SelfCare

by Suyi Davies Okungbowa

The atmosphere in the town hall at Ediye is thick with doubt and anticipation. The small town barely sees numbers such as these during the weekly gatherings of its Odionweres—community elders—from each of the town's local quarters.

But today is different. Today, Gimbiya is standing in front of the hall, the one woman in the midst of over thirty septuagenarians, a small bag slung from her shoulder and a mobile device in hand. She has pinned a small projector onto the podium, so that a blank screen shines behind her onto the wall.

"It will be fine," Abilo, the influential Odionwere with whom she has been in contact, leans in and whispers. He sweeps his hand over the group. "Don't worry, when you've had back pain for twenty years, you'll be restless like this too."

Gimbiya chuckles as Abilo makes for the podium. She'd had low expectations when she first approached him for support in reaching the communities in Ediye. Engaging with the elderly, especially as someone pitching a health solution, is tricky business. In addition to the cultural hurdle of being a woman, she

is also a relative youngster working in tech, the demographic and industry elderly Africans simply have no patience to understand. But Abilo was different: he had listened to her in a way no elder ever had, paused and asked for explanations where he didn't understand things, attempted to translate them into terms more acceptable to his age group. He never once became dismissive. Afterward, he even suggested employing himself and his family as the first trialists for the new medtech, and now, he is going to try and convince a whole town on her behalf.
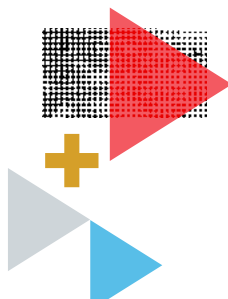
He greets them in the local language she doesn't understand, then introduces Gimbiya in English as a health worker, which she isn't, but it doesn't matter. What matters is how gently he moves between both languages, using terms for illnesses and technology that they better understand, rather than the official medical or

technical terms. Gimbiya makes a note of that, of how a few heads nod in agreement, even though some remain staunch and unmoved.

Soon, the time comes for her demonstration. She lays her bag down and pulls up her sleeve to reveal SelfCare. The electronic-powered tattoo blinks with many tiny lights, its biosensor collecting real-time information. She repositions her mobile camera to blow up the image over the projector. The men lean in, intrigued.

"Imagine if you didn't need a doctor to tell you what to do to stay healthy and strong," she says, the practiced pitch rolling off her tongue

"Imagine if all you needed to know about what to eat, how much to exercise, what medicine to take when you're feeling ill—imagine if your personal doctor was a tattoo."

That last line gets the whole room into a murmur. Gimbiya smiles. If there's anything she's learned about pitching to less interested groups, it's that any reaction is a good reaction.

She goes on to relay the rest of the details, explaining how the SelfCare stencil can be self-mounted on the skin using the package containing backing paper laid with conductive ink that creates a circuit with the skin. Tiny, noninvasive nano-biosensors embedded in the ink collect body data and relay it to a mobile app, which she displays next over the projector. She explains how users can check temperature, blood sugar, blood pressure, enter symptoms and send them to a hospital or doctor of their choice, and receive recommendations within a day. She shows how they may obtain information, including dosage, for quick home remedies for fevers and infections, and how to show prescriptions at local pharmacies. She explains how this could better help monitor long-term conditions like hypertension and prevent medical emergencies like strokes. The more she speaks, the more intrigued the most interested of them become. But so do the staunchest of them withdraw.

"A tattoo is the mark of the Devil," one man yells, waving his arms as he exits the town hall. "The bible warned us that the antichrist will come in the form of you people."

"Is my personal health information safe?" another asks. Others put forward similar concerns: How do they know they're not being swindled? How can they trust that this information from a computer—not a human being—is not mistaken? This is faceless technology, so who are they to hold responsible if something goes wrong?

Gimbiya takes all their questions down, nodding to show she is listening. But she has left the jackpot for last, as eventually, it is Abilo who responds to these questions, explaining, yet again, in terms they understand. But first, he pulls aside his sleeve and reveals his own blinking SelfCare.

The gasp in the room is infectious.

When he is done, several hands are out, requesting a trial. Gimbiya dips into her bag and hands out the tattoo packages and an instruction pamphlet in various languages.

Back at the only motel in the community at the end of the day, Gimbiya spreads her notes on the bed in the tiny room she has occupied for the last two days. She peers at them in the low light, adjusting her reading glasses. Sifon, her husband, emerges from the bathroom, twisting a towel in his ear. After dressing, he retrieves a picture frame with three images rotating in a carousel: one of his mother, deceased; one of Gimbiya's brother, deceased; one displaying the logo of the new medical technology startup, *SiGim MedTech Ltd*, under which they're pushing the SelfCare brand. He lays it on the bedside table next to them, as they do every night when they work.

"Good news?" he asks.

"If by good news, you mean tough questions we must answer, yes."

He chuckles. "Then we'll hack at it like we always do, until we find a solution." He gazes at the rotating photos. "No one deserves to suffer like they did."

They parse the queries from the town hall together. *What if patients are illiterate, literally or medically or both?* Gimbiya had hastily dictated into a Notes app. *They may be distrustful of AI-generated recommendations. Would they rather take them and seek local alternatives?*

"You know," Sifon says, his fingers flying over the computer as he uploads notes and media to the SelfCare database. "I've been thinking about Abilo and the other community liaisons we've been working with. What if that was, like, an official health worker role?"

Gimbiya stops to listen. "How?"

"Like, look how easily he takes our jargony medical expressions and breaks it down for them. I'm a doctor, and I struggle to do that with my patients, but he does it so easily. But not just that--look how he even knows the equivalents of our prescriptions in more local medicine."

"I think he owned a herbal medicine practice or something."

Sifon leans into his chair, massaging his beard. "Maybe--" He pauses. "Maybe that is the answer to all of these questions."

"What is?"

He looks up. "Intermediaries."

The new role ends up having different names in various languages, but officially, SiGim names them *Gadakwafara*, an amalgamation of the word "bridge" in the three largest language groups in the nation. Their introductory brief describes the role as "professional healthcare intermediaries existing at the nexus of global medicine, local remedies and community patients."

The first places Sifon and Gimbiya pitch are community schools of health. They propose improving program offerings to include robust courses on local medicine and patient care and communication. They offer subsidised technological aid to improve said learning—AI-driven language translators, digital learning options, controlled access to anonymized health databases. Sifon demonstrates with a real-time telemedicine diagnosis at every meeting, using Abilo as the first Gadakwafara. They select a consenting patient from the SelfCare trialists, have three-way virtual meetings with Abilo sitting in and breaking down symptoms and options to the patient, and recommending treatment options ranging from vetted and verified local home remedies to required surgeries. The demonstration wows every dean and faculty they meet with, and most commit to petitioning their respective education boards for accreditation for such a course.

It doesn't take long before Gimbiya and Sifon start getting queries from private practices interested in distributing SelfCare to their patients. Most balk and back out when they hear they must include telemedicine options and the Gadakwafara role in their practice. But a few show up to a demonstration put together by SiGim for stakeholders of interest.

"I know the idea of an AI-driven tattoo is fascinating," Gimbiya says in her presentation. "But we must remember it is just a tool tied to data. Gadakwafara must be there to facilitate effective usage by live, human people. They bridge the technology barrier with efficient communication and grassroots alternatives to medical solutions. They act as translators and will be your certified 'local doctor' down the street when you can't reach a hospital. They are information gatherers, well-schooled in local alternatives to global medicine, and will have certifications and governing boards. You can trust them."

Not a single attendee is sold on this bizarre new concept. One private clinic goes out of its way to commission a stinkpiece about SiGim, calling SelfCare a "government surveillance tool." Yet, the Gadakwafara program surprisingly takes hold. SiGim arms local teenagers with chat message broadcasts to boost awareness of the program. Community response is tentative at first, with many interested folks asking about remuneration. But they are soon satisfied when they learn that practitioners earn a percentage of every patient's payment. The first few accredited programs report huge admissions application numbers, and begin to consider formerly uncertified herbal practitioners as part tutors, part students.

Then, out of the blue, Gimbiya gets a call from the Chief Medical Officer of a public hospital in a progressive city. He wants to meet with them concerning SelfCare.

"You think he wants to threaten us?" Gimbiya asks Sifon. "That's what they always do in this country, isn't it? Frustrate every effort at progress that threatens the inept status quo."

But the CMO, whose name is Dr. Divine Chukwudi, asks them a question that throws all their doubts out of the window.

"What about the children?" he asks.

Gimbiya frowns. "Sorry?"

"Kids, teenagers." Chukwudi adjusts in his chair, rubbing a hand over his bald head. "These solutions seem like they'll help the most elderly and vulnerable among us, yes. But children and teenagers are vulnerable too."

Gimbiya has never quite thought of SelfCare this way. Chukwudi is right: SelfCare possesses the possibility to alienate certain groups simply by design bias, from age to gender nonconformity to mental health. Gimbiya makes a mental commitment to adapt design practices that ensure accommodation of these groups.

"What do you have in mind?" Sifon asks.

The CMO takes them down to pediatrics and lays out his plan. He explains he is willing to begin here with SelfCare, monitoring ante-natal, post-natal and child health. He is also keen on an embedded education program for teenagers, self-administered and delivered digitally, to offer them independent understanding of healthcare options available for their particular needs, including everything from basic sex education to dealing with mental health challenges. He believes he can even petition for such a program to be inculcated in the Physical Education and Health Science subject syllabi for primary and secondary schools.

Gimbiya and Sifon leave the hospital in high spirits, but their spirits don't remain there for very long.

In the next few months, Dr Chukwudi's petitions all fall flat, as the relevant government agencies turn deaf ears toward any such improvements.

"They say they don't want you selling western ideas to our children," one official whispers in a secret phone call to Gimbiya. "But if I may speak freely? What they really don't want is you fixing our broken health systems. The systems are broken by design, because there are people who profit off this failed infrastructure. If you must make change, you must find people in the government who are willing to listen and carry this crusade on their backs for you."

This is only the beginning of SiGim's woes. Soon, an unsuccessful hack attempt on their SelfCare servers raise more questions about data safety, while reports uncover a blind spot in user behaviour. Patients have begun to share their SelfCare apps, entering details about family members and friends in order to get health recommendations for multiple people using just one account subscription. Not only does this mean the data itself might end up inaccurate, the AI might also be led to make possibly harmful recommendations for the person connected to the tattoo based on this wrong information.

"It's the cost," Abilo says, on a call with Gimbiya. "Even with the free or subsidised SelfCare, they say it is still expensive."

"Trust me, we've tried," Gimbiya says. "But health insurance companies have refused to cover treatment options that come from SelfCare. They said, and I quote, that we are 'commodifying complex and intricate medical processes.' They called our tattoo, 'garbage in, garbage out.'"

"But how is simplification a bad thing?" He sighs. "That aside, this mostly affects those who don't even know what health insurance is. I think I may have an idea that could help, but prepare yourself--it's a bit radical."

His proffered solution is to embed a popular social network within the SelfCare platform, which Gimbiya does with her development team after months of hard work. The results are staggering. Patient dropouts post-consultation reduce drastically once they are able to instantaneously consult neighbours and friends about SelfCare's recommendations or those of a Gadakwafara or doctor. Trusted and verified ventures soon join in, offering local sales points like chemists, pharmacies and dispensaries to which peers can refer one another.

This peer-to-peer system drives a significant spike in purchase signups for SelfCare, to the point Gimbiya and Sifon decide to rent out an office, hire legal and accounting teams, and go into full production. Their launch day is covered by multiple press networks and lauded by fans of their work. Their new company social account gains tens of thousands of followers in a day, and they receive multiple inquiries about acquiring

SelfCare at a discounted bulk rate, as part of various organization-wide health offerings.

An upside they never saw coming manifests: service time and patient interactions at hospitals and clinics all over the state improve as more patients come in equipped with their symptoms and other information, with appointments already set up with doctors who signed on to take patients through SelfCare. Feedback from medical practitioners also reveals more patients being open to usually misunderstood medical processes and solutions like robot-aided surgeries, neurological imaging, various kinds of implants and even robotic prostheses.

SiGim booms. But soon, Gimbiya receives another phone call, and now they will have to face the most trying institution in the nation: the government.

The state governor wants to meet with them.

"Now do you think *she* wants to threaten us?" Gimbiya asks.

"I don't know," Sifon says. "But we knew this would come, didn't we?" They are at a hotel again, in a virtual meeting with their team, preparing latest updates for their meeting with the governor. Their documents are laid out on the bed in the same manner as when they first began, the carousel of photos still on the bed stand. Sifon taps the picture frame. "We've always known we would have to fight this hard in their name."

The state governor, contrary to her firm public persona, is a quiet and unassuming woman who invites them into a large, tastefully furnished office along with various aides. She wants to know just one thing.

"I'm a fan of your efforts," she says. "If I wanted to scale this across all states in the nation, what would it require?"

Sifon begins to list a number of things off the top of his head, from hardware to software to medical supplies and staff. The aides tap at screens furiously, taking notes, while the governor nods. When he is done, she looks to Gimbiya.

"What do you think?"

"I think scaling is nice," Gimbiya says. "I think using tech to aid medicare is nice. But it's important to remember that SelfCare is nothing but a tool that runs on already existing facilities. SelfCare's best recommendations become useless if, in a community, there are no hospitals, no equipment and supplies, no internet, no power, no water, poor access roads, no sufficient number of trained medical professionals. It becomes just as good as a decorative tattoo."

The governor urges her on with a nod.

"Imagine expecting rideshare apps or tech or systems to work without roads or electricity or even cars--impossible. So, if you ask me about scaling healthcare solutions like SelfCare, I would say one thing: it would have to begin,

sadly, at the same place we have needed it to begin in the 80-plus years since we became a country."

"Infrastructure," the governor says.

"Low-cost, accessible infrastructure," Gimbiya affirms. "Or else we'll just be throwing money at the wrong issue."

The governor ponders for a while. When she rises, it is with purpose and a defiant finality.

"Draw up your recommendations and send it to my people," she says.

"Sorry?"

"I want you two--your company--to offer us recommendations," she says. "Think of it as a contract in an advising capacity. I'll see what I can do and push it where it needs to go." She pauses for a moment. "I read your founding story, you know? About your family members who died due to a lack of early diagnosis and access to personalized care." She cocks her head. "I've had a similar experience. If I can work to make sure at least one less person gets to experience that--if not for the larger nation, at least for this state--then I'll have done my job."

The governor walks out. Gimbiya and Sifon's hands find each other between their chairs and interlink. They squeeze together, tight.