AnswerLab®

Wikipedia Mobile Ethnography

United States

Research Dates: August 31–October 6, 2011

CONTENTS

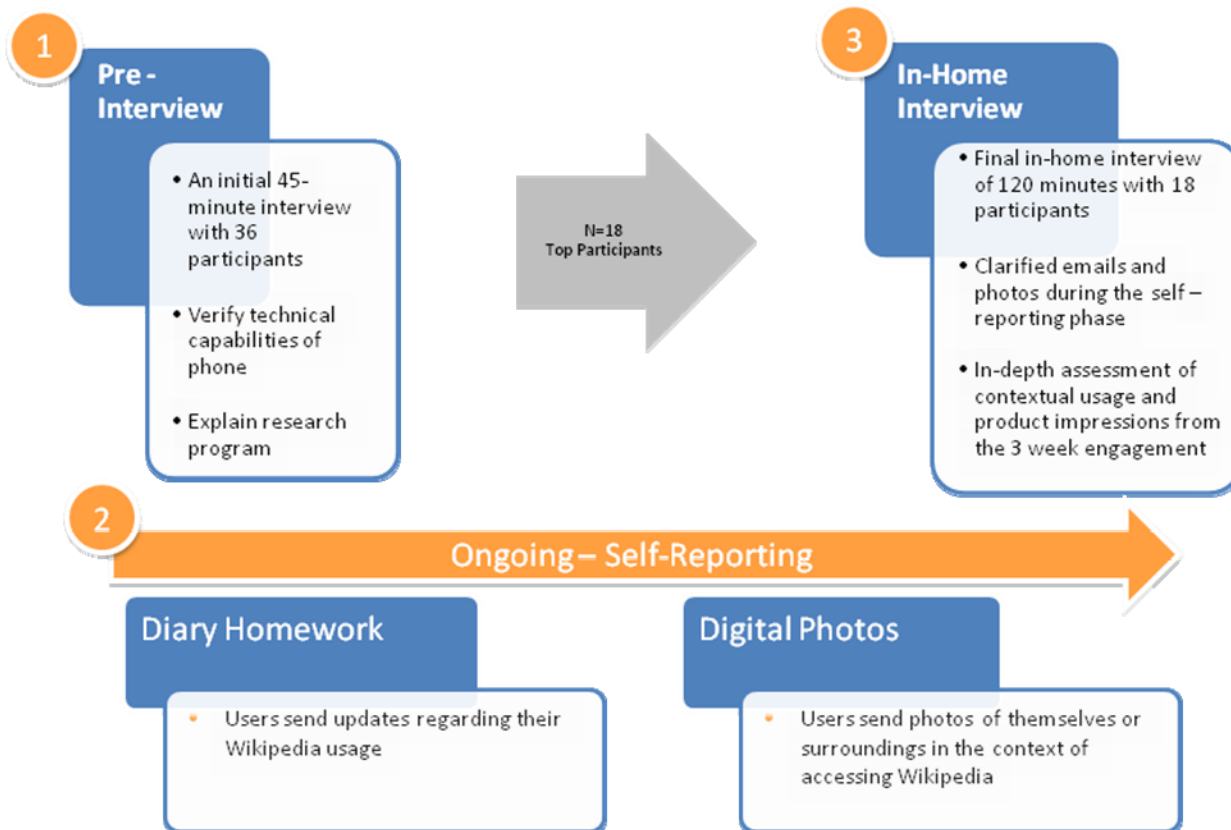11/14/2011

BACKGROUND & OBJECTIVES

Wikimedia Foundation would like to get a better understanding of its mobile consumer.

Key research questions and areas:

- How do users access, read, search and consume Wikipedia content on their mobile devices?

- Observe and understand Wikipedia editors' current editing processes on desktop and mobile devices.

- What are notable behaviors, preferences, barriers and technologies that impact usage of Wikipedia through mobile devices?

- Identify needs and opportunities to inform the WMF mobile strategy.

- What are the opportunities and threshold for contributions on the mobile platform?

METHODOLOGY

- AnswerLab conducted a 5-week field study to assess the effectiveness of Wikimedia Foundation's mobile offerings as participants used them in their natural environment

- Study participants were located in San Francisco, Chicago, and Dallas
    - Phase 1: 45-minute introductory phone interviews with 36 users
    - Phase 2: 3 weeks of self-reported feedback on mobile and Wikipedia usage
    - Phase 3: 120-minute in-home interviews with 6 users per city

1 Pre-Interview

- An initial 45-minute interview with 36 participants
- Verify technical capabilities of phone
- Explain research program

N=18
Top Participants

3 In-Home Interview

- Final in-home interview of 120 minutes with 18 participants
- Clarified emails and photos during the self-reporting phase
- In-depth assessment of contextual usage and product impressions from the 3 week engagement

2 Ongoing – Self-Reporting

Diary Homework

- Users send updates regarding their Wikipedia usage

Digital Photos

- Users send photos of themselves or surroundings in the context of accessing Wikipedia

Recruiting

- Mobile Readers:
    - Currently access Wikipedia from mobile 2+/week
    - Also access Wikipedia on PC

- Potentials:
    - Occasionally/infrequently access Wikipedia on mobile, but have in the past (0-1/month)
    - Use Wikipedia on PC frequently (2+/week)

- Editors:
    - Currently contribute to or edit Wikipedia frequently (1-2+/wk)
    - Also access Wikipedia from mobile 2+/week

- Devices :
    - iPhone
    - Android
    - BlackBerry
    - Non-smartphone
    - Tablet

- Demographics:
    - Age = 15-45
    - Gender = 50/50
    - Ethnicity = mix

See appendix documentation for full list of participants.

EXECUTIVE SUMMARY – OVERALL THEMES & OPPORTUNITIES

Readability

- Users value **consistency** and Wikipedia's **uncluttered look and feel**; maintain the simple aesthetic of the interface across all platforms

- Users cite the need to quickly read the article overview/lead and then skim the rest of the article; ensure users can quickly and easily access article **overviews/leads** on all mobile devices

Search

- **Typing** is more difficult on the mobile platform and current search results require exact search terms; improve the mobile search functionality to include **predictive and corrective search functionality**

Engagement

- Give users reasons to **interact** with Wikipedia on their mobile devices beyond simply referencing articles from a Google search; enhance discoverability of the **main page** on the smartphone platform (e.g. by giving the main page a home icon on the website or app toolbar) to surface this content

- Users are spending increasingly more time accessing and **interacting** with content from their phones; drive awareness and adoption of editing by providing a way for users to **log in and make edits** from the mobile platform

Contributions

- Provide a way for editors to log in and access their **Watchlist**, check **recent changes**, make changes to **userpages**, and participate in **discussions** across various Wikipedia namespaces

- Allow users to **make edits** from their mobile devices

  - These may be **smaller edits** or simply **copyedits** but match editors' expectations that editing should be possible on a mobile device

Navigation

- Consider ways to improve the task of **skimming** an article or its contents on mobile devices; provide access to a **table of contents**, especially on non-smartphones

Apps

- Drive initial **awareness** of the Wikipedia app by **prompting** users on the mobile site with an unobtrusive but easily discoverable link

- Provide an **engaging experience** by incorporating improved navigation and interaction functionality, as well as **features not available via the web**, such as offline access or editing functionality

EXECUTIVE SUMMARY – PLATFORM-SPECIFIC OPPORTUNITIES

Non-smartphone Mobile Web
- Create a mobile version of the **Wikipedia.org homepage** to avoid frustrating users who navigate to this page
- If possible, always display the **full overview/lead** on the first page (i.e. avoid page splits in the overview)
- Provide a **table of contents** on the first page of each article (e.g. immediately following the overview)
- Improve the **search functionality** to include suggestions and corrections when users don't know the exact term they are seeking or mistype their search
- Don't sacrifice **speed**, especially on the non-smartphone platform

Smartphone Mobile Web
- Smartphone users were observed to have higher frequency and depth of interaction with the Wikipedia mobile site vs. non-smartphone users in the US, and apps were used less universally compared to the mobile web; if resources are limited, **development for the smartphone mobile web should be a primary focus**
- Even on smartphones, users struggled with typing, and some avoided searching Wikipedia directly due to the limited search functionality; **improve search** by adding **predictive** and **corrective** search to the mobile web
- Users appreciated the **progressive disclosure** offered by the initially collapsed sections; maintain this design principle and also consider including a **table of contents**
- Many users reported emailing articles to themselves or others; provide a simple way for users to **share articles** via Email, SMS, or a list of social networks
- Multi-language users, although few, expressed frustration with accessing articles in other languages from the mobile devices; allow users to **switch languages** from within articles
- Increase the **text size** for BlackBerry and Android devices, and consider adding text size control on all devices

Smartphone App
- An app that delivers a **superior experience** will **delight** frequent users and allow those who prefer apps to have the **optimal experience**
- One of the largest perceived advantages of apps vs. web is **speed**; ensure that the perceived speed of the app is faster than the web equivalent
- Similarly, users perceive apps as being more **streamlined and easy to navigate**; provide additional navigation such as a **table of contents** and **home screen** with main page content (e.g. "Did you know")
- To increase awareness and adoption of smartphone apps, **prompt** users to download the app via a link on the mobile web
- Many users indicate they don't always use an app when accessing Wikipedia content because they also want to reference other sources via Google; mitigate this factor by providing a way to **search Google** directly from within the app (similar to Wikipanion)
- Consider giving users the ability to save articles for **offline viewing** when cellular data is not available (e.g. during subway commutes)
- Sharing from within the app can prove difficult because a web link is not available; provide a simple way for users to **share articles** via Email, SMS, or a list of social networks
- Provide existing editors with the ability to **log in** and access their account (e.g. Watchlist), **edit articles**, and participate in **discussions**; this may also serve as a way to encourage current non-editors to create accounts

Tablet Web
- Tablet users expect to be able to access the **full version** of Wikipedia via the browser; continue to keep tablet interactions in mind when making changes to the full site, and always **test against the tablet platform** just as one would test against various browsers

Tablet App
- Tablet owners have **high expectations** that an app will provide all of the web functionality with a **faster**, **touch-friendly interface** and **additional features** (e.g. features detailed above for smartphone platforms)
- Tablet app development should focus on creating an engaging experience with particular attention toward **gestural touch interactions**, **navigation**, and the **reading experience**; location-specific features are secondary
- Separate apps for phone vs. tablet can confuse users and lead to discoverability issues; create **one universal app** that supports both phone and tablet for each platform (iOS and Android); consider removing "Mobile" from the title for the same reason

EXECUTIVE SUMMARY – ADDITIONAL OPPORTUNITIES FOR ENGAGEMENT

Note: The following outline summarizes additional ideas to consider for increasing user engagement outside of what was observed in users' current interactions with Wikipedia and other content.

- Users currently perceive Wikipedia as a go-to authority for **reference**, **research**, and **fact-checking**

- On the **mobile** platform, users primarily engage with Wikipedia when in **"situational" usage modes**, i.e. when they are looking to answer specific questions

- This provides a significant opportunity for Wikipedia to **evolve this perception** beyond a simple "**search for facts**" and more towards a "**place to engage**" with new learning and information

Ways to increase the "stickiness" factor and boost engagement include:

Hyper-Specific Content / Recommendations

- One way to encourage users to explore and interact with content other than what they search directly is to provide **recommendations** based on the article being read as well as their viewing history
- Recommendations could take the form of a "**What to read next**" layer at the bottom of each article or an **individualized start page** section within mobile apps to suggest possible articles of interest

"Fresh" Content

- Current mobile usage indicates that few users interact with main page content on a regular basis; **surfacing this main page content** that is **already updated daily** is a way to draw users to spend more time exploring and learning about additional content
- Examples of ways to surface this content are pushing to **social media channels** (as referenced below), making the main page a prominent feature in **mobile apps**, or **partnering with other entities** that would broadcast this information to their audience

Social Media / Sharing

- Consider **viral hooks** that can be leveraged to raise awareness of when readers engage with Wikipedia across social streams – for example by **publishing daily "Did you know" content** via "official" channels on Twitter and Facebook
- Provide quick and easy ways for users to **share content from every page** in both mobile web and apps, whether by email, SMS, or social media

Location & Context

- Users are currently searching for information via a standard text search even when they may be close in proximity to the subject of interest; consider ways to encourage users to "**browser where they are**" – for example by calling attention to the existing location-based feature in the Wikipedia iPhone app, or partnering with other location-based services (e.g. Foursquare or Yelp) to integrate Wikipedia content
- Using Wikipedia as a **travel reference** (both before, during, and after a trip) was a commonly cited activity; consider various ways to allow users to embark on a **Wikipedia-based "tour"** that would provide facts, history, and other information via a mobile device to someone visiting an area for the first time (or even learning more about where they live)

Rich Tablet Experience

- Tablet users are delighted by experiences that feel **immersive** by inviting users to interact via touch gestures and drawing their attention with large, high-quality visual elements (including photos, video, and the overall user interface design) – FlipBook is one such example
- Compel tablet users to interact with Wikipedia outside of simply searching for information by providing an app experience that surfaces the **"fresh" content** referenced above along with **large images** and a **reading experience** that takes advantage of a tablet's large screen
- Consider a **textured app interface** (such as Apple's Notes or iBooks apps)

OVERALL MOBILE DEVICE USAGE

Overview

- With newer and more capable smartphones (e.g. iPhone and faster Android phones), most users saw their mobile devices as an extension of their computer – they wanted to access and accomplish everything from their phone that they could from their desktop or laptop, especially tasks that were time-sensitive

  My phone… is awesome – it can do anything really. (Ryan C. – 15 – Droid Incredible)

  - Exceptions to this include tasks that require extensive multi-tasking or large amounts of data entry, as these are still easier for users to accomplish on a computer and typos are more likely on a mobile device
    - One high-school student (Ryan C.), however, felt he could type faster on his phone than his computer, citing the fact that he had never learned to touch-type on a computer keyboard

  - Many of these users also expected app functionality that goes above and beyond the web equivalent, e.g. improved look & feel, faster loading, and context-aware interactions (such as geolocation)

  With an app, everything is laid out in front of you…and it's actually usable with fingers. With a lot of websites you have to zoom in and then click. (Zachary W. – 30 – HTC Evo 4G)

- This was different from users with more basic phones (e.g. non-smartphones and BlackBerrys), where most users reserved internet usage on their phones for specific or critical needs

  [Websites on my phone] take forever…I still have to use it occasionally, like locations or phone numbers, but I don't like to. I tend to avoid it. (Victoria J. – 30 – BlackBerry Torch)

  - These users saw their mobile devices as more of a stand-in when a computer was not available, versus an extension of how they use their computer

  - Most non-smartphone users we spoke to in the U.S. planned to upgrade to a true smartphone within the next year

  - One participant (Andy W.) said that he relies on his friends' smartphones for tasks such as looking up directions, searching the internet, or referencing information on Wikipedia

  I'll only access the internet if I have at least 5 minutes – it takes some time to get going…Everyone I know has a smartphone…they're supporting my non-smartphone ownership. (Andy W. – 28 – Motorola VE240)

- Tablet owners used their tablet devices as a "mini laptop" more than a "big phone" – they expected to access the full version of websites

  - When it comes to apps, tablet users expected apps that exceed their web equivalents and offered improved ease-of-use, while still offering all of the features found on the web equivalent

  The iPad's like a mini computer. I bring it wherever we go…Anything that I would use my desktop or laptop for, I use the iPad for. (David J. – 35 – iPhone/iPad)

  The only way I'll choose an app over [the web] is if it makes it easier to navigate, and visually. (Kit Van D. – 28 – BlackBerry Bold/iPad)

  Well designed apps will give you an ever richer experience on the iPad than the desktop. The BBC app is the best news delivery vehicle I've seen anywhere. You can stream the video where you're watching, and you get the menu on the left while reading the article on the right – which you also get with Wikipanion. (Sabahat A. – 40 – iPhone/iPad)

Overview (cont'd)

- Many participants engaged with their mobile devices even when they had access to a computer; their choice of which device to use for any given task was largely driven by convenience

  - One common use case was using a phone for personal use while at work or school, as work or school computers may block or track sites that users visit

  - Participants often used their mobile devices in place of a computer even when at home, citing that it was faster and easier to accomplish many tasks on their phone instead of sitting down in front of their computer(with the exception of the more intensive use cases cited above)
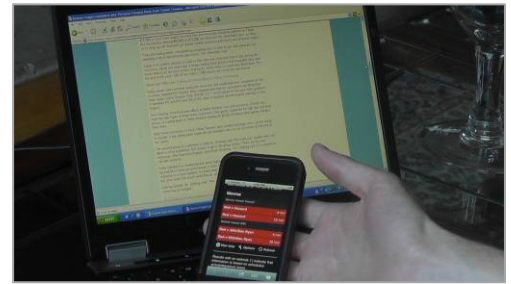
    I use my phone almost more than my computer…it's whatever I'm next to. (Ben T. – 28 – iPhone)

    It's a lot easier to use my phone than to go get my laptop. (Nicholas N. – 25 – iPhone)

  - One participant (Jonathon D.) did not have a personal computer at home, and instead used his iPhone in place of a home computer

- Increasingly, many users also wanted to participate in creating and/or engaging with user-generated content vs. exclusively consuming information

  - Examples include uploading photos and participating in discussions on social networking sites

  - Most participants shared content from sites or apps with others, most often by copying and pasting links into emails, but also by using "Share" links

    I repost music videos or articles [on Facebook]…and I often email tweets to people. (Mike G. – 37 – iPhone/iPad)
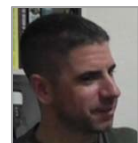
- Performance issues were often attributed to the device or network (especially for non-smartphone and BlackBerry users)

Mobile Usage Modes

- Four primary mobile usage modes were observed based on participants' self-reports and discussions:

Mode	Self-Reported Photo	Examples	Wikipedia-Specific Examples
Situational		- Fact-checking - Looking up directions - Researching the cast of a movie	- Settling debates - Referencing topics related to work or school - Looking up specific items out of curiosity *(the bulk of current mobile Wikipedia usage occurred in this mode)*
Monitoring		- Periodic checking of email inbox - Live sports scores - Waiting for SMS responses	- Keeping tabs on articles of interest (e.g. from Watchlist) - Keeping-up with discussions *(these actions apply primarily to editors and are currently difficult on mobile platforms)*
Routines		- Checking email first thing in the morning - Reading news on bus or train - Checking social media sites during work breaks	- Queuing articles to read offline while travelling - Checking recent changes to articles or areas of interest (editors) *(these actions apply primarily to high-volume users and editors)*
Standby		- Killing time when waiting - Playing games - Watching video	Exploring topics during downtime *(this was a common activity, but users were mostly researching topics they already were interested in, versus discovering new topics)*

Other Mobile Experiences

- Nearly all participants used their mobile devices to read news from various sources (including both websites and apps)

    o The BBC app for iPad was seen by one participant (Sabahat A.) as the best way to consume news on any platform, and an example of a great iPad app

    o For one non-smartphone participant in San Francisco (Andy W.), this was one of the only internet-based tasks that he performed on his phone, along with checking bus times

- Another common activity was looking up addresses, directions, or public transportation options (e.g. via the Maps app or sites like NextMuni)

- Many participants cited using their phone to check sports scores and read sports-related news (e.g. via ESPN's iPhone or Android app)

- Nearly all participants interacted with social media services from their mobile devices, often multiple times throughout the day (e.g. Facebook, Twitter, and LinkedIn)

    o Interactions on these services included sharing links, uploading photos, commenting on others' updates (Facebook), and retweeting others' tweets (Twitter)

- Many participants used their phone for tasks related to their work, including email, notes, and referencing marketing materials on the iPad

- While many participants had games installed on their devices, a few said that they avoid playing games on their phones

Web vs. Apps

- Smartphone and tablet participants were split on whether they preferred using apps; no single factor predicted their preferences, but app usage was generally the most prevalent on iOS devices, followed by Android and then BlackBerry

- Among participants who had downloaded an app, most said they specifically seek-out apps for sites they use often on their mobile device

> *All the websites I use, I go to Market and if it happens to be there I'll download it. (Cierra N. – 19 – LG Optimus)*

- Other participants only downloaded apps when they were prompted by a website, in the form of a link or dialog box

> *If it says "download our app" and it's easy than I'll do it…but it takes [being] in my face for me to do it. (Kit Van D. – 28 – BlackBerry Bold/iPad)*

- Participants cited a number of perceived advantages and disadvantages of using the web vs. apps in general:

Apps	Web
Perceived advantages: - Faster - More mobile-friendly interface - Instant access (no need to open browser then type in address and wait) - Easier navigation - Persistent login - Persistent, customizable settings (e.g. font size) - More immersive experience - Offers features above and beyond the standard web experience (e.g. access to phone's camera, location features, and notifications)	**Perceived advantages:** - Familiarity – design and interactions similar to what they're used to on the computer - No need to download something extra – just type in the web address - Doesn't slow-down the phone or require storage space (BlackBerry users in particular felt that downloading too may apps made their phone run slower)
Perceived disadvantages: - Requires effort to download - Uses storage space on phone - Additional steps required if user wants to leave app in order to search web	**Perceived disadvantages:** - Higher potential for non-optimized formatting - Slower load times (both actual and perceived) - Requires multiple steps to open browser, type address, and wait for site to load - Navigation can be more difficult (e.g. zooming, scrolling, and navigating within and between pages) - No phone-specific features (e.g. access to phone's camera, location features, and notifications)

Opportunities: Overall Mobile Device Usage

Overall

- Address the use cases associated with each **mobile usage mode** when considering features and development priorities

    o Addressing the modes of Monitoring, Routines, and Standby will help **drive user engagement** outside of using Wikipedia as an occasional reference [*see details on page 21*]

- **Speed** – including perceived speed – is paramount to users across all platforms

Non-Smartphones

- For non-smartphones, focus development on the **reading and search experience** to ensure users on all device types can access and read the mobile version of Wikipedia without redirect errors [*see details on page 24*]

    o Speed and simplicity are of primary importance; additional features are secondary on non-smartphone devices and less likely to be used

Smartphones

- Smartphone users have particularly **high expectations** and use their devices even when a computer may be available; the mobile website and apps should be built with these high expectations in mind

- Focus web development for smartphones on providing access to **additional features and interactivity** (e.g. sharing articles), and provide an **app experience** that goes beyond the mobile website [*see details on page 24 and page 26*]

    o While the mobile website should be the first priority, an **app** that delivers a superior experience (via improved navigation, search, speed, and additional features like offline access or editing) will **delight frequent users** and allow those who prefer apps to have the **optimal experience**

    o Apps may also **drive engagement** above and beyond the occasional reference and serve as a way to onboard frequent users who aren't already engaged with contributing to Wikipedia

- **Prompt** users to download the official Wikipedia app by displaying an unobtrusive yet discoverable **link** on the mobile version of the site [*also see page 26*]

    o On the **Android** platform, consider implementing an **Intent Filter prompt** when opening Wikipedia links similar to the Wapedia app (when the Wikipedia app is installed and a Wikipedia link is opened, this would prompt the user to choose whether to open the link in the browser or the Wikipedia app, and a default can be set)

- Enhance discoverability of the **main page** on the smartphone platform (e.g. by giving the main page a home icon on the website or app toolbar)

- Additional features to consider for web and apps include **personalization** (e.g. persistent login), **contributions** and **discussions**, and **social interactions** both within and beyond the Wikipedia experience [*see details on page 27*]

Tablets

- Development for the Tablet platform should ensure the **full website** is highly usable on tablet devices while also offering an **app** that provides all of the web functionality with a faster, **touch-friendly interface** and **additional features** in line with those mentioned above for consideration on the smartphone platform [*see details on page 24 and page 26*]

OVERALL WIKIPEDIA EXPERIENCES

Wikipedia Perceptions

- Participants perceived Wikipedia as a trusted source of information

    o They valued Wikipedia's objective point of view (especially compared to commercial websites) and often used Wikipedia as a first step when researching information

    Wikipedia is really good at giving...a summary and then details of something…For the most part it's very good at being unbiased. (Greg H. – 17 – HTC Sensation)

    o Across platforms, participants appreciated Wikipedia's simple look and feel, citing their feeling that the consistent, clean, and easier to read than many other sites

    o Most participants were aware of the stigma regarding the potential for misinformation on Wikipedia, but had not encountered significant errors or incorrect information (other than grammar or spelling errors) in their own usage

    I like how individuals can add onto the information…but is all of the information on here accurate? (Marquita C – 29 – iPhone)

    – Students cited varied school or class policies on using Wikipedia; one participant's high school encouraged the use of Wikipedia as a starting point for additional research, while other participants' classes discouraged its use (yet these students continued to use Wikipedia for their research – including links to references – despite their schools' recommendations)

Wikipedia's perceived strengths included:

- Covers almost any topic imaginable

- Consistently provides high-level summary information

- Additional in-depth details and references are available when needed

- Article formatting is familiar and simple across articles

- Includes links to other sources and references

It's really good source to be able to reference a lot of info. (Dennis G. – 33 – Samsung Messenger)

Wikipedia's perceived weaknesses included:

- Possibility of incorrect information or vandalism

- Lack of consistency regarding the amount of detail offered in each article

- Hit-or-miss photo quality

- Difficult to search directly from Wikipedia without knowing exact spelling or topic

There's some inconsistencies – the detail varies between topics. (Andy W. – 28 – Motorola VE240)

Overall Wikipedia Usage

- A few participants had referenced articles in other languages using the left navigation column, but most other users had not previously noticed any of the content on the left or the tabs along the top

- Many participants accessed Wikipedia from their mobile device as often as on their computer – and some said that the majority of their Wikipedia usage is on their mobile device

  > *I use Wikipedia on my iPad or BlackBerry…probably 90% of the time. (Kit Van D. – 28 – BlackBerry Bold/iPad)*

- Use cases for Wikipedia generally fell into one of the following categories, listed in order from specific to broad:

Use Case	Examples
Fact-checking specific information	To settle a debate or answer a particular question for class
Conducting in-depth research on a particular topic	Reading about early motion pictures or historical political events for a school-related assignment
Gaining a quick, high-level understanding of an unfamiliar topic	Medical diagnoses, pop culture references, financial terms, or cities and landmarks
Exploring background information or other articles related to a topic of interest	Personal history of an athlete or the cast of a particular movie
General browsing of topics that pique one's curiosity	Reading the featured article of the day or exploring information on particular world regions

- Interesting and unique use cases included:

  - Kit Van D., a medical device salesperson from San Francisco, uses Wikipedia to familiarize herself with medical terminology before discussing various treatments and procedures with doctors in the operating room

  - Lori S., a physician from Chicago, says she uses Wikipedia as a medical reference to see how diagnoses and treatments are described to patients in simpler terms
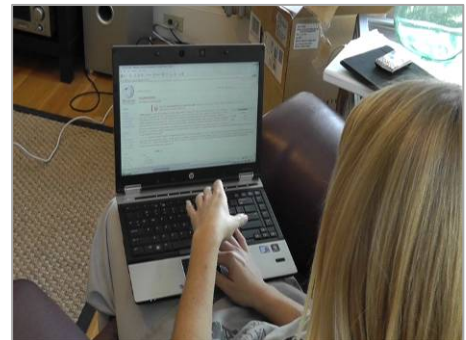
  - Molly B., a teacher from San Francisco, says she "depends on Wikipedia a lot" to reference information for her curriculum

Overall Wikipedia Usage (cont'd)

- The method of accessing Wikipedia varied for most participants depending on the situation

    o Many said they most often arrive at Wikipedia via Google or another search engine, knowing Wikipedia will be one of the first results

    I go to Google first – it's going to direct me to Wikipedia anyway. (Marla A. – 32 – LG Optimus/HP TouchPad)

    o Those who often went straight to Wikipedia to conduct searches said they do so when they expect Wikipedia will offer all of the information they will need

    If I know I want to use Wikipedia, I'll go straight to Wikipedia. (Kaitlyn H. – 16 – BlackBerry Style)

- Most of the "Potential" and "Mobile" participants we interviewed in-person had a one-way relationship with Wikipedia, using it as a source of information but not making contributions or edits of their own

    o Out of 15 "Potential" and "Mobile" participants interviewed in-person, 5 had previously made an edit, and 2 made smaller changes (e.g. copyedits) on a monthly basis

- Non-editors varied in their understanding of Wikipedia; some were aware that anyone can make edits, but many assumed that content was either created or reviewed by "official" editors associated with Wikipedia

    o Most were not aware that edits could be made without a Wikipedia login
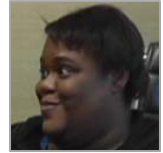
Editor Experiences

- We observed various levels of familiarity and experience with editing Wikipedia:

1. Wikipedia users who aren't aware of their ability to edit

Activities: Using Wikipedia as a reference resource

Example: **Kit Van D.** of San Francisco assumed that only professional editors could add or update content on Wikipedia

2. Users who know they could edit but have never contributed

Activities: Using Wikipedia as a reference resource

Example: **Kaitlyn H.** of Chicago was aware that anyone could make changes, and even tried once, but stopped because she felt she didn't have enough knowledge on the subject matter

3. Infrequent contributors who primarily make small edits

Activities: Using Wikipedia as a reference resource; making copy edits to articles while using Wikipedia for reference; correcting details they come across when they are confident in their knowledge (not conducting additional research); may or may not have or use a Wikipedia login

Example: **Zachary W.** of San Francisco makes copyedits, small corrections, and additions for items he comes across while researching various topics (e.g. food, wine, cheese)

4. Frequent editors who dabble in everything

Activities: Using Wikipedia as a reference resource; contributing their knowledge or conducting research on various topics of interest; participating in discussions; monitoring their Watchlist

Example: **Sabahat A.** of San Francisco has spent time living in Nigeria, Pakistan, and Venice and describes himself as an "inclusionist" and "incrementalist" - he values Wikipedia because it offers a variety of viewpoints and is not censored by a central authority; he accesses Wikipedia in multiple languages, creates articles, and edits contents, but intentionally stays away from "admin" activities

5. Frequent editors who focus on specific subject areas or roles

Activities: Using Wikipedia as a reference resource; focusing their contributions on a particular subject area (including creating new articles) or other namespaces (e.g. Articles for deletion); participating in discussions; monitoring their Watchlist

Example: **Tom M.** of San Francisco focuses all of his attention on topics where he is a subject matter expert – chiefly older films and actors; he creates articles when he finds a particular film or actor without a page, and also improves content on existing pages

Example: **Chris S.** of Chicago is involved primarily in improving articles marked for deletion (primarily by finding relevant references and adding content to pages) and participating in related discussions in the Articles for Deletion space

6. Frequent editors who are involved in leading WikiProjects, reviewing others' work, or involved as admins

Activities: Using Wikipedia as a reference resource; contributing across all areas of Wikipedia; participating in discussions; monitoring recent changes; reviewing others' work; conducting other admin responsibilities

Example: **Antonio V.** of Chicago is in the top 0.05% for total number of edits among active Wikipedia users (this is according to Antonio himself) and spends 6+ hours per day making his own contributions, reviewing others' contributions, and overseeing projects; he actively watches articles he is associated with, participates in discussions in multiple spaces, nominates and reviews articles for various statuses, and creates articles on more esoteric topics

Opportunities: Overall Wikipedia Experiences

Readability

- Users value **consistency** and Wikipedia's **uncluttered look and feel**; maintain the simple aesthetic of the interface across all platforms

- Users cite the need to quickly read the article overview/lead and then skim the rest of the article; ensure users can quickly and easily access article **overviews/leads** on all mobile devices [*see page 24 for details*]

- Consider ways to improve the task of **skimming** an article or its contents on mobile devices; provide access to a **table of contents**, especially on non-smartphones [*see page 21 for details*]

    o Maintain and further the design principle of **progressive disclosure** across all platforms (as exemplified by the collapsed sections on iOS and Android devices); this is particularly crucial on non-smartphones, where reading and navigating long pages is more difficult

Search

- Improve the **search functionality** on mobile platforms to avoid driving users away from searching Wikipedia directly [*see page 21 for details*]

Engagement

- Users are spending increasingly more time accessing and **interacting** with content from their phones; drive awareness and adoption of editing by providing a way for users to **log in and make edits** from the mobile platform [*see page 27 for details*]

Editors

- To drive engagement with existing editors in particular, provide a way for editors to log in and access their **Watchlist**, check **recent changes**, and participate in **discussions** across various Wikipedia namespaces from their mobile devices [*see page 27 for details*]

- Allow users to **make edits from their mobile devices**; these may be smaller edits or simply copyedits but match editors' expectations that editing should be possible on a mobile device [*see page 27 for details*]

MOBILE WIKIPEDIA EXPERIENCES

Overview

- On the computer platform, participants tended to read the overview/lead and then skim or scroll through the remainder article

    o This was more difficult for some users on their mobile devices, due to long infoboxes or device limitations, especially on non-smartphones

- Many users encountered difficulty or frustration when searching directly from the Wikipedia site on their phone

    o These participants cited that fact that it was difficult to find articles unless they knew the exact spelling

    The downside is if you try to spell a name or place, and Wikipedia might not register it…Like "Yugoslavia," you might misspell it and Wikipedia's not going to give you any information. (Marla A. – 32 – LG Optimus/HP TouchPad)

    o Participants often opted to search using Google or another search engine on their phone instead going directly to Wikipedia

    o Those who navigated directly to the Wikipedia website on their phone instead of searching via Google did so when their situation met the following criteria:
    - They knew specifically what they are looking for and how to spell it
    - They were reasonably confident Wikipedia would provide the information they are seeking
    - They did not expect to reference additional web sources

- Most participants were less likely to explore blue links, check references, or open external links on their phone versus their computer

    I wouldn't look at the links on the phone really…I just want one key piece of information. (Greg H. – 17 – HTC Sensation)

- Multi-tasking and browsing with multiple tabs open was a common behavior on the computer, whereas switching between pages was less common on the mobile platform

    o Performing related, additional research on multiple sites was easier to accomplish on the computer

- Sharing and social engagement with Wikipedia content proved easier on the computer than the current mobile experiences (e.g. copying and pasting article links into emails)

    It would be really cool and innovative – I really want the option to text it to yourself. (Victoria J. – 30 – BlackBerry Torch)

- Few U.S. participants mentioned referencing Wikipedia in languages other than English from their mobile phone; for these users, however, it was more difficult to accomplish this on their phone versus the computer

    o One participant, who primarily used the Wikipedia app on his iPhone when viewing articles in English, switched to using the Safari browser when he wanted to view an article in Japanese – this way, he could switch back-and-forth between the English and Japanese versions of the article

Drivers & Barriers: Summary

- Phone and carrier speed was a primary driver of both frequency and depth of usage

- For non-smartphone users, browser capabilities varied but often limited overall usage

- Participants who were less proficient with their devices generally preferred to read long articles on the computer

    o More savvy participants didn't mind reading longer articles on their phones, especially in certain contexts

- For all users, small text size (particularly on BlackBerry devices) limited their ability and willingness to read longer articles

- Official Wikipedia app limiters included:

    o Inability to access other sources of information (e.g. via Google) once in the app

    o Low average rating

    o Frequent crashes

    o No perceived advantages over web (one participant said he was "underwhelmed")

Mobile Use Cases

- Interesting or unique use cases included:

    o Offline reading using an app like Wiki[2]

    o Many of the students interviewed said they often use Wikipedia on their mobile devices while in class to learn more about topics being discussed

    o Using Wikipedia for work-related subject matter, including financial and medical terms

    o Accessing Wikipedia on a mobile device when a computer would normally be available (e.g. kids are using the computer, or work discouraging or blocking personal usage)
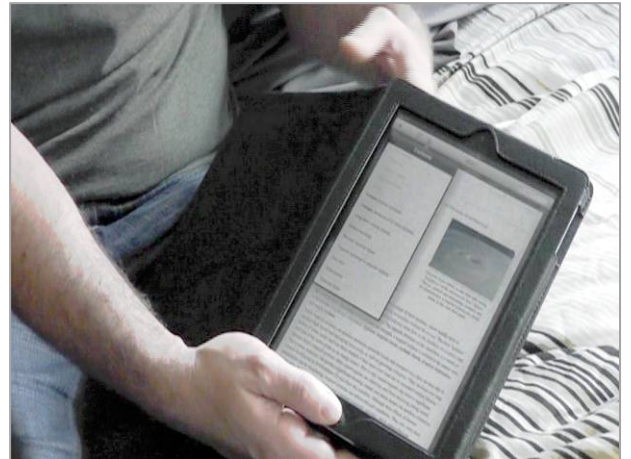
See Opportunities below for more details on generalized Wikipedia use cases.

Opportunities: Overall Mobile Wikipedia Experiences

Search

- **Typing** is more difficult on the mobile platform and current search results require exact search terms; improve the mobile search functionality to include **predictive and corrective search functionality**

    o As a way to encourage app usage even when users may want to conduct subsequent research outside of Wikipedia, consider giving users the ability to **search Google or other sources directly from the app** (similar to the functionality found in the Wikipanion app)

    o As mobile technologies advance, we expect **new ways of searching** to become increasingly important; consider integration with Siri or other voice search on various platforms

    o Other search features to consider are **image search** (via device camera) and other **contextually-aware** search methods (e.g. NFC or embedded sensors)

Navigation

- Include a **table of contents** on the mobile website and app

    o **Non-smartphones** (paginated): provide a **link** after the **overview/lead** and at the **bottom** of each page in order to conserve screen real estate

    o **Smartphones**: provide a **link** at the **top** of the page, possibly within a toolbar along with the search function

    o **Apps**: provide a **button** within the app similar to Wikipanion

- Multi-language users, although few, expressed frustration with accessing articles in other languages from the mobile devices; allow users to **switch languages** from within articles (via a web link, or app toolbar)

Additional Features

- Provide a simple way for users to **share articles** from their mobile devices via Email, SMS, or a list of social networks

- With respect to the general **Wikipedia use cases** presented above, opportunities include:

Use Case	Examples	Mobile Opportunities
Fact-checking specific information	To settle a debate or answer a particular question for class	Improved **search functionality** (predictive, corrective, and other possibilities such as image or NFC)
Conducting in-depth research on a particular topic	Reading about early motion pictures or historical political events for a school-related assignment	Increased **font size** on Android and BlackBerry platforms; **font size controls** on all platforms
Gaining a quick, high-level understanding of an unfamiliar topic	Medical diagnoses, pop culture references, financial terms, or cities and landmarks	Ensure the article **overview/lead** is accessible in full to facilitate easy skimming on non-smartphones; embrace **progressive disclosure** on all platforms
Exploring background information or other articles related to a topic of interest	Personal history of an athlete or the cast of a particular movie	**Offline or saved articles** to allow users to queue articles for later reading (including sync across platforms)
General browsing of topics that pique one's curiosity	Reading the featured article of the day or exploring information on particular world regions	Surface **Wikipedia main page content** (e.g." Did you know"), especially within the app experience

Differences by Device

- On the iPhone and Android platforms, most users read full articles and use their phone for reference in many contexts without hesitation

    o The display of content on these devices was predictable – nearly all iPhone and Android users saw the platform-optimized site when they visited the Wikipedia website from their device

    o iPhone and Android users liked seeing the sections initially collapsed and having the ability to expand sections to read further details, which allowed them to quickly see what content was available without being overwhelmed, and then dig further for their specific areas of interest
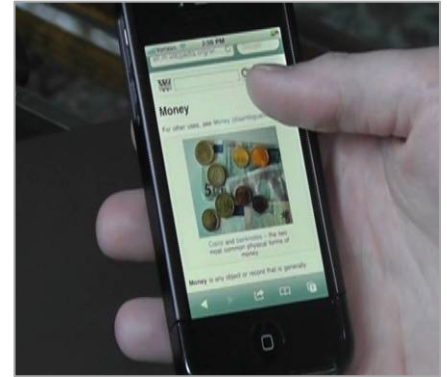
    The app does it better than [the website on the computer]. The app puts it all in one so you can expand it if you want to read more. (Jessica T – 29 – HTC Evo)

    o Specific issues uncovered include:

        – Font size on Android was slightly too small for some to comfortably read

- For non-smartphone and BlackBerry users, we saw a much wider range of outcomes

    o Users who navigated to the Wikipedia.org homepage saw mixed results; some BlackBerry users were able to view the page, while non-smartphone devices were not able to display the page correctly

    o Users who encountered a paginated version of the site indicated that they have a harder time skimming articles or skipping to specific details in later sections

    o Specific issues uncovered include:
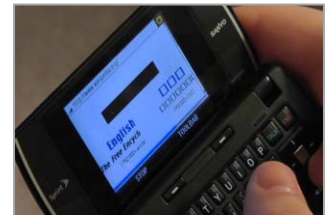
        – Wikipedia.org homepage jumbled
        – Infobox formatting difficult to read
        – Infobox pushing overview/lead content past 1st page
        – Font size on BlackBerry was hard for many to read
   – Unable to switch to full site on BlackBerry
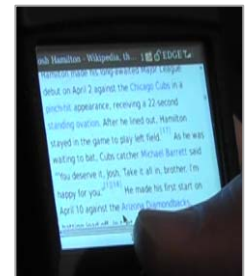
    I'd want [the text] bigger; otherwise I need glasses I'm not wearing right now. (Kaitlyn H. – 16 – BlackBerry Style)

Differences by Device (cont'd)

- A few participants complained of slow loading times, especially when articles contained photos - this was most common with non-smartphone users

    o Slowness was most often attributed to the device or network

    It's nice that there's a photo, but it takes more load time… [still, Wikipedia] does come up faster…than general websites. (Dennis G. – 33 – Samsung Messenger)
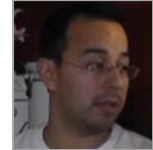
- Tablet users indicated that they typically have a good experience accessing the full web version of Wikipedia

    o This was also true of most other sites they use from their tablets, except iPad users who are wary of sites requiring Flash

    On the iPad I would use the [full] website. (Sabahat A. – 40 – iPhone/iPad)

    o One participant favored the Wikipanion app on the iPad because it provided the table of contents on the left side when viewed in landscape mode

    o Another participant used the Wiki[2] iPad app to queue articles for offline reading during travel
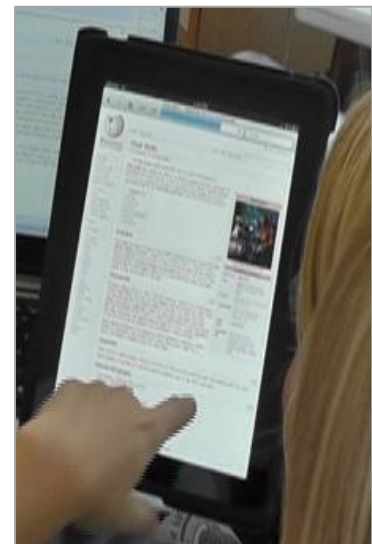
Opportunities: Device Specifics

Overall Readability

- Improve the **table sizing and formatting** on mobile devices to eliminate columns that are too narrow or wasted space (especially when photos are displayed in tables)

Non-Smartphones

- Users were confused and frustrated when they navigated to **Wikipedia.org** and received a jumbled version of the page, not optimized for mobile devices; create a **mobile version** of the Wikipedia.org homepage to ensure Wikipedia does not become a site that users avoid from their non-smartphone devices

- Continue to ensure the **redirect** to the mobile site works for all common devices, and that users can successfully **switch** between mobile and full sites

- If possible, always include the **full overview/lead on the first page** after the infobox, followed by a **table of contents**; prevent pagination of the overview/lead

- Maintain ability to **switch-off** images (and make sure this is persistent)

Smartphones

- Increase the **text size** for BlackBerry and Android devices, and consider adding **text size control** to all smartphone platforms (settings should be persistent)

- Ensure that users can successfully **switch** between mobile and full sites

- Provide users with **additional features** (such as offline viewing) via the Wikipedia **app** [*see page 21* and *page 26*]

- Improve the ability to **search**, **navigate**, and **share** [*see page 21 for details*]

Tablets

- Continue to keep tablet interactions in mind when making changes to the full site, and always **test against the tablet platform** just as one would test against various browsers

- Tablet app development should focus on creating an engaging experience with particular attention toward **gestural touch interactions**, **navigation**, and the **reading experience**; location-specific features are secondary

    o Consider a **textured interface** (such as Apple's Notes or iBooks apps)

    o Display an article's **table of contents** on the left when in landscape mode

    o Consider utilizing various **touch gestures** as alternate ways to perform common functions within the app (e.g. swiping down to close articles – see Amazon's iPad app as an example)

    o Allow users to control the **text size** and keep this as a persistent setting

    o Provide a way to save articles for **offline reading**, as many current tablet owners have wifi-only devices

    o Surface **main page content** by making this content the default screen upon launching the app and providing prominent navigation elements to return to the main page

    o **Interacting** with content is easier and more engaging on a tablet's larger screen; provide functionality for **editing**, participating in **discussions**, and accessing other **account features** (e.g. Watchlist)

Web vs. Apps

- Of the initial participants interviewed by phone, 7 of 9 iPhone users; 5 of 10 Android users; and 1 of 9 BlackBerry users had downloaded a Wikipedia app

    o Wikipedia apps used by participants included:
        – Wikipedia Mobile
        – Wapedia
        – Wikipanion
        – Wiki[2]

    o Participants were generally unaware of whether or not their app was the official Wikipedia app, and a few were unsure which app they had actually downloaded
        – Some assumed incorrectly that the app they were using (e.g. Wapedia) was the official app
        – Nearly all participants indicated that they would prefer an official app from Wikipedia versus a 3rd party developer, and expected that the official app would offer more features and provide a better experience

    > *I'd rather [the app] be official…I'd rather not some random person know what I'm looking up. (Jessica T. – 29 – HTC Evo)*
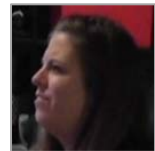
    o Similar to those who navigated directly to the Wikipedia website on their phone instead of searching via Google, those who used an app to access Wikipedia did so when their search for information met the following criteria:
        1. They know specifically what they are looking for and how to spell it
        2. They are reasonably confident Wikipedia will provide the information they are seeking
        3. They do not expect to reference additional web sources

    o Pros and cons of the various apps encountered include:

App	Pros	Cons
Wikipedia Mobile	- Official Wikipedia app - Predictive search - Collapsed/expandable sections - Contextual "Nearby" content	- Inability to access other sources of information (e.g. via Google) once in the app - Low average rating - Frequent crashes - Few perceived advantages over web (one participant said he was "underwhelmed")
Wapedia	- Table of contents - Predictive search - Access to main page content (e.g. "In the news")	- Pagination - Ads
Wikipanion	- Table of contents - Predictive search - Ability to search Google from app	Main page difficult to access and read
Wiki[2]	- Offline reading / history - Table of contents - Predictive search	iPad only

Opportunities: App Development

Awareness and Discoverability

- Drive initial **awareness** of the Wikipedia app by **prompting** users on the mobile site with an unobtrusive but easily discoverable link

- To avoid confusion and a lack of discoverability, each platform (iOS, Android) should have **one universal app**

  - Remove "**Mobile**" from the title of the app; this will mitigate any confusion on tablet platforms, and is redundant for mobile devices

  - Maintain the **simple app description** and emphasis of "**official**" in the text

  - Consider a **bulleted list** of features or advantages to using the app

- On the **Android** platform, consider implementing an **Intent Filter prompt** when opening Wikipedia links similar to the Wapedia app (when the Wikipedia app is installed and a Wikipedia link is opened, this would prompt the user to choose whether to open the link in the browser or the Wikipedia app, and a default can be set)

Engagement

- Improve the **search functionality** (corrective search, access to general Google search) as a way to drive users to the app versus using Google via their browser [*see page 21 for details*]

- Provide **features not available via the web**, such as offline access or the ability to save articles and sync across platforms [*see page 21 for details*]

- Include a **table of contents** in the app viewable from the toolbar [*see page 21 for details*]

- Allow users to **access their accounts** and contribute to **articles**, **discussions**, and other Wikipedia **namespaces** [*see details on page 27*]

Mitigate Frustrations / Confusion

- **Hide the web search box** in the app to avoid confusion with double search boxes

- Keep in mind that users are **quick to dismiss and uninstall** apps that don't work as expected; **stability** is crucial

Contributions

- Editing occurred almost exclusively on the computer platform (including small edits or copyedits by less active editors)

  - However, editors expressed a desire to make edits, participate in discussions, and access their account on the mobile platform

    > *If I could do it on the mobile, I'd make small tweaks and then come home and continue on the computer in greater details…if it was really easy to do it on the mobile I'd do it more…I can't access discussions on the mobile, which for me is a big thing. (Sabahat A. – 40 – iPhone/iPad)*

  - Two out of the three editors we spoke to had attempted to edit Wikipedia from their mobile devices, but had given up since they found it too difficult or frustrating to complete using the full site from their devices

- Certain use cases present significant areas of opportunity:

  - Making small changes or copyedits immediately when referencing an article from a mobile device

    > *There are a lot of really simple edits, to articles or people's user pages, that I'd find myself doing a lot if I could. (Chris S. – 25 – LG Android)*

  - Checking Watchlist articles for changes

  - Monitoring recent changes for anything that would require attention

  - Participating in ongoing discussions throughout the day and in a timely manner when not at a computer (including various Wikipedia namespaces, e.g. Articles for deletion)

  - Driving engagement and onramping current readers that are not yet editors

  - Any information related to a crisis that requires immediate action

- Generally, editors felt large contributions could wait until they got to a computer (where they have the ability to multi-task, copy-and-paste, and type more easily)

Opportunities: Contributions

Login

- Provide a way for editors to log in and access their **Watchlist**, check **recent changes**, make changes to **userpages**, and participate in **discussions** across various Wikipedia namespaces

- Consider giving app users the ability to create **notifications** for updates to articles, discussions, or other content

Contributions

- Allow users to **make edits** from their mobile devices

  - These may be **smaller edits** or simply **copyedits** but match editors' expectations that editing should be possible on a mobile device

- To aid in the use of **wiki markup**, provide tools for inserting common **symbols** or **boilerplate**

- Allow users to **upload photos** from their mobile devices to **Wikimedia Commons**

Cross-Platform

- Ensure users can add pages to their **Watchlist** from a mobile device, to facilitate referencing the article later on the computer or other devices

AnswerLab®
Your Trusted User Experience Research Partner.

About AnswerLab

AnswerLab is committed to improving the digital world by helping the world's leading brands build great user experiences across digital platforms. We focus exclusively on user experience research to understand what people see, do, think and feel when using web sites, mobile applications, and other digital products and services. Our clients rely on our objective recommendations about product concepts, features, design, and messaging to create engaging user experiences that drive business results. Global market leaders select AnswerLab as their user experience research partner, including Amazon.com, Walmart, PayPal, Facebook, Genentech, Electronic Arts, and FedEx.

Leading Brands Trust AnswerLab Insights

Retail:	Walmart	JCPenney	amazon.com
Automotive:	HONDA	NISSAN	Ford
Software/Technology:	Microsoft	hp	salesforce.com
Online Services:	Google	match.com	Linked in
Pharma/Health Care:	AMGEN	Genentech	igniteHEALTH
Financial Services:	TIAA CREF	ING	WELLS FARGO
Media:	CBS Interactive	YAHOO!	ESPN
CPG:	P&G	KRAFT	SC Johnson A Family Company

AnswerLab's Approach

At AnswerLab we understand how research fits into the big picture. Our deliverables contain not just sound research, but also actionable insights you can use to make key business decisions. We understand that your time is valuable. We take the time to distill study data to identify the key insights that will impact your business.

AnswerLab's Delivers High Levels of Client Satisfaction

AnswerLab maintains an exceptional level of client satisfaction and takes great care to consistently measure satisfaction. Based on a third-party survey, **100% of our clients** indicated they would recommend us. Due to this high level of satisfaction, the majority of our business comes from repeat customers.

For more information about AnswerLab visit www.answerlab.com