

# Driving Innovation in Free Knowledge with UNLOCK Accelerator

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## ABSTRACT

This paper deals with the topic of innovation in free knowledge and how these innovations can lead to overcoming existing challenges in achieving knowledge equity. Wikimedia Accelerator UNLOCK, which in its third edition is focused on regional collaboration between Western Balkans and German-speaking areas, was presented as one of the programs which promotes the power of open innovation and impact-driven ideas that make knowledge accessible to everyone. The paper first refers to the existing obstacles within the Wikimedia projects that this program aims to overcome, which relate to equal access to knowledge, targeted diversity in terms of content on Wikipedia and other Wikimedia projects, as well as diversity in terms of those contributing to free knowledge. In addition, UNLOCK is a tailor-made accelerator that supports ideas outside the Wikimedia movement, thus inviting participants to gain skills by having peer-to-peer exchange, exchange of successful models and includes a mentoring program. The paper presents the methodology that was used, as well as the mapping of the innovative capacity of the movement. Finally, the projects that are being implemented at the time of writing the paper and the outcomes that have been achieved are listed.

**Keywords:** free knowledge, open software, innovation, open data, regional collaboration, knowledge equity.

## 1 Introduction

Wikimedia is one of the biggest free knowledge movements which promotes projects with open access and free content such as Wikipedia, Wikimedia Commons, Wikidata and others. It is a global movement whose mission is to bring free educational content to the world. [1] The current Wikimedia technologies, platforms, projects, policies, knowledge formats, editing rules, social structures and governance systems have somewhat organically and unsystematically grown. In order for us to implement knowledge equity, to enable emerging and marginalized communities to join and participate, we will not only need to remove barriers or adjust those technologies, platforms, projects, etc. but we will also need to create an environment where these new communities can devise their own technologies, systems, social structures, policies and governance. Innovation here is much more than new gadgets. Explicitly it includes policies, processes, formats and social innovations as well. We hope

that these innovations will open the doors to new people and new content, helping to grow a diverse and vibrant movement.

### **1.1 How can we drive innovation for free knowledge?**

UNLOCK Accelerator is an innovation-driving program that aims to promote new free knowledge projects. UNLOCK supports participating teams over a set period of time in validating, testing and further developing their project ideas in a structured manner with the help of coaching, exchange and collaboration, a network of experts and, if required, a scholarship. The program is open to Wikimedia volunteers as well as aims to tap into new communities in order to attract innovators who have not yet been part of the Wikimedia movement. UNLOCK was initially launched by Wikimedia Deutschland in the German-speaking region in 2020 and scaled to the European level in 2021. In these editions, the program was able to generate over 80 applications and supported 10 projects. This year Wikimedia Deutschland, Wikimedia Serbia and Impact Hub Belgrade have joined forces to co-design and co-host the program to support projects teams from the German-speaking region (Austria, Germany, Switzerland) as well as the Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia).

## **2 Background**

The Wikimedia Foundation operates eleven content projects that follow the free content model, with their main goal being the dissemination of knowledge. [2] Existing Wikimedia projects use Creative Commons licenses and are free in terms of using the content, as well as making contributions by increasing the free content on these platforms. The current Wikimedia technologies, platforms, projects, policies, knowledge formats, editing rules, social structures and governance systems have changed over time. New functionalities have been included in the systems themselves, the user experience has been improved, and the experience from the editor's point of view, tools have been created to measure outcomes in order to increase the satisfaction and retention of editors, as well as the quality of the edited content. Over time, the focus of the movement and projects have expanded. Although the essence was the creation and promotion of free knowledge, since the beginning of the creation of Wikipedia and other projects, new goals have been developed, where, in addition to increasing the free knowledge, we are now working to a large extent on increasing accessibility and creating equal opportunities for various marginalized and sensitive communities.

### **2.1 Challenges of current Wikimedia-projects**

However, projects still have certain challenges in terms of access to knowledge and creating the environment where we are closer to achieving knowledge equity every day. In terms of who is reading Wikimedia projects, here are some statistics from survey Wikimedia Foundation has conducted:

- Across regions, men tend to read Wikipedia more often than women. Though awareness and usage of Wikipedia are high for both men and women in many regions of the world, based on reader surveys one-third (33 percent) of Wikipedia readers over the age of 18 on any given day are women. [3]

- The same survey showed that men on average also read more articles when they visit Wikipedia than women. As such, many of the top-read articles on Wikipedia draw almost exclusively readers who are men. [4]

In addition to the above mentioned, there is also the question of meeting the needs of editors - do we have tools that can ensure uninterrupted editing of members of marginalized and / or underrepresented communities, do we have tools that can provide enrichment of content about notable people from socially sensitive groups. When we look at the statics who is contributing to Wikimedia projects, here is the current state of it:

- Wikimedia contributors are 87% male. Almost half live in Europe and one-fifth in Northern America, as compared to 9.7% and 4.8% of the global population.
- Fewer than 1% of Wikipedia's editor base in the U.S. identify as Black or African American.
- Although women were still markedly underrepresented among contributors, there was a modest increase in women contributors between 2019 (11.5%) and 2020 (15.0%).
- Only 1.5% of Wikipedia editors are based in Africa, although people in Africa comprise 17% of the world's population. [5]
- More men than women have tried to edit Wikipedia at least once. Across Wikipedia users in all six of the regions surveyed (the United States, Mexico, Egypt, Nigeria, Germany, and India), 27 percent of male respondents had edited Wikipedia at least once, while only 21 percent of female respondents had. [6][7]

Members of marginalized communities can often be discriminated against, and in order to avoid these situations, the Wikimedia Movement created the Universal Code of Conduct. This Universal Code of Conduct (UCoC) defines a minimum set of guidelines of expected and unacceptable behavior. It applies to everyone who interacts and contributes to online and offline Wikimedia projects and spaces.<sup>1</sup> Although the code has been adopted, through innovation we can contribute to its implementation.

In order for us to enable emerging and marginalized communities to join and be involved in the projects, we have to face the challenges and create an environment where these new communities can devise their own technologies, systems, social structures, policies and governance. This can be done through the introduction of innovations and new systems that have not been implemented so far or have been implemented to a certain extent, but not enough to create a final solution. Introducing innovations is a process that implies constant listening to the needs of the community, repeating several iterations until the final solution is reached, and this is more demanding when talking about innovation in free knowledge.

## 2.2 Achieving knowledge equity

Wikimedia Foundation works on ensuring that everyone, everywhere has equitable access to create and consume information. Looking back in history, knowledge was not accessible to all and has been concentrated in the hands of the few. Marginalized groups' histories and perspectives have been excluded by structures of power and privilege. Creating Wikipedia was a starting point to revolutionize this model, as this was the first and world's largest, free,

<sup>1</sup> [https://meta.wikimedia.org/wiki/Universal\\_Code\\_of\\_Conduct](https://meta.wikimedia.org/wiki/Universal_Code_of_Conduct)

collaboratively-sourced encyclopedia. [8] Over the years, a lot of volunteers joined the free movement, uploading and editing various content that was visible and easily accessible to all the people in the world. Yet, Wikipedia and other Wikimedia projects do not currently reflect the world's diversity. Specifically, our projects are largely missing the histories, stories, and contexts of: women and nonbinary people; those within the LGBTQI+ community; people with disabilities; and those within the global majority, including Black people, Indigenous peoples, and people of color. [9]

If we look at the current state, the following barriers exist and are experienced on Wikimedia projects:

- Content on the projects is still not fully adapted to blind and visually impaired people.
- Biographies about women who meet Wikipedia's criteria for inclusion are more frequently considered non-notable and nominated for deletion compared to men's biographies.
- Women and non-binary contributors have identified systemic bias in policies; lack of awareness and implicit bias within community; and poor community health as the biggest obstacles to achieving gender equity in the Wikimedia movement.
- The guidelines on reliable sources in the English, French and Spanish language editions of Wikipedia impact contributors and the inclusion of content for marginalized communities.
- Many readers have challenges accessing Wikipedia (and other internet sites) because of issues with infrastructure, cost of data, and more. [10]

In order to make these projects sustainable, which are of crucial importance for humanity, we must be guided by the strategic recommendations of the Wikimedia movement, which, among other things, cover the issue of relevance. This implies that the question of whether the projects are relevant enough, whether they are still important and necessary, is being asked again and again. In order to stay relevant and the environment where we can fight above mentioned challenges, innovation has to be a part of our path.

In this case innovations include policies, processes, formats and social innovations as well. We hope that these innovations will open the doors to new people and new content, helping to grow a diverse and vibrant movement. UNLOCK was created to drive innovation – thereby investing in people and communities who are working on new free knowledge projects that address knowledge equity. Besides, the collaboration with Wikimedia affiliates as well as with a player from the innovation ecosystem will also provide learning opportunities for us as a movement, on how to collaborate with people and institutions that are not from the immediate open knowledge movement. Creating new alliances in the innovation field will strengthen our movement both regionally and as a whole. UNLOCK is not a "one size fits all" solution; rather it should evolve into something that ultimately becomes freely adaptable, reusable and changeable depending on the geographic, cultural and economic context. This process of adaptation, or better, contextualization – a central movement strategy principle – is an area where we as a movement still have much to test and to learn. We see great learning opportunities through the contextualisation of the program with the Western Balkan partners – Wikimedia affiliates and those from the innovation ecosystem alike.

## 3 Methodology

With a clear and bold vision<sup>2</sup>, with concrete recommendations<sup>3</sup> and guiding principles<sup>4</sup> in ‘our bag’, the Wikimedia Movement Strategy<sup>5</sup> is undergoing implementation. In doing so, social and technical innovations are going to be crucial to master the challenges of today and tomorrow in order to equitably create knowledge. Strengthening the innovative capacity of the movement will be key to address gaps in knowledge equity, and therefore, to stay relevant and attractive as a movement in the future. But how to ‘innovate in free knowledge’?

### 3.1 Innovation framework

In 2022 we published a first analysis on where the Wikimedia movement is at when it comes to innovation [11]. Our methodology towards innovation is based on a very common innovation framework [12] – defined, validated and continuously developed – by Nesta (the National Endowment for Science, Technology and the Arts) and the Young Foundation. The framework clearly shows that innovation is neither simple nor predictable, but rather a complex story of loops and leaps within a process, structured into different phases (see figure 1).



Figure 1: By Kannika Thaimai (WMDE) - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=114682763.jpg>

Not every innovation moves through the seven stages sequentially – stages can overlap or skip, while some innovations jump directly into practice or even scaling. We apply this framework as it provides a common language for thinking about how to support innovation more systematically and thereby taking into consideration the different formats, techniques, tools, processes of support that innovators and innovations might require at each stage in order to grow.

<sup>2</sup> [https://meta.wikimedia.org/wiki/Strategy/Wikimedia\\_movement/2017](https://meta.wikimedia.org/wiki/Strategy/Wikimedia_movement/2017)

<sup>3</sup> [https://meta.wikimedia.org/wiki/Strategy/Wikimedia\\_movement/2018-20/Recommendations](https://meta.wikimedia.org/wiki/Strategy/Wikimedia_movement/2018-20/Recommendations)

<sup>4</sup> [https://meta.wikimedia.org/wiki/Strategy/Wikimedia\\_movement/2018-20/Recommendations/Movement\\_Strategy\\_Principles](https://meta.wikimedia.org/wiki/Strategy/Wikimedia_movement/2018-20/Recommendations/Movement_Strategy_Principles)

<sup>5</sup> [https://meta.wikimedia.org/wiki/Movement\\_Strategy](https://meta.wikimedia.org/wiki/Movement_Strategy)

## 3.2 Mapping Wikimedia innovative capacity

In the past two decades of the Wikimedia Movement, structures and processes as well as communities of volunteers and free knowledge enthusiasts have been created. These have driven the incremental development within existing Wikimedia projects.

Some examples: The technical community can get together at the annual Wikimedia Hackathon and get involved in the development of the MediaWiki<sup>6</sup> and many other areas in Wikimedia's technical ecosystem [13]. And structures that are already in place make it easier to integrate additional ideas and prototypes relating to already existent Wikimedia projects into the established ecosystem. This is apparent in the development of Wikidata<sup>7</sup>, the Wikibase Ecosystem<sup>8</sup>, Wikimedia Commons<sup>9</sup> and other Wikimedia projects. Our mapping has also clearly shown some significant shortcomings when it comes to experimenting with or promoting unfamiliar and novel ideas and projects. There may be many great ideas out there but currently only few structures and resources of support to truly foster them, which is equally necessary for the Wikimedia movement to evolve, grow, and become sustainable in the long run. Further readings and deep dives into the mapping can be found in the analysis 'Building an ecosystem to innovate in free knowledge' [14].

## 3.3 UNLOCK Accelerator: Making room for new free knowledge ideas and projects

Among the few support structures already in place is the Wikimedia Accelerator UNLOCK. At UNLOCK, we do not only support volunteers who are already active in the movement or involved in existing Wikimedia projects, but also people who have not been a part of our movement so far. Because this is also particularly about allowing new impulses to evolve (this includes ideas, solutions and people) that we as a movement have not even seen and taken into consideration. This may include new formats to make knowledge accessible as well as more diverse solutions for consuming, sharing and creating knowledge.

UNLOCK is a structured cohort-based program and supports participating teams in developing their idea into a functional prototype. UNLOCK provides:

- **Coaching & mentoring:** All participating teams will work together with experienced coaches. They will be at the team's side from the early stages of envisioning their project to the development of a plan for its realization and finally the implementation itself. Participants will be challenged to refine and further develop their idea and impact, and will learn how to sustain their projects and initiatives.
- **Skill development:** Project teams will not only develop a feasible and viable concept based on their idea, but will learn new methods, mindsets and tools that can help them with many other team projects and ventures. UNLOCK workshops and working sessions include agile and co-creative methods such as design sprint, design thinking just to name but a few.
- **Impactful communities:** Wikimedia Deutschland and Wikimedia Serbia are passionate about Free Knowledge and boast a wealth of experience in the field. Participants will benefit from both our expertise and connections.

<sup>6</sup> <https://www.mediawiki.org/wiki/MediaWiki>

<sup>7</sup> [https://www.wikidata.org/wiki/Wikidata:Main\\_Page](https://www.wikidata.org/wiki/Wikidata:Main_Page)

<sup>8</sup> <https://wikiba.se/>

<sup>9</sup> [https://commons.wikimedia.org/wiki/Main\\_Page](https://commons.wikimedia.org/wiki/Main_Page)

- Financial support: If needed, we can offer financial support for your participation in the program. The scholarships are intended to contribute to the cost of living so that participants can participate in the UNLOCK Accelerator full-time.

In addition to this structured format, UNLOCK 2022 focused on a cross-regional approach with its collaboration among Wikimedia Deutschland, Wikimedia Serbia and Impact Hub Belgrade. What are our core motivations for this collaboration?

- We aim to strengthen and build our capacities through joint growth, frequent exchange and by challenging one another – allowing us to further advance the program.
- By coming together we can also expand our international networks. This not only helps to increase the awareness for the program, and in return attract and support even more innovators from the regions; but it also allows us to pull from a larger pool of experts who can lend their knowledge and skills set to our program participants.
- Working across sectors, we hope to bring the Open Knowledge community and innovation driven communities closer together. We hope that they will find fruitful and long-term ways of collaborating as well, strengthening an innovation ecosystem for Free Knowledge. This is what we aim for.

## 4 Results

UNLOCK is committed to encourage and challenge by providing an experimental space for projects where, in particular, risks can be taken and exchanging learnings regarding best practices and failures is encouraged. We believe that multiple rounds of trial and failure are integral to the process of developing innovative solutions. Experimental spaces are particularly relevant in the German-speaking and Western Balkan context, as a culture of failure is still not strongly developed, in contrast to the USA [15]. Even though many people and institutions support civil society projects: free knowledge and open source technology and innovation certainly doesn't have it easy in these regions, and there are hardly any low-threshold funding programs for emerging, non-profit free knowledge and open source projects [16].

### 4.1 Output

For this year's open call we received 34 applications from 12 countries and a total of 104 applicants. Out of these 104, 53% are from the Western Balkans region, 24% from the German-speaking area and 23% "others" (incl. people from European and non-European countries; plus those without information).

Seven innovative, bold, engaging and diverse projects – with a total of 24 participants from Albania, Germany, Montenegro and Serbia – will be supported within the UNLOCK program. These projects show and have convinced us – the jury and the program team – throughout the selection process [17] with new perspectives for free knowledge – and addressing knowledge equity – in different regional as well as thematic contexts:

- activist.org<sup>10</sup> – an open source platform that breaks down barriers to becoming politically active and thereby connects people and organizations from different social and activist movements.

<sup>10</sup> <https://www.wikimedia.de/unlock/unlock-projects/activist-org/>



- Game of political participation<sup>11</sup> – encouraging young people in the Western Balkans to familiarize themselves with political decision making and political systems through elements of gamification.
- f[ai]r<sup>12</sup> – establishing an ethics certification for digital applications through a holistic examination of the AI system in the social context, addressing aspects of bias, discrimination, diversity and inclusion.
- Inclusio<sup>13</sup> – providing user-generated audio descriptions of visual content to the blind and visually impaired. Ideally the solution could be connected and tested on structured data in Wikimedia Commons.
- macht.sprache.<sup>14</sup> – fostering politically sensitive translation through an open source platform that allows for crowdsourcing and discussing politically sensitive terms and their translations, and through a tool to help translate with sensitivity.
- MOCI SPACE<sup>15</sup> – a digital space to connect activists, grassroots initiatives and civil society actors in the Western Balkans and that allows for co-creating, publishing and sharing knowledge by making use of the Matrix protocol for federated communication.
- P2P Wiki for indigenous wisdom and biodiversity<sup>16</sup> – an open source tool to collect and safeguard indigenous knowledge, and to raise awareness about biodiversity with a P2P offline-first methodology.

The funded projects show varying degrees of proximity or distance to existing Wikimedia projects. For example, activist.org uses interfaces to Wikidata or Inclusio is exploring options to connect and test structured data in Wikimedia Commons. Other projects operate independently of existing Wikimedia projects. There is potential to strengthen the connection to existing Wikimedia projects and thus develop them further. However, this would depend on various factors including project vision and commitment as well as (technical) feasibility.

By the end of the program, each project will showcase their results in a Demo Day. UNLOCK demo days, the communication around the event, and our general outreach activities bring people into contact with innovative free knowledge and open source ideas and concepts and their implications for various communities in the German-speaking as well as Western Balkan areas. In this way, interest in and understanding of how making knowledge free, more inclusive and equitable can affect individuals and how individuals can also get involved into these free knowledge and open source projects.

## 5 Discussion

Furthermore, UNLOCK creates further results that might not be measured in the classical sense. Running three UNLOCK editions clearly unfolded the potential of the program geared towards innovation: the Wikimedia Accelerator provided the participants<sup>17</sup> with the necessary knowledge and skills-enhancing methods to drive the implementation of their projects forward in the shortest possible time. With UNLOCK, we create awareness in new

<sup>11</sup> <https://www.wikimedia.de/unlock/unlock-projects/game-of-political-participation/>

<sup>12</sup> <https://www.wikimedia.de/unlock/unlock-projects/fair/>

<sup>13</sup> <https://www.wikimedia.de/unlock/unlock-projects/inclusio/>

<sup>14</sup> <https://www.wikimedia.de/unlock/unlock-projects/macht-sprache/>

<sup>15</sup> <https://www.wikimedia.de/unlock/unlock-projects/moci-space/>

<sup>16</sup> <https://www.wikimedia.de/unlock/unlock-projects/p2p/>

<sup>17</sup> UNLOCK Accelerator supported in total 17 project teams with the total number of participants of 56 in the years 2020-2022.



communities that have not been addressed by Wikimedia Deutschland so far – communities from the innovation context and the field of social entrepreneurship. We have also been able to activate teams from these communities to participate<sup>18</sup>. We have created access to Wikimedia for these people and projects, and in some cases also to existing Wikimedia projects. UNLOCK has established a space for exchange and knowledge transfer between projects inside and outside the movement.

With such an innovation-driving format like UNLOCK we could accelerate ideas to be turned into prototypes that aim to address knowledge equity. As of now, 17 prototypes could be developed. And not all of them will sustain – from the first two editions 6 out of 10 projects are still active. We strive for diverse and inclusive projects that have to be applied bearing in mind the quality. In order to qualitatively assess the impact of the projects – meaning those that truly achieve knowledge equity and sustain – more time is needed.

It has also become apparent (and confirmed by former participants) that UNLOCK provides participating teams with opportunities for further personal as well as professional development. The projects value the program's agile and people-centered approach to responding to the needs of the teams. This results in participants being able to develop their skills, not overexert themselves in volunteering, and maintain an intrinsic motivation for their project.

With respect to the cross-regional collaboration, we have learned how this could be beneficial to the participants and program as a whole. Wikimedia Deutschland and Wikimedia Serbia are part of the large Wikimedia free movement and brought together their expertise and resources in terms of free knowledge, open software, open resources, peer to peer exchange and tailored training for the participants. Impact Hub Belgrade provided support in terms of building entrepreneurial spirit and providing mentors for the teams. With these joint resources and forces, partners bring the quality of the program to the new level.

One – if not the greatest – challenge in driving innovation is the sustainability of the supported projects. UNLOCK is not designed for long-term support. And as described above, innovation is a process with different stages. In the long run, we hope to be able to create an innovation ecosystem within the Wikimedia movement. This means that we – as a movement – must take a more systematic approach in order to not only set selective and short-term impulses for innovations, but to create a long-term, sustainable impact with different actors and stakeholders as well as our actions.

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