

Abstract: A large-scale initiative by the government of India to create "telecentres" in villages throughout the country created a need for training materials to support hundreds of thousands of future telecentre managers. The Mission 2007 Training Commons initiative was established to develop OERs to meet this need. Training Commons sought to use a collaborative, open content approach that draws on the expertise of existing trainers in order to develop curriculum materials that are free, accessible online, and easily adapted. The aim of this case study is to understand and document the practices, processes, successes, and challenges of the partnership and the content development, and to assess the overall impact on stakeholders—including the trainers who use the materials, the managers (or trainees) who participate in the telecentre trainings, and importantly, the external open content community, which can potentially benefit from the lessons learned.

I. Introduction

In early 2004, India's *National Alliance for Mission 2007: Every Village a Knowledge Centre* was formed to establish telecentres in each of the country's 600,000 villages by the year 2007. A telecentre is a community centre that offers shared access to information and communication technologies (ICTs) for the purpose of community development and poverty reduction. A telecentre serves its community in multiple capacities: as a business resource, a service center, an Internet center, a space for community meetings, a library, and a place for learning new skills—from word processing, to accounting, to farming techniques.

Also part of the National Alliance for Mission 2007 plan was that each of India's 600,000 telecentres would be run by managers trained in specific skill sets that would allow them to serve the diverse needs of the communities they support. Recognizing the dearth of trained individuals to manage the telecentres, and the paucity of resources to train them, the *Mission 2007 Training Commons*¹ initiative was established to develop resources that could support trainers in their efforts to train future telecentre managers. In doing so, Training Commons sought to use a collaborative, open content approach, that is, to draw on the expertise of existing trainers in order to develop a 'living curriculum,' meaning curriculum materials that were free, accessible online, and easily adapted in light of existing and future skill requirements that would be needed for telecentre workers.

By successfully building partnerships with training organizations in India, identifying authors (trainers) with expertise in specific content areas, and instilling a workflow process to facilitate their ability to collaboratively create materials, the Training Commons initiative has resulted in the development of four, freely available and open training modules.² The aim of the Training

¹ Training Commons is a project of telecentre.org, which supports telecentres and telecentre networks globally, and enhances their social and economic impact on local communities. Telecentre.org is an initiative of the International Development Research Centre (IDRC) and is supported by Swiss Development Cooperation, Microsoft, and IDRC. ² These modules are available online at: http://www.telecentre.org/uploads/tele-manuals.pdf



Commons case study is to understand and document the practices, processes, successes, and challenges of the partnership and the content development, and to assess the overall impact on stakeholders—including the trainers who use the materials, the managers (or trainees) who participate in the telecentre trainings, and importantly, the external open content community, which can potentially benefit from the lessons learned. The Training Commons case study is part of a larger initiative led by the Institute for the Study of Knowledge Management in Education (www.iskme.org), which involves case studies of six open educational resources (OER) projects with goal of increasing the understanding of issues that are common across them—such as engagement of online communities, volunteer recruitment, and licensing decisions—and to create synergies and knowledge sharing possibilities for field-building and leadership development.

II. Case Study Methodology

This study draws upon a participatory case study methodology similar to David Fetterman's empowerment model. Fetterman (2005) defines empowerment research as that which helps organizations and communities assess and improve their practices by instilling mechanisms that allow them to align their theory of action (what they think they should be doing) with their theory of use (what they are actually doing). That is, it is a model for research that helps organizations build the capacity to assess their practices and develop insights that can be fed back into those practices in light of project goals. This entails developing research and data collection tools collaboratively with the case study organization, which can be used to reinforce, test and modify internal knowledge. In such an approach, the external researcher's role becomes that of a critical friend and facilitator as opposed to a decision maker or expert purveyor of knowledge. As such, value and weight are placed more upon the insights and experiences of importance to the organizational members, as it is from their perspective that knowledge can be cultivated to inform practices and continuous improvement (Petrides & Loesch-Griffin, 2005).

Consistent with the participatory research model, the case study was an iterative and collaborative process. Three initial phone conversations between ISKME and the Training Commons management team were conducted to shed light on the project's past and current challenges and opportunities, and to move toward the creation of a case study research plan. Through this process, the research questions to be addressed by the case study were developed, and included: How the project created and sustained partner buy in to the project mission, how it supported partners during the content creation process, and how it ensured that the content was usable, adaptable in local training contexts.

In answering these questions, a researcher (from India)³, conducted document analyses as well as interviews with key project stakeholders. The analysis of internal project documents was first conducted as a way to understand the origins, impetus, and key contributions to the development of the Training Commons project. Interview protocols were developed by ISKME and the Training Commons researcher collaboratively. The Training Commons researcher wrote an early draft of the protocols and feedback was provided by ISKME, before the protocols were tested on one participant from each group of interviewees and finalized.

³ The researcher was associated with the project through engagement with the Mission 2007 network.

Twenty three interviews were conducted with key project stakeholders—including Training Commons project leaders, module authors, reviewers, trainers, and future trainees (telecentre managers)—to understand their involvement in the project, as well as their perceptions on the process of creating the telecentre modules, from the formation of the training commons partnership, to the peer production model used, to the use of the materials in local teaching and learning situations. Each of the interviews lasted approximately one hour. Due to the varied geographic regions of the interview participants, seventeen of the interviews were face-to-face, and the remainder occurred via telephone.

A key challenge in conducting the interviews was logistical coordination with the module authors, telecentre trainers, and telecentre managers. Because most of the interview participants lived in remote areas, communicating via email was a challenge. This meant that interview scheduling was a resource intensive process involving multiple communication channels, including email for some, but also telephone and interpersonal networking as a way to reach some of the more remotely located individuals. Establishing rapport with the interview participants turned out to be challenging, as several of the participants expressed skepticism toward the Training Commons researcher, in part due to differences in language or dialect, but also rooted in their need to understand the purpose of the research and the interviews before they comfortably answered the researcher's questions. This challenge was mitigated by enlisting the help of translators as well as individuals who were known and accepted by the participants, who were then able to explain the purpose of the interview, and to build the rapport necessary to enlist their participation.

Analysis of the interview data revealed several findings that shed light on the case study's aim to understand the practices, processes, successes and challenges of the Training Commons initiative. These findings are outlined below and center on creating and sustaining the partnership, building curriculum collaboratively, and user testing and feedback.

III. Findings

Creating and Sustaining the Partnership

In October 2005, a workshop was convened in Chennai, India to introduce the purpose of the Training Commons project and to create a plan for the project's curriculum design. Trainers from 16 organizations that had been involved in establishing telecentres and training telecentre managers were invited to attend. All of the trainers had prior experience with training and expertise in specific training areas. All had also expressed an interest in sharing their knowledge and learnings from their training experience with others. At the workshop, the invited trainers shared training models, identified training gaps, and developed a tentative vision for the development of a Training Commons program. They also created an implementation plan to guide the development of the Training Commons project.

In February 2006, a second workshop was held in Agra, India to define the vision for Training Commons and facilitate a stronger partnership among the trainers of the 16 participating organizations around that vision. The vision as expressed was to collaboratively develop a freely available, common curriculum that drew on the expertise of expert trainers and their organizations, and that could be used and adapted in multiple telecentre training contexts. Once the vision was established, the workshop participants finalized the training areas to focus on for the content creation. These included entrepreneurship, grassroots marketing, grassroots communication, community building, and infomediary skills.

In attempting to maintain interest and continued buy in around the project vision, Training Commons project leaders emphasized the longer-term value of sharing across telecentre networks using the "I give one, I get three" concept. That is, one organization produces one module but receives three in return. Although this messaging served to create interest and buy in early on in the project, Training Commons also began to encounter some hesitation from the participants' seniorlevel decision makers who were concerned about "giving away" their years of experience and expertise in the form of open content training materials. This concern was acute among leaders who were operating telecentres as franchises, which earned revenue for parent organizations.

After the two workshops, only three of the 16 original organizations joined the project. One organization joined the project at a later stage. Beyond some hesitancy on behalf of a few of the organizations around sharing their proprietary knowledge, this in part stemmed from the approach taken by the Training Commons team in forming the partnerships in the context of India's organizational structure, which is predominantly hierarchical. That is, by inviting the trainers to the Chennai and Agra workshops, the senior-level decision makers at several training organizations had been overlooked. The Training Commons project leaders learned that—in light of the predominantly hierarchical organizational structure that is prevalent in India—first sharing the project vision with senior-level decision makers of the potential partner organizations would have likely facilitated their continued engagement in the project. Once their participation was secured, the senior-level decision makers would then, ideally, have been asked to identify training personnel who could be invited to the workshops. In short, because the partnerships were formed through the trainers first, the Training Commons project leaders confronted difficulties in consolidating partnerships with the identified organizations and several of the organizations lost interest.

Furthermore, inconsistent communication also played a role in the reduction in the number of partners. Ongoing and consistent communication surfaced as a challenge for the Training Commons project leaders, primarily due to limited resources (e.g., time, human capital, and capacity), staff turnover within the Training Commons team, and variations on behalf of the training organizations and trainers with regard to communication technologies. The Training Commons project leaders indicated that in hindsight, the resources, capability and expectations for communication among the partner organizations and the Training Commons initiative should have been established early on in the project to build agreement about how to move forward.

Curriculum Development Process

The project formed core teams around each of the training areas, which were reduced from five to four to match the expertise of the four participating organizations. The four content areas of focus included entrepreneurship, grassroots communication, grassroots marketing, and infomediary skills (community building was thus dropped). Each organization took the lead in one of the training areas, and contractual agreements were established with the trainers in each of the organizations. These trainers became 'module authors,' who were paid for their time and worked on the curriculum in addition to their full-time jobs. Because the module authors had been involved with Training Commons since its inception, they were uniquely familiar with the needs of the project.

Several challenges lay before the new module authors. To begin with, the newly formed team did not have formal curriculum or prior guidelines from which to refer, except from their experiences in telecentres and the instructional materials that they previously used for trainings. However, many of these materials were identified as difficult to adapt and use in varied training contexts.

Furthermore, the target audience for the modules—rural telecentre managers—embodied a wide range of educational backgrounds and skill sets, from functional literacy to master's degrees. Additionally, the telecentre models differed widely from each other with regard to their objectives and services rendered to the community. Thus, the diversity of the individuals being trained and the telecentres that they would work was viewed as an initial challenge to creating content that could be used and adapted.

The authors had a maximum of four months to research, design, test and implement the curriculum. In the early planning of the curriculum development work, the idea was to create an online platform where the module authors could contribute, share, modify and refine the content. As the module authors began to work together, the Training Commons project leaders decided to drop their plan for an online participatory platform, in part because the module authors were not accustomed to collaborating online. The Training Commons project leaders recognized that they had to use a work-centered approach—a process that was familiar and comfortable to the module authors—to efficiently proceed, given the time limitation of four months. The project leaders placed more emphasis on individual authorship, face-to-face interactions, and email communication as a way of directing workflow. The project leaders indicated, however, that given more time, the project may have been able to train the module authors to work with an online content creation platform.

The content creation process itself was iterative and involved several rounds of editing. The module authors drew heavily on one another and reviewed each other's modules; experts were subsequently invited to review each module in detail. And although the module authors had the flexibility to design the modules' structure and content, they soon concluded that they needed to develop a template to provide a uniform look and feel to the curriculum. Once the curriculum was completed as a draft, it was peer reviewed by experts at a workshop, field tested by trainers across India (see section below), and refined by a graphic design consultant before being launched under a Creative Commons license in the public domain.

User Testing and Feedback

Beginning January 2007, Training Commons tested the infomediary skills module with trainers across three geographic locations in India to assess the relevance and usefulness of the draft content. The user testing revealed a need for more case studies of successful telecentre operations; more examples of grassroots experiences from telecentre operations; explanations of basic theoretical concepts such as the definition of infomediary skills; a local language translation; audio-visual aids; and video clippings of prior trainings or life experiences.

Alongside these needs, the field testing revealed that most telecentre managers were not able to use the materials on their own as a mechanism for self training. The managers indicated that the language used in the curriculum was too technical. When the module authors designed the curriculum, they designed it for the telecentre managers and to reflect the varying telecentre business models. What the authors and Training Commons project leaders learned, however, during the pilot-testing of the modules, was that the completed draft curriculum was more practical for the trainers' use, rather than the telecentre managers' everyday needs and work practices. The authors and Training Commons project leaders thus learned that they had not adequately defined, understood, and incorporated their 'users' into the curriculum.

Later feedback about these workshops revealed that although the curriculum needed modification, the information appeared to have an impact on the daily operations of telecentres. Telecentre managers indicated an appreciation for the delivery methods for training: role-plays, interactive techniques, and PowerPoint presentations. Through these methods, the trainers made the terms and concepts of the modules more accessible to the average telecentre manager, many of whom had felt that the modules had an overload of information. Furthermore, one manager indicated that because of the marketing training received, he was able to enlist prospective students in his telecentre's computer course. This increased enrollment at the telecentre enhanced the potential for turning the centre into a profitable enterprise.

V. Discussion and Conclusions

Training Commons is an example of an OER project that began with a vision to collaboratively create freely available curriculum materials, and transformed that vision into reality by continuously adapting to the needs of the project participants and to the end users of the content being created. It moved from a plan to involve 16 partners in a collaborative online content creation process to the establishment of a more intimate partnership consisting of four organizations and their trainers who worked primarily face-to-face and via email, and who drew heavily on one another's expertise and input. Along the way, several learnings surfaced that can be drawn upon by other, future OER projects.

First, the Training Commons project has revealed that cultural context plays an integral role in how open content partnerships and buy-in are secured and maintained. For Training Commons, this meant paying heed to the hierarchical organizational structure in India when securing partnerships. For other projects, this indicates the need to take the temperature of the needs, structures, and tacit assumptions prevalent in the organizations or groups with whom partnerships are being built, and where buy-in needs to occur. Furthermore, once partnerships are established, consistent messaging around the goals and expectations for the project is likewise central. In the case of Training Commons, although the "give one get three" message facilitated partner interest and engagement in the project, continued communication around the concept of open and work plan was needed in order to maintain goodwill and participation by the broader members—namely the all of the original 16.

In terms of peer production, the case study revealed the importance of creating a workflow and workflow supports that are aligned to the everyday work practices, preferences and communication channels of the participating author community. For Training Commons this meant changing its plan for an online content creation platform in favor of a predominantly face-to-face and email-based process that supported the natural workflow of the module authors.

Finally, the case study revealed that incorporating feedback from users early on, in the draft stages of content creation effort helps to facilitate localization of content and differentiation of content among key types of users. This process should also ideally entail defining the end users up front—for as with Training Commons, the modules, once created, were too complex for one of the intended audience groups—that is, the managers.

In conclusion, if the development of open content is to result in content that is adaptable and draws on the expertise of multiple partners and individuals, then working both top down and bottom up from the perspective of all stakeholders is vital—and not just at a superficial level, but in actually sharing and improving materials. As one of the Training Commons project leaders succinctly concluded, "the participatory method is all about involvement, not just getting the feedback."

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