Project Proposal

Company:	MediaTek, Inc.
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URL:	http://mediatek.com/en/
Proposal Date:	January 20, 2016 *Proposal is good for 90 days from date

History

MediaTek Inc. is a global company and a market leader in cutting edge systems like chips for wireless communication, HDTV, DVD and Blu-Ray. They also created the world's first octa-core smartphone platform with LTE and their CorePilot technology released the full power of multi-core mobile processors.

MediaTek is headquartered in Taiwan, and their mission is to enhance and enrich everyone's life. Their vision is to be a global operation and technology leading company, enabling customer success with the most innovative products and services. MediaTek is also one of the largest chip-design companies in the world. Their goals are to make the amount of components a piece of hardware needs minimal and condensed to just one or two chips. This way hardware would require less resources, be more efficient and be more affordable to everyone. Making technology more affordable and accessible is something that they are very committed to.

Objective & Scope

Unknown to MediaTek Inc., the four members listed above have been recruited to: Review MediaTek Inc.'s current web site, identify gaps, issues and/or problems with the site by reviewing current industry competitors, suggesting site improvements - images, functionality, context, load speed and usability.

Using existing information - site, competitors, news articles and industry blogs, our team will compile suggested site improvements though competitive analysis, conduct user focus groups, usability testing and provide feedback, analysis and other feedback associated with the research to improve the client's existing website.

User Task Matrix

User Type & Description	Goals	Tasks
Job Seeker •Tech savvy recent college grad •Searching for new opportunity •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 for the office	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. •Purchasing of said products.
Investor •Financial advisor at a big firm •Competitive and eager to please her clients •Experienced tech/hardware investor	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 •Builds & 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. •Look for more information on products.
Engineer •Works at a tech giant •Creating a new software suite for mobile OS	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. •Look for more information on products.
Media person •Journalist for a well-known 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. •Research of products.

Research Methods

Competitive Analysis

In order to begin planning the website redesign, we need to first evaluate where MediaTek stands in the marketplace and how we measure up to our competitors. A competitive analysis will allow us the opportunity to research other companies in the market, to evaluate the strengths and weaknesses we observe, and to apply our observations to the redesign project.

By taking a close look at what our competitors are doing online, we can get a sense of the specific elements that our users are accustomed to seeing and interacting with. We will also take a close look at what information our competitors are offering, which will aide in creating our content goals for the site.

Throughout this portion of the process, we will continually seek opportunities to gain a competitive edge against other companies in the marketplace by asking ourselves: a) where can we improve the design? b)what should we avoid in the redesign? c)what additional information or features can we provide? and d) what information or features should we avoid?

The results of this analysis will be compiled into easily-referenced written and visual formats to show our findings. These results will assist us in the redesign effort by providing us with the information necessary to set our content and design goals.

Heuristic Evaluation

An Heuristic Evaluation is an inexpensive way to examine and evaluate a user interface, and to weigh those findings against a set of core principles. In order to properly assess the current MediaTek website, and to plan for specific improvements, we must first thoroughly investigate the site and its functions. By testing out the user interface of the current site, we will be able to gauge the existing quality of the interface and discover common usability issues therein.

Rather than randomly peruse MediaTek's site in an attempt to find shortcomings, we will instead create a set of user scenarios and tasks for each of our experts to follow. These tasks will be built with the site's goals in mind, and will reflect the tasks that a typical user would be expected to complete.

Throughout the duration of testing, we will judge the interface according to recognized user principles, or Heuristics.

[The Ten Usability Heuristics for User Interface Design](), according to Jakob Nielsen of the Nielsen Group:

1. Visibility of system status: The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

2. Match between system and the real world: The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

3. User control and freedom: Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

4. Consistency and standards: Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

5. Error prevention: Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

6. Recognition rather than recall: Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

7. Flexibility and efficiency of use: Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

8. Aesthetic and minimalist design: Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

9. Help users recognize, diagnose, and recover from errors: Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

10. Help and documentation: Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

The results of this evaluation will be recorded using a scale system, with explanations or clarification written out as necessary. This will provide us with a clear understanding of how to prioritize the issues we encounter, allowing us the opportunity to address the issues accordingly.

Card Sorting

One of the most important aspects of the user interface involves the order and grouping of information on a website. Properly grouping the site's information in an intuitive and logical manner will allow each user the opportunity to complete the task of their choosing with little to no difficulty.

For this stage of our research activities, we will employ several participants who fit within MediaTek's user demographic types, and have them sort out topics into logical groups. The card sorting stage will begin with a thorough audit of the current information architecture. These pages and topics will be compiled so that our test subjects can view and arrange them into groups as they see fit.

Once our users have sorted out all of the topics and pages into sensible groups, we can closely analyze the findings and compare each participant's choices against the others in their demographic. This allows us to

compile our findings so that we can evaluate the needs and results of each demographic group, giving us a more clear understanding of their preferred information architecture.

The results of the card sorting activity will lead us to build an information architecture with meaningful groups of information and topics, a functional sequence between those groups, and a clear and concise naming convention to label each category and topic. Our goal in this stage is to develop the best possible information architecture for all demographic groups visiting the site.

Usability Testing

Usability Testing involves evaluating a product by having representative users test its functionality . Throughout the duration of these tests, participants will be observed by experts who will 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

Once we are fully aware of these qualities with regard to the current site, we will have a clear sense of what information and functionality will need our attention. This will aide us in planning the redesign, as it will allow us to pinpoint and prioritize certain elements of the project.

This research activity will begin by creating a test plan, which will include information on our potential users, the tasks they will perform, the methods involved, and logistics of the test. Once our testing plan has been decided, we will recruit users from our class, who will act as our participants.

Before we run the actual usability tests, we will provide each participant with a test kit, which will include all of the necessary information and materials required to run a complete test. These items may include questionnaires, task lists, surveys, as well as a section for notes or comments.

As we conduct our test, the participants will be encouraged to 'think aloud', in which case they will verbalize each of their actions, reactions, and motivations, as well as any additional comments they wish to share. These sessions will be observed by one of our experts, as previously mentioned. They will also be recorded for the sake of accuracy.

Now we can evaluate the current site. As we review the results of the usability tests, we will keep the following five quality components, as described by Jakob Nielsen, in mind :

1. **Learnability:** How easy is it for users to accomplish basic tasks the first time they encounter the design?

2. **Efficiency:** Once users have learned the design, how quickly can they perform tasks?

3. **Memorability:** When users return to the design after a period of not using it, how easily can they reestablish proficiency?

4. **Errors:** How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

5. **Satisfaction:** How pleasant is it to use the design?

Finally, we will compile the data from the results of these tests into a single document that will provide a clear evaluation of the current website. This will aide in our project redesign plan by clearly outlining any usability issues, which we will then prioritize accordingly.

Paper Prototyping

Paper Prototyping is a method of testing user interfaces by meeting the user's wants and needs. This is usually done using throwaway prototyping, giving a quick and easy way of testing early on in the project. The point of this process saves both time and money by enabling developers to experiment with product features before they start writing the code and beginning development.

For paper prototyping, it often involves creating a mock up sketch of the interface and testing the user-centered design of the project. The entire creative team can get involved with the critiquing process because no coding skills are necessary. Users are also more comfortable being more critical of the interface because of it being a rough sketch.

The process of paper prototyping can have many benefits:

● **Communication in the team:** When paper prototyping the interface is being built step by step. The development team will collect ideas and visualize on the look and feel of the interface.
● **Usability testing:** Real users can be used for this method, by having the user interact with the prototype. The user's actions toward the prototype are then recorded, and can uncover any usability problems.
● **Design testing:** Having a simple mockup makes things easier to identify and change the main elements of the project such as the navigation, interactive content, etc.
● **Information architecture:** By using the paper prototyping method, the information architecture can be tested for the web site. Users can search for functionality and based on their input the architecture can be improved.

Using these different methods will benefit the development of the team and the quality of the product. For development, the prototype will help with the visual specifications and the graphic interface. Paper prototyping assists teams by providing a communication medium to pool ideas from. Testing in the early phases will help identify usability and design problems or any other annoyances that will affect the project later on and ensure a more polished product.

Recruitment & Incentives

Throughout the research process, we will rely on several individuals to take part in our testing procedures. Many of these participants will be professionals and experts who are colleagues of our team. When necessary to acquire outside opinions, we will rely on input from close friends and family. Incentives for our recruits may include but are not limited to; good grades for participation, wine or other sources of imbibement or intoxication, and small cash bribes.

Schedule of Deliverables

January

1/20/16   Proposal of Project & Research Activities

1/29/16   Website Competitive Analysis Report

February

2/5/16   Heuristic Evaluation for Websites Report

2/19/16   Card Sorting for Website Information Architecture Report

2/26/16   Usability Testing for Your Website Kit

March

3/18/16   Paper Prototyping & Testing for a Website Interface Materials & Notes,
                 Usability Testing Your Website Interface Report

3/21/16   Final Presentation