
Project Report

YEAR 0



महाराष्ट्र राज्य शैक्षणिक संशोधन व
प्रशिक्षण परिषद, पुणे.

MITRA

April 2016 - March 2017

**To give government
school teachers in
Maharashtra access
to contextually
relevant teaching &
learning resources
and foster a culture of
independent learning
and collaboration
through technological
interventions.**

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MITRA

Where we started and how the idea evolved

Introduction

What began as an idea for a teacher portal housing courses that government school teachers could access is today an android phone app with content created by teachers themselves, some videos for their professional development and news and updates from the state. But what has been a far more exciting development than the feature set of the product, is the evolution in the nature and scope of the project . The name says it all : Online Portal for Teacher Education (OPTE) to MITRA, a friend to teachers.

The past year has been an exciting, if sometimes difficult, adventure. We've met some great people, had many of our assumptions challenged and have all learnt quite a bit on the job. At the end of year 0, we look back to see how we've fared and reflect upon learnings we can carry forward into the next year of MITRA.

Why and Why Now

The Pragat Shaikashanik Maharashtra (PSM) Government Resolution dated 22nd June 2015 made the improvement of student learning outcomes as the primary focus of the ministry of School Education. It has chosen teachers as the primary agents to bring about this change. As such, teachers will require skill development in different areas in order to be able to achieve the ambitious goals of the PSM. In addition, teacher training will no longer be mandatory but be based on the demand from teachers.

There has been a growing movement in Maharashtra among teachers to become tech savvy and use technology in innovative ways in the classroom to make learning more interesting for students. Around 1.2 lakh teachers are tech savvy and the number is growing day by day.

To support this movement and achieve teacher training on demand, there was a need to establish a platform where teachers can have access to relevant, contextual and quality teaching and learning resources 24/7 and 365 days a year, and with enough choice to find the right materials based on their needs. Technology has tremendous potential in being able to address these issues.

Evolution of the Idea

The MSCERT Teacher Education platform was envisioned initially as a portal containing courses for teacher education.¹ However over time it became clear that multiple such initiatives had failed. One of the reasons for this failure seemed to be linked to the fact that teachers did not connect with the content that was being delivered to them. One of the primary reasons for this was the lack of context in most of this content. Through teacher interviews we were able to better understand the nature of the platform and content that needed to be developed to adequately support the teachers. Teachers expressed their desire for a platform that was easily accessible through their phones and containing content made by their peers which was very contextually relevant. While a lot of teacher created content did exist, most of it was dispersed, repetitive and lacked standardisation of any kind.

Since one of the guiding principals behind this platform was to cater to the needs and as per the demand from government school teachers, their immediate needs and behaviours would have to be accounted for. Considering the fact that many of them would be using an online platform for the very first time, putting out courses directly on the platform would not have been ideal as it would require prolonged online engagement. Hence it was decided that the portal would contain short videos for teachers' professional development, which could be consumed alongside curriculum aligned classroom resources that they all needed. Content on Classroom Practices, Tech Savvy Basics, Time Management, Spoken English etc. would be made available.

Teachers also needed a way to stay connected with the MAA and receive regular news letters, articles and academic updates. This would also help MAA directly reach out to teachers. News and updates would also be made available on this platform.

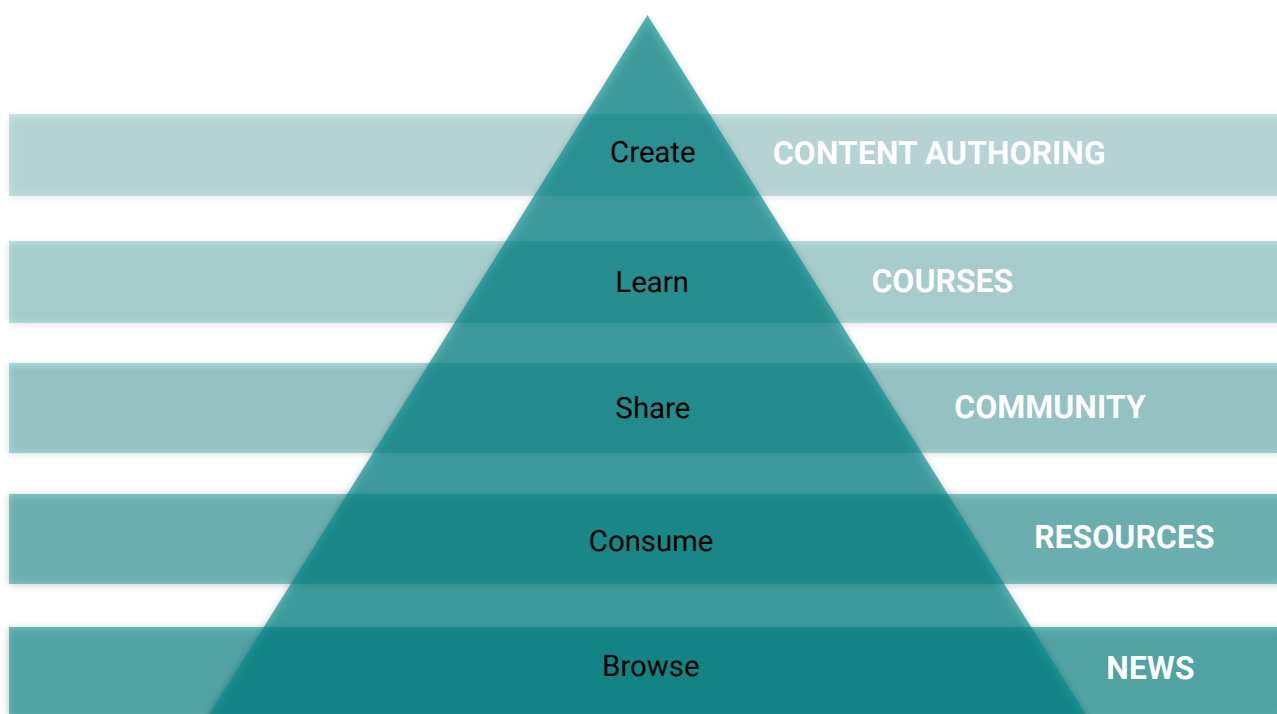
Teachers felt a sense of pride in being part of the creation of a state level TE platform. It was important that this identity be captured in our work. The name MITRA (Maharashtra In service Teacher Resource Application) helped provide that identity which aligned with the core values of PSM - that the state would be a friend and mentor to teachers.

The Product

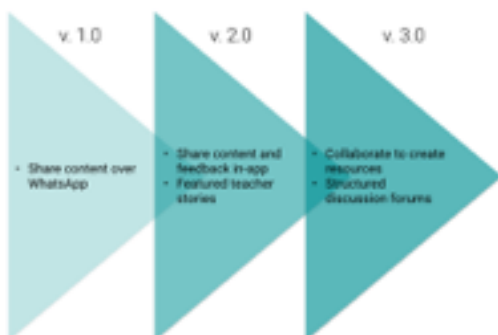
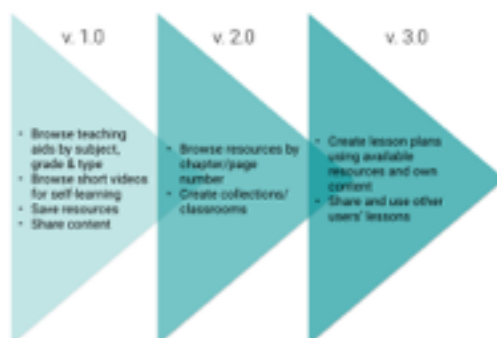
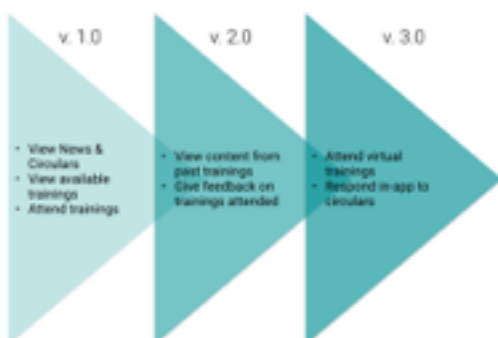
There are a few assumptions behind the product; first amongst them is the idea that teachers and teacher education is the key to better learning outcomes amongst students. Second is that one must address the immediate needs of teachers, ease their work as it is, before we can expect them to engage in structured and voluntary professional development. Third, we believe that in creating content for their classrooms, teachers can themselves learn.

The product enables teachers across the state to browse, access and use content for their classrooms created by their peers. Alongside this content, is content for their self development, the assumption being that they may be encouraged to view some of these videos even if that isn't the primary motivation to use the app. In similar vein, other features, such as the training calendar, and news and updates have been included to encourage teachers to spend time on the app.²





User journey and related feature



People

Who is MITRA for?

Maharashtra Government School Teachers

MITRA aims to serve the 2.5 lakh government school teachers in Maharashtra.

Academic Administrators

It also aims to help administrators at the apex Government academic institutes in the state reach out directly to teachers.

Individual Stories

Suresh Bharathi:

Suresh Bharathi is a teacher from Ahmednagar District and one of the tech savvy champions of the State. Bharathi set up technoteachers.in and marathishala.in two pivotal websites that kickstarted the tech savvy movement in Maharashtra. Bharathi set up technoteachers.in to assess the demand for tech savvy trainings by teachers. More than 1.5 lakh teachers have registered on his website demanding tech savvy training at different levels. marathishala.in is a website that helps teachers find classroom resources. Bharathi himself has curated around 50 gb worth of content in the form of videos, audios and PDFs. He has played a very important role in helping the MITRA team understand the needs of the teachers. Bharathi has led a content creation workshop in his district and currently assists the team in creating reference content on the EkStep platform that can be used for benchmarking.

Atul Wagchaure

Atul Wagchaure is a tech savvy teachers who has joined the MAA IT Dept on deputation for 3 years. Atul works closely with the team and has single handedly managed the content curation process at the MAA IT department. Atul has been very active in procurement of content from teachers across the state. More than 10000 content pieces have been procured by Atul. Atul believes in the states ability to reach every last student. His presence in the IT department provides better insight into how teachers think and operate which has been invaluable.

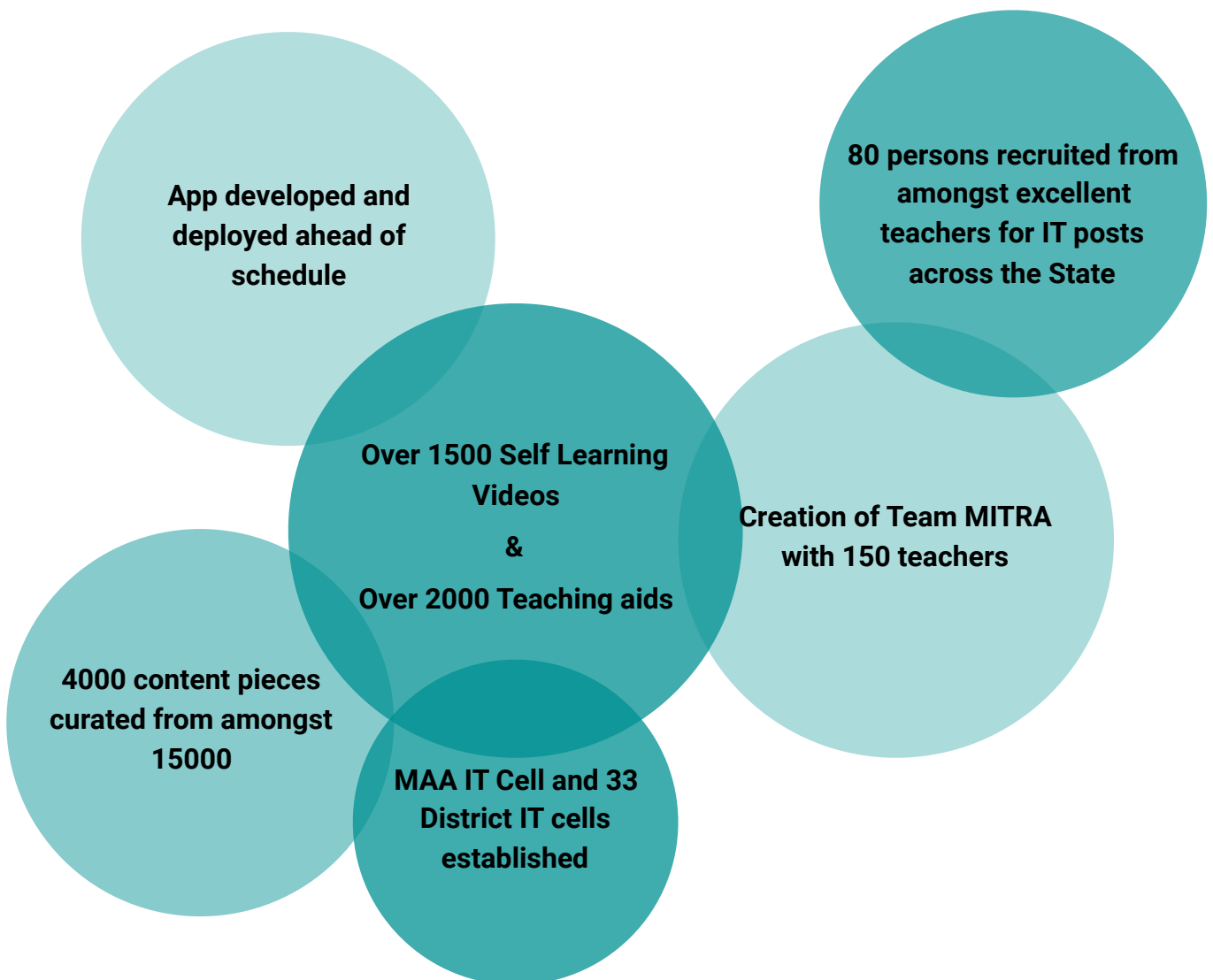
Vikas Garad

Vikas Garad is the HoD of the MAA IT department. He has been extremely supportive and a key figure in the MAA. Garad's focus has been to consolidate all the efforts made by teachers in content creation, website development, app development. With his support the Lonavala content creation workshop was set up in 72 hours. 150 teachers's orders were passed , logistics managed, Sessions planned and Outputs tracked. He believes that MITRA will provide the identity required to bring together teachers from across the state to work together towards a unified vision for the state and thereby push the tech savvy movement in the right direction.

The Past Year

What everyone's been upto and how we've fared

Highlights



Timeline

APR 2016

- Meghana joins MSCERT Portal Project
- First Wireframes for MSCERT Portal

MAY 2016

- User interviews with Tech Savvy leads from across Maharashtra
- Functional Prototype of MSCERT Portal completed by NIC

JUN 2016

- Soft Launch of the MSCERT TE portal by Education Minister Vinod Tawde at NIC Mumbai

JUL 2016

- Planning for Phase 2 of MSCERT TE Portal begins
- Search for Content Manager proves unsuccessful

AUG 2016

- EkStep and Guru-G shortlisted as potential content/ infrastructure partners for MSCERT TE portal
- EkStep Selected as content partner for MSCERT TE Portal

SEP 2016

- MSCERT Portal renamed as Maharashtra in Service teacher Resource Application (MITRA)
- 1st EkStep Content Creation workshop with Tech savvy Teachers
- Partnership with NIC is discontinued

OCT 2016

- Softcorner is brought onboard as the developers
- Decision made to develop a MITRA web app and mobile Application
- 1st District Level Tech Savvy workshop for Ahmednagar District

NOV 2016

- 1st Meeting with Dheeraj Kumar Education Commissioner regarding MITRA
- Content Creation workshop at Balewadi with Subject Experts
- EkStep GR is passed by Government

DEC 2016

- First Version of MITRA app released for internal testing
- Vikas Garad HOD of IT Dept takes charge
- IT cell Set up at MSCERT with 2 tech savvy teachers selected on deputation

JAN 2017

- Content Curation for MITRA Begins

FEB 2017

- Project Outreach Manager for MITRA selected

MAR 2017

- CSF and Dheeraj Kumar, Education Commissioner Presents MITRA at the MHRD conference in Delhi as a first instance of the National Teacher Platform
- Content creation workshop with 150 teachers held in Lonavala
- Team MITRA establish with 150 teachers from across 33 districts in Maharashtra
- First phase of MITRA integration with EkStep through APIs completed

Key Activities

Product

- User interviews and profiles
- UI & UX design of the MSCERT TE Portal
- Development of functional prototype by NIC
- Wireframes of MITRA android app and web portal
- UI & UX design of MITRA app and web portal
- Development of MITRA android app
- Development of MITRA web admin portal
- User testing of android app
- Level 1 integration with EkStep platform

Content

- Collection and Curation of content to be uploaded into the portal as teaching aids and self learning materials for teachers in video (mp4, avi), PDF and audio(mp3) formats
- Creation of content for teacher education and for classroom use (for students) through partner applications

Capacity Building

- Training of teachers and teacher-trainers in the use of partner application in the creation of content for teacher education and classroom use (for students)

Key Learnings

Dancing with the Stars

While working with some of the most innovative Zilla Parishad school teachers has been an amazing experience there is an important lesson to learn here. Let the innovators innovate, give them the space to express their ideas, provide inputs, feedback, constructive criticism etc. But expecting them all to work in a structured manner towards developing a singular product and supporting its outreach did not work out very well for us. Innovators will not all become early adopters. Working with the next tier of tech savvy teachers has proven to be more effective and has helped us create an outreach group called Team MITRA. These consist of teachers who are always looking at new innovations by the teacher innovators and choosing which ones they would like to adopt. In the terms of Rogers adoption curve we have found success working with early adopters.

Managing expectations

Generally we have found that managing expectations with high ranking government officials can be a difficult and frustrating experience. A prime example of this is the number of changes that were made to the original product brief. As every meeting we had with them would result in demands for changes and updates to the product/ content or launch deadline. The solution we have realised with experience is to be prepared with a quick prototype that can be released quickly and a timeline for additional features.

Understanding Identity

Identity has played a major role in a lot of the work that has gone into developing MITRA. While the State and District have their own identities, individuals in the system too are constantly working to build an identity around themselves. The goal has been to consolidate all the work that is being done by teachers in all districts under the identity of MITRA which is both a personal and State identity for teachers.

Reach

While, MITRA aims to serve all government school teachers in Maharashtra, at the outset of the project, the aim is to reach every district within the state. At the end of Year 0, both, content creation as well as consumption is seen across all districts the State



Partnerships

Collaborations and contributions that have made MITRA possible

Name of Partner	Nature of Partnership
Central Square Foundation	Funding Agency and Technical Support
Motivation For Excellence Foundation	Funding Agency and Technical Support
EkStep	Technology Partner
Softcorner	Development Partner

Partnerships at a glance

Central Square Foundation

Funding Agency and Technical Support

Provide technical expertise through knowledge consulting on the project management, technical inputs and building a larger vision for the project and the portal.

Provide financial assistance for the project in building the right team and personnel for the project.

Provide access to the larger pan-India network of projects and organizations in technology to learn from.

Motivation for excellence foundation

Funding Agency and Technical Support

Provide technical expertise through knowledge consulting on the project management, technical inputs and building a larger vision for the project and the portal

Provide financial assistance for the project in building the right team and personnel for the project

Provide access to the larger pan-India network of projects and organizations in technology to learn from

EkStep

Technology Partner

The Content creation drive is a vital component in setting up the MITRA portal. Through the creation of contextual local language content by the teachers a large digital content repository of interactive teaching learning will be set up through EkStep

Provide access to the EkStep's Portal to the Project team and content creators (tech savvy teachers)

Provide technical support to the Project team before, during and after each content workshop

Co-ordinate with the Product Manager to ensure UI/UX uniformity with MITRA Portal is maintained while integrating the EkStep platform to the MITRA Portal

Softcorner

Development Partner

Softcorner are the independent contractors developing the MITRA app and web portal.

Softcorner team works closely with Meghana to ensure the the product is both front end and backend are developed in a timely manner and are able to support the required number of users.

Softcorner developers work with the EkStep development team to integrate EkStep content into MITRA. In the future they will be working on integrating specific features from EkSteps platform into MITRA

Looking Ahead

MITRA was launched on 29th April 2017 by Education Minister Vinod Tawde.

Going forward MITRA will incorporate various elements from the National Teachers platform. Offline functionality, Social features, Assessments for teachers, Short Courses are some of the upcoming product features.

MITRA Yatra: The MITRA team will be conducting visits to 33 districts of Maharashtra to meet with teachers ,HMs, parents, students , district officials to understand their needs better and to discuss how technology can be used effectively in their specific contexts and get feedback on MITRA and its use.

More Content workshops are being planned with teachers to create and map content from grade 1 to 8 for Mathematics, Science, Marathi and English.

By the end of academic year 2017-18 we are aiming to reach out to more than 1 lakh teachers through MITRA