

CASE VIEW ON

DIGITAL GREEN: DEMOCRATIZING BEST PRACTICES BY DIGITIZING

Interview
with
Rikin Gandhi

Rikin Gandhi,
Chief Executive Officer, Digital Green



digitalGREEN

Rikin Gandhi (Gandhi) is Chief Executive Officer of Digital Green. Gandhi's interests include sustainable agriculture and technology for socio-economic development. He Co-founded Digital Green as a research project in Microsoft Research India's Technology for Emerging Markets team and now leads the spin-off of Digital Green that works to amplify the effectiveness of agricultural development globally.

Interviewed
by
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- 1. What were the initial triggers/cues for you to have taken the social path? Was it a manifestation of an innate desire to make a meaningful difference to improve the livelihoods of Indian farmers or was it a response to any impactful incident?**

Growing up, I had been inspired by astronauts who brought together their brains and brawn to do the seemingly impossible of going to space and placing their footsteps on the Moon. As I read the biographies of these astronauts, I found that many would see the Earth from above and wonder why there was war and poverty in our unique planet in the cosmos. Around the same that I was applying to join the US Air Force, I had a college friend who was starting a biodiesel venture in Maharashtra.

That's when I landed in rural India. This is where the men and women do the hard work to give India the second highest farm output in the world. That's where I came across a different sort of hero, the farmer. In fact, farmers have shown me that our connection to the earth and to one another is both a source of strength and fragility. Farmers may be the largest community of small business men and business women, but they also face some of the greatest uncertainties – from weather to markets to government policies. But having dealt with such vagaries from one day to the next and from generation to generation, farmers are also among the most resilient individuals in the world.

- 2. Why this model of making a difference to rural and largely subsistence farmers? What were the insights that could have been the basis for inputs into your model?**

In 2003, the Government of India sponsored a National Sample Survey to understand the sources of information that the farmers were relying upon for new technology and farm practices. They discovered that the formal channels of extension – including, the “Training and Visit” – style extension and the government's broadcast media programs – were reaching a small proportion of farm households. Instead, they found that farmers primarily relied on the informal channels of information diffusion that existed by ‘word of mouth’ in their own village communities. In this context, we sought to understand how we could improve the speed and effectiveness of agricultural extension at a reasonable cost. Unlike some systems that expect technology alone to deliver useful knowledge to marginal farmers, Digital Green works with existing, people-based extension systems and aims to amplify their effectiveness. We began with the premise that digital video is a technology that can be taken to the last-mile and provide significant resource-savings – particularly, since the hardware has become so affordable. A one-to-one demonstration between an extension officer and a farmer could now be digitally captured and shown to many farmers who could easily relate to a visual media. I spent over 200 days in the field working with a grassroots-level NGO, called GREEN Foundation, which follows the classic ‘Training &

Visit'-based approach for agricultural extension. Through iterative design, we experimented with various parameters of a digital video-based extension model. For example, we considered the background of the 'actors' featured in the videos. On one hand, an agricultural expert can present highly-quality content. But on the other, we found that farmers were not receptive to being 'lectured' to by outsiders of a very different socio-economic demographic. Instead, they preferred to watch a fellow farmer share his or her experiences in a manner similar to the informal social networks that they were used to interacting with. On distributing these videos, we initially experimented with setting up a TV in front of a public square next to a stack of DVDs that farmers could choose to access as they pleased. Though there was an initial novelty, the community quickly became disinterested as they couldn't understand its purpose. We found that they needed a human mediator who could use the 'virtual' on-screen demonstrations to engage farmers in a sustained learning and adoption process.

3. What are the success factors – the power of idea itself, the team, the technology, stakeholder approach, etc., – that could have contributed to the meteoric growth and an exemplary acceptance of Digital Green's innovative business model?

Though we are focused on scaling the system within the operational areas of our core field partners, we also provide limited support for others to begin extending the Digital Green model on their own in developing countries around the world. The objectives of replication include:

- a. additional feedback on the viability of replication
- b. a practical understanding in the requirements for supporting other organizations that adopt the model
- c. the opportunity to test the model in different geographical regions with different lead organizations
- d. more data for evaluating a diversity of cost structures and their effectiveness
- e. scaling the Digital Green model to farmers more broadly, faster, and without pushing the beyond the boundaries the capacities of the organization that we're in the process of starting up

These organizations would be independent franchisees of the Digital Green model and would develop networks of partners to extend the system that they would operate on their own.

This approach for scaling Digital Green is similar to that of Grameen Bank's model for microfinance, founded by Muhammad Yunus, which has spread across the developing world even though neither Grameen Bank nor Yunus were involved in the vast majority of these programs. For example, Video Volunteers (<http://www.videovolunteers.org/>) and Communication for Change (<http://www.c4c.org/>) are two candidate organizations that seem suited, organizationally, to be franchisees. We have also developed – streamlined, replicable modules for the system's core intervention and implementation components. These modules are formulated into training documentation that are used to replicate Digital Green by our core partners as well as for franchisees. This documentation includes aspects that capture both the technology and social organization aspects of the model. For example, we provide franchisees with materials for training grassroots-level partners on the process of participatory video production. We also provide franchisees with documentation on our gender strategy, monitoring and evaluation framework, and administrative operations. As franchisees extend the Digital Green model on their own, we provide guidance on a case-by-case basis. In particular, we help franchisees select cost-appropriate technologies, such as video cameras and pico projectors, to ensure that the content is of an acceptable level of quality. Franchisees are also provided the software tools and processes to maintain adequate systems for capturing data from the field and accessing the Digital Green video repository. Digital Green's software platform also allows franchisees and core partners to share content and experiences.

- 4. What were the challenges that tested yours and your team's conviction in taking forward an innovative project such as Digital Green which is aimed at bringing in sustained social change? Was there any challenging the key constituent and beneficiary of your initiative, the rural farmers? What has been approach to convincing them to partner with you?**

We like to say that our approach is 80% social organization and 20% technology. The technology of video cameras and Pico projectors serves as focal point to bring communities, like women self-help groups, together. We're essentially using technology to build upon the informal social networks that farmers use to exchange practices with one another. The videos are by the community, for the community as viewers often are interested in authenticating the relevance of the content by asking "what is the name of the farmer in the video?" and "which village is s/he from?" The role of the facilitator who screens the videos in a community is also critical as s/he pauses, rewinds, etc., the video to stimulate discussion, ask questions, and garner feedback from the community in this interactive forum. At the same time, the videos do help structure the content in a consistent manner,

ensure that the information is communicated in an accurate manner, and does serve as a training tool – both for the farming community as well as the facilitators.

5. One of the key constituents of Digital Green is partnering firms. What is the criteria based on which the partnering firms (public and private organizations) are chosen? What is the role of partnering organizations in fostering the growth of Digital Green?

Our main challenge is to identify organizations that are already working with communities that we can work with. We primarily look for partners with three main attributes:

- a. locally relevant agricultural and related livelihood expertise
- b. scale of existing operations
- c. trusted networks and rapport amongst the community

If this foundation is in place, we have been impressed by how quickly the community is able to pick up skills like video production and dissemination to operationalize the Digital Green system by themselves.

6. Digital Green is leveraging its platform to expand into other areas such as nutrition, health, etc., other than agricultural sector in the developing countries. What is the success rate of such initiatives? What is the intended synergy building architecture and potential of these diversifications? How would they be enabling the core purpose of Digital Green as well the core and target audience of Digital Green?

As our work has expanded, organizations have shown an interest in leveraging our platform to support integrated rural development programs covering domains like public health and nutrition. These extensions also provide us an opportunity to refine the Digital Green system itself. A recent study on the additional cost incurred in layering our approach over existing government health extension systems in the Indian State of Odisha reveals that training and extension services under the Digital Green approach are cheaper than the costs incurred by government on traditional health messaging through frontline health workers. The health videos are viewed as one of the key sources of information within the target population on MIYCN practices. Frontline health workers trained on imparting video messages reportedly perceive this approach as strengthening their outreach and dissemination efforts. While we measure the impact of the agricultural intervention in terms of knowledge retention and actual uptake of practices by the community, within health and nutrition, given behavior change is a gradual process and not all recommended behaviors can be verified, knowledge retention of the key points of a practice is considered as a measure of success.

While diversifying into new domains and geographies, we try to identify the components of our approach that are essential to reproduce the program's expected outcomes in new locations and by different organizations. We also modularize aspects of the approach to facilitate training and phased integration into the operations of our partners. The idea is to identify components that are adaptable, while preserving or enhancing the overall core effectiveness of the program. For example, some components can be customized by our partners to meet the unique needs of their existing operations and target communities.

We have chosen to design an adaptive and replicable system because we believe that the system is most likely to be adopted by other organizations when the impact is measurable and observable. Our mission is to use our approach/platform to cater to and integrate diverse initiatives across the rural development spectrum for improved wellbeing of rural communities.

7. As Digital Green spun off as a non-profit organization, it is yet to evolve a sustainable business model. What do you think would be the socially relevant business model for Digital Green?

Digital Green functions as a 'trainer of trainers'. That is, Digital Green seeds financial and training investments to institutionalize the technology and social organization aspects of the model and will work with partners for on-going monitoring and support. Since we began developing Digital Green in September 2006, we are now at various stages of expanding the system with our partners. Digital Green does not plan to form a parallel organization to the existing extension systems of governments, NGOs, etc. Rather, the tools and training provided by Digital Green are integrated within our partner extension systems. Though Digital Green sometimes provides initial contributions to the process of adapting and incorporating the system, our business plans detail how ownership is completely transferred to partners over the course of time. A primary criterion for selecting a partner is the strength of its existing extension system (funded through various public and private sources). The success of the Digital Green system depends on resources, such as field extension officers, which will be borne entirely by our partners. Our partnership agreements describe how recurring costs are shared among Digital Green, its government and NGO partners, and local farming communities and how Digital Green's percentage of contribution reduces over the course of time, but philanthropy may still be required to support certain operating expenditures such as the honorariums for village mediators (or community service providers). In addition, Digital Green will have developed its own institutional capacities over six years of operations. We are raising additional capital to scale out the system even further within the operations of our current set of partners and others as well.

Digital Green is also establishing a framework for engaging new partners that will include components of field workshops and capacity-building exercises to integrate the system into partner operations at national-, state-, district-, block- and village-levels. Partners are selected to maximize existing infrastructure and processes to avoid the creation of a parallel institution. As pilots gain traction, agreements with partners have time-based and event-based conditions to transfer a greater portion of ownership to stakeholders.

8. Since most of your initiatives are to do with local communities' best practices what is the scope of exporting these best practices to other regions? Wouldn't they become impediments?

At the outset of any intervention, we collaborate with our implementing partners to map out the requirements and needs of the community, which then informs the content and messaging of the videos that are produced. Practices that are not relevant to the immediate needs do not figure in the intervention. Also, since the content at the heart of our intervention is highly localized, replication of any best practice would entail that it be tweaked to the immediate local context to be rendered usable by the target audience. For instance, while non-pesticidal management practices such as creating liquid manure fertilizer or neem-based natural insecticide have been adopted across states, attention has been paid to the socio-cultural nuances of the setting while promoting these practices through videos.

9. What it takes to achieve the goal of reaching out to 1 million farmers and 10000 villages in next couple of years? What are the skills and capabilities required to scale up Digital Green's business model to reach out to 10000 villages by 2018?

To reach 1 million farmers across 10,000 villages, continued collaboration with strategic partners is critical, partners who operate at scale and have deeply embedded systems within communities. We plan to have at least one community knowledge worker in place per village across the 10,000 villages to drive our approach. We will also amp up our 'trainer of trainers' role to design a learning and accreditation platform for these knowledge workers built around videos.