

NEW EDITOR EXPERIENCES

Summary of Findings from Korean and Czech Wikipedia

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I. Introduction

Wikipedia requires a constant influx of productive new editors from diverse backgrounds to sustain itself and increase its quality and balance. However, for nearly a decade, the size of the project's contributor community has stagnated as it has struggled to attract and retain such new editors.

Many passionate members of the Wikimedia movement—including editors, program leaders, academic researchers, grantmakers, and engineers—have worked to address this issue and to increase the quantity and diversity of Wikipedia's contributors.

The New Editor Experiences project, a cross-departmental initiative at the Wikimedia Foundation (WMF), aims to continue this long line of efforts. It focuses specifically on supporting new editors at mid-sized Wikipedias (roughly, those with 300 to 3,000 monthly active editors) and involves developing a deep understanding of these users.

In order to develop this understanding, the WMF selected the Korean and Czech Wikipedias as representative examples and, supported by Reboot, conducted design research in South Korea and the Czech Republic in May and June 2017.

This memo summarizes key findings and high-level opportunities identified during this research. These will guide participants in the New Editor Experiences project—particularly the Contributors team, which has made this work one of its 2017-18 annual plan commitments—as they carefully experiment with new products and programs.

Project Background

The New Editor Experiences project arose in early 2017 out of the <u>Audience Research Initiative</u>, a WMF-wide effort to integrate a deeper understanding of the diverse audiences that engage with Wikimedia projects into its product and programmatic work. The initiative developed an inventory of these audiences and a framework for using research to address knowledge gaps about them.

As part of this, teams at the WMF undertook a prioritization exercise to determine which audiences were the best candidates for generative research at that time. The exercise considered factors including the volume and type of research existing about each audience and the capacity of different WMF teams to use new research to inform their near-term work.

In this exercise, new editors from mid-sized Wikipedias surfaced as highest priority for two main reasons:

- New editor growth and retention are the focus of many different efforts at the WMF, so research on this topic has the potential to benefit a particularly wide range of WMF teams.
- Wikipedia-related research and product development has tended to focus on the largest Wikipedias, particularly English, leading to a knowledge gap about mid-sized projects.



II. Research Background

Research Objectives and Approach

For new editors of the Czech and Korean Wikipedias, this research sought to understand:

- Their characteristics, behaviors, and motivations, such as their i) habits and incentives for
 participating in voluntary and contribution activities, particularly online; ii) enablers of and barriers
 to contribution and online activity.
- How perceptions of and engagement with Wikipedia impact contribution in individual instances and over time.
- How Wikipedia's product functionalities and community support or inhibit contribution.

More details are available in the research framework here.



Research planning began with a desk review of past research on new editors which informed the development of future stages.

The primary research took place in two field sprints, one in South Korea and one in the Czech Republic. Each sprint lasted two weeks. The sprints were led by Reboot and supported by the WMF's Editing Product Analyst and Lead Design Researcher and two local researchers in each country. During the sprints, the researchers conducted semi-structured, in-person ethnographic interviews and user observations. Research sessions were typically 45 minutes to 1.5 hours in duration, conducted in the local language, and conducted in respondents' homes or workplaces or a public setting (e.g. cafe) with the respondent working on their own devices (i.e., mobile phone, laptop, or computer).



In addition, experts interviews were conducted with leaders from local online and offline communities which had a mix of traits comparable to Wikipedia—being online, volunteer-based, knowledge-related, and/or collaborative. Due to scheduling constraints, no expert interviews were conducted in the Czech Republic; there will be opportunities to follow up with experts remotely.

Respondent Selection and Recruitment

In each country, the main objective of respondent selection was to identify and recruit Wikipedia editors matching the following profiles:

- Retained new editors, who had registered accounts within the past year, had at least one month
 between their first and last edit, and had spent more than one hour editing. These new editors
 represented those that sustained their activity for a significant time after joining. Top retained new
 editors were identified and made distinct from retained new editors, as those new editors who
 ranked highest in the volume and breadth of their edits.
- Non-retained new editors, who had registered accounts within the past year, and had less than
 one month between their first and last edit and less than one hour of estimated total editing time.
 Essentially, these were new editors who seemingly dropped off from editing.
- **Experienced editors**, who were longtime, active editors who often interacted with new editors either on- or off-wiki, such as by teaching courses, reverting edits, or writing on talk pages.

Initially, a fourth profile of *recent new editors* (those registered in the past month) was included, but it was dropped after the first sprint since no respondents matching its criteria were interviewed.

The recruitment also attempted to fill quotas for geographic location, gender, employment status, age, and the method of first joining Wikipedia (organically via the website or through an organized off-line program).

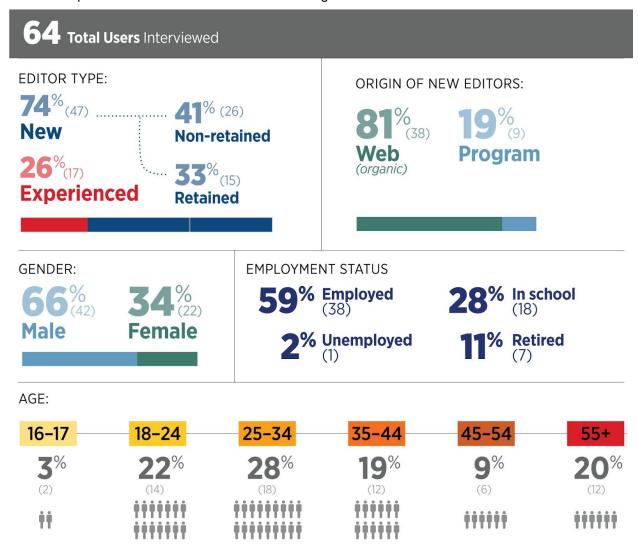
The WMF recruited respondents with the help of a local consultant in each country. The initial outreach emails, sent to the addresses the editors had registered on Wikipedia, included a brief explanation of the purpose and methods of the research and a short survey to capture the basic demographics and availability from interested recipients. Respondents were then selected according to how their availability matched the research schedule; how well they helped meet the study quotas; and whether their editing history suggested experiences not previously found in the sample.

In South Korea, interviews were done with 30 respondents and 4 experts located in and around Seoul. In the Czech Republic, interviews were done with 34 respondents located in and around two urban centers, Prague and Brno, and in four small towns.

During the first research sprint in South Korea, recruiting and scheduling constraints led to one significant discrepancy between the respondent quotas and the numbers actually interviewed: retained new editors were slightly more than half of their quota, while non-retained new editors were more than double their target. In response, the outreach emails and the scheduling for the Czech Republic were successfully adjusted to interview more retained new users.



The 64 Wikipedia editors interviewed had the following characteristics:



Context Comparison

Korean and Czech Wikipedias were chosen as the focal communities for this research based on the representativeness and comparability of their Wikipedia and country contexts to other mid-sized Wikipedias. Below is a summary comparison of the Wikipedia and country contexts for both Czech and Korean Wikipedias. For more detail on the comparison between these two contexts, see Annex 1: Context Comparison.



Wikipedia Context

	Korean Wikipedia	Similarities	Czech Wikipedia
Monthly Active Editors ¹	773 (16th among Wikipedias)	Mid-sized wikis, with stagnant or slightly declining	615 (18th among Wikipedias)
Articles	396,000	Substantial content bases	389,000
New Editor Retention Rate	8.5%	In the middle-upper tier of Wikipedias	7.3%
Programmatic Work	Low levels of programmatic activity	Run edit-a-thons and partnerships with local organizations and government to recruit and teach new editors	High levels of programmatic activity
Community	User group, with no paid staff	Dedicated volunteer community	Chapter, with paid staff
Funding	Individual grants		Annual plan grants

Czech and Korean Wikipedias are both considered mid-sized, with Czech ranked 18th and Korean ranked 16th out of all Wikipedias according to active editor count. They both have around 700 monthly active editors, with slightly more for Korean, and for both this number is stagnant to slightly declining. Both the Korean and the Czech Wikipedias have fairly high rates of new editor retention (for comparison, other Wikipedias' rates range from 10.1% for Japanese to 5.8% for English and 4.7% for Spanish). while compared to other mid-sized Wikipedias and low levels of programmatic activity. d they have high levels of offline programmatic activity. Both Wikipedias have a localized community of contributors, based in South Korea or the Czech Republic, but Czech has close ties to its neighboring language communities from Central Europe.

Both languages have a dedicated volunteer community, but Czech Wikipedia has a chapter with paid staff, whereas Korean Wikipedia has a user group with no paid staff. Czech Wikipedia receives annual plan grants and has high levels of programmatic activity, while Korean Wikipedia receives individual grants and has relatively low levels of programmatic activity. Both communities facilitate partnerships and events (particularly edit-a-thons) to engage new editors, though Czech Wikipedia also runs courses and weekly meetups to provide offline support to new editors. Czech Wikipedia seems to have a more close knit community, with high levels of sustained interaction with new editors, while the Korean community seems to be slightly more dispersed, smaller, and has intermittent interactions with new editors.

¹ August 2016–July 2017 average



Country and Cultural Context

Both South Korea and the Czech Republic have high levels of economic development and largely urban populations. In the Czech Republic, 73% of the population is urbanized and distributed across many urban centers in the country. In South Korea, 82.5% of the population is urbanized, with extremely dense concentrations of people in and around Seoul.²

Internet penetration is high in both countries, although technology infrastructure is considerably more robust in South Korea where public, high-speed Wi-Fi is common and Seoul is considered one of the most connected cities in the world. Mobile phone usage is also high in both contexts (per 100 people, 131 in Czech Republic and 120 in South Korea had a mobile subscription³); but the Czech Republic has received criticism for having some of the most expensive mobile and data plans in the EU, making usage of mobile data plans less popular.

English proficiency is high in both countries—out of 72 countries in the Education First English Proficiency Index, South Korea ranked 27th and the Czech Republic ranked 16th out of 72 countries in english proficiency.⁴ In the Czech Republic, local web portals (e.g., seznam.cz) are less popular and Google is dominant. South Korea has more local web competitors to Google (e.g., Naver), as well as Wikipedia (e.g., Namuwiki).

Hofstede's cultural dimensions are a common framework for describing the effects of a society's culture on the values of its members, and how those values affect their behavior. This framework is one way to understand how cultural factors may influence the new editor experience in South Korea and the Czech Republic, and how these behaviors may be similar or different in other mid-sized Wikipedias whose cultural contexts have comparable traits. Based on Hostede's⁶, the Czech Republic and South Korea are both hierarchical societies where social roles tend to be more clearly defined. Both also rank highly on measures of uncertainty avoidance, meaning there tend to be more rigid codes of belief and behavior and a stronger emphasis on rules.

⁶ Hofstede's Dimensions of National Culture



² CIA World Factbook (<u>South Korea</u>; <u>Czech Republic</u>)

³ CIA World Factbook (South Korea; Czech Republic)

⁴ Education First English Proficiency Index (South Korea; Czech Republic)

⁵ "Hofstede's cultural dimensions theory", Wikipedia

III. Key Findings

New editors are a diverse set of people who have a range of backgrounds, interests, and skills that enable them to provide valuable contributions to Wikipedia. With this diversity, they also bring different and sometimes opposing reasons for editing Wikipedia. By understanding new editors' backgrounds, motivations for editing, and editing experiences, the WMF can better attract, support, and retain diverse editors and, in doing so, help advance the movement's broader mission.

The findings below are organized into notable patterns observed across editors' characteristics and technology ecosystems, and key findings relevant to different aspects of new editors' experiences with Wikipedia.

Characteristics of Editors

Seniors Edit Wikipedia course said,

While Wikipedia editors have a range of interests, needs, behaviors, and backgrounds, they share some common traits and behaviors that define how and why they spend their time:

1. Editors tend to be innately curious self-studiers who proactively learn about new topics. New and experienced editors alike have built professions or serious hobbies out of their passion for learning. In their free time, they read, participate in study groups, and/or take classes to deepen or expand their knowledge on topics of interest. They invest time in these activities because they highly value information and knowledge as part of their self-development. As one participant of the Czech



"Information is the most luxurious good. If you have good information you are rich, and I want to be rich."

-Lenka, Customer Assistant, Brno

With this penchant for learning, editors are more likely to search for information to fill gaps in their knowledge, leading most editors to start as longtime, avid Wikipedia readers, who then became



progressively more engaged with Wikipedia.

New editors' research activities often focus on topics related to their work, personal interests, or own identity. Because they put effort into building their personal wealth of knowledge, and are thorough in doing so, they are often professional or novice "experts" in certain topics. However, new editors may not see themselves as experts—a perception that, as the following findings will show, later stifles their potential contributions to Wikipedia.

2. Like most people, editors determine how to use their discretionary time based on how well different activities serve their needs, ambitions, and interests.

In determining whether to edit Wikipedia and how much time to spend doing so, new editors are choosing between editing and participating in a host of other activities that can satisfy their personal needs, interests, and ambitions. Some of these ambitions and sample activities that compete for their time, are below:

- Moving their work or passions forward (e.g., joining a book club to advance schoolwork, blogging to develop an audience or customer base)
- Enriching themselves and expanding their worldview (e.g., traveling, attending seminars, researching their family tree)
- Shaping the world around them (e.g., writing a feminist blog, participating in a political party)
- Documenting and sharing their lives and passions (e.g., contributing to social media, managing a personal website, hosting a poetry reading)
- Connecting with others, over shared values and interests (e.g., joining specialized hobby groups or communities, contributing to specialty online fora, attending events and conferences)
- Feeling valuable (e.g., mentoring on Coursera, part-time teaching)
- Feeling a sense of accomplishment (e.g., playing games, building an app)

While editing Wikipedia can satisfy all the above needs, the path to receiving their desired reward isn't always clear. As the following pages will show, new editors can find it difficult to get the positive reinforcement they seek for their efforts, and many discontinue editing before they've had a chance to experience the rewards they seek.

3. People do more complex, rigorous tasks on their desktop or laptop computers, and short, quick tasks on their mobile phones.

In both South Korea and the Czech Republic, most respondents used a desktop or laptop computer as their primary device, on which they do paid work, write in long-form, code, play games, translate documents, and edit Wikipedia. They then used their mobile phones as secondary devices for quick, personal and social activities, such as conducting simple searches, viewing maps, making notes, and calling, messaging, or texting others. (More details on the differences between mobile phone usage in each country in Annex 1: Context Comparison.) Of the 47 new editors we spoke with, 10 contributed to Wikipedia using their mobile phones or a tablet, mostly using the mobile website (one used the iOS app, and one used the Android app); the majority of these editors were young (under 35 years old) and did smaller, on-the-go edits on their mobile devices.

Respondents not only defined their usage of different devices by a task's difficulty, but also by whether they were personal or professional. Employed respondents had at least one laptop or desktop computer



at work where they did work-related activities. Their mobile phones, on their other hand, were associated with "free time" and used largely for connecting with others socially, either through calls, messaging platforms, or social media. Young people, however, were more likely to do all types of online tasks—professional and personal, effort-intensive and -light—across their different devices.

Most respondents preferred the comfort of working on computers with a large screen, keyboard, and external mouse for completing rigorous tasks. In the Czech Republic, respondents often carried their own mouse and mousepad with them to use their laptop outside the home.



Motivations for Editing Wikipedia

Finding 1. People edit Wikipedia for diverse reasons, most of which serve purposes beyond editing Wikipedia.

Similar to how people choose to spend their discretionary time, new editors edit Wikipedia because it can serve a variety of motivations. This research identified six main motivations for why new editors start editing Wikipedia. From these patterns of motivation, personas were developed. Personas are archetypes created from observed patterns of motivation and behavior, and do not represent specific individual people.



Audience Builder Gong-Yoo

Audience Builders edit in order to leverage Wikipedia's reach for promoting their work or themselves.



Box Checker Mina

Box Checkers edit Wikipedia to satisfy an external reward or objective, such as completing a school assignment or as part of a job requirement.



Joiner-Inner Helena

Joiner-Inners start to edit Wikipedia for the experience, usually to learn something new, be part of the offline community of editors, and/or meet new people.



Reactive Corrector

Josef

Reactive Correctors fix obvious errors or gaps they find on Wikipedia, and find these fixes easy and satisfying, but do not relate them to a larger vision.



Knowledge Sharer Yankov

Knowledge Sharers have a desire to share their topical knowledge with others and participate in Wikipedia's mission.



Social Changer Jae-Hee

Social Changers have a strong passion for an often topical or controversial issue and edit Wikipedia to influence how society views the issues they care about.



More detail on each of these user motivation groups and respondent examples are as follows:

Audience Builders are those who edit in order to leverage Wikipedia's reach for promoting their
work or themselves. These editors are most likely to run into conflict of interest issues when
editing, depending on how much they know about Wikipedia's rules and policies, and how willing
they are to adapt to fit within those.

Such editors include a Korean fitness blogger who wanted to have a Wikipedia article about himself that would appear in a Google search, and a Czech radio station's archivist who adds links to the station's website in Wikipedia articles in order to build a stable source of web traffic to their content.

• **Box Checkers** are those who edit Wikipedia to satisfy an external reward or objective, such as completing a school assignment, as part of a job requirement, or similar reasons.

Such editors include a Czech student who received a sociology class assignment to edit Wikipedia, and a Korean translator who translated an article from English to Korean Wikipedia so that she could use it as a work sample for a potential client.

• **Joiner-Inners** start to edit Wikipedia for the experience. They start editing to learn something new and/or to be part of the offline community of editors and meet new people. These types of new editors often start editing through an edit-a-thon or other programmatic activity.

Such editors include a Korean jewelry designer and student who attended an edit-a-thon on her campus because she routinely attends free seminars to learn about new topics, and a Czech woman who joined a Seniors Edit Wikipedia course to meet new people and to try out a new activity.

Reactive Correctors fix obvious errors or gaps they find on Wikipedia, which means their edits
tend to be connected to a specific set of topics. They are often heavy readers of Wikipedia, which
is how they find the errors, and they find it satisfying to make these fixes, but don't necessarily
see contributing as an altruistic act or as contribution to a larger vision. They often expect that
someone better qualified than themselves will edit if they don't.

Such editors include a retired Korean nuclear engineer who once corrected content that was "blatantly wrong" in an article about greenhouse gases, and a Czech programmer who writes software how-to guides and builds apps in his free time, but will only fix "common sense errors" that he can correct quickly and without having to learn a new topic.

Knowledge Sharers have a desire to share their topical knowledge with others. They are often
heavy readers who are aware and appreciative of the fact that Wikipedia is collaborative and
written by volunteers. They choose to edit Wikipedia to share their knowledge as well as
participate in Wikipedia's mission.

Such editors include a Korean geologist who wanted to add information about the mine he works



at and to be part of the collective knowledge sharing on Wikipedia, and the Czech high school student who has been lurking on Wikipedia for sometime, reading and exploring policy and discussion pages, but chose to edit physics articles because he wants to make them easier for anyone to understand and enjoy.

• Social Changers have a strong passion for an often topical or controversial issue. To them, editing Wikipedia is a way to influence how society views the issues they care about. They either see a bias or imbalance in the content they wish to address, or they simply want more information in the "formal record" on the issues they are passionate about.

Such editors include several Korean contributors to a Korean feminist wiki (Femiwiki.com), who wanted to promote feminism and counter their experience of a male-dominated voice on Korean Wikipedia, and a Czech father who wanted the Czech article on Waldorf schools, which his children attend, to more accurately represent their approach so that other parents and their families can be better informed when considering Waldorf schools.

The diverse motivations of new editors can affect how they process different aspects of their Wikipedia journey, and how different experiences impact their interest and efforts in editing. For example, their motivations may affect how well they persevere through the hurdles of editing. If new editors want to achieve a concrete end goal (e.g., Box Checkers and Audience Builders) they may be more easily frustrated by a challenge; but if they enjoy the process of editing (e.g., Knowledge Sharers and Joiner-Inners) or are driven by a strong mission (e.g., Social Changers) they are more likely to work to overcome barriers, and may even see them as learning opportunities.

Despite their different motivations for starting to edit Wikipedia, new editors were often incentivized to continue editing, or to contribute elsewhere online, by the same drivers:

- People want to make contributions that are useful to others, and be recognized for
 providing this benefit. Many new editors described a desire to make "useful" edits that someone
 else could benefit from. Retained new editors had often received on- or off-wiki praise and
 feedback for their work that validated this need. New editors who participate in other online
 contribution activities, such as blogging or writing for other wikis, were similarly incentivized when
 they received feedback or recognition for their work.
- People prioritize contribution activities which best serve their needs, and will quickly drop
 those that do not. Many non-retained editors said that they stopped editing Wikipedia because
 they "don't have time." But often they have other discretionary activities which better suit their
 needs and ambitions, and which compete for their time in contributing to Wikipedia.

For Audience Builders, they may be already committed to writing for other publications or platforms that reach their audience. For Joiner-Inners, they may have an array of other communities that they are involved in. For Reactive Correctors, they may already be sharing their topical knowledge elsewhere, such as on an academic platform or their own blog, and do not see the value in investing the same level of effort to Wikipedia.



• People become heavily invested in online contribution when they receive something to advance their offline work, professional or personal, and/or identities. Many new editors are academics, professionals, or public personalities who want to, or are required to, receive recognition or peer feedback for their work and who will thus put a considerable amount of time into writing or contributing to specialized or accredited fora. While other new editors often participate in online communities (e.g., google groups, interest group websites, social media) as a reciprocal process of both promoting and learning about their interests and work. For these editors, their desire to continue contributing to Wikipedia depends on how well their work on Wikipedia helps satisfy these needs. Those who want credit or peer feedback on their work, particularly academics, are often heavily invested in contributing to other fora already where they receive this type of recognition, making Wikipedia less of a priority.

In conversation, experienced editors often referred to an idealized "natural Wikipedian," someone with a nebulous set of characteristics that makes them more inclined to become heavy editors. This type of contributor has an interest in sharing information and progressively grows into an open knowledge advocate—a similar experience to that of many Korean and Czech longtime contributors. Out of the range of motivations for new editors, the Knowledge Sharer's journey most closely resembles that of a "natural Wikipedian". Reactive Correctors have many similarities with Knowledge Sharers and high potential to become committed editors like the "natural Wikipedian"; but their growth stagnates when they do not see how contributing to Wikipedia can meet their needs. The contribution journeys of each type of new editor are defined in part by their motivations and drivers for editing—the diversity of which hold many opportunities, and challenges, for increasing the diversity of content and contributors to Wikipedia.

Wikipedia is no longer the audacious experiment in globally crowdsourced open knowledge that it was 16 years ago. Today, many that come to Wikipedia may not be aware of its origins and mission, and may begin editing for diverse reasons. The six motivations identified for new editors, and the below findings on their experiences of editing Wikipedia, begin to shed light on how Wikipedia can better attract and support different types of editors and help them become valuable and valued Wikipedians.

Opportunity: Approach engagements with new editors from the perspective of what benefits they can get from the Wikipedia experience, not just what Wikipedia wants from them. With the array of options that new editors have to cater to their unique needs and motivations, Wikipedia has to compete for a contributor's time and energy. To be an attractive candidate, Wikimedia should demonstrate to potential editors the benefits they will receive by contributing, in a way that speaks to their diverse motivations and needs.

For example, for editors who are incentivized by the utility of their contributions, Wikimedia could more clearly show their impact (e.g., displaying pageviews of their edits, sending personalized thank you messages). For professors or professionals who need peer feedback, Wikimedia could connect them to other editors in their field. For each motivation type, Wikimedia could direct their contributions in a way that fulfills their motivations—e.g., by encouraging Knowledge Sharers to edit other articles related to their topic of interest, encouraging Joiner-Inners to participate in community affairs, and helping Social Changers connect with others who share their mission for editing.



Perceptions of Wikipedia

Finding 2. Wikipedia's prominence is both its greatest strength and its greatest weakness for attracting new editors.

Wikipedia's prominence as an internationally respected information source are assets for attracting new editors who want to shape and leverage its formal record and global audience (e.g., Social Changers, Audience Builders). People primarily begin reading Wikipedia by first searching for a topic in Google. Seeing Wikipedia appear in their top search results implies to them that it is trustworthy and authoritative.



"Wikipedia is the most broad and beautiful thing there is." -Jiri, Retired Accountant, Brno

But this wide reach and stature can also increase the pressure on new editors when editing Wikipedia. New editors often feel that their edits need to be perfect, or that they are not qualified to edit if they do not see themselves as experts, because they describe Wikipedia as a formal encyclopedia. They also understand that the platform has a global audience and, if they have usernames tied to their online or offline identities, that any edits they make can be connected back to them. This additional pressure makes editing Wikipedia feel more risky as they are afraid to make mistakes on content that many other readers rely on, and look dumb on a public forum of such immense scale.

Opportunity: Make editing more approachable. The Wikimedia movement should take pride in the respect and authority that Wikipedia has garnered globally. But the idea that "anyone can edit" is not equally resonant within these communities. Editing could be made more approachable by helping editors feel more comfortable making amateur edits, and by showing them how to decrease the stakes (real or



perceived) of doing so on a public forum (e.g., by encouraging them to make usernames that are not personally identifying), while making it easier to understand how to edit appropriately (see Finding 8).

Finding 3. Inspiring, trusted, and well-connected intermediaries are a critical asset in recruiting and supporting new editors.

The value of contributing to Wikipedia is often substantiated by the influencers who recommend it. New editors often started editing after being convinced to do so by someone they trust. In the Czech Republic, the philosopher and politician <u>Jan Sokol</u> acts as the celebrity face of Wikipedia; several new editors, whether they knew him personally or not, credited him as having validated Wikipedia's legitimacy as a project for them to join. New editors in both contexts were encouraged personally, by their bosses, teachers, or mentors, to edit Wikipedia. These individual influencers often validated a new editor's expertise on a subject and prompted them to share it, or pitched Wikipedia as a way to reach many people (e.g., Audience Builders).

Both Korean and Czech Wikipedia are partnering with prominent institutions to attract new editors. Korean Wikipedia has worked with local governments to teach their employees to edit Wikipedia and add information about their district, as a way to attract visitors. Czech Wikipedia staff are currently working with libraries, where they often hold courses and meetups, to promote their programs with library patrons and to empower librarians to teach patrons to edit.

The most promising benefit of these intermediaries is not only recruiting new editors, but having them teach others how to edit. The Wikimedia Foundation has built such multipliers through partnerships with schools and teachers, integrating Wikipedia usage and editing into formal education systems. Czech and Korean educators, who were also new and longtime editors, reiterated the value of using Wikipedia editing as a practical tool for building their students' skills in technology, research, writing, and more.

Informal, individual mentors, however, were often the most effective at both inspiring and teaching new editors. For new editors like an avid organist in the Czech Republic, his Wikipedia mentor was a priest at his church who encouraged him to put his documentation of this church and organ's history on Wikipedia, and not just have his writing "sit on a shelf". This priest, who was a longtime Wikipedia editor himself, saw the alignment between Wikipedia and the organist's intrinsic motivation to share knowledge about his passions—the church and its organ. Many other retained new editors said their friends, colleagues, and wikicourse instructors encouraged them to edit and/or provided on-demand support as they learned how to edit (see Finding 10). By virtue of their personal relationships with new editors, these individual intermediaries were able to attract and support new editors with intrinsic motivations conducive to editing.

Opportunity: Focus efforts on inspirational multipliers who can attract and teach new editors by appealing to their diverse motivations. As a Czech experienced editor suggested, "[Wikipedia needs to] grow on its edges, through new people." The movement can support this growth by turning successful editors, and fans of Wikipedia, into editing missionaries, and enabling them to teach and support new editors. Such efforts could create multipliers to inspire new editors both broadly, through "Wikipedia



celebrities" who are influential within their communities, and individually, through programs that identify and support intrinsically motivated new editors.

"[Wikipedia needs to] grow on its edges, through new people."

-Jan, Czech Wikipedia Board Member, Prague

Finding 4. As readers, many editors see Korean/Czech Wikipedia as limited, and seamlessly supplement its information with more comprehensive or deep sources. This means that as editors, they are less inclined to contribute to Korean/Czech Wikipedia because the content gap that needs to be filled feels too large. This perception creates a vicious cycle that prevents medium-sized wikis from reaching a critical mass of value.

People use Wikipedia for broad information, but not deep. When searching for and consuming information, people use Czech or Korean Wikipedia as one part of a network of information, on Wikipedia and elsewhere on- and offline. They use Wikipedia as a starting point for learning about something new, and then often continue on to more specialized (e.g., MathOverflow for information on mathematics theories) or local (e.g., Namuwiki in South Korea) information sources for deeper knowledge.

People use English, or other language Wikipedias, for more comprehensive information because Czech/Korean are seen as limited. People use other language Wikipedias, whether they know the languages or read them through Google Translate, to supplement what they find on Czech and Korean Wikipedias. Many people describe Czech and Korean Wikipedias as small and having limited information, while they see English Wikipedia as broad and academic. Often, if they can't find what they need in Czech or Korean, they will look on English or, sometimes, other neighboring language Wikipedias (e.g., Slovak, German, Japanese) to get what they need.

With the wealth of information available to them outside of Czech and Korean Wikipedias, potential and new editors may not see the need to build up these language Wikipedias and fill in their gaps.

Opportunity: Encourage readers to fill Czech/Korean Wikipedia's gaps as they fill their own information gaps. Knowing that readers will often find the information they need elsewhere if it's not available on Czech/Korean Wikipedia, Wikimedia should encourage readers to carry over the information they find on other sources or other language Wikipedias to fill in the gaps they see on Czech/Korean Wikipedia. For example, when readers switch to another language Wikipedia, such as English, a notification could alert them that the topic is missing from Czech/Korean Wikipedia and could then guide them through how to translate the article and publish it on Czech/Korean Wikipedia.



Finding 5. The complexity and separation of how Wikipedia is made, and the community behind it, make it difficult to convert readers to editors, and new editors to experienced editors.

Many new editors were confused about how Wikipedia works, or were not aware that their understanding of the model was incorrect. Some thought that Wikipedia was edited only by experts or a small group, until they noticed the edit function or learned that anyone could edit outside of Wikipedia (e.g., through news articles, friends, or social media). Once they started editing, most new editors did not understand Wikipedia's policies and the rationale behind them, and were not aware of or had not interacted with other editors.

Some new editors were incentivized to edit Wikipedia because of its collective culture—the fact that "anyone can edit". For some retained and experienced editors, knowing how Wikipedia is made encouraged them to engage further. For new editors who were first intrigued by the collaborative process behind Wikipedia, many then made efforts to learn more about how Wikipedia works before editing, by attending offline programs or lurking on discussion pages. No new editors mentioned Wikipedia's mission—to provide free and open knowledge—or its non-profit status as reasons for readers converted to editors; it's likely that many were not even aware of these more ideological attributes of Wikipedia.

New editors have difficulty engaging further with Wikipedia's collective culture because community functions are hidden to them. Though many new editors were intrigued by the collective process of editing, very few made the leap to participating in community discussions or activities likely because they did not know how or where to do so. Many new editors could not find or use talk pages to communicate with other editors on-wiki (see Finding 9), and rarely attended off-wiki gatherings in South Korea and the Czech Republic, unless the events (e.g., edit-a-thons, wikiclubs, wikicourses) were specifically geared at new editors. Participating in on-wiki discussions and off-wiki meetings often helped experienced and retained editors cement their investment in Wikipedia by allowing them to bond with people who share their interests and become more involved with behind-the-scenes, administrative work. It's hard for new editors to receive these same benefits because there's no clear on-ramp to the Wikipedia community, or they are not even aware that it exists. This separation between new editors and the established community makes it difficult for new editors to become more progressively involved, and for experienced editors to support new editors.

Opportunity: Raise the curtain on how Wikipedia works to make editing more apparent and accessible. Show readers how the sausage is made, by demonstrating or highlighting the collective editing process and its related functions within the reading interface, as a way to incentivize people to edit and break down the perception that Wikipedia is only edited by small group of experts. Adapt communications and programming to appeal to their desire to be part of something bigger than themselves, while also providing them with the tools and guidance they need to make valuable, and not detrimental, edits. Further support their engagement by presenting clear opportunities to learn about and get involved with the community behind each Wikipedia. This increased involvement can deepen a new editor's investment and personal connection to Wikipedia, while also helping them better understand the rationale and mechanisms behind Wikipedia's structure and policies.



Learning to Edit

Finding 6. People must be confident in their content knowledge to edit Wikipedia.

Most new editors start editing Wikipedia only once they are confident that they know something is wrong, and that they have the answer to fix it. Typically, this confidence comes from their heavy investment in self-study around their work or interests, making them amateur or professional "experts" on these topics. Although they may have built a strong line of knowledge on a topic, many new editors don't see themselves as "experts." They then constrain their contributions to editing only topics they know well, or translating pre-existing content from English Wikipedia. Reactive Correctors, in particular, will hesitate to edit unless they see an obvious, factual error; otherwise, they assume that someone who knows more than them would be better suited to edit.



"Somebody else will contribute if not me. [...] Others could do better."

-Gyeowoon, Seoul

Without some amount of confidence in what they know, new editors will not feel bold enough to contribute to Wikipedia. As self-studiers, new editors are often very thorough in how they gather and share information, making them much more cautious about being incorrect in a public arena such as Wikipedia.

Yet, those with past experience participating in other online and/or collaborative fora feel less pressure to be perfect because they better understand and are more comfortable with Wikipedia's process, and trust



that others will correct any mistakes they might make. Experienced editors also feel less pressure and use editing on their topics of interest as an extension of their self-study practice—finding it a "fun" and "easy" way to build on their learning.

Opportunity: Encourage amateur "expert" edits. Empower new editors to be bold in their edits by validating their expertise, insisting that they too can edit, and helping them understand the process of collective knowledge sharing. Wikimedia could do this by asking new editors to complete a short survey on their topics of interest, and then suggesting potential edits they could make based on these; or, by partnering with study or hobby groups and supporting them in learning about their topic of interest by editing related Wikipedia articles. With all of these efforts, Wikimedia should provide additional support to curators and patrollers in handling the influx of activity from new editors and in providing feedback on "bad" edits that helps new editors learn but does not discourage them from editing (see Finding 11).

Finding 7. Successful editors tend to build their "contribution skills" through iterative, progressive learning in safe spaces where the stakes are lower.

Beyond their content knowledge, new editors come to Wikipedia with various levels of "contribution skills"—tech savvy, writing, research, and collaboration—which make learning to edit Wikipedia easier and faster. New editors can pick up these skills through previous experiences of online contribution, peer collaboration, writing for a public audience, and using different tech platforms. Retained and experienced editors often have a complementary mix of these prior experiences and their resulting skills that contribute to their editing success.

New editors can build their "contribution skills" on Wikipedia through progressive trial and error. Having mastered this set of skills prior to editing Wikipedia is not required for successful editing. Retained new editors, who had little past contribution experience, often went through a period of trial and error where they built up these skills and learned how to edit Wikipedia in small, manageable chunks. They also learned by receiving consistent feedback, either from other editors or by seeing their edits stick, and progressively advancing to more complex edits.

As the Korean and Czech community members who work on new editor programs noted, this type of learning is very different from how edit-a-thons teach people to edit, where new editors receive a one-time download of everything they need to know as they begin the editing journey. New editors who participated in an edit-a-thon and had little prior contribution experience had trouble later replicating what they learned from the edit-a-thon on their own (see Finding 9). Community members from both projects said that the one-time model of the edit-a-thon is not sufficient to meet new editors' needs for repetitive, stage-gated learning and continued support for their edits, but said that these skills should to be taught incrementally, alongside a new editor's journey. This method allows them time to practice and receive just-in-time help. They noted that a mix of online and in-person support would be valuable.

New editors practice their contribution skills in a safe space through anonymous editing, their sandbox, or working off-wiki. New editors need to practice these skills in a safe space, where there are no consequences (real or anticipated) for mistakes. Many retained new editors started by making small



edits anonymously, where their edits could not be clearly tied back to them, before registering an account and making substantial edits. New editors who create new articles often start in their sandbox or by working off-wiki, most commonly in a Microsoft Word document, where they have a private scratchpad to gather their sources, write, and edit their work before publishing it. New editors to Czech Wikipedia who had participated in a wikicourse were encouraged to use their sandbox by their instructors, who would then monitor and provide feedback on their sandbox edits after the course. These new editors praised the usefulness of the sandbox, and their instructor's support, for their continued learning.

Opportunity: Provide staggered training and support to new editors. Lower the stakes by showing them that learning to edit is a process, and that the Wikipedia model expects and can address any mistakes they make along the way. Adapt the edit-a-thon model, or other common methods for teaching new editors how to edit, to fit their learning needs—breaking lessons and support out into small, manageable chunks over time. For new editors that start editing organically (not through a program), encourage them to set progressive goals, and point them to the sandbox or create an even more private space where they can practice and receive feedback from a mentor.



Facing Challenges

Finding 8. New editors' greatest challenges are not technological but conceptual. They struggle to learn Wikipedia's policies and how to shape content "the Wikipedia way."

While new editors did face challenges navigating the technicalities of editing (see Finding 9), they were most thwarted by the structures and policies regulating their contributions to Wikipedia. Most new editors were confused by how to apply and follow Wikipedia's policies, and the rationale behind them. For those with experience contributing to other online platforms, particularly fora where neutrality is not enforced and personal opinions are more permissible (e.g., Namuwiki in Korea, blogs, etc.), Wikipedia's rules and policies are very different than those they are used to.



"The challenge is to do editing right, according to the rules and format of Wikipedia."

—Honza, Programmer, Prague

Writing for Wikipedia requires more learning on the part of new editors, but very few take the time to read Wikipedia's policies or help pages before editing. Only new editors who had a strong motivation to edit Wikipedia in a sustained manner, or who enjoyed the process of editing, made an effort to search for and read through documentation of Wikipedia's policies and rules, and yet still found the policies dense and confusing. Most new editors either became easily frustrated when their edits were reverted, or shied away from creating new content that would require a deeper understanding of how to write for Wikipedia and focus just on correcting pre-existing content.



The most common conceptual challenges that new editors face are:

Verifiability and citations: The concept that everything must be citable but not necessarily cited
is not known by new editors. Most new editors believe verifiability is a burden because of the
work involved in finding appropriate citations. A Korean retiree who contributes and mentors other
users on Coursera, and who thinks everything on Wikipedia is supposed have citations, found
editing to be prohibitively time intensive even though he was able to volunteer his time.

Other new editors don't understand why they can't contribute their original research or content they know to be true, because they are often able to do so on other online platforms. For example, a retired Czech accountant wanted to add ideas from his many books on business and accounting methods to Wikipedia because he wants others working in accounting to be able to use them. He became frustrated when another editor told him that he couldn't add references from his book, and thinks that the original research rule should be loosened because, as he said, "traditional encyclopedias have dead knowledge once they are published, but Wikipedia can be flexible."

• Notability: New editors are often confused or have a misperception about what content does and does not belong on Wikipedia. Since they see Wikipedia most often in the top result of their internet searches, many expect that it is more of a directory than an encyclopedia. In turn, new editors expect that they should easily be able to add information about themselves, their work, or their companies to Wikipedia. A Korean lawyer said he went to Wikipedia "for PR" (public relations) to add a page on his law firm to Wikipedia that would appear in his Naver searches along with his blog and the firm's website. He assumes most people use Wikipedia in this way.

The enforcement of the notability policy can also be seen as subjective by new editors, who then disagree with or don't understand why their edits are disputed. A Czech artist added an article about a band he likes to Czech Wikipedia, which was later disputed for its notability. He thinks his edit was justified because of the number of likes on the band's Facebook page.

• Writing in "encyclopedic style," with a neutral point of view: New editors, both retained and non-retained, mentioned seeing banners on articles they had edited which noted that the article was not written in the right style or that it was biased, but they often did not know what that meant or how they could improve the article. A Korean architect who wants to write about the architects he works with said, "Wikipedia content must be fact-based. I know facts, but I don't know how to demonstrate that in an acceptable way." A Czech journalist and experienced content creator said that the biggest challenge to editing was making an objective article, and thinks it would be good practice for other journalists to edit Wikipedia.

"Wikipedia content must be fact-based. I know facts, but I don't know how to demonstrate that in an acceptable way."

— Myung Kyu, Architect, Seoul



Copyright, especially for images: New editors often don't understand why they can only use
creative commons licensed photos and how to obtain or upload them. One Reactive Corrector
wanted to add a photo to Czech Wikipedia but was discouraged from doing so because he
realized he needed a freely-licensed one and didn't want to take the time to find one. A retired
Czech organist learned to upload a photo to Wikimedia Commons, and then to Wikipedia, by
following a 20-step guide from his mentor.

New editors also often want to use content they've published elsewhere on Wikipedia, and are frustrated when they can't. A Czech historian tried to reuse text that she had written and images from her organization's website, but other editors then criticized her edits. She's created a workaround to this issue—she writes emails to herself allowing herself permission to use the organization's photos.

New editors who successfully overcome these conceptual challenges do so through trial and error (see Finding 7), and/or by receiving constructive feedback from other editors (see Finding 11).

Opportunity: Clarify policies and requirements for contributions with easily digestible onboarding and in-context guidance. Address common misunderstandings among new editors by providing clear policy definitions and examples in easily digestible formats (e.g., video how-tos, graphic visualizations). Integrate these conceptual guidelines into the technical editing interface, so that editors receive just-in-time guidance as they run into problems, and can easily access references to more detailed examples and guides.

Finding 9. Editing processes and the mechanisms that support them (e.g., communication with other editors, help pages) are not intuitive or discoverable, making it difficult for new editors to learn and progress.

Many non-retained new editors struggled to remember the basics of editing (e.g., how to login, their username, where the editing interface is located) making it difficult for them to replicate their edits and become repeat editors. Many new editors, both retained and non-retained, were unaware of or confused about the more advanced editing functions and the processes that support them (e.g., how to talk to or where to receive messages from other users, where to find help or ask questions).

Visual editor is an intuitive, easy-to-use starting point for editing; but its range of available functions is not clear to new editors. The two editing interfaces—visual and source editors—allow new editors to edit in whichever format they are most comfortable. Many new and experienced editors cited the visual editor as a good, easy-to-use starting point for beginners, particularly those who have more limited digital skills or who are used to similar online contribution platforms. New editors with more digital savvy (e.g., some coding or programming knowledge) often felt more comfortable working in the source editor, where they felt more control over the formatting and finer details of their contributions.

However, as new editors graduate to more complex types of contributions (e.g., editing tables, structuring



articles, adding and resizing images), they often struggle to figure out how to do these on the visual editor. Many new editors thought these types of functions were not possible with the visual editor, and, based on the advice of help pages or mentors, switched to the source editor—further complicating their edits because of the need to understand and use wikitext. Though these more advanced functions are available on the visual editor, new editors have difficulty finding and taking advantage of them. As a mentor for Czech Wikipedia described, each function in the visual editor can be explained to new editors in 12 small steps. If new editors are motivated to succeed at editing, they will create their own workarounds for making these more advanced edits, such as by copying and pasting wikitext from articles with the structure or feature they want into their own article.

Opportunity: Provide just-in-time guidance to new editors based on the tasks they want to accomplish. Support new editors to accomplish complex tasks, in whichever interface that is easiest for them, by identifying what tasks they are struggling with or want to do, and then providing tailored, visual guidance on how to accomplish them in whichever editing interface they prefer. For example, this guidance could come in the form of visual aids that appear as an editor tries a new task and point them to the functions they may need, or by allowing new editors to chat with an experienced editor at the moment they start to struggle.

New editors don't know how to communicate with others on Wikipedia, because communications on Wikipedia are perceived to be foreign and hidden. All types of new editors struggled to find and use talk pages; and many, even relatively successful new editors, didn't even realize that it was possible to talk to other editors on-wiki. Wikipedia's talk pages and the mechanics for writing on them (e.g., using wikitext) are very different and distinct from the communications norms new editors are used to (e.g., email, messaging apps). If they had received a message from another editor, they might have become aware of it via an email notification, but then couldn't figure out how to reply or find where the message lived on-wiki.

This challenge constrains a new editor's ability to find and receive help, as well as to respond to editors who are trying to help them. Many then fail to see and engage in the community aspect of editing on Wikipedia, which for some new editors is a key factor in incentivizing and strengthening contributions (see Finding 5). Help pages and fora on Wikipedia were often described as overwhelming and confusing, or not helpful, by new editors. Most new editors don't even search in Wikipedia for help; they first search in Google or ask a friend. Often they are then redirected to Wikipedia's help pages and policy descriptions, which they couldn't find on-wiki. Because Wikipedia's help infrastructure is hard to find and use, experienced editors who mentor new editors on- and off-wiki have to take on more work to explain the rules and policies of Wikipedia to new editors. Many experienced editors don't see this as part of their role, or simply don't have time to do so.

Opportunity: Adapt communications on Wikipedia to how people communicate in other realms of their lives. Allow editors to choose how they'd like to receive and respond to Wikipedia communications and notifications, in a way that fits with the communications platforms they are familiar with and check often (e.g., email, messaging apps, social media, etc.).



Finding Help and Receiving Feedback

Finding 10. New editors go outside Wikipedia for help because they prefer targeted, and sometimes personal, support.

New editors often search for help outside of Wikipedia, either online or offline, because they find the comprehensive on-wiki guides and help pages time-consuming and difficult to digest (or are not even aware they exist, see Finding 9). Those that do find the help pages on-wiki, or are rerouted to them via a search engine, have difficulty navigating them to find the information they needed. If they struggle to find help pages, they might not ask another editor because they don't know that they can or how to do so (see Finding 9). Without finding the help they need, new editors would then leave mistakes or abandon edits—creating more work for future editors down the line.

Opportunity: Make help on Wikipedia discoverable and targeted to new editors' immediate challenges. Provide clear signals to editors that on-wiki support is available to them and the many formats in which they can choose to take advantage of it (e.g., through help pages or fora, by asking questions on a talk page, etc.). Then, allow editors to search for and receive the targeted support they need to solve their specific problems, in a way that minimizes their efforts to understand and utilize the necessary guidance.

Some new editors prefer getting help from a person, rather than "the system." New editors often prefer having a direct line to someone from whom they can receive on-demand, tailored help. These new editors first ask for help from a tech-savvy friend or an editor they know personally. When another editor reaches out to them, they often don't know where these messages come from (see Finding 9); many assume that "the system" has contacted them. This perception that Wikipedia's communications and help are automated may be supported by the use of template messages which seem impersonal to new editors.

New editors who established a direct, personal line to someone who can help them appreciated that they could ask questions in private, instead of on a public help forum. They also liked the ease with which they could request support—they would often just call, email, or send a direct message to their mentor as questions arose. These new editors could then expect a quick and useful reply, with the specific information they needed to solve their problem (rather than sifting through mounds of documentation).

Czech Wikipedia has some highly praised wikicourse instructors who provide this direct and on-demand support to new editors after they complete the course. These mentors follow their students' edits, provide proactive feedback, and make themselves accessible via email, direct message, or wikiclub meetings. However, the Czech chapter has to provide a lot of support to these instructors and has difficulty finding people who can commit to, and are appropriate for, these courses and mentorship relationships.

Opportunity: Create more personal, 1-on-1 support for new editors. Connect new and experienced editors based on shared interests, or experienced editors' expertise, in a more private and direct channel that makes experienced editors' support feel accessible and personal. Support experienced editors in



developing mentor-mentee relationships with new editors.

Finding 11. The way in which a piece of feedback is framed is critical to whether it encourages new editors to continue the Wikipedia journey, or disempowers and discourages them from further contributions.

New editors had different reactions to feedback or comments on their edits depending on their motivations and how the feedback was framed. New editors who enjoy the collaborative editing process and/or who received constructive feedback learned new ways to improve their edits. New editors working toward a concrete goal, and thus more likely to be easily frustrated, and those who received critical feedback, felt hurt or angry, particularly if they had spent considerable off-wiki time working on their edit.

Constructive feedback from other editors provides a clear rationale for why a new editor's edit may be wrong or need to be corrected, demonstrates or offers suggestions on how to improve the edit, and opens a channel for feedback and guidance to new editors.

Constructive feedback from other editors provides a clear rationale for why a new editor's edit may be wrong or need to be corrected, demonstrates or offers suggestions on how to improve the edit, and opens a channel for feedback and guidance to new editors. Many experienced editors who provide this type of feedback to new editors do so because they have experienced similar challenges, or have seen how their interactions with new editors can encourage or discourage them, and thus take a more empathetic approach to their work. New editors often credit constructive feedback, or edits that they thought improved the quality of their article, with teaching them how to edit "the Wikipedia way" and for encouraging them to progress on their journey as editors.

Feedback that can be disempowering includes: reverts without explanation; making edits of others' edits to align with rules without teaching them how to do it themselves; and feedback that prioritizes policy compliance or quality control at the expense of new editor growth. Generally, this type of feedback is perceived to be overly technical and tightly bound to the rules, without being informative. Mentors and administrators have a tendency to provide such feedback when they are heavily invested in maintaining Wikipedia's quality or are unaware of how their interactions can affect new users. One Korean experienced editor used to revert without explanation until he talked to a newer editor at a party and realized that reverting new editors' edits without communicating with them was hurtful and discouraged them from further contributions.



"Everything [on Wikipedia] is a battle. It's like people in suits throwing one punch at a time."

-Korean New Editor

Providing feedback that is more technical than personal is also the result of the high on-wiki workload many administrators and mentors have to manage, and their negative experiences with some new editors. Some experienced editors felt like their efforts to mentor new editors were often wasted because the perceived return on investment was low. Instead they see many one-time editors come and go, or receive no or a hostile response when they offer support, which leads them to focus more on harm caused by problematic new editors, rather than the potential of promising new editors. New editors may also not make use of, or respond to, the voluntary support experienced editors provide because this feedback is in a location, like the edit summary of a revert or deletion, that's hard for new editors to find (see Finding 9). These experiences lead some experienced editors to become more selective about their support, waiting until a new editor has proved that they are willing to make a concerted effort editing Wikipedia before they offer help.

It's also difficult for experienced editors to provide personal, constructive feedback as experienced editors become more removed from the new editor experience. They then develop more advanced levels of their "contribution skills," find contributing easy, and struggle to understand why new editors face the challenges they do. On the other hand, experienced editors who work closely with new editors have a clear and accurate sense of the challenges new editors face. They are a good source of feedback for the community (and the WMF) on how to better support new editors.

Opportunity: Set the norm for new editor feedback to be more personalized (instead of purely technical), and constructive (instead of purely critical) in tone. Coach experienced editors in providing feedback and mentorship to new editors that will empower them along their editing journey, reward and acknowledge those that that already do so, and build tools that make it easier for experienced editors to provide this type of feedback and find new editors who will be receptive to it.



IV. Conclusion

The Wikimedia Foundation, and the movement at large, already has several assets, such as its global prominence, passionate volunteer community, established partnerships, and commitment to process improvement, which it can leverage to better attract, grow, and retain new editors.

While this research highlights the various challenges of the new editor experience, there are already great successes being made in both the Czech and Korean Wikipedia communities, due to community efforts to recruit and nurture new editors.

Based on the research findings and emerging opportunities, initiatives created for new editor success should be designed with the following principles:

- Appeal to the diverse motivations of new editors, and consider their various skillsets and needs so that Wikimedia can empower and benefit various types of new editors who have the potential to provide valuable contributions to Wikipedia.
- **Provide just-in-time and digestible guidance** that allows new editors to learn progressively as they build their contribution skills and confidence.
- **Prioritize personalized and approachable communication**, that makes it easier for new editors to engage with the collective contribution process.
- Make editing more discoverable and intuitive, where new editors can easily accomplish their goals for contributing to Wikipedia and find they help they need to do so.

These principles and opportunities are intended as jumping-off points for further conversation, and the WMF will need to do further analysis to identify which opportunities to prioritize, and what to move forward on in the near- and medium-term horizons. In parallel with Reboot's synthesis process, the WMF is doing additional analysis on research findings to identify more opportunities, focusing on product opportunities surfaced in user observations and interviews.



Annex 1: Context Comparison

FACTORS	SOUTH KOREA	CZECH REPUBLIC		
Geography ⁷				
Location	Located on the Korean peninsula. Shares a border with North Korea, but largely surrounded by water.	Located in Central Europe. Landlocked and shares borders with Germany, Poland, Slovakia, and Austria.		
Population ⁸				
Total Population	50.9 million	10.6 million		
Urbanization	82.5% of total population	73% of total population		
Population Distribution	Concentrated in lowland areas, with the province surrounding the capital being the most densely populated	Fairly even throughout most of the country		
Age Structure	0-14 years: 13.45% 15-24 years: 13.08% 25-54 years: 45.93% 55-64 years: 14.01% 65 years and over: 13.53%	0-14 years: 15.09% 15-24 years: 9.89% 25-54 years: 43.79% 55-64 years: 12.73% 65 years and over: 18.5%		
English Proficiency	High Proficiency (EPI Score: 54.87)	High Proficiency (EPI Score: 59.09)		
Tech Access ¹⁰				
Internet Users	92.3% internet penetration	81.3% of total population		
Tech Infrastructure	Excellent telephone and internet service. Mobile cellular service widely available. Rapid assimilation of telecommunications technologies.	Good telephone and internet service, with 3 major mobile phone providers. Criticisms that Czech mobile phone and data prices are among the highest in the EU.		
Mobile Subscriptions (per 100 people)	120	131		
Local Web Portals and Information Sources	More localized information (Naver, Namuwiki) that competes with Google and Wikipedia	Some (Seznam.cz), but not highly popular. Still more highly rely on Google		



 ⁷ CIA World Factbook (<u>South Korea</u>; <u>Czech Republic</u>)
 ⁸ CIA World Factbook (<u>South Korea</u>; <u>Czech Republic</u>)
 ⁹ Education First English Proficiency Index (<u>South Korea</u>; <u>Czech Republic</u>)
 ¹⁰ CIA World Factbook (<u>South Korea</u>; <u>Czech Republic</u>)

Hofstede's Cultural Dimensions ¹¹				
Power distance	Slightly hierarchical society (60) People accept a hierarchical order in which everybody has a place. Centralization is popular. Subordinates expect to be told what to do. The ideal boss is a benevolent autocrat.	Hierarchical society (57) People accept a hierarchical order in which everybody has a place. Centralization is popular. Subordinates expect to be told what to do. The ideal boss is a benevolent autocrat.		
Individualism	Collectivistic society (18) Loyalty is paramount. Relationships are important and people take responsibility for fellow group members. Relationships based on moral terms. Management is the management of groups.	Individualistic society (58) Preference for loosely knit social framework where individuals take care of themselves. Relationships are based on mutual advantage. Management is the management of individuals.		
Masculinity	People work to live. Managers are consensus-oriented. Conflicts are resolved by compromise and negotiation.	Masculine society (57) People live to work. Managers are expected to be decisive. Conflicts are fought out.		
Uncertainty avoidance	Highly uncertainty avoidant (85) Rigid codes of belief and behavior. Emotional need for rules. Inner urge to be busy and work hard. Security is important for individual motivation.	High preference for avoiding uncertainty (74) Rigid codes of belief and behavior. Emotional need for rules. Inner urge to be busy and work hard. Security is important for individual motivation.		
Wikipedia Characteristics				
Distribution of readers and contributors	Localized language Wikipedia, with most Korean contributors and readers living in South Korea.	Localized language Wikipedia, with most Czech contributors and readers living in the Czech Republic. Close ties to sister language Wikipedias, particularly those of neighboring countries.		
Articles	396,000	389,000		
Monthly Active Editors ¹²	773 (16th among Wikipedias)	615 (18th among Wikipedias)		
New Editor Retention Rate	8.5%	7.3%		
Wikipedia Community	User group, with no paid staffRecipient of individual grants	Chapter, with paid staffRecipient of annual plan grants		

Hofstede's Cultural Dimensions (<u>South Korea</u>; <u>Czech Republic</u>)August 2016–July 2017 average



	 Slightly dispersed, smaller community Intermittent interaction between new and experienced editors Dedicated volunteer community Community members focused on working for new editor success Highly receptive to WMF initiatives 	 Tight knit community working toward shared goals High levels of sustained personal interaction between new and experienced Wikipedians Dedicated volunteer community Community members focused on working for new editor success Highly receptive to WMF initiatives
Programmatic Activity	 Low levels of programmatic activity (2 out of 5) Private and public partnerships Conducts edit-a-thons 	 High levels of programmatic activity (4 out of 5) Partnerships with libraries, private sector Conducts edit-a-thons Holds weekly wikiclubs Runs country-wide events (wikitowns)
Attitudes toward Wikipedia	Wikipedia is a staid, scholarly counterpart to local competitors (e.g., Namuwiki)	Wikipedia is the dominant online redference source, with no major Czech alternatives



Annex 2: Opportunity Evaluation Criteria

The following five criteria were developed by the WMF team during the South Korea field sprint as scoring criteria by which to evaluate potential opportunities emerging from this research, so that the movement can then prioritize its efforts to address key challenges.

Criteria 1: Effective in addressing core challenges

How well does this opportunity address one of the following core challenges for new editors:

- Communication and support: New editor's can't find help when they need it and struggle to communicate with other users.
- Lack of clarity on Wikipedia procedures and policies: New editors are confused as to what the structures of Wikipedia are and how to abide by them in their edits.
- **Non-Intuitive user interface:** New editors struggle to use visual and source editor for various reasons, and often don't remember how they made a past edit.
- "Unapproachability" of Wikipedia: New editors see Wikipedia as formal, academic, and authoritative, which makes them feel like their edits have to be perfect.

Criteria 2: Free from adverse effects

Does this opportunity cause any undesirable side effects? For example, requiring explanations for reverts might decrease confusion among new editors, but would increase work for experienced editors.

Criteria 3: Ease of initial implementation

How hard is this for the WMF to implement? For example, sending welcome emails to new editors is technically very simple, while integrating a real time chat system into the site is much more complex.

Criteria 4: Ease of maintenance

What ongoing work will this require? For example, a change to the interface does not require a huge amount of ongoing work, while administering a new grant program requires significant work as long as the program continues.

Criteria 5: The WMF's work is effective alone

How well can the WMF implement and maintain this initiative without external dependencies? For example, pushing for reverts to be accompanied by more detailed explanations would require the cooperation of the patrollers who would have to provide them, while promoting a new model for edit-a-thons would require the help of the affiliates and mentors who organize them. In contrast, allowing users to log in with their emails does not require outside cooperation.

Criteria 6: Support from volunteer community

How strongly will Wikipedia volunteer communities support, and be excited for, these initiatives?



Annex 3: Open Access Note

The Wikimedia Foundation is dedicated to increasing access to knowledge for everyone, everywhere. Under our <u>open access policy</u>, we strive to make research and supporting data produced with Wikimedia resources or support openly available to the public, and freely reusable on the Wikimedia projects.

However, in some instances, we do not publish all the data we collect, in order to protect and respect the privacy of the participants. This study is such a case. The data gathered include information about users' editing habits, education, hobbies, and day-to-day activities, which could allow the participants to be identified. In addition, in some cases the researchers learned about sensitive topics like users' family relationships, views on controversial social issues, and experiences of harassment which provided context on their involvement with Wikipedia but could cause harm if they were described publicly and the participants later identified.

We take our commitment to protect user privacy seriously, and have obtained consent to release certain limited information about participants. Therefore, the Wikimedia Foundation and Reboot have prepared this report as a summary of our key findings regarding new editor experiences. As of the publication of this report, we do not plan to release any detailed notes from our interviews. If we later choose to do so, we will secure further consent from the participants, so they are fully informed of the data release.

