **Brace Yourself**

#### O ACA 1891 ELECTENCE

#### SEARCH

The Ohio Academy of Science 1500 W Third Ave Ste 228, Columbus OH

43212 (614) 488-2228 Fax (614) 488-7629 oas@iwaynet.net



Academy Store

Online Purchase

Join Today!

Trustees

Consent

Privacy

Ask the Academy

#### Welcome to The Ohio Academy of Science

"Fostering Curiosity, Discovery & Innovation to benefit society."

home | contact | 101N | How to Volunteer

#### **The Academy TODAY**

Registration deadline extended: Tuesday, September 25, 2012



Entrepreneurial Engagement Ohio and The Ohio Academy of Science Invite You to Attend Their

Fall 2012 STEMM Invention, Commercialization & Entrepreneurship Forum

Let us not forget ...
Neil Armstrong 1930-2012



If at first you don't succeed...

you may walk on the moon someday!

Read about Astronaut Armstrong's Experience in the late 1940s at a District Science Day at
Bowling Green State University.









What is the Academy?

Join Today!

About the Academy

Vision, Mission, Goals, Objectives & Core Values PROGRAMS,

#### PUBLICATIONS ACTIVITIES





State Science Day

Science Day Standards

#### Important Dates

2013 Annual Meeting April 6, 2013 University of Findlay Call for Papers deadline Nov, 5, 2012

February 1, 2013 Ohio Patent Award

March 2013

<u>District Science Days</u> at 15 locations

May 11, 2013
State Science Day at
The Ohio State
University

October 1, 2012 and May 1, 2013 Postmarked <u>Deadline</u> for Environmental Science Scholarship

Applications

June 20, 2012

Postmarked deadline for Governor's Thomas Edison Awards for

Excellence

Judging Cards
Science Day Guide online

Roster of contacts

District Science Days

Local Science Day Certificates

Templates for



Science Fair 101

Have you visited the KnowledgeBank?

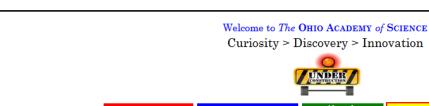


The Ohio Journal of Science

Environmental Science Scholarships

What is the Academy? The Ohio Academy of Science is a membership based, volunteerdriven, not-forprofit organization. The Academy is the leading organization in Ohio to foster curiosity, discovery, and *innovation* and to unite all who value education. science, engineering,

technology, or





ABOUT	CONTACT	About the Annual Meeting	JOIN
SEARCH	NEWS (under construction	State Science Day	Science Day Awards and Scholarships
Academy Store	Call for Papers	District Science Days- MAP/Dates	Governor's STEM Awards
Ohio J. Science Instructions to Authors	What is Science?	Science Day STANDARDS & RULES	Ohio Patent Award
Open Access Ohio J. Science	What are science, technology and engineering?	Science Day FORMS	Ohio's Natural Heritage (under construction)
Consent Form and Privacy Policy	Staff (under construction)	Environmental Science & Engineering SCHOLARSHIPS	Board of Trustees (under construction)

What is the Academy? Join Today!

**About the** Academy

Vision, Mission, Goals, Objectives & Core Values

#### **SEARCH**

#### The Ohio Academy of Science

1500 W Third Ave Ste 228, Columbus OH 43212 (614) 488-2228 Fax (614) 488-7629 oas@iwaynet.net



Academy Store

Online Purchase Join Today!

Trustees

Consent

Privacy

Ask the Academy

#### The Academy TODAY



Ohio State researcher succeeds Elfner at The Ohio Academy of Science

58 OHIO SCHOOLS AND 420 TEACHERS RECEIVE GOVERNOR'S THOMAS EDISON AWARDS FOR EXCELLENCE IN STEM **EDUCATION** 



Hosted by Walsh University in North Canton, OH

Abstract Deadline Postmarked by November 4, 2013

> THEME: T. B. A.



#### PROGRAMS, **PUBLICATIONS** ACTIVITIES



postmarked deadlines. Environmental Science Scholarship Applications

Important

Dates

October 1, 2013 and

May 1, 2014

2014 Annual Meeting April 5, 2014 Walsh

University. North Canton.

Call for Papers

deadline Nov, 4,

2013



May 10, 2014 State Science Day

> Science Day Standards

contacts

**District Science Days** 

Templates for Judging Cards Science Day Guide online

Science Fair 101

**District Science Days** at 16 locations

February 1, 2014

Ohio Patent Award

March 2014

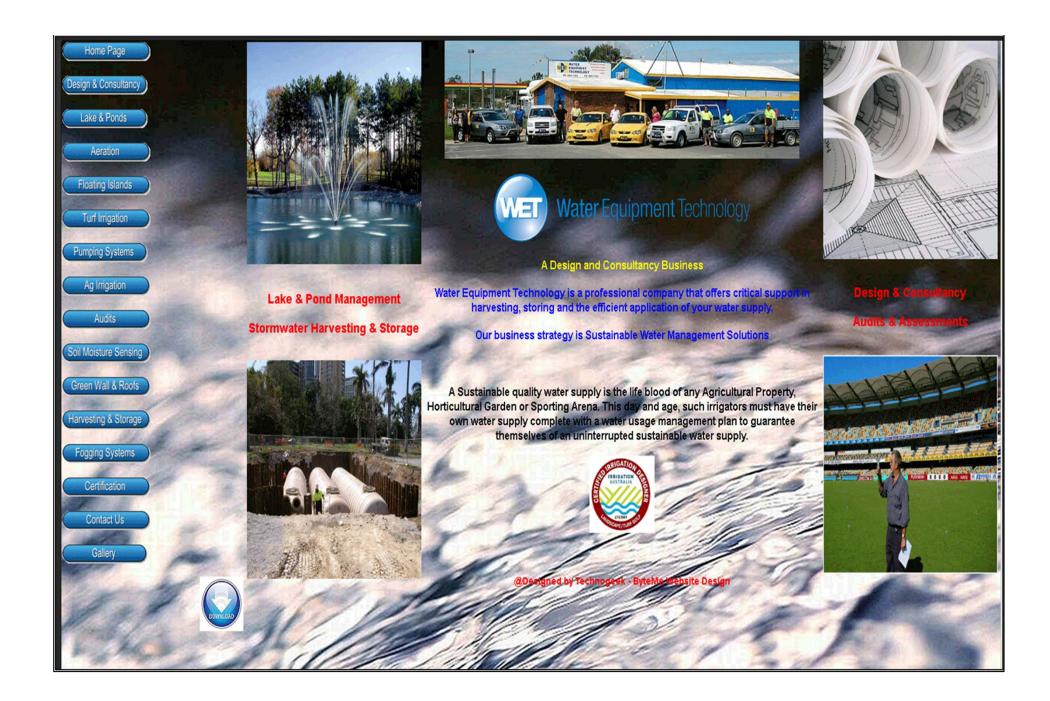
May 10, 2014 State Science Day at The Ohio State University

June 23, 2013 Postmarked application deadline for Governor's

Thomas Edison Awards for Excellence. Program

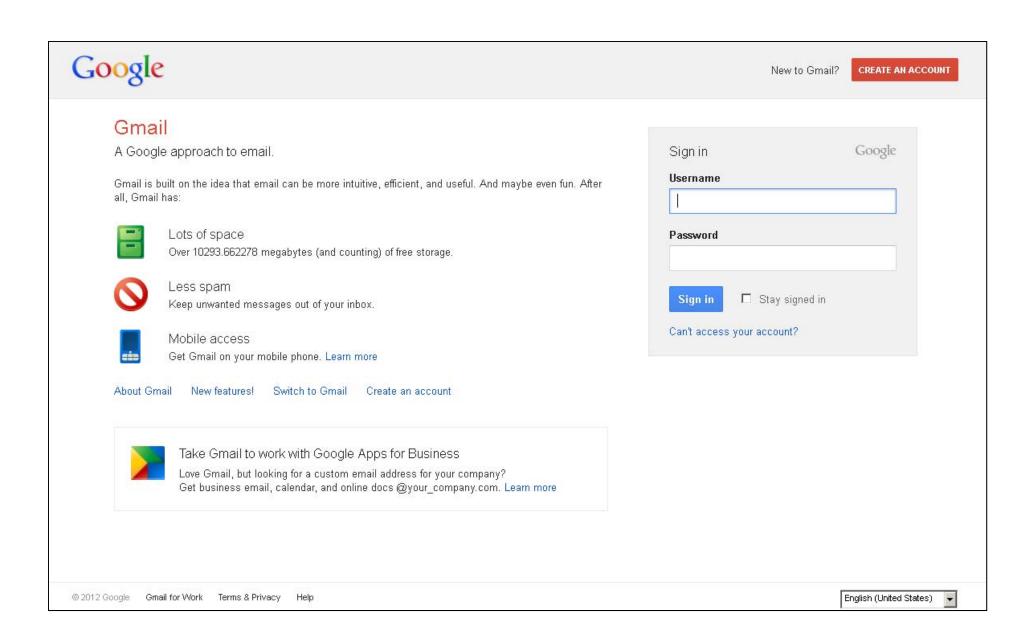
**ACCESS** 

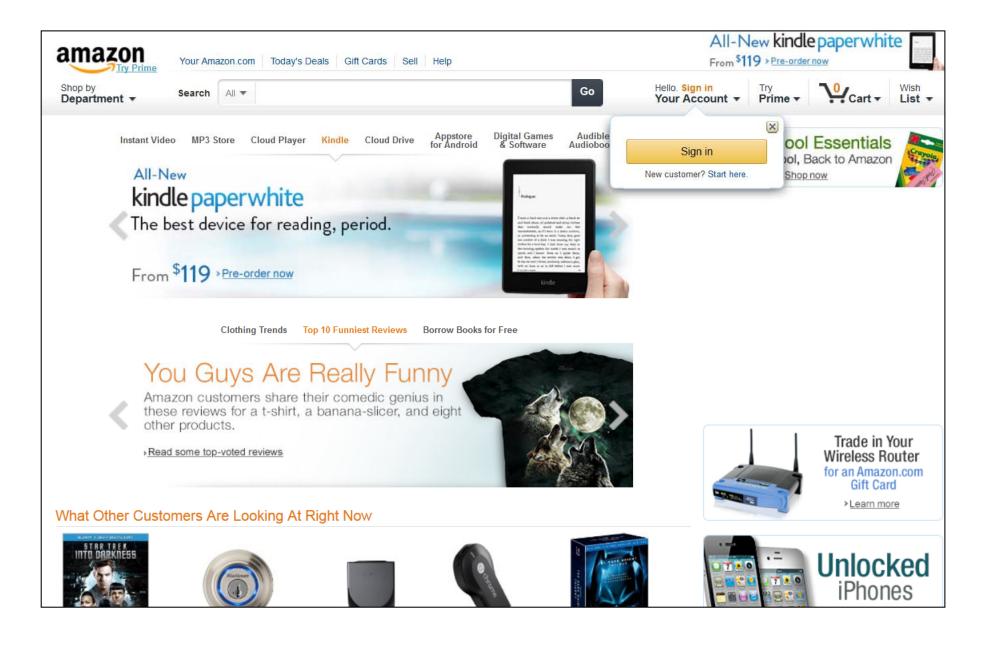












# Recap

- Typing Practice Don't delete good information
- Sneak Attack Be clear on what is missing
- Button Roulette Keep buttons consistent
- Too Many Cooks Make the path obvious
- **Cliff Notes** Make the content scannable
- Unicorn Puke Pick a color and stick with it
- **Great Expectations** Same cause, consistent effect
- Lost in Translation Use the user's language

# Lund, A. M. (1997). Expert ratings of usability maxims. Ergonomics in Design, 5(3), 15-20. A study of the heuristics design experts consider important for good design.

When evaluating the design and usability of a website, consider the following:

- 1. Know the user, and You are not the user.
- 2. Things that look the same should act the same.
- 3. The information for the decision must be there when the decision is needed.
- 4. Error messages should actually mean something to the user and tell the user how to fix the problem.
- 5. Every action should have a reaction.
- 6. Everyone makes mistakes, so every mistake should be fixable.
- 7. Don't overwhelm the user.
- 8. Consistency, consistency, consistency.
- 9. Minimize the need for a mighty memory.
- 10. Keep it simple.
- 11. The user should always know what is happening.
- 12. The more you do something, the easier it should be to do.
- 13. The user should control the system. The system should not control the user. The user is the boss and the system should show it.
- 14. Eliminate unnecessary decisions and illuminate the rest.
- 15. The best journey has the fewest steps. Shorten the distance between the user and the goal.
- 16. User should be able to do what they want.
- 17. Alert users to an error before things get worse.
- 18. Users should always know how to find out what to do next.
- 19. Strive to empower the user, not speed up the system.
- 20. Things that look different should act different.
- 21. These are presented in a descending order determined by their mean rating of importance.

# Sites to check out

- Usability First <a href="http://www.usabilityfirst.com/">http://www.usabilityfirst.com/</a>
- Usability Toolkit http://www.stcsig.org/usability/resources/too
   lkit/toolkit.html
- http://www.usability.gov/
- Jakob Nielsen -<a href="http://www.nngroup.com/articles/">http://www.nngroup.com/articles/</a>

# Books to check out

 "Don't Make Me Think" and "Rocket Surgery Made Easy" by Steve Krug

## Find Me

Twitter: e3betht

 Madison PHP User Group (Meetup) <u>http://www.madisonphp.com</u>

 Slides Available on: http://www.TreelineDesign.com/slides



# php[architect]



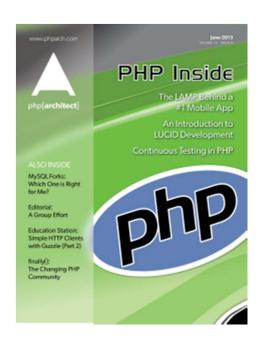
# FREE ISSUES!

### Ask me about writing articles for the magazine!

http://www.phparch.com







# Feedback

# E-mail: Beth@musketeers.me