



GRANICUS

Usability Report

Hawaii County, HI

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A dark, artistic photograph of a desk. In the foreground, a silver and black pen lies diagonally across a brown leather notebook. To the right, a portion of a black keyboard is visible. The background is a blurred, light-colored surface, possibly a wall or another part of the desk. The overall lighting is soft and moody, creating a professional and focused atmosphere.

About This Report

Interaction between citizens and local government is a common thing, and frequency of these interactions causes organizations to rapidly adapt and adopt solutions to better serve their customers' needs. Often times the scope of these changes do not extend to digital media for different reasons (lack of resources, time, expertise, among others), which results in a different experience for customers when they interact in-person and through digital media.

The purpose of this report is to identify the behavior of customers on your website, measure current usability and recommend ways to promote and amplify its User Experience (UX).

This report is intended for anyone involved in the creation, publication and maintenance of content on the current website as well as anyone within the organization with power to steer the direction of technology as it relates to its interaction with customers.



Goals

The goal of this report is to build a foundation for a comprehensive redesign of your website through a series of research methodologies that will empower your key stakeholders to make data-driven decisions.

A planning survey was administered to key stakeholders for Hawaii County, HI. This survey outlined the main goals for this project below:

- Reduce calls by increasing usage of online services
- Showcase the beauty of the area
- Prioritize accessibility for people with disabilities
- Show ourselves as modern and forward thinking
- Increase government transparency

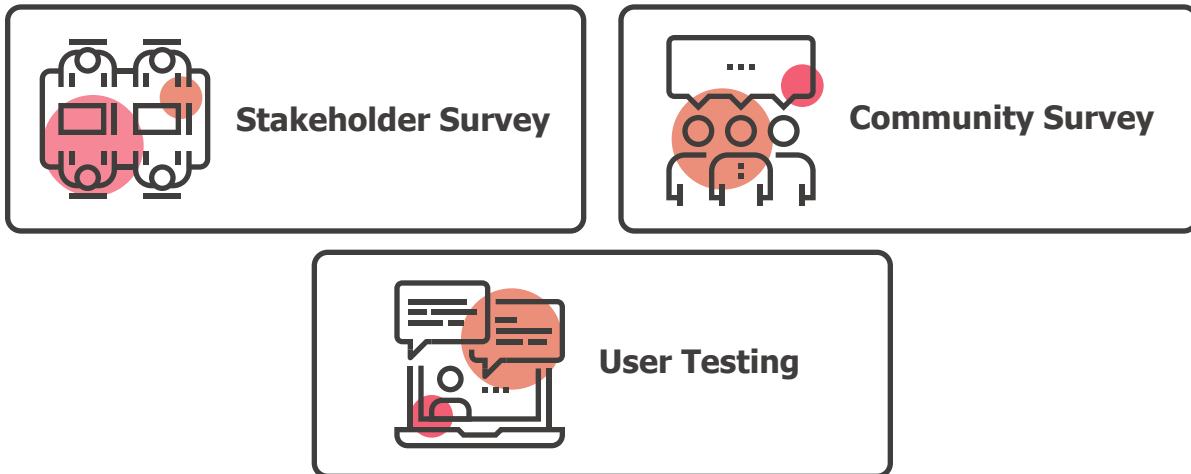


Methods Used

Vision applies a number of evaluation methods that vary in terms of formality, rigidity, and the degree of user participation. Evaluation is both qualitative and quantitative, and its purpose is to gather information about the use of your current website to guide the direction of your new website's development. For that purpose, Vision applies the following methods:

Qualitative Research

Qualitative research is exploratory. It is used to gain an understanding of the underlying reasons, opinions and motivations for everyone involved in the process including stakeholders, current website users, and residents. It provides insight and helps develop ideas or hypotheses. If quantitative research tells us **what** is happening, qualitative research can aid us in understand **why** it's happening. Qualitative methods include:



Quantitative Research

Quantitative research methods emphasize objective measurements and have a more systematic approach than the qualitative approach. By observing quantitative studies, we can develop mathematical models and form theories on trends based on objective data. Quantitative methods include:



Analytics



Heatmaps



Website Findings



Stakeholder Survey

What is a Stakeholder Survey?

Surveys are a method of gathering information from individuals, they have different purposes and can be conducted in many ways.

For this study, an electronic survey was administered to the decision making group of your organization. The goal was to capture the vision for the new website as well as to identify requirements and opportunities for improvement in preparation to the website redesign.

This survey solicited input on current strengths, weaknesses, usability, information architecture and Visual Design.

Why is it important?

The Discovery Survey is a method to gather qualitative information, its intention is to provide an unbiased approach to decision-making. By administering this survey to your key stakeholders, the project will gain traction by:

- Evoking discussion
- Creating alignment
- Expediting the decision-making process

Stakeholder Survey Study

1. Describe your organization in a few sentences.

The County of Hawaii serves about 200K residents of diverse cultures and ethnicities. With 11 of the world's 13 climates, and a prime environment for STEM industries (volcanology, geology, marine biology, astronomy, etc.) have a great potential to become the backbone of an economy that has been historically based on agriculture and tourism.

2. What is the audience you are trying to target?

Residents.

3. Select five (5) goals from the list below that better reflect your vision for your new website.

- Reduce calls by increasing usage of online services
- Showcase the beauty of the area
- Prioritize accessibility for people with disabilities
- Show ourselves as modern and forward thinking
- Increase government transparency

4. Are you targeting a specific "go-live date" for this project?

We'd like to go live before next fiscal year. Current launch goal of May 2019 works well.

Stakeholder Survey Study (cont'd)

5. Make a list of any social media websites used by your organization.

Facebook, Twitter.

6. What kind of online payment systems does your website currently provide, if any?

HIC – subsidiary of NIC

7. In your opinion, what is the purpose of your website visitors in terms of needs, interests, and goals?

To find information relevant to doing business, living, and playing on the Island of Hawaii. Citizens are looking for mobile and seamless ways to interface with their local government to avoid long lines and showing up in person. Citizens want to engage and find more transparency in how to effectively interact with the County.

8. What do you like about your current website?

It has been a very good bargain platform at approximately \$250/year, providing substantial content and services for basically no cost to the public. The ability for multiple blogs/feeds is a convenient feature.

9. What do you dislike about your current site?

Our Squarespace5 platform version is limited and old.

Stakeholder Survey Study (cont'd)

XHTML based. CSS and Javascript applied site wide with no ability to target pages.

Editor will sometimes modify HTML in unexpected ways (will remove any ID not associated to a Div)

No Public user log in area (personalized content, R&D Grant Ticket)

Iframes are supported but could lead to many issues. (Cross site scripting attacks as our site is not https, Inaccessible code being

displayed, Screen readers getting "trapped" in iframe content and not being able to get back to our site)

Not up to ADA compliance standard of WCAG 2.0 levels A & AA – difficult for departments to maintain and manage their own content

WYSIWYG editor is not representative of what you actually get.

Image alt text is only editable by going into the HTML view

No ability to create tables.

Search is in a widget that we can't edit, Search input not labeled button

Megamenues on hover often get in way while editing content on pages.

Built in forms are inaccessible

Editor code has accessibility errors built in to every page.

Stakeholder Survey Study (cont'd)

Not user friendly – we have received a lot of feedback that end users have difficulty finding what they are looking for – search and navigation not optimized, not intuitive for the end user

LaserFiche not easy for the end user to navigate public records – many complaints that LF is outdated and cumbersome

IAN: This isn't necessarily Squarespace's fault. There is an update to Weblink that comes with LF 10.3+ that might address some issues.

A lot of information locked away in documents could be pages in the site, if those pages are easy to create for the Content editor. Users have been trained to make and work with Paper, but we need to think about how to best post to the web.

Vision can integrate our Laserfiche weblink into their site wide search, this might make it easier to find things for the public.

Most of our documents in Public Documents and Council records are TIFFs. Taking them out of Laserfiche, making them usable (PDF most likely), and putting them into something else, would be a huge undertaking. Not to mention tagging metadata available in LF templates to them.

Decentralized management of online content is confusing for the public – many departments have independent websites hosted on other platforms with domains registered elsewhere. Makes for ineffective management and discontinuity between administrations (I.e. expiring domains, unknown host, etc.)

Very visually plain. Not inviting – sends the message of "big bureaucracy, no personality, lack of engagement". We need to be inviting,

Stakeholder Survey Study (cont'd)

open, transparent, non-intimidating, FRIENDLY, welcoming, colorful, and very importantly – designed for the end user's optimal experience.

10. What are the most frequently asked questions people ask on the phone or via email?

How to find the following (calls to the Mayor's office):

State vs. County for almost everything (roads, facilities, parks, commissions, etc.)

DMV (we don't actually have a DMV – we have "VRL" which is Vehicle Registration & Licensing as a division of Finance. Many have difficulty finding information on how to register a vehicle, etc.)

Parks – how to make reservations for County facilities (pavilions, camping, etc.)

Building Permit Questions

Report potholes, roads maintenance

Bus Schedule (what is the bus schedule – where to find it?)

Solid Waste Facilities - Hawaii Zero waste 3rd party site

11. Is there any specific information you would like to promote on your new homepage?

Most requested services, events, news, meetings and minutes, GIS maps.

12. Website Navigation: This navigation represents the top categories for your website, all pages created on the system will be organized under these topics. When choosing the various topics, keep in mind that the navigation has a limited real estate and therefore the main topics should be as short and precise as possible. Select from the list below the topics that best fit your organization:

- Government
- Departments
- I Want to...
- Living
- Business

13. What is the overall style that you would like your website to portray? Provide a few URLs of websites that represent this overall style.

The preferred style that we would like to portray is a combination of government services that are easy to access, a unique sense of place with proud and resilient residents, and a reflection of cutting edge innovation against a spectacular backdrop of natural and cultural resources.

Napa County <https://www.countyofnapa.org/> (CivicPlus site) Interesting use of random images inset over a still image. No Wave Errors.

Stakeholder Survey Study (cont'd)

County of Mendocino, CA <https://www.mendocinocounty.org/> (Vision site) really pretty at the top. The Service Finder function is interesting.

Hoboken, NJ – <https://www.hobokennj.gov/>. This one is interesting because it's a newly designed website inviting comments. I like the

Knowledgebase at the bottom of the home page. The home page also includes a video.

<https://www.bendoregon.gov/>. It's a little boring, but it's easy to navigate. I like the Services tab – makes it easy to find the forms and information.

County of Maui – <https://www.mauicounty.gov/> (Civic Plus site) Note the unique font and turtle and gecko icons. A little too kitschy.

Perhaps we can use flowers or lehua blossoms.

14. Does your organization have a logo or seal?

It can be used as an accent – but does not have to be prominent. It is very basic – we'll provide higher resolution photos in the photo drop:https://en.wikipedia.org/wiki/Hawaii_County,_Hawaii#/media/File:Hawaii_County_hi_seal.png The colors – red and yellow do not have to dominate the theme, look, or feel.

15. Does your organization have any specific branding guidelines that the website visual design should adhere to?

No.

Stakeholder Survey Study (cont'd)

16. Does your organization have a tagline or a short descriptive text that needs to be incorporated into the website visual design?

"Ola Na Moku" Definition: the Islands Prosper

17. Please list any mandatory colors that we must use for your website design or color schemes that you believe represent the look and feel that you want to portray.

Natural tropical Hawaiian color schemes (marine blue, rainforest greens, lava rock)

18. What type of imagery would best reflect the mood you want your website to portray? Nature, people, activities, development, etc...

Vivid nature photos of local landscapes that illustrate the grandeur of the island and sense of place; Tropical, Rainforest, Kau desert, South Point, Hamakua Coast, Kohala Coast, Puna and Kilauea eruption, Hilo, Kona (Ali'i drive, coffee fields, Kealakekua Bay, Kohanaiki), Mauna Kea Summit. Additionally, it would be nice to feature STEM industry and diverse cultures with multi-ethnic people including Merrie Monarch hula festival, Canoe races, Ironman, Billfish Tournament, etc.

No carousel slide show – we like a combination of Racine County and Monterey county's website. Racines static randomly inserted background image with Monterey's title of the image and brief description.

19. Is there anything else you would like to mention about this redesign project?

Yes, please see the original statement intent:

The County of Hawai'i's Vision is to provide the public with a modern, visually attractive, user-friendly

Stakeholder Survey Study (cont'd)

web interface that will give them the information and services they need and facilitate community engagement. Additionally, the new web platform will streamline workflows for County of Hawai'i Departments and employees, providing more efficient, effective ways of organizing and managing information and services online with an intuitive dashboard.

Currently, many departments have created and manage their own third-party sites which creates a fragmented and confusing web presence for County of Hawai'i users. Additionally, not having a standard of web security or workflows to support ADA compliance creates several large liabilities for the County. We need a platform that is secure, WCAG 2.0 Level AA compliant, meets the needs of both internal and external users, and can be managed centrally.

The new web presence will simplify collaboration between departments as well as provide citizens with an engaging, unified, culturally sensitive, intelligent design. The new web platform will promote and facilitate transparency, foster a dialogue, enhance community involvement and build community.

Colors, graphics, language, content and design should reflect ethnic diversity, culture, and values of County of Hawai'i which are unique from the rest of the State of Hawai'i. The Hawai'i County web redesign will enhance life for local citizens as well as educate and inform visitors, newcomers, and outsiders to our unique customs, local culture, and resources.

Our values are based on family, environmental protection, sustainability, nature, diversity, aloha (love, affection, peace, compassion and mercy).

Conclusions

- The target audience is residents
- Likes: Bargain platform (current solution), ability to add blogs
- Dislikes: Current platform old, WYSIWYG is finicky, not ADA compliant, search, not user friendly
- Must haves on new homepage include: most requested services, events, news, meetings and events, GIS maps
- The priority for this redesign should focus on providing the public with a modern, visually attractive, and user friendly website. New web platform should streamline workflows for the county, and provide citizens with an engaging and unified experience.

See Appendix for a copy of this study.



User Testing

What is User Testing?

User testing is a qualitative technique where a number of participants are given a scenario and a set of tasks to complete on the website. These tasks are typically pulled from the most requested pages on your analytics, or chosen by your organization's core team.

Why is it important?

User testing can uncover a variety of usability concerns on the current site so they can be addressed in the redesign. Because of the open-ended, natural approach to this study, qualitative data can range from information architecture efficiency, layout acceptance, as well as comments on content and design.

User Testing Study

Scenario

Imagine that you are resident of the County of Hawaii, HI. You use the website for a variety of reasons including: paying your water bill, checking available jobs, verifying trash & recycling pick up days, reading County Council documentation and reading about upcoming events, such as Library and Parks & Recreation events.

Tasks

1. Your vehicle is due for a registration renewal. How do you renew your registration?
2. You have a question regarding your drivers license. Who do you speak to about this?
3. Pay your property tax.
4. When is a building permit not required?
5. Find the zoning code annex.

Users

Granicus recruited a total of **five** users.

User Testing Study

Quotes

"That wasn't the easiest to find, not gonna lie. Why is it in finance? That doesn't make any sense at all." (Task 2)

"This is kind of confusing." (Task 4)

"Guess I could watch the video? 13 minutes?! I don't think so." (Task 4)

"Uh this is different. Ugh, why does this look different?" (Task 4)

"You've got multiple places with the same information but it doesn't hold all the same identical information. Yuck."

"Honestly if I lived here I'd just give up and call somebody." (Task 5)

"And there actually is an online vehicle registration renewal. That was all the way buried in there." (Task 1)

"Doesn't make sense for it to be under community." (Task 1)

User Testing Conclusions

Task Completion Time (By User)

	Task 1	Task 2	Task 3	Task 4	Task 5
User 1	0:26	1:29	0:20	5:33	3:43
User 2	1:58	1:54	1:37	3:38	2:23
User 3	0:53	0:39	0:41	5:07	5:32
User 4	1:20	1:55	1:27	4:31	2:16
User 5	0:35	0:33	0:36	4:25	2:41
Average	1:02	1:18	0:56	4:38	3:19

User Testing Conclusions

Conclusions

- It is common for government website's information architecture to be structured according to the internal organization (most commonly by department for city and county sites). For users that do not know what department handles which task, this can become a point of frustration. One user mentioned this when he found the second task under the finance department
- There are many different patterns when it comes to user browsing behaviors, but the majority of users will resort to search if they are unsuccessful in completing their task after the first or second attempt. There were occasions where some users become frustrated when the search results did not yield the answer to the task. This happened more often when the content they needed was found in a document (or laserfiche doc)
- More than half the users were not able to complete task 4 and 5. The majority of these users also searched for this task, with limited success. Having the building permit requirements in a pdf and on a live page is encouraged, but more pronounced page hierarchy will aid in discoverability and support the users' desire to skim

A close-up photograph of a hand holding a silver pen, writing on a survey form. The form has several rows of checkboxes and text. The image is overlaid with a semi-transparent dark red filter. The title 'Community Survey' is written in large, white, bold letters across the middle of the image.

Community Survey

What is a Community Survey?

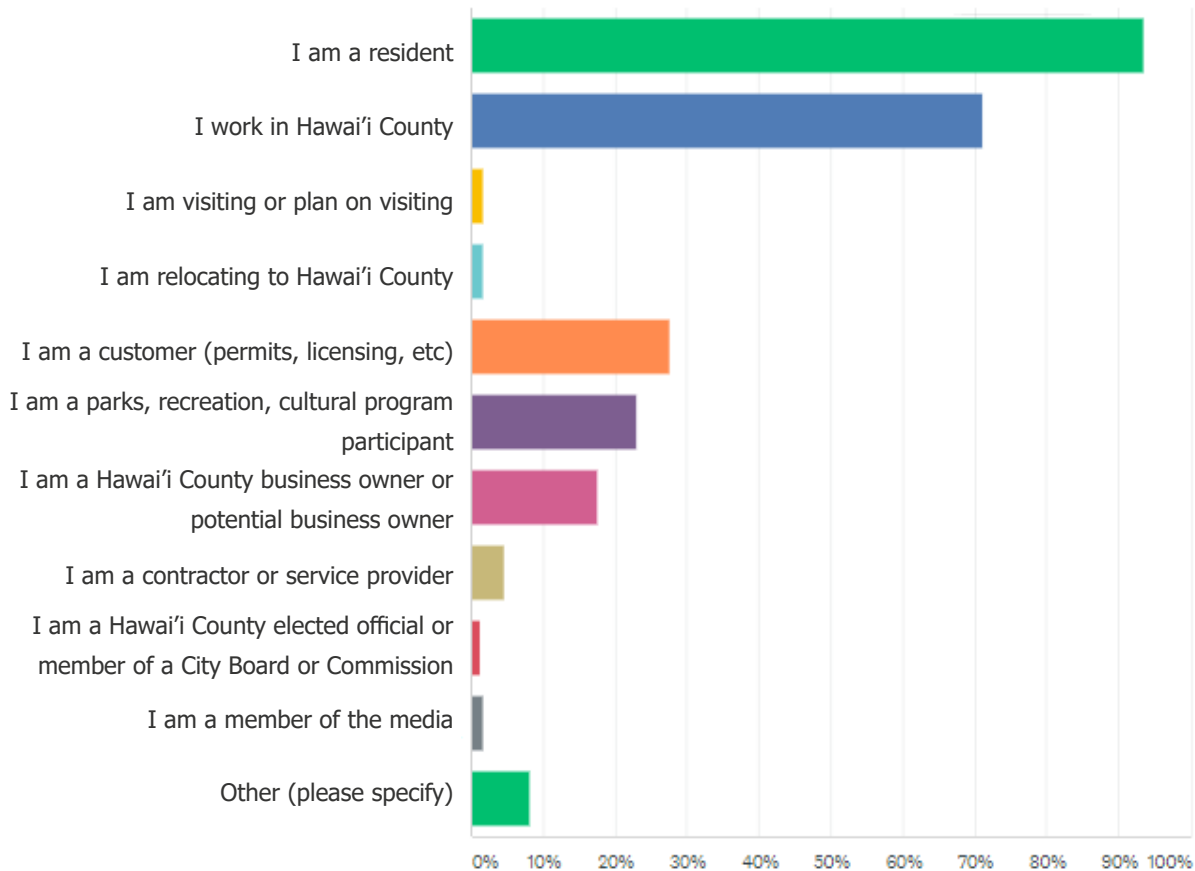
The community survey is a questionnaire distributed to the public. It includes questions regarding community demographic, expectations, and opinions on the current website. In order to get statistical significance for this survey, a minimum participation number is calculated based on the City's population.

Why is it important?

Surveys are a straightforward and simple technique for gathering qualitative data. The community survey gives us information on the public's preferences, attitudes, opinions, and expectations. Analyzing the answers to these surveys can help us track trends and quantify concepts. With this knowledge, we are better equipped to make decisions that will satisfy the community's needs.

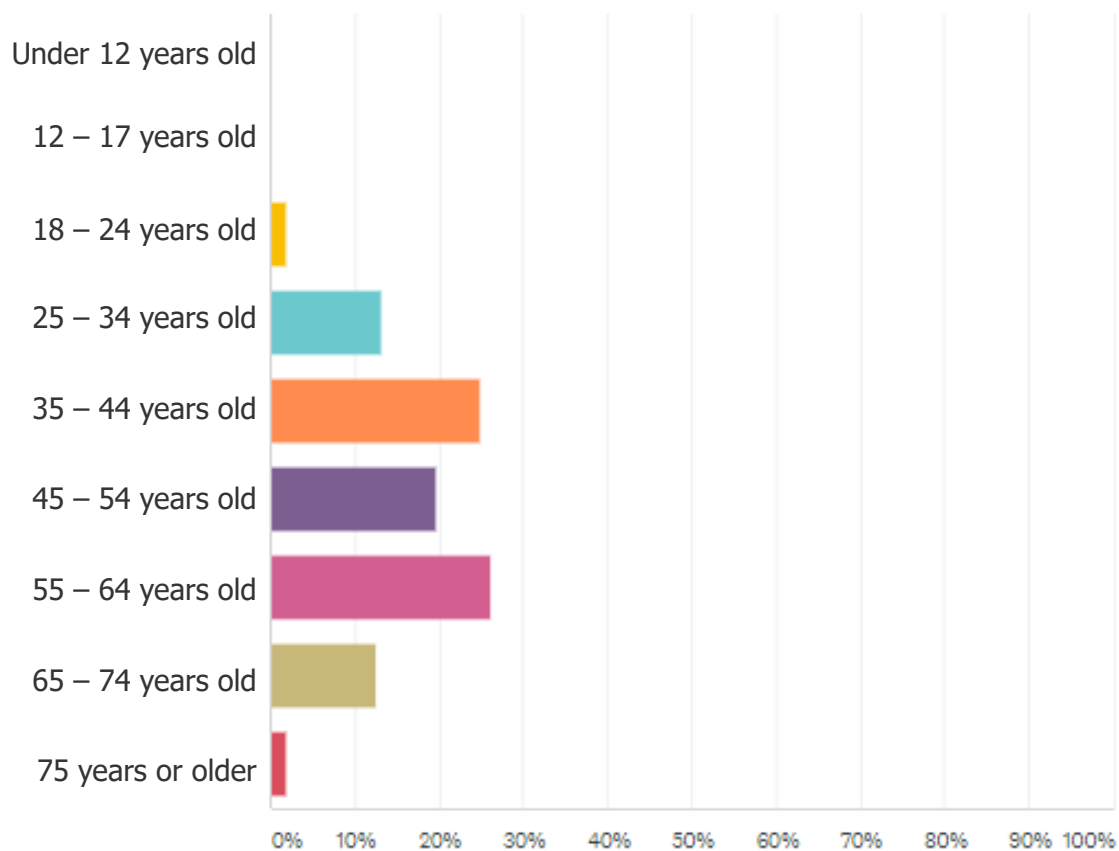
Community Survey Study

1. Select all that describe you.



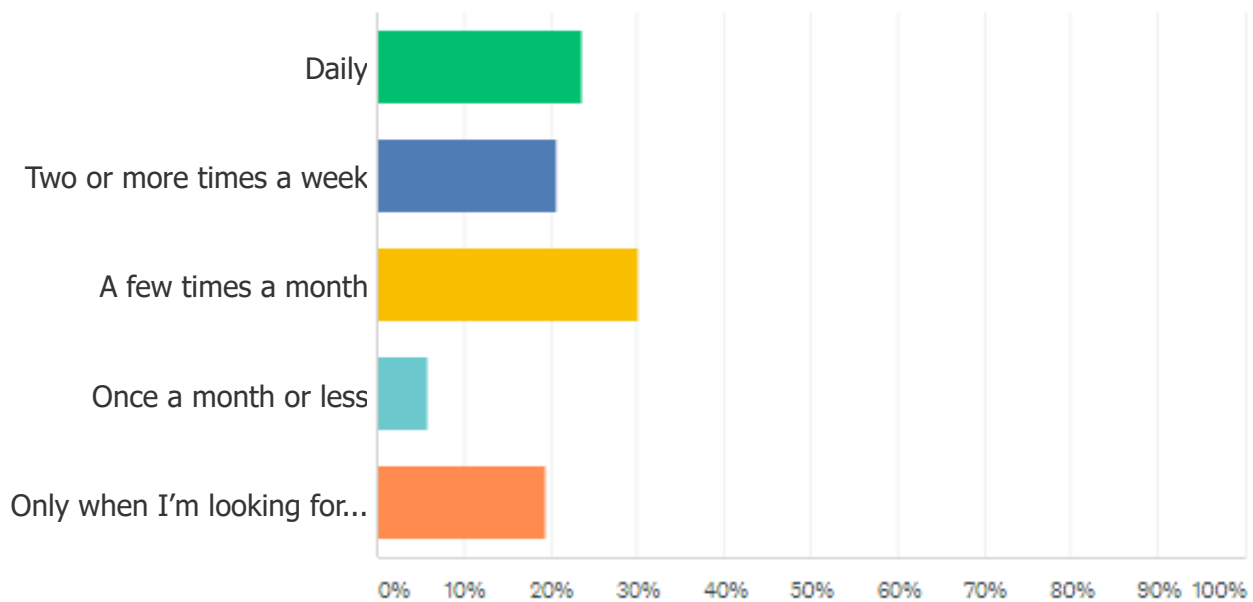
Community Survey Study (cont'd)

2. What is your age?

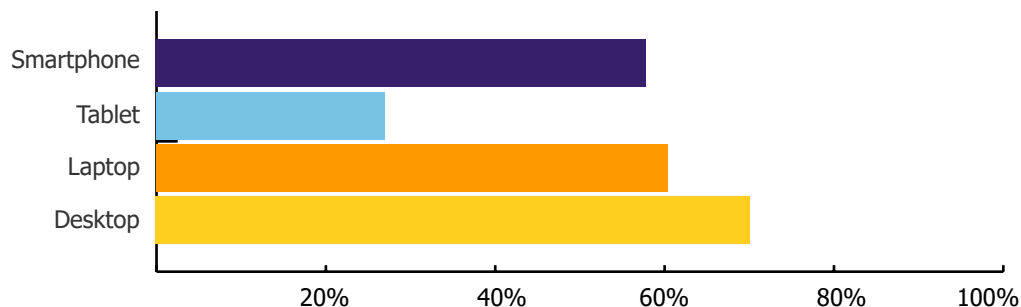


Community Survey Study (cont'd)

3. How often do you visit the county's website?

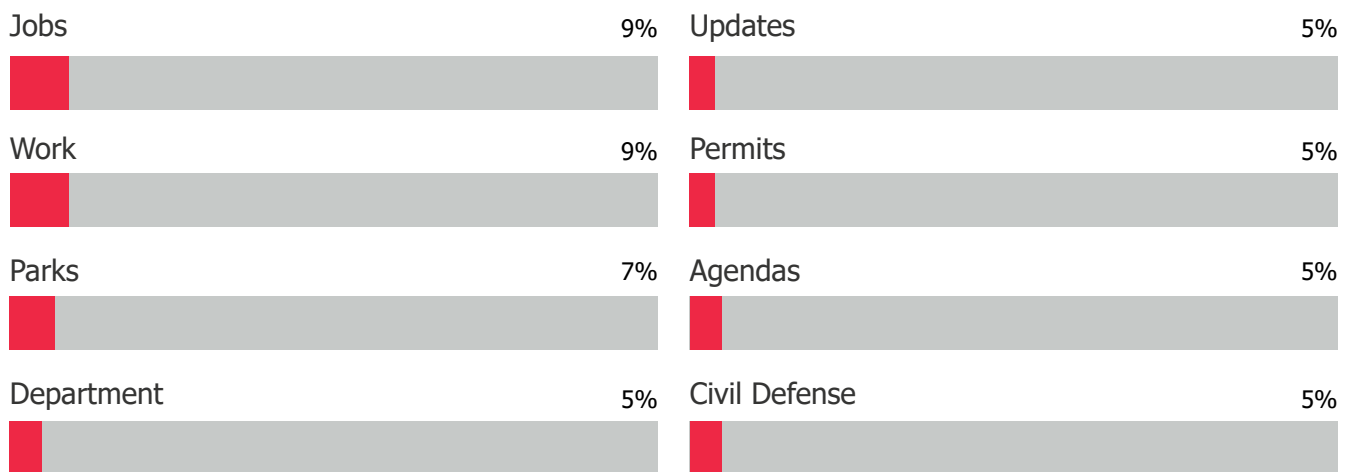


4. Please select which of the following devices you use to access your website (select all that apply).

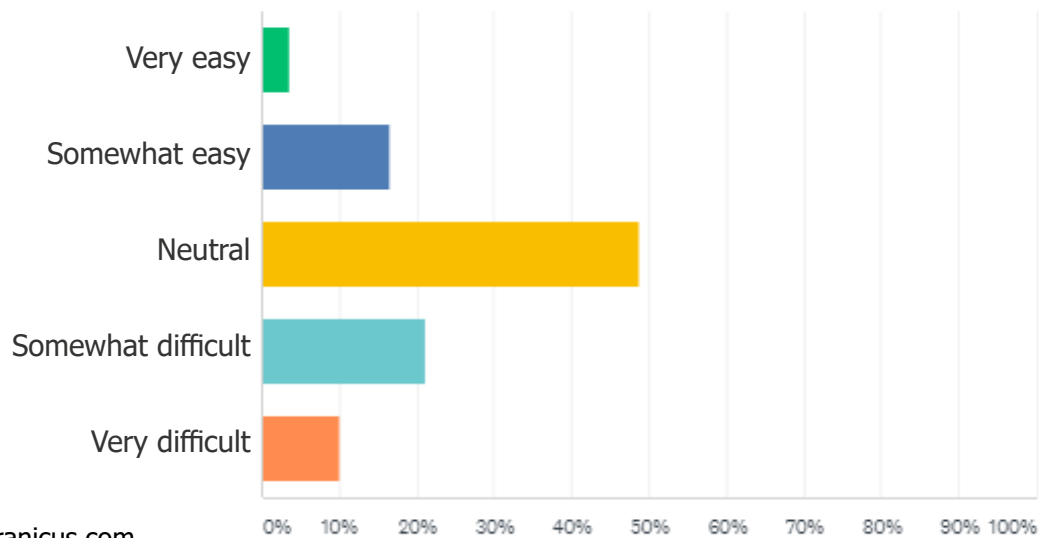


Community Survey Study (cont'd)

5. List the top reasons for visiting the website.

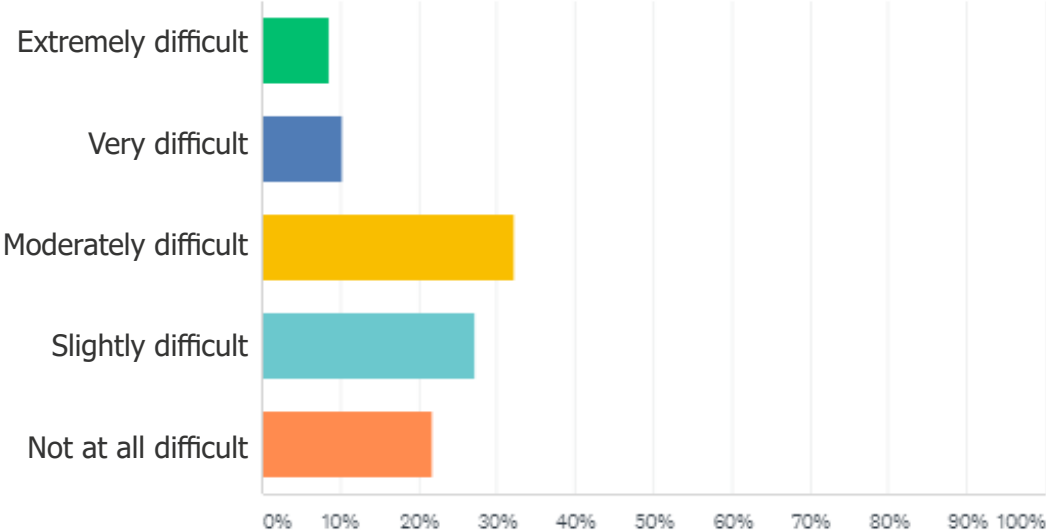


6. Generally, how easy was it to find what you were looking for?

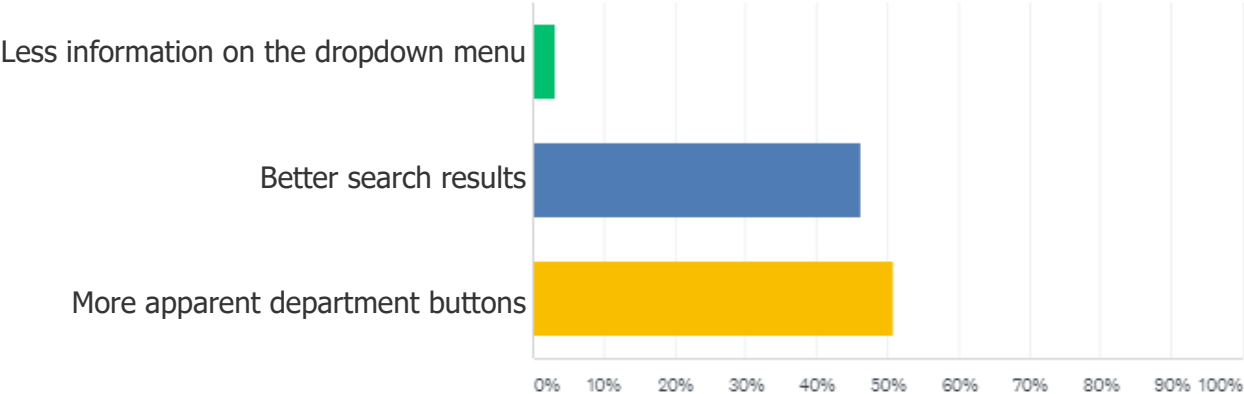


Community Survey Study (cont'd)

7. Did you find it difficult to find something on our website?



8. How can we improve the navigation of the website?



Community Survey Study (cont'd)

9. What do you like the most about the county's website?

clean pretty lot information updated one need good departments
website look information info County much links
Access easy find use easy navigate

10. Are there any additional features or services you would like us to add to the county's website?

"Tie the islands culture and Aloha Spirit into the design. By adding photos and symbols that show the beauty and culture of the island and its people. Highlight community and county employees. Keep current and regularly maintain the info and news posted on it. Work on not having any dead links. Have a thorough site for each department and make each department responsible for maintaining the data and keeping current. Make the site something for employees and residents to feel proud of. It is a marketing tool for our county for visitors, job seekers, and future residents."

"Almost all county services should be available online. Residents shouldn't have to transact most county business in person."

Community Survey Conclusions

- Most of the survey respondents identified themselves as residents
- The largest age group was 55-64 years old, followed by 35-44
- Most users mentioned visiting the website a few times a month
- Top reasons for visiting the site included: jobs, parks, departments, updates, and permits
- Difficulties with the site included: how to report a problem, locating the status on council actions, and navigating through different departments
- Users mentioned wanting the ability to pay for services online, a staff directory, and a county calendar

See Appendix for a copy of this study.



Web Analytics

What are Web Analytics?

It is the measurement, collection, analysis, and reporting of web data for purposes of understanding and optimizing web usage. It can be used as a tool for market research in order to assess and improve the effectiveness of a website and to detect trends over specific periods of time.

Why is it important?

Web Analytics deliver data about your website. Through data mining, we can obtain visibility in the areas that need to be further developed or improved. It empowers you to make data-driven decisions that allow you to focus organizational efforts to better meet the needs of customers while saving time and money in the process.

Web Analytics Study

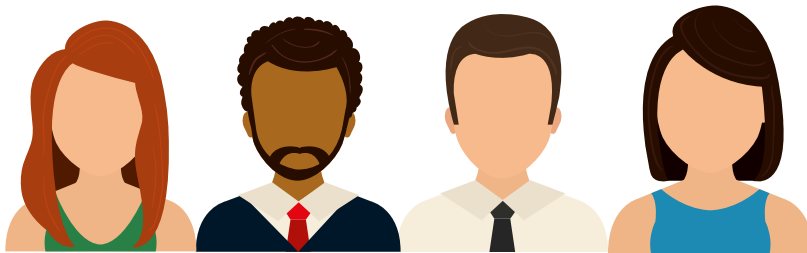
Website

<http://www.hawaiicounty.gov/>

Period Covered

Nov. 01, 2017 - Oct. 31, 2018

Total Users



1,105,795
Total Users

Total users is the sum of all users that have had at least one session during the this date range.

Total Users



43.19%
New Users

New users is incremented any time that a device loads the website for the first time, this metric indicates that customers are aware of this content channel.



56.81%
Returning Users

Returning users is used as a measure of customer satisfaction (CSat), often indicates that customers find the content useful, and therefore they return.

Web Analytics Study (cont'd)

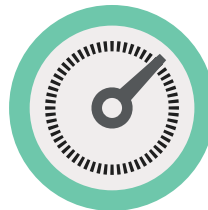
Sessions



2,505,174
Sessions

Sessions represent the number of individual sessions initiated by all users to your site. If a user is inactive for 30 minutes or more, any future activity is attributed to a new session. Users that leave the site and return within 30 minutes are counted as part of the original session.

Average Session Duration



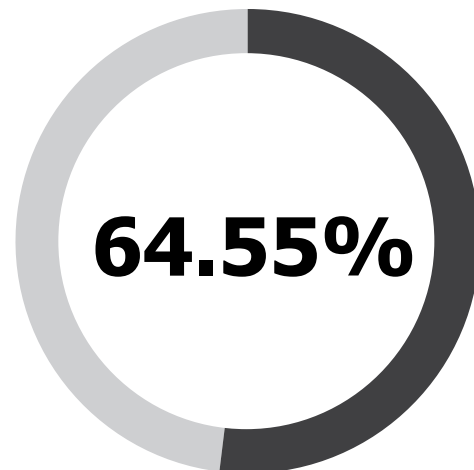
00:01:56
Avg Length of Session

Average Session Duration is calculated by the total duration of all sessions (in seconds) divided by the number of sessions.

Bounce Rate



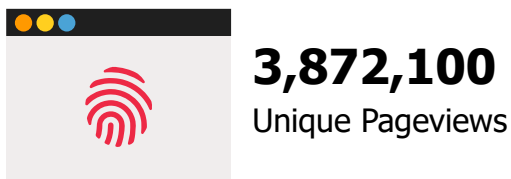
Bounce rate shows the percentage of sessions during which customers leave the after visiting only one page, this can be interpreted as customers not interacting with the site. An normal bounce rate for content websites is 60%



Bounce rate observed during this period.

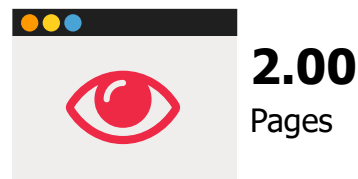
Web Analytics Study (cont'd)

Total Unique Pageviews



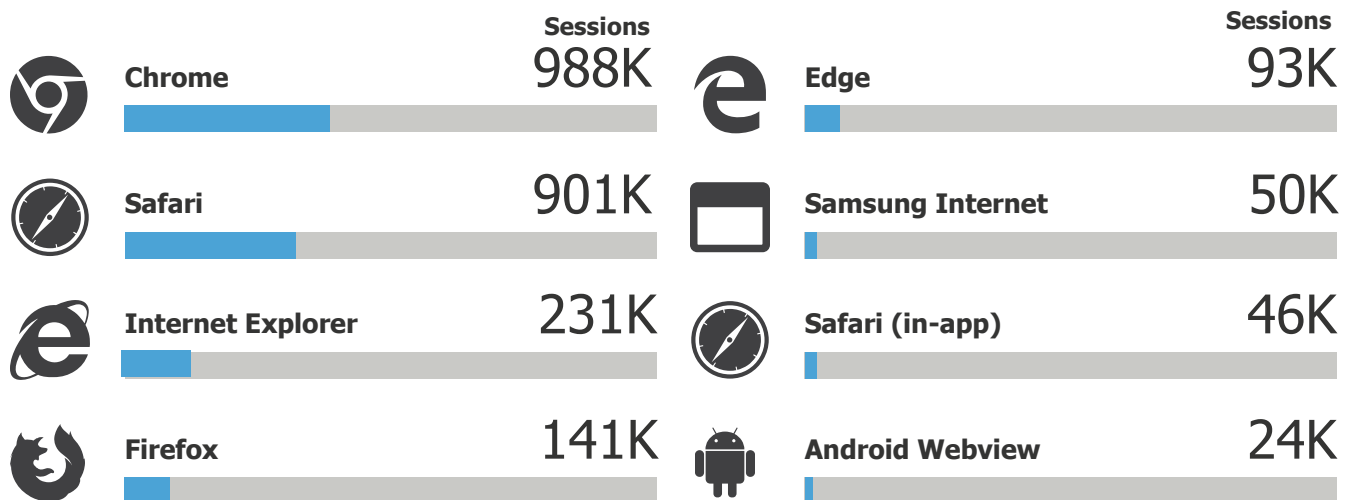
Unique Pageviews is the number of visits during which the specified page was viewed at least once. If a user navigates to a different page and then returns to the original page, only one pageview is recorded.

Pages per Session



Pages per Session measures how many pages a visitor loads within one visit to your site. This metric is a good indicator of how engaged visitors are with the site.

Sessions by Browser

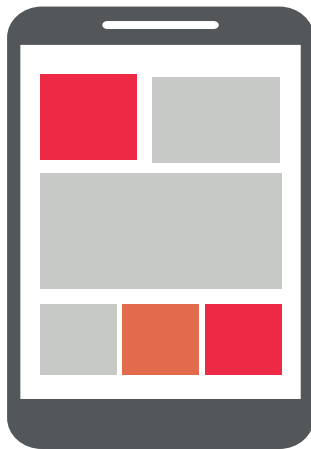


Web Analytics Study (cont'd)

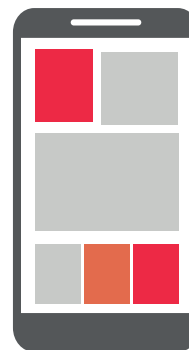
Sessions per Device



Desktop
48.68%
Of All Traffic
1,219,549
Sessions



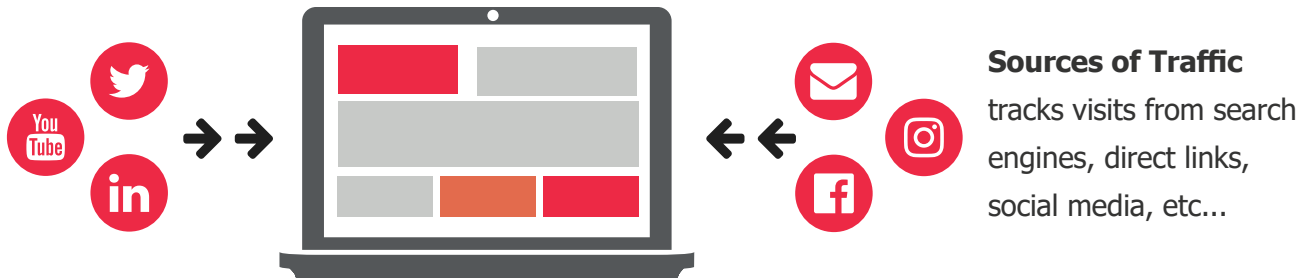
Tablet
10.38%
Of All Traffic
260,147
Sessions



Mobile
40.93%
Of All Traffic
1,025,478
Sessions

Web Analytics Study (cont'd)

Sources of Traffic



Sources of Traffic tracks visits from search engines, direct links, social media, etc...

Organic Search



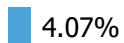
Direct



Referral



Social



QUICK TIP!

Direct traffic refers to visitors that arrive directly to the site by either:

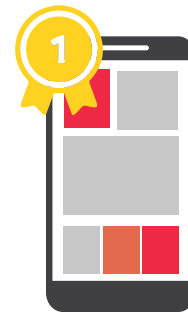
1. Typing the URL into the browser's address bar
2. Clicking on a bookmark
3. Clicking on a link in an email

Screen Resolutions



Responsive Design

Users visit your site on a wide variety of device sizes. By utilizing responsive design, we can assure a pleasurable experience no matter what size device is used.



Mobile First

Mobile experiences can further be optimized by prioritizing the most important items toward the top and enlarging buttons for easier tapping.

Screen Resolution	Sessions	Total Usage
375x667	295,625	11.82%
1920x1080	278,586	11.14%
360x640	205,728	8.23%
768x1024	178,793	7.15%
414x736	165,766	6.63%
1366x768	161,846	6.47%
320x568	135,947	5.44%
1440x900	112,222	4.49%
1600x900	101,045	4.04%
1536x864	88,098	3.52%

Web Analytics Study (cont'd)

Unique Pageviews – Desktop & Tablet

1. Civil Defense Alerts and Information
2. Home
3. Finance Real Property TMK Maps
4. Lava Flow Related Information
5. RPT, TMK, Sub
6. Civil Defense
7. Parks and Recreation
8. Finance Real Property TMK Maps
9. Finance - Vehicle Registration General Information
10. County Code
11. Finance Vehicle Registration & Licensing
12. Contact Us
13. Drivers License General Information
14. Planning
15. Online Services
16. Finance Real Property
17. Tax Maps
18. Permit Info
19. Tax Maps
20. Finance

Web Analytics Study (cont'd)

Unique Pageviews – Smart Phones

- | | |
|---|--|
| 1. Civil Defense Alerts and Information | 11. P&R Aquatics |
| 2. Home | 12. Contact Us |
| 3. Parks and Recreation | 13. Acceptable Documents: Drivers License and State ID |
| 4. Drivers License General Information | 14. Online Services |
| 5. Lava Flow Related Information | 15. Lava Viewing |
| 6. Finance - Vehicle Registration General Information | 16. RPT, TMK, Sub |
| 7. Civil Defense | 17. Drivers License General Information |
| 8. Finance Vehicle Registration & Licensing | 18. Finance State ID General Information |
| 9. Vehicle Registration and Licensing Fees | 19. Hawaii Legal Presence Law |
| 10. P&R Recreation | 20. Civil Defense |

Web Analytics Study (cont'd)

Landing Pages – Desktop & Tablet

1. Civil Defense Alerts and Information
2. Home
3. Finance Real Property TMK Maps
4. Civil Defense
5. Parks and Recreation
6. Lava Flow Related Information
7. RPT, TMK, Sub
8. Finance - Vehicle Registration General Information
9. Drivers License General Information
10. County Code
11. Finance Vehicle Registration & Licensing
12. Lava Viewing
13. Finance Real Property TMK Maps
14. Planning
15. PW New Building Code
16. Permit Info
17. P&R Aquatics
18. Vehicle Registration and Licensing Fees
19. Public Works Building Division
20. Civil Defense

Web Analytics Study (cont'd)

Landing Pages – Smart Phones

1. Civil Defense Alerts and Information
2. Home
3. Parks and Recreation
4. Drivers License General Information
5. Finance - Vehicle Registration General Information
6. Civil Defense
7. Finance Vehicle Registration & Licensing
8. Vehicle Registration and Licensing Fees
9. P&R Recreation
10. P&R Aquatics
11. Lava Flow Related Information
12. Lava Viewing
13. Drivers License General Information
14. Finance State ID General Information
15. Finance Real Property TMK Maps
16. Civil Defense
17. Acceptable Documents: Drivers License and State ID
18. Permit Info
19. Civil Defense Alerts and Information - Volcanic Eruption in Lower Puna District Message for Friday May 4 at 12:30 PM
20. Fire

Web Analytics Study (cont'd)

Exit Pages – Desktop & Tablet

1. Civil Defense Alerts and Information
2. Home
3. Lava Flow Related Information
4. Finance Real Property TMK Maps
5. Parks and Recreation
6. RPT, TMK, Sub
7. Finance - Vehicle Registration General Information
8. County Code
9. Civil Defense
10. Drivers License General Information
11. Contact Us
12. Planning
13. Online Services
14. Lava Viewing
15. Finance Vehicle Registration & Licensing
16. Finance Real Property
17. Permit Info
18. Civil Defense Alerts and Information - Public Map of Fissures, Road Blocks, and Subdivisions
19. Acceptable Documents: Drivers License and State ID
20. PW New Building Code

Web Analytics Study (cont'd)

Exit Pages – Smartphones

1. Civil Defense Alerts and Information
2. Home
3. Parks and Recreation
4. Finance - Vehicle Registration General Information
5. Drivers License General Information
6. Lava Flow Related Information
7. Vehicle Registration and Licensing Fees
8. Civil Defense
9. P&R Recreation
10. P&R Aquatics
11. Finance Vehicle Registration & Licensing
12. Lava Viewing
13. Acceptable Documents: Drivers License and State ID
14. Contact Us
15. Online Services
16. Finance State ID General Information
17. Drivers License General Information
18. Hawaii Legal Presence Law
19. Civil Defense Alerts and Information - Public Map of Fissures, Road Blocks, and Subdivisions
20. Page Not Found

Conclusions

User Behavior

- **43.19%** of traffic is generated by new visitors, a good number of new visitors is 50% – 70%
- **56.81%** of traffic is generated by returning visitors, in general a good number is above 30%
- Average session duration is **01:56**

There is no specific value for how long a customer should stay active on the website, in general quick interactions with the website are translated into customers' dissatisfaction. The longer customers stay on the website, the more perceived value the website is providing.

Devices

- **Chrome** is your customers' preferred browser
- The most popular resolution is **375x667** with **11.82%** of your overall traffic, followed by **1920x1080** with **11.14%** of your traffic
- **40.93%** of your total traffic comes from smartphones, which is just about industry standard (the industry average is 40%)

Website redesign should take into consideration most common resolutions and browsers, these metrics should be extensively tested on redesigned website.

Conclusions (cont'd)

Sources of traffic

- **Search** yielded **50.33%** of all traffic sources
- **Direct** traffic accounted for **28.93%** of traffic

User Paths

User paths represent the paths users took through your site, from the entrance page all the way to the page where they exited your site. Based on these paths, Vision has concluded the users visit the website looking for:

- Civil Defense Alerts and Information
- Home
- Finance Real Property TMK Maps
- Lava Flow Related Information
- RPT, TMK, Sub
- Civil Defense
- Parks and Recreation

QUICK TIP!

Customers will visit your website through three different sources:

- 1. Direct traffic:** Customers land on your website via typing your web address directly into the browser or via bookmark
- 2. Search:** Customers who input a query in a search website and clicked on any of the items of a search results list
- 3. Referral:** Customers will get to your website via social media, SMS text, a link in an email, etc.



Heatmaps

What is Heatmapping?

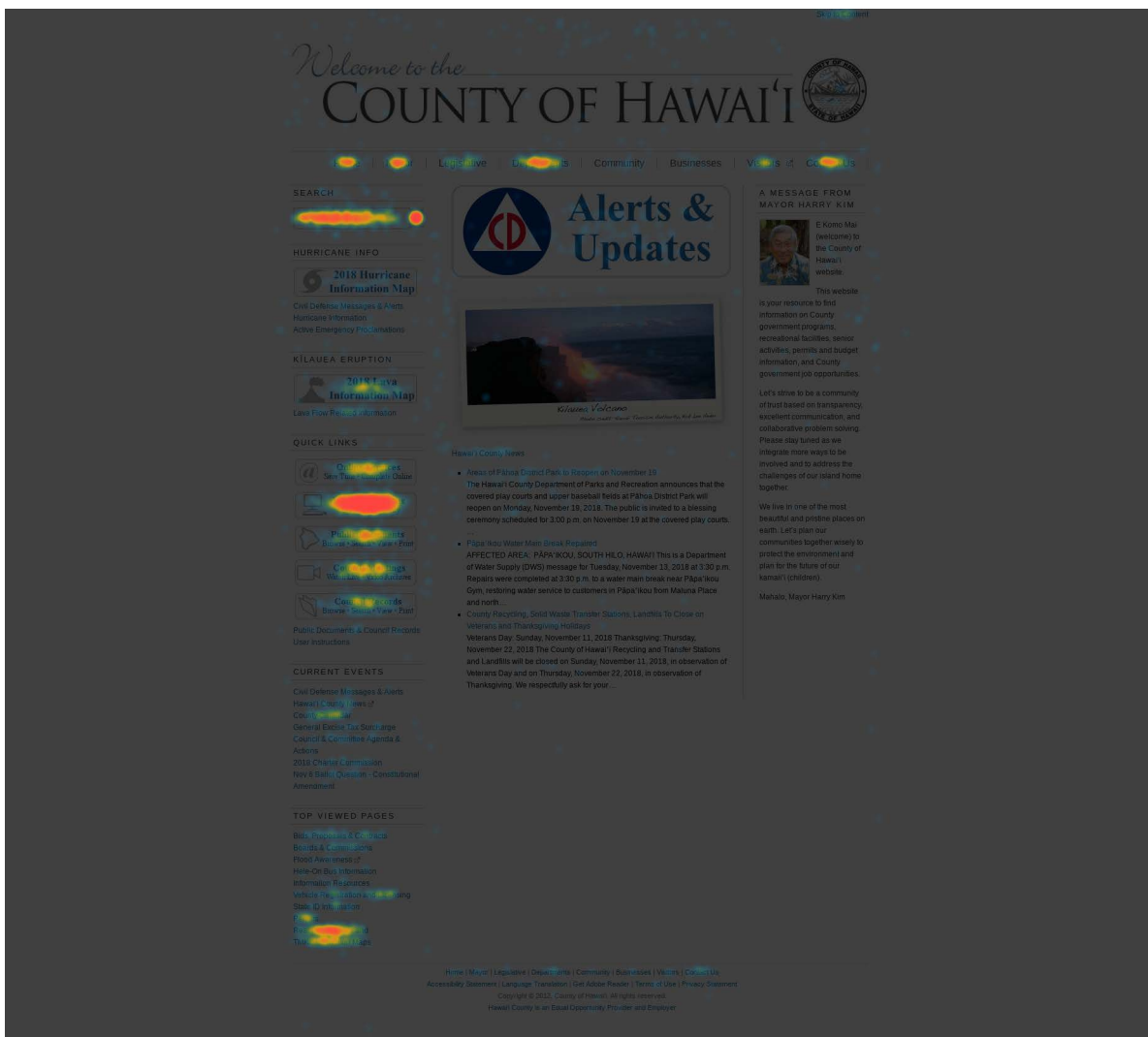
In short, a heatmap is a graphical representation of data where the individual values are represented as colors. Vision uses a heatmapping software that tracks the coordinates of mouse activity such as hovers, clicks, and scroll over a span of a few weeks. The data is then aggregated into hotspots of color and placed over a screenshot of the homepage.

Why is it important?

Heatmaps are a valuable quantitative study because they uncover how your users are interacting with your homepage. Heatmapping shows us what elements on the page are performing well, as well as which elements could be improved or omitted in the redesign. Paired with analytics data, we can make educated decisions on the wireframe direction based on proven data.

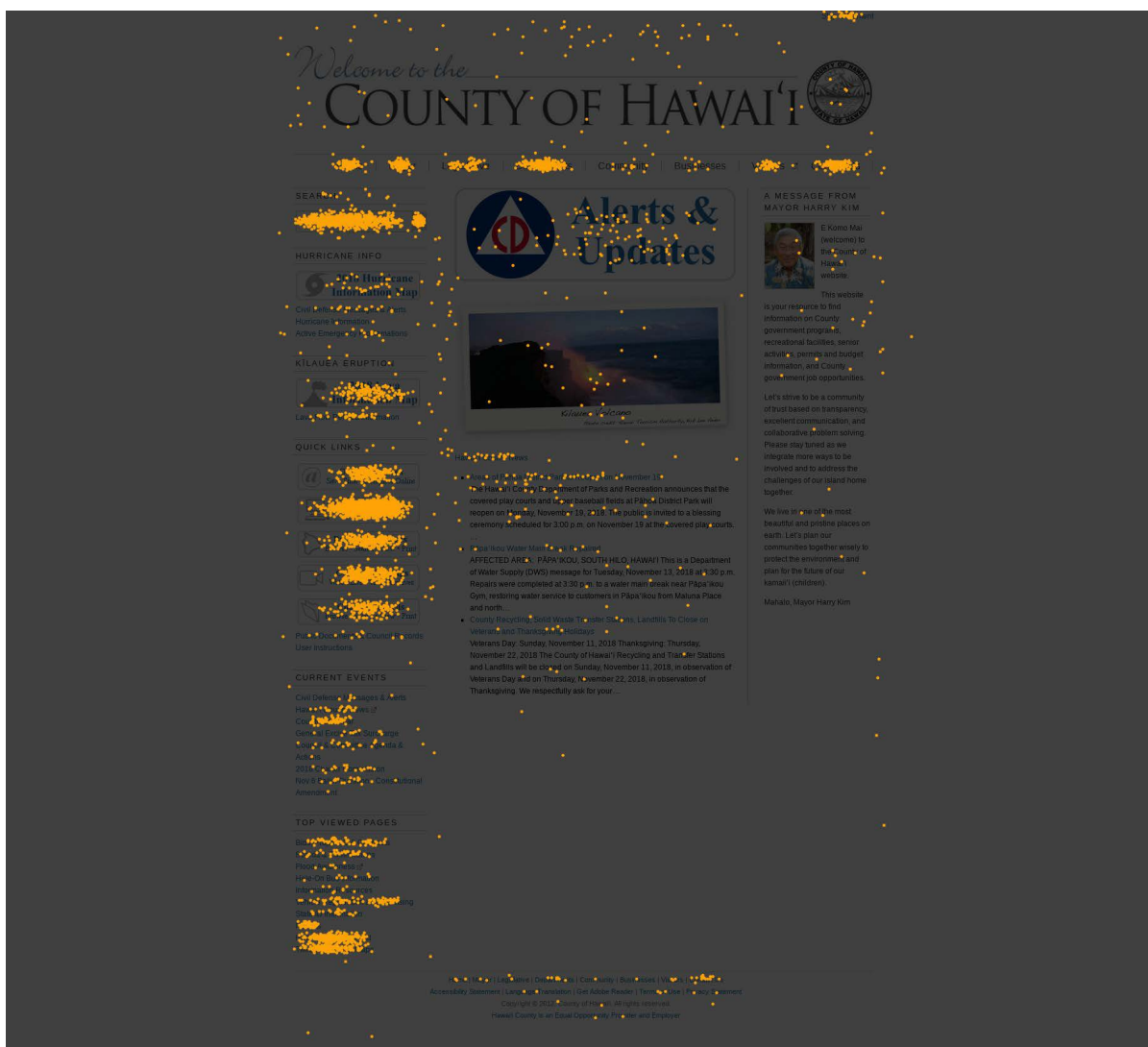
Heatmaps Study

Clicks



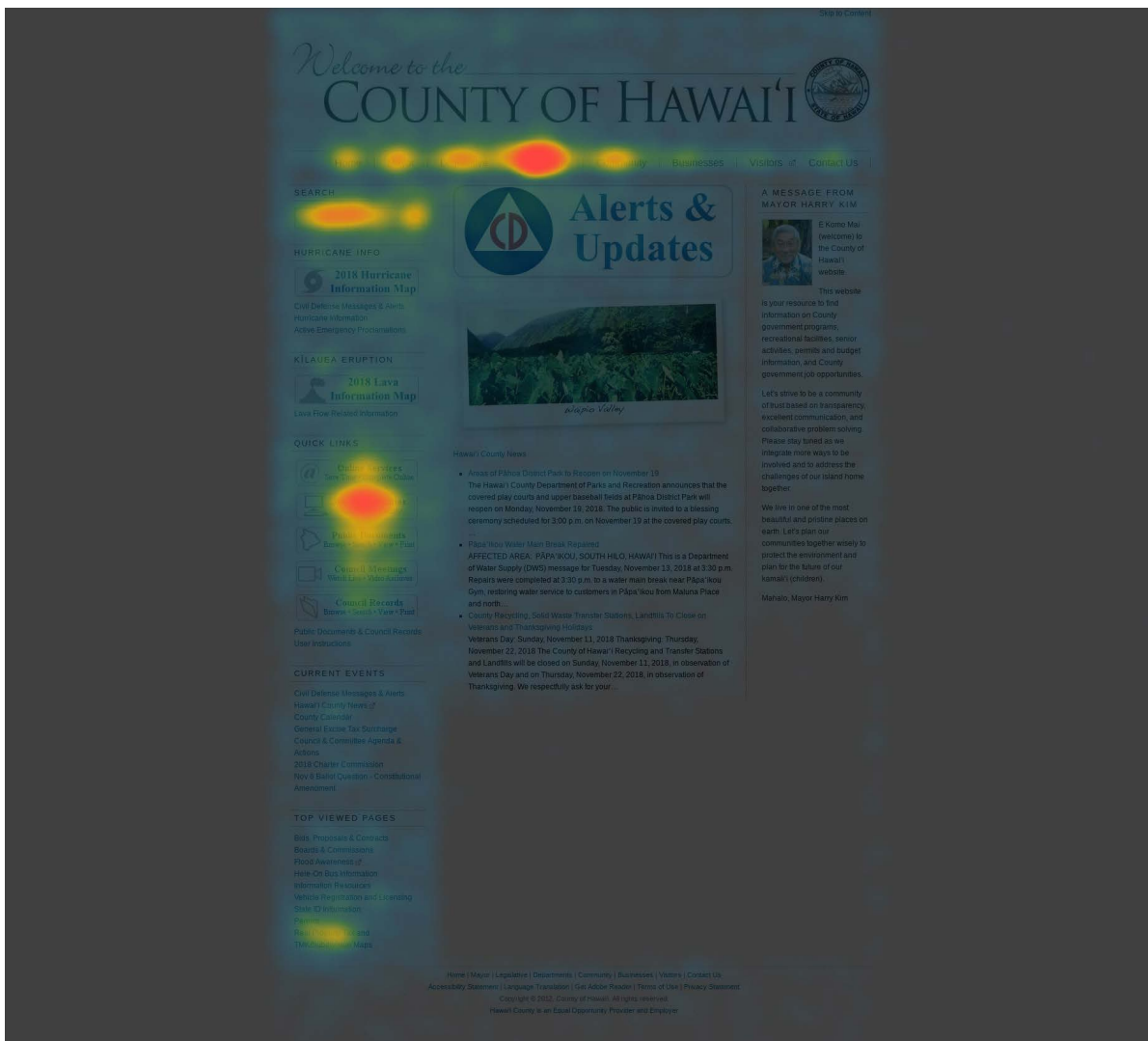
Heatmaps Study

Clicks Precise



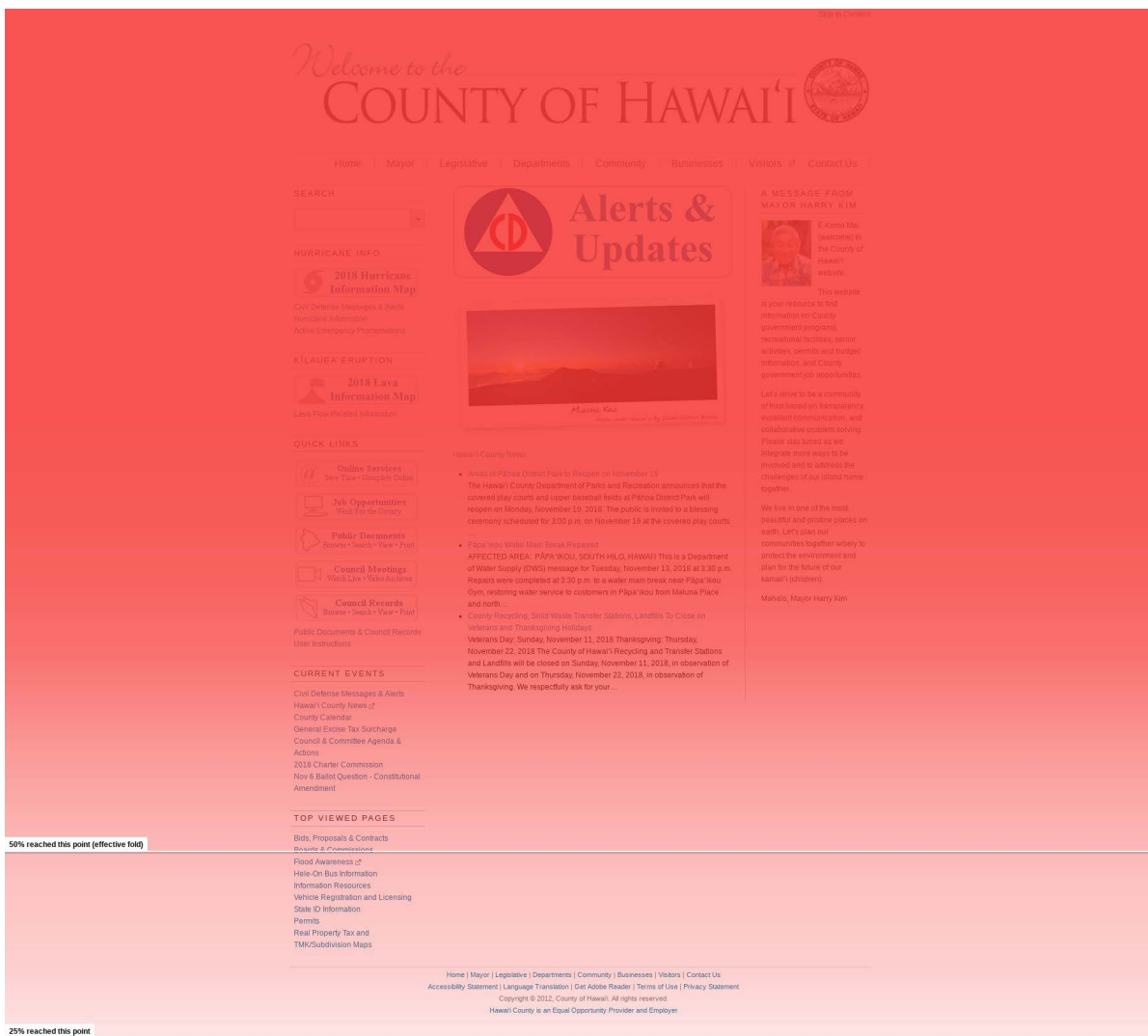
Heatmaps Study

Hover



Heatmaps Study

Scroll



Conclusions

Areas of interest (by section) include:

Header

- All main navigation items are being interacted with. Top items are Departments, Mayor, and Contact Us

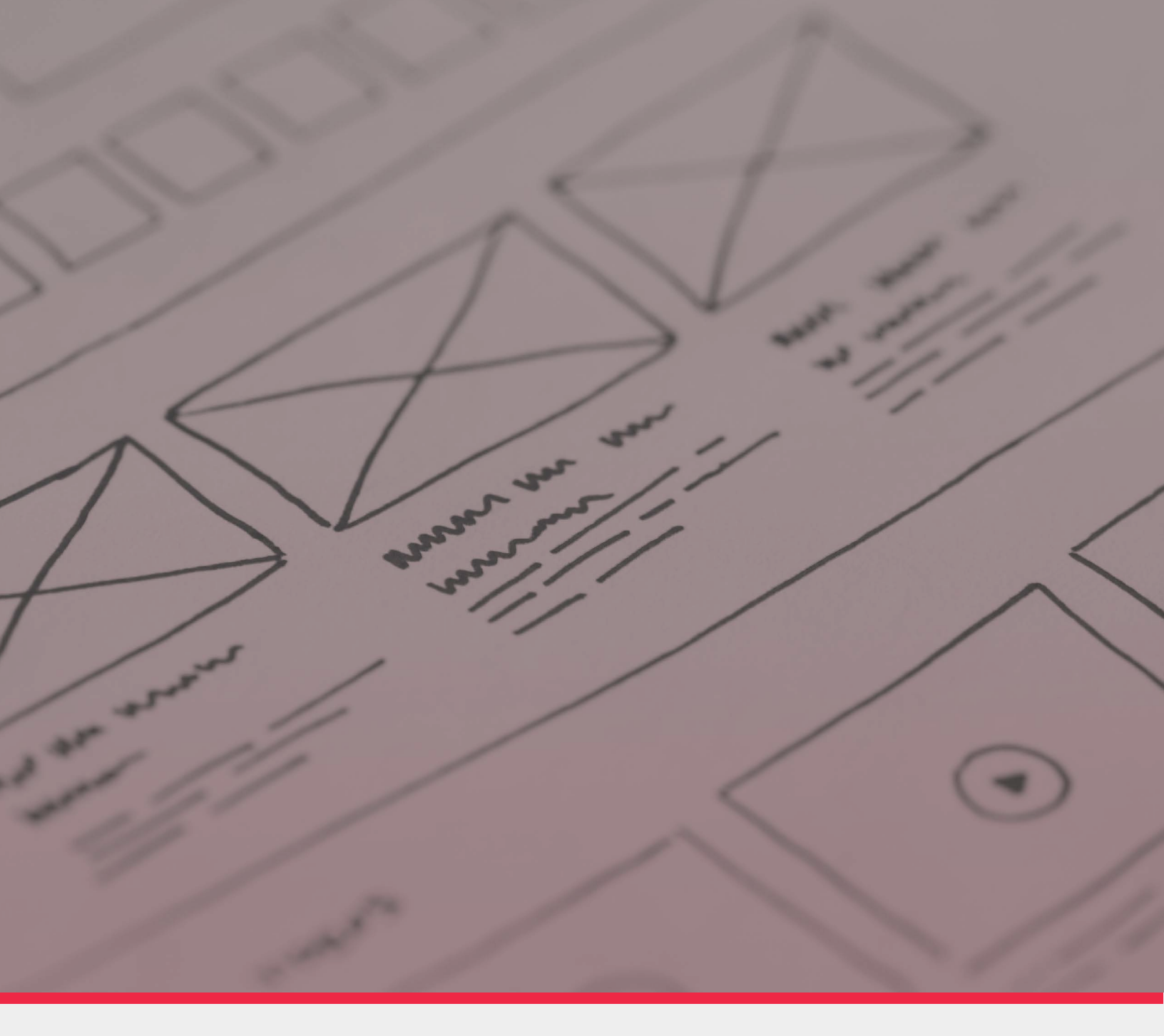
Content Area

- Search bar is being used heavily
- Quick Links section is the most active section in the body of the homepage, with the most active links being Job Opportunities, Online Services, and Council Meetings
- Other active links on the homepage are Real Property Tax, County Calendar, and Permits
- News articles are being interacted with rarely. Adding photos will encourage use.

Footer

- Contact Us is most active footer link

See Appendix for a copy of this study.



Website Recommendations

Based on the above qualitative and quantitative research methods, Vision proposes the following list of recommendations for the website redesign:

Website Recommendations

Homepage Organization

- A scroll or split layout will show the city as modern and forward thinking
- Partition homepage real estate to allow for most requested services, events, and news

Navigation

- Add a clear main navigation menu: Services, Our City, Government, Business, I Want to...
- Highlight most requested services with large, clear CTA buttons

Design

- Prioritize most popular services by including clear call to action buttons on the homepage
- Be mindful of accessibility when considering color contrast, text size, and touch targets

Website Recommendations

Top Tasks

Top 20 tasks as listed by your analytics include:

1. Home
2. Human Resources
3. Department & Staff Telephone Numbers
4. Special Events Calendar
5. Adult Sports
6. City Council
7. Activities & Events
8. News
9. City Council Agendas & Videos
10. Departments
11. Agenda Packets
12. Meetings & Agendas
13. Photo Galleries
14. Contact Us
15. Public Works Department
16. Youth Programs
17. Community Development
18. Facilities & Parks
19. C. Robert Lee Activity Center
20. News