



Respondent: Matt Capelli

Q: What's the difference between Digitalization and Digitization?

A: There is no difference from my perspective. In general, these terms refer to taking different parts of your operations that are manual work or rely on pen and paper, and then using technology to make the data you collect digital, reduce the work you have to do for certain tasks (e.g. reporting), or to increase the insights you pull from the data you collect. Both terms broadly encompass everything from field data collection to traceability, reporting, back office integrations, and analytics.

Q: How can agribusinesses handle partnerships with Tech Companies in the light of maintaining their business IPs?

A: *Note that I am not a lawyer and this is not legal advice, but I can provide some guidance on what I personally like to have in place and would recommend. Please make sure you seek legal counsel in the country you operate within to verify this guidance.*

IP is something that is really tricky to navigate within the technology space. In terms of protecting the IP of your business, first and foremost make sure that you have the correct legal documentation in place before providing other companies with insight into sensitive details on your operations. At a minimum, it's usually best practice to have a non-disclosure agreement in place before sharing details on your business or providing access to any of your data - this will make sure your IP is protected, and is especially important in the technology space where technology providers may be working with your direct competitors. The second component - IP ownership of the technology solutions you implement or develop with other companies - is much more tricky. In general, if you are licensing a product, you are not the owner of the technology IP. For technology projects that are pure custom development (brand new development of technology specifically for your company), you usually are the owner of the technology IP if you are paying for the full cost of development. This falls under what is known as a Work for Hire, which essentially means the technology provider who is developing the solution for you must hand over all IP to you that is developed. Where things get really tricky is when a technology provider is doing custom development for you on an existing solution you are licensing from them. In these cases, it's very difficult to know who owns the IP because new / custom work is mixed in with legacy platforms which were developed before your project. In these cases, you should make sure there is clear and written documentation on IP ownership and how you will be charged for subscriptions and licensing of the custom development work moving forward. Although I am not a lawyer, this question comes up a lot and is very difficult to navigate. Please do reach out if you have any questions and want some insights into things to look out for when navigating IP and ownership in the technology space.



Q: Would the process of understanding and implementing these (3) steps (slide 17) be offered to a cohort of companies with similar business models or it would have to be offered on a 1:1 basis?

A: The good thing about these three steps and underlying principles is that they apply to any business in any market. If working with a cohort of companies, the best bet would be to cover the concepts at a high level, then dive into steps 1 and 2 for each individual company. This is something that, with the right guidance and remote support, companies should be able to work on themselves and develop over time as they work toward a pivot and / or navigate the new normal of the global changes we are seeing.

Q: How to calculate the ROI given that a lot of the return is qualitative?

A: The simplest and most common place to start when calculating an ROI is to review how much time that you think technology can save your staff. In most cases, implementing technology will make your operations more efficient - for example, automatically creating reports that you would have otherwise needed to manually compile and calculate. Although this can feel a little bit qualitative, in almost all cases we can put a number on the time certain tasks might take.

Let's say, for example, that a daily report takes each of your 5 field officers 2 hours to complete per day. We can calculate the total time as:

- 5 field officers x 2 hours per day x 5 days per week = 50 hours
- 50 hours x 52 weeks per year = 2,600 hours per year to compile daily reports

Calculate the approximate hourly rate of your field officers and you have a great starting point for a Return on Investment and the value of the time savings.

How does this value from above compare to the cost of the technology? What would be the total financial savings if digital data collection could reduce the time to compile the report to 1 hour per day and save 1,300 hours per year? What if this report was completely automated and all the field officer needed to do was review and approve the report in less than a minute?

Using time savings as a foundation, you can expand your ROI calculations to include the value of what can be done within the time that is saved. For example, if you freed up 2,600 hours per year for your field teams, how many more smallholders could they reach? Could you expand to a new region? What would be the value of the revenue and profit you'd expect from expanding to an additional region?

It can take some time to think through ROI calculations, but remember that time is money, and both time and money are quantitative. As long as you bring everything back to these two things, we can always get a pretty good idea for an ROI.

Respondent: Alex Fokkens, Shares Uganda



Q: How does your software provide traceability and transparency?

A: The current software is for registration purposes (to eliminate hardcopy registration). All farmers get during registration a code /serial number. Later on during marketing farmers deliver against their name/code. Sacks are coded as well and traceability records are kept which farmer supplied to which sack. So at store level we have full traceability but records at store level are not yet digitalized as we started recently with just digitalization on registration level.

Transparency; Registration includes GPS coordinates hence field can be tracked. Audits on correctness of full registration data gathered are done internally (by own staff) and by external inspectors for organic certification.

Respondent: Freddie Tsoro, Rungwe Avocado

Q: Is e-kulima app free of charge, does it limit the number of farmers inspected in a specific period of time? How is e-kulima affected by connectivity in rural remote areas?

A: There is training, equipment and startup costs. Then annual service costs. Just ordinary network is sufficient but where large data bundle is needed then Ext Officer will upload each time he visits office on Wifi.

Q: Does your organisation provide farmers with the communication equipment?

A: No. Our Extension Officers are the ones with mobile phones to which all digitization platforms are loaded.

Respondent: Rob Fuller, AgDevCo SDU

Q: How do we adjust tech with literacy of small holders?

A: Technology does not necessarily have to be used directly by smallholder farmers. In most of the technology projects we (in AgDevCo) have been involved in, it's the company's field officers or other staff who are the ones actually interfacing with the technology. But several of our partners are also using technology to interact directly with farmers in ways that do not require literacy: for example, using farmer training videos on mobile devices or by developing a graphics-based game for farmers to test themselves on knowledge of agricultural practices.

Q: Do we have simple interactive tools to integrate smallholders in the value chain



A: Yes, there are many simple tools available - but, as always, which tool is appropriate tool depends on what you want to achieve. Start by setting out your requirements <https://www.simplicatedatools.com/guides/technology-at-agribusinesses-developing-requirements/overview-and-introduction> , and that will create a great basis for assessing what sort of approach you should be looking for.

If you are looking for ways to interact directly with smallholder farmers, then there's a lot of potential for using USSD, SMS, or voice-based menu systems for interacting with those who own even basic mobile phones. Have a look at Arifu <https://arifu.com/> or Wefarm <https://wefarm.co/> for some ideas of what is possible.

Q: How do you increase loyalty with farmers who have other options using tech?

A: The best way to secure farmer loyalty is probably to provide the best service to them you can, through provision of inputs, training and advice, good logistics for buying their crops, and so on. Technology can certainly help you to make your operations more efficient and scalable, so as to serve farmers better.

Q: How are you leveraging on the power of youth in supporting smallholder farmers and digitisation?

A: We know that, in most places, young people are more likely than older people to own mobile phones (and smartphones in particular). They also tend to be more willing to adopt new innovations, and (importantly) to have time on their hands. So young people can provide a really useful interface with rural communities: the information you provide to them will disseminate to others in their households and communities.