

## The Key Ingredient to Inclusive Technology Design: Humanity – English Transcript

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00:16

Thanks for being here for our session on the key ingredient for inclusive tech design: Humanity. I'm Mary Pat McVay, a senior research and knowledge manager at Opportunity International. With me today is my colleague Dr. William Derban, head of programs and partnerships for our digital innovations group. From Vision Fund, we have Lisa Kuhn, the Inclusive Knowledge Director, and Henrik Esbensen, co-founder and CTO of DreamStart Labs. A big thanks to these experienced leaders!

00:51

We're diving into how putting people at the heart of tech design leads to relevant, scalable, and impactful solutions. Fast-emerging high-tech innovations are helping us overcome obstacles to financial inclusion for those living in poverty. In just a year, generative AI has already changed the way we think about our work globally, and improved machine learning is cutting down processing times significantly.

01:25

Focusing on digital access can really change how low and middle-income countries do business in the coming years. These advancements and the shift from analog to digital will happen quickly, and the potential impact is only limited by our imagination. The big question is: what will be the most effective and impactful solutions for our target clients? To figure this out, we need some human input. So, Lisa and Henrik, why don't you start by telling us about the DreamSave app?

02:01

"which turns savings group records into digital format, saving women a lot of time, boosting group unity, and helping them connect with formal finance. So Lisa, how did Vision Fund get into digitizing savings groups? Thanks, Mary. Well, we kicked off our design process with an assessment in 2018 of savings groups in refugee communities in the West Nile region of Uganda. The assessment showed that both the refugee and host savings groups were dealing with similar issues, even though they really valued their savings groups and the way they operated."

02:37

They were mostly working fine, but they really struggled because they didn't have enough money to support their businesses. They didn't have any other ways to get funds since there were no financial services nearby. It was really expensive for them to travel to get financing, and most of them didn't meet the requirements set by financial providers. From the perspective of those providers, the main challenges were...

03:09

We noticed that it was really expensive to serve groups in remote areas and to get the info we needed to assess their creditworthiness. So, we thought, why not meet people where they are and focus on what's already working? Savings groups were doing a great job lending out their own savings; they just needed a little extra cash. We decided to stick with those familiar methods and have the loan go into the group's cashbox instead of to individuals. This way, we could get rid of that hassle.

03:42

We were spending way too much time evaluating individuals, so we realized we needed a better way to assess the quality of the group as a whole. To do that, we had to bring in some technology. At first, we were working with groups that were still using paper ledgers. We started by rolling out mobile apps for handling payments and tracking compliance with protocols. But even then, it was still pretty time-consuming, needing multiple visits to collect all the info on the groups.

04:13

Digitizing the group's records was a no-brainer for us. By going digital, the financial service provider could check which groups were eligible before heading out into the field. That's when we teamed up with Dream Start Labs to work on the DreamSave app. So, Henrik, how did Dream Start Labs focus on people when designing the DreamSave app? Thanks, Mary Pat. Before I dive into that, let me give everyone a bit of background on what we're talking about.

04:48

"We've created the DreamSave solution, which has two main parts. First, there's an Android app that digitizes the group, essentially acting like a digital ledger for the entire meeting. Then, there's a web portal for NGOs to access their group's data. Together, we refer to these as DreamSave. We're currently working with around 30 countries and several NGOs, and the app supports 22 languages. We're getting close to having 20,000 groups."

05:24

So, using the app, we have about 400,000 individual members. That's the background for answering your question. Now, let's dive into how we developed this system. We used a method called rapid prototyping, or what some people refer to as "fail fast." It's basically a scientific way to create software products. This concept isn't new; it comes from a book by Eric Ries called "The Lean Startup," which he published back in 2011.

06:01

The idea is to follow this process: first, come up with a hypothesis about how a certain feature or part of your product will work, and consider how users will respond to it. Then, create a minimal prototype to test that hypothesis. After that, run an experiment with real users and analyze the results. Based on what you find, refine your hypothesis and keep iterating on it.

06:36

Sometimes you gotta ditch your original idea and come up with something totally new. With DreamSave, we made a bunch of trips to Tanzania, working closely with future users from the start. We even brought in experts in human-centered design. Our first prototypes were just paper mockups—no app at all. Then we'd show these to real users right from the get-go.

07:10

We watch how they interact with the prototype, taking tons of pictures and videos. Then we head home and analyze all the data, usually ditching our first hypothesis and coming up with a new one. It's a lengthy process, and pretty costly with all the travel involved, but in the end, it leads to a functioning app, so it's worth it. Whenever we need to see if a hypothesis is true, we go through this process.

07:45

It should follow about five design principles: it needs to be simple and intuitive, which seems pretty obvious. But we want to aim higher than that—it should be delightful. To achieve that, we gamify the experience and celebrate when people hit certain milestones. It should empower users too; for instance, you can set your savings goals, track them, and see how you're doing. And last but definitely not least, it needs to be scalable so it can reach a lot of people.

08:19

A lot of people, and if you don't hit even one of those criteria, it's back to square one. But the good news is, once you've got the final version of a feature in the product, we know it's

going to work right from the start because we built it that way. Awesome! So Lisa, can you share how DreamSave is actually being used in practice? Thanks! Yeah, we're currently launching DreamSave in all the places where we offer our cashbox loan product.

08:54

"We're moving quickly to boost savings groups and will be using DreamSave in areas where the Vision Fund isn't active to bring in and train other financial service providers to lend to these groups. The data we have on the savings group market and their performance is proving to be very appealing to other financial service providers too. Right now, we're focused on this as the Vision Fund."

09:26

"We're lending to over 11,000 groups in 10 countries, and the cashbox loan is our fastest-growing product in our microfinance portfolio. We're super excited to keep rolling it out and learn from the data Dreams provides. This will help us create data-driven early warning systems to spot when a group or region is having issues, so we can step in with support. I'm actually in Gambia this week."

10:02

"We've been looking at group data to figure out how the drought is affecting us and to plan our recovery efforts. Although DreamSave isn't fully up and running here yet, so we've had to do some extra manual analysis. But what I've come to realize is that once one stream save is fully implemented, we'll be able to compile this data into a report in just a few minutes and keep a close eye on the situation. That's amazing, thank you!"

10:33

Opportunity International is also helping savings groups go digital with DreamSave. Right now, I'm evaluating this in six countries, and it's clear that the benefits for the groups are really significant. They're saving time, their record-keeping is way more accurate, and people are saying it's building a lot more trust in the group. They're saving more money because of it. And I have to say, Hendrik, the "delight factor" comes up all the time—people really like it.

11:09

They earn little stars when they hit their goals, and if they achieve a big one, they even get a song! They always bring that up, so I think the joy factor is way more important than I thought, especially since I'm a bit of a techie myself. Also, I want to mention another innovation we've been working on – it's a generative AI chatbot called Ulangi, which means

"advisor" in Chichewa, the Malawian language. That's where we've been testing it out. Ulangi is...

11:46

Sure! Here's the translation: "So, like I mentioned, it's a generative AI chatbot designed to give information and advice to farmers through community-based advisors who use it on their smartphones via WhatsApp. William, can you share with us the human-centered design process and update us on Ulang Easy's progress so far? Thanks a lot, Mary Pat! Yes, we really love using DreamSave Up; it's been a huge help for our farmers."

12:23

"We're a little over 50 years old, and over the years, we've served nearly 250 million customers. Innovation has always been part of our journey, but we know that with the new technologies coming up, we can find new ways to serve people and use tech to break down barriers that we couldn't even tackle five years ago, all while keeping costs down. So, a couple of years back, we started what we call an envisioning process."

12:56

So, we're really focusing on our customers and trying to understand them better through a human-centered design process. In that process, we picked out a few personas to help us get a deeper understanding of our customers and figure out how we can better serve them using technology. One of our main personas is a smallholder farmer named Fostina. Fostina uses our DreamSave app, and she's part of our Agri Finance program. Right now, we're operating in about seven countries across Africa.

13:31

"We teamed up with around 24 financial service providers to offer funding and training to farmers. I think we've helped close to 400,000 farmers, and over the years, we've facilitated about \$440 million in loans. We reach about 1.24 million households, and Fostina is part of that. But even with this reach and impact, we still feel like we need to find new ways to better understand Fostina. So, a group of us went to Malawi, similar to how Henrik went to Tanzania, just to figure out what her needs are."

14:07

We went through a pretty similar process and just asked them what their main challenges were. Being a banker, I expected them to say they needed more loans, but instead, they were asking things like, "What should I grow?" It was surprising because we thought those

were basic questions. Over the years, Cyclone Freddy had wiped out their crops, and the climate is changing, you know?

14:35

The rain patterns are shifting right in front of them, and new diseases are popping up. So, figuring out what to plant, how to spot diseases, and knowing when their plants are struggling is super important—almost as crucial as getting a loan. We went through a similar process, just trying to find a way for them to get this information. Then ChatGPT launched not long after, and we thought, "Why not give this a shot and see how they respond?"

15:08

We were all pretty skeptical at first, thinking maybe they wouldn't be interested. But it was amazing—once we put it out there, everyone jumped in and started asking questions. One person even asked about a disease she had, and when the chat bot responded, she immediately asked, "When can I get this?" She said that if she had this info, her crops wouldn't have died. I know from Henrik, our tech guy, that when you get that kind of endorsement, it's a clear sign to move forward. So we decided to go for it.

15:38

So, we actually created this bot using reliable info from the Agriculture department. We'll dive into that a bit more later. We translated everything into Chicha, which is the local language, and then put it on WhatsApp because it's super easy for people to access—no need for a new app or anything. As Mary mentioned, we call it Longi. Now, farmers can just ask questions and get answers. But we found out that many of the farmers don't have smartphones, which was a bit of a hurdle. So, we have our farmer support in place.

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"We have about 2,000 farmers that we train ourselves across our markets. We give them smartphones because they help train other farmers. So we thought, why not use them as a human resource? This is important for two reasons: first, it solves the problem of farmers not having phones. Now, when a farmer has a question, they can ask these trained farmers with smartphones, who can then provide the answers. So even if a farmer doesn't have a smartphone, they can still get help through the trained ones."

16:38

"The support agent helps build trust between them and the farmers, as well as trust in the technology itself. It's interesting because the groups using DreamSave are already familiar

with technology; they're using their phones to digitize their processes. So when we introduced this new tool, it was easy for them to get the hang of it since they're used to handling things on their phones. I think as we move forward..."

17:11

We're offering digital solutions, and as we keep improving them, things are getting easier and better. We ran a pilot program about three months ago with 150 farmer support agents and government extension officers, and the results were really positive—over 80% of their questions were answered. They're eager to share it! Right now, I'm testing it in Ghana, and they're already wanting to start sharing the app. They also love the feature where they can take pictures of crops.

17:43

So, there's this plant thing that tells you what the plant is and what kind of disease it has. That's a huge advantage because it saves extension officers time and, more importantly, it spares them the embarrassment of saying they don't know. Nobody likes to be put on the spot like that. The chatbot always has some sort of answer ready. Plus, using WhatsApp keeps costs down for users. We're also running similar tests in Ghana and Kenya, and I think it's going pretty well.

18:14

It's really fascinating to see how they're embracing this technology to make their lives better. Thanks for sharing that, William! I had a beautiful experience in Malawi in August that really touched my heart. You know how you visit a savings group, and everyone is super welcoming? The women often sing when you get there. So I'm listening to this song, and honestly, I usually have no clue what they're singing about, but I...

18:53

I heard someone wrote a song about the app, so that's my new way of measuring success—your tech is a hit if it inspires a song! There's a ton of buzz around tech, which is awesome because the potential is huge, but we also know there are risks, especially for first-time users or those who aren't as tech-savvy. So, William, what risks have you seen with adopting new tech, and how have we been handling those?

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Yeah, I think one of the biggest risks with AI is hallucination. If you don't use reliable material, it just pulls info from the web, and this is agriculture—it's about people's livelihoods. You can't risk giving them wrong info. So, we really took our time and got

sources from the Ministry of Agriculture. Their book is where all the agri info is, and we put that into our chatbot.

20:02

We refer to it as a RAG model, which is our augmented generation model. It only pulls information from a specific source. So, if you ask it who the president of Malawi is, it might say, "I don't know," but it can guide you on topics related to GRE. A lot of people have been asking how to find a good husband or wife, and it would respond, "I can't really help you with that." So, the source material is super important. The second thing is about fraud and crime. I attended a conference earlier this year, and cyber crime was a big topic.

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It's kind of like there's a constant battle whenever we bring technology into these communities. Someone always finds a negative way to use it. So, we focus a lot on digital literacy. The main thing is figuring out how people engage with knowledge and learning. Henrik mentioned music and its role, which is really important. We want to understand how they absorb that learning. That's why we've created videos, cartoons, and other materials to explain things.

21:04

We're dealing with complicated stuff like data privacy and security, but we think we really need to step it up and find new ways for people to get knowledge, information, and advice. It might not just be reading a book or even just watching videos; there are all sorts of ways people can use technology to change their lives. So, these are the two areas we've identified that we're focusing on. Thanks a lot, and back to DreamSave and the...

21:35

The whole data privacy thing has got people worried. A lot of the groups we spoke to had members who were really skeptical about using DreamSave at first. They were concerned it would cost them money for every transaction, that their cash might just vanish, or that their identities could be stolen. I was actually impressed by how aware people were, but it shifted into more of a fear. So, I'm curious—what kind of risks are we talking about? What other risks have you come across?

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I came across the topic of dream saving, and I'm curious how you've been dealing with it. For me, that question is pretty important. I don't want to take away from anyone else's input, but I think both of you have something to say here. In the context of dream saving, I



believe the biggest risk is what Mary mentioned—it's all about sharing data and how people's personal information is being used. We need to make sure it's not being misused or exploited in any way.

22:46

"Make sure to look out for the end users. Like you mentioned, this is super important, especially for them because they tend to be more vulnerable and aren't really used to handling things in the digital world. There are a lot of ways we can help with that. Let me share two things we're doing. First off, it's really crucial to know who controls the data and who actually owns it."

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Dream Start Labs and our NGO partners don't own the data—it's the end users who own it. We put them in control. Basically, every user of the app has to actively choose to share their data. If you don't opt in, your data gets anonymized. So, while your transactions are still there, you can't identify who made them, which means you stay anonymous. This approach is actually pretty different from the norm.

23:56

It happens all the time in the world, and we know how it goes—your data gets shared unless you choose not to share it. In a lot of real-life situations, opting out isn't even an option. We're trying to do the complete opposite of that. The second thing I want to mention is about financial service providers. A lot of our NGO partners, like Lisa and William, have talked about working with these providers to offer financial products to people.

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When a partner from DreamStart Labs wants to get involved with the savings group members, we'll thoroughly check out those financial service providers. We want to make sure they act in an ethical way that actually helps the savings groups and the end users. This approach is pretty unconventional, especially when you look at the big platforms out there. Take X, formerly known as Twitter, for example—they've made it clear that they don't really care about what happens on their platform.

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If someone is promoting something harmful to society, like committing crimes, they might say it's not their problem and there's nothing they can do. We're taking a completely different stance. We're dedicated to doing everything we can to make sure our platform is

only used for good things that help our users. This also applies to the next phase of DreamStart, by the way.

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We're currently working on creating some general capabilities to make it easier to deliver financial services to savings groups. The first thing we're doing, which Lisa mentioned earlier, is partnering with Vision Fund to offer loans at the group level. Future offerings will go through the same process. Right now, we're carefully screening financial service providers and making sure everything's in order.

26:23

"We need to make sure that everything we offer is truly helpful for the users. Great! Lisa, do you want to share your thoughts on risk and risk management with the groups? Sure, I'll keep it short. So, even though the data we're getting from DreamSave could let us make lending decisions from a distance, maybe even automatically, we're not doing that right now. We think it's really important to double-check the data in the app."

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I really think it's crucial to have this in the mix. Right now, we've got field officers who train groups on financial literacy, especially about managing debt. We only call for a secret vote after we're sure everyone in the group gets the risks and responsibilities. This vote needs everyone's agreement to take the loan, and it's really for their own protection. Do you think one day we could do all this remotely through mobile phone education and voting? Yeah, maybe, but for now...

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Given that the technology and access to formal financial services are still pretty new for this vulnerable group, we're not sure it's a good idea to let them take out loans just by clicking a few buttons. Even if we had all the data to make automatic decisions, maybe we shouldn't go down that road just yet. It's clear that having human support and relationships is still really important as these groups start navigating this digital and formal financial world.

27:56

"Great, so we've got a comment and a question in the chat about one of the risks our groups are highlighting. It's about how we can ensure this technology is around for our clients in the long run. Some of the savings groups we work with are holding onto their paper records alongside DreamStart because they're worried it might just vanish. And

some organizations think it's better to develop their tech in-house instead of relying on outside companies to have more control."

28:34

"The app will be available, so maybe one of you could talk about how sustainable the technology will be over time. I have a couple of thoughts on it. It's a really good question and super important, right? It's often overlooked, but one of the key things to consider when dealing with any tech company is whether they'll still be around tomorrow. Startups can burn through cash fast, so how can we be sure that we're in a good spot?"

29:06

We're really lucky that the Vision Fund is going to own Dream Start Labs pretty soon, like in a month or two, I hope. That means we've got solid financial support. The issue the person in the audience brought up has definitely affected us before—we could have gone under, but we didn't. With the Vision Fund backing us, we won't run into that problem again. Plus, Dream Start Labs will still operate as its own separate entity.

29:44

So, the Vision Fund owns the company, but we run things completely on our own, like everything. We're good with that now, but it hasn't always been that way. That's just how it is. Anyway, William, go ahead. I just wanted to add something about choosing whether to build something ourselves or buy it. I mentioned in the chat that as the SSP or bank, you really need to consider your own people first.

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When you're designing your center, you need to figure out who you're creating a solution for and what problem you're actually solving. Do your homework first, then check the market to see if there's already a solution out there. If there isn't, then go ahead and consider building one yourself. But if there is, you can use that solution—just make sure it aligns with your mission, that's super important. For us, we're using Dream Start and LA because the way Henrik explained how they developed the app is exactly how we would approach it.

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They've already done the work we would need to do, and they're way ahead. So why should we create a similar app when we can just use theirs? But it's crucial that we're on the same mission; otherwise, it won't work. We can't use their app if it's not designed for the kind of people we're targeting. So, you've got to figure out what you really want first. Thanks! And think about what the client needs too.

31:22

"That's what this session has been all about, and you nailed it, William! Huge thanks to everyone for sharing your experiences and to the audience for joining in. If you're interested in learning more about these innovations, check out the documents and links in the session description. Thanks a ton, everyone! Thank you!"