

Usability Research Final Report

Brian Baker, Spencer Echon, Richard Gamino, Patrick Lyons

March 23, 2016

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

A Short History on MediaTek



- Founded on May 28th 1997
- Fabless semiconductor company
 - They design the chips and someone else makes them.
- World's first octa-core smartphone platform with LTE
- Core-Pilot technology unleashed the full power of Multi-Core mobile processors.
- Their headquarters are located in Taiwan. They also have an office in Bellevue.



> Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

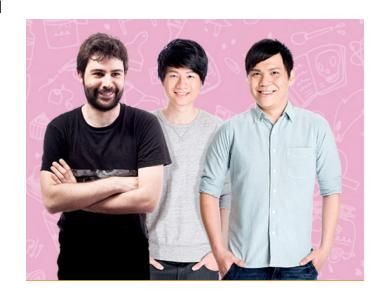
Recommendations

Conclusions

MediaTek Objectives



- To make technology more accessible and more affordable for everyone.
- They believe that their investment is more than just financial.
- They help startups build relationships with key global partners.
- They give advice on best business practices and assist with market research.



MediaTek History
Business Objectives

> Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Research Objectives





- Examine MediaTek's Current Website
 - Who are they?
 - What do they Do?
 - Page Layouts
 - Navigation Problems
 - Usability Issues
- Further improve our understanding of each research method used.
- Research and analyze findings in order to gain knowledge into the web design project cycle.

MediaTek History
Business Objectives
Research Objectives

> Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Measure & Scope





- Team of Four
 - Three Month Time Period
- Use of Existing Information
 - MediaTek's own site
 - Competitor sites
 - News articles
 - Tech industry blogs
- Research Methods Used
 - Competitive Analysis
 - Heuristic Evaluations
 - Card Sorting
 - Usability Testing

> User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

User Personas



User Type & Description	Goals	Tasks
Job Seeker •Tech savvy recent college grad •Looking to apply	The job seeker needs to find a job with the company and information concerning those jobs. He is interested in an entry-level position with good benefits.	•Find information about careers. •Check status of applied jobs.
R&D team member •Works for a tech company •Working on new machines	The research and development team member is looking for information about what products the company has to offer. He is up for a promotion, but needs to complete a big hardware overhaul to get his boss' attention.	Find what products that are available. See the design specs of products.
Investor • Financial advisor at a big firm • Competitive to please her clients	The investor needs to find the income and reports of the company. This will help her make some money for her clients, thereby earning her commission.	•Find the company's annual reports on income, progress, •future goals.
Developer •Team leader at a local software company •Fixes computers as a hobby	The developer will be looking for dev tools and information on the products. He will want to contribute to the forum with information.	Find information and support from the forums. Download firmware and design specs.
Engineer •Works at a tech giant •Creating a new software suite	The Engineer will be looking for hardware and design specs. He is looking for a hardware solution that will help his new project get off the ground.	•Find information and support from the forums. •Download firmware and design specs.
Media person • Journalist for a blog • Interested in the future of media & technology	The media person will be looking for new products they can report to their blog or news source. She needs information for a new story.	Find updates on new and upcoming projects. Look for any events that are coming up.

User Personas

> User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

User Needs



- Tech Oriented Individuals
 - Product Information
 - Job Applications
 - Project News
 - Support Forums
 - Software
 - Tech events
- Actual Participants
 - Web design and development students with tech experience.
 - Friends & Family with little to no experience with tech.



Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

> Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions



User Research Methods

Competitive Analysis
Heuristic Evaluation
Card Sort
Usability Testing

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Competitive Analysis



Background & Objectives

- Assess the strengths and weaknesses of potential competitors
- Assure that MediaTek's website is:
 - Accurate: is the information that we are providing on our website up-to-date?
 - On-Brand: are the images and messages consistent with our company message?
 - **Useful:** are the applications on our site actually being used to achieve a goal?
 - Findable: can our users find the information that they are seeking?
 - Usable: is our website easy to use from a user perspective?
- •Gain a better understanding of:
 - What our competition is doing
 - What our competition is offering to customers
 - How to maintain a competitive advantage
- Evaluate the strengths and weaknesses of MediaTek against the competition

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Competitive Analysis



Procedure:

•Find websites for 3 of MediaTek's top competitors

Broadcom www.broadcom.com

Spreadtrum Communications www.spreadtrum.com

Renesas Electronics am.renesas.com

- Review the following elements of the competitor websites:
 - Navigation and Information Architecture
 - Design and Graphics
 - Content and Information
 - Features
 - Functionality

MediaTek History
Business Objectives
Research Objectives

Measures & Scope

User Personas

User Needs

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

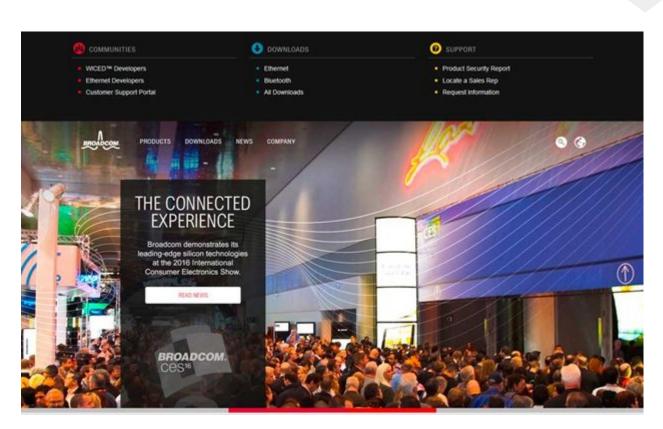
Recommendations

Conclusions

Methods: Competitive Analysis



Data Analysis: Broadcom



Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Competitive Analysis



Data Analysis: Broadcom

Areas to avoid:

- Home page offers a "Find Products" button, then displays a dropdown menu: extra, unnecessary click for the customer
- It's difficult to get back to home page, unless using the back arrow on the browser always have an exit
- Top navigation and footer navigation are not consistent
- Background colors (white or gray) are not consistent from page to page
- Graphics are not consistent across all pages

Ideas to consider/leverage:

- Large slider spotlight. This is a great way to showcase your organization, departments, products or whatever your business is.
- Flat design is in right now
- Color palette is simple and colors work together to create a theme across all pages
 - White, Red, Black
 - Easy to read font/type

User Needs

User Personas

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Competitive Analysis



Data Analysis: Spreadtrum Communications



Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Competitive Analysis



Data Analysis: Spreadtrum Communications

Areas to avoid:

- Load time: Outside the lab (school), the site loads within 2-3 seconds versus a 9-10 second load time in the lab.
- Many pages load in a foreign language, or in a mix of English and foreign language.

Ideas to consider/leverage:

- Animations in slider
- Sub Navigation menu on the left, displaying to the user where they are on the site

User Personas

User Needs

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Competitive Analysis



Data Analysis: Renesas Electronics



Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

> Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Competitive Analysis



Data Analysis: Renesas Electronics

Areas to avoid:

- This site needs to be updated, modernized and more functional
- Messy and cluttered navigation
- Small font size is difficult to read
- Graphics/Images are not consistentacross all pages

Ideas to consider/leverage:

- There is a wealth of information on this site
- Sub navigation menu on most pages adequate at alerting the user where they are located on the site
- Links to partners and other industry sites right from their page

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

> Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Heuristic Evaluation



Background & Objectives

- •Heuristic evaluations are an inexpensive way to examine and evaluate the user interface of your site.
- Gives a straightforward way to weigh the findings of the evaluation against a set of core principles (heuristics)
- •The process provides a clear understanding of how to prioritize the issues we encounter
- •Allows us the opportunity to address the severe issues promptly

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

> Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Heuristic Evaluation



Background & Objectives

The Ten Usability Heuristics, according to Jakob Nielsen:

- 1. Visibility of system status: the system provides adequate information about its status
- 2. Match between system and the real world: *the system is oriented toward real-world conventions*
- 3. User control and freedom: users are able to exit an unwanted state
- 4. Consistency and standards: the system follows platform conventions
- 5. Error prevention: functionality is designed to prevent errors from occurring
- 6. Recognition rather than recall: *information and system instructions are clear and do not require additional context*
- 7. Flexibility and efficiency of use: system is efficient and the user can tailor frequent actions
- 8. Aesthetic and minimalist design: *information is concise and relevant, and the design lacks* clutter
- 9. Help users recognize, diagnose, and recover from errors: *error messages are clear and concise,* and offer clear instructions to recover
- 10. Help and documentation: helpful information is abundant and clear

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

> Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Heuristic Evaluation



Procedure:

- Set up two user task scenarios
- Have our team of experts complete the tasks
 - Each expert should attempt each of these tasks on their own
 - Tasks should be performed using various operating systems, browsers, and devices, to discover usability issues that vary by platform
- Record issues on an evaluation chart, and have each team member evaluate each issue on the chart
- Score each issue according to a rating system:
 - **0 No Problem:** I don't agree that this is a usability problem at all
 - 1 Cosmetic problem only: need not be fixed unless extra time is available on project
 - 2 Minor usability problem: fixing this should be given low priority
 - 3 Major usability problem: important to fix, so should be given high priority
 - 4 Usability catastrophe: imperative to fix this before product can be released

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

> Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Heuristic Evaluation



Procedure:

Scenario 1

User: Job Seeker

Description: The job seeker needs to find an internship with the company and information concerning those opportunities. At this stage in his education, he is very tech-savvy and excels at all levels. His ideal opportunity would lead to a long-term professional relationship with the right company.

Task 1: Find and Apply for an Internship

- Find the Internship page
- Create an account
- Search for an internship opportunity
- Submit an application for an internship

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

> Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Heuristic Evaluation



Procedure:

Scenario 2

User: Developer

Description: The developer is a team leader at a big tech company located in central California. His hobbies include building computers from scratch, and fixing those of his friends and relatives. He will be looking for dev tools and information on the products, and he will also want to contribute to the forum with information.

Task 2: Find the MediaTek Labs Support Forums and create a post

- Find the MediaTek Labs site link from the home page
- Navigate to the MediaTek Labs Support page and Forums
- Create a post; either a question, comment, or reply

MediaTek History
Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

> Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Heuristic Evaluation



Data Analysis

Visibility	of System Status	
T2	User can not log in from the home page, need to navigate to another page to log in	3.75
Match Be	tween System & Real World	
T1	US Internship Page directs users to send internship applications to an email address. NO APPLICATION AVAILABLE (d)	3.5
T1	English language selected, but several listings show up in Chinese only. Even though they are for positions located in China, they are listed on the 'English' language version (j)	4
T1	English language selected, but entire description of internship listing is in Chinese. (I)	4
T2	Forums listed in English and then Chinese, with no option to filter or translate (p)	3.5

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

> Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Heuristic Evaluation



Data Analysis

User Control & Freedom						
T1	No clear path to the main website from the career site. (f)					
Consisten	cy & Standards					
T1	The Career Site navigation is not consistent with the rest of the site. (e)	4				
T1/T2	Logo does not always lead back to the homepage	4				
T2	Navigation of MediaTek main page, MediaTek Labs page, and inner pages of MediaTek Labs are all different (o)	4				

Areas of Severe Importance:

- Consistency and standards
- Navigation differences between sections of the site
- Bulk of navigation structure
- •Language inconsistencies
- •Lack of a way home!

User Needs

Methods

Competitive Analysis
Heuristic Evaluation

> Card Sort

Usability Testing
Recommendations
Conclusions

Methods: Card Sort



Background & Objectives

- Card sorting is a method used to evaluate the information architecture of a site
- •Information architecture is the structural design of a shared information environment
- Proper architecture supports usability and customer retention
- Card sorting removes the potential for bias when restructuring the information architecture
- •The end result of a card sorting activity will help us develop the best possible information architecture for all demographic groups visiting the site.

MediaTek History

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Procedure:

- •Thorough audit of current information and topics using an SEO crawler (Screaming Frog)
- •Narrow down number of topics from 430 to the most important 58
- •Set up the activity with Optimal Sort
- •Invite participants to run through the study and sort the topics into logical groups

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Procedure:

1. Search	21. Investor News	42. Everyday Genius Internship
2. Smartphone	22. CorePilot	Program
3. Tablet	23. CrossMount	43. Investor Relations
4. Mobile Communications	24. HotKnot Wireless	44. MediaTek Ventures
5. Home Entertainment	25. MultiMedia Library	45. Our Mission
6. Consumer DVD & Blu-Ray	26. Power Management	46. Our Advantage
7. Digital TV	27. WorldMode	47. Contact Us
8. Optical Disc Drive	28. Company Overview	48. MediaTek Labs
9. Connectivity	29. Vision & Philosophy	49. Forums
10. Wi-Fi	30. Everyday Genius	50. Downloads
11. Bluetooth	31. Awards & Innovation Timeline	51. FAQS
12. NFC	32. Code of Ethics	52. Newsletter
13. GPS	33. Citizenship	53. Partner Connect
14. Hero Products	34. Our Commitment	54. Catalogs
15. Helio X10	35. Corporate Governance	55. Home & Personal Audio
16. Helio X20	36. Education	56. Corporate Responsibility
17. Power Management Solutions by	37. Contributing to the Community	57. Join Us
Richtek	38. Environmental Protection	58. Drivers and Firmware
18. News	39. Contact & Locations	
19. Events	40. MediaTek Careers	
20. Media Coverage	41. Jobs at MediaTek	
	I	1

Business Objectives Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

Popular Placements Matrix

This matrix shows what percentage of the cards were sorted into each category.

With our results we can see that most cards were placed into their specific category with a high percentage rate. With each square box, the closer the number is to 100% the darker the color is.

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

Popular Placements Matrix o

	Products	News & Events	About MediaTek	Support	Features	unsorted
Hero Products	100%					
Smartphone	100%					
Tablet	100%					
Consumer DVD & Blue-Ray	100%					
Optical Disc Drive	100%					
Helio X10	93%				7%	
Digital TV	93%				7%	
Home Entertainment	93%				7%	
Home & Personal Audio	93%				7%	
Helio X20	86%	7%			7%	
GPS	79%				21%	
HotKnot Wireless	71%				29%	
Bluetooth	71%				29%	
Mobile Communications	71%				29%	
CrossMount	64%				36%	
CorePilot	64%				36%	
Power Management	57%		7%		36%	
Drivers and Firmware	50%			36%	14%	
Wi-Fi	50%				50%	
NFC	50%				50%	

User Needs

User Personas

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

Power Management Solutions by	50%	7%	7%		36%	
Catalogs	43%	14%		29%	14%	
Investor News		100%				
News		100%				
events		100%				
Media Coverage		79%	7%		14%	
Newsletter		79%	7%	14%		
Awards & Innovation Timeline		57%	43%			
Forums		43%		43%	14%	
Everday Genius Internship Progr		43%	36%	7%	14%	
Our Mission			10.0%			
Corporate Responsibility			100%			
/ision & Philosophy			100%			
Our Advantage			100%			
Comany Overview			100%			
Our Commitment			100%			
MediaTek Careers			93%	7%		
Jobs at MediaTek			93%	7%		
Corporate Governance	7%	7%	86%			
Code of Ethics			86%	14%		

MediaTek History
Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

The Results Matrix:

With this matrix we can see the specific number of cards each category got.

The darker a card appears, the more that card goes into a specific category. This one has more differentiating colors than the popular placements matrix but it gives us a more clear look at how some cards were split into more than one category.

User Personas
User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

The Results Matrix o

	Products	News & Events	About MediaTek	Support	Features	unsorted
Search				10	4	
Smartphone	14					
Tablet	14					
Mobile Communications	10				4	
Home Entertainment	13				1	
Consumer DVD & Blue-Ray	14					
Digital TV	13				1	
Optical Disc Drive	14					
Connectivity	2		2	3	7	
Ni-Fi	7				7	
Bluetooth	10				4	
NFC	7				7	
BPS .	11				3	
Hero Products	14					
Helio X10	13				1	
Power Management Solutions by	7	1	1		5	
News		14				
Events		14				
Media Coverage		11	1		2	
nvestor News		14				

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

CorePilot	9				5	
CrossMount	9				5	
HotKnot Wireless	10				4	
MultiMedia Library	2			2	10	
Power Management	8		1		5	
WorldMode	4		1		9	
Comany Overview			14			
Vision & Philosophy			14			
Everyday Genius	1	5	1	1	6	
Awards & Innovation Timeline		8	6			
Code of Ethics			12	2		
Citizenship	1		11		2	
Our Commitment			14			
Corporate Governance	1	1	12			
Education		3	3	3	5	
Contributing to the Community		5	8	1		
Enviromental Protection	2	1	8		3	
Contact & Locations			7	7		
MediaTek Careers			13	1		
Jobs at MediaTek		1	13	1		
Everday Genius Internship Progr		6	5	1	2	
nvestor Relations		6	7	1		
MediaTek Ventures		4	10			
Our Mission			14			

MediaTek History
Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

Unique Categories:

Optimal sort gave us the opportunity to see which cards were sorted into each category.

A few of the cards were a little confusing, where testers were picking multiple categories for a single card. The "Everyday Genius" card had been placed into five of the specific categories which shows that testers did not really know what some of these cards meant and we should have added a little more detail. While there were these outliers, most of the cards were sorted into only one or two specific categories.

User Needs

User Personas

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

CARD NAME	UNIQUE CATEGORIZATIONS *	CATEGORIES	AVG POS	FREQ
		News & Events	2.4	5
Everyday Genius	5	Festures	4.0	6
		About MediaTek	4.0	1
		Show 2 more		
		Support	4.7	3
Comments	4	Features	4.7	7
Connectivity	4	About MediaTek	11.5	2
		Show 1 more		
		News & Events	7.0	1
Power Management	1750	Features	8.2	5
Solutions by Richtek	4	Products	12.3	7
Richtek		Show 1 more		
		News & Events	4.7	3
		Features	6.4	5
Education	4	Support	7.7	3
		Show 1 more		

MediaTek History
Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

Recommendations

Conclusions

Methods: Card Sort



Data Analysis

Dendrogram:

A dendrogram is a tree diagram which is used to easier illustrate hierarchical clustering, and show similarities to a set of data. The closer one set of data is to the other shows how similar they are.

Using the dendrogram from our card sort you can see the cards were sorted into their closest categories, making it easier to see the distinct cards and the cards that are split in between other categories.

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

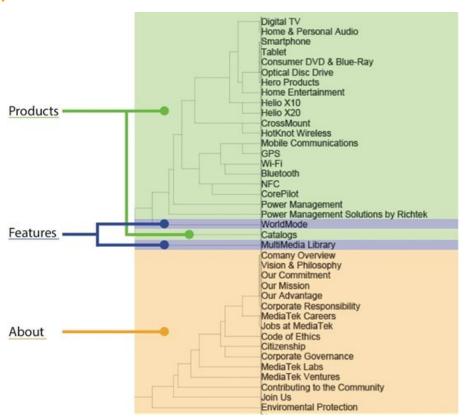
Recommendations

Conclusions

Methods: Card Sort

MEDIATEK

Data Analysis



MediaTek History

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

> Card Sort

Usability Testing

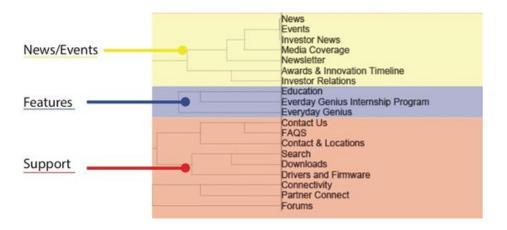
Recommendations

Conclusions

Methods: Card Sort



Data Analysis



Methods

User Needs

Competitive Analysis
Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations
Conclusions

Methods: Usability Testing



Background & Objectives

Usability Testing involves evaluating a product by having representative users test its functionality. Throughout the duration of these tests, participants are typically observed by experts who make note of each user's experience.

The purpose of this type of study is multi-faceted. According to usability.gov, usability testing will help in several ways:

- Learn if participants are able to complete specified tasks successfully
- Identify how long it takes to complete specified tasks
- Find out how satisfied participants are with your Web site or other product
- Identify changes required to improve user performance and satisfaction
- Analyze the performance to see if it meets your usability objectives

MediaTek History

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Procedure:

- Create a test plan, including:
 - Information regarding potential users
 - Three user tasks for each test subject to perform
 - Methods and logistics of the test
- Recruit participants who are representative of the end user
- Provide each test subject with a test kit, including:
 - Consent form
 - Pre-test questionnaire
 - Task cards for each of the three tasks
 - Post-test questionnaire and survey

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Procedure:

- Record each test using Google Hangouts
 - Each participant must follow the 'think aloud' protocol
- Once testing is complete, each team member reviews the recordings and contributes to the assessment.
- During review, the team of experts will keep the following five quality components in mind:
 - Learnability: How easy is it for users to accomplish basic tasks the first time they encounter the design?
 - **Efficiency:** Once users have learned the design, how quickly can they perform tasks?
 - Memorability: When users return to the design after a period of not using it, how easily can they reestablish proficiency?
 - Errors: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
 - Satisfaction: How pleasant is it to use the design?

MediaTek History

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Data Analysis

Completion Rates:

Each of the tasks was designed to represent a typical visit to the site, based on our assessment of who the user audience is. As such, we designed these tasks so that a typical user should be able to complete them.

However, not all of the participants were able to complete the set of tasks.

Task 1 – Job Seeker: 100% completion rate

Task 2 – Support Forum: 66.667% completion rate

Task 3 – Investor Events: 100% completion rate

MediaTek History
Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Data Analysis

User Opinions

During the usability test, we asked each of our representative users for their first opinions of the MediaTek homepage. Specifically, we asked them to describe what they saw, as well as how the site made them feel.

Positive Opinions	Negative Opinions
Colorful (2) Pretty (1) Simple (1) Warm (1) Inviting (1) Clean (1)	Confused (3) Lost (3) Uncomfortable (2) Empty (1)

User Personas
User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Data Analysis: Likert Scale

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
	(1)	(2)	(3)	(4)	(5)
Overall, I am satisfied with the ease of completing tasks in this usability test.				9	
Overall, I am satisfied with the amount of time I took to complete each task in this usability test.				o	
Overall, I found information was easy to find.	4				
I think the website hierarchy is intuitive.					
I would have organized the website's information navigation differently.		9			

User Personas
User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Data Analysis: Likert Scale (cont'd)

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
	(1)	(2)	(3)	(4)	(5)
I felt very confident determining the pathways to find specific information.		_			
I think that most students would quickly learn to find specific information in this website.				9	
The interface of the website is pleasant				0	
Terminology was clear and precise.			0		

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Data Analysis: Semantic Differential Scale

Situation	Frustrating -2	← -1	0	→ 1	Satisfying 2	Average Score:
Upon landing on the homepage, you instantly know what MediaTek, Inc. does as a corporation. How did you feel?		9				-1.1
Think back to the robust navigation system in place. How did you feel as you navigated the site?		1	ò			-0.4
How did you feel as you searched around the menu – logical arrangement to subcategories?		4				-0.9
When you fist landed on the homepage, was it warm and inviting?			1			0.4

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

Recommendations

Conclusions

Methods: Usability Testing



Data Analysis: Semantic Differential Scale (cont'd)

Situation	Frustrating -2	← -1	0	→ 1	Satisfying 2	Average Score:
Were the graphics and images consistent throughout the site?				0		0.6
Overall, do you think MediaTek could reduce the number of pages it currently maintains?			9			0.0
Do you feel the site could be arranged in a more logical manner?		,	A			-0.1
Everyday Genius is a huge selling point to MediaTek, Inc. Do you feel they market it effectively?		<				-1.4
Overall, your general reaction to the site is:			6			-0.3

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

> Usability Testing

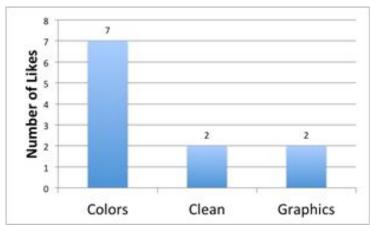
Recommendations

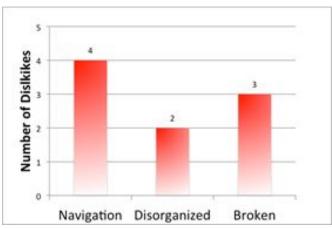
Conclusions

Methods: Usability Testing



Data Analysis: Post-test likes and dislikes





Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

> Recommendations

Conclusions



Recommendations

Fixing existing issues Vs New website

MediaTek History

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

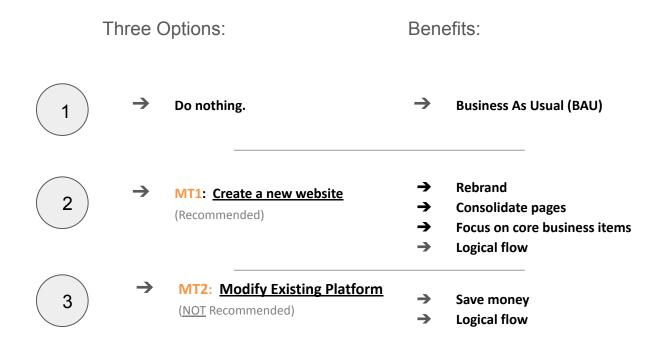
Usability Testing

> Recommendations

Conclusions

Recommendations





Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

> Recommendations

Conclusions

Recommendations



Reference:	Item/Justification:	Location:	Recommendation:
IA-01	Menu: Reduce the number of menu options, and group related items:	All pages	 Home Products Featured Items Everyday Genius Program News & Events Investor Relations About
IA-02	Search: User should have the ability to search all metadata, documents, forum and related sites to provide better search functionality	All pages	 Search entire site: O Metadata O Documents O Forums
IA-03	Language: Currently, not all pages are available in all languages.	All Pages	 Language All pages will be available in all languages Language choices: English Chinese Korean

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

> Conclusions



Conclusion

Executive Summary

Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

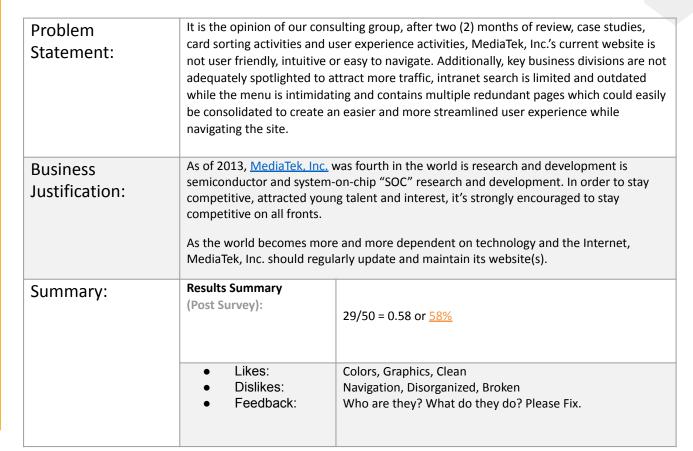
Card Sort

Usability Testing

Recommendations

> Conclusions

Executive Summary





MediaTek History
Business Objectives

Research Objectives

Measures & Scope

User Personas

User Needs

Methods

Competitive Analysis

Heuristic Evaluation

Card Sort

Usability Testing

Recommendations

> Conclusions



Executive Summary

Findings:	our subjects' findings concluupgrade, but a fully redesign of great data, facts and reso information architecture (ia	ous activities including card sorting exercises and user experience groups, findings concluded our original findings by strongly encouraging not only an a fully redesigned new site from the ground up. While the site contains a lot facts and resources, there are some serious gaps and flaws in the existing prohitecture (ia) which would require more work to clean up what's there, g fresh new – design, navigation, site mapping and most of all, creating a experience.					
	Take Away: → Simple does not equal Efficient						
idic Away.		→ 90% of our users sampled said they liked the colors of the site; others said it was clean and easy.					
	Likes: Colors, Graphics, Clean						
	Dislikes: Navigation, Disorganized, Broken						
	Feedback:	Who are they? What do they do? Please Fix.					

Options:	Option MT1: <u>Create a new website</u> (Recommended)				
	Option MT2: Modify Existing Platform (NOT Recommended)				

MEDIATEK

Thank you.