

# Examining the Usability of a Video Technology Website for School Support Staff



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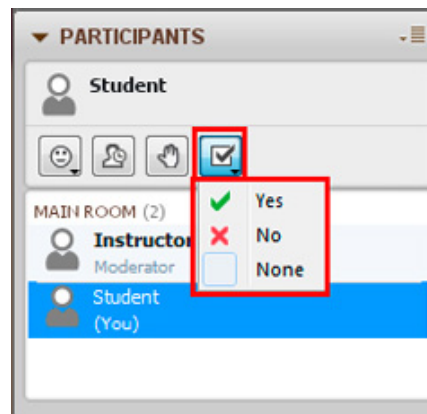
Learning Design And Technology  
College Of Education  
University Of Hawai'i At Mānoa

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# Question for the audience:

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Do you know what **videoconferencing** is?



# Question for the audience:

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IF you answered “No”

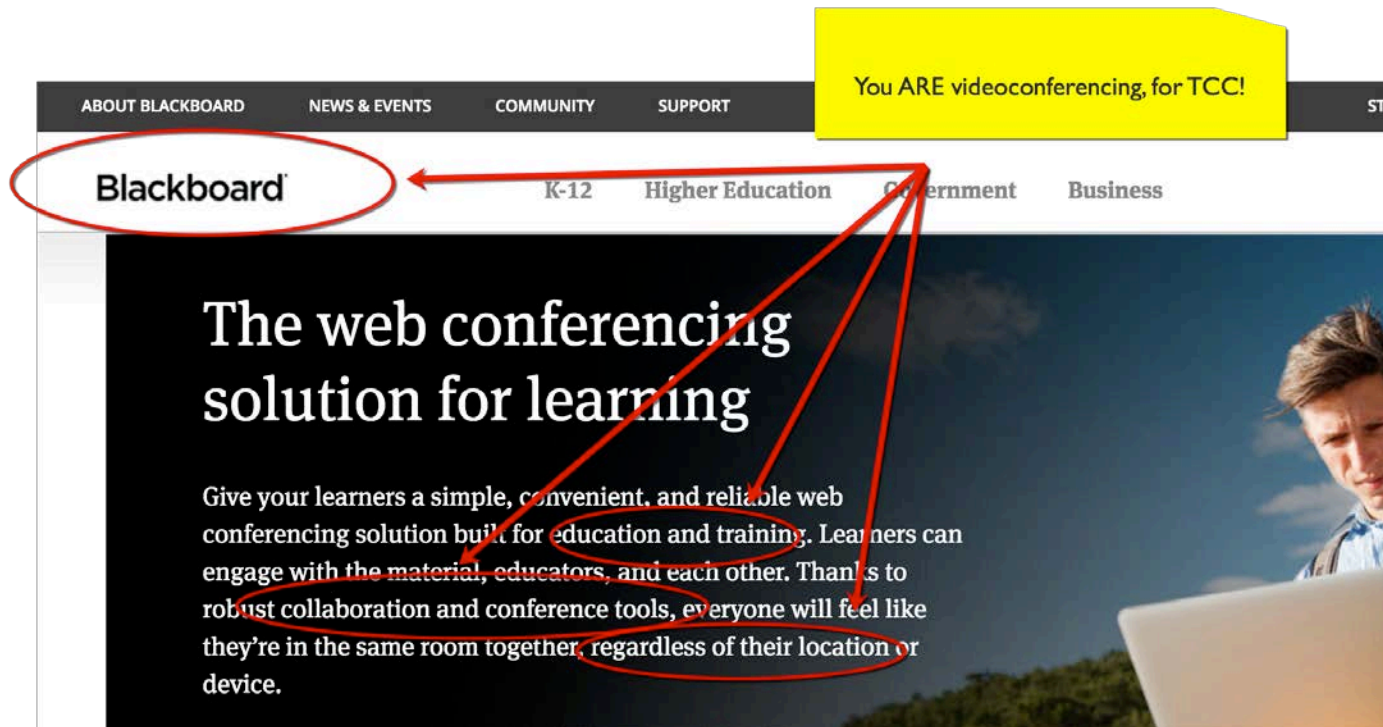
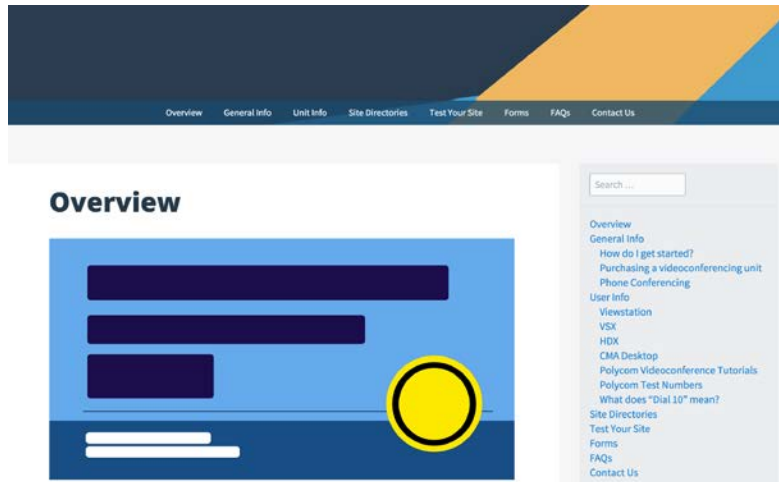


Image: Retrieved from <http://www.blackboard.com/online-collaborative-learning/web-conferencing.aspx>

# Video Technology Website Usability

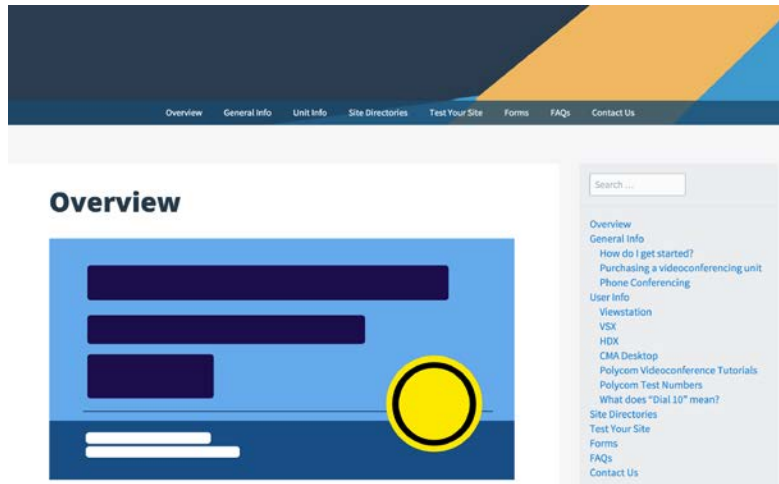
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▶ Problem

# Video Technology Website Usability

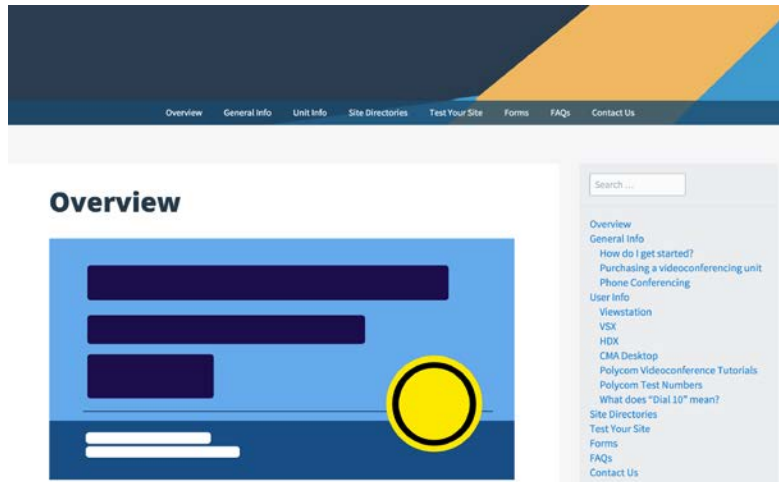
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- ▶ Problem
- ▶ Purpose

# Video Technology Website Usability

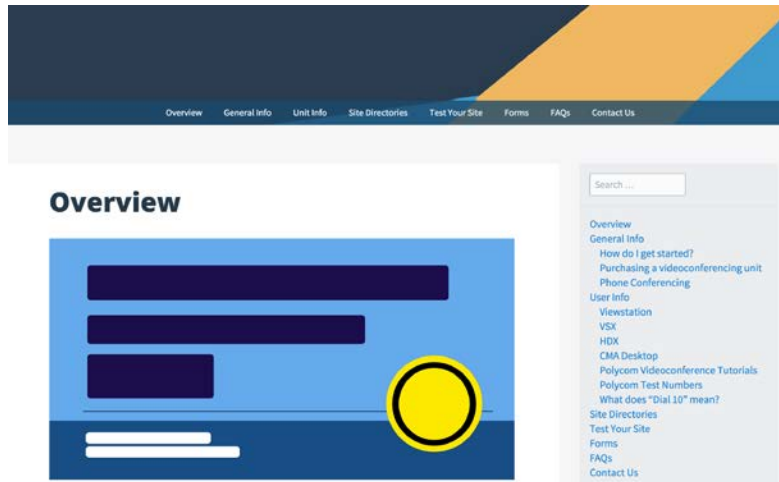
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- ▶ Problem
- ▶ Purpose
- ▶ Audience

# Video Technology Website Usability

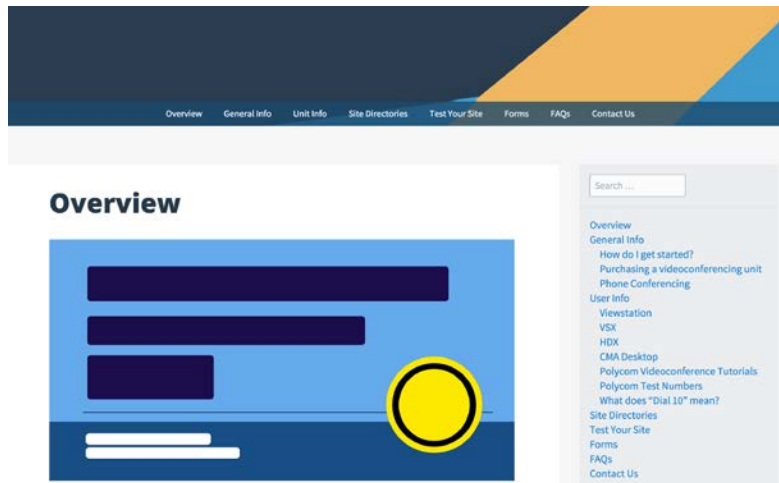
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- ▶ Problem
- ▶ Purpose
- ▶ Audience
- ▶ Goals

# Video Technology Website Usability

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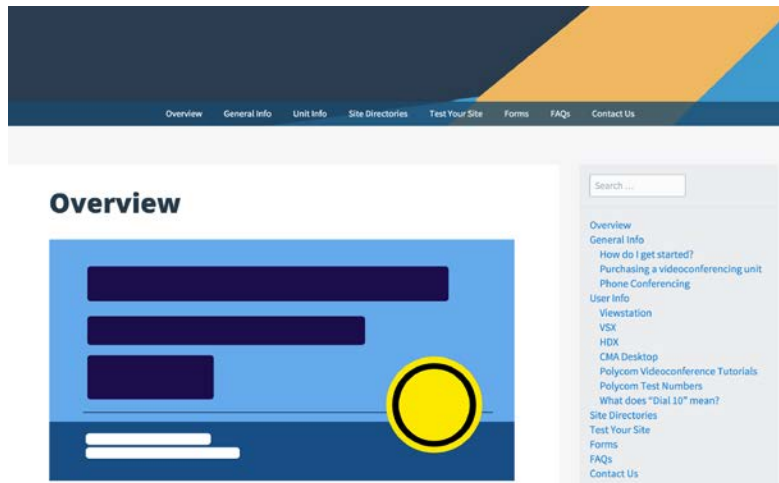


- ▶ Problem
- ▶ Purpose
- ▶ Audience
- ▶ Goals
- ▶ Design and Development
  - ▶ Website
  - ▶ Usability



# Video Technology Website Usability

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- ▶ Problem
- ▶ Purpose
- ▶ Audience
- ▶ Goals
- ▶ Design and Development
  - ▶ Website
  - ▶ Usability
- ▶ Conclusion

# Problem

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- ▶ 300 endpoints & 1 Multi-point Control Unit (MCU)/bridge<sup>1</sup>
  - ▶ Quality maintenance & support

<sup>1</sup>Greenberg, A., & Wainhouse Research. (2009). The 2009 Update: Taking the Wraps off Videoconferencing in the U.S. Classroom. Wainhouse Publishing.

# Problem

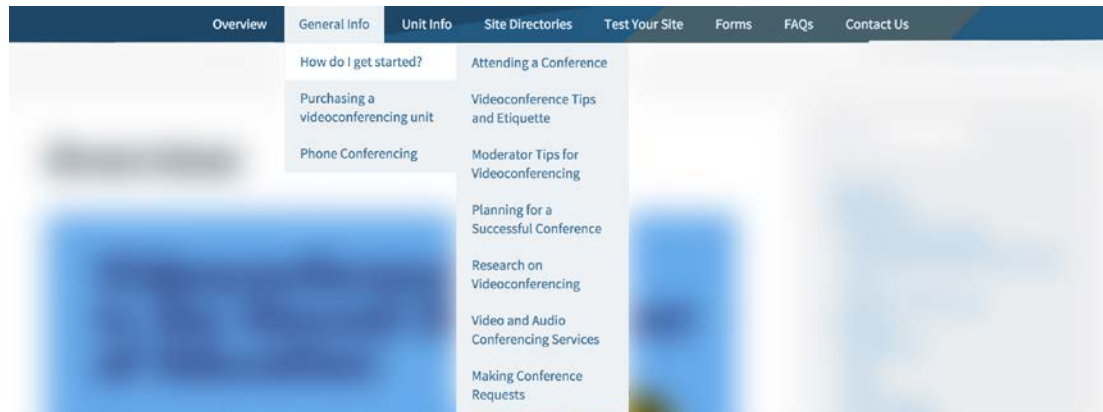
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- ▶ 300 endpoints & 1 Multi-point Control Unit (MCU)/bridge<sup>1</sup>
  - ▷ Quality maintenance & support
- ▶ Budget Cuts
  - ▷ Less personnel
  - ▷ Websites to house information and documents – internal & external<sup>2</sup>

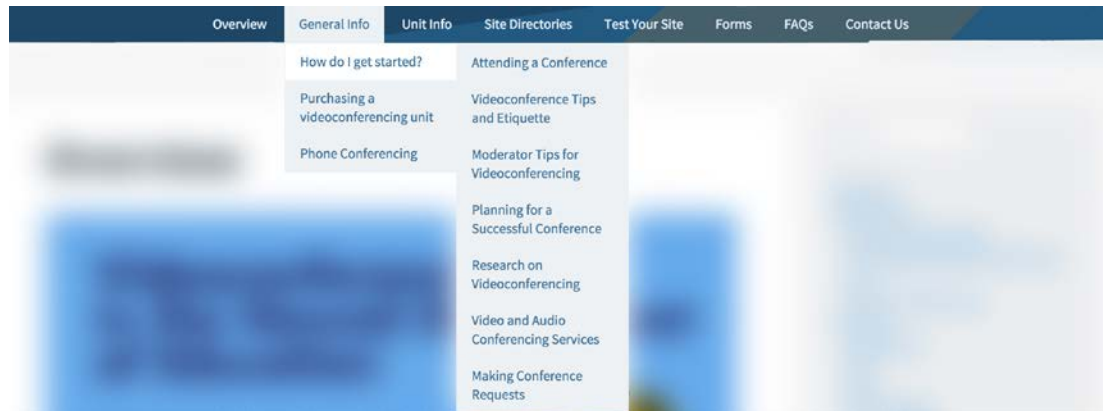
<sup>1</sup>Greenberg, A., & Wainhouse Research. (2009). The 2009 Update: Taking the Wraps off Videoconferencing in the U.S. Classroom. Wainhouse Publishing.

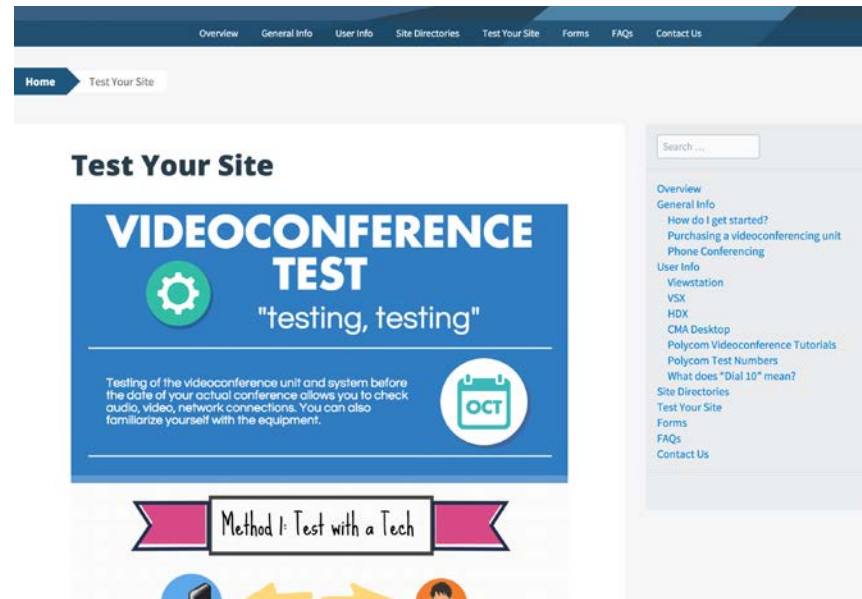
<sup>2</sup>Hawaii DOE home page. (n.d.). Retrieved from <http://www.hawaiipublicschools.org>

The purpose of this usability study was to evaluate the ease of use and organization of the Video Technologies website and its ability to assist public school support staff with providing basic technology support information.

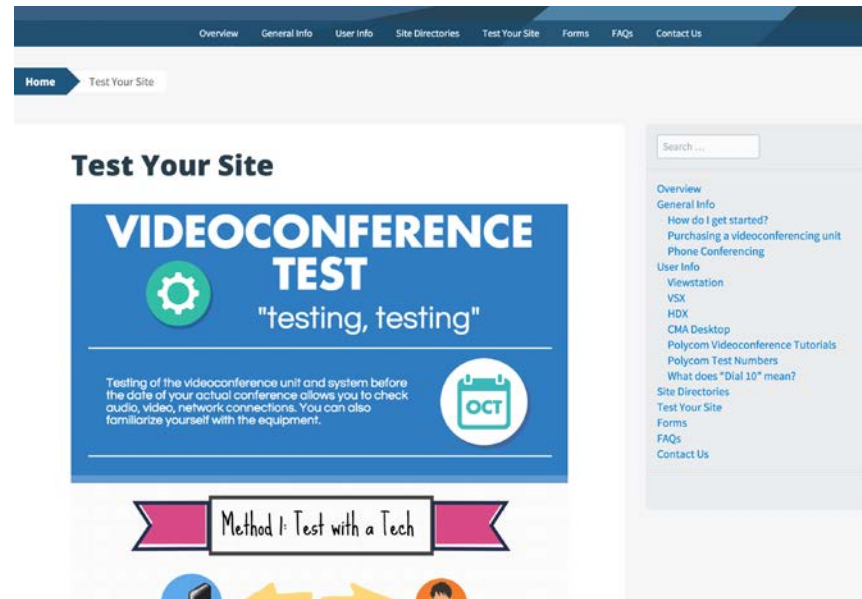


The purpose of this usability study was to evaluate the **ease of use** and **organization** of the **Video Technologies website** and its ability to assist public **school support staff** with providing **basic technology support information**.





The goal of this study was to create an inviting, easy to use website while maintaining quality, trustworthy information.



The goal of this study was to create an **inviting**, **easy to use** website while maintaining **quality**, **trustworthy information**.

# Website Design Factors

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- ▶ Wordpress<sup>3</sup>
  - ▶ Admin view easy to use
  - ▶ Versatile
  - ▶ Integrated mobile view
  - ▶ Export for future implementation



WORDPRESS

<sup>3</sup>The Features You'll Love. (2012, July 26). Retrieved from <https://en.wordpress.com/features/>



# Website Design Factors

## ► Theme

A screenshot of a website design for 'VIDEO TECHNOLOGY' on a browser. The page features a blue header with the title 'VIDEO TECHNOLOGY' and a horizontal navigation bar below it. A secondary navigation menu is located below the header, containing a search bar and a list of links. A breadcrumb trail is visible below the secondary navigation menu. The main content area has a title 'Titles' and a paragraph of placeholder text. A secondary navigation menu is also visible on the right side of the page.

A horizontal navigation bar sits towards the top of the page, below the header as the main menu and navigation tool.

A theme incorporating breadcrumbs was chosen. Breadcrumb navigation assist users in navigating the website's hierarchy.

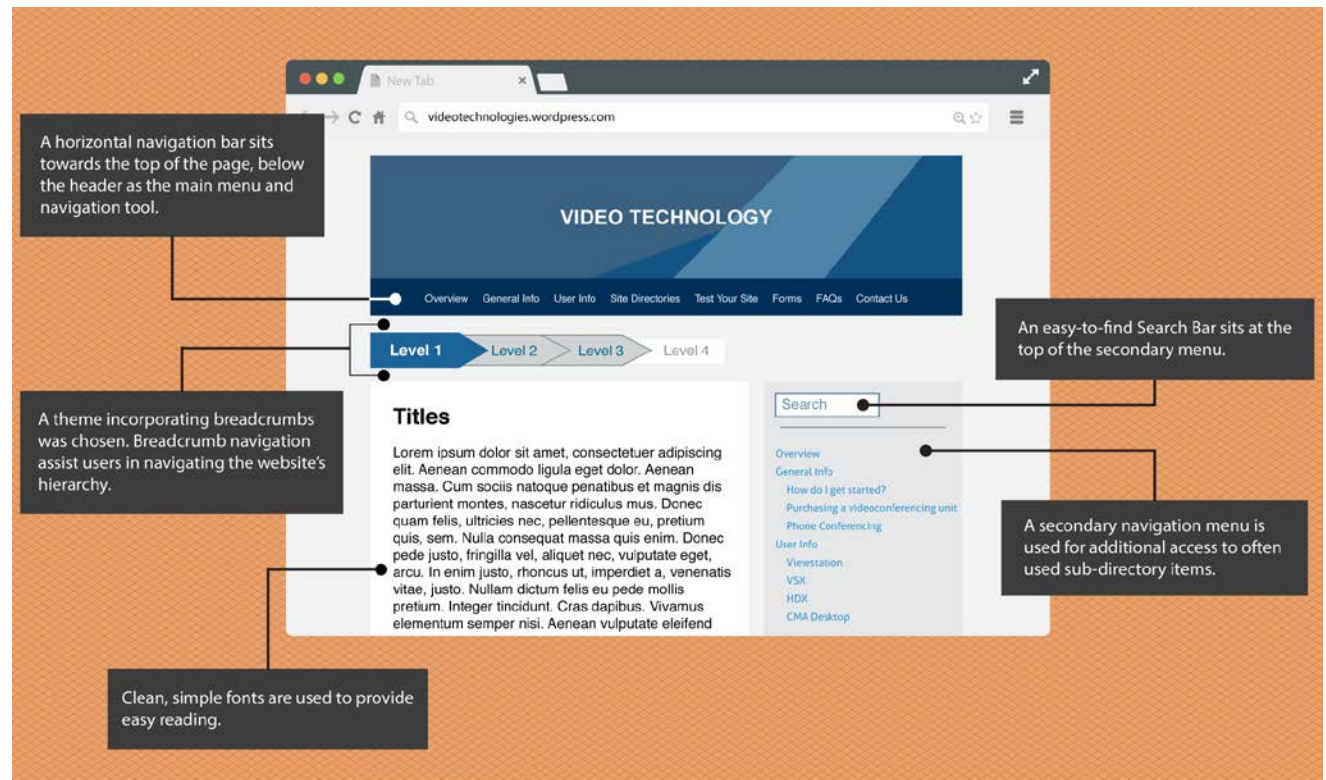
Clean, simple fonts are used to provide easy reading.

An easy-to-find Search Bar sits at the top of the secondary menu.

A secondary navigation menu is used for additional access to often used sub-directory items.

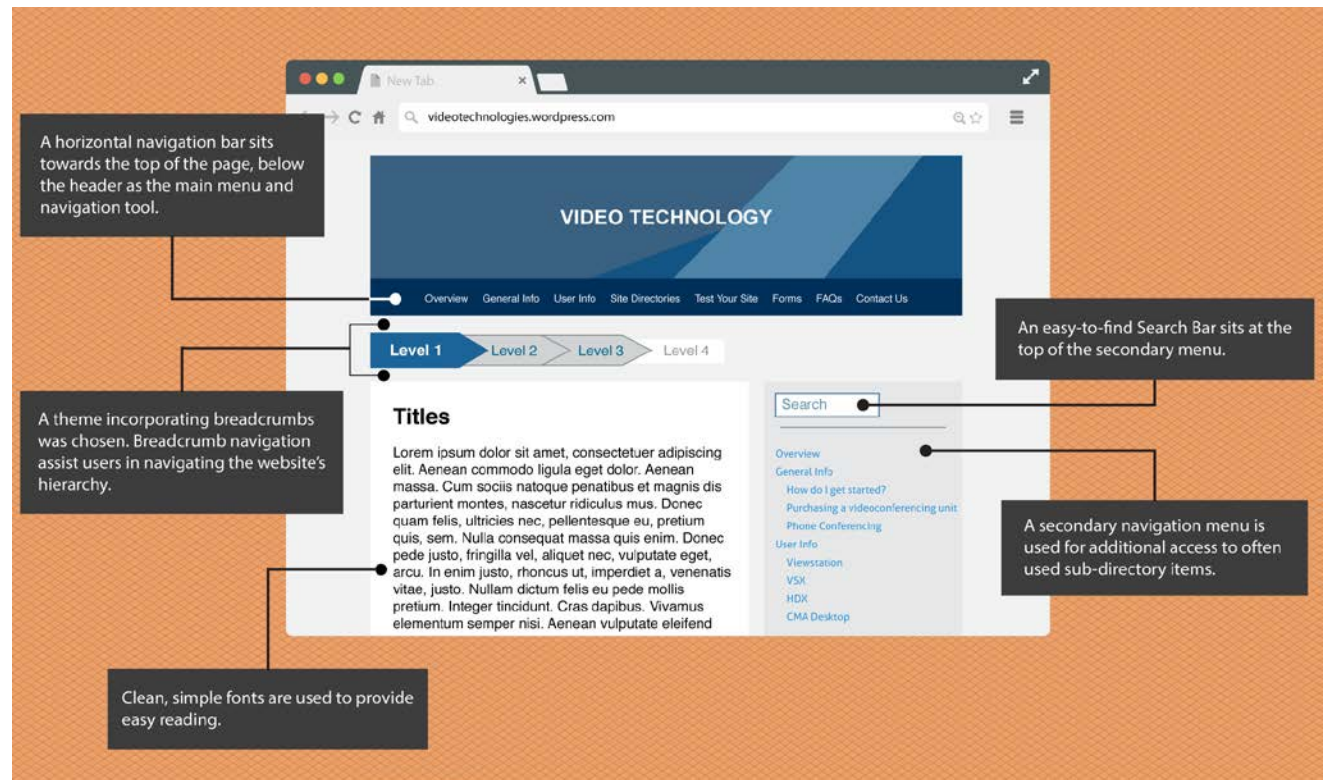
# Website Design Factors

- ▶ Theme
- ▶ Colors



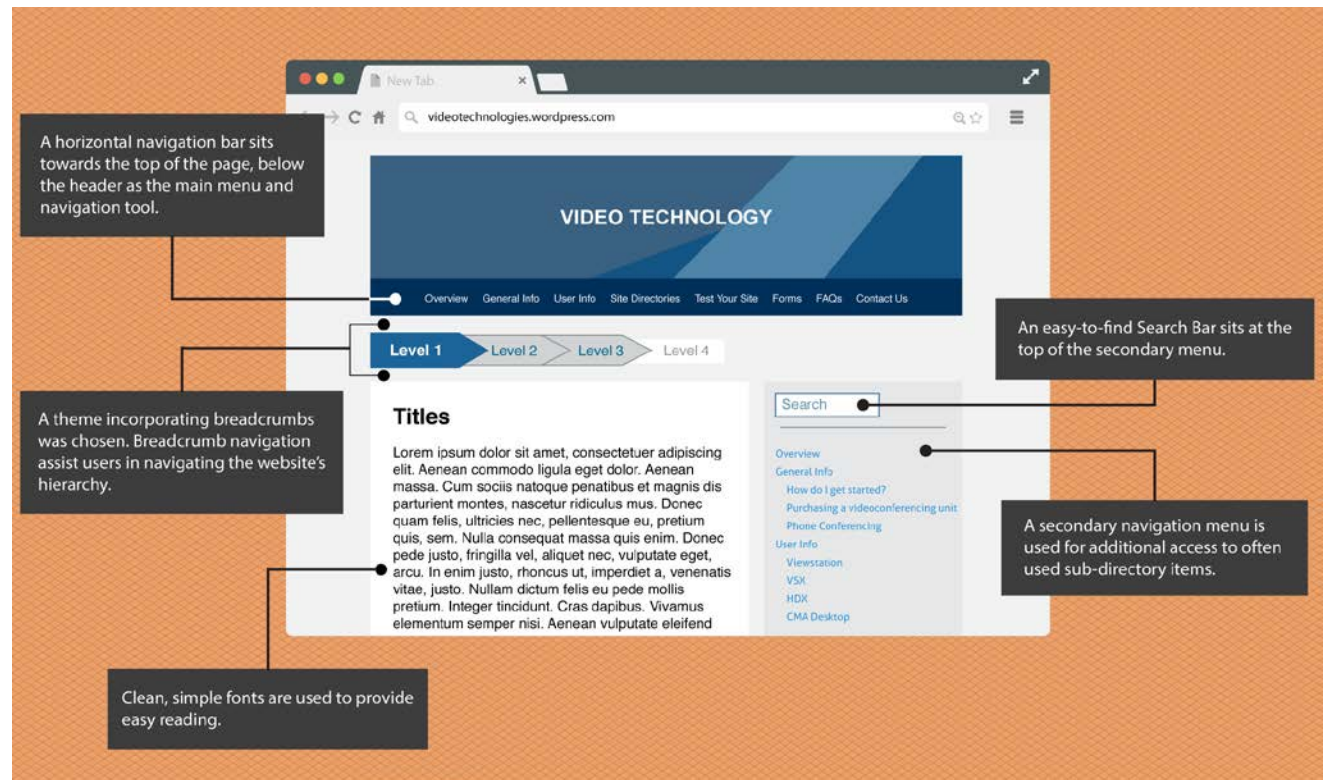
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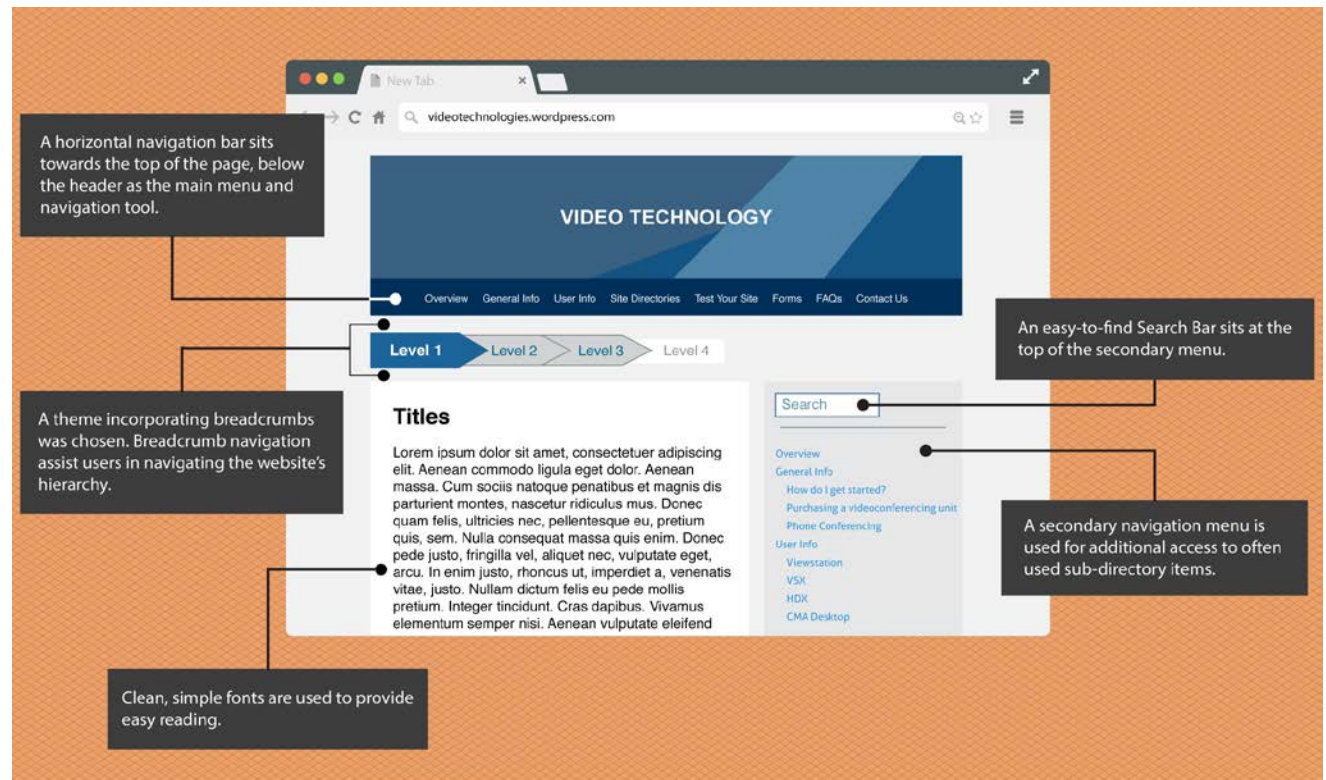
# Website Design Factors

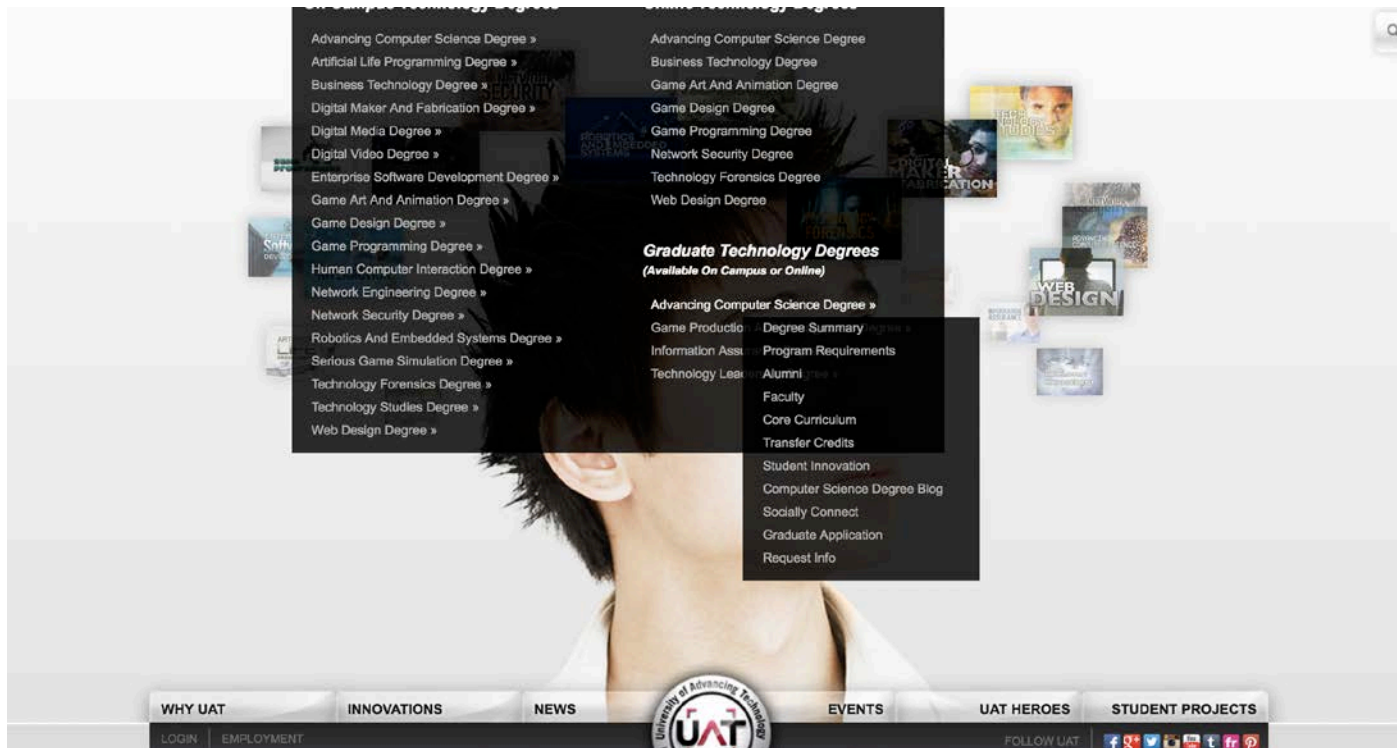
- ▶ Theme
- ▶ Colors
- ▶ Font
- ▶ Content
- ▷ Navigation
  - ▶ *Hierarchy*
  - ▶ *Menus*



# Website Design Factors

- ▶ Theme
- ▶ Colors
- ▶ Font
- ▶ Content
  - ▷ Navigation
    - ▶ *Hierarchy*
    - ▶ *Menus*
  - ▷ Text
  - ▷ Graphics





**Image source:** University of Advancing Technology  
Ranked #3 of The 20 Worst Websites of 2014 by Vincent Flanders' Web Pages That Suck

“People won’t use your Web site if they can’t find their way around it.”

-Steve Krug, *Don't Make Me Think: A Common Sense Approach to Web Usability* (2006)

# Usability Design

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- ▶ Steve Krug's *Rocket Surgery Made Easy* (2011)<sup>4</sup>

<sup>4</sup>Krug, S. (2011). *Rocket Surgery Made Easy*. Berkeley, CA, USA: New Riders Publishing.

# Usability Design

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- ▶ Steve Krug's *Rocket Surgery Made Easy* (2011)<sup>4</sup>
- ▶ In-person

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- ▶ In-person
- ▶ Pre-test survey
  - ▷ Demographics – web browsing experience

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# Usability Design

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- ▶ Steve Krug's *Rocket Surgery Made Easy* (2011)<sup>4</sup>
- ▶ In-person
- ▶ Pre-test survey
  - ▷ Demographics – web browsing experience
- ▶ Protocol
  - ▷ Concurrent Think Aloud (CTA)<sup>5</sup>
  - ▷ Human-Computer Interaction (HCI)<sup>6</sup>
    - ▶ *Task completion and times*
    - ▶ *Navigational choices – main menu, secondary menu, or breadcrumbs*

<sup>5</sup>Bergstrom, J. (2013). Moderating Usability Tests. Retrieved from <http://www.usability.gov/get-involved/blog/2013/04/moderating-usability-tests.html>

<sup>6</sup>Pirolli, P. (2003). Exploring and Finding Information. In J. M. Carroll (Ed.), *Interactive Technologies: HCI Models, Theories, and Frameworks: Toward a Multidisciplinary Science* (pp. 157–191). Burlington, MA, USA: Morgan Kaufmann. Retrieved from <http://www.ebrary.com>

# Usability Design

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- ▶ Tasks

# Usability Design

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- ▶ Tasks
  - ▶ Finding far site information - contact information for the site to conference with

# Usability Design

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  - ▶ Finding far site information - contact information for the site to conference with
  - ▶ Finding VC end-user test information – to test with a technician, far site, or with the MCU/bridge

# Usability Design

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- ▶ Tasks
  - ▶ Finding far site information - contact information for the site to conference with
  - ▶ Finding VC end-user test information – to test with a technician, far site, or with the MCU/bridge
  - ▶ Finding documentation – manuals & diagrams

# Usability Design

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- ▶ Tasks
  - ▶ Finding far site information - contact information for the site to conference with
  - ▶ Finding VC end-user test information – to test with a technician, far site, or with the MCU/bridge
  - ▶ Finding documentation – manuals & diagrams
  - ▶ Finding contact information of a VC tech

# Usability Design

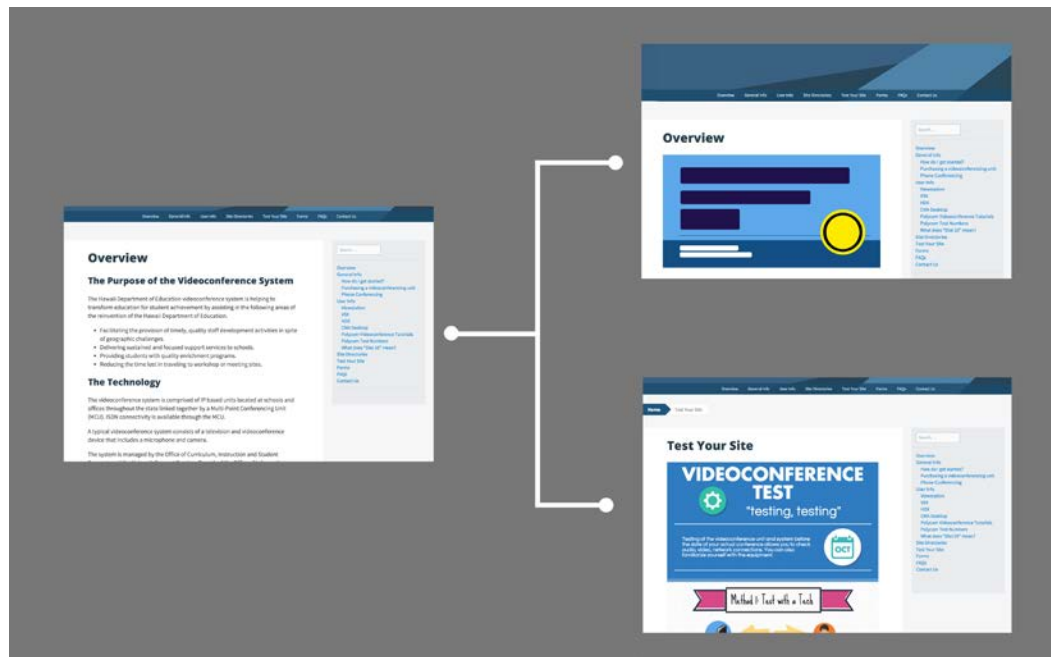
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- ▶ Tasks
  - ▶ Finding far site information - contact information for the site to conference with
  - ▶ Finding VC end-user test information – to test with a technician, far site, or with the MCU/bridge
  - ▶ Finding documentation – manuals & diagrams
  - ▶ Finding contact information of a VC tech
  - ▶ Navigating back to the home page



# Website Development

BEFORE



AFTER

# Website Development

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- ▶ pre-Round One testing
  - ▶ Menu items reorganized and some removed
  - ▶ Secondary menu adjustments

# Website Development

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- ▶ pre-Round One testing
  - ▷ Menu items reorganized and some removed
  - ▷ Secondary menu adjustments
- ▶ Round One testing – navigation, aesthetics, and general ease of use
  - ▷ Added graphics
  - ▷ Re-worded and rearranged menu items

# Website Development

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- ▶ pre-Round One testing
  - ▷ Menu items reorganized and some removed
  - ▷ Secondary menu adjustments
- ▶ Round One testing – navigation, aesthetics, and general ease of use
  - ▷ Added graphics
  - ▷ Re-worded and rearranged menu items
- ▶ Round Two testing – final adjustments
  - ▷ Minor aesthetic changes
  - ▷ Minor re-wording

## Test Your Site

Find information on doing a test of your VC unit. Choose from the options below (if you require further assistance, please [contact us](#)):

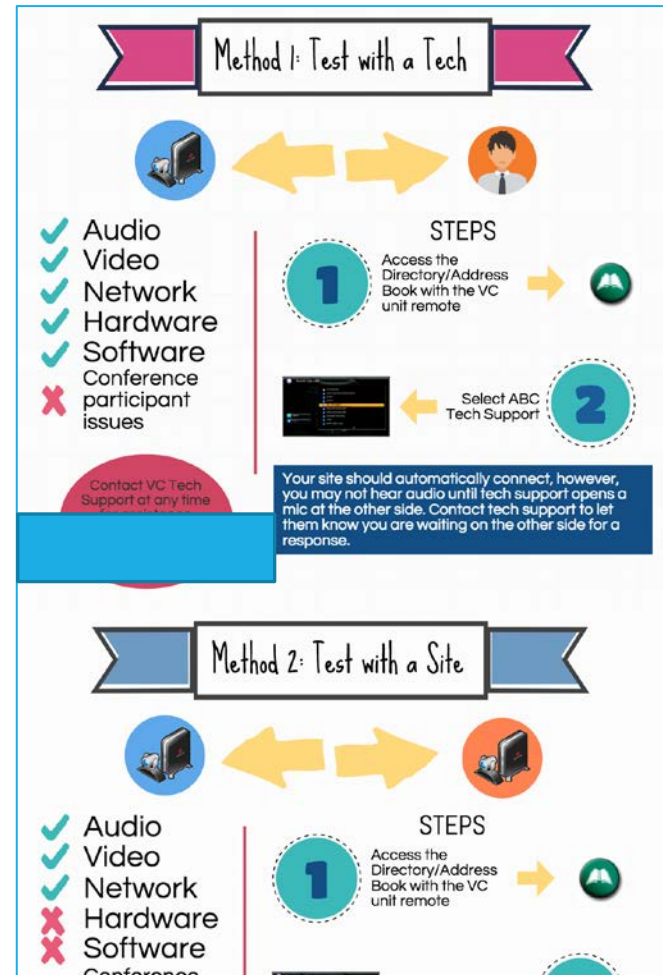
### Test with an   Test Site

- **Using your VC unit access the Directory/Address Book.** (For specific unit instructions on accessing the Directory/Address Book please see the section on [User Information](#))
- **Select “ABC Test Your Call”** to connect to a Powerpoint presentation. You should be able to hear music and see the Powerpoint. If either are missing, please [contact tech support](#).
- or **Select “ABC Test Site”** to connect to a tech support VC unit.
  - **\*\*Use this only when needing tech support assistance.** Your site should automatically connect, however, it may not receive audio until tech support opens a mic at the other side. [Contact tech support](#) to let them know you are waiting on the other side for a response. You may also use this option when testing multiple inputs (ELMO/document presenters, DVD players, etc.) and their connections for feedback.

### Test with a site you will be doing a point-to-point conference

- Use the [Site Directory](#). Be sure to have the office or school contact information.

BEFORE

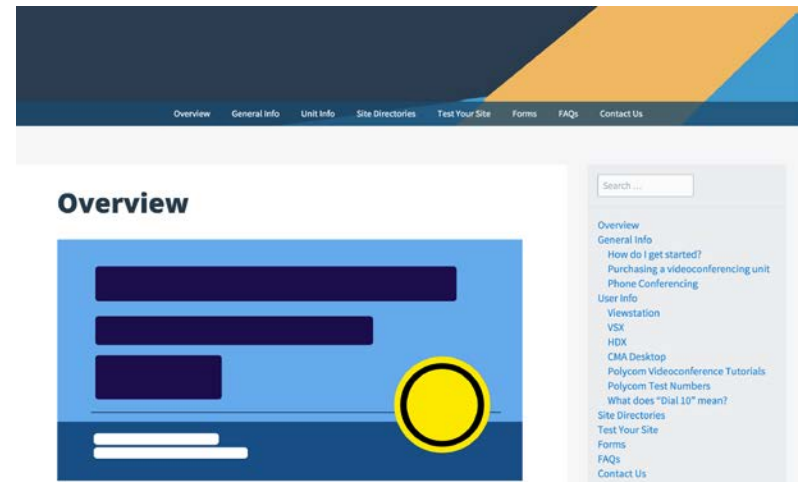


AFTER

# Final Website

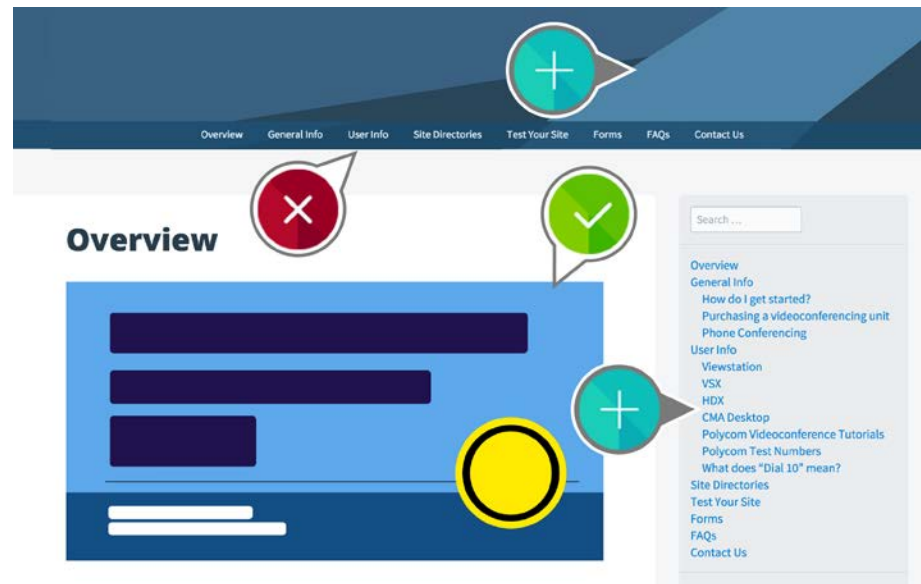
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- ▶ Menu reorganization – removal of some items
- ▶ Re-wording & simplification
- ▶ Graphics



# Findings and Conclusion

- ▶ Balancing website design, simplicity, trustworthiness, and informational
- ▶ Graphic limitations
- ▶ Search bar<sup>7</sup>



<sup>7</sup>Çetin, E., & Özdemir, S. (2013). A Study on an Educational Website's Usability. *Procedia - Social and Behavioral Sciences*, 83, 683–688. <http://doi.org/10.1016/j.sbspro.2013.06.129>

# Thank You

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- ▶ Classmates
- ▶ Advisors: Dr. Peter Leong, Dr. Catherine Fulford, and Dr. Mike Menchaca
- ▶ My Critical Friends: Jeanette Villanueva and Kailana Soto
- ▶ Extended classmates and friends: Jami Higashi-Lee and Robin Fujioka
- ▶ My family





# Questions

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