Digitalization in Agriculture – Developing Bottom-up Perspectives

A workshop on 21st and 22nd November in New Delhi involving farmers' leaders and thinkers in this area

Digitalization matured first in fully virtual areas of information search (Google) and media (Facebook, Twitter), and then, later, it came to 'physical' sectors, beginning with transportation (Uber) and commerce (Amazon). Somewhat in the background, and less spectacularly, party because of the highly regulated nature of the sectors, Digitalization has also been making deep inroads in health (fitness apps and wearables) and education (Byju's and Google Classroom). Agriculture is another sector, very important for livelihoods and the economy, and considerably regulated as well, where a lot of work has been going on. This is happening in many different parts of the value chain, from input services to output management and sales, to agriculture credit and insurance. India is home to more than 1000 AgriTech start-ups. Many states, apart from the central government, have initiatives in this area.

Public entities have traditionally led agriculture extension services, including providing advisories on various aspects of farming. Although informal private services from the agri-inputs industry always played a big part. Larger, and more formalized initiatives, like ITC's e-Choupal, and many non-profit or social enterprises, have also been around for a long time. Agriculture markets remain considerably regulated, though with significant variations across states. This issue was a major bone of contention during the recent farmers' agitation. The government meanwhile has the objective of doubling farmers income, though the target date has been moving.

It is in this context that the formidable forces of digitalization have stepped into agriculture. In general, such is the efficiency and productivity of appropriately-applied digitalization that it is not prudent to simply ignore or resist it. However, such resistance is often the initial attitude of many farmers and farmer leaders. This is owing largely to the dominant manner of fully corporate digitalization. While, as mentioned, currently there are more than 1000 agri tech companies, digitalization generally works towards platformization of every sector. One or two platforms eventually control and orchestrate the whole sector, its actors and activities. (Like Uber/ Ola and Amazon/Flipkart do in their respective sectors, and the consolidation will only grow.) A similar fate awaits agriculture unless some countervailing measures are taken. If platformization of transport and e-commerce is being seen to cause so much misery among drivers and traders, it will be much worse with farmers who are an even weaker party. Farmers are especially faced with huge information asymmetry and very little flexibility about the nature, quantity, and time of their production, or about shifting to other occupations within their rural settings.

The government of India is developing some sort of a digital platform, or a set of protocols as it likes to call them, called IDEA (India Digital Ecosystem for Agriculture). The effort is to network farmers with agri-businesses, including agri-tech, and with other actors, also from the public sector. Since data is a key part of any digital activity, IDEA will have its own data exchanges. However, data related rights and obligations in regard to these exchanges are not clear – especially any kind of collective rights to aggregate data. Government also plans to bring its online marketplace, ONDC (Online Network for Digital Commerce) to agriculture, connecting it to the IDEA platform. These are huge developments that can change the face of Indian agriculture. But much of this far-reaching socio-economic work has been undertaken in the garb of technical activities, when they are obviously much more than that. Because of their purported technical nature, all such activities of the government have mostly taken place without consultation with farmers groups, or even agriculture experts. The advisory teams in these regards mostly consist of some techies, agri-tech companies, and large corporations, who all are supposed to have the required 'technical' knowledge.

While lakhs of farmers are already connecting to Agri-Tech in some form or the other, holistic and long-term understanding about what digitalization means for the agriculture sector and the future of farmers is still missing among farmers' groups and leaders. By default, the reaction often is to oppose AgriTech as basically corporatization, which in its current form. no doubt, it largely is. But the appropriate response may not be to oppose digitalization as such, which is a mighty and potentially useful force, but to come up with alternative forms of appropriate digitalization. Digitalization can indeed be farmer-centric and benefit the farmers most. But realistic conceptions of what such digitalization would look like, especially at scale, do not yet exist – although some thinking has begun about it in some quarters.

Lately, the agriculture ministry has realized the need for a policy for digitalization in agriculture, and one is evidently being developed currently. It is likely to be soon put out for consultation. Some of the organizers of this meeting have had the opportunity to meet the agriculture secretary and other senior officials of the ministry to share ideas about the proposed policy. However, we think that a greater understanding of the issues and policy requirements among farmers' groups and leaders is needed for them to effectively input into the policy process.

We propose to get together farmer groups with some thinkers and practitioners in the area of digitalization in agriculture for a two-day workshop in New Delhi on the 21st and 22nd of November, 2022. Since the subject is new, we want to give enough relaxed time to farmers' groups to absorb new knowledge, deliberate on its implications, and possibly come up with ideas and recommendations on what they can do in this area.