DIGITAL 2035
A Futures Report on Healthcare and Technology
“Now is the time to act and build the future we want.”

The Business Innovation Garage
What lies ahead for Novo Nordisk?

It’s impossible to predict the future—so why should you care about the future scenarios in this report?

Read further and you’ll find thoroughly explored trends and issues that will have a massive effect on the way Novo Nordisk does business fifteen years from now.

Why 2035? It’s just far enough ahead to bring a sense of curiosity and excitement for a moment that we can’t predict with full accuracy, and just close enough to develop concrete plans of action to achieve what we want. Even though the future will almost certainly look different from what we’re describing, it is necessary to use fictional narratives to start a dialogue, ask questions, and challenge assumptions on what’s next for us as a company.

Technology will play a prominent role in the future, and we have seen how the current trend towards digital transformation is changing the way we live and work. These scenarios focus on technology as the driving force that will lead us to the futures we’ve illustrated and help us achieve the ambitious goals we’re pushing for in this report.

Now is the time to act and build the future we want. We hope you’ll agree with us that the potentials are limitless.

Thank you to the participants and stakeholders who provided important business and industry insights, which greatly contributed to the production of this report.

The Business Innovation Garage is a newly formed department within Global IT that identifies and drives growth opportunities created by emerging technology. Our strategic focus is on solutions and technologies that are new to Novo Nordisk and new to the pharma industry.

Interested in understanding how the trends and scenarios in this report could impact your area? Do you have an idea for a game-changing approach to our business?

Get in touch with us by writing to: Matt Dugan (MYDU), Head of Innovation.
“We chose to go to the moon in this decade and do the other things—not because they are easy, but because they are hard.”

John F. Kennedy, 35th President of the United States

“I don't think the space station is innovative. Going to the moon was innovative because we had no idea how to do it.”

Peter Diamandis, Founder of X Prize Foundation and Cofounder of Singularity University
Moonshots are ideas that strive for 10x growth while the rest of the world is aiming for 10%. It can't be achieved by working harder alone— you have to be willing to try seemingly crazy ideas.
“Big Tech companies like HP and Amazon and Apple and Google and Microsoft all realize that [healthcare] is the largest remaining industry that has not been revolutionized by modern technologies that have transformed every other big industry in the United States.”

John Scully, Chairman of RxAdvance and Apple’s Ex-CEO

> CNBC, Feb 2020

$5.4B

US digital health companies raised $5.4B in venture funding across the first six months of 2020. The sector is on track to have its largest funding year ever.

> Rock Health, 2020

“We didn’t set out to disrupt healthcare. We set out to meet the needs of our customers at Walmart.”

Sean Slovenski, Walmart President of Health and Wellness

> Forrester, July 2020
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EXECUTIVE SUMMARY

Synopsis

This report looks at current signals and trends in healthcare, technology, and society to imagine possible futures of the healthcare industry up to 2035. **Fourteen key trends and four scenarios** have been identified and developed to provide orientation for ideation and decision making about new products, technologies, and business models that have the potential to shape the future of Novo Nordisk.

**Key Takeaways**

> **AI** is one of the essential tech healthcare trends that influence most other trends and touch all aspects of healthcare—from diagnosis to drug development to preventive care. But the crux is **data to train the algorithms**. Collecting and controlling health data will be the key to shaping digital health, while regulation and concerns about privacy and discrimination will make data ownership more complex.

> Digital approaches allow for an **unbundling of healthcare** that used to be pooled around providers like hospitals—technologies like telemedicine and distributed triage offer patient-centric services that can be more personalized and empower the patient. But there's also a **re-bundling on the horizon** with platforms like Apple Health trying to become the central health data hub.

> **New players** are entering the healthcare market to disrupt. Tech companies and retail giants are making their moves, bringing their **digital technologies expertise and massive customer data and experience**. Pharma, with its current focus on research and manufacturing, is in danger of being pushed to the fringes of the network as a provider of intel and a receiver of fulfillment orders.

> **The COVID-19 pandemic has accelerated many trends towards digital healthcare** like telemedicine, the unbundling of services, on-demand supply chains, and more. Startup investments have exploded in these areas. No matter when the crisis ends, it has already changed the healthcare landscape.

> It can be easy to just focus on the next big thing in technology and business. Still, forces of **climate change, deglobalization, populism, and polarization** dramatically shift the overall context for these trends. Technology can no longer be looked at in isolation.
Overview

Key Trends

Future Scenarios

SCENARIO 1 – COMPUTER SAYS GO
What if tech companies like Apple, instead of using their devices simply to collect health data, start using them to sell health insurance?

SCENARIO 2 – NOW YOU SEE ME
What if Augmented Reality lenses become a consumer product, changing how people look at their health?

SCENARIO 3 – RISE OF THE GIANTS
What if new players enter the healthcare industry, disrupting not innovation but distribution, with one giant company in particular eager and ready to make big moves?

SCENARIO 4 – McHEALTHCARE
What if new technologies enable a franchise model that creates access to telemedicine, AI diagnosis, and virtual treatment to those for whom it wasn’t previously available or affordable?
The tectonic plates of the healthcare industry are shifting. Digital technologies are changing what healthcare looks like today. One example: the smartphone has become the new hub for personal health, replacing the GP. The seismic waves of this transformation can be felt ever closer. But what will change for whom and over what period of time is incredibly hard to predict.

This report looks at current signals and trends to imagine possible and plausible futures of the healthcare industry to enable a fresh conversation about new ideas and approaches. The key to being successful in a perpetually changing world is not to predict one probable future but to prepare for multiple possible futures. That is why this report presents four different scenarios highlighting several plausible developments. Identifying those early on allows investment in new products, technologies, and business models that have the potential to shape a preferable future.

The first chapter contains 14 key trends, from AI in healthcare to on-demand supply chains, that describe various developments influencing the coming years in the healthcare industry. The second chapter combines these trends into four different scenarios to imagine what a future might look like when these trends continue on their trajectories. Signals—things that are happening right now—accompany all trends and scenarios to ground the future in the present.

The trends and scenarios presented in this report are an invitation to broaden the horizon and challenge common assumptions about a future that too often feels predetermined. But until the future becomes the present, it remains open.

The key to being successful in a perpetually changing world is to prepare for multiple possible futures.
A Signal

A signal is a piece of current information that points to a possible change in the future, like a news article or a statistic. For example, a telemedicine startup receiving funding could be a signal for telemedicine becoming more important in the next months and years.

A Pattern

A collection of signals that point in the same direction is called a pattern. It strengthens the expectation for a possible change in the future. If several startups with similar ideas for telemedicine get funded, for example, and a study also finds confirming results, it is a pattern. Nevertheless, signals and patterns are still observations of the present.

A Trend

A hypothesis about where a pattern might go by extrapolating from the present into the future is called a trend. At this point, the analysis moves from observation to speculation or prediction. A trend could describe the more significant role that telemedicine could play in preventive care, for example. It helps to anticipate a specific development in the future and adapt accordingly.

A Future Scenario

The actual change is much more complex than anticipated by individual trends because different trends all influence each other. A scenario combines different trends and describes a certain point in the future where they all have become a present reality. It asks: What would the future look like if these hypotheses are proven true? It describes, for example, the life of a patient in a future with telemedicine, AI-driven diagnostics, and a value-based healthcare system.
The Methodology

Researching the Signals

Extensive research was conducted to find signals and patterns that could point towards possible and plausible futures of health, looking at trade news and publications, trend briefings, societal studies, scientific articles, and conference papers. The findings were then discussed with a group of senior stakeholders from inside Novo Nordisk to reflect upon and extend.

Identifying the Key Trends

Out of the immense collection of signals and patterns, 14 key trends were identified that will potentially have a substantial impact on the healthcare industry in the next 15 years. They cover a wide range of topics from technology to business to society but are by no means exhaustive. Each trend consists of the context for this trend, a collection of signals, and a hypothesis about where this trend might go in the future.

Developing Future Scenarios

Different key trends were combined to create the contexts for four different future scenarios to make the healthcare industry’s potential evolutions more vivid. Each future scenario includes a collection of signals, a scenario introduction, and a micro-fiction describing this future from the perspective of a news article.
The Key Trends

Developments in technology, business, and society that will have a massive influence on the future of the healthcare industry.
Overview

These trends have been selected as potent disrupters of the status quo in healthcare and pharma. We used them in this report to challenge current expectations and identify new opportunities.
AI in healthcare has arrived at a level that enables **better diagnoses based on big data** and allows for new tools in predictive healthcare. It is speeding up drug development. **Silicon Valley giants** see healthcare as a profitable application for their AI-investments. Many pharma players lean on their expertise because they lack both the technology and the data. Additionally, the proliferation of devices that track every aspect of our life has created so-called **digital twins**. Big Tech has successfully monopolized those data sources.

**Signals**

Compared with radiologists from the US, **Google’s DeepMind’s** AI system reduced false-positive rates (when an image is falsely identified as abnormal) by nearly 6 percent and false-negative rates (when cancer is missed) by over 9 percent. An **AI-created drug** is about to be used on humans for the first time after just 12 months of development. (It usually takes about five years to develop a drug for human use.)

Gut microbes, with the help of AI, can now reveal the perfect diet. **Apple** is not building health-related features into its consumer products; their ultimate goal is to create a HealthOS. **Novartis** has brought Microsoft on board to provide AI-capabilities to every employee, which means that Novartis’ research data will be processed on Microsoft’s infrastructure.

**Hypothesis**

AI will change the way practitioners work through tele-/remote diagnosis, partial replacement of diagnosis, and individual drug development for patients. AI is one of the **essential tech healthcare trends**, which influences most other trends. But its success will also be based on tech companies’ ability to deal with the growing evidence of **biases in algorithms** that may lead to false results. AI will need to lose its **black-box status** and become more transparent for patients and doctors to trust its diagnoses and advice. Solving trust issues will make consumers more willing to share their data through a variety of new health-related devices.
Consumerized Genomics

Context

Below the radar, there’s a groundswell of new scientific areas that are born of combing different fields to discover new routes to innovations. Synthetic biology takes inspiration and insights from engineering, design, and computer sciences to create living organisms that don’t already exist in nature. This allows for new approaches to a lot of old problems. In nanotechnology, instead of trying to shrink technology to the molecular level, you create it directly out of DNA. That’s just one example of the many new opportunities that have opened up.

Signals

The Human Genome Project was a milestone in scientific discovery. Now, scientists have started a new one. Where the last one was focused on “reading,” i.e., understanding the human genome, now the goal is to “writing.” CRISPR-Cas9 is one of the most promising (and highly debated) gene-editing technologies that could revolutionize many fields within medicine and healthcare. Just recently, scientists have used CRISPR and patient-derived stem cells to reverse diabetes. Other scientists have created Molecular Robots, little bits of DNA, that can collect specific molecules and deliver them to specific places. Nanotechnology has envisioned this concept for a long time.

Hypothesis

Often overlooked in the hype around digital technologies emerging from Silicon Valley, the scientific advances in the field of synthetic biology might make for the most significant changes in healthcare and health in general over the next 15 years. If synthetic biology delivers most of its currently anticipated potential, other trends like AI, unbundled healthcare, and brain-hacking will have dramatically different trajectories.
Value-Based Healthcare Shift

Context

Most business models of our current healthcare system are based on **people getting sick, not people getting well**. The vision of a value-based healthcare system is trying to turn this around (reward health). The broad idea is to use digital technologies to track different patient measures in their everyday lives to show how their **quality of life** has improved. This will fundamentally change how the healthcare industry works.

Signals

When the incentive is to have a healthier population, it leads to two approaches: **personalized health** and **population health**. One will try to find the best individual therapy and the other will identify areas of unmet need across a large group of people. A value-based healthcare system combines both. For pharma, this shift would move them away from promoting features and benefits of individual products to partnering across one or more disease states. The key is to provide **real-world evidence** for health and cost improvements. The **Netherlands** is one of a few countries already investing in **outcomes-based healthcare** (€70 million from 2018-2022). Outcomes-based payment is used to address the US healthcare financing crisis: successful implementation of outcomes-based payment could lead to a trillion dollars of cumulative savings in the United States over the next decade.

Hypothesis

A value-based system is shaping up to become the most significant paradigm shift in the healthcare industry over the next ten years. **Interoperability** and data standardization will be critical drivers, but they might be spearheaded by the likes of Apple and their **hubs for EHRs**. This trend is closely connected with other trends like the un-bundled healthcare infrastructure and AI-driven healthcare, making this new system possible. Pharma’s challenge is to integrate much more into these new data infrastructures and provide clear evidence of how they add value.
Polarization of Data Ownership

Context

Who can use which data, and who has a veto on that decision? This concerns everyone, from Big Tech, pharma, citizens, the USA, Europe, China, the BRICS, etc. Currently, the status quo balances between the US’s approach, which simply stores everything it finds and generates, China’s boldness in claiming partial government ownership and lack of care for ethics, and the EU’s urge to regulate ownership for its citizens. Blockchain, as a technological concept, tries to solve many of those issues, but concrete solutions are still scarce.

Signals

Big Tech is trying to force its data contracts on under-regulated countries. For example, Google provides its AI-based medical diagnostics to the Aravind hospital in India for free in exchange for the medical data. Several developing countries refused to sign an international declaration on data flows because it caused a war on data between Big Tech and upcoming states like India, Indonesia, and South Africa. China’s Social Scoring Systems is treated with criticism and fear in Western countries but enjoys high popularity among the growing Chinese middle class. Cities can become key agents in the transition from surveillance capitalism, where data ownership is opaque, to a model where data is a common good, co-owned by all citizens.

Hypothesis

Data is an essential source for most digital services, including AI, which will continue to be a hot commodity. Whoever owns the data owns the future. With the growing demand for regulations, it will get harder for tech companies to harvest data without any compensation or revenue sharing. The different approaches to data ownership between the US, China, Europe, and other countries will grow further apart and create uncertainty in a complicated global system. Interoperability, both technological and political, is in decline.
Health as the New Luxury

Context
The positive correlation between per capita income and health is one of the best-known in international development. **Health has become a primary way to display wealth and show richness without showing off.** There is a growing dichotomy between hyper-individualized health solutions for a wealthy minority and a majority suffering because it can barely afford most health care services.

Signals
**Expansive fitness platforms** are adding AI algorithms: “offering] the only truly intelligent, custom adaptive-training solution on the market.”

According to the documentary **“Feel Rich”**, the hip-hop industry takes health and wealth seriously. Rappers as social climbers celebrate their opportunity to live a healthy life now. The millennial luxury traveler is more interested in wellness than ever before.

Developing a whole new set of **multi-sensory experiences** is transforming the hospitality industry.

**#GoFundMe Healthcare:** People have to tell extremely emotional, heartbreaking stories to collect money from their friends to pay for expensive but necessary treatments.

Hypothesis
Wealthy customers will continue to push for more **exclusive services to live longer and healthier lives.** A positive outcome would be if these developments deliver better healthcare for the general population. But the danger is that it will foster a more distinctive **two-class system** between those who can afford the very best healthcare and those who cannot. Patients without access to or a lousy ranking in public healthcare system could flock to home-brewed synthetic drugs and CRISPR kits—with unintended consequences.
Context

Digital approaches allow for an unbundling of healthcare that used to be pooled around providers like hospitals. Technologies like telemedicine and distributed triage offer patient-centric services that can be more personalized and empower the patient. Instead of channeling all patients through the same process (of a hospital, for example), diagnoses for minor symptoms can be conducted virtually, thus keeping the emergency room free for the urgent cases. Instead of one provider (GP or hospital) making all the decisions, the patient can choose between different providers for different aspects of the service line.

Signals

Infermedia is one of the new tech startups offering healthcare providers a way to pre-diagnose, triage, and direct patients to appropriate medical services with the help of chatbots, apps, and AI, reducing the significance of GPs and moving the point of decision to insurance companies, for example.

Hypothesis

The COVID-19 pandemic has been an enormous accelerator for this unbundling trend. In particular, the use of telemedicine to avoid in-patient care sky-rocketed.

Now that far more patients are been accustomed to telemedicine due to the COVID-19 pandemic, this trend is expected to only accelerate further into a widely distributed healthcare system with unbundled care services, especially when combined with other trends like AI.

Thinking about the longer term: there’s a new development of “re-bundling,” for example in TV shows. And with central platforms like Apple Health, we also are getting the first glimpse of this happening for healthcare in the future, which opens up the question: What will become the new hub for healthcare?

New InsureTech startups like Elma position themselves more as a healthcare company, not as insurance, and their focus is really on optimizing healthcare and taking care of people.
A Crisis of Trust

Context
Fake news has often been blamed for the rise of populism and the spread of conspiracy theories, but the root of the problem goes much deeper. Polarization has increased dramatically due to a connection with identity. People interpret the world according to the world-view of their “tribe,” not facts or rational thoughts. And with this behavior comes a zero-sum/us-vs-them thinking in which compromise is considered a loss. Advances in detecting and flagging fake news are being made but so far fall short of making an impact.

Signals
The genuine danger in conspiracy theories can be observed in the anti-vaccination movement, where a long-debunked study has led to an ongoing campaign all over the world that directly impacts healthcare and the fight against disease. The prevalence of this movement, especially within well-educated groups of society, is harrowing. The current backlash against 5G (burning of cell towers, etc.) shows how another health-related conspiracy theory can directly influence the future of essential technology for digital healthcare. These can no longer be considered fringe views whilst populist leaders continue to preach on these topics.

Hypothesis
Any new cure, vaccine, diagnosis tool, or other health-care technology is in danger of triggering a public backlash and polarization. Pharma companies will have to face a public debate in which scientific facts play a declining role, and a healthcare conversation in which fringe theories become mainstream. How do you develop and market drugs when a growing group in society doesn’t trust you anymore, no matter what you tell them? The hope that populist leaders and the proponents of conspiracy theories will debunk themselves has not worked out so far. So players in the healthcare industry will have to make this trend an essential driver in all plans for the future—at least as long as no solution is feasible or the trend is not declining.
New Players in Healthcare

Context

While obvious players like pharma, insurance companies, and many other providers and payers fight about future shares of the healthcare market, some new players are emerging. With them, they bring the potential to shake up the industry from new and unexpected positions.

Signals

While Amazon changed consumer shopping habits, Walmart adopted new solutions for its customers’ needs—like integrating outpatient healthcare services. Best Buy is focusing its future on digital-health initiatives, moving from selling devices to adding analytics and services to helping seniors grow old, for example, with the help of their trusted customer-service workforce.  Venture capital firms are cooperating to create a technology security certification for digital healthcare because this regularly makes the difference between life and death for their startups. Group Purchasing Organizations (GPO) are helping increase competition, transparency, and even emergency preparedness; they are an archetype for new partnerships. Governments are moving the needle by introducing pricing controls on pharmaceuticals and medical technology devices.

Hypothesis

The healthcare market is becoming more fragmented and thus much harder to observe. New players from unexpected fields are entering it to disrupt. Pharma, with its current focus on research and manufacturing, is in danger of being pushed to the fringes of the network as a provider of intel and a receiver of fulfillment orders. Others like insurance companies or Big Tech are trying to become the central platforms that steer the integrated systems of future healthcare. But there are always new possibilities in the shake-up of an existing landscape. Why let new players be the only ones to disrupt when old players can do the same, reinventing their role in the changing system?
Digital by Default

Context

Friction between generations has always been a source of innovation and change. As new generations like millennials and Generation Z are staking their claim and defining their world-view, markets have to adapt. Young people around the globe are living their lives digitally by default. What will happen when the generation that has grown up with all those digital tools and services moves to the center of attention in the healthcare market?

Signale

Young people in their teens and twenties are already used to a more holistic lifestyle with a focus on mental health. They are familiar with meditation, intermittent fasting, and all the diets from paleo to vegan. They can’t imagine dating some who hasn’t been to therapy. They manage their health completely digitally. Every non-digital interaction with providers and insurance companies feels like an unnecessary drag. Authenticity, purpose, sustainability, and diversity—they expect a lot from brands that want to cater to them, and they can rally the troops quickly if they feel burned. From AI-based astrology to biohacking—they are open to fringe (mental) healthcare movements, but often their meme-based approach to new things is indistinguishable from trolling.

Hypothesis

Technologies change and so does their users’ behavior. The healthcare industry will need to adapt to the world-view and needs of new generations. The next generations are much less willing to accept the status quo. If push comes to shove, they’ll start their own thing instead. But simply developing an app for everything won’t solve the problem. These digital-first generations are also the most critical of the downsides of the digital world. But this challenge also provides an opportunity for those who do it right. And that usually means building the future with them instead of for them.
Pervasive Profiling

Context

The finance industry has been using credit scoring for decades. With greater quantities of data collected about our lives, more and more decisions are automated with the help of scoring. Smaller, cheaper, and more connected wearables allow the collection of tons of personal health data. This enables the creation of so-called digital twins—digital health data profiles that can be used to test treatments.

Signals

China is establishing a society-wide social credit scoring. More than 33 million companies in China have been given a score, and many companies have already been blacklisted. China also exports this system to other countries via its Belts & Roads initiative. Hangzhou plans to turn their COVID-19 app into a permanent health tracker: The city’s health commission said the proposed system would be a “firewall to enhance people’s health and immunity” after the pandemic. One example of a scoring company that many have been unknowingly exposed to is Zeta Global, which scores on how much money individuals are likely to spend. France-based startup Sim&Cure has developed a patient-based digital twin for treating aneurysms. Finland’s Oura raised $28 million from Square, Google’s Gradient Ventures, and others for its smart wellness ring and is mainly used to track more in-depth sleep data.

Hypothesis

We are already moving into the direction of behavioral and biometric scoring. Healthcare insurance, combined with social scoring is possible. This is another trend where regulation will have a considerable influence on the outcome over the next ten years. Future tech will track even more health data with, for example, internal (nano) sensors and AI. But there are many open questions like centralization vs. decentralization, competition vs. collaboration, and data ownership. This is why Blockchain technologies provide a lot of potential in this space.
Synthetic Media

Context

Human to human interaction is the pinnacle of communication. New AI technologies allow the generation of media featuring artificially rendered humans. Deepfakes have been the most prominent example in this field. We are moving into an age of abundant possibilities, from story-telling to hyper-personalized media. This trend is already changing processes and business models in the media industry and will spill over into other industries soon. The question we are facing is no longer what is real, but if we will even care.

Signals

Synthesia creates original videos with personalized and localized messages, using human-like avatars with correct facial expressions. This allows, for example, to produce translated promotion or training videos automatically. Voicery uses its AI-driven text-to-speech technology to create individual, natural-sounding voices for organizations that then can speak any given text. They offer specific speech engines for different contexts, from call centers to audiobooks, to adapt the voices. Samsung’s Star Lab was the viral hit of CES 2020, with the NEON concept developing full-person real-time avatars with which to have conversations. One of the presented avatars was a doctor.

Hypothesis

A lot of conversations in the context of healthcare are deeply personal and are based on human to human interaction. But what if healthcare professionals could be available at any moment, speaking your language, appearing in a manner (calm or energizing) that’s helpful for situations like instructions on how to take medicine, a pretest before an appointment, personal training for post-surgery recovery, etc. How far are people willing to let go of speaking with a human for the possibility of an instant, hyper-personalized human-like avatar? And for which context first?
On-Demand Supply Chains

**Context**

The rise of everything on-demand has put a lot more emphasis on supply chains to deliver on this promise. Logistics are getting unbundled and disrupted by new players and technologies, from drones to 3D printing and, of course, AI. Everything is becoming faster and better connected. Companies need to adapt rapidly and continuously. In a digitized global economy, supply chains are no longer an afterthought of products and services but have become highly contested sources of power and influence.

**Signals**

No other company understands the future of logistics like Amazon. From their aircraft fleet and their drone program to same-day delivery—they anticipate the wishes of the modern consumer and the supply chains needed to fulfill these. *UPS and Matternet* have begun delivering medical supplies via drone at UC San Diego Health.45 Drone usage has also seen a sharp uptick during the COVID-19 pandemic.46 3D printing is becoming an essential part of maintaining a delivery fleet, as Ford has shown by reducing both the time and cost associated with the production of parts.47 *IBM, Merck,* and *Walmart* have successfully finished an FDA-backed *drug-tracing pilot based on Blockchain* technologies.48 The system could track drug movements while also limiting the flow of private information and, most critically, work across partners that don’t otherwise interact.

**Hypothesis**

Idle autonomous cars could make in-city delivery even faster, and new technologies like 5G and edge computing will play a massive role in this area. But with the growing importance of supply chains also come more significant challenges as the chains are easily affected by global crises like pandemics and the consequences of climate change. Supply chains will have to become more resilient. Customers, on the other hand, are going to request far more information about the products they purchase. Technologies like Blockchain promise to provide transparency (for both B2B and B2C) while managing the growing complexity.

45 Matternet, 46 Geospatial World, 47 Truck & Fleet Middle East, 48 CoinDesk
The End of Globalization

Context

The globalized world economy used to consist largely of Western countries organized around the US, but that order is increasingly in disarray. While the US’s role is declining, other countries like China and India are moving into the nascent vacuum. The organizing principle of globalization used to be close coordination and collaboration. But growing uncertainty has driven a lot of countries to put their national interests first. They are no longer willing to have the rules dictated by the big ones. The global economy is becoming more fragmented and complex.

Signals

The ongoing trade disagreements between the US and China and their tax penalties have been a primary source of uncertainty. Both governments have also used economic pressure for their political interests. Trade agreements, in general, have faced backlashes around the world. But there are also more fundamental structural changes in globalization like the trade in services growing much faster than the one in goods. Labor-cost arbitrage has become a minor factor compared to knowledge for global value chains.49 The COVID-19 pandemic has accelerated a lot of the deglobalization developments. Countries raced to close borders for medical supplies and are trying to lock in companies developing a vaccine. There was almost no globally coordinated response to the crisis.50

Hypothesis

Countries will try to become less dependent on other countries for economic reasons or resilience in global crises. This trend is also closely connected to other developments like growing nationalism and populism. The global economy in 15 years could look very different from now. The world during the COVID-19 pandemic can be taken as a possible scenario of what lies ahead. Uncertainty is the most significant factor, and governments will try to fight it by shaping their contexts in their favor.

49 McKinsey. 50 The New York Times
New Sustainable Innovators

Context

First, Second and Third World countries—this categorization is losing its footing as countries in the second and third tier are no longer willing to accept the hegemony by the First World that is based on aid and economic development. They want to grow more independent and coordinate eye-to-eye (“cooperation”—not “aid’). Instead of being customers for generic products, they would rather be partners for developing local sustainable solutions.

Signals

The health ministers of Brazil, Russia, India, China, and South Africa (BRICS) intensified the coordination of their activities, and BRICS’ New Development Bank is providing funding for local health initiative in the member countries. Banks like HSBC have set up regional startup accelerators with the help of local partners to cater to a community of social entrepreneurs in the Middle East. The EU introduced a new Africa strategy aimed at partnership instead of tutelage. Accepting Africa’s new role is crucial to counter outside influences on the continent. There’s even substantial talk about debt cancellation.

Hypothesis

Former Second and Third World countries are developing a much more self-confidence. Companies wanting to operate in these countries will need to adapt to this and face more competition when these countries try to protect and foster their local companies. They will set up more local cooperations with the help of accelerator programs, joint ventures, and partner networks, instead of using brute force to insert themselves into a market as the “savior.”

51 The Hindu, 52 Arab News, 53 European Commission
The Future Scenarios

Four possible futures of healthcare in the year 2035.
AI is the paradigm shift in technology with the biggest potential to change what healthcare will look like in 15 years. This scenario asks what happens if constant health data tracking and AI-based diagnosis are linked with a younger generation demanding new gadgets and apps for their mental and physical health while also being critical of uncontrolled data collection. One tech company wants to be part of the answer.
Current signals pointing towards this future

Apple provides hardware for mental health research

Apple is teaming up with the University of California, Los Angeles (UCLA) to launch a three-year study to understand how sleep, physical activity, heart rate, and daily routine can impact anxiety and depression.

> MacRumors, Aug 2020

Health app users tend to be wealthier

People making at least $100,000 a year are 18 percentage points more likely to use health apps than those who make less than $50,000 (45 to 27 percent).

> Morning Consult, Jan 2019

Google's DeepMind AI outperforms doctors in identifying breast cancer from X-ray images

> nature, Jan 2020

Apple Watch shipped 7.6 million units worldwide in Q1 2020, rising an above-average 23 percent from 6.2 million in Q1 2019.

> Patently Apple, May 2020

So far the meditation app Headspace has been downloaded more than 62 million times in 190 countries. It already has over 2 million paid subscribers.

> TechCrunch, Feb 2020

62 million times

+23%
Generation Z

62%

Gen Z members are confident that technology will do more good than bad. Some 62 percent are optimistic that digital technologies will help solve the world’s problems.

> Forbes, Jul 2020

58%

More than half of the Gen Z responders (58 percent) distrust tech companies and personal use of their data.

> Forbes, Jul 2020

The European Commission investigates the acquisition of Fitbit by Google

“The use of wearable devices by European consumers is expected to grow significantly in the coming years. This will go hand in hand with an exponential growth of data generated through these devices. This data provides key insights about the life and the health situation of the users of these devices. Our investigation aims to ensure that control by Google over data collected through wearable devices as a result of the transaction does not distort competition.”

Margrethe Vestager, European Commissioner for Competition

> European Union, Aug 2020

Personalized Nutrition

Viome examines your microbiome with the help of AI to create personalized dining recommendations featuring foods that are an ideal fit for your biology.

> The Spoon, Feb 2020

App + AI = Health Insurance

Zurich has started developing Azul, an AI based virtual assistant that scans your face and gives you a quote for life insurance based on how healthy you really are.

> Community of Insurance, March 2020

Personal Health Tracking & Scoring

Hangzhou, a city in China plans to turn the COVID-19 app into a permanent health tracker. For example, drinking a glass of white wine could set your score back by 1.5 points, while sleeping for seven hours could improve it by one point.

> The Guardian, May 2020

More than half of the Gen Z responders (58 percent) distrust tech companies and personal use of their data.
From wearables to health apps—digital gadgets and tools are an increasingly bigger part of a healthy lifestyle. Today they have established a preventive care system, independent of medical providers. A fitness tracker might know more about the health of the person wearing it than their physician. Tech companies like Apple have introduced health data graphs that collect health data from many connected sources. What could happen in the future if those companies decided to do more than just collect that information?

An article from the future

“If you zoom out into the future, and you look back, and ask the question, ‘What was Apple’s greatest contribution to mankind?’ It will be about health.”

Tim Cook, Apple CEO

55% of adults who do not track blood pressure with an app said they would consider it, compared to 16 percent who currently do. The numbers are similar for medication management, mood, and blood sugar.

> Morning Consult, Jan 2019

> CNBC, Jan 2019

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TAKE A GLIMPSE INTO THIS FUTURE
Apple CEO Tim Cook took the stage at an event in Brussels last night to finally unveil the tech giant's plans to roll out its Apple Health platform in the EU. Dubbed “Siri but for healthcare” the heavily AI-and-data-driven service has been a runaway success in the US, where competitive pricing has allowed it to fill an important gap in the market in a country where millions still struggle to afford medical insurance.

Apple Health users must have a compatible Apple device and an iCloud account before signing up. There is a monthly fee, with tiered pricing ranging from $99.99 to $299.99 a month. The basic plan comes with a free Apple Watch, which the user must wear at all times, while higher-priced tiers include deals with Apple’s third-party partners that provide everything from gym memberships and Peloton bikes to smart scales and discounted at-home genome testing kits. Higher tiers also include sliding scale coverage for prescription drugs and surgical procedures.

“By harnessing the power of data collection and prediction we’re moving healthcare from reaction to prevention, and providing our users with not just peace of mind, but also saving them potentially tens of thousands of dollars in medical expenses,” Cook said. “We believe that shift—from trying to cure medical issues to preventing them from happening in the first place—is one of the most important and exciting developments in the history of modern medicine.”

Apple Health’s prevention strategy comes in the form of what it calls “wellness coaching”, where the app gives lifestyle management advice and sets goals for everything from diet and exercise to sleep and social activities. It’s this part of Apple’s strategy that has turned the insurance premium model on its head, as repeated failure to comply with advice and targets—or even just patterns of extravagant eating and drinking—can lead to the user’s monthly premium increasing, or restricted access to certain parts of the service.
Cook explained the new approach to premiums in simple terms. “We are introducing a system where you’ll no longer need to worry eating that one extra cupcake if you’re dieting, or spend countless hours researching the best wellness trend. Our platform will do it for you.” A video went on to show “Mike” at a bar, who had just received a notification from Siri that he shouldn’t order another beer—otherwise his insurance premium would increase by $1.35. The reach of the platform became apparent after showing how the AI made a decision based on viewing his recent beer purchases on his Apple card.

“It’s a carrot and stick approach to healthcare, of a kind we’ve not seen micromanaged so closely before,” explains Dr. Gillian Collins, a healthcare expert at Stanford University, over Skype. “It works great for many people, and less well for others.

Research shows that people who live in poverty or have to work several jobs struggle with the kinds of routines that Apple Health enforces, as they’re tired and short of time, which often leads them to take shortcuts regarding things like diet or exercise. The irony is that it’s exactly these people who are attracted to Apple because of the advertised low premiums.

At the other end of the scale it means that those who can afford it simply opt out of the nagging and restrictions by paying higher premiums. Apple needs to get it right in terms of increasing access and balancing equality if they want to truly see game-changing success with this model.”

Despite Apple Health’s high adoption rate in the US, many analysts are more muted about the service’s chances in Europe, pointing to the fact that most EU citizens have access to some form of low cost or socialized healthcare. As such, Apple is focusing heavily on the UK market—where the NHS is struggling to recover from punitive austerity measures—as well as attractive partnership deals that include cheap gym memberships and spa retreats.

The data from your next ride could save you money. How about that for motivation to get a new personal record?
This scenario combines current developments in technology like AR glasses and synthetic avatars with scientific breakthroughs like CRISPR, as well as societal trends like beauty filters among influencers and protest movements, to ponder the potential future impact these could have on preventive healthcare.
Current signals pointing towards this future

“What if you could interact with a simulated person to learn from them? Would you invite a synth to a dinner party?”

Samsung’s Technology and Advanced Research Labs (STAR Labs) thinks the answer is yes.

Post-genomic era

Founded by genomicist Jun Wang and based in China, iCarbonX combines genomics with other health factors such as metabolites, bacteria and lifestyle choices to create a digitalized form of life.

The global augmented reality and virtual reality market in the healthcare industry is expected to reach $10.82 billion by 2025, representing a remarkable 2019-2026 CAGR (Compound Annual Growth Rate) of 36.1 percent. North America will dominate the global market during the projected period.

> Future Today Institute

$10.82 billion by 2025

> Business Wire, Dec 2019

> Top 10 of Asia, Oct 2019
engineers at Apple working on two AR/VR devices that are scheduled to be released in 2022 and 2023. The proposed goal of the team is to create something that would rival the success of the iPhone.

> Bloomberg, June 2020

Covid-19 Deniers Protest

Officials say about 20,000 people attended the Berlin protest on August 1, 2020. Organizers had declared it a “day of freedom” from months of COVID-19 restrictions. Demonstrators held up banners featuring such lines as “Corona, false alarm” and “We are being forced to wear a muzzle”.

> BBC, Aug 2020

Smart Mirror

Apparel Company Lululemon Buys Fitness-Hardware Startup Mirror for $500 Million. Mirror is what happens when your (virtual) fitness coach moves in to your tiny apartment.

Review from Mirror Customer: “Mirror has made my fitness journey consistently convenient, safe, affordable, flexible, and fun. [...] I am doing good things for my heart and circulation. It is beautiful and functional.”

> lululemon athletica, July 2020

$45 Billion

Valuation of all AR/VR startups globally.

> TechCrunch, Oct 2019
Google is turning its focus and investments to the digital health sector. More than 500 people now work at Google Health as its parent company Alphabet tries to improve the search results that consumers see when they consult “Dr. Google.”

> Forbes, Feb 2020

Augmented Reality (AR), the overlay of a person’s field of vision with digital information, may have had its origin in science fiction, but it's been inching towards reality for decades now. From Google Glass to Instagram filters to Pokémon Go, progress has been slow but steady. These early examples have already hinted at the impact full AR could have on society. What if in 15 years’ time, AR lenses become a consumer product, changing—among other things—how people see their health?

TAKE A GLANCE AT THIS FUTURE ➔

Body Ownership Illusion with Virtual Reality

Recent research has shown that people with obesity can experience the feeling of a skinny body with the help of virtual reality (VR). This can support therapy settings by enhancing positive rehabilitative outcomes.

> MDPI, Aug 2019

A snapshot from the future

Recent research has shown that people with obesity can experience the feeling of a skinny body with the help of virtual reality (VR). This can support therapy settings by enhancing positive rehabilitative outcomes.

> MDPI, Aug 2019

NOW YOU SEE ME
The already burgeoning augmented reality market is set to explode over the next two years following Bausch Health and Google's announcement this week that their long-awaited augmented reality contact lenses will finally be available to consumers this coming October, say tech industry analysts. AR has enjoyed a huge boom over the last few years, driven largely by the popularity of cosmetic apps and filters (most of the top ten AR apps are from recognizable beauty and fashion brands such as Sephora, Maybelline, L'Oréal, Fenty, Gucci, and Armani). Each one allows users to alter certain aspects of their appearance, from applying virtual make-up to radically altering the shape and of their face or body, while some give instant access to the latest fashions in the form of augmented clothing and hair styles. It's a highly lucrative industry for these brands as their businesses shift away from traditional physical products to augmented and virtual ones, via a mixture of subscription models and in-app purchases.

As the popularity of these apps increases, some experts are raising concerns. "It's relatively early days, but we're already seeing how these beauty apps negatively impact people's health, both mentally and physically," says Kara Peterson, a body image and digital cultures researcher at Aarhus University. "People are so taken with making sure their AR avatar looks just right that they're starting to neglect their actual health. Why worry about losing weight or eating properly if these apps mean you can always look slim and healthy without any effort?"
Which is why one aspect of the Lens launch stood out: in one three-minute video segment of the presentation, Google gave a whirlwind tour of how it plans to use augmented reality apps to help users manage and improve their health. While much of this looked similar to other standard health tracking apps, there was also footage of a man looking at himself in a mirror and seeing a manifestation of his target weight looking back at him, providing motivation to continue his diet through this visualization of how he might eventually look if he stuck with it.

Even more interesting was an app that virtually transformed what food looked like—a clip showed a diabetic woman eating a plate of broccoli that appeared—to her, through Lens—as a bowl of ice cream. Although this seemed like a gimmick at first, Verily claimed it was part of an in-house trial that was providing encouraging results, and the woman spoke briefly about how it was helping her overcome issues she had around food and nutrition.

"Some of these technologies look fantastical, but we're really excited about their real world results" says one head of digital research at a Danish pharmaceutical company. "We've seen over the last few decades how interactions in the digital world can affect people's real-world relationship to their health and bodies, and AR really brings those two areas much closer together. Instead of using AR as a way of hiding ourselves, or pretending that our health issues don't exist, we're looking at ways in which our customers and patients can use these technologies to look inward, and to get more in touch and sync with their health, and to understand how their bodies work, and then make better choices."

As exciting as this all sounds, for Kara Peterson there are still reasons to be cautious. "It's important to remember that this is still a very new technology, it's barely 30 years old," she told Business Insider over Zoom. "We still don't really know what the long-term implications could be. It's very exciting to look at these new tools, and how they can help people manage their lives or visualize improving them, but we are only just beginning to understand how AR effects people's self-image, both physically and mentally. It'll undoubtedly have an even bigger impact than TV and fashion magazines did in the last century, and as we know that wasn't always in positive ways. It's important to bear this in mind and proceed with caution."
Rise of the Giants

Healthtech helps to transform the vision of a value-based healthcare system into reality. But it has also opened the door for new players like tech companies and supermarket chains to enter the field and leverage their expertise in technology and distribution to gain an advantage. This scenario looks at a healthcare ecosystem market that grows ever more crowded and competitive. In 15 years, the market might look very different from now.
Current signals pointing towards this future

Healthcare AI Standard
Big names in technology, including Amazon, Microsoft, and IBM, worked with healthcare industry groups to develop a standard for the use of artificial intelligence in order to be able to offer value-based healthcare.

> Fierce Healthcare, Feb 2020

75% of healthcare professionals surveyed say tech will enable shift to value-based healthcare model.

> Consumer Technology Association, June 2020

“You're going to see a health system that's focused on human longevity and aspirational living versus [being] focused on the reduction of misery and suffering.”

Roger Jansen, Chief Strategy Officer, Spectrum Health

> Society for Health Care Strategy & Market Development (SHSMD)

Walmart Health Center
The Walmart Health Center puts key health services under one roof, offering primary care, dental, optometry, counseling, laboratory tests, X-rays, hearing, wellness education, and behavioral health.

> Forbes, Sep 2019
“We’re going to have a consumer revolution in retail for point of care.”

“Why? Because if the Walmart [Health Centers] are successful, and I suspect they will be, people will be able to go in and get these kinds of health services at a lower cost than if they had health insurance.”

John Scully, Chairman of RxAdvance and Apple’s Ex-CEO

> CNBC, Feb 2020

1,500

CVS HealthHub stores will open nationally by the end of 2021. The drugstore chain CVS Health will provide dietitians, help people monitor chronic diseases, and add community rooms that can be used for yoga classes.

> Stat, June 2019

Digital Pharmacy

Alto Pharmacy provides a full-service digital pharmacy and prescription delivery service supported by a pharmacy management software and a provider platform that facilitates prior authorizations, insurance coordination, and improved patient monitoring. They received $250M in another round of funding.

> MobiHealthNews, Jan 2020

Blockchain for Healthcare Infrastructure

South Korea is developing a proof-of-concept for a blockchain-based data registry platform that has been set up to help more than 11 million South Koreans who suffer from chronic conditions such as diabetes and cardiovascular disease.

> Cointelegraph, July 2020
Healthcare is a complex network of industry players, government institutions, medical providers, and patients, all negotiating their interests. Path dependencies established over many decades have made it slow to change. What if new players come in, disrupting not the innovation but the distribution? Here’s a story from this future, in which one tech giant in particular seems ready and eager to make big moves.
“Total Domination” – Email Leak Reveals Amazon’s Plans for Healthcare Industry

As journalists continue to dig through the terabyte of emails dumped by hackers on the internet last month, healthcare experts are alarmed at the tech giant’s aggressive plans for further domination of the sector.

The recent huge dump of private emails between Amazon executives is slowly revealing the tech and retail giant’s plans for everything from heavily expanding its self-driving delivery van fleet, to a possible low-cost airline. But one thread of emails between the head of the company’s healthcare division and other board members has raised eyebrows in the medical community, as it describes the sector as “ripe for disruption.”

The company should follow a “strategy that is bold and ambitious”, according to a leaked memo, that will “disrupt and reshape the entire sector to do what Amazon has already done best—handing choice and control back to customers while also providing a one-stop, total solution to their needs.” At a time when millions of American citizens still lack health insurance, the plan outlines an extremely ambitious push to “make insurance itself obsolete.”

The memo goes on to explain that this would be possible due to Amazon’s “comprehensive solution” approach, where instead of just being an insurance company that relies on third-party services, Amazon Health could be a complete healthcare provider, covering everything from doctor visits to prescription drugs. “We must leverage our control over logistics and supply chains, as well as our unparalleled buying power and market control, to raise choice while driving down costs for our customers—in exactly the same...
ways we have done for everything from book retail to web hosting,” the memo explains.

This would start with driving down costs for drugs and medications by becoming a leading manufacturer. While Amazon has already acquired a number of pharmaceutical companies and distributors, the memo urges the company to pursue this more aggressively, so that it would “no longer have to rely on non-Amazon owned or aligned manufacturers to cater to our customer’s needs.”

The aim is to drive down costs so that “customers automatically turn to Amazon as their first choice for pharmaceutical needs, just as they already do for books, electronics, and household goods.” It suggests creating an AmazonBasics branded line of cheap generic drugs, as well as cheap auto-renewing subscriptions for repeat use products such as insulin or antidepressants. Looking further into the future, it even outlines a few more science fiction proposals, citing plans for emergency drone deliveries and a patent for a “3D pharma printer” that would synthesize certain medications at home.

In a more surprising “future strategy,” the memo stated that the company is confident that it could be a replacement to the healthcare systems of countries struggling with war and economic disasters. “Amazon is well-poised to become a state provider of healthcare in Libya or Venezuela,” read a heading entitled “National Expansions?”

Analysts foresee the closure of about 70% of existing physical locations.

One page in the memo even shows a doctor on the beach, doing consultations on an Amazon branded tablet—which some social media critics have pointed out is a stark contrast to current typical telehealth models, where the quest to provide rock-bottom prices to consumers has resulted in doctors working long hours in call centres around the world. Analysts that have seen the memo foresee the “possible closure of about 70% of existing physical locations under this model, with the remaining sites most likely being repurposed as micro-hospitals to provide surgical procedures and in person therapeutics only when needed,” leaving a number of unanswered questions around what will likely result in a massive change to the healthcare services landscape.
Decentralization is the focal point of this scenario. Imagine a less globalized world with new opportunities for regional players and localized supply chains in an unbundled healthcare system. From telemedicine, chatbots, and the deployment of drones to economic pressure on global corporations and new demands for domestic health solutions—this is a future that is being accelerated by the COVID-19 pandemic.
Current signals pointing towards this future

Trade War 4.0
The EU is entering uncharted territory in trade conflicts by considering retaliation against the US on services and IP, including new charges on carbon emissions and a tax on digital giants like Google and Facebook.

> Politico, July 2020

The Splinternet is getting closer
In August 2020, the Trump administration announced a broad plan to block Chinese software from being used on US devices and keep US data off Chinese cloud services. The plan mirrors China's "great firewall" that prevents people in China from accessing most US websites and apps.

> Business Insider, Aug 2020

The Digital Economy Initiative for Africa (DE4A)
The DE4A aims to ensure that every individual, business, and government in Africa will be digitally enabled by 2030 in support of the African Union's "Digital Transformation Strategy for Africa." To support this objective, the World Bank intends to invest $25 billion between now and 2030.

> The World Bank

Trade as a share of global G.D.P. peaked in 2008 and has trended lower ever since.

> The World Bank, 2019

A recent study found that participants using Hinge Health's digital exercise-therapy program decreased their pain by more than two-thirds and anxiety and depression by 58 percent.

> MobiHealthNews, May 2020

58%
$18.5 billion

Hailed as the biggest digital health deal of all time, Teladoc buying Livongo for $18.5 billion brings together Teladoc’s expertise in virtual care with the proactive patient engagement of Livongo to proclaim a digital-first future of healthcare.

> Forbes, July 2020

3D Printing is hot again

“Additive manufacturing has an on-demand base, and that lowers the barrier to entry. The distributed nature of its manufacturing was a big plus during the crisis—Covid really highlighted the value of that.”

Ferdie Bruijnen, VP, Supply Chain Operations at 3D Systems

> Forbes, July 2020

Home Exam Kit

Tyto Care has developed a handheld exam kit that anyone can buy. The accompanying mobile app and clinician dashboard connect the patient with healthcare professionals to receive a diagnosis, treatment plan, and a prescription—all without leaving their home.

> VentureBeat, April 2020

Social Impact Accelerator for Saudi Arabia

SABB and HSBC have opened the regional “C3 Social Impact Accelerator” to Saudi startups. The program is the region’s flagship accelerator program offering training and investment opportunities for startups making a positive social impact.

> Arab News, Oct 2019
Tanzania’s New Digital Health Strategy

It enables a health system that is *patient-centric, data driven, and guides the next five years of digital innovation in the country*. It ranges from strengthening disease surveillance, reporting, and response, to the use of telehealth to build health worker capacity in a changing digital landscape, while providing specialized care to the country's most remote corners.

> Path, Feb 2020

“5G will enable the industries' digital transformation in the future, such as smart healthcare, smart ports, smart mining, and smart manufacturing in South Africa.”

Khaya Dlanga, CMO of South African mobile operator Rain

> RCR Wireless News, July 2020

A feed from the future

In parts of the world where 5G technology leapfrogs the creation of digital infrastructure, the unbundling of healthcare makes it possible to offer remote medical services locally. The following presentation of this future goes beyond the typical Western frame of patient care and imagines a model that provides access to clinical aid with telemedicine, AI diagnosis, and virtual treatment to those for whom it wasn’t available or affordable before.
Healthcare CEO Heralds “Post Borders” Future

Blue Ant CEO uses TED talk to outline vision in which clinic franchises “break down barriers of access and affordability”, but critics warn of inconsistent regulations and standards.

Helle Bigend, CEO of Belgian Healthcare giant Blue Ant, used her talk at TEDxCopenhagen this week to announce the company’s plans to launch its chain of Your HealthChoice clinics across Asia, Europe, and the US by the end of next year.

The Your HealthChoice model, which the company has been trialing in a selection of African and South Asian countries for the last two years, has proved popular in developing markets due to its use of virtual and telehealth products to provide what Bigend calls “a world leading package” of services.

“For too long, families in the Global South have had to look on enviously as the so-called developed world has enjoyed the best healthcare modern science has to offer, whilst patiently waiting to see what drugs and services Western markets allow to trickle down to them,” Bigend said.

“Not any more. With Your Healthchoice we’ve blown open those barriers, with a new approach and philosophy that means that we can provide the newest innovations and life-saving products directly to whoever needs them, regardless of borders.”

Blue Ant’s “new approach” is one that’s actually very familiar from other sectors: franchising. For a flat (and at this point, undisclosed) setup fee anyone can buy what Blue Ant is calling a “healthcare launch pad” allowing them to set up a digital clinic. Bigend points out that the majority of the services the clinic provides are telehealth-based with patients getting advice and diagnosis via a mixture of remote healthcare professionals and AI-powered apps—but many also choose to launch in mobile spaces, such as a converted truck or bus. It’s this aspect that Blue Ant is pushing as the service’s main selling point to patients in the Global South—access to knowledge and expertise that has previously been unavailable outside developed nations.

Diagnoses with Blue Ant's algorithm are expected to reach a staggering 1 million per day.
“Your Healthchoice franchise owners will still need to contract local healthcare professionals for when physical treatments are required—a process we are making increasingly easy for them as we expand our global database of Blue Ant verified HCPs,” Bigend outlined. “But for the majority of patient interactions we are offering something unique: the ability to talk directly to one of the best doctors in the world, instantly and conveniently, and at a price everyone can afford.” Bigend also presented footage of one mobile Your Healthchoice clinic, located on the outskirts of Mogadishu in Somalia, and run by Saadaq Daleel. The footage showed a handful of patients sitting in a clean, well-lit space, talking to clinic staff or having video calls with remote doctors in private booths while their children played soccer in the yard. “Two years ago these patients would have had to queue for four hours to see the one doctor that was operating in this neighborhood,” claimed Bigend. “But now the clinic is nearly empty, even though it’s serving upwards of 750 patients a week, with many choosing online services. Most of them need never come into the clinic unless to pick up prescribed medications, as they’re being connected to world-class practitioners from their homes.”

The scheme hasn’t been without its critics, however. A recent news report about clinics in the Nigerian city of Lagos claimed that many patients never actually got to talk to a doctor, and instead were left to decode the often confusing diagnosis given by Blue Ant’s still-in-beta AI agents. “These are nothing but teething problems,” a Blue Ant spokesman said at the time, citing a delay in recruiting telehealth doctors, but promising that the situation would be soon resolved with the opening of new call centers in Chennai and Tunis.

The blueprint for Blue Ant’s operating model relies on an interconnected network of telemedicine services, online pharmacies, and virtual clinics—all going through the company’s patented AI diagnosis algorithim.

Other critics cite the lack of a requirement for prospective franchise holders to have any medical qualifications or background as a cause for concern. For example, Sadeeq Daleel had previously managed two fast food restaurants in Mogadishu—in fact, his Your Healthchoice clinic is based in the converted KFC outlet that he used to run before it went out of business.

Bigend concluded her talk with a comparison to the success of Airbnb as a disruptor of the hotel industry over thirty years ago. “[Airbnb], the biggest hotel chain in the world, does not own any physical hotels or rental properties. Blue Ant will be the biggest healthcare company in the world that will have no physical clinics or treatment centres.”
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