Digital Green: Participatory Video for Agricultural Extension

Brief description

Digital Green is a research project that seeks to disseminate locally, relevant agricultural information to small and marginal farmers in India through mediated digital video that sustains relevancy in a community by developing a framework for participatory learning.

Vision, Objectives and Goals

Digital Green has demonstrated early success in the popularization of sustainable farming practices in the 12 villages in which the system is currently deployed. Over 1,000 farmers are continually involved in the content production and dissemination aspects of the system. At least 5 times more farmers have attempted better agricultural practices after integration of the Digital Green system over the NGO's previous efforts. Today, Digital Green is still a young research project, as we continue to work on rigorous evaluations and seek to understand many outstanding questions. Digital Green aims to scale its system to offer relevant agricultural extension services to a much wider population of farmers. We hope to eventually scale up the system to cover a far greater number of villages and farmers, contributing toward the Millennium Development Goals of sustainable agriculture productivity and food and nutrition security.

The following phases of deployment are designed to achieve these objectives:

Phase 1 (September 2006 – present): Rigorously validate our approach in 12 villages of rural Karnataka. These studies will compare the impact of 3 forms of agricultural extension: (1) regular, field-based visits by extension staff, (2) staff visits in combination with generic video programs, and (3) staff visits in combination with personalized, locally-produced video programs. This evaluation will allow us to converge on a Digital Green system that can be replicated and scaled in a cost-realistic manner.

Phase 2 (January 2008 - August 2008): Extend the Digital Green system to 50 villages and use the other 50 villages belonging to the GREEN Foundation’s target area for control-based validation. Partner with other extension programs, including government and NGOs, to disseminate sustainable agricultural practices to small and marginal farmers in 50 additional villages in varying agricultural, socioeconomic environments.

Phase 3 (September 2008 – August 2009): As our content repository increases in size, we will need to find innovative ways to store and retrieve relevant information for the farming community. We aim to assemble a database of all sustainable agricultural practices for all farmers in all languages. After conclusively validating the Digital Green system, we plan to encourage public and private partners to follow the same. We seek to empower both institutions, including government agriculture departments and NGOs, as well as individuals, especially farmers, to participate in the process of improving the agricultural conditions of rural India.

How does ICT contribute to the organisational objectives

The Digital Green system includes a digital video database, which is produced by farmers and experts. The content within this repository is of various types, and sequencing enables farmers to progressively become better farmers. Content is produced and distributed over a hub and spokes-based architecture in which farmers are motivated and trained by the recorded experiences of local peers and extension staff. In contrast to traditional extension systems, we follow two important principles: (1) cost realism, essential if we are to scale the system up to a significant number of villages and farmers; and (2) building systems that solve end-to-end agricultural issues with interactivity that develops relationships between people and content.

The Digital Green system provides structure to a traditional, informally-trained vocation. The system improves the efficiency of extension programs by delivering targeted content to a wider audience and enabling farmers to better manage their farming operations with reduced field support.

The features of the Digital Green system include:

- Digital video database for farmers by farmers
- Participatory process for content production
- Dissemination structure for informal training
- Sequence for initiating new communities
- Diffusion strategy to generate sustained involvement
- Network of hubs and spokes for scalable content production and peer-learning
Transferability

The Digital Green system is designed for flexible integration into the operations of an existing public, private, or civil society organization of any size that is involved in agricultural development. The two main aspects of the Digital Green system are (1) content production and (2) content distribution. The core competencies of an organization may differ, but each can contribute its individual expertise. A small group involved in preserving indigenous knowledge of agricultural practices could capture such content just as easily as a government horticulture department. Both of these organizations might focus on producing content for a particular set of topics in a specific region, but the Digital Green platform would allow content to be shared across organizational and geographical boundaries. In addition, experts across the world could provide suggestions and/or storyboard outlines for new content to be produced, while counterparts with operations at the grassroots-level would localize the information in the form of relevant videos.

A partner organization’s resources may limit its participation to content production; however, those that have a field presence can also be involved in content distribution. The use of local mediators at the village-level allows partners to establish strong linkages with communities even if they are constrained by human and financial resources. From a small nongovernmental organization to a government department of agriculture, all organizations involved in agricultural extension face the challenges of reaching a large, scattered population of farmers. A community-based organization can use the Digital Green system to share content through the “virtual” experts showcased by mediators. A contingent of extension officers is required for managing the mediators and providing feedback support, but the organization may have little expertise in the knowledge being transferred. The Digital Green platform allows both content producers and consumers to interact and share the information that can most readily be applied by farmers.

Project summary

Digital Green provides structure to a traditional, informally-trained vocation. The system improves the efficiency of extension programs by delivering targeted content to a wider audience and enabling farmers to better manage their farming operations with reduced field support.

Launched in September 2006 by Microsoft Research India’s Technology for Emerging Markets team, a live deployment of a prototype is currently in development with the GREEN Foundation and the Government of Karnataka’s Department of Animal Husbandry and Veterinary Sciences in villages near the Karnataka and Tamil Nadu-state borders in India.

We are actively compiling a repository of videos that includes testimonials of progressive farmers, field demonstrations led by agriscientists, interactions amongst farmers, and market-based opportunities. The library currently contains over 150 locally-produced videos in the Kannada language. These recordings are minimally-edited prior to screenings, which are shown to individuals on laptops, small groups using shared TV and DVD players, and communities through the village cable network. Unlike attempts to use traditional mass media to broadcast agricultural information, Digital Green is local and relevant. Expert and social modes of learning are intertwined to motivate and build the capacities of farmers through the recorded experiences of familiar peers and extension staff. Farmers are motivated to adopt a new practice when they see a fellow villager, living in similar circumstances, experience its benefits.