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DIGITAL TECHNOLOGY ENGAGING PEDAGOGY THROUGH HINDI WIKIPEDIA - A CASE STUDY

Abstract

Hindi Wikipedia (Hindi Edition of Wikipedia) in the undergraduate language classroom. Wikipedia or Open Source Learning is a powerful tool in the acquisition of knowledge especially in today's digital context. While many of the European languages have already established a foothold in the digital space, the Indian languages are yet to create a niche for themselves. Even after a decade of its launch, the Hindi Wikipedia could not attain the enabled richness of the English Wikipedia. While there are about fifty lakh articles in English, Hindi Wikipedia has only about a lakh.

This paper is an attempt to show how a whole new concept of productive activity for faculty and students can be opened through a study of basics in Indian language computing typing and editing Wikipedia articles. It explains the value of Wikis for teaching and learning as compared to traditional teaching and physical paper assignment model, showing the power of

Open Source Learning and Wikipedia. Most importantly, it shows how Wikipedia and Global Peer Review can directly and immediately influence the quality and relevance of Teaching and Learning in classrooms and learning spaces today. This pilot study of students' use of sources in authoring Wikipedia articles shows, how students processed texts from sources to compose their own texts transforming classrooms from a place of knowledge delivery to a place of creativity and research. Through Wikipedia, students are being empowered to become creative writers, efficient editors and successful researchers. Article creation and editing of articles in Hindi for Wikipedia is bound to transform the students' ability to interpret, analyze, create new knowledge and develop their Research Aptitude. This article addresses the importance of Digital Learning through Wikipedia as Pedagogy in Christ University's UG language classrooms and discusses the prospects and possibilities of using Wikipedia as a learning tool through a case study.

Key Words- Learning Process-Wikipedia Enhanced Digital Learning-Experiential Learning-Knowledge Creation and Dissemination

Introduction

Humanity the world over is at the cusp of a tectonic shift in the production, consumption, dissemination and distribution of knowledge. This warrants changes in frameworks of looking at knowledge, information and data in the digital era at multiple levels and by multiple players including students, academics, entrepreneurs, researchers, civil society, Universities and the State. This digital turn has also triggered a new digital economy around regional languages and the demand for the content in non-English is on the rise. Over the past two decades the Government of India¹ and various other State governments² have invested considerable amount of funds to create a digital environment in Indian Languages. Similarly, Corporate Giants like Microsoft³, Google⁴ are also actively exploring markets in Indian

¹Various initiatives under Technology Development for Indian Languages (TDIL).

² There are various initiatives that one can think, one noteworthy activity is Tamil Virtual University.

³ Bhasha project of Microsoft.

⁴ Google Bus.

Languages.⁵Wikimedia Foundation (a significant global not-for-profit open knowledge player) and the Wikimedia community (the largest open knowledge volunteer community from across the globe) have been championing the cause of creating digital-public-knowledge-repositories in all global languages including as many as 22 Indian Languages. In fact, it is important to note that the participatory knowledge production models of openness like Wikipedia⁶ are increasingly pushing us to look beyond the traditional models of the bygone century⁷; on the other hand, these models are being thought to be effective even in pedagogy, governance and policy making. Open Educational Resources for instance is becoming a key caveat, for the students and Higher Educational Institutions alike in imagining better pedagogy models. This creates a pre-condition for the transformation of society into a 'Knowledge Society', wherein the student is increasingly repositioned from a 'spectator' to a 'spect-actor'⁸

In the Indian education scenario, the undergraduate classroom teaching, especially the language classroom is associated with a prefixed syllabus adhering to some standards set in an analytical sphere, away from the digital sphere and changes taking place in terms of platform paradigm shift. Everything today has digital or *e* (stands for electronic) as a prefix. Digital classroom and e-classroom are common terms heard everywhere now except language classrooms. Essentially the so-called e-classrooms or digital classrooms are limited to showing some visualization and graphics that are otherwise left to the imagination. Whether these tools are really helping students expand their imagination or limiting it to a certain level is debatable. As Prensky (2001) observes, "Our students have changed radically. Today's students are no longer the people our educational system was designed to teach". Prensky sees today's students as digital natives while most of today's teachers remain digital immigrants. In particular, today's educators are acculturated to a print paradigm while students are increasingly products of a digitally-based secondary-oral paradigm. Happily, for

⁵ Off late Facebook has also actively begun investment in creating and tapping the virtual communities in Indian Languages.

⁶ Geert Lovink and Nathaniel Tkacz, *Critical Point of View: A Wikipedia Reader*, published by CIS and Institute of Network Cultures, available at [http://www.networkcultures.org/uploads/%237reader Wikipedia.pdf](http://www.networkcultures.org/uploads/%237reader%20Wikipedia.pdf)

⁷ The Access to Knowledge programme of CIS has conducted several workshops and produced more than 60 blog entries in nearly 10 months. To read the impact of this work check <http://cis-india.org/a2k/blog/indian-language-wikipedia-statistics>

⁸ A term coined by the Brazilian theatre practitioner Augusto Boal in the context of theatre. This formulation of spect-actor is very useful in reimagining the citizen in the digital era that has created preconditions for the citizen to effectively participate in governance. For more on Spect-actor see Augusto, Boal (1993). *Theater of the Oppressed*. New York: Theatre Communications Group.

educators, Electronic and Cyber technologies can potentially combine the best aspects of both print and secondary-oral paradigms, allowing educators to move freely across the print-oral continuum. One cyber technology enabling this movement is the *wiki*, a unique interface where information is not fixed (as in a print model) but fluid and flexible to meet the needs of the community (as in the pre-literate age).

Need to re-imagine the Indian UG Language Classroom: Since 2000 there is an unprecedented incremental increase in the number of students entering higher education in India, especially in the under graduate space. This sudden spurt has been met by the significant growth of the new higher education institutions across India, though there is still an unmet demand for such institutions.⁹ While the phenomenal expansion of the under graduate space was a welcome sign, soon concerns around the quality of this education were recognized. This is lucidly captured and articulated, specifically in the context of the professional education, more by the industry players in the knowledge and information management businesses. A frequently expressed concern is - Does the student coming out of the Under Graduate space in India, have the necessary knowledge skill set to successfully undertake research, pursue higher education, deliver the needs of the industry/job market? Lack of “soft skills” a popular term that is used to indicate several key skills set like: a) Ability to critically think or imagine; b) language proficiency in terms of cohesively presenting an idea or concept; c) ability to closely read/assess information or data; d) ability to collaborate in a team environment often in a virtual context; and e) ability to be a producer of knowledge than a passive consumer. One of the significant reasons for this, lack of “soft skills” in an average UG student, is that she/he is neither suitably trained to proficiently use English nor to use an Indian Language (often mother tongue). The bilingual/trilingual context which most of the students occupy perhaps needs to be critically gauged such that the higher education system could instill the much essential “soft skills” in a UG student. Thus, a re-imagination of the Indian UG language classroom is the need of the hour. Further, such an exercise needs to be done in the context of the digital turn taking into cognizance that the UG student must negotiate the digital as a site whether she/he plans to enter academia or industry or civil society or polity.

Wikipedia writing and editing in Hindi is a part of the continuous internal assessment for undergraduate students of Christ University since 2013. The basic objective of this program is to encourage the students to acquire the necessary skills in digital learning, equip

⁹ As per recent studies, the number of new higher education institutions set up in India over the last 12 years is more than the number of institutions that came up during 100-year period of 1900-2000.

themselves to create new knowledge and to edit the existing articles available on the online encyclopedia for quality improvement. Through this effort, more digital space is being given to Hindi language and literature. The change from the traditional mode of learning languages to the digital mode and working on language has been well received and appreciated by the student community. They have immensely benefitted from the Wikipedia content creation and editing experience. It has also helped them to develop their language and writing skills, research aptitude and knowledge.

For the successful implementation of the Wikipedia education program, Christ University entered an MOU with the Centre for Internet and Society- Access to Knowledge. Training and support is given to the students by the Faculty and experts from CIS-A2K.

Program Design and Method of Implementation

The Wikipedia education program is spread across the first four semesters of the second language UG curriculum. All the undergraduate students of Christ University with Hindi, Kannada, Sanskrit and Tamil are given a task to write assignments based on Wikipedia. Orientation is given to all the students prior to the commencement of the program. The department has developed 10 Audio- video based training modules using the services of the Centre for Concept Design, Christ University. Since students are not familiar with typing in Devanagari script, training is given to them. In the first semester, students are given the task of digitalization of Kabir *Grandhawali*, the literary texts of a 15th century Hindi poet Kabir Das, selected from Wiki source with the intention of preserving our ancient knowledge traditions as electronic document.

In the first semester for the first and third Continuous Internal Assessments (CIAs), students type more than 2000 words in Hindi.

The following parameters are followed:

1. Number of Bytes
2. Spelling and punctuation
3. Attending Computer Lab session
- 4 Taking online Moodle test after watching audio-video training modules

In the second semester, they develop their biography in Hindi on Wikipedia User Page with a minimum word limit of 500.

The parameters for article creation are as follows:

1. Total number of bites created
2. Content
3. Formatting
4. Uploading images

In the third semester, they write an article in Hindi on language, literature or culture for the first and third CIAs. Topic for the assignment is chosen in consultation with the faculty.

The following parameters are essential components for the article creation:

1. Topic related to Hindi language, literature and culture.
2. Creating article in Wikipedia sand box.
3. Adding internal and external Wiki links.
4. Using images selected from Wiki commons.
5. References from other sources.
6. Research output

In the fourth semester, they write an article in Hindi in their area of specialization with the guidance of their core subject faculty as well as their language faculty. The assignments are monitored and students are interviewed to check the progress in collaboration with core subject experts. Articles uploaded in Wikipedia by the students are evaluated based on the following parameters.

1. Quality and content
2. Language and writing skill
3. Level of knowledge created
4. Peer evaluation techniques used
5. Uploading Wiki links, images and references.
6. Research output.

Assessment and evaluation parameters

1) Comprehension: The student's ability to read and understand course material in Hindi language. 2) Writing skills: An important skill to be evaluated is the student's ability to produce content in Hindi. The student is expected to write in an objective manner and should be able to adequately paraphrase from a set of given resources prescribed in the course. 3) Understanding of Wikipedia principles. 4) Information literacy: Ability to source reference materials in Hindi.

5) Citing sources: Ability to add references to all the cited works in the Wikipedia articles. 6) Language proficiency skills of the students. 7) Time spent in understanding the Wikipedia tutorials (video, audio and text material) in Hindi. 8) Collaboration and engagement: The students will be encouraged to produce the articles in a collaborative manner and are also expected to critically intervene (with suggestions and feedback) in the production of Wikipedia articles by their friends. Also, intervention in other articles on Hindi Wikipedia will be used as a parameter of evaluation. 9) Digital process of development of the article by the student on the Wikipedia. 10) Semantic Web: Student's ability to create a semantic web through wiki interlinks.

Prospects and Possibilities of introducing Wikipedia in the UG Language Classroom.

Christ University could gain global visibility through this innovative Wikipedia Education Programme. Simultaneously it could contribute to creating a digital public knowledge repository in Hindi that could benefit the society at large. Christ University will be one of the few Indian Universities to join the league of leading global higher education institutions like Harvard and New York Universities in the US; Queen Mary University in UK; University of Queensland, Australia; Singapore Management University and so on. 'One possibility is to develop and apply new approaches and strategies for teaching that integrate computers, Internet-enabled collaborative learning and related educational technologies with routine teaching and learning'¹⁰.

In addition to the various skills set mentioned above, the Christ University UG student would get a chance to be part of a global platform like Wikipedia. The students could also highlight the Wikipedia work as an achievement in pursuing either higher studies or in getting a job. The students would also encounter the world of open knowledge sharing that is fast emerging across the globe. Further, the students would also get additional inputs and guidance from a global community of Wikipedians and could form networks that can be beneficial. CIS-A2K in collaboration with Christ University would also give appropriate certification to the successful students.

According to the study, Wikis in Hindi have added thousands of new articles on various subjects from September 2012 to April 2013. Communities with better literacy rates seem to have taken the lead online. A vibrant vernacular Wikipedia seems to be taking root in India.

¹⁰Digital technologies and Teaching strategies by V.C Pandey, pg.no:159, published by ISHA Books, Delhi-33, published in 2004

In the recent times, the number of Wikipedia entries has grown substantially in 20 Indian languages, says a study by the Bangalore-based Centre for Internet and Society (CIS).

Wiki, the world's largest online encyclopedia where anyone can write and edit articles, did not have much content in the vernacular till a few years ago. A few of these pages were viewed more during this period. Marathi, which had 30 lakh page views per month previously, had another 10 lakh visitors, while Bengali Wikipedia had 14 lakh page views. While Malayalam Wiki took the top position with an enviable team of 100 plus editors, the number of Hindi editors came down. In the last two years, the demand for knowledge in Indian languages has grown.

In re-imagining the UG language classroom towards building the capacities of the UG students, higher education institutions like Christ University do not have to incur any infrastructural investment and can readily leverage Wikipedia as a digital site of teaching and learning. There are more than 20 Indian languages in Wikipedia (covering all major languages taught in an Indian UG classroom) as ready-made sites for the UG student to learn from and contribute to. Wikipedia as a digital knowledge platform encourages the user (i.e. Students in this instance) to actively consider participation in the production of knowledge. Wikipedia project in Hindi will stimulate the intellectual curiosity and provide a sense of achievement that will make the students from passive recipients of information to active knowledge creators. Transformation of accumulated knowledge to the new generation is the fundamental idea behind this initiative. The foundational principles of Wikipedia could instill the following skills in the UG Hindi students:

Writing skills: Ability to write in an objective manner (like a researcher).

Information literacy skills.

Critical Engagement: Ability to critically engage with a concept/theme.

Language proficiency skills.

Collaboration and Engagement skills: Wikipedia is a collaborative knowledge production platform and is a potential training site for virtual collaboration.

Analysis:

While wiki source pages were checked entirely for proficiency of typing, Wiki source articles were assessed for language, citation, illustrating the article and wiki way of writing things.

Results:

Most students tend to make mistakes in typing Indian languages but become acquainted by the 2nd semester. 40% students came up with innovative topics, unavailable on Wikipedia. Students felt difficulty in expressing techno jargon terms.

Conclusion:

Bringing students onto an online platform such as Wikipedia for their language classroom is a new initiative and the future would see more use of digital technology engaged pedagogy in the classroom. To improve the Indian UG language classroom, making Wikipedia part of the second language classroom at Christ University is probably the largest ever attempt at introducing Wikipedia Education Program in a single institution. CIS-A2K and faculty are excited about this and will leave no stone unturned in making our language classroom an exciting learning space.

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