



**Research Studies on Indian Language
Wikimedia Projects
July 2019– June 2021**

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Preface

Wikipedia and its many sister projects have been rich sites of study for researchers across the world for many years now. The online encyclopedia presents a microcosm of the real world in terms of the dynamics of knowledge production and use, including content and infrastructure, and community interaction among many other things. Research about Wikimedia projects and platforms has been undertaken in various languages, and from multidisciplinary perspectives, as illustrated by the research index on Wikimedia Meta-Wiki, and several important publications over the last several years. Research on Indian language Wikimedia projects and platforms, and on topics related to the sub-continent have also emerged significantly over the last several years. However, as understood in the course of the studies in this compilation as well, awareness about such research within the communities itself remains limited. While there is a lot of important work being undertaken on topics relevant to Indian Wikimedia projects, often by researchers who are Wikimedians themselves, factors such as dissemination beyond academic spaces, and accessibility in terms of language and context seem to also affect their availability to the larger communities, and in terms of implementation of learnings and recommendations.

The six short-term research studies undertaken by the Access to Knowledge team over 2019–2021 were therefore initiated as a pilot, an initial foray into the space of research on Wikimedia projects in India. Based on the recommendations of the Wikimedia Foundation, this work was undertaken primarily to tap into new areas of work, while also drawing upon existing expertise at CIS, and in order to build the capacity of the team. With these broader motivations in mind, the research was structured with the follow objectives to:

- Identify knowledge gaps, challenges, and opportunities in different aspects of content creation and participation in Indian language Wikimedia projects.
- Develop a better understanding of systemic issues such as gender bias in Indian language communities, access to and reuse of cultural content, open learning in multilingual classrooms, and

specific experiences of content creation within Wikimedia communities in India and associated initiatives.

- Develop recommendations and best practices towards addressing existing challenges and optimising available resources for the larger free knowledge movement.

The studies in this compilation therefore examine different aspects of Wikimedia platforms and projects in India, in close alignment with existing work in the programme. These include the gender gap in Indian Wikimedia communities, creating multilingual and open educational platforms and resources, focus on specific projects such as GLAM and Wikidata, and efforts and challenges with content creation, access and outreach in specific language communities.

Working on these studies has been a learning experience, especially given the diverse contexts in which the projects are located, and the capacities and interests of the researchers themselves. The design of the studies was also therefore developed and modified to build on existing capacities within the team, and its learnings from previous years of working with various language communities. Capacity-building for team members on research design, methods, fieldwork and documentation was mostly done through close individual supervision and collaborative work. The methods used were largely qualitative, and ranged from interviews, literature reviews, data visualisations, focused group discussions and comparative analyses. The effort was also to try and capture the scale and diversity of the nature of work being undertaken in different Indian language communities through these projects. There were several challenges as well, beginning with framing the research questions and project design in a way that they were accessible to a wider community of people who would be engaged in contributing their inputs towards the work. Process-related challenges, such as translation of interview questionnaires into Indian languages revealed several interesting gaps, such as the lack of technical terms related to digitization or open access in these languages. The outbreak of the COVID-19 pandemic in early 2020 led to restrictions on field visits, thus effectively hampering in person conversations and easier access to community members.

There have been several learnings in the course of working on these studies, key among them being questions of awareness, relevance and

impact. The lack of existing and easily accessible research (including those outside academic work) on several areas of Wikimedia in the Indian context has been a limitation in many ways, offering little in terms of available knowledge and best practices to work with. The limited awareness about, and imagined relevance of research in the regular work of communities has also been an impediment. As illustrated by learnings from a short research needs assessment carried out earlier this year, few community members were aware of research on Wikimedia projects being undertaken in India, and on a global scale. More importantly, there needs to be a conversation on its relevance to their own work, and to the larger movement. An effective communication strategy for research work, in different Indian languages, would perhaps address some of these gaps. A closely related question is also that of impact. The studies in this collection largely focus on short-term impact, through best practices and recommendations that may be developed through the research studies. While this is definitely a pragmatic approach, often the interest in a problem-solution design may look at research purely from an instrumental lens to identify quick solutions and their implementation, without a critical take on exploring and understanding larger, systemic or structural gaps that may be contributing to the problems itself. Going forward, it would be imperative therefore to identify areas of research, and build processes of research design that may address these challenges. Given the dynamic nature of Wikimedia, its platforms and communities, it is important to identify immediate gaps and possible solutions, but also to speak precisely to this aspect of long-term impact and relevance, to both current areas of work and the growth of the larger movement. We hope the studies in this compilation offer some insights towards these, and many more interesting questions related to research on Wikimedia and the free knowledge movement in India.

Puthiya Purayil Sneha

Mapping GLAM in Maharashtra

Subodh Kulkarni

This is a short study on mapping the digital transition in selected Galleries, Libraries, Archives and Museums (GLAM) institutions in India, and exploring possibilities and challenges for collaborations with Wikimedia projects. Research was undertaken by Aaryaa Joshi, Dnyanada Gadre-Phadke, Kalyani Kotkar and Subodh Kulkarni; the report has been authored by Subodh Kulkarni with editorial oversight and support by Puthiya Purayil Sneha, and external review by Sumandro Chattapadhyay. This is part of a series of short-term studies undertaken by the CIS-A2K team in 2019–2020.

Introduction

The digital turn has been an important development for the cultural heritage sector in India, especially in the last decade, where access to internet and multimedia technologies has led to several advancements in the Galleries, Libraries, Archives and Museums (GLAM) space. This has also encouraged a multiplicity of uses of cultural content in diverse contexts. Several efforts have been undertaken in this space over the last decade, including state initiatives like the [National Museum Collections digital repository](#), archival efforts at universities such as [Jadavpur University](#) and private and individual initiatives such as the [People's Archive of Rural India \(PARI\)](#) and [Indiaincine.ma](#). Apart from developments in preservation, curation and content sharing there remain continued concerns related to access, infrastructure and linguistic barriers in this sector. Intellectual property rights, open access and privacy issues have also emerged as important issues for cultural institutions looking to open up their collections to a wider public.

Collaboration with open knowledge production spaces like [Wikimedia](#) and [OpenGLAM](#) then offer important insights into possibilities now available with the digital turn for better public access to cultural content, but also in terms of the development of collaborative archival efforts. Efforts such as [GLAM-Wiki](#) have been crucial in bridging the gap between cultural institutions and initiatives in the free knowledge movement. There is still however lack of documentation and research on the various kinds of existing

collections and archival efforts afoot in India, and how they may benefit from better access through platforms like Wikimedia. This study maps a few of such GLAM institutions in Maharashtra, India, and reviews their collections, challenges and limitations to explore possibilities for better collaboration between cultural and public memory institutions through GLAM-Wiki initiatives.

Research Questions and Method

The study was framed by the following questions:

- How has the digital transition in the GLAM sector in Maharashtra, India, impacted the process of creation and access to cultural content?
- What are possible collaborations with open knowledge efforts like GLAM-Wiki?

The mapping of GLAM institutions was undertaken through questionnaires/surveys conducted with six GLAM institutions working in Pune district and one in Kolhapur district of Maharashtra state. The institutions were identified through existing networks established by [Subodh Kulkarni](#), [CIS-A2K](#) Programme Officer associated with Wikimedia projects working in this area and snowball sampling. The questionnaires were focused on the nature, objective and scope of the collections, funding, provenance, offline and online workflows (including acquiring, preservation, accessioning, digitisation and metadata standards), human resources, infrastructure, IPR policies and public outreach efforts. The questionnaires were administered with the help of the Programme Officer and volunteers working in this language community. The questionnaire with Marathi translation is given in [Annexure II](#).

The mapping helped to produce a set of recommendations for possible GLAM-Wiki collaborations in the Indian context. This was done through field visits to these institutions, review of the material, and interviews with key resource persons (administrators, faculty and students, archivists, librarians, developers etc.) who manage the collections of cultural content.

The following seven GLAM institutions were visited during the period November 2019 to February 2020. Further visits were cancelled due to the COVID-19 pandemic situation. Three Wikimedians — [User:ज्ञानदा गद्रे-](#)

[फडके](#), [User:आर्या जोशी](#)&[User:कल्याणी कोतकर](#) uploaded images of these collections on [Wikimedia Commons](#), and added/expanded five related articles on Marathi Wikipedia — [राजा दिनकर केळकर संग्रहालय, पुणे नगर वाचन मंदिर](#), [सार्वजनिक वाचनालय, राजगुरुनगर](#), and [आपटे वाचन मंदिर](#).

Observations about Research Method

The study was done with the help of three active Wikimedians, Aaryaa Joshi (Username:आर्या जोशी), Dnyanada Gadre-Phadke (Username:ज्ञानदा गद्रे-फडके) & Kalyani Kotkar (Username:कल्याणी कोतकर) interested in GLAM related activities. The questionnaire was developed with their participation. Orientation sessions were conducted to discuss the research design, process and outputs. The potential areas for bringing content into various Wikimedia projects were explained. While these Wikimedians conducted the visits for this mapping voluntarily, the actual expenses on travel, refreshments etc. were reimbursed. These volunteers had to carve out time slots from their regular jobs to complete the task. The timings at institutions and availability of key persons also needed to be considered while planning the visits. Sometimes the volunteers had to take leave from their regular work, which also led to some difficulties.

The first visit was to establish an association with the institution and the persons. The meeting with the authorities at the institution was essential to get the consent forms signed and complete other such formalities, including permissions to conduct interviews. This process delayed the work slightly, but is an important learning in terms of the need to establish a rapport with institutions for such research. The questionnaire was translated into Marathi (the local language) to facilitate the discussions. It was felt that to cover the basic aspects of the collections at an institution, at least 4–5 visits are required with a little gap between visits. This regular frequency will help to build relationships as well as maintain the work flow. The sample size for the present study was small due to some unforeseen constraints such as getting enough number of interested volunteer Wikimedians to undertake some of the research, multiple visits required for each institution which extended the duration of fieldwork, lack of positive responses from the GLAM institutions as well as eventual restrictions due to the COVID-19 pandemic.

Survey of GLAM in Maharashtra

To identify the major institutions in Maharashtra and prepare the list of major GLAM institutions in the state, various government and private official websites as well as publications were studied. It was realised that no website or publication has created a comprehensive district or statewide list of institutions. Information about a few institutions is available online, but these are helpful largely from a tourism point of view. There is no proper selection or thematic categorisation which considers researchers, students, or other communities of interest. The popular tourist routes are given importance. Therefore, there is a need to document all the GLAMs category-wise on platforms freely accessible to the public. Some of the websites are listed in [Annexure I](#).

Description of Surveyed Institutions

Apte Vachan Mandir, Ichalkaranji



Art Gallery at Apte Vachan Mandir, Ichalkaranji. By [ज्ञानदा गद्रे-फडके](#), [Art gallery at Apte vachan mandir, Ichalkaranji](#), [CC BY-SA 4.0](#)

[Apte Vachan Mandir](#) is a 150 year old library in a small city named Ichalkaranji in Kolhapur district of Maharashtra. The authorities are very cooperative and eager to start digitization of the old/rare books and art gallery. They also need help regarding digitisation and preservation of the century old paintings. The institute is ready to scan the books if equipment and training is provided to their staff. The officials have given the list of 400+ rare books which they are planning to digitise. The official communication has started with the secretary of the institution. The further process stalled due to the COVID-19 pandemic.

Iravati Karve Anthropological Museum, Pune

[Iravati Karve Anthropological Museum](#) is located in the Savitribai Phule Pune University campus, Pune. The initial visit was conducted and permission was sought for further documentation. The curator and authorities have extended all possible cooperation regarding open knowledge access to the museum collections urther visits could not be undertaken due to the restrictions as a result of the COVID-19 pandemic.

Joshi's Museum of Miniature Railways

[Joshi's Museum of Miniature Railways](#) was founded in 1998 by B. S. Joshi in Pune city. It houses different models of trains, railway stations, tracks with signals, bridges, streets in the cities, circus etc. Light and sound shows are also arranged here. This is a unique collection in India. One can get an experience of scientific concepts, handicraft, technology, history, amusement related artifacts at one place. The authorities of this museum do not feel the need of digitization as it is a live show which gives the best experience. However the documentation of the development process regarding railway models present in the museum is important. They wish to increase the outreach through publicity of the museum on free knowledge platforms to attract visitors to increase the footfall. As it is a privately owned museum, it is getting difficult to maintain it or add new things to it. So, there is scope for some kind of engagement with this museum.

Museum in College of Military Engineering, Pune

[College of Military Engineering](#) is a premier institute for army training in India established in 1943. The museum houses vintage engineering

equipment from the pre-World War I era, which is displayed over a large landscape. The archives of the corps are also maintained in the library section. Permission for an initial visit was received late due to administrative procedures. Further visits for interviews with the key officials were planned but cancelled due to the lockdown following the COVID-19 pandemic. But there is scope to document the rare machinery, engineering structures, military vehicles etc. as it is openly accessible to the public. The institute is also keen to spread this knowledge to young generations.

Pune Nagar Vachan Mandir



Pune Nagar Vachan Mandir Library. By [दिपक कोतकर](#), [पुणे नगर वाचन मंदिर ग्रंथालय 4](#), [CC BY-SA 4.0](#)

[Pune Nagar Vachan Mandir](#) is a historic library in Pune founded in 1848. The library houses a rich collection with rare books in various languages from the 17th century. It also possesses historical manuscripts and valuable diaries. The library management is very up to date on new developments in the field and has already adopted web technologies for catering to members. The catalogues are made available online in [Koha](#).

They have started digitisation efforts to some extent but need inputs and support. The authorities are eager to collaborate on larger projects to make their resources freely available. The authorities are ready to give the database of books for further integration with Wikimedia projects.

Raja Dinkar Kelkar Museum

[Raja Dinkar Kelkar Museum](#) was founded in 1920 by Dinkar Kelkar in Pune city. This museum houses 22,000 rare artifacts from different historical times. The thematic galleries have been developed thoughtfully. The museum has published 8 catalogues on these themes. More details of this museum can be seen on the official website.



Mastani Mahal restored at Raja Dinkar Kelkar Museum, Pune. By [आर्या जोशी](#), [मस्तानी महाल](#), [CC BY-SA 4.0](#)

This museum is partially funded by the State Government for some regular maintenance. The funds for development, upgradation, conservation and promotion are to be raised by the institution. A digitisation project has been planned by the museum authorities, and it is progressing as the resources are being arranged. The museum officials are open to share

information digitally in the public domain. They believe that they can reach interested masses through Wikimedia Projects. They have given permission to photograph the objects and the various conservation practices in their laboratory. They have expressed their readiness to give free access to libraries and museums for Wikimedians visiting the institution for purposes of research.

Rajgurunagar Public Library, Rajgurunagar

Rajgurunagar Public Library is a 150 plus year old Public access library with a competitive examination center. The special features are rare books from the 19th century and manuscripts. The management was not aware of Wikimedia projects, Open source cataloging, Unicode data entry systems etc. But after the visit, the officials responded very positively to start digitisation of 25 rare books in collaboration with the Access to Knowledge programme, Centre for Internet and Society and [Vigyan Ashram, Pabal](#). The task was completed and these books were digitised and uploaded on Wikimedia Commons by creating a [separate category](#). As the manuscripts and other material is getting degenerated, this collection needs to be digitised at the earliest.

Observations

Target audience

The GLAM institutions, especially museums and libraries are facing a decrease in footfall in recent times. The officials feel that uploading material on the web under free licenses will further aid this trend. At the same time they also express their interest and ideas to attract a new generation to engage with these collections through promotional mobile apps. There are however persistent anxieties about public access to these materials on the web. Some institutions possess unique or rare material such as antiquities, manuscripts, live models or books. The officials fear that the institutions will lose their points of attraction if they are projected on the web with descriptions. On the other hand, the researchers and interested communities are unaware of such treasures with these institutions.

Sustainability

Sustenance of the institutions is another important point and obstacle in digitisation of collections. The publications of the museums are a source of revenue for them. As the entry fees or subscription charges need to be kept minimal for the visitors, the priced material sold at the counters is the only income source for these institutions. Hence, there is a limitation of online availability and promotion of this material. Finding a sustainable model which also allows for open access to content is a difficult task for a large number of organisations. The financial support to these institutions is not a priority area for Government agencies or philanthropic organisations. Some institutions have successfully attempted for corporate social responsibility (CSR) funding. They need professional inputs for fundraising campaigns.

Technical challenges

There are also technical challenges with the digitisation process itself. Some of the libraries have not adopted a universal cataloging system. Therefore it is difficult to analyse the data of books according to copyright status and physical conditions. The authorities are eager to dispose of decaying material after digitisation. Some of them have approached State Government departments for funds but got no response. This may be because standard digitisation policies are not in place at a national level, and a lot of institutions are unaware of existing benchmarks and policies. Another hindrance is that the books will not be permitted to be taken outside the institution for scanning because of the physical condition. Awareness and training in archival and records management is a key requirement in these conditions.

Capacity building

The awareness and capacity building of the personnel at the institutions in the area of free knowledge and digitisation skills is to be enhanced before starting any project. The terminologies and case studies of some projects in local languages are necessary for better understanding of concepts as well as best practices. Some of the good archive projects in Marathi completed by various organisations include digitisation of the complete works of [Vinoba Bhave](#), [Prabodhankar Thakeray](#) and [Vinayak Savarkar](#). The language department of the State Government of Maharashtra

has also digitised and uploaded 129 old books and 555 old magazines on their [website](#). The other [website of the literature & culture department](#) has made available 434 books in PDF, epub and mobi format.

Recommendations

These recommendations are based on the interactions with the Wikimedians involved in the process, the interviews with key persons from seven GLAM institutions and previous experiences of working with such institutions. The important learnings from this research study are captured in the observations stated above. As the focus of the discussions remained limited to the access to cultural content and possible collaborations regarding Wikimedia Projects, the content creation aspect was not touched upon in detail. The recommendations emerging from this study provide some guidelines for action points for the near future. However, for designing broader strategies for the GLAM sector, a sizable number of institutions in different regions of the state need to be mapped to provide a more comprehensive picture of the sector and its possibilities

The recommendations regarding various stakeholders in the mapping process are stipulated below -

For Wikimedians

- Orientation sessions for Wikimedians visiting the institute regarding GLAM related Wikimedia projects, copyright issues, Creative commons licenses and basics of library science should be conducted. The availability of resource material on these topics in local languages will be useful in the interview process.
- For replicating this mapping activity across one state or several states, the selection of Wikimedia volunteers is crucial. The provision for reasonable honorarium per visit should be made for time bound as well as qualitative execution of tasks.

For GLAM institutions

- It was observed that the GLAM institutions are not well aware about the free knowledge platforms like [Wikimedia projects](#) or [Internet archive](#). They are aware about copyright and intellectual

property rights, but not about [Creative Commons](#) or other licenses available. They wish to make their resources available across the world but are not clear about the methods. The collaboration regarding these aspects is highly appreciated.

- Old libraries have a good collection of rare old books. They are finding difficulties in preservation of books as well as facing space constraints. Also for these books, readership is also negligible. Hence there is a need to digitise this valuable reference material before it degenerates.

For CIS (or other implementing agency)

- A comprehensive list of GLAM institutions in the state, with further categorisation into geographical & thematic aspects is to be developed and be made freely accessible for the public at large.
- Training in universal metadata structures and unicode systems like Koha is to be arranged for the staff and management members at these institutions. At least the cataloging in universal format should be done on priority to analyse the metadata for copyright free status. A central repository is needed to avoid duplication in scanning. CIS-A2K needs to design strategic plan for this activity.
- For in-depth case studies of potential GLAM-Wiki institutions, [Wikimedian in Residence \(WiR\)](#) programme should be adopted.
- Interactions with concerned State and Central Government departments would facilitate the research activity and further collaborations. The findings of the research could be shared with such agencies along with concrete project proposals designed in collaboration with concerned institutions.

As illustrated by the observations of this study, the digital turn has brought about significant changes in the cultural heritage sector, but a large part of these still pertain to concerns around access to cultural content. The

role of digital technologies and free knowledge platforms like Wikipedia in addressing these issues of access and outreach, and importantly in content creation therefore remains to be explored, through a more comprehensive study of the sector. Further, the study has also been indicative of the potential of collaborative work, and efforts needed towards the same, which may be helpful in also contributing towards a broader strategy for GLAM work with Wikimedia projects in Indian languages.

Understanding the Data Gaps on Wikidata Concerning Heritage Structures of West Bengal

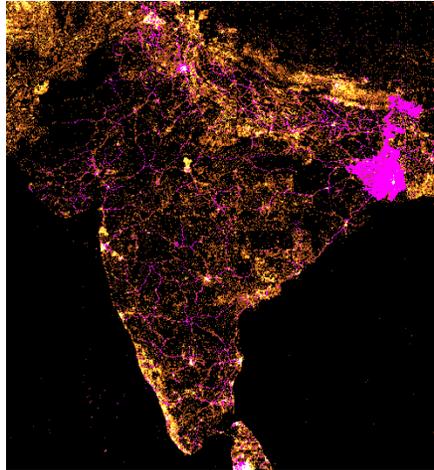
Bodhisattwa Mandal

This is a short study on identifying the data gaps related to heritage structures in West Bengal on Wikidata, and potential strategies to address the same. The report is authored by Bodhisattwa Mandal, with editorial oversight and support by Puthiya Purayil Sneha and external review by Sumandro Chattapadhyay. This is part of a series of short-term studies undertaken by the CIS-A2K team in 2019-2020

Wikidata is a free and open repository of structured and linked data, hosted by the Wikimedia Foundation, built collaboratively[1] by human volunteers and robots from all over the world[2]. This platform, with an initial intention to be used within Wikimedia projects as a high quality secondary database[1], first started by centrally linking Wikipedia articles about the same topics in different languages[3][4][5][6][7], but soon it started linking with external databases.

Introduction to Wikidata

Wikidata is designed to be structured as a Resource Description Framework or RDF model which describes statements in the form of triplets of subject–predicate–object. In Wikidata, subject–predicate–object is termed as item–property–value. **Items** on Wikidata can represent every possible object, concept or topic in human knowledge which passes a certain threshold of defined notability[8] and are represented by unique Q numbers. The actual data of an item is called **value**, which is pre-defined by the data type, be it strings, numbers, dates, url links, coordinates, musical notations etc. or even other items. **Properties**, represented by unique P numbers, describe the data value of items. The items, properties and values are language independent and thus totally machine-readable, although for human comfort and understanding, one can describe items in their own languages by adding or translating **labels**, **descriptions** or **aliases**. [9], [10]



Due to the machine-readable triplet structure of Wikidata, the database can be easily queried to find answers, which might not be otherwise possible from a list of unstructured contents such as Wikipedia articles. To retrieve and manipulate RDF data formats in triplets, we require a semantic query language for RDF databases named **SPARQL**[11]. Through Wikidata query service,[12] one can use SPARQL and retrieve data and the prevailing gaps on Wikidata and visualize in different ways.

Wikidata in West Bengal, India

Wikidata activities around India have been organized around India for almost 4 years under the WikiProject India[13] umbrella. Targeted approaches to fill data gaps on different topics have been pursued through data-thons and campaigns in these years and community strength has been aimed to increase through workshops and skill sharing initiatives.

Being part of that initiative, the Indian state of West Bengal has seen a lot of activities around Wikidata in recent years. Under the WikiProject umbrella[14], Wikidata volunteers have been working together to build data on different topics related to the state, its demographics, culture, heritage, education, health, politics, language etc. As heritage has been the prime focus of the Wikimedia community members of West Bengal, in this essay, we will identify the data gaps related to the topic through SPARQL query and explore reasons for the same, if any, through interviews of active volunteers who have been working on this area for years.

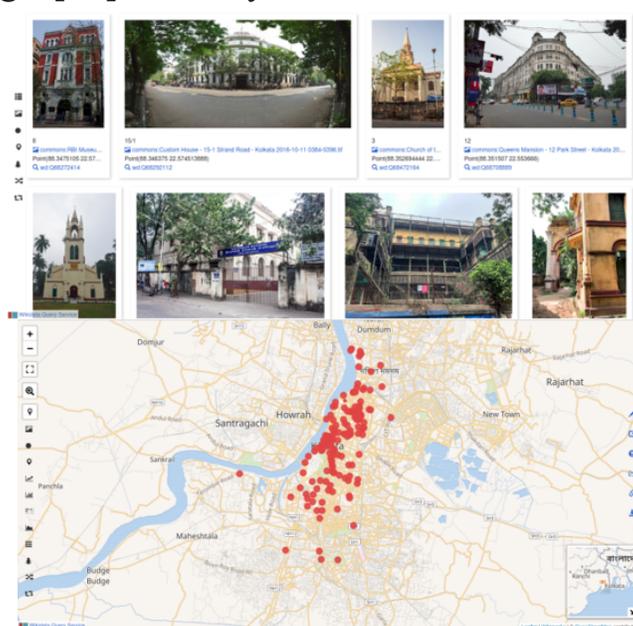
Wikimedia community members have been working on documenting different forms of heritage since 2011, when they organized Wikipedia Takes Kolkata photo-walk[15] for the first time. Since then, they have

organized eight more Wikipedia Takes Kolkata photo-walks, 11 Wiki Exploration projects in 9 districts of the state[16], 2 editions of prestigious Wiki Loves Monuments in India[17][18] and several other documentation projects organized organically or single-handedly and by doing so they have uploaded several thousands of photographs related to heritage structures and GLAM collections on Wikimedia Commons.

In this essay, we will focus on the photo-walks and explorations which were conducted to document heritage structures of West Bengal. We will focus on two basic types of data which should be there in every dataset on heritage structures, i.e. a) location, and b) image, and we will find out if there is any significant gap there using SPARQL queries.

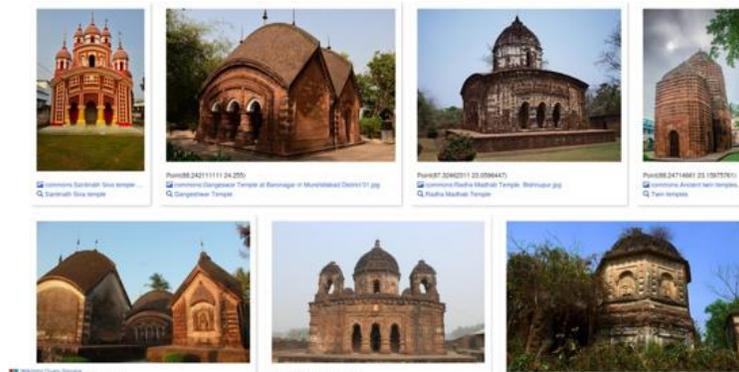
Photo-walks and Wiki Explorations in West Bengal

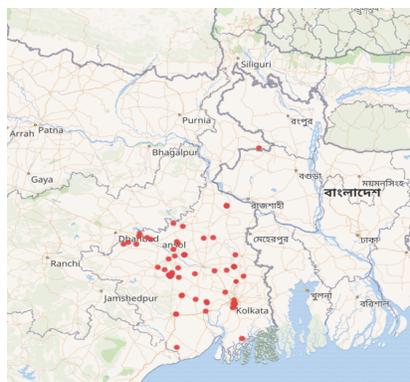
Let's start with the nine consecutive series of Wikipedia takes Kolkata photo-walks which aims to photo-document heritage buildings and structures of Kolkata. To understand the data gap related to the heritage buildings, we will examine the presence of graded heritage buildings and structures enlisted by Kolkata Municipal Corporation[19] (KMC) on Wikidata through different SPARQL queries. Wikidata now contains 923 heritage buildings and structures listed by KMC[20], but out of them 26.65% have images[21] and only 18.53% have coordinates[22].



Although 81.47% of the items of the heritage structures were missing coordinates, but they gave fairly good idea about their location, all of the items had municipal wards and streets connected with them, utilizing which, photographers and travellers are expected to explore the sites easily. However, while testing the items of the wards, it was noticed that however all the 144 wards contain coordinates, but they all lack a crucial property which can denote their area of location i.e. the geoshape data.[23] While coordinates can denote the exact location of certain parts of an area, it is misleading when it comes to a larger area, which requires geoshape to better describe the location. While testing the street data, it was found that both geoshape and coordinate data are lacking for the streets, which makes them extremely difficult to locate.[24]

For the last 3 years, Wikimedia volunteers from West Bengal have also been involved in Wiki Exploration projects to remote parts of the state documenting temples, mosques, sculptures etc., many of which have not been documented online before. Few hundreds of heritage structures in 9 districts of the state were documented and thousands of photographs under this project have been uploaded to Wikimedia Commons.[25] Now, if we test the Wikidata presence of the temples situated in West Bengal, it can be noticed that 435 temples have items[26], out of which only 196 items have images[27] and only 79 have coordinates.[28], however 302 of them have their location pin-pointed to the village, ward, town or city level. Similar to the previous case, although there are 40,359 items for villages located in West Bengal, only 0.017% have coordinates while none have geoshape data.[29]





From the above two scenarios, it can be easily concluded from the SPARQL queries, that there has been a significant amount of data gap. Both the datasets contain significant lack of location data and images. The second scenario even lacks data on the temples itself.

Challenges of Contributing to Wikidata in/from West Bengal

Now, to understand why there are huge gaps in the data, we have interviewed four volunteers from West Bengal who are involved in these two kinds of projects, three of them are Wikimedia contributors for five-ten years and one of them is relatively new to the movement. They all upload heritage photographs to Wikimedia Commons and 2 of them contribute to Wikidata. All of them agreed that due to lack of suitable hardware, they could not document the exact coordinate data while photo-documenting heritage structures. GPS devices or full-frame cameras with built-in GPS are expensive and are not affordable to many. Interviewees have also pointed out that due to lack of proper training on how to document heritage structures properly, photographers and amateur researchers miss out vital points of documentation and thus increase data gaps. Restricted access to private heritage structures like temples maintained by families or private heritage buildings and their documents, lack of proper existing documentation along with analogue and digital metadata, and rapid destruction of built heritage due to lack of maintenance or improper restoration procedures etc. are also the reasons for data gaps. While answering the question about why photographs are not converted fully into data, they point out that it might be a burden for photographers to learn about data entry in Wikidata, as this is out of their area of interest and workflow. As noted by an interviewee, ‘the nature of work for Wikidata does not match with photographers' workflow.’ However, they also stressed

on the need to conduct training programmes on Wikidata for photographers and interested people involved in documentation to let them know the importance of structured data in the area of heritage documentation.

Recommendations

From the observations of this short study, it is recommended that volunteers working on heritage documentation in West Bengal should be supported with suitable hardware to document coordinates. Frequent training programs should be conducted, preferably by experts, for volunteers on how to document heritage structures in a professional way, so that data gaps remain minimal. Training on Wikidata should be conducted for photographers to let them understand the importance of structured data in the field of heritage documentation. It is also recommended to increase interaction among the Wikidata and Wikimedia Commons volunteers, to understand each other's work flow and strategically modify those to provide optimal results.

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Bridging the Gender Gap:A Report on Indian Language Wikimedia Communities

Bhuvana Meenakshi Koteeswaran

This research study documents the gender gap and bias in Indian language Wikimedia projects and communities, with a focus on participation by and content related to women contributors across diverse Wikimedia platforms. The research was undertaken by Bhuvana Meenakshi Koteeswaran, with editorial oversight and support by Puthiya Purayil Sneha, and additional inputs from Ambika Tandon and Sumandro Chattapadhyay. This is part of a series of short-term studies undertaken by the CIS-A2K team in 2019–2021.

Introduction

This study presents documentation and analysis of gender bias in Indian language Wikimedia communities. Wikipedia defines ‘gender bias’ on its platforms as the fact “that Wikipedia contributors are mostly male, the fact that relatively few biographies on Wikipedia are about women and the concept that topics of interest to women are less well-covered.”¹ Previous research has shown that this gender gap does not only result in fewer women participants in Wikimedia events or number of edits by women, but also extends to disparities in the active participation of men and women, and content about women on various Wikimedia platforms. The Wikipedia page on gender bias further notes that “In a 2018 survey covering 12 language versions of Wikipedia and some other Wikimedia Foundation projects, 90% of contributors reported their gender as male, 8.8% as female, and 1% as non-binary gender. Other studies since 2011, mostly focused on the English Wikipedia, have estimated the percentage of female editors at up to 20%.”²

A previous study by Ting-Yi Chang on “Bridging the Hidden Gap”, supported by the Access to Knowledge programme at the Centre for Internet and Society (CIS-A2K),³ illustrated how the phenomenon of gender gap and bias exists in global and regional Wikimedia communities.⁴ The study was based on interviews with prominent women contributors from Indian language Wikimedia communities,⁵ which helped us

understand the current discourse around ‘gender gap and bias’. This study reiterated that the gender bias continues to exist among Indian language Wikimedia communities and indicated the need for further research to understand its persistence.

The study addresses, broadly, three thematic areas:

- Online participation, including content created by women, content about women, and their online engagement with communities.
- Offline participation by women across various Indian language communities.
- Strategies to remove barriers to sustained participation of women contributors (including challenges with retention and infrastructural issues), and mapping the diversity of Wikimedia projects women are involved with, with the aim to encourage participation across more projects.

15 interviewees who are part of 13 different Indian language Wikimedia communities (including English) shared their experiences and insights on each of these themes as part of this study. Globally, there have been several initiatives of different scales by women Wikipedians, as individuals and as part of a community, to counter the gender gap through active intervention. This includes Women In Red,⁶ Art+Feminism,⁷ Wiki Loves Women,⁸ Wiki Women for Women Wellbeing,⁹ Gender Gap Task Force (a WikiProject which addresses bias in content on women and documents problems faced by women in Wikipedia),¹⁰ Wikimedia projects and initiatives to improve content on several topics such as women artists,¹¹ feminism,¹² women’s history,¹³ women in technology,¹⁴ women scientists among others.¹⁵ Women Wikimedians from India have also been part of organising committees for global events such as Wiki Loves Folklore¹⁶ and Wiki Loves Love 2019.¹⁷ These efforts, undertaken between 2011 to the present, have collectively produced more content on women and scaled up women’s participation in Wikimedia projects.

Background

The gender gap in representation is a systemic issue globally, extending to fields such as education, health, employment, and public and

political participation. A 2020 report by the World Economic Forum (WEF) points to a “31.4% average gender gap that remains to be closed globally” across key dimensions such as economic participation and opportunity, educational attainment, health and survival, and political empowerment.¹⁸ The report, which has surveyed 153 countries in its current edition, highlights that political empowerment, economic participation and opportunity remain the dimensions with most disparity. Under the educational attainment index, investment in capacity building of women’s skills and talents is highlighted as one of the gaps, apart from “some occupations where women are under-utilized even if they have the needed skills”. In terms of country specific data, the report finds that “India ranks 112th on the overall Global Gender Gap Index and the country has closed two-thirds of its overall gender gap (score of 66.8%). However, the condition of women in large fringes of India’s society is precarious. It has lost four positions since the last edition of the WEF report published in 2018 despite a small score improvement, as some countries previously ranked lower than India have improved more rapidly. The economic gender gap runs particularly deep in India. The report also features data on gender disparity in skill-sets and training of women across diverse fields, with the widest gaps in STEM, AI, and technology-driven areas. The report concludes with the prediction that gender gaps could potentially be closed in 71 and a half years in South Asia.

The objective of prefacing this literature review with data about the global gender gap is to reiterate that this is a systemic and evolving problem, with several intersectional variables such as race, class, caste, and geographical location among others. On collaborative, largely volunteer-driven platforms such as Wikipedia, it is difficult to accurately map the extent of gender gap and bias given these intersectional variables. Even so, the body of research in this area in over a decade continues to indicate that even with progressive strides, the online encyclopedia remains inaccessible or difficult to engage with for large sections of women. The problem of gender gap and gender bias represents a lack of gender-diversity among editors and their editing practices which leads to an imbalance in collation and representation of information on the online encyclopedia. At present, women constitute “15-20% of total contributors on Wikipedia”, based on a

working assumption by Katherine Maher (2019) and her team at the Wikimedia Foundation.¹⁹ It is important to note that, a large part of the work on gender gap has focused on participation and content by and of *women* on Wikimedia platforms; this does not offer an insight into the participation of individuals across the spectrum of gender and sexual identities, including non-binary and LGBTQIA+ individuals²⁰ and the understanding of how the gender gap affects their access and engagement with Wikimedia projects.²¹

Research over the years has pointed out several (and often recurring) obstacles to contributing to the online encyclopedia. As M. Zandpour (2020) notes, these include “low proportions of female editors; self-perception and confidence as a major cause for the gender gap; the influence of conflicts on female contributions; article rejection due to the notability criteria and content differences between articles about men and women”.²² As the much controversial Wikipedia page on Donna Strickland (2018)²³ indicates, women’s contributions across different professional sectors and on the encyclopedia itself require extra efforts to gain visibility.

M.H. Schellekens et al.(2019) in their analysis of women’s contributions and public recognition, find that “women in Physics, Economics and Philosophy are considerably less likely than men to be recognised on Wikipedia across all levels of achievement.”²⁴ They further discuss this as a result of a broader inequity and barriers in professional participation of women across various sectors, as well as discrimination and sexism in school and the workplace. This factor of women being historically underrepresented in different areas is reiterated by Rosie-Stephenson Goodknight (2020), who “co-founded the Women in Red²⁵ WikiProject with a mission to improve the encyclopedia’s coverage of women’s biographies, works by women, and women’s issues.” As she notes in an interview in 2019, this is also related to the matter of historical record and coverage, where women have been missing from professions and leadership positions, and where in addition, male counterparts have received more coverage which further affects visibility for women.²⁶

Conflicts and safety on the encyclopedia is another persistent obstacle, for women and LGBTQIA+ editors in particular. A. Menking et al.(2019) in their study on how women editors navigate and negotiate safety

on Wikipedia, highlight how the encyclopedia is a “multi-dimensional space existing along a spectrum of safety, and many contributors therefore feel unsafe in various ways and look to constructing their safety in different strategic ways.” Many of the people interviewed by the authors, all experienced Wikipedians, have reported feeling unsafe or their work being contested as a result of their gender identities. The authors therefore offer several provocations and strategies based on this and previous research, looking at how inclusivity, the existence of porous safe spaces and design thinking may be ways to address concerns of safety on the online encyclopedia.²⁷

In response to these concerns, the Wikimedia Foundation in 2019 has laid out new rules to combat such ‘toxic behaviour’ in the form of a Universal Code of Conduct,²⁸ and other existing measures²⁹ to tackle harassment³⁰ and strive to keep the encyclopedia friendly and conducive to good work practices.³¹ A lot of these obstacles to editing Wikipedia, particularly for women, were highlighted in a report by Sue Gardner as early as 2011; these have included everything from lack of time and self-confidence due to edits being reverted, to unavailability of resources, difficulty in accessing/editing the pages, an unwelcoming community, misogynist atmosphere, and the article or edit being subject to reverts or deletions.³²

The Wikimedia Foundation has invested in several efforts to understand, acknowledge and address the issue of gender gap. A prominent initiative among these is the initiative on ‘Advancing Gender Equity’ which began in 2017, with 65 Wikimedians from across 29 countries and 26 languages who were leading gender equity projects³³. The project was led by Rosie Stephenson Good-knight, and a report on the findings was published in 2018 and presented at Wikimania Cape Town. The report observes that issues around the gender gap are not only about content and participation, but extend to building the community for and by women. It is also necessary to create safe spaces, change perceptions, build allies, improve community health, and much more. The community needs to discover better ways to understand the impact of the works done by women and share their stories. The Gender Equity initiative highlights barriers, but also offers several best practices to support more Wikimedians to “work

actively to advance gender equity in their own communities and connect them with the means to do so.” Several efforts have therefore been undertaken as part of this initiative across diverse language communities and with other organisations and individuals.³⁴

While there is research available globally on the gender gap and bias on Wikipedia, there is still a need to study this within the context of Indian language communities to better address specific challenges they face. In Indian language Wikimedia communities, on an average there are more than 10, 000 active editors (according to the Wikimedia Stats metrics, Active editors is defined as the count of editors with five or more edits, including on redirect pages) from various regions who contribute to 23 Indian languages on Wikimedia projects (more specifically on Wikipedia, Wiktionary, Wikibooks, Wikiquote and Wikisource) on a monthly basis as of January 2021.³⁵ The research on studying the gender gap and bias in these communities is scant. Some studies undertaken in India over the last few years offer some insights into the factors associated with the gender gap, lived experiences of women in comparison with men, and recommendations to address this gap.

An early study by Eva Jadine Lannon (2014) highlights the hurdles faced by women contributors in Indian language communities, and offers a comparative analysis with the experiences of women contributors in the general editor community (predominantly Western women on the English-language Wikimedia). She highlights though that “overall, relying on conceptualizations of the gender gap in Wikipedia that is largely based in the lived realities and experiences of Western, middle-class female-identified individuals to inform outreach strategies and initiatives in non-Western contexts may, eventually, attract more female editors to Wikipedia, but these efforts will be unlikely to bridge the class (and gender-class) gap, which means that Wikipedia's content will likely continue to be unrepresentative of the full spectrum of human knowledge and experience, and particularly that knowledge that is associated with interests, histories, stories and perspective, regardless of the resulting increase in female participation”. Noting that challenges faced by Indian women contributors are unique given the socio-cultural context, Lannon has also suggested strategies that can be of help to bridge the gender gap. These include

actively welcoming and supporting new editors; creating spaces on Wikipedia for social interactions to build rapport and familiarity, including more offline meets; and combating a ‘deletionist culture’ which often deters new editors, especially women from continuing to work on Wikipedia.³⁶

Sohnee Harshey (2014) in her research on gender bias on the online encyclopedia attempts to locate “the systemic bias on Wikipedia in two locations- the composition of the editor community and the manifestation of this bias in terms of the nature of content.” In locating her research around three thematic areas of Violence against Women, Women and the Law and Women and Performance (Women in the Public Sphere), Harshey looks at the discourse that is created by the content on these themes available on Wikipedia, and how they ultimately contribute to the knowledge building process. Principles such as *Neutral Point of View* can often be difficult to negotiate for editors, especially where they conflict with gender sensitivity, or address content that may contain a systemic gender bias or sexism. In general the lack of a feminist lens in adding content has also been discussed in the paper, apart from challenges editors face with editing due to technical issues and a lack of alliance or consensus building. While the paper also discusses several attempts to address these issues, such as the Tea House,³⁷ and mechanisms to address conflict resolution etc., it also raises the critical question of how Wikipedia is located within a larger ecosystem of knowledge production, questions of authority and agency, and points at which systemic issues like gender gap affect the same.³⁸

Netha Hussain (2020) in her research on English Wikipedia discusses gender bias in the context of articles on differences between men and women. She categorises the bias in terms of structure, visibility, lexical and coverage. She describes the overrepresentation of men even in articles focusing on women, and how they are structured in a manner that furthers inequality in description, notability and significance.³⁹ Anwesha Chakraborty and Netha Hussain (2018) in their ethnographic study of gender gap issues in Indian Wikimedia communities, drawing heavily from the gender diversity mapping exercise that Wikimedia Foundation began in 2017, highlight some of the key motivations of Indian women in participating in the Wikipedia movement. They also draw attention to some “unique Indian problems which create barriers for women’s participation,

and what is being done (and can be done) to bridge these gaps.” Common challenges included lack of leisure time, monitoring of social media use by parents or older men in the family, and restrictions on travelling to events. Importantly, another common challenge was the lack of confidence and skills among women, especially due to lack of role models and women in leadership positions. Harassment and a culture of misogyny deterring women from continuing to edit Wikipedia also emerged as a concern. Technical barriers (faced by men and women) were also flagged, such as lack of technical support for Indian language tools and fonts etc. and a steeper learning curve for these languages which also act as barriers to sustaining women’s participation. Despite this, the authors mention several motivations: learning new skills, sharing information in their own languages, advancing women’s rights by sharing more women-related content, or honing writing, management and administration skills etc. The authors also suggest several strategies to address gaps such as more editing workshops and meet-ups led by women, sensitization to address misogyny and lack of diversity in these spaces, support groups to address harassment, and tapping into the un-channeled potential groups such as mothers who edit Wikipedia. The authors note that “traditional gender roles are still strong in the Indian society and these need to be constantly overcome by women who participate in online spaces.”⁴⁰

Ting-Yi (Elisa) Chang (2019) worked with CIS-A2K to study issues related to gender gap among the Indian language Wikimedia communities; her research observations illustrate how women Wikimedians negotiate their identity and agency within the male-dominant Indian language communities, and how the learnings from here resonate with the larger Information and Communication Technologies for Development (ICT4D) discourse. She suggests that better training and exposure to technology can help in engaging more women, and creating women leaders in the Indian language communities. During her research, many women who faced domestic and technical restrictions in accessing Wikimedia platforms were introduced to editing on Wikipedia, and this interested the women in gaining access to new skills and information from wherever they could participate. This curiosity to acquire knowledge on various subjects of interest and share it on a public space like Wikipedia pages encouraged the

women participants to contribute more towards the movement. The author suggests three major recommendations to address the hidden gap which exists in these communities, a) “Reconstructing space and participation mechanisms to minimize conflicts between one’s offline identity and online participation; b) Ensuring untokenized support and agency and freedom; c) Providing adequate and nondiscriminatory recognition and appreciation on one’s capability, achievements, as well as inputs.”⁴¹

Padmini Ray-Murray and Ayona Dutta (2020) share their research on Wikipedia as a form of ‘platform urbanism’ and their experiences of hosting a physical editathon to produce a Wikipedia page in dual languages (English and Hindi) on the Madanpur Khadar JJ Colony in New Delhi. A group of young women who resided in a slum resettlement of Delhi have contributed in this event, where they were introduced to search engines and Wikipedia. The authors recount the challenges faced by participants in understanding the platforms, precipitated in many ways by the lack of suitable infrastructure, and additional difficulties with establishing authenticity and citation on Wikipedia. The authors reiterate how Wikipedia as an open platform helps to gather knowledge about the local vicinity from the women participants who were the young millennials, whose parents settled in this city sometime in the 1960s. The information provided by these residents was more precise than geolocated data provided by Google, which they term ‘narrowed data’. The further note that, “We positioned Wikipedia as a platform of ‘urban’ knowledge that could enable a descriptive narrative and push against what we imagine as a ‘map’ based platform for understanding the city. As a textual platform it enabled an active archive, a palimpsest of historical and social narrative that could emerge from the ground. Yet as a digital platform it too enabled algorithmic funnelling of information in the way that it was structured and organised across categories.”⁴²

Previous research therefore has brought together a range of challenges and solutions around offline and online participation of women, content on women and strategies to sustain their participation in diverse environments. This report on ‘Bridging the Gender Gap’ draws upon and continues the work in this space, a brief review of which has been presented above. The findings from previous research illustrate that there are specific obstacles

related to access and sustained participation by women and other marginalised groups on Wikimedia platforms that remain persistent, due to socio-economic and infrastructural inequities, which are further exacerbated by gendered notions of skill and labour. In addition to the need for creating safe and healthy online working environments, there is also a need therefore to develop strategies for better engaging people of diverse gender identities as contributors on these platforms. While some of these problems of gender gap are replicated in the Indian context, there are issues specific to the context of Indian language Wikimedia platforms and projects, which would need careful and detailed study, from an intersectional lens. This report therefore begins with the understanding and acknowledgement of the problem of gender gap and bias as systemic one, and will offer some insights into how the issue has evolved over the last couple of years in the context of Indian language Wikimedia platforms, and possible strategies to address the same.

Methodology

The data for the research was collected through semi-structured interviews and two focused group discussions (FGDs). Interviews were conducted via in-person conversations and audio/video calls with contributors across 13 Indian language communities (including English) contributing to Wikimedia projects and initiatives like Wikisource,⁴³ Wikidata,⁴⁴ Wikipedia,⁴⁵ Wikispecies,⁴⁶ Wiktionary,⁴⁷ Wikimedia Commons,⁴⁸ Wikiquote,⁴⁹ Wiki Loves Monuments,⁵⁰ Wiki Loves Women India,⁵¹ Wiki Loves Women South Asia,⁵² Wikipedia Asian Month,⁵³ and Project Tiger.⁵⁴

These interviewees were selected primarily based on their active participation in their language communities towards empowering women to contribute proactively to Wikipedia. In addition to this, a few were respondents whom Ting Yi Chang had previously selected for her study on bridging the gender gap on Wikipedia (conducted as part of CIS-A2K), but was unable to interview due to time constraints.

All interviews were done only after receiving due consent from interviewees through a consent form. Interviews were conducted in English, Hindi, and Tamil. The questionnaire consisted of 12 questions (refer to

Annexure I), which were modified for each interviewee based on language, project and local contexts. The interviewees were given the option to use their discretion in answering questions.

There were two extensive FGDs conducted with the students of two different arts and science colleges in Tamil Nadu. The students of the institutions were introduced to Tamil Wikipedia and other Wikimedia projects through activities like contributing content and editing, conducted with the support of experienced local Wikimedians. This was followed by group discussions on this research study with the support of A2K, and broadly on gender gap initiatives and projects in the global context.⁵⁵ The students shared challenges such as facing gender bias at home and how this forbids them from exposure to technology. They also discussed institutional challenges in providing the required infrastructure to continue their contributions to Wikimedia.⁵⁶

An objective of the study was to highlight previously unheard voices. However, there were several challenges in identifying and reaching out to respondents across the communities. To begin with, the process of identifying respondents was time consuming. In addition, most communities had men as points of contact, which could create barriers. There were instances in which the men's contact information was given even when we sought to speak to women, particularly in cases where the women were introduced to the particular language community by men (as friends or relatives).

My own experience as a new entrant in the Wikimedia community also impacted the research process. It took me time to understand the communities well, and also for community members to engage with me and share details of their work with trust and confidence. I learnt that engaging with communities only as a researcher would not build trust, so I also learnt simultaneously to edit on Wikipedia and gain familiarity with other Wiki projects. Slowly, I also became familiar with common jargon used by communities when describing their work, as well as with the communities themselves.

Observations and Analysis

Online Participation and Challenges

This report aims to build on existing work on the gender gap and bias within Indian Wikimedia communities in order to understand specific challenges in online and offline spaces, and methods to foster sustainable participation of women in the movement. This section focuses on the nature of women's engagement with online spaces, while discussing Wikimedia projects but also other platforms such as social media and messaging applications. Out of 15 interviewees there were 6 who had participated in online events hosted by their regional Wikimedia communities, either as an attendee or as part of the organising team. The most common platforms used in these online engagements are Wikipedia Village Pump,⁵⁷ Google Hangouts⁵⁸/Meet,⁵⁹ WhatsApp,⁶⁰ and Facebook Messenger,⁶¹ apart from emails and calls. These are used for discussions such as community updates, resolving doubts, providing technical support, and also for hosting online events such as editathons. Apart from editing online many interviewees upload pictures on Wikimedia Commons, and add data or generate queries using Wikidata, especially for projects like Wiki Species⁶² or photowalks⁶³ where once the offline fieldwork is complete the rest of the work is done online. Also training for most of these projects are conducted online as often the trainer and trainee(s) are located in different cities, or if there is no physical venue available or if there are time or travel constraints.

“Women in the Santali Wikimedia community are learning how to contribute from home, but those who are engaged in household chores find it difficult to give more time to volunteer. As it has been just 2 years since the language on Wikimedia has come into existence a lot of time is required in training newcomers and also technical support is also required to contribute in a streamlined manner. As we are a growing community not many are well equipped to teach others so many hesitate to ask each other for help, yet we try to teach and learn together to build Santali language on Wikimedia.” - Maina Tudu, Santali Wikimedia contributor (translation by author)

An interesting side of online involvement is the usage of social media as a medium for outreach or to showcase activities, apart from the Wikimedia platforms. This not only helps in reaching out to people from across the world but also to stay updated on what is happening in the

language communities. Their communities operate Facebook groups for discussing various topics; similarly Twitter handles for each community is also an effective way of online engagement. An important example of such engagement is an initiative by an Odia community volunteer, Username: *Chinmayee_Mishra*, where she coordinated with women in Wikimedia amidst the ongoing pandemic and made a collage about awareness around COVID-19.⁶⁴

“A woman from Gujarat was interested in Vedanta⁶⁵ and wanted to contribute to Wikisource under this category, but I live in a different state, so I helped her through phone calls and emails. She was very cooperative and I wish to help more people interested in the Sanskrit language and those who want to develop their skills on Wikimedia projects.” - Username: *Shubha*, Sanskrit Wikimedia contributor

The most frequently reported challenge that many women mentioned is the hesitation they experience when speaking with other volunteers and asking queries, even within their own communities. Many women therefore do not bring up even infrastructural issues, such as limited or bad internet network connections, in conversations with their Wikimedia colleagues. Access to personal electronic devices such as computers and mobile phones is also restricted for many women. The disparity in access and use of basic information infrastructure makes it harder for women contributors to contribute to various Wikimedia projects.

The problem of access to the internet is a larger one, extending beyond Wikipedia and related to a persistent digital divide. India has the second largest number of users accessing the internet in the world as of 2019.⁶⁶ According to a report by Internet and Mobile Association of India new female internet users are emerging while the overall user population is dominated by men (gender distribution across India is 65% of male users and the rest of 35% are female users). A majority of users across urban (male- 60%; female- 40%) and rural (male-69%; female- 31%) geographies access the internet through mobile devices.⁶⁷ This is due to the availability of affordable schemes by the Wireless Internet Service Providers (WISPs) across mobile devices, which makes them affordable for many users across the country.

Where online spaces are very helpful in connecting with communities, they are also a platform for trolling, abusive comments, and mansplaining. This creates more fear in women to engage with online platforms using their real identities. During the interviews, I observed that many women do not want to reveal their identity on the internet because they are afraid that their efforts would not be recognized or they would be discouraged on the basis of their gender. An interviewee said that there are ‘administrators’ (moderators) on Wikipedia who revert or delete the works by or on women without stating a valid reason. The interviewee felt that this would not happen if there are more women who are ‘administrators’ on Wikimedia projects; although many women possess the skills of potentially taking up this role, there is still a dearth of women moderators. It would help editors, especially new ones, if moderators followed the practice of giving a necessary and reasonable justification before reverting/deleting articles and edits. In particular, this would help them understand how to improve the articles and the justifications may offer constructive feedback for the efforts invested.

“When there are events focussed on women-related content development then anyone interested comes forward.... I would insist on using ‘Talk page’ as a transparent medium of communication or to raise any sort of questions be it for men/women and if there are justifications made in public then any issues on editing or creating articles on Wikipedia can be resolved (even if it is anything related to admins).”- Ananya Mondal, Bengali Wikimedia contributor

On the other hand, there are also communities which have people with technical expertise (mostly men) in the community, who initiate productive conference calls and guide women as it is more cost and time effective when compared to physical events. For instance, the Odia community has a free Android-based conference call app which they use for all Wiki discussions.

“We conduct regular virtual calls on ‘Free Conference Call’.⁶⁸ It can be downloaded from Google's play store, iOS store or can be used in its web form too. After registering yourself you can share the meeting

ID and access code with the people you want to communicate with. Calls can be connected over the phone network or via the internet. The setup is easy and won't take more than a minute or two for the host.” - Username: Chinmayee_Mishra, Odia Wikimedia contributor

Such virtual meet-ups are very helpful in connecting with the rest of the community especially at points when physical mobility is restricted, such as during the COVID-19 pandemic.

There have been several online events conducted by many Indian language Wikimedia communities to improve articles that are focused on women. One such project is *Lilavati's Daughters*, a book published by the Indian Academy of Science which is a commendable compilation about women scientists from India.⁶⁹ The Telugu community has held various events to translate women scientists' biographies into their native language.⁷⁰ The Bengali community has been active in contributing to and hosting online events such as annual online Wikimedia editathons since 2015 on “International Women's Day”(Wikipedia Online editathon 2015 - International Women's Day)⁷¹ to create and improve content about women on Wikimedia (Women's health articles Campaign 2018),⁷² Wiki Loves Women 2019,⁷³ and Wikipedia online editathon 2018.⁷⁴ Similarly Kannada and Tulu communities have contributed to articles on women's wellness during Women's History month.⁷⁵

To summarise, the scope for online engagement with Indian language Wikimedia projects is very wide. Most of the Wikimedia projects involve editing or contributions using the internet. Apart from editing itself, training and discussions about the projects also take place in virtual modes. However, access to the internet, and training to use platforms effectively are basic infrastructural needs that still need to be met. Particularly for women contributors, working productively on a virtual setup and seeking help needs better channelisation of communication, along with streamlined protocols as used in a physical setup. When circumstances prevail like a pandemic where only virtual programs/contributions are the possible ways of engaging with communities, then required training sessions and other infrastructural needs are imperative for participants to stay connected. Further, it is important to ensure online working environments are also safe

and friendly, with appropriate reporting and redressal mechanisms to ensure healthier and sustainable participation by women and other vulnerable/marginalised groups.

Offline Participation and Challenges

Offline participation is welcomed by many women contributors for various reasons. Interviewees were asked if they had participated in offline events, and if they had faced any challenges in either organisation or participation in the same. A majority of women who were part of this study have been part of offline events either at regional or international levels, or both.

“When community events are hosted, the key roles for organising and training for the events are mainly dominated by men. Community must make efforts for hosting women-only events in order to encourage activities with more women participation. Other than workshops or technical training there must be an exclusive event to motivate women contributors and make them understand the value of their contributions.” - Durgaprassana, Kannada and Tulu Wikimedia contributor

Offline events are organized with various purposes such as gathering everyone in a physical space for discussion on the communities’ recent activities, training on Wikimedia projects, hosting events by inviting participants, data collection, outreach, photowalks to museums or other physical spaces, and organising/attending conferences related to Wikimedia.

In India, offline events have focussed on different facets of women’s contributions to various fields, a large number of which are organized during Women’s History Month.⁷⁶ There have been extensive workshops on training on Wikipedia in Indian languages with a majority of women participants. The Marathi community with the support of CIS-A2K has hosted several workshops to train women to edit on Marathi Wikipedia on various topics such as women’s biographies, laws related to women and broader topics such as climate change. Lek Ladaki Abhiyan, an organisation based in Maharashtra, India which works on empowering women has contributed to Wikimedia projects by uploading the books on women

related content under free licenses, and has been working on creating content consistently for the last three years.⁷⁷ Many women like to attend offline events because they feel that they are doing productive work as events are focussed on a particular agenda. It is also a space for face-to-face discussions with fellow members of the community concerned. Wiki Women for Women Wellbeing was held in 2018 to bring together women from Indian language communities and the Maithili community from Nepal. The event had around 32 participants (men and women) and the organisers were all women from each of the local communities. In this offline event more than 200 articles were improved on subjects like women's health issues and women in leadership.⁷⁸

“There were 18 participants in the Wikidata Training Session [held at VVIT Guntur]⁷⁹ in which 10 participants were female. The training session had both offline and two online sessions. The women participants were more engaged in the session compared to the men participants. The women participants who took part in this session were fine with participating in both the modes of the sessions but their preference was for offline participation.” - Navya, a Telugu Wikipedia contributor from VVIT college, Guntur

From most of the conversations it was evident that the majority of the women in the Indian language Wikimedia communities prefer to connect with fellow Wikimedians in physical/ offline spaces as they find it more comfortable in terms of making friends in-person and also to dedicate their time and focus on the activities of the event. The structure of these offline events are also important in terms of understanding the quality of access⁸⁰ and participation by women contributors, especially in terms of the presence of a significant number of women at events.

“In some of the cases it is a male member who is a friend or from family circles who welcome women (into the communities)... The access barrier to enter the community is removed in this case, but in terms of participation it is (still) men who are more than women. A group, where ... 90% of [members are] men, cannot equalise the gender ratio.” - Username: Rohini

There are many women who are introduced to Wikimedia communities by men who have been working on these projects for a while. This, at times, can lead to a situation where women contributors may be hesitant or unable to independently engage with projects without the mediation of the men who introduced them. Further, there are instances, as narrated by an interviewee, where men who are allies and supportive in terms of organising events etc. have shared that sometimes they also find it difficult to stay in regular contact with women editors to invite them to events or training, as the latter are often not comfortable sharing contact details. During events such as the Women TTT,⁸¹ participants have noted that they felt comfortable sharing their concerns in a space where there were no men, as that space is more empathetic, and they do not want supportive male members to feel disappointed because of their experiences. Also, for concerns related to women, the conversations should be coordinated, planned, and conducted by women. The women who are introduced to the Wiki movement by male members often feel hesitant to share any women-centric concerns. Therefore there are both socio-cultural factors related to women's access to public spaces that need to be acknowledged, as well as the need to create a supportive environment where women editors feel confident in sharing concerns and engaging with Wikimedia projects on their own.

As observed by many interviewees, generally, in Wikimedia events, participation of women is higher when there are women leading the event, or the events are women-only because it offers a more supportive environment for them to accompany others or to seek assistance. Offline events dominated by men are often unwelcoming spaces for women and are not conducive to openly participating in discussions. More training, confidence-building, and exposure to public events are required to empower women to participate and organise events, as well as openly voice their opinions.

Wikimedia events focus on welcoming people from diverse groups, including people across the spectrum of gender and sexual identities. Community members have sometimes raised doubts about the value of women-centric events, often due to lack of awareness about the prevalence of a gender gap and bias in Wikimedia communities.⁸² This often makes it

difficult for women in the community to encourage the participation of more women. It is therefore important to create more awareness and foster support for women-led events, through collaborative work in communities.

Another barrier is that often, women cannot spare time to attend events due to overlap with their professional and domestic responsibilities. As many Wikimedia events take place during weekends, a high caregiving burden often makes it difficult for women to attend them. Travel time and distance to event venues is also challenging for many, especially with regard to safety when travelling alone. These factors often prevent women from attending events even when they have been awarded a sponsorship to do so. This is especially the case with women who have children, given the absence of childcare facilities in workplaces and lack of support from families.

“There are women who are employed in a day job who contribute in Wikimedia but they do not have much time to do the voluntary work so women who can engage more time must be made aware of these works. Additionally, I observed that in certain families the accessibility and permissions are very much restricted for women, the exposure to social media and blog writing is considered to be of least priority for women.” - Username:Parvathisri, Tamil Wikimedia contributor (translated by author)

Some interviewees also observed that the friendly space policies are violated, despite awareness of the existence of these policies. The violation of friendly space policies observed in this context is that there is often the perception within some communities that women gain visibility and access to community spaces on the basis of their gender identities (‘using their gender card’ so to speak), including through reservation of spaces in community events etc. These types of conversations have led to insecurity among women and reduced active participation in events and contributions to content because they end up having to spend a lot of time in the process of creating safety mechanisms to resolve issues. Discussions on whether there are enough opportunities available for women and other marginalized groups, and if they are being utilized well are essential. However, where women feel targeted on the basis of their gender identity, this may only

perpetuate an unhealthy working environment without productive outcomes.

“Although friendly space policies exist, we still need to equip our communities with training and exercises about gender sensitization in online and offline Wiki culture. Training on Trust and Safety in the local context is important for significant improvement in community health.” - Rupika, Wikimedia Commons contributor

In brief, most of the interviewees of this study have engaged with and hosted offline events in local and global Wikimedia communities. Good participation by women in offline events is dependent on factors like sponsorships for travels, childcare support and also time synchronisations so that they are able to manage jobs, domestic responsibilities and Wikimedia commitments together. Offline meetups are the most preferred forms of engagement for women contributors. Mostly these events are effective due to opportunities for in-person discussions and training, Also these spaces implement the friendly space policies to incorporate a more inclusive and safer environment for women to participate without hassle. There was also better awareness of friendly space policies, reporting and redressal mechanisms as they pertained to offline events. There remains however a need to encourage more women-led events, and better visibility for the work done by women on Wikimedia platforms and remove barriers to their access to the communities in order to enable their sustainable participation.

Achieving Sustainable Participation

As illustrated by the examples above, it is imperative to make the participation of women in Wikimedia projects more sustainable. In order to achieve this it is necessary to understand factors that may impede such participation. In this context, this report highlights various parameters that are used to measure the contribution of women in the community and also what could be some of the general reasons for women leaving and/or reducing participation in a community.

Metrics on Gender Diversity

An important aspect of assessing women's contributions on Wikipedia is through evaluation of metrics on gender parity and diversity. However, this is a challenging and evolving process, in terms of design, data collection and analysis. On Wikimedia platforms one cannot identify the gender of a person through their username, but rather through self-identification i.e., use of gender templates on Wikimedia User page accounts.⁸³ To understand the gender metrics in Wikimedia events (offline/online) this data is captured on registration and feedback forms of the events, with the consent of the individuals. Importantly, this data only provides information on representational parity (the number of men and women at an event for instance), and not necessarily the quality of their participation and challenges with the same. However, events like editathons can be assessed for quality through the edit history made by the participant which is the conventional method of evaluating gender metrics on most of the Wikimedia projects. It is important therefore to arrive at better ways of measuring the participation of women on Wikimedia, through both qualitative and quantitative indices, and developing more nuanced forms of gender and diversity related metrics.

Building Awareness, Skills and Motivation

Events like 100Wikidays,⁸⁴ a Wikipedia article writing marathon where volunteers write new articles for 100 days continuously (if they miss a single day then they fail in the challenge), have also helped in content creation, through adding content on women while also helping women volunteers achieve their long-term goals. As noted by several interviewees, it is important to keep contributors motivated through their engagement in these kinds of events.

“Wikimedia projects are more about knowledge-gathering so only dedicated and interested people can retain more women in the community for a long time. Individuals along with the community must have proper targets and one must keep on hunting for new subjects to write more articles on different aspects.” - Username: T.sujatha, Telugu Wikimedia contributor (translation by the author)

Awareness building among women was identified as a key recommendation to bring more women into the community, despite the constraints on leisure time for most women.

“Our focus is to educate and make women employable so we train more women students on Wikimedia projects. We have framed a curriculum and students come to Vigyan Ashram⁸⁵ to contribute in the evening when the college ends. After moving out of college I am not sure if these students continue to contribute; few of them got married so they are not continuing. But when a new batch of students join the college they replace the number of previous contributors. I hosted Wiki Women for Women Wellbeing for Marathi community, participated in Wiki50 days challenge and wrote 50 articles related to women and also conducted three workshops on content around women. We motivate and inspire more women to come to contribute on Wikimedia projects and make them aware of the importance of contributing towards this.” - Username: Pooja_Jadhav, Marathi Wikimedia contributor (translation by author)

Contributing to Wiki projects needs significant time and effort, which is not possible for many women, due to regular paid work engagements and/or caregiving responsibilities. Although community gatherings and meetups are arranged after accounting for everyone’s availability, participation in such polls is limited to members who are active in public fora. This can be exclusionary towards women, as they tend to interact more openly in groups they are already familiar with. Interviewees emphasized that voluntary contributions require support and encouragement from the community to which they contribute, as well as from the family. In such a context, rewards or acknowledgements can encourage women to continue participating. Given women participants’ assessment of how much time they themselves or their peers are spending to contribute to Wikimedia projects, the lack of recognition can act as a key deterrent to continued participation.

“I was active in community participation 6 years ago but until the time I was contributing not many women were present in the

community and it wasn't easy for us to bring new women contributors to the team. We did a lot of outreach back then, but I'm unsure how many are active in the current community.”- Ditty Mathew, Malayalam Wikimedia contributor

As stated above, one of the interviewees was part of her community and engaged in active contributions six years ago but she couldn't continue further because most of her time was engaged in higher studies. There can be varied reasons for women and other participants leaving communities, apart from other engagements. The interviewee continued to engage with Wikimedia through research-based projects, but reduced her engagement with the community. There are no standards or parameters to categorise members as active or inactive within the community. It would therefore be useful to form some kind of a collective, or an alumni association for women who are no longer as active to mentor new contributors. This will also help in archiving their own work, apart from bringing a historical perspective to the community's work. Also interaction with these contributors helps researchers to understand what was happening in the community in earlier years and also compare it with the present situation of the community.

“Approximately only 30% of women participation can be found in the community. If I take initiatives the community members (men) do not take a stand and new women in the community are less invited. So I have started to work with a multilingual group as part of the Delhi Wiki club and I contribute in a space that is more supportive of women participation.” - Username: Sush_0809, Hindi Wikimedia contributor

As noted by username: Sush_0809, she joined the Delhi Wiki club which not only works on Hindi language based projects but engages with multilingual groups, as she has previously faced some challenges in terms of communicating her ideas on projects and receiving support in executing the same. She has therefore preferred to work with a team that trusts and supports her project initiatives, and where she and other women in the community would be able to create platforms to develop new ideas. She

now feels that being part of the Delhi Wiki club team has made her feel more included, and helped her engage better through contributions on Wikimedia to advocate for more women participation and to host women centric events.

“Our community has people from different ages although we are less in number and we are yet to think about the measures to be taken on gender gap because we have to frame something that fits for all. More than the concern around gender gap there is another challenge in our community; not many teenagers/youngsters participate in editing on Assamese Wikipedia (despite it being their native/first language) as they prefer to learn Hindi or English.” - Taznin Hussain, Assamese Wikimedia contributor (translation by author)

As noted by an Assamese Wikimedian above, one of the reasons behind lesser engagement by the youth in the community could be reduced interest and proficiency in Assamese, due to better employment opportunities available to people proficient in English. This indicates a larger challenge with increasing motivation and interest in learning and using regional languages, and its connections to social mobility and cultural capital. These are also factors that affect engagement with and contribution on Indian language Wikimedia platforms, which would need more careful and detailed study and long-term strategies for resolution.

Community Health

Some women were able to sustain their participation despite conflicts in the community by focusing on their interest in the language. However, it is critical to enable active reporting of conflicts and work towards resolving them in a timely manner. Codes of conduct, friendly space and other policies regulating behaviour and indicating procedures to be followed in case of violations must be enforced in every community.

“Mandatory CoC in all Wikimedia Foundation funded events was enforced 5 years ago with the preliminary implementation at the Wikimedia India conference in 2016. We further insisted on having

child care and quiet rooms to help ease of participation.”- Username: Rohini

Community health⁸⁶ is an initiative by Wikimedia Foundation to deal with issues of harassment and other disruptive behaviors (which includes content vandalism, stalking, name-calling, trolling, doxxing, discrimination - anything that targets individuals for unfair and harmful attention) faced by volunteers or contributors who are engaged with Wikimedia communities and projects. The initiative includes various levels of projects, reporting tools, goals and community engagement in order to assess community health. This initiative majorly focuses on providing necessary training on safety and implementation of friendly space policies in online and offline Wikimedia events. When some interviewees were questioned about community health practices in their respective language communities, they said that discussions around the need for these policies has not begun yet, presumably because of low levels of participation by women in their communities, and a lack of awareness about community health. There were a few who recommended that policies or Code of Conduct (CoC) which are available in global communities must be adapted to match the local community practices. Another reason for the need for localised CoCs is that the participation of women is dependent on cultural background and practices of a particular community so a universal and uniform set of protocols may not be able to address specific challenges and needs of community members. The interviewees who thought Community Health is an important factor to be considered as part of their communities said that it is necessary to foster individual interest, build a support system and motivate participants to create a healthy community.

I tried to identify protocols that could help in addressing these types of problems. The Trust and Safety policies of the WMF largely discuss systems that address Wikimedia contributors and users with respect to major safety issues (online harassment, violence and child pornography for example) and offers some forms of direct community support (including support with tools and arbitration committees etc.). The team does not directly handle community disputes, or matters that may be resolved through existing community processes, in order to respect the autonomy of

communities.⁸⁷ As a result, it is imperative for communities to work together on developing such policies and best practices that are specific to their own context, especially in areas such as creating friendly working environments, attribution, agency and ownership of projects and ideas etc. Some efforts on community health for instance have been undertaken by certain language communities, and individual contributors.⁸⁸ Importantly, it is essential for such practices to focus on ways to encourage more collective work on areas such as gender and diversity, with due visibility and recognition to the efforts of underrepresented groups.

I also tried to understand how women in the community are coping with the COVID-19 pandemic and to know whether this time is favorable for contribution on Wikimedia. One interviewee noted that in this pandemic everyone's workload has decreased and stress has increased. But for women everything has increased manifold and they are barely getting any rest serving all the family members. The gendered impact of the COVID-19 pandemic has therefore been widely discussed, including the exponential rise in women's caregiving burden.⁸⁹ This was also reflected in the interviews. Some women contributors wrote extensively about the pandemic, such as Netha Hussain who wrote over 25 articles on coronavirus,⁹⁰ some of which were also widely accessed, such as the one titled "COVID-19 pandemic in Kerala"⁹¹ and "List of unproven methods against COVID-19".⁹² As is evident from these examples, this content was also useful in combating misinformation about the disease.

Conclusion and Final Reflections

In this study, I tried to speak at least with one woman Wikimedian from all (24) official languages in India (including English) , however I was able to interview the contributors from 13 Indian language Wikimedia communities only. The following recommendations are proposed on the basis of the experiences gathered from the 15 interviewees' inputs. These observations and recommendations, thus, may not be applicable for all Indian language Wikimedia communities or all women contributing to them.

The three focus areas of the study were :1) online participation of women Wikimedians, 2) offline participation of women Wikimedians and

3) strategies and efforts to encourage sustainable participation. Previous researchers had also focused on these areas, which helped me to understand dominant concerns in communities a few years ago as compared to today. The interviews extended much beyond the prepared questionnaire, and enabled me to learn from the respondents and their deep knowledge of Wikimedia projects, and the structure and dynamics of communities. We also had discussions about community health and challenges in relation to technical infrastructure of Wikimedia projects.

The study by TingYi Chang categorises the negotiation among women Wikimedians in terms of identity and agency.⁹³ These themes remain consistent in this study as well, although we interviewed different sets of women. This leads to two conclusions:

1. The people who were part of TingYi's project and this project might belong to the same communities or have had similar experiences as they were all from the Indian cultural context; or
2. It may be the case that there is a continuing need to reform and enforce policies within communities. Most findings from TingYi's research continue to be true today, albeit in different shapes and forms. Women's participation is lesser in both online and offline spaces when there aren't other women participants who can be approached for mentorship or guidance, particularly in leadership roles. Women's influence and their promotion to senior roles on platforms is in turn dependent on how inclusive communities are and to what extent they recognise women's participation.

The following are the findings of this study, focusing on Indian Wikimedia communities. These findings from this study resonate closely with the observations of the Global Gender Equity Report by Wikimedia, published in 2018⁹⁴.

1. **Sustainable participation:** Sustainability is an important dimension of the problem of gender gap on Wikimedia, and the importance of retaining women's participation by identifying and

addressing the gaps in access, awareness and visibility of contributions needs to be foregrounded in community initiatives.

2. **Accessibility and technical knowledge gaps:** Apart from the accessibility, the technical knowledge gap that exists in the community hinders participation of women, and there needs to be sustained efforts towards addressing the same.
3. **Power Structures:** Power asymmetry in male dominated groups has now taken a new shape, in that the outreach is too output oriented and that it brings a selection bias on who could be taught about Wikimedia projects. In the previous study it was found that the leadership is dominated by men and opportunities to involve more women was found as a necessity to balance the gap in gender identities. In the current study, however, the understanding of power structures within the women's groups was very challenging per se. There is a need for understanding what category of user base/contributors' groups which the existing women Wikimedians address during campaigns, and the patterns they follow. This pattern involves educating the groups of women who have better accessibility to the internet and their time availability to engage in volunteerships.

This study proposes the following set of recommendations with respect to women's online and offline participation, and sustainability of engagements:

1. **Localised Policies for Indian Language Communities:** Online and offline participation need their own formulation of localised policies. The existing policies apply exclusively for an event and have been witnessed to be strictly enforced in offline events but online sessions need equivalent thought, strategy and implementation. Above these, individual language communities need an understanding of the global policies and support to customise it according to their needs.

2. **Friendly space policies:** Training sessions on how to set up virtual spaces and basic best practices to be followed must be provided while hosting events online. For example, friendly space policies can be devised for conversations on Wikipedia, and on using platforms like Village Pump, Facebook or any other public discussion forums. Systems to report instances of inappropriate behaviour and harassment for online events must be made clear to everyone who engage in these spaces.
3. **Power shifts and training newcomers:** The shifting of power within the women in the community needs more proper planning. The women who lead a community must look ahead in terms of how the community can help in increasing the participation of more women. In the absence of expert/potential/active women contributors, it is important to strategize on how projects and initiatives can still run with less-experienced and new contributors. Efforts such as training more newcomers and engaging them with responsibilities of their interests from the initial days of contribution would help in sustaining the participation of women in the communities.
4. **Recognising contributions:** More and better visibility and recognition for the work done by women contributors is a significant need. Women contributors don't seek attention or feel the need to compete, but recognition of outputs would make them feel that their existence and contribution adds value to the community.
5. **Advance training:** Necessary training on acquiring skills on Wikimedia projects and also awareness about the same is an important factor. Most women contributors have the basic skills needed on Wikimedia projects such as editing, formatting or uploading resources but the technical or advanced side of these projects require more outreach and training.
6. **Self Help Groups:** Proper self-help groups need to be established to address the concerns related to community health

in a timely manner, and a transparent redressal process must be instituted to deal with cases of violations of codes of conduct and/or inappropriate behaviour, which must be made accessible to all members in the community. Although there is a Support and Safety team⁹⁵ by WMF to help communities, a few interviewees raised the concern that complaints often yield nothing but enquiries and investigations, with no concrete results. Self Help Groups and training in conflict resolution can help in addressing problems that can be resolved within smaller groups of communities, with only unresolved ones being brought to the notice of the WMF. This will also involve categorising problems by levels of severity.

7. **Outreach and Community Health:** Training on ‘Community Health’ is essential to make community members understand what is essential for their communities. This understanding among the community members is necessary for introducing and implementing techniques which can help towards sustainability of participation of women volunteers.
8. **Wikimedia Research projects:** There is also a need for bridging the Wikimedia world and researchers more strongly. Often for research purposes there are some interactions between researchers and community members, but it is difficult to reach out to everyone in the community and gain a better perspective on topics and issues. There are programmes like Wikimedia Research⁹⁶ that involves scientists, engineers and researchers who commonly interact but such platforms must be increased, and their scope widened enough to connect with all Wikimedians and others who would be interested to learn or take up research or other forms of creative engagements with Wikimedia projects on their own.

This research study is an effort to document and analyse specific, contextual aspects of the gender gap on Wikimedia, with a focus on the work and engagement of women contributors on Indian language Wikimedia projects. In mapping the experiences and insights of the people

interviewed, the report aims to offer an insight into some of the factors that affect and perpetuate the gender gap on Wikimedia, and possible strategies to address the same. Based on these observations, the report also offers a set of recommendations which may inform existing and emerging efforts to address the problem of gender bias and gender gap in Wikimedia. As a woman who contributes to other Free and Open Source Software (FOSS) projects apart from being a Wikimedia volunteer, working on this study has helped me in understanding how objectives of diversity and inclusion are framed in open source/free knowledge communities, and encouraged me to continue learning and engaging with them.

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Annexure I: Questionnaire

1. How long have you been engaged with Wikimedia projects? What are your main areas of interest and contribution to Wikimedia?
2. Are you aware of a gender gap and gender bias on Wikipedia? Do you feel it exists in your language community? If so can you identify in what ways it is seen?
3. If there is a gender gap, has it changed/evolved or reduced in the time that you have been contributing to Wikimedia? If yes, please describe how.
4. Who's story as a woman contributor in the Indian language Wikipedia is very interesting and has inspired you?
5. Have you been part of making the community a safe space for women and increasing women contributors?
6. Do you think the women in your community are showing sustainable involvement and growth in their work on Wikipedia? If yes or no, the reason for the same.
7. What are the Wikipedia projects/articles chosen to work on by most of the women contributors in the community?
8. What are the different ways to measure the active participation of women in a community?
9. Are the offline events/meetups successful? Mention a few if you had been part of or hosted and your experience on the same. Can you reflect on why these have been successful?
10. Are the online events/meetups successful? Mention a few if you had been part of or hosted and your experience on the same. Can you talk about some of the challenges in organising/participating in these meetups, and why they may have been unsuccessful.

11. What are measures that can be taken to increase the participation of women in community events? [Events focussed on women; Child support etc]. Are you aware of any such measures being implemented within your community.
12. How do you understand community health? Are you aware of measures being undertaken to address issues with community health. [One example is CoC's and Support and Safety] What are your thoughts on these? What specific measures need to be taken here?

Wikipedia in the Classroom: A Study of Wikimedia in Education at CHRIST (Deemed to be University)

Ananth Subray

This is a short study on the Wikimedia in Education (WEP) program at Christ University, Bengaluru, which aims to offer an overview of the key objectives and challenges of this project and map its impact on teaching-learning practices in multilingual classrooms. The report has been authored by Ananth Subray, with editorial oversight and support by Puthiya Purayil Sneha, and external review by Sumandro Chattapadhyay. This is part of a series of short-term studies undertaken by the CIS-A2K team in 2019–2020.

1. Introduction

The growth of collaborative and open access platforms such as Wikimedia over the last decade has opened up new avenues to think about access to open educational resources by people across the world. The [Wikimedia in Education](#) program (WEP) is one such instance of a collaborative effort undertaken with educators and learners across the world, to promote knowledge equity and rethink digital forms of pedagogy, both inside and outside the classroom. The Wikimedia movement has collaborated with [diverse partners](#) around the world as part of WEPs. These collaborators are using Wikipedia as part of educational content, with the objective of enabling better access to content, fostering various skills among students and augmenting content on Wikipedia in local languages. As part of this program, students work on new articles, improve existing ones or work on sister projects of Wikipedia such as [Wikisource](#), [Wikimedia Commons](#) and [Wikidata](#).

In 2011, the first [pilot Education Program](#) in India was started with the help of the Wikimedia Foundation in Pune. The following were some of the [motivating factors](#):

- “India has the world's largest youth population of 1.2 billion people and it has 28 languages with hundreds of dialects.
- Consumption and creation of content on the Internet is growing fast in India. In 2018, India had over 480 million internet users across

the country.⁹⁷

- There are 23 Indic languages Wikipedias - but they all have limited content compared to English Wikipedia. The average article count is less than 40,000. There are many strong reasons to increase participation from India - and that is a primary objective of the India Education program.”

Later in 2013, after an [assessment](#) of the pilot project in Pune, discussions with CHRIST (Deemed to be University) in Bengaluru were initiated by [Centre for Internet and Society - Access to Knowledge](#) (CIS-A2K). After preparing a detailed plan about Wikipedia in Education and CHRIST, the program was started with the help of community members, faculty members from the Department of Languages and people from CIS-A2K. Some of the main objectives of the program were to⁹⁸:

- Strengthen critical thinking skills in students;
- Develop language proficiency in terms of cohesively presenting an idea or concept;
- Develop the ability to closely read/assess information or data;
- Develop the ability to collaborate in a team environment; and
- Cultivate the ability to be a producer of knowledge than a passive consumer.

CHRIST has been running Wikipedia in Education for the past 7 years. This study aims to understand the progress of this initiative, and its opportunities and limitations so far, especially with respect to Indian educational institutions engaging with a virtual community through Wikipedia. In particular, students, teachers, and other stakeholders have been an integral part of this online community at CHRIST.

2. Context

“ Wikipedia is the best tool available to us to go digital. We are happy that Wikipedia builds in the process and our students also learn. ”

Dr Anil Pinto, Registrar, Christ University

Wikipedia is a collaborative knowledge platform, with a vision to "imagine a world in which every single person on the planet is given free

access to the sum of all human knowledge”.⁹⁹ The word "Wikipedia" is derived from the Hawaiian word *wiki*, meaning "quick" and encyclopedia. Wikipedia's articles provide links designed to guide the user to related pages with additional information. Wikipedia is written collaboratively by a community of language speakers. Wikipedia currently has more than 54 million articles in more than 300 languages and is supposed to be the largest reference website in the world.¹⁰⁰

After the effort of the Wikimedia Foundation in initiating a pilot program at Pune, a similar collaboration was discussed between CIS-A2K and CHRIST (Deemed to be University). As both institutions have a keen interest in developing content in Indic languages on the Internet, it was an encouraging factor for this collaboration. They discussed the various ways in which the program can engage students of the university, including promoting content creation in natural sciences in regional languages, publishing CHRIST (Deemed to be University) books on Wikisource, digitising old/ rare books, in addition to editing and creating articles, especially in their subject areas of study.

Faculty members from the Department of Languages supported the initiative, with the following objectives in mind¹⁰¹:

- Modern forms of teaching/learning such as learning/contributing to Wikipedia are a life-long process that learners can access anytime and anywhere.
- Information explosion is an ever-increasing phenomenon, and it is imperative to be able to access such information easily. Modern education should meet the needs of a diversity of learners, and Wikipedia being an open platform may be an important aspect in meeting this need.
- Open knowledge platforms such as Wikipedia are a crucial component of the information society so individuals should possess technological literacy and grasp digital tools of teaching/learning so as to access them easily.

Later in November 2013, CHRIST & CIS-A2K signed a [Memorandum of Understanding \(MoU\)](#) to officially start a [Wikipedia in Education initiative](#) to introduce the creation/editing of Wikipedia articles as a component of the Continuous Internal Assignment (CIA) for all

undergraduate students studying Kannada, Hindi or Sanskrit as a second language at the university.

Around 900 students were involved in this project in the first iteration. To monitor and train the students the position of Class Ambassadors was created, where two students proficient in the language were selected and given special training to help their peers in the class. The participating students themselves decided upon the topics of the articles to be created/edited by them. Since then every year the WEP at CHRIST has been modified according to the requirement of different stakeholders after undertaking a needs assessment.

3. Research Method and Questions

This study is qualitative in nature, with a focus on key stakeholders of the program, and explores the experience of the participants (student, teacher, trainer, and Wikipedian) to understand their learnings from this experience. Interviews were conducted with students, community members, faculty members, and members of the CIS-A2K team to understand their perspectives on different aspects of the project. A total of 14 interviews were conducted, which included 5 faculty members, 6 students, and 3 community members who were involved with the program in the earlier days of Wikipedia in Education at CHRIST.

The research questions of the study are as follows:

1. What were the motivations and challenges for different stakeholders (students, faculty and community members) in conducting and participating in the WEP at CHRIST (Deemed to be University)?
2. What was the impact observed by these stakeholders as a result of their engagement with this program, (including personal changes/improvements if any)?

The responses were then analysed to consolidate a set of observations about the program.

4. Observations

4.1. Benefits of using Wikipedia in teaching

Using Wikipedia as a pedagogic tool trains students on how to share information related to advanced topics in every discipline with the general audience in an effective manner, as this is sometimes not covered in academic training. Teaching this style of writing is helpful and has a high impact on the way information is accessed by most readers regularly. As the readers and consumers of information on the Internet are increasing day by day, it also offers a lot of scope for students to add content on diverse topics.

The first step for CHRIST towards incorporating Wikipedia in the curriculum was to understand that it can be used as an educational tool, for the benefit of the students, such as improving digital literacy skills, writing skills and using the local language on the internet.

4.2. How to inculcate Wikipedia in higher education?

When the WEP was started at CHRIST, there was a small change in the plans for the course and the continuous internal assignment (CIA). Students contributed to Wikipedia projects by making edits or creating articles, proofreading pages on Wikisource, etc. Here faculty members or community members with the help of the CIS-A2K team introduced the students to Wikipedia and its interface, and also monitored the student's [activity and progress](#).

Students created articles related to subjects of their specialisation, and academic topics which are mostly read by the students of the same age group. Since these sets of articles are widely read, it attracts the attention of the Wikipedia communities. They correct mistakes if any and teach the students basic aspects of editing and article creation.

Wikipedia in Education is facilitated with the help of a faculty member who is familiar with Wikipedia and its community. Having faculty members with no experience in editing Wikipedia is not efficient and as they can't effectively use Wikipedia as a pedagogic tool. Also, it will be difficult to answer the students' queries and properly guide them. While it may not be possible for faculty members to equip themselves with advanced skills, they are encouraged to learn the basic aspects of Wikipedia before teaching the students. This gives them the confidence to respond to the concerns of the students in doing assignments on Wikimedia platforms.

Changes made in the WEP at CHRIST based on the students' feedback and community requirements are as follows:¹⁰²

Year	Changes made in Wikipedia in Education at Christ University from past 7 years
2013–14	<ul style="list-style-type: none"> ● Wikipedia in Education was started to increase the awareness about the Wikimedia community among students.
2014–15	<ul style="list-style-type: none"> ● The use of sandbox was explained and it was introduced to the students. ● A peer review system was started to enhance the quality of the work. ● New evaluation methods were adapted. ● Wikisource was Introduced to the students.
2015–16	<ul style="list-style-type: none"> ● A certificate course & Wikimedia internship was introduced to attract more students to the Wikimedia world. ● Ambassadors were selected to have multiple touchpoint systems.
2016–17	<ul style="list-style-type: none"> ● Different methods were chosen to increase awareness of the work done by the students, such as social media promotion. ● Students were involved in a national conference to meet different community members.
2017–18	<ul style="list-style-type: none"> ● Community members were involved in different steps. ● Faculty members started to do the evaluations of the articles.
2018–19	<ul style="list-style-type: none"> ● New methods were adopted to promote the work done at the University. ● Community members started reviewing the articles written by the students.

4.3. How is students writing a Wikipedia article for their assignments helpful in achieving larger learning objectives?

Wikimedia in Education opened up a number of ways in which students get to choose and work on their favourite topics, areas of interest, and aid teachers in designing new and innovative assignments.

Faculty members have also found different tools to evaluate the assignment, [track the student's work](#) and to spot [plagiarism](#) of assignments among students. Writing assignments on a Wikimedia platform helps students to understand the importance of group collaboration and teamwork. Wikipedia helps the faculty members to imbibe group collaboration among students and monitor individual progress with the help of "[User contribution](#)". Some of the tools developed by the Wikimedia Foundation, such as the [Program & events dashboard](#) help aculty members to evaluate the work of the students and monitor each edit done by all the students.

4.4. How is Wikipedia in Education helpful for community members?

A group of 20-25 students from over 1000 students from each batch contributing to various topics on Wikipedia helps the community to generate **more content** and enhance the usefulness of the Wikipedia projects that have been engaged with as part of the program.

The content created as part of the WEP is reviewed by language experts and subject experts which helps the community to create more quality articles in less time. Since the articles created by students are in the sandbox, after reviewing these articles they are moved to the main [namespace](#) by the community members with minor changes.

In Wikimedia in Education programmes, more students gain skills and knowledge related to Wikipedia which can result in a good number of student volunteers in the community and **potential long-term contributors**. Some of the students make it a hobby to write articles on Wikipedia even after completing the course; this increases the potential of having more long-term contributors and helps to strengthen the existing community.

Last but not least, it has benefits beyond the Wikipedia community and classroom. Wikipedia content is under a free license for the entire world. As such, the students' work translates into aiding all those who use Wikipedia — which, as recent studies indicate, means most Internet users.¹⁰³

4.5. What do students think about Wikipedia assignments?

Some students communicated that they are very confused about Wikipedia, and some feel it is easy to contribute and engage with it. Some students shared that they initially faced difficulty but when a faculty member helped them clear their doubts, it enabled them to improve their perception of learning this tool.

The majority of the students who responded to interviews prefer a [Wikipedia assignment](#) over a traditional one when they are provided with frequent training on how to contribute to Wikipedia. The students who disliked the assignment usually noted that it was more difficult than just writing a regular paper in an offline word processing software. Those who liked the Wikipedia assignment commented that their project resulted in an above-average group paper that would be seen and appreciated by others.

Some of the students at the university appreciated Wikipedia in Education as their work is read by the wider public, and the fact that they are creating useful digital content on the internet, rather than just writing assignments on paper to be read by faculty members.

4.6 Limitations of the program

Despite its many positive aspects, the project comes with certain limitations as well.

Students may or may not be well versed with the language, especially with respect to the community standards on quality and expectations of active community members, and they may not be able to create the article as per the same. In this situation, sometimes the community may get annoyed by looking at such articles. Trainers/faculty members should pay more attention to these kinds of students or class ambassadors to guide these students in the whole process.

During the orientations, some of the students may not pay attention properly and won't follow the instructions, which leads to incorrectly prepared articles and edits. Also, students may vandalise the Wikipedia pages while contributing and burden the communities. In such cases, the trainer/faculty members should monitor them thoroughly with the program & events dashboard and correct them if any students vandalise a Wikipedia page.

Conclusions and Recommendations

This study helped us understand the challenges and advantages observed by the students with both the opportunity and access to Wikipedia platforms to communicate on advanced topics in science/higher education to the general public. One observation from the students who took part in the WEP was that they had improved their own capacity to assess the quality of the material they used in order to write the articles, because of the visible nature of Wikipedia.

While implementing Wikipedia in Education at Christ we became aware of several aspects that should be kept in mind before introducing students to the Wikipedia movement. These are a few observations from the interviews: :

- The faculty members who are part of the WEP should be Wikipedians, or at least they should know the basic aspects of editing Wikipedia, as this will help them to create more awareness and interest among the student community. If the faculty members are not well versed with Wikipedia and its editing skills it will be difficult for them to use Wikipedia as a pedagogic tool in an effective manner. Some efforts to train the faculty members of CHRIST were made at regular intervals during the program.
- The number of students involved in the education program should be proportionate to the number of in-charge faculty members. This helps them give more attention to the students and they will be able to learn more about Wikipedia.
- In order to help the students learn and contribute effectively, , they need to be trained at regular intervals and provided with the user manuals/videos, etc. This will enrich the student's knowledge about Wikipedia and editing skills. Also, monitoring the students will be helpful to know the progress of the student's activity.

- Wikipedia has articulated [style guidelines](#), and students should be given information in detail on these at the beginning of the project, as this helps them to avoid many mistakes.
- Students need to create their own illustrations/diagrams and upload them to Wikimedia Commons on a free license, and then use them on Wikipedia articles. This will help them to understand the workflow of creating an illustration and also give more value to the article.
- Strategies to follow up with the students who have graduated need to be prepared before starting the WEP. This will help us to retain the interest of students who have graduated, and potentially convert them to Wikimedians who will continue to contribute in the long-term.

This short report is an attempt to consolidate and analyse our experiences and learnings from working on the WEP at CHRIST(Deemed to be University) over the last few years. We have also tried to capture some of the many challenges and opportunities with initiating and building strategies for teaching-learning with Indian languages and open knowledge platforms like Wikipedia in the classroom. As we move towards increasingly online modes of pedagogy and training, we hope that these observations will be helpful in the process of building and sustaining such initiatives in education programs across various Indian language Wikipedia communities.

Content Creation on Eastern Punjabi Wikipedia

Satpal Dandiwal

This is a short study on the nature of content creation related to Punjab on Eastern Punjabi Wikipedia, its challenges and opportunities, and observations and potential strategies to address the same. The report has been authored by Satpal Dandiwal with editorial oversight and support by Puthiya Purayil Sneha, and external review by Sumandro Chattapadhyay. This is part of a series of short-term studies undertaken by the CIS-A2K team in 2019–2020.

Introduction

The objective of this study is to understand the challenges for content creation related to Punjab that exists on Eastern Punjabi Wikipedia. There are articles about Punjabi language and culture on Punjabi Wikipedia but there is a need for better understanding of the nature of this content from the perspective of the readers' interests, coverage of topics, and quality. A large community of interested Punjabi Wikimedians have been actively working over several years to introduce Wikimedia and related projects to people across the world, including those from their own community. An important part of achieving this goal is to contribute to and build more diverse and better quality content about Punjab on Wikipedia. This short study is therefore an attempt to analyse the nature of existing content, challenges in content creation/curation and outreach, and some observations and strategies to address the same.

Eastern Punjabi Wikipedia

Wikipedia is a multilingual online encyclopedia. It is available in around 290+ languages. There are two Punjabi Wikipedia editions, which are [Eastern Punjabi Wikipedia](#) and [Western Punjabi Wikipedia](#). Eastern Punjabi Wikipedia is in [Gurmukhi script](#) and Western Punjabi Wikipedia is in [Shahmukhi script](#). This study focuses on the Eastern Punjabi Wikipedia. The Eastern edition domain came into existence on 3 June 2002, but the

first three articles were only written in August 2004. There was not much contribution made during the next six years. In July 2012, it had reached 2,400 articles. Then a group of people, largely students from Punjabi University, Patiala started contributing actively on Punjabi Wikipedia, as a result of which it became an active Wikipedia in 2013, and has stayed so until date. There are currently [35,351 articles](#) on the Gurmukhi Punjabi Wikipedia, with a number of registered users on Punjabi Wikipedia at [36,348](#).¹⁰⁴

One group of people has been proactively involved in Punjabi Wikipedia for a long time, which is the [Punjabi Wikimedians User Group](#). Apart from this, a number of people from different parts of the world also contribute to Wikipedia. Punjabi Wikimedians got affiliation as a User Group from Wikimedia Foundation in [November 2015](#). Punjabi Wikimedians was the first affiliated user group from India, and has been involved in several activities and initiatives undertaken towards content creation. They organized [WikiConference India in 2016](#) at Chandigarh and their members have participated in various events and conferences. They have also collaborated with other institutions in order to encourage content creation on Punjabi Wikipedia, one example is the [collaboration with Punjabi Sahitya Academy](#). Apart from Wikipedia, this user group is also active on [Punjabi Wikisource](#), [Punjabi Wiktionary](#), [Wikidata](#) and [Wikimedia Commons](#). The [first meeting](#) of the Punjabi Wiki community was organized in Patiala on 1 February 2015. After that the community conducted various monthly meetups in different parts of the Punjab. People from the community also joined various training programs and events in different parts of India and participated in various conferences in other countries.

Research Objectives and Method

This study analyses various aspects of how content related to Punjab is created on Eastern Punjabi Wikipedia. This analysis would help in understanding the gap between what kind of content presently exists and what is needed, from the perspective of Punjabi language contributors and users. The objective of this study is to understand how much content related to Punjab exists on this Wikipedia at present; what is the nature of this

content, what are challenges for content creation and possible strategies to address the same. There is a broader understanding that while content is being created proactively, there is still a need to analyse its quality and prevalent gaps if any, which would encourage more contributors and readers to actively engage with Punjabi Wikipedia.

The method for this study consisted of analysis of the existing content on Eastern Punjabi Wikipedia, and conversations with selected Wikimedians on their assessment of content on topics related to Punjab. The main topics for this study were articles related to the Punjab region, including culture, literature, and politics. To understand if there are specific challenges to the creation of content on these topics, interviews with a few selected long-time contributors and administrators were conducted, with an emphasis on aspects such as sourcing Punjabi language material, finding references, digitization, tagging etc.

The objective of this study was also to understand where these conversations (undertaken as part of the study) may offer strategies to address knowledge gaps in specific areas of work. Questions were prepared and a total of five interviews of Punjabi Wiki community members were conducted. The people interviewed were chosen on the basis of their involvement and experience of working in the community.

Observations and Analysis

There are an estimated 33 million Eastern Punjabi speakers in the world,¹⁰⁵ and it is a widely spoken language in India, especially in Punjab state. Over 70% people have access to the internet in Punjab on the phone.¹⁰⁶ The main objective of this study was to understand the nature of existing content on Punjabi Wikipedia, and various challenges in content creation, coverage of topics and quality. The following are some of the main observations and learnings from the study.

Challenges with Lack of Existing Content: The conversations with selected Wikimedia contributors and users offered an insight into what Punjabi readers and online contributors think about the content available on the internet in Punjabi language, and how Punjabi Wikipedia is impactful in this scenario, especially in addressing any gaps in this area. It was found during discussions with interviewees that there are less number of Punjabi

language websites in the field of language, literature, politics, and general knowledge. Most of the websites are in English language. [PunjabiPedia](#) and Punjabi Wikipedia are encyclopedic websites which are providing knowledge in Gurmukhi script. Apart from this, websites like [SikhiWiki](#) are providing knowledge in the Roman script and Punjabi newspaper websites are providing their news updates in Gurmukhi script. So, Punjabi Wikipedia is one of the few available sites that offers information on a variety of topics in the local language. As a result, it may have a good viewership, but at the same time, there is also the additional problem of not having good or reliable online sources or references.

Another important point mentioned by people interviewed was that while there are 30,000+ articles on Punjabi Wikipedia and they are categorised across different topics, there is a lack of content about Punjab itself. It was suggested that, therefore, this should be an area of priority for the community to work on. Even the most viewed articles of Punjabi Wikipedia do not meet the [good article criteria](#) of Wikipedia. For example, the article of [Harmandir Sahib](#) on Punjabi Wikipedia has not been written according to good article criteria, as it too has no category and it is without proper sections.¹⁰⁷ There are not many references in most of the important articles. Another example is the article of the tenth Sikh Guru, [Guru Gobind Singh](#), which has only 5 references.¹⁰⁸ Apart from this, articles about cities and villages of Punjab are mostly stub articles. The total number of villages in Punjab is about twelve thousand and a good number of the [articles about these villages](#) are available on Punjabi Wikipedia. They are too small and the need is to expand those articles. There are about 7,000+ articles in the [stub category](#). Such articles therefore need more work and improvement in terms of quality.

Methods of Creating New Content: Most of the content on Punjabi Wikipedia is about other countries or regions apart from Punjab or India. One of the reasons for this is that most of the editors are doing content translation, from existing content on English or other regional language Wikipedias into Punjabi Wikipedia. In order to fill the content gap about Punjab there should be content creation specifically on topics related to the state. [Content translation tools](#), while helpful, have also contributed to the fact that people prefer translation and they use [Google Translate](#) in the

content tool. The tool itself is accurate and works fine with Punjabi, but the issue is that most of the people are doing only translation, as it is the easiest way to contribute. Apart from the above, it was also noted by the interviewees that editathons about other countries or cultures, while useful, are not beneficial in the immediate context. Nitesh Gill¹⁰⁹ observes that there should be more discussion among the community members about upcoming events or editathons. She says: *“Sometimes two or more events are going on in the same time period and the same contributors take part in those activities. It should be better that with cooperation we can have one event at one time. We will grow in a better way if we do something about this.”*

There is less viewership of those articles which are related to other countries or cultures apart from India, for example the article of [Constantine Peter Cavafy](#). But articles of importance from the perspective of region and culture are not edited for a long time, such as the article about Punjabi storywriter [Maninder Kang](#), which is smaller than the article of Constantine Peter Cavafy. For example, Stalinjeet Brar¹¹⁰ notes that: *“The article of former chief minister of Punjab, [Prakash Singh Badal](#) on Punjabi Wikipedia is a relevant article. He is a remarkable personality of Punjab in the history of politics. He left his position in 2017 but the article still shows that he is chief minister of Punjab. This is our major mistake. We have to work on this aspect.”*¹¹¹ He also added that the statistics of cricketers like Virat Kohli, are not updated. In this regard, we can integrate Wikidata with Wikipedia articles so one change on Wikidata can provide automatically updated data on Punjabi articles.

He also added that an assessment of existing events and initiatives, such as [Project Tiger](#) would be useful to understand the challenges and opportunities for content creation on Indian language Wikipedias. The [first Project Tiger editathon](#) happened from 1 March to 31 May 2018 and the second Project Tiger event was organised from 10 October 2019 to 11 January 2020, which was named [“Project Tiger 2.0”](#). Project Tiger coordinators can assess the number of views of those articles which were created during the event and therefore arrive at a potential strategy for our target audience. It is therefore useful to undertake such an analysis and evaluation at the end of big events.

Strategies for New Content Creation: It was observed that to fill this content gap about Punjab and its culture on Punjabi Wikipedia, the community needs to approach this topic accordingly. It was suggested by every interviewee that we have to organise an editathon to edit top viewed articles. To maintain continuity in this approach, community members should cooperate with each other. Charan Gill¹¹² noted that we should engage students and professors in different subjects to collaborate and work on these areas with editors. This will be helpful in producing good quality articles. The community needs to engage experts from different areas or fields. Manavpreet Kaur¹¹³ suggests that we should focus on good article criteria when we go to a college or institution to teach students how to edit Wikipedia. For example, she notes that there were very few articles about forensic science when she joined Punjabi Wikipedia and existing content was two or three line articles. She tried to fill this gap and as a professor of forensic science, she engaged her students to edit Wikipedia content related to forensic science. So, we can have this kind of approach to fill the content gap on Punjabi Wikipedia. We should encourage colleges in Punjab and teachers to participate in this free knowledge movement. Wikimedia projects are platforms for Punjabi language community to provide knowledge in their own language. Manavpreet and Nitesh also note that there are less number of women participants in this movement. To fill the gender gap we should also focus on engaging women contributors. According to Manav, the [Wikidata Game](#) was interesting for her, and noted that especially for new editors these types of games and editing techniques are so valuable in order to engage the younger generations of editors with this movement.

Hardarshan¹¹⁴ shared his view that to engage the new generation with Punjabi Wikipedia or the broader free knowledge movement we should also work on basic articles related to the technological world. For example, articles on computers and other devices, mobile games etc. He also notes that while Punjabi Wikipedia has articles on advanced topics, most of them are translated, and not new content. But it does not have basic articles of good quality to offer an appropriate understanding of the topic. There is also a problem of translating technical vocabulary into the Punjabi language, which can be addressed by engaging experts and scholars as part

of editathons and other initiatives for content creation . This way, the energy and interests of volunteers may also be harnessed with the right methods. Key members from the community can assign articles to newcomers, so that will help in further content creation. Nitesh shared her observation that *“I was a beginner type volunteer at one time and later on with experience I have organised various events within my community. So, we should encourage our team members or volunteers. They can be good organisers or leaders of this movement.”*

To engage students, there should be more syllabus oriented content on Punjabi Wikipedia. To bring a change in the structure, Stalinjeet suggested that we should not blindly follow policies of other languages like English and French or policies of the Wikimedia Foundation in India. We need to rethink these policies in the context of the needs of the local languages. Prioritization of editathons is also necessary, including coordination and working collaboratively on when to participate in which event.

In addition to the above, it has been noticed that it is difficult for communities with a small number of members to contribute collaboratively, so it is imperative to slowly increase the number of contributors as well. There are various Wikimedia projects that volunteers can join or they can contribute to any project according to their interest. They are not limited only to Punjabi Wikipedia. A good number of people are also active on Punjabi Wikisource as well. The need of the hour therefore, is to engage new people with Wikipedia or with this movement to make changes to the modes of access to knowledge in Indian languages. Experienced Wikimedians should share their learnings, apart from training that is required for advanced editing.

Conclusion

As illustrated by observations above, content creation on (Eastern) Punjabi Wikipedia faces a specific set of challenges. The people interviewed as part of this study have offered various suggestions on what can be done to address these limitations, and improve the quality of content. Punjabi Wikipedia is an important source of information and knowledge for Punjabi internet readers due to the lack of websites providing content in the language. So, the responsibility of its reliability to provide such content in a sustainable manner is even greater. Work on creating more content on these

platforms needs to be undertaken after understanding the response and ways of engagement of the readers. People today want to read less and learn more. Punjabi Wikipedia articles therefore need to be informative and include as many references as possible. A crucial gap here is also the lack of information on how to contribute to Punjabi Wikipedia in a productive and easy way. Good documentation of help pages and more frequent training would help in addressing this shortcoming as well.

In conclusion, the main strategy to address these knowledge gaps, as illustrated by the learnings from this study, is that we should update existing articles on Punjabi Wikipedia at priority, with a focus on expanding top viewed stub articles. A focus on quality of content is therefore more important than quantity. In addition to this, knowledge-sharing by experienced Wikipedians, diverse modes of training and engaging new contributors, and working on strategies for sustainable content creation would go a long way in addressing the content gaps on Punjabi Wikipedia.

A Comparative Study of Article Creation Campaigns on Wikipedia

Nitesh Gill

This is a short report on a comparative analysis of two prominent Wikimedia initiatives, Wikipedia Asian Month and Project Tiger, to understand prevailing challenges and opportunities, and strategies to address the same. The report has been authored by Nitesh Gill with inputs from Suswetha Kolluru, and editorial oversight and support by Puthiya Purayil Sneha. This is part of a series of short-term studies undertaken by the CIS-A2K team in 2019–2020.

Introduction

The motive of the Wikimedia movement is to aid growth and access to free knowledge across the world. Over the last several years, apart from the online encyclopedia, Wikimedia has also developed and supported many projects, campaigns, events or edit-a-thons simultaneously on its [various sister projects](#) such as Wikimedia Commons, Wikidata, Wikisource and others. Campaigns and contests such as [Art & Feminism](#) (2014), [Women in Red](#) (2015), [Wiki Loves Monuments](#), [Wiki loves Butterfly](#), [Wikipedia Asian Month](#) (2015), [#1Lib1Ref](#), [Project Tiger](#) (2018) etc. play a crucial role in motivating communities to create new content while working together in an organized manner.

The objective of this study is to undertake a comparative analysis of two projects/article creation campaigns on Wikipedia, which are [Wikipedia Asian Month](#) (WAM) and Project Tiger. They are both primarily online writing contests. WAM has been organised every year in November since 2015. It is an international edit-a-thon. Project Tiger is a contest which is organised in India. Several Indian language communities take part in this actively. The first iteration of Project Tiger was organized in 2018 and two iterations have taken place till date. While different in terms of the region or area of focus, both campaigns have a common goal of content creation in regional languages. The Indian Wikipedia communities' contributions are

extensive in both projects. It would be interesting to learn from both of them and also understand what works and what needs to be improved in the future.

Research Questions

As suggested by the title, the aim of this study is primarily to better understand the motivation behind long-term edit-a-thons with the help of WAM and PT. Through a comparative analysis, it will attempt to understand the participants' perspective on contributing to these types of projects, prevailing challenges and opportunities, and the knowledge gaps in content creation as well as in participation.

The objectives of this study are to :

- Understand the key motivations for volunteers to contribute to article creation campaigns/contests.
- Outline the unique aspects of Wikipedia Asian Month and Project Tiger for content creation on Wikipedia, challenges and opportunities and ways to build on the same.

Background

The objective of the Wikimedia movement is to facilitate the growth of free knowledge, through its various projects and platforms. Before starting Wikipedia, in 2000 [Nupedia](#) was launched and on [15 January 2001](#) Wikipedia was set up as a free encyclopedia. All the Wikimedia projects such as [Wikidata](#), [Wikimedia Commons](#), [Wikipedia](#), [Wikisource](#), [Wiktionary](#), etc. are central knowledge hubs. These are the platforms where knowledge from around the world can be found but this means it also requires participation from an active volunteer community across numerous languages. There are many ways to contribute to these platforms as a volunteer. One way is participating in an [edit-a-thon](#), where several volunteers can actively work together on the same platform. Edit-a-thons started just after a few years of Wikipedia's existence. In the beginning, the main objective of the edit-a-thons was content creation; this remains the primary objective, although now they also focus on expanding/adding to existing content, thus contributing towards increasing the number of articles on Wikipedia. A prominent feature of these types of events is the interaction

among experienced and new editors. The edit-a-thons can happen online as well as at physical, offline locations. In September 2004, Jimmy Wales proposed the [Editing weekends](#)' concept which was a starting point of edit-a-thons. He started a [discussion](#) about spending the holidays in a common space where editors could edit or learn about Wikipedia. The event itself was not very prominent but managed to start discussions about similar events among volunteers. A few years later, in March 2009 in Sydney, the first GLAM edit-a-thon was organised at the [Powerhouse Museum](#). According to [English Wikipedia](#), in 2011, an edit-a-thon was organized on cultural partnerships, mainly with the [British Library](#), with a second series taking place later that same year. After that, it became a popular event among volunteers and every community started to organize these types of events. Gradually, Wikimedians also thought about more such campaigns in the form of edit-a-thons; these events were successful and helped achieve the stated agenda of content creation on Wikipedia. In 2013, a research study was conducted about the edit-a-thon as part of the [Wikimedia Programme Evaluation](#) report, which noted its history, statistics, budget, inputs, resources and outputs etc. But so far little research has been done on particular edit-a-thons such as Wikipedia Asian Month and Project Tiger and their impact on the growth of content on Wikipedia.

Wikipedia Asian Month

Wikipedia Asian Month is a long-duration edit-a-thon structured around specific topics. The discussion about this edit-a-thon started in 2015 during [Wikimania](#). A separate meeting was held for all the Asian language communities where the WAM proposal was presented by [User:Addis Wang](#), and endorsed by all members present. Before WAM, similar events were already being conducted but this was the first attempt to establish collaboration on a broader level with the Asian language communities. Also before this project, local Wikipedias had only a little content regarding Asia.

The aim of this project was to create more content related to Asia on the regional Wikipedias, with a focus only on new content. Diversification of content, collaboration and cultural exchange are the main objectives of the project. Small incentives like receiving [postcards](#) from countries that participants added content about were introduced to encourage more

participation. Postcards and the badge of ‘Wikipedia Brand Ambassador’ were added to motivate the contributors. The Wikipedia Asian Month took initiative to encourage and expand participants and communities. As a member from the Punjabi community, Gaurav, notes, “Wikipedia Asian Month was a boost for the communities or Wikipedians. The prize was just a postcard, although this prize gave positive energy to participants and they created articles just for getting appreciation.” In the [first iteration](#), there were around 42 participating communities out of which 11 were Indian language communities. After the first iteration of WAM, when asked about Indian language communities' participation in 2015, [Addis Wang replied](#), “Yes! As one of the largest Wikimedia communities in Asia, and maybe the most diverse community in the world, the Indic community is highly involved in the Wikipedia Asian Month since the idea was proposed during Wikimania 2015. In last year’s edition, India is the country that received the most postcards sent by Wikipedia Asian Month. Also, Wikipedian Asian Ambassadors of English Wikipedia, who created most articles during the Asian Month, are from India.” As noted in [2019 by the campaign coordinators](#) , “In the past three years, over 20,500 high-quality articles have been added in more than 50 language-specific Wikipedias by more than 2,000 Wikipedia editors”, (excluding 2019). In 2020, WAM also happened in the same month, November, just like every year.

Project Tiger

Some years ago [Google initiated efforts to bridge a gap in Indian language content online](#) . They partnered with the Wikimedia Foundation who in turn collaborated with CIS-A2K and started a pilot project named Project Tiger, in 2018. Also called [Supporting Indian language Wikipedias in 2018](#), Project Tiger did well and received good participation from all the communities, which led to its second iteration in 2019. Project Tiger is a unique and recent initiative that is aimed at creating locally relevant content on Indic Wikipedias that is most searched for by users online. It is distinct from other contests because it is one of the longest running Wiki edit-a-thons, considering it runs for over 3 months with several Indic communities competing with each other. It is an online writing contest which is organised in India. Several Indian language communities take part in this actively. The project is conducted in two phases i.e, the contest includes hardware

support distribution to promising volunteers and a 3-month online writing contest on Indian language Wikipedias. The first phase of the contest is the distribution of hardware support, through which 50 Laptops by Google and internet stipends are offered to 100 experienced and promising Wikimedians, who need infrastructure support to increase contributions on Wikipedia. Once the distribution is done, communities start creating articles from the list of topics provided by Google. Other than the list, the community is encouraged to come up with their own set of articles that is relevant to Wikipedia in their own language. Project Tiger, as the name suggests, is inspired by, and named after, an environmental project in India to [save tigers](#). Similarly, Wikipedia's Project Tiger aims at nurturing locally relevant content on Indic language Wikipedias.

Methods

The primary method for this study consisted of interviews with community members who participated in either of the projects or who knew about both. These interviews were conducted via phone calls as well as in written form via a questionnaire/survey. The observations from the study are descriptive and include direct quotations (with the permission) of the participant. Due to a shortage of time and availability of community members, only a limited number of interviews have been conducted for the study. These interviewees were selected primarily based on their active participation or their contributions in their regional language Wikipedia. The interviews were conducted with participants from Assamese, Bengali, Hindi, Kannada, Malayalam, Odia, Punjabi, Santali, Tamil language communities from India. These interviewees also include the main organizers of WAM. The [fountain tool](#) developer was also interviewed as part of the study because the tool is a common factor in both the projects. Questionnaires varied depending on the category of respondents, such as participants, contributors, local and international organisers, developer etc. A total of 17 interviews were conducted for both projects. 9 interviews were conducted with the WAM international team, local organisers and participants and 7 interviews with PT organisers and contributors, and one with the fountain tool developer. The interviews were conducted in English, Hindi, Punjabi and Telugu. A consent form was shared with all the interviewees, including permission for recording the interviews.

The data collection was followed by a comparative analysis of Wikipedia Asian Month and Project Tiger. These both are pilot contests which have some similarities, but also some unique aspects. We compared the objectives, scope, process, communication, communities, languages, content, and achievements of these two projects. Data for this was primarily collected through the interviews mentioned above, but also a review of the event pages, and a random sampling of [talk pages](#), [reports and statistics](#) on these projects available on Wikipedia. These two projects have similarities, differences as well as some limitations. This comparison would help in understanding the importance and need for these types of contests. The motive for the comparison is to better understand the strategies of both projects which focus on increasing the content in local languages. These learnings may inform the process of working on the next iteration of these projects. .

Observations and Analysis

Wikipedia Asian Month and Project Tiger are pilot projects and both are equally popular among Indian communities. They are similar projects but also have some unique aspects. Communities connect with each-other but in different ways. For example, as noted by an organiser, Sailesh Patnaik, WAM has the following objectives: “ a) Supporting Small Wikipedia communities around the world (majorly Asian Language Wikipedias) b) Providing support to small local communities, to encourage growth and development c) Increase the cooperation among the Wikimedia communities and affiliates in Asia, d) Enriching Asian related culture, content, and enjoyment on Wikimedia projects.”

Meenakshi Nandini, a Malayalam Wikimedian notes, “The Project Tiger contest gave me some best experiences. Through this project, I got support in the form of laptop and Internet access. That is very useful for me. In my view, it is a competition between the communities rather than individuals. I saw that participants wrote more articles in the Project tiger contest than in any other events. But, WAM helped to create more relevant and high-quality content than Project tiger.”

Some common aspects for the both projects are below:

Motivation

WAM is one of the initial projects to give a boost to volunteers across the world. Most of the editors are focussed on initiatives in their own languages, and WAM offered a common platform for Asian communities to work together on a project. According to the interviews of community members, the love for their languages inspired them to participate as well as create content in regional languages, communicate to other community members etc.

As community member SangappaDyamani notes , “To enrich Kannada wiki articles, [I’m] happy to represent kn wiki in such an event, we can meet new editors, learn new tech used in other wiki etc.”

Communities or community members began to take part in WAM when they had less opportunities or less ideas to grow their local Wikipedias. After this project began, communities or individuals have been motivated for their Wikipedia’s growth, and engaging more with regional languages and knowing about Asia or Asian culture. Many Indic languages were searching for a platform and WAM gave them a common platform to engage and create content in their regional languages. All interviews indicated the same point that it was a new idea and as every Indic language was developing at the time, this idea influenced most of the languages.

As community member, Ramajit Tudu observes, “As our Santali Wikipedia [went live], we all had lots of excitement to cover all types of the article[s] but prior to that we had articles on the regional topic only. At that time some of the other community members suggested we should take part in this editathon (WAM) and we felt It was a very nice campaign, it is an exchange and sharing of information among the Wikipedians of Asia. Knowing about the person, place and subject about your own continent other than your own country and putting them in your own language is always an interesting job. In the year 2018, I was one of the coordinators and Jury for WAM - Santali language. As our community was growing in the year 2019 others were the co-ordinator and jury but still, I had contributed by participating in the editathon. Besides these, I support the editathon by creating the project page in Santali language.”

Similarly, there are quite a number of motivational factors for volunteers who have been actively participating in Project Tiger. Firstly, it

gives an opportunity to create several important and relevant articles that relate to their language Wikipedia that are presently missing. Secondly, in order to keep up the momentum among participants throughout the competition, it is designed in two phases and there is friendly competition between all the Indic communities that participated to secure the top position. The third and final motivational factor is cash prizes, in the form of Amazon vouchers, for top 3 individual contributors from each community and a three day [offline Wiki workshop](#) for all the active and major contributors from top performing communities.

“When it comes to a competition (between communities), there is a different kind of zeal and there are cash prizes too for extra motivation” says User:Jagmit Brar from the Punjabi community who created more than 1000 articles under Project Tiger in both the iterations.

These motivation factors have definitely been a major reason why the contest witnessed immense engagement and reach among the Indian communities.

Communication and Collaboration

Communication is an important aspect of running these long duration editathons. So, the model is to engage local organizers and participants with early invitations. The team started contacting Asian communities a month before the start of the campaign.

According to Rupika, the Communication and Media officer of WAM “One of the most difficult things about any project is when it is a new project and they are just trying to [let the] community know about the project. But for projects that are popular and well-established like Wikipedia Asian Month and Wiki Loves Monuments, they don’t have to work that much hard. But we do make sure that our efforts with local organisers are complete. So, we ask them to create a page a month or two before that project starts.”

The discussion started from the mailing lists. Thereafter, mass messages were dropped on all the village pumps and local organisers started discussion with their community members. A new meta page was designed for every iteration. After the notifying and instructions, interested communities add their names and make sure to participate in this project.

The model of engaging the communities is through social media channels, emails or on-wiki. The central-notice is a more beneficial method for informing Wikimedia about WAM and also writing blogs for the updates on progress of the project.

Also Wikipedia Asian Month's primary objective was to collaborate with all the Asian countries as well as others to increase content related to Asia on Wikipedia. It started after a proper discussion and this collaboration was a huge experiment for organisers as well editors. The volunteers interviewed in the course of this study expressed that they are glad with the collaboration of different communities across the world on this campaign.

Collaboration is one of the main features which defines the objective of WAM. It helps the small communities to grow systematically and do something for their regional Wikipedias and learn from other international and national communities. WAM started with 40 plus communities and at present, the number of participating communities is over 70 due to its collaborative nature. Through its five iterations, many Wikipedia communities have been linked to each other and know about each other's histories and culture etc. Mourya Biswas, a Bengali wikimedian notes:

“Personally, organising WAM was a great deal of a learning experience as well with regard to how to go about organising an editathon with so many people contributing from across different parts of the world. I had hitherto very little experience on organising online editathons. A few tools were absolutely new to me. In the subsequent editathons that I have organised since then, I've learnt to use a few tools to coordinate, support and manage the editathon even more efficiently.”

Similarly communication engagement is an effective step of Project Tiger as well. Organisers announce the project on India mailing list then approach communities via village pumps so that they are aware of when the project will commence. Communities remain engaged with the project till three months. The communication channels include social media, emails and phone-calls. Jury members regularly remain in touch with organisers. Editors also communicate regularly with recipients of hardware support.

Project Tiger, as a contest, needs collaborative efforts in order to be a successful engagement with the communities, and the emphasis was on

regular communication and discussions that resulted in strengthening the community further.

“We had Whatsapp groups with all the volunteers participating in the contest to strategise, resolve doubts, share ideas in order to create as many good quality articles as possible”, observes User:Parvathi Sridharan from Tamil Wiki community.

This contest/project not only saw engaging participation from existing and experienced volunteers, but also from many new ones. This contest has paved a way for new and enthusiastic people who were interested in contributing to Wikipedia. One way this happened is also through offline Wiki workshops conducted as part of outreach.

“This contest was a good chance to show how people in India are improving the access to knowledge across India and to the world. Many communities which were unnoticed came out during this PT writing contest and showed their community strength.” notes User:Gnoeee, from the Malayalam community who had contributed to English and Malayalam Wikipedia during Project Tiger 1.0

Culture

WAM encourages cultural exchange by mediating online connections between communities and helping them learn about unique aspects of their respective countries and languages. During this project, Asian communities generate articles/content on their local Wikipedias, and also have an opportunity to find their cultural interests and ways to understand other cultures.

As noted by Saliesh Patnaik, an Odia Wikipedian who is also the social media head for WAM, “This project also encourages cultural exchange within the community with the help of a month-long edit-a-thon which promotes the creation or improvement of the Wikipedia content about Asia except for their (the participant’s) own country.”

“Wikipedia Asian Month is the one of the first kinds of campaigns not just in Asia but in the entire movement to involve so many small communities in this wide level. That individually has allowed so many different communities to grow and help them to learn how to systematically and structurally work together. Project Tiger and other contests came [in the later stages] which really got communities involved. But when WAM

started in 2015 it was the first contest where people participated internationally.” The editors’ enthusiasm towards WAM proves that they are interested in creating content across cultures and establishing their links with other non-Indian communities.

Just like WAM, Project Tiger also encourages cultural exchange and bridging cultural gaps. Through this project, Indic communities got a platform to connect with each other. During this contest, communities generate their own regional list regarding important articles for their local Wikipedias. Communities have the opportunity to contact other fellow Wikimedians from Indic languages. They talked to each other through existing groups to solve their issues which they faced during the contest.

During the training period for the winner and runner up community, there was a possibility to exchange their thoughts and ideas. Due to that on-ground activity, Wikimedians played their roles enthusiastically and got more motivated with other stories, experiences and cultural aspects like cuisine. This is the way cultural exchange happened via Project Tiger.

Grant Process

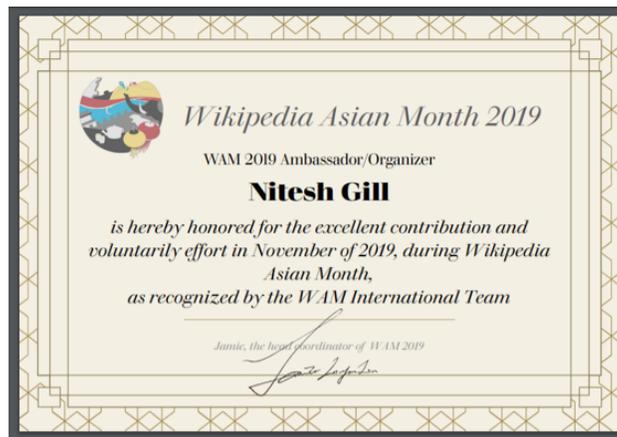
While projects under the Wikimedia movement are primarily run on the strength and interests of its volunteer community, there are specific aspects which require funding and support from collaborators such as the Wikimedia Foundation (WMF). For major events, the Wikimedia project needs a grant, depending on time duration and objectives. Similarly, WAM, while not being a very high budget event, is supported by a [rapid grant](#) from the foundation. This rapid grant supports the work on purchasing and sending postcards, certificates, T-shirts, stickers & pins, advertisements on social media (Facebook, Twitter), infrastructure (AirTable membership, G-Suite subscription, etc.), [domain](#), and the time of volunteers who are engaged in this work.

For Project Tiger, CIS-A2K gets a grant from the Wikimedia Foundation. Selected applicants from any Indic language get hardware support which covers chromebooks/laptops and internet connectivity. Apart from it, during the contest Amazon vouchers were also given to the participants from each community who got the 1st, 2nd and 3rd rank for all the three months. These prizes are fixed for every month. There are also

prizes for an overall winner community, and a runner up, which is in the form of a training session after the writing contest.

Appreciation

A token of appreciation is provided to participants, which is important to aid efforts. Under WAM, this appreciation is divided into two parts : Postcards & Certificates and Brand Ambassador. Postcards are given to those participants who created at least five articles about an Asian country. The postcards are sent by the same countries in appreciation of the contributors' participation. This is a way to encourage new leadership and new editors. Certificates are also part of this appreciation, as a recognition of active participation and the importance of their work. As Aliva Sahoo, Odia Wikimedia, notes “When I wrote articles in 2016 I created a good number of articles. And that time I was happier because I got 4 or 5 postcards from different countries. My other community members also received postcards. That time I felt motivated to get postcards and I decided to create more articles next time and will collect more postcards. I think this kind of appreciation encourages volunteers and makes them happy.”



The second form of appreciation is the **Wikipedia Asian Month Ambassador**. This is an honour from WAM to a Wikipedian who creates the most number of articles on their respective Wikipedia. In every iteration of WAM, ambassadors are chosen depending on the number and quality of contributions. By adding an element of competition, and using a title that does not suggest the same, the ambassador initiative plays a very important role in the event to enable more contributions. In the end, we have

Wikipedians who are willing to receive other postcards by contributing 30-50 articles (relatively high quality according to our rules), which makes this event very successful and effective” Rupika Sharma, notes.

In Project Tiger as well, as a token of appreciation to all the top performing participants, prizes were given to the top 3 editors who created the most number of articles from each community, every month in the 3 month contest. Appreciation was given in the form of a cash prize during the first iteration of the Project. After receiving a lot of feedback about this, gift vouchers are given in the second iteration instead of cash prizes.

Apart from this, merchandise such as stickers and t-shirts to other top contributors is also a practice that’s followed. The overall winner, runner up communities and few other top contributors and juries from remaining communities later attend a three day workshop as part of the Project Tiger community prize, on the topics of their preference.

Fountain tool

The Fountain tool was developed for reviewing the articles of Wikipedia Asian Month, and is used only when the contests are running. “I made the first prototype during the first Wikipedia Asian Month in 2015. We, the jury members, were flooded with articles that needed to be evaluated fairly quickly and so I thought that I can automate 90% of the jury workflow” notes fountain tool developer Le Loy. In this tool, bytes and words are fixed according to the project. For example, in the Wikipedia Asia Month a minimum of 3000 bytes are fixed as per the criteria of evaluation for WAM. This is therefore a useful tool for the contests. It is a tool which helps a lot to collect statistics of specific projects on Wikipedia. After talking to Le Loy, we can reach the conclusion that the tool is not limited to a particular language, and it can be used for any kind of event on Wikipedia.

Project Tiger also uses the Fountain tool to review articles submitted in this contest. It was easy for the participants to submit the articles and also for the jury to pick up an unreviewed article and review it based on the number of bytes, or if the article was actually submitted in the time period mentioned in the contest rules and so on. This tool has definitely made the jury process more efficient and smooth.

Diversity and Bridging gaps

Cultural diversity is an important aspect of the sustenance of the Wikimedia movement itself, and bridging different cultural gaps is an important aspect of this effort.

After checking all past statistics of WAM, we found that WAM focused on content related to Asia only but it didn't pay much attention to content by and about persons across diverse gender and sexual identities, including marginalised groups. Sailesh Patnaik & Rupika Sharma, WAM organisers, note that there have been some efforts in this area, saying “We work with more than 50 different language communities on Wikipedia, and have also collaborated with [Women in Red](#) to bridge the gender gap in our projects.” There is however a need for ongoing work in this space.

Project Tiger has its own strategy behind diversity and bridging gaps. Both events maintain their diversity as per required rules and areas. One of the major reasons why volunteers find a hindrance in dedicating time for Wikimedia and its projects is the lack of facilities like a laptop or even a proper internet connection. This is why laptops and internet stipends provided during the first phase of the contest have a monumental effect on the contest and also in contributions to not just Project Tiger, but also many other Wiki projects in general. Several volunteers contribute articles via mobile phones in spite of the difficult/complex editing environment. Without this support, there is a chance that Wikipedia can lose some of its most promising volunteers.

Project Tiger also tries to bridge a gender gap. For example, the criteria for hardware support also includes ensuring a certain percentage of women applicants are selected. The coordinators have also tried to specifically engage women participants during the contest. Before opening the applications for hardware support, PT core team set criteria for eligibility. On the other hand, one rule always highlighted that 33% women can get laptop or internet connectivity due to their past contribution. This is an effort to engage women in the Wikimedia movement.

Limitations and Barriers

Despite the success of these long running programmes, its true that there still remain some barriers and limitations, as illustrated below:

Wikipedia Asian Month:

- WAM has largely remained a stable programme, but it would be a good thing to see how new aspects could be introduced in the programme. The process is the same every year because after finishing the first iteration the core team didn't take any feedback, suggestions or concerns from the individuals for the next step, which is a major barrier to growing and planning something new for the next level. As Odia Wikimedian Aliva Sahoo notes, "From 2016 to 2019, WAM was the same and there was nothing new, but I am not sure if during 2020, they changed something because I didn't participate this year." According to participant's comments or WAM rules & guidelines changes in the structure could be introduced.

"When the same project is happening again and again then the novelty will reduce. We should make some changes from time to time to engage the people" notes Punjabi Wikimedian, Satdeep Gill.

- The project actively makes an effort in trying to work with more communities every year but also collaborate with other projects such as Women in Red, which is aimed at creating more content by and about women. WAM itself has not been able to promote women leaders and women content as well due to its design which focuses on promoting content.
- Follow-up on receipt of appreciation postcards etc. should be done diligently. There have also been instances where appreciation postcards have been delayed or not sent which affects the motivations of contributors in engaging with the project further. A few contributors did not receive their appreciation from senders, which has led to some negativity. At least after two iterations of any project, contributors or Wiki projects demand for something new. For example, during the beginning of the project, participants got the Wikipedia Asian Month ambassador tags and that was an honour for them. But volunteers seem to be looking for a change and they want to look forward to the project.

A Malayalm Wikimedian, Meenakshi Nandini, noted, "However the prizes are not getting to most of the participants, especially the WAM

prizes. Even me also didn't receive most of the event prizes. So we couldn't tell the participants that you will definitely get these prizes. I won two times as a "Wikipedia Asian Ambassador". But is there any importance or benefit for that honor?"

- During the WAM, the focus was only on article creation but not on the [quality of articles](#). It is important therefore to accord more attention to the quality of the content being created, which would help in the long-term sustenance of the project and is better aligned with the larger objectives of the movement.

Project Tiger:

- Project Tiger happened only in two iterations, but has its limitations and challenges as well. The participants or volunteers who participated in Project Tiger had some concerns on the Google article lists. Contributors felt Google should suggest only those articles which are important for their Wikipedias as priority. The PT core team was not properly able to convince participants as to why the Google list is important and editors were also not fully aware of the same, which led to some mismatch in expectations from the project.
- Due to hardware support and gift vouchers, most participants are motivated to contribute more, But on the other hand, it changes the whole process of contribution in the Wikimedia movement. Cash prizes or gift vouchers showed a less than satisfactory result, thereby leading to a rethinking of how best to motivate contributors.. But for a few editors hardware support and prizes are a lot. A few users who were editing from phones got laptops just because of the project which has helped their contributions.
- The manner of addressing the gender gap in the project has also been a point of contention. The possibility is, some participants feel that women only get laptops or internet support due to their gender identity. The process of such quotas may be debatable going forward, and so a clear rationale and process may be developed to encourage participation by women and individuals across the spectrum of gender and sexual identities.
- One major concern from jury members was that participants did not work on quality but quantity. Reviewers and readers are facing

problems with machine translated articles submitted during Project Tiger. The PT team tried to solve the issue of quality during the second iteration, but did not work well, and jury members faced the same difficulty this time as well.

A common challenge noted by Satdeep Gill (for both projects) is that “Contributors focus mainly on increasing the article count and the maintenance work lags behind. We need to focus on this as well.”

Learnings:

Both projects have had more than one iteration so far, and have managed to create interest and engagement within Indian language communities in working collaboratively and building content. They have also had a fair number of challenges and limitations as well, as illustrated by the interviews. For instance, there has been a difficulty in measuring the quality of articles, the way that quantity is tracked. So there is a need to develop metrics to capture and work on quality of content. A related point is with reference to a lack of capacity building within communities, which would enable them to collaborate and contribute better. There have also been some challenges with logistics, and ensuring that participants receive their prizes during Wikipedia Asian Month. This would need more communication and careful coordination of efforts. There is also a need to keep participants engaged over a long time, and repeating the same structure of the project every year may also lead to a lack of interest or innovation. The project actively makes an effort in trying to work with more communities every year but also collaborate with other projects such as Women in Red, which is aimed at creating more content by and about women. WAM itself has not been able to promote women leaders and women content as well due to its design which focuses on promoting content. The projects therefore need to work in a progressive manner, building on feedback from participants and adapting to the evolving needs and interests of the communities.

These difficulties are also faced by Project Tiger. Google should focus on lists according to the needs of communities, in discussion with the PT team. For example, the core team should track volunteers' contributions after getting the support because anyone can make 500 or 1000 edits for getting a

laptop. The core team should find people from the communities who need this support and will contribute proactively. Project Tiger's process transparency is appreciated, but with the same transparency the infrastructure distribution process should be different from now. Also it should encourage or discuss with communities about proactive women's participation during the project. PT should run a Bridging Gender Gap campaign, where communities should play a role to engage women as organisers from each community and should make a strategy for the same. This project needs to work on a strategy for building and sustaining quality as well which is important for growth of Indic Wikipedias.

So, not every project is perfect, every project has some achievements and some limitations. Therefore, WAM and Project Tiger are also the same, it achieves its goals but also carries some failures. But there is a possibility to make changes to both projects.

Conclusion

Wikipedia Asian Month is an International project which started in 2015. It is a low budget project, and gives a common platform to Asian as well as Non-Asian communities to participate over the course of a month. When WAM started most of the communities were excited to do something for their languages, and this was a big initial motivation for the project. The communities want to continue with WAM because they feel like this is one of the projects which started at that time when communities wanted something to engage themselves with Wikipedias. Every year most of the communities participate in it for sure, although the people who work on the projects may differ. Project Tiger is a pilot project which is a three-month-long contest. This project provides an opportunity to communities to work together. After the success of the Indic languages contest [Project Tiger] in 2018, two more countries, ([Project Saraswati](#) and [Project Al-Ma'refa](#)), also organised a similar project under different names. Due to Project Tiger, thousands of articles were created or developed by volunteers about important, most searched for topics suggested by Google, as well as those important to respective Indic language Wikipedias. Infra-structure support pays attention to volunteers' hard work and encourages them to work to share free knowledge. These projects therefore go a long way in enriching

local language content, and keeping volunteer communities interested and engaged with their respective Wikipedias.

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She is a research scholar from Moga, Punjab and pursuing her Ph.D from University of Delhi in Punjabi literature. She has been contributing on Punjabi Wikipedia from 2015. Her remarkable contribution on Punjabi Wikipedia is that she has completed 1000WikiDays challenge, which means one article every day. See:

https://pa.wikipedia.org/wiki/ਵਰਤੋਕਾਰ:Nitesh_Gill

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Stalinjeet Brar is from Faridkot and has been contributing on Wikimedia projects since August 2014. He is doing his Ph.D in Punjabi language and his research topic is also a comparative study of Punjabi Wikipedia and PunjabiPedia. See:

https://pa.wikipedia.org/wiki/ਵਰਤੋਕਾਰ:Stalinjeet_Brar

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As of 04 March 2021 09:59 AM

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Charan Gill is an experienced volunteer, aged 76 years old. He has been contributing on Wikimedia projects since 2008 He is the top contributor from Punjabi Wiki Community with more than 59,000 edits on Eastern Punjabi Wikipedia..

See:https://pa.wikipedia.org/wiki/ਵਰਤੋਕਾਰ:Charan_Gill

[←113]

Manavpreet Kaur is from the Forensic science field and completed her Phd in the same subject also. She engaged with Punjabi Wikipedia in 2014 and also as a volunteer she has completed 100WikiDays challenge and has done various forms of outreach for the community. See: https://pa.wikipedia.org/wiki/ਵਰਤੋਂਕਾਰ:Manavpreet_Kaur

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As a student of secondary school, Benipal hardarshan is one of the youngest Wikimedians from Punjabi Wiki community. He made his first edit in 2014 but is actively contributing from 2016. He is an active administrator on Punjabi Wikisource.. See:

https://pa.wikipedia.org/wiki/ਵਰਤੋਕਾਰ:Benipal_hardarshan