



Developing an Effective UX Strategy: The JGI Story

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The JGI redesign story



- Institutional website jgi.doe.gov
- Site design was old and out-of-date
- Difficult to find key content

Redesign Goals:

1. New site structure, organization, content flow
2. New look & feel
3. New Content Management System (WordPress)

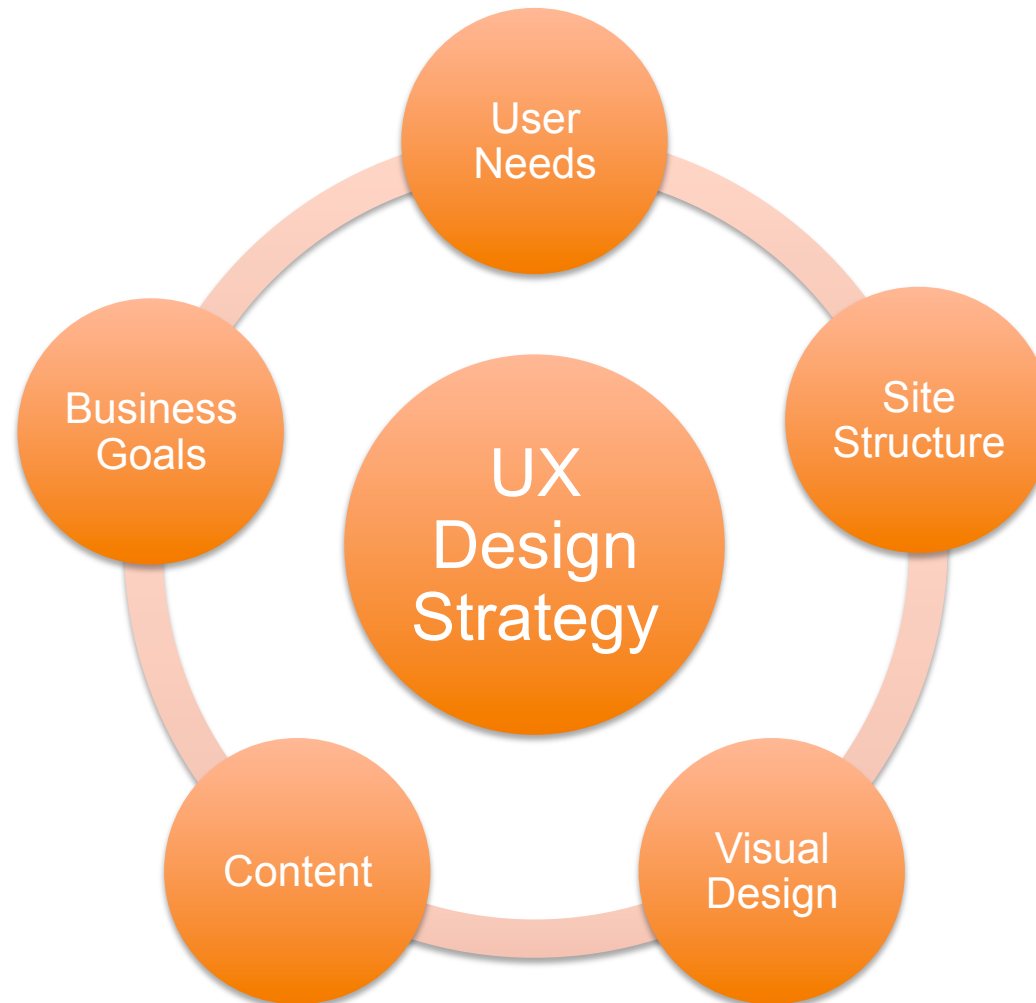
What is UX?

The user experience (UX) is what a person feels while trying to use a website or application.

The goal of a UX designer is to make the experience easy and pleasurable.



Our UX strategy in a nutshell



Our UX Design Process



Transform the user experience through the redesign process

1. Set stakeholder business goals

- Gather requirements, conduct stakeholder interviews

2. Identify user needs and priorities

- Review quantitative data (analytics), conduct user interviews

3. Plan for site content

- Audit old content, migration plan, identify new content, keywords

4. Design site structure and layout

- Card sorting, sitemap, wireframes, click-thru prototype

5. Apply visual design

- Graphic design mockups, markup for grid/CSS/HTML, code etc.

What



compounds aren't produced by the sponge itself, but by symbiotic bacteria that live inside it. The compounds in question are called polyketides, secondary metabolites that happen to be made by just two bacterial tenants of *T. swinhoei*, which have eluded researchers up to now. » [more...](#)



This Week's Science Highlights

February 21, 2014

Biofuels from a floating water weed. Duckweed is one of the smallest and fastest-growing flowering plants that can be a hard-to-control weed in ponds and small lakes. Sequencing the genome of Greater Duckweed (*Spirodela polyrhiza*) has provides clues about how the tiny plant can be used as an efficient biofuel raw material. » [more...](#)

Now accepting Letters of Intent in response to the CSP15 call for proposals

Now accepting Letters of Intent in response to the JGI-EMSL Collaborative Science Initiative

Who We Are



[Energy and Environment](#)



[Genomic Technologies](#)



[Fungal Genomics Program](#)



[Metagenomics Program](#)



[Microbial Genomics Program](#)



[Plant Genomics Program](#)

Sequencing communities of organisms rather than a single isolate is motivated by the fact that most microbes exist in complex, interdependent communities and cannot readily be grown in the lab--yet harbor undiscovered metabolic capabilities.



Helping unlock the secrets encoded in fungi genomes.

Tweets

[Follow](#)



Joint Genome Inst. @doe_jgi 7 Sep
Grade 6-12 girls: Register now for Expanding Your Horizons conf sponsored by @Livermore_Lab @SandiaLabs #STEM 1.usa.gov/YhTLLT
Expand



Joint Genome Inst. @doe_jgi 6 Sep

Follow Us



This Week's Science Highlights

February 21, 2014



Now accepting Letters of Intent in response to the CSP15 call for proposals

Joint Genome Inst. @doe_jgi 6 Sep

What the old site looked like



Critical content areas for the JGI user community:

The screenshot displays the JGI website interface, characterized by a dense and overlapping layout of content. The top navigation bar includes links for Genomes, Project List, User Programs, Sequencing, Informatics Systems, Education, News & Publications, Events, and About Us. The main content area is divided into several overlapping sections:

- User Programs:** A sidebar menu listing various programs like Project Management Office, Community Science Program, and Emerging Technologies Opportunity Program.
- Community Science Program, including JGI-EMSL Coll:** A central section with a detailed description and a list of links for program overview, proposal submission, and review processes.
- Emerging Technologies Opportunity Program (ETOP):** A section highlighting new funding opportunities for scientific communities.
- DNA Synthesis:** A section discussing sequence data and functional characterization of multi-gene pathways.
- Technology Development Pilot Program (TDP):** A section describing programs for nascent technologies and high-risk/high-reward projects.
- Visiting Scientist Program:** A section offering opportunities for faculty-level scientists.

The bottom of the page features a footer with contact information, a disclaimer, and logos for the U.S. Department of Energy and the Office of Science. The overall design is cluttered, with multiple overlapping boxes and text elements, illustrating the complexity of the site's navigation.

Hidden, stacked deep under misleading navigation titles

What the old site looked like



The site's most dynamic content:

News items, science highlights and publications

Hidden under navigation layers and third party blogging website

9/17/14

The screenshot shows the DOE Joint Genome Institute website interface. At the top, there is a navigation bar with links for Genomes, Project List, User Programs, Sequencing, Informatics Systems, Education, News & Publications, Events, and About Us. The main header features the JGI logo and the text "DOE Joint Genome Institute Enabling Advances in Bioenergy & Environmental Research". Below the header, there is a "News and Publications" section with a sidebar menu containing links for News Releases, Science Highlights, JGI in the News, Notable Scientific Publications, Scientific Posters, The Primer, and Templates and Logos. The main content area is titled "News and Publications" and features a video player with the title "Harnessing the Flow of Data from Fungi at JGI". Below the video player, there is a "Follow Us" section with social media icons for Blogger, Twitter, Flickr, Facebook, YouTube, SciVee, and LinkedIn. The "News Releases" section includes a link to "Latest releases from the JGI, also see our Twitter feed". The "Science Highlights" section includes a link to "Brief articles about the best in JGI science". The "JGI in the News" section includes a link to "Mentions of JGI and its activities in the media" and "Archive of past news items". The "Notable Scientific Publications" section includes a link to "Publications by JGI scientists in major journals". The "Scientific Posters" section includes a link to "Posters presented by JGI staff at scientific meetings". The "The Primer" section includes a link to "The JGI newsletter".

MyJGI | Submit Proposals | Internal | Emergency Info | Careers |

JGI website | People |



DOE Joint Genome Institute
Enabling Advances in Bioenergy & Environmental Research

News and Publications

- News Releases
- Science Highlights
- JGI in the News
- Notable Scientific Publications
- Scientific Posters
- The Primer
- Templates and Logos

Latest News (via Twitter)

Tweets [Follow](#)

Joint Genome Inst. @doe_jgi 7h
2013 #carbondioxide conc in the #atmosphere increased *at the fastest rate for nearly 30 years.* [bbc.in/1ITlyvo](#)
Expand

Joint Genome Inst. @doe_jgi 9h
In @FrontMicrobiol: @Columbia @LamontEarth & @stonybrook build off the brown tide #algae #genome we #sequenced [bit.ly/1nJ2Hjh](#)
Expand

Joint Genome Inst. @doe_jgi 22h
Good to have you at this MGM workshop @genelam

Tweet to @doe_jgi

Media contact:
David Gilbert
Joint Genome Institute
(925) 296-5643
DEGilbert@lbl.gov



Follow Us



News Releases

Latest releases from the JGI, also see our [Twitter feed](#)

Science Highlights

Brief articles about the best in JGI science

JGI in the News

Mentions of JGI and its activities in the media
[Archive of past news items.](#)

Notable Scientific Publications

Publications by JGI scientists in major journals

Scientific Posters

Posters presented by JGI staff at scientific meetings

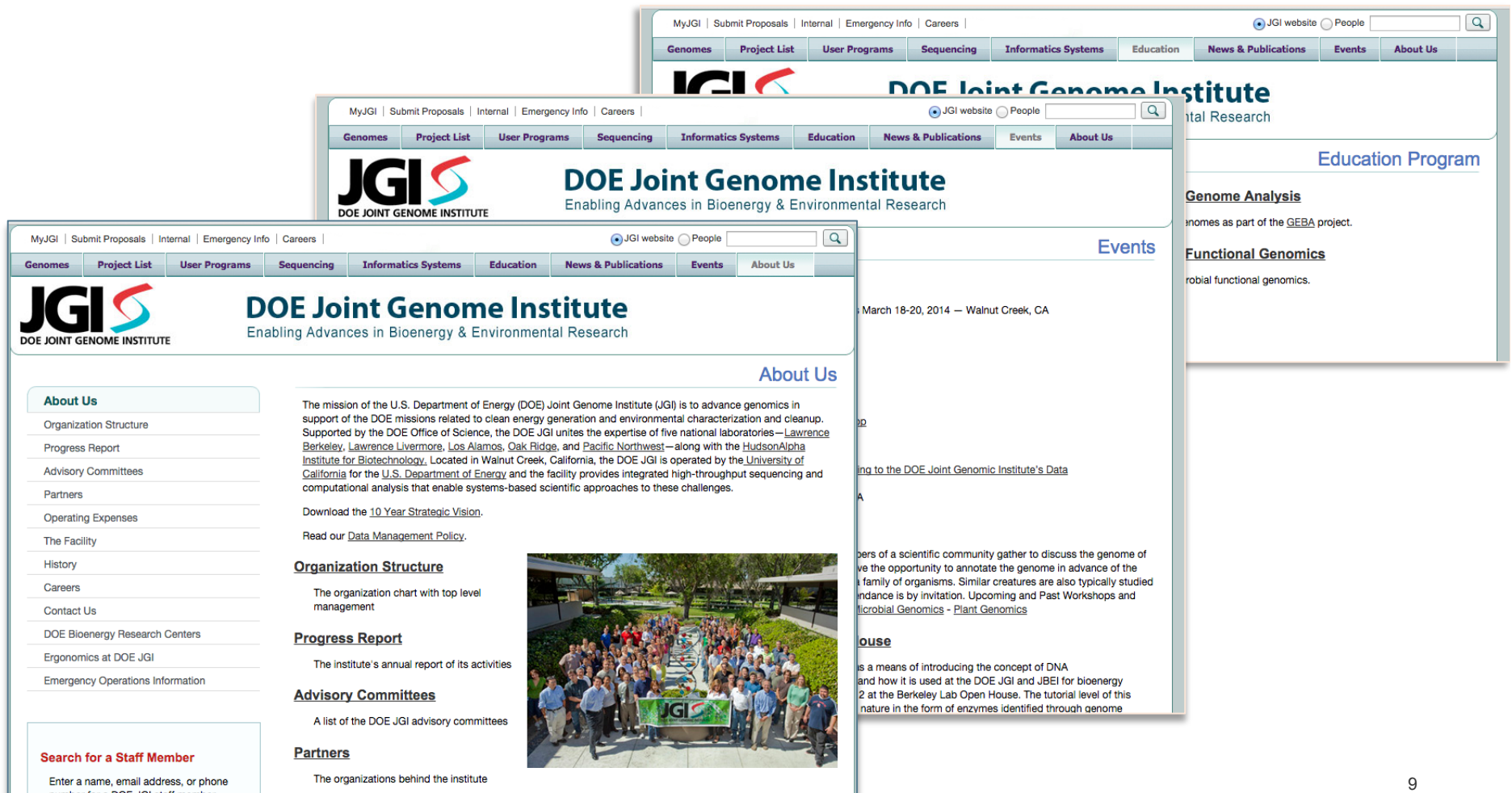
The Primer

The JGI newsletter

What the old site looked like



Navigation menu cluttered with non-essential items and links to 3rd party sites



Plan for the new site structure



A new sitemap:

[Search, in header]

Search results

Our Science (needs fresh content - get from latest Report and Science Highlights)

* DOE Mission Areas

* DOE Bioenergy Research Centers

More About Bioenergy Research at the DOE JGI

* Research Highlights

* Poplar genome to large-scale dataset

* Harmful algal blooms

* Yellowstone extremophiles

Research Highlights (needs fresh content)

Termite Power: Nature's Bioreactor

The Poplar Tree: Advancing Alternative Energy Sources (content link)

Corn: The Leading U.S. Fuel Ethanol Crop (content link)

Soybeans: Translational Genomics for Clean Energy

Switchgrass: Power Grass (content link)

White Rot: Nature's Wood Pulp Processor (content link)

Brachypodium: Growing Grass for Energy (content link)

The Benefits of Biomass

* The Ethanol Producers [The Fuel Producers]

* The Fuel Producers

Science programs

Microbial genomics

Why Microbes? change page name to: Mission

Projects

Genomic Encyclopedia of Bacteria and Archaea (GEBA)

Pilot project

Why GEBA (link to "Interpret a Genome")

GEBA-RNB

GEBA-Cyano

Microbial Earth Project (MEP)

Plan for the new site structure



Wireframes
for the new
layout:

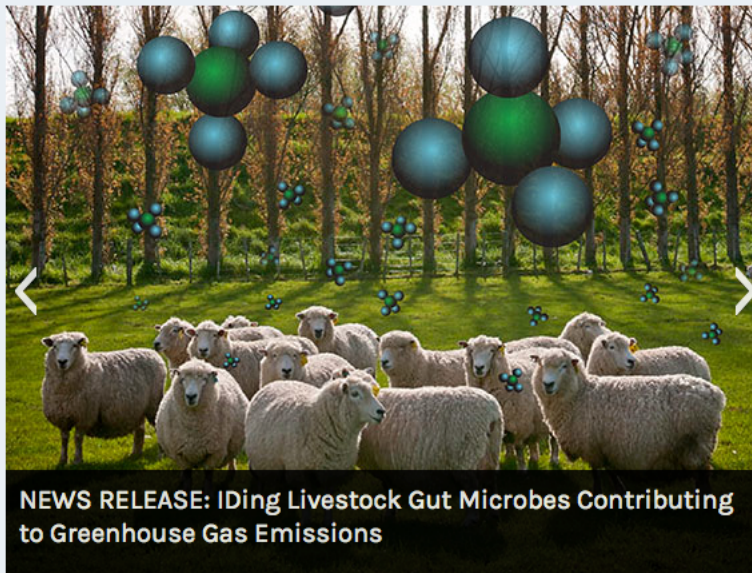
Introducing the new website!



[ABOUT US](#) [PHONE BOOK](#) [CONTACT US](#) [SEARCH](#)

[Our Science](#) [Our Projects](#) [Data & Tools](#) [Collaborate with JGI](#) [News & Publications](#)

WHAT'S HAPPENING



Latest News

AUGUST 24, 2014

[Signatures of Selection Inscribed on Poplar Genomes](#)

AUGUST 7, 2014

[DOE JGI, EMSL Announce 2015 Collaborative Science Projects](#)

[ALL NEWS RELEASES](#)

Announcements

Save the Date for the [10th Annual Genomics of Energy and Environment Meeting](#)

Small-scale [Microbial/Metagenome Proposals](#) due Nov 20, 2014

Read about our [Data Management Policy, Practices & Resources](#)



How we're contributing to bioenergy research.

[LEARN MORE](#)



Everything you need to know about getting a project started.

[LEARN MORE](#)

Improved content organization!



Critical new pathways for JGI user community

Collaborate with JGI landing for new users

Our Projects landing for existing users

JGI JOINT GENOME INSTITUTE
UNITED STATES DEPARTMENT OF ENERGY

ABOUT US PHONE BOOK CONTACT US Search JGI websites ... SEARCH

Our Science Our Projects Data & Tools Collaborate with JGI News & Publications

Community Science Program (CSP) Other User Programs Working with JGI Product Offerings Submit a Proposal

Collaborate with JGI

Views from Our User Community: Jeff Dangl

As a DOE national user facility we are a federally sponsored research facility, open to all interested potential users without regard to nationality or institutional affiliation, to advance scientific and technical knowledge.

Find out how to apply:

- [The Community Science Program \(CSP\)](#)

More resources:

- [Submit a Proposal](#)
- [Browse our current and past CSP projects](#)
- [View a complete list of our product offerings](#)
- [Learn more about our capabilities](#)
- [Access your project data](#)

The Community Science Program (CSP)

| | | | |
|---|--|---|--|
| How to propose a project Types of Projects accepted, information to include in a proposal, and how to submit. LEARN MORE | Overview What the Community Science Program (CSP) is and how it works. LEARN MORE | DOE Mission Relevance Projects with relevance to DOE missions have the best chance for selection. LEARN MORE | Proposal Schedule Current schedule for the proposal process. LEARN MORE |
|---|--|---|--|

Footer: Careers, Contact Us, Events, User Meeting, MGM Workshops, Internal, Disclaimer, Credits, Emergency Info, Accessibility / Section 508, Statement, U.S. DEPARTMENT OF ENERGY Office of Science, © 1997-2014 The Regents of the University of California

New site sections!



A new site landing Our Science

Highlights the critical JGI message

The screenshot shows the JGI website homepage. At the top is the JGI logo and navigation links: ABOUT US, PHONE BOOK, CONTACT US, and a search bar. Below is a main navigation bar with categories: Our Science (highlighted), Our Projects, Data & Tools, Collaborate with JGI, and News & Publications. A secondary navigation bar lists: Our DOE Mission Areas, DOE Bioenergy Research Centers, Science Programs, Science Highlights, and Scientists at JGI.

Our Science

Comparing Genomes/Lifestyles of Freshwater Bacteria
AUGUST 28, 2014
Single-cell genomics sheds light on nutrient and carbon cycling in Actinobacteria. The Science: Researchers assembled... [\[Read More\]](#)

Understanding *Aureobasidium's* Adaptability
AUGUST 21, 2014
Differences between genome sequences warrant fungal reclassifications. The Science: Researchers sequenced four samples of *Aureobasidium*... [\[Read More\]](#)

How yeast formations got started
AUGUST 14, 2014
Comparative analyses reveal gene family conserved across multiple yeast lineages. The Science: Researchers conducted a... [\[Read More\]](#)

Rapid technological advances in genomics have transformed modern biology. From its inception, the Department of Energy Joint Genome Institute has been at the forefront of large-scale sequence-based science.

Scientific Programs

Plant Program
The Plant Program focuses on fundamental biology of photosynthesis, conversion of solar to chemical energy. [LEARN MORE](#)

Fungal Program
This program scales up genomic sequencing and analysis to explore the diversity of fungi important for energy and the environment, and to promote system-level functional studies. [LEARN MORE](#)

Metagenome Program
A primary motivation for metagenomics is that most microbes found in nature exist in complex, interdependent... [LEARN MORE](#)

Microbial Program
The Microbial Program exploits expertise and emerging technologies in sequencing, annotation and analysis to... [LEARN MORE](#)

Improved content flow!



More visibility for regular content features

Topics are repeated in multiple areas

The screenshot displays the JGI website's navigation and content structure. At the top, the JGI logo and 'JOINT GENOME INSTITUTE UNITED STATES DEPARTMENT OF ENERGY' are visible. Navigation links include 'ABOUT US', 'PHONE BOOK', 'CONTACT US', and a search bar. A secondary menu lists 'Our Science', 'Our Projects', 'Data & Tools', 'Collaborate with JGI', and 'News & Publications'. Below this, a third menu includes 'News Releases', 'Blog', 'Publications', 'Scientific Posters', 'Newsletter', and 'Logos'. The main content area is titled 'News & Publications' and features three article cards:

- Signatures of Selection Inscribed on Poplar Genomes** (AUGUST 24, 2014): Accompanied by a photo of a poplar tree. Text: 'Genome-Wide Study Shows Evidence of Genetic Selection One aspect of the climate change models researchers... [Read More]'
- DOE JGI, EMSL Announce 2015 Collaborative Science Projects** (AUGUST 7, 2014): Accompanied by a photo of a microplate. Text: 'Combining complementary resources for greater scientific understanding. The U.S. Department of Energy Joint Genome Institute (DOE JGI)... [Read More]'
- Dyeing to Learn More About Marine Viruses** (JULY 13, 2014): Accompanied by a diagram of a virus. Text: 'Tagging strategy allows for population surveys The sheer volume of cyanobacteria in the oceans makes... [Read More]'
- Treading into a Gray Area Along the Spectrum of Wood Decay Fungi** (JUNE 23, 2014): Accompanied by a photo of wood decay. Text: 'One of the most basic rules for playing the game "Twenty Questions" is that all... [Read More]'

At the bottom, there are two sections: 'Upcoming' with a link to the '10th Annual Genomics of Energy and Environment Meeting' and 'Media Contact' with contact information for David Gilbert, Public Affairs Manager.

Articles worth reading



Understanding Web Design - A classic article by Jeffrey Zeldman

<http://www.alistapart.com/articles/understandingwebdesign/>

We'll have better web design when we stop asking it to be something it's not, and start appreciating it for what it is. It's not print, not video, not a poster—and that's not a problem.

Lean UX: Getting Out of The Deliverables Business

<http://www.smashingmagazine.com/2011/03/07/lean-ux-getting-out-of-the-deliverables-business/>

Strong argument for limiting time and talent spent on large quantities of expensive documentation and focusing more on actual design work with immediate feedback from customers.

90% Of All Usability Testing is Useless

<http://www.adaptivepath.com/ideas/e000328/>

“...This is not to say that it doesn't have a significant role to play in user experience design. When done right, usability testing will improve your Web site and your development process, but the current culture surrounding Web site usability testing is such that it rarely benefits the design. Worse, this misapplication can undermine the acceptance of this important technique throughout an organization...”

Articles worth reading cont.



The Myth of Usability Testing

<http://alistapart.com/article/the-myth-of-usability-testing>

The limitations of traditional usability tests and outlining a new approach.

Quick and Dirty Remote User Testing

<http://alistapart.com/article/quick-and-dirty-remote-user-testing>

User research doesn't have to be expensive and time-consuming. With online applications, you can test your designs, wireframes, and prototypes over the phone and your computer with ease and aplomb.

Can You Say That in English? Explaining User Research to Clients

<http://alistapart.com/article/can-you-say-that-in-english-explaining-ux-research-to-clients>

The value of UX design work.

Content Governance - A practical approach from The Nerderly.

<http://uxmag.com/articles/get-your-content-strategy-out-of-the-drawer-with-governance>

Content Governance - what is it, who participates.

<http://www.slideshare.net/epublishmedia/planning-for-content-governance>

More UX problems to solve...

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This is what happens when your camera's auto-timer light happens to be a bright red dot.

