

DVAC Website Heuristic Review

1. Introduction

In this project, I applied a scoring system for rating websites from article 'A Guide to Heuristic Website Reviews' c.[2]. As a result, we can visualize the score of different areas of the website, identify the areas to be improved, and discuss actionable recommendations.

Besides the scores, I also collected basic data of cross-browser capability, website color choice and key button performance.

The result in this project will be used as a guidance to help DVAC (Domestic Violence Action Center) to make design decisions and to confirm the best design for rebuild.

2. Executive Summary

Score is given for each heuristic based on a checklist to give a quantifiable sense of what is going on across the website, as shown here:

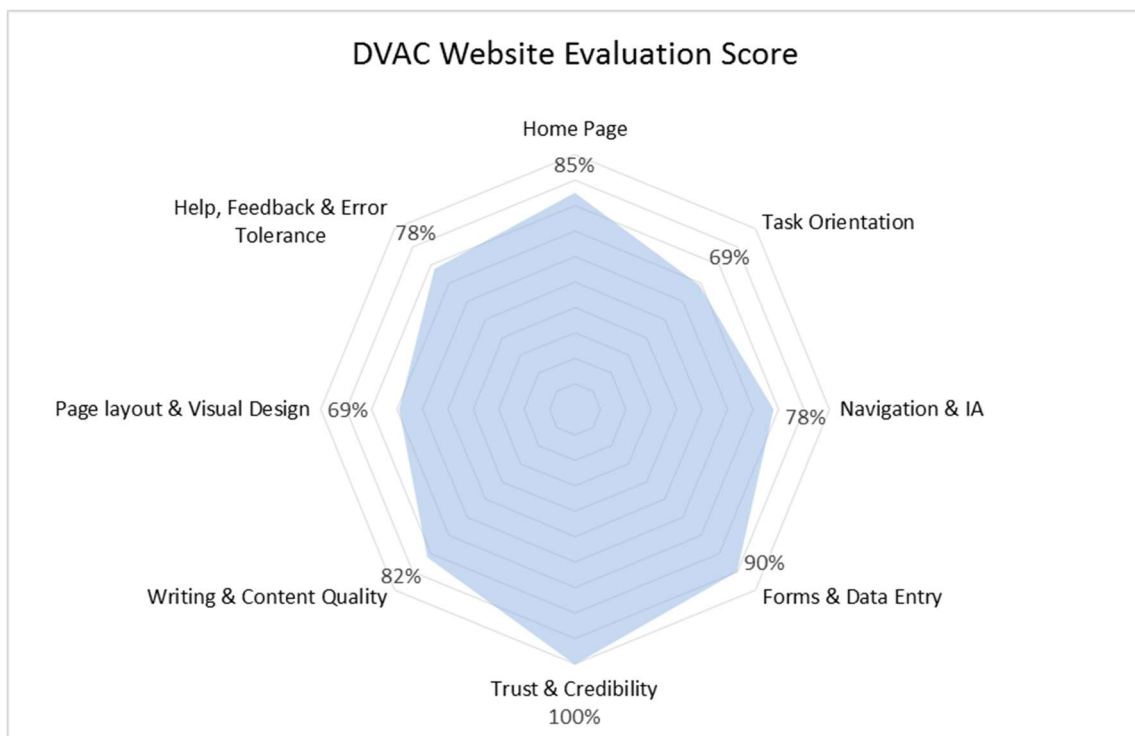


Figure 1 DVAC Website Evaluation Score

The more circular the radar diagram is, the more balanced the score. The radar diagram also show good and bad areas:

I. Positive Findings:

1. Trust and credibility (100%):

DVAC website content is up-to-date, authoritative and trustworthy. It has highest score in this category:

- a. There are real people and a real organization behind the site, which contact information, physical address and third party verification.
- b. Webpages are clearly branded so users know they are still in the same site.
- c. There is no typo and spelling mistakes. DVAC provides a good quality of writing.

2. Forms and Data Entry (90%):

Not a lot of checklist questions are applied to DVAC website, but the site still does a good job on the remaining questions. The website provides clear field labels and input data format. Fields and selections have default values. Another convenience using the site is that users don't need to make frequent shifts between keyboard and mouse when entering data.

3. Home Page (85%):

DVAC has a good homepage clearly focusing on the organization's mission and duty. Useful information and major options are provided to users on homepage. Also, user can find meaningful graphics, real stories, and organization information on homepage, which shows it is a professional and trustworthy organization.

II. Areas of improvement:

1. Task orientation (69%):

The site lost points in this category because it is not very task-oriented; it is more like a brochure to display information, but it doesn't have a lot interactions to help users to complete task.

2. Page layout and visual design (69%):

This score can be higher if the website has a consistent font selection and interaction controls. In addition, the website has a problem on having limited medium to show information. The site doesn't have a lot graphics, animation, flowchart, and infographic. The website is too focus on text.

3. Detail Findings

I. Heuristic Website Reviews:

I used the heuristic checklist of User Focus [4]. A simple score is given to each heuristic questions: 0 points if it falls short of a metric, 1 point if it's halfway there, and 2 points if it does the job. Please note that I removed 'search' category from the original checklist, because DVAC doesn't have search functionality.

The scores of DVAC website are shown below:

	Answers	Possible Score	Actual Score	Score
Home Page	20	40	34	85%
Task Orientation	29	58	40	69%
Navigation & IA	25	50	39	78%
Forms & Data Entry	10	20	18	90%
Trust & Credibility	11	22	22	100%
Writing & Content Quality	22	44	36	82%
Page layout & Visual Design	35	70	48	69%
Help, Feedback & Error Tolerance	18	36	28	78%
Overall score	169	338	264	81%

Table below is a further breakdown of the lost points in each category:

	#	Violated Checkpoint	Problem	Severity (0-4, 4 is highest)	Recommendation
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Homepage	1	The home page contains a search input box.	Website doesn't have a search box.	3	Add a search box to the website.
	2	Navigation areas on the home page are not over-formatted and users will not mistake them for advertisements.	Users often dismiss graphics (right column) as ads, and focus on the parts of the homepage that look more useful.	2	Apply a consistent visual style to the graphics in the right.
Task Orientation	3	The critical path is clear, with no distractions or route.	Legal Helpline is not easy to find and show up in two places; Names of service & special programs are difficult to understand.	2	Put the most important information at first in language easy to understand.
	4	Information is presented in a simple, natural and logical order.	Menu item 'contact us' should be part of 'about us'.	1	Move 'contact us' under 'about us'.
	5	The site correctly anticipates and prompts for the user's probable next activity.	Tasks flow is not obvious on the site.	1	Add options on the homepage for users to answer: "I am a ..., I am looking for ..." to filter out information for them.
	6	The most important and frequently used topics, features and functions are close to	On the right side of the page, there are several important links. Also 'ESC' button	3	Find out what is the most important and frequent used information, and

		the center of the page, not in the far left or right margins.	is on the top right margin.		then rearrange the layout.
	7	When there are multiple steps in a task, the site displays all the steps that need to be completed and provides feedback on the user's current position in the workflow.	No breadcrumb of webpage showing current location.	3	Add page path showing current location to the website.
	8	Data formats follow appropriate cultural conventions.	Phone number is missing area code.	3	Provide full format of telephone number.
	9	The functionality of novel device controls is obvious.	'ESC' button confuses novice users.	2	Redesign emergency 'ESC' button.
Navigation & AI	10	Good navigation feedback is provided (e.g. showing where you are in the site).	No breadcrumb of webpage showing current location.	3	Add page path showing current location to the website.
	11	Category labels accurately describe the information in the category.	Main menu names are clear; sub-menu names contain jargons.	2	Make the language easier to understand for new users.
	12	The terms used for navigation items and hypertext links are	Main menu names are clear; sub-menu	2	Make the language easier to understand for new users.

		unambiguous and jargon-free.	names contain jargons.		
	13	Navigation-only pages (such as homepage) can be viewed without scrolling.	Homepage needs scrolling.	1	Re-layout homepage to make it wider but shorter.
	14	Hypertext links that invoke actions (e.g. downloads, new windows) are clearly distinguished from hypertext links that load another page.	Open PDF', or 'redirect to a new site' doesn't have any visual hint.	2	Add an icon as visual hint.
Forms & Data Entry	15	Text boxes on forms are the right length for the expected answer.	Newsletter subscription email text field.	3	Make the text field bigger for email address.
Writing & Content Quality	16	The site uses maps, diagrams, graphs, flow charts and other visual in preference to wordy blocks of text.	The site has limited visual presentations.	3	Add more visual to avoid wordy blocks of text.
	17	Link names match the title of destination pages, so users will know when they have reached the intended page.	Several page titles and menu names don't match, e.g. 'Agency Profile', 'Special Events'.	3	Make the link names and the page titles consistent.
Page Layout &	18	The screen density is appropriate for the	Texts are too small. Although font size can	2	Use a large font size which it is easier to

Visual Design		target users and their tasks.	be adjusted on the site, it has to be done page by page and it is reset every time when page refreshes.		read based on design guideline (e.g. at least 12px).
	19	The layout helps focus attention on what to do next.	The website does not focus on guiding users what to do next.	0	Using a flowchart will help user better understand steps of actions.
	20	On all pages, the most important information is presented on the first screen of information (“above the fold”).	The information on the website doesn’t seem to be presented by their importance.	2	We can monitor the heat map of the website to identify the most important information. High frequency content should be placed at the top.
	21	Items that aren’t clickable do not have characteristics that suggest that they are.	'Legal helpline', 'Knowledge is the key' have the same style as a clickable button.	3	Use different styles for clickable and unclickable objects.
	22	Fonts are used consistently.	1. Different pages have different fonts, e.g. 'Agency Profile' and 'Staff'; 2. Different fonts on same page, e.g. 'CHSS'.	3	Use consistent fonts.
	23	Pages on the site are formatted for printing,	Images in the Flash on the homepage cannot	3	Avoid using Flash for image carousel.

		or there is a printer-friendly version.	be shown in printed view.		
	24	Buttons and links show that they have been clicked.	Buttons and links don't change color after being clicked.	3	Buttons and links should show that they have been clicked.
	25	The site avoids italicized text and uses underlining only for hypertext links.	The site uses italicized text and underlined text.	3	Avoiding using italicized text and underlined text if not necessary.
	26	Saturated blue is avoided for fine detail (e.g. text, thin lines and symbols).	Saturated blue is used.	3	Black, grey, and white will provide better resolution.
	27	Graphics will not be confused with banner ads.	The graphics on the right hand side lack of a consistent design.	2	Create a consistent style for graphic links on the right.
	28	Related information and functions are clustered together, and each group can be scanned in a single fixation (about 4.4cm diameter circle on screen).	There are large blocks of text, which cannot be scanned in a single fixation (larger than 4.4cm diameter circle).	3	Use more white space, layout wisely and break down the long big paragraph.
Help, Feedback, Error Tolerance	29	The site uses a customized 404 page, which includes tips on how to find the missing page and links	'User Access' page is broken with no hint on how to fix it.	3	Hide broken page, or provide user-friendly explanation about the error.

		to “Home” and Search.			
30	Where tooltips are used, they provide useful additional help and do not simply duplicate text in the icon, link or field label.	Tooltips on '25 stories' image and 'CHSS' image only duplicate the image labels.	1		Remove the tooltips, or use more meaning text.
31	There is a line space of at least 2 pixels between clickable items.	Only 1 pixel line space between ‘STOP!’, ‘HELP!’ and ‘UNITE!’ buttons.	1		Create a line space of at least 2 pixels between clickable items.

II. Site Accessibility:

- Cross-Browser Compatibility:

Flash player of image carousel on homepage is not displayed correctly on several browsers. The issue can be fixed by installing Adobe Flash. In addition, for mobile devices, the site is not displayed perfectly.

For further browser behavior debugging, we can use Google Analytic browser usage results to guide our actions. For browsers which are heavily used by more users, we should test them harder.

Browser	Result
Chrome	Pass
Microsoft Edge	Pass
Firefox	Flash player installation is needed when loading for first time
Microsoft Internet Explorer	Pass

Opera	Flash player installation is needed when loading for first time
iOS Safari (iPhone)	Flash player installation is needed when loading for first time
iOS Safari (iPad)	Flash player installation is needed when loading for first time

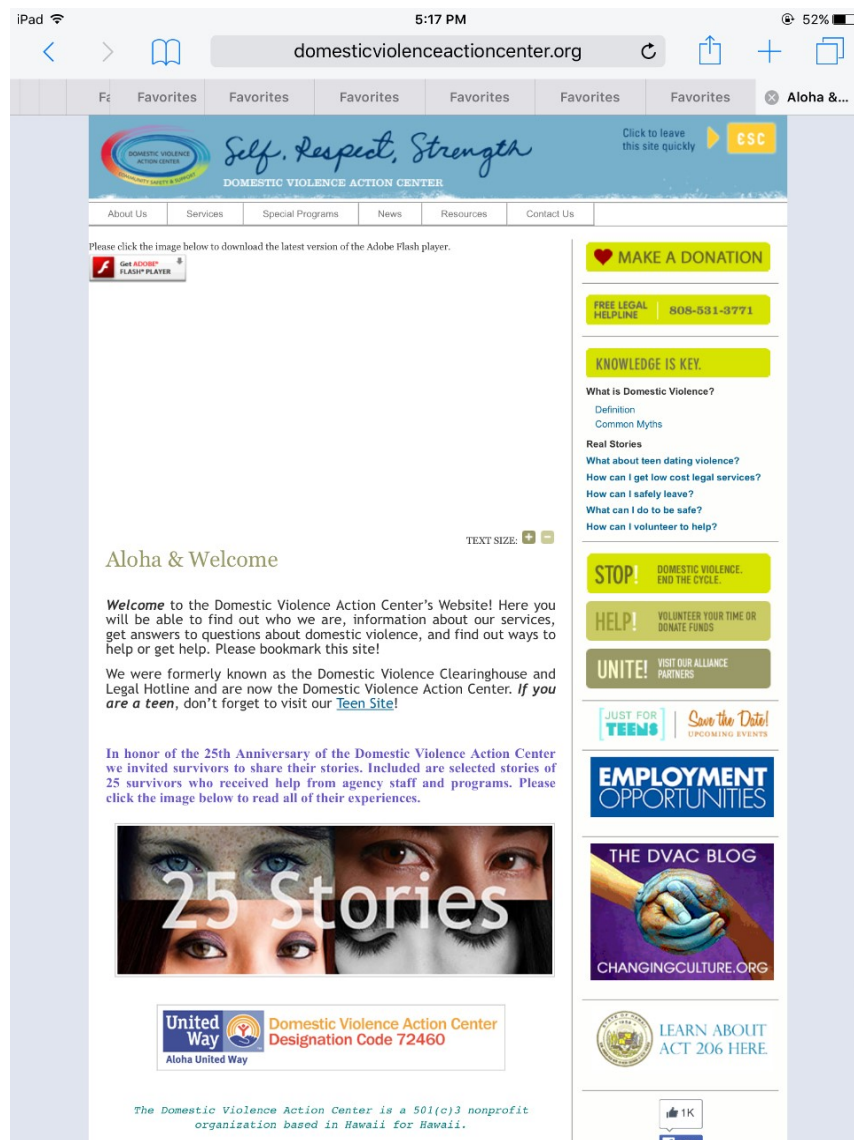
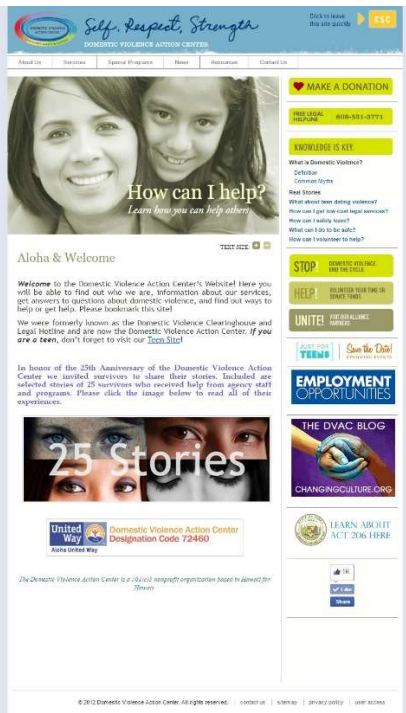



Figure 2 iPad Browser Testing

- Color Choice:**
 Color choice of the site doesn't create a hindrance to people who have colorblindness or poor vision. Following images show the view of homepage in colorblind people's eyes. (Images are generated with <http://www.color-blindness.com/coblis-color-blindness-simulator/>)
 Although the color choice works fine for colorblind people, there is a problem with color contrast. Found in previous section 'Heuristic Website Reviews', some texts on the page are in saturated blue color, which don't provide a high contrast for users to read the texts. For any new color we will use in the website, we can verify the contrast ratio of foreground color and background color at <http://webaim.org/resources/contrastchecker/>, to make sure the color choice is suitable for user's eyes.

Normal	Green Blind
	
Red Blind	Blue Blind



- 'Esc' button response speed: 1.66 seconds
 'Esc' button on top right corner is an emergency exit button to leave the website, if users are caught, or they don't want people to know they are browsing this website.

4. Appendix:

- [1] Excel workbook for DVAC web evaluation: included in the package
- [2] A Guide To Heuristic Website Reviews:
<https://www.smashingmagazine.com/2011/12/a-guide-to-heuristic-website-reviews/>
- [3] 22 Essential Tools for Testing Your Website's Usability:
<http://mashable.com/2011/09/30/website-usability-tools/#LbcqghRMsmqu>
- [4] 247 web usability guidelines: <http://www.userfocus.co.uk/resources/guidelines.html>

[5] Usability Guidelines for Heuristic Evaluation:

<https://uxcentered.wordpress.com/2009/12/27/hello-world/>