

# AI-Driven Network Optimization for School Connectivity

The goal of this project is to build an AI-driven platform that assists Giga by UNICEF in optimizing school connectivity in underserved regions

# Every school connected means thousands of futures unlocked.

AI-Powered School Connectivity for Global Education. Our innovative solutions are designed to bridge the digital divide and empower the next generation through education.

**by Global Green Guard**

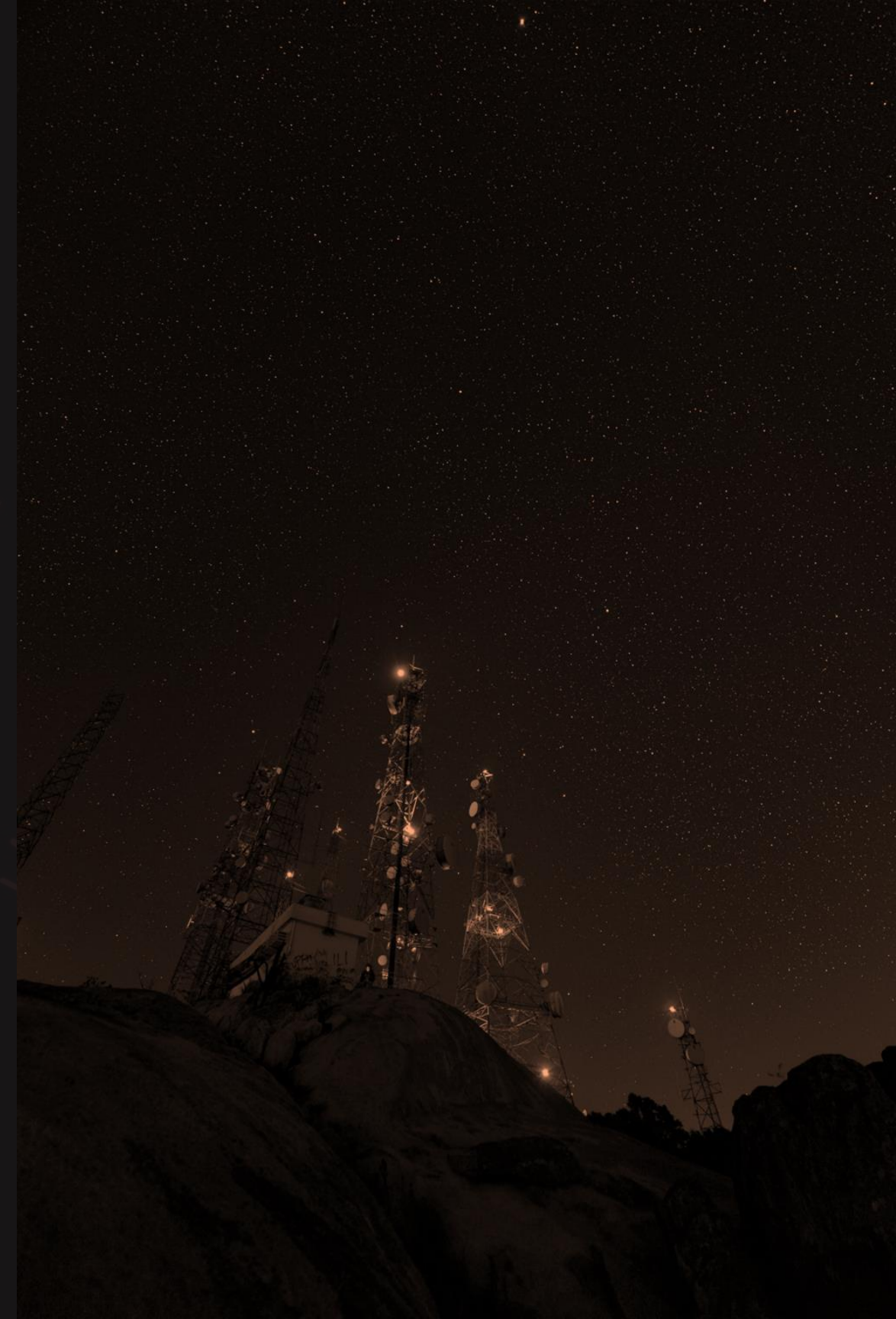




# The Vision

- 1 Every child deserves access to digital education.
- 2 Complex planning challenges hinder progress.
- 3 Limited technical expertise is a barrier.
- 4 Inefficient resource allocation slows connectivity.

Millions of schools remain disconnected, limiting opportunities for students worldwide. We aim to overcome these challenges with innovative solutions.





# Our Impact Solution

Our revolutionary platform democratizes connectivity planning, turning complex network decisions into simple conversations. Public officials can ask questions in plain language and receive visual insights instantly.

1

Ask questions in plain language

2

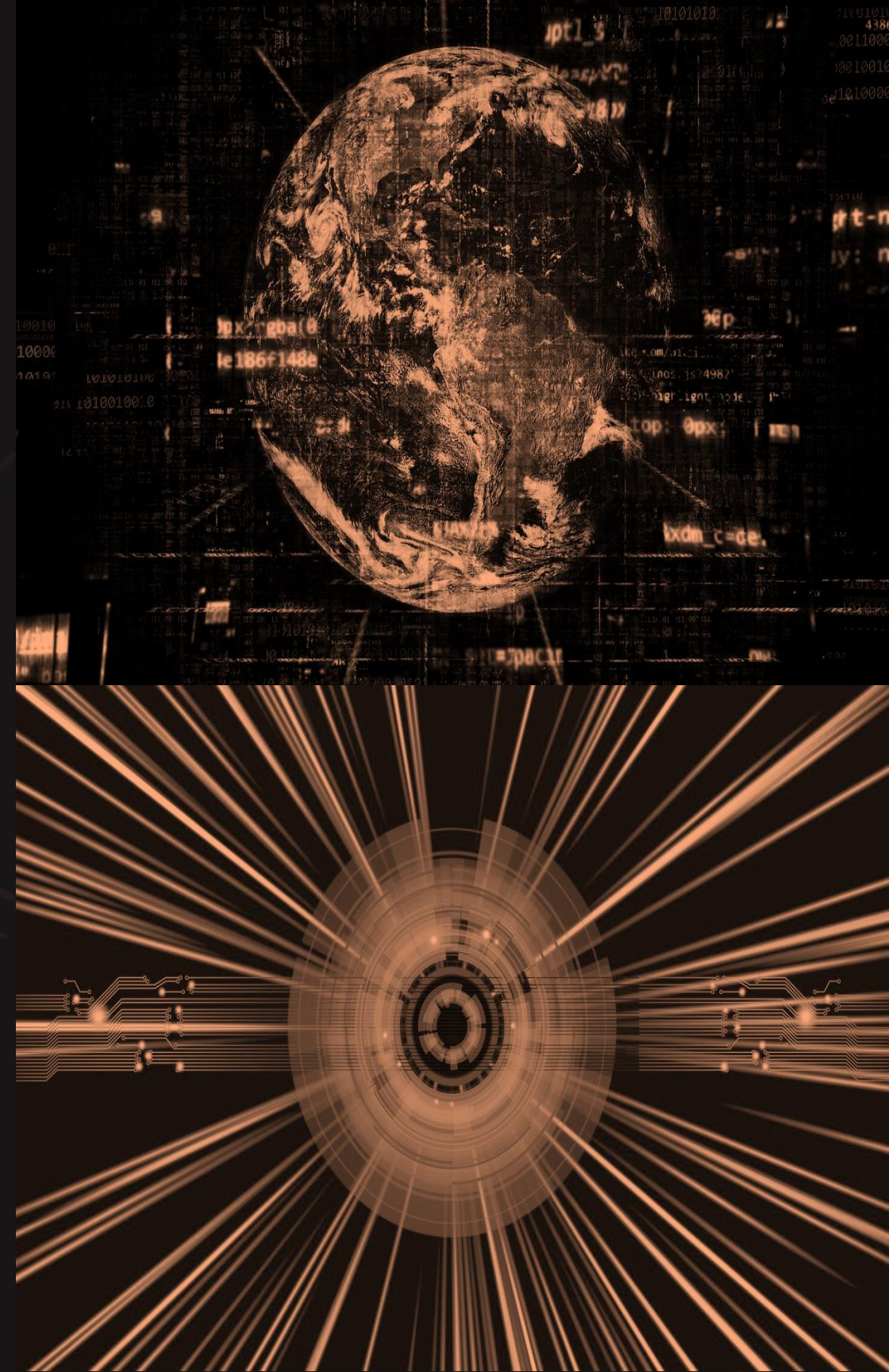
AI translates into technical analyses

3

Visual insights appear instantly

4

Actionable recommendations guide implementation



# Meet Fatima



Visualize exactly  
which schools lack  
connectivity



Compare different  
connectivity  
approaches



Simulate the impact  
of various budget  
allocations

Education Minister, Rural Province. Fatima can now visualize connectivity gaps, compare approaches, and make confident, data-driven decisions with ease.





# Real-World Impact

## For Students:

- Access to digital learning resources
- Connection to global knowledge networks
- Development of critical digital skills
- Preparation for future opportunities

## For Communities:

- Schools become connectivity hubs
- Digital inclusion for marginalized populations
- Economic development opportunities
- Reduced urban migration pressure

# How It Works: Human-Centered Design



Our platform uses a human-centered design approach, integrating data, AI analysis, a conversational interface, and dynamic visualization to provide effective solutions.



# Demo: From Questions to Insights

User Query	Platform Response
Where are connectivity deserts in rural Kenya?	Heat map of unconnected schools with population overlay
What's the most cost-effective solution for Region X?	Comparison of cellular, fiber, and satellite options with ROI
If we add three towers here, what changes?	Before/after coverage simulation with school impact metrics

See how our platform transforms simple questions into actionable insights. We provide heat maps, cost-effective solutions, and coverage simulations.



# Case Study: Potential Impact in Kenya

1200+

Schools Identified

Disconnected schools in priority regions

35%

More Schools Connected

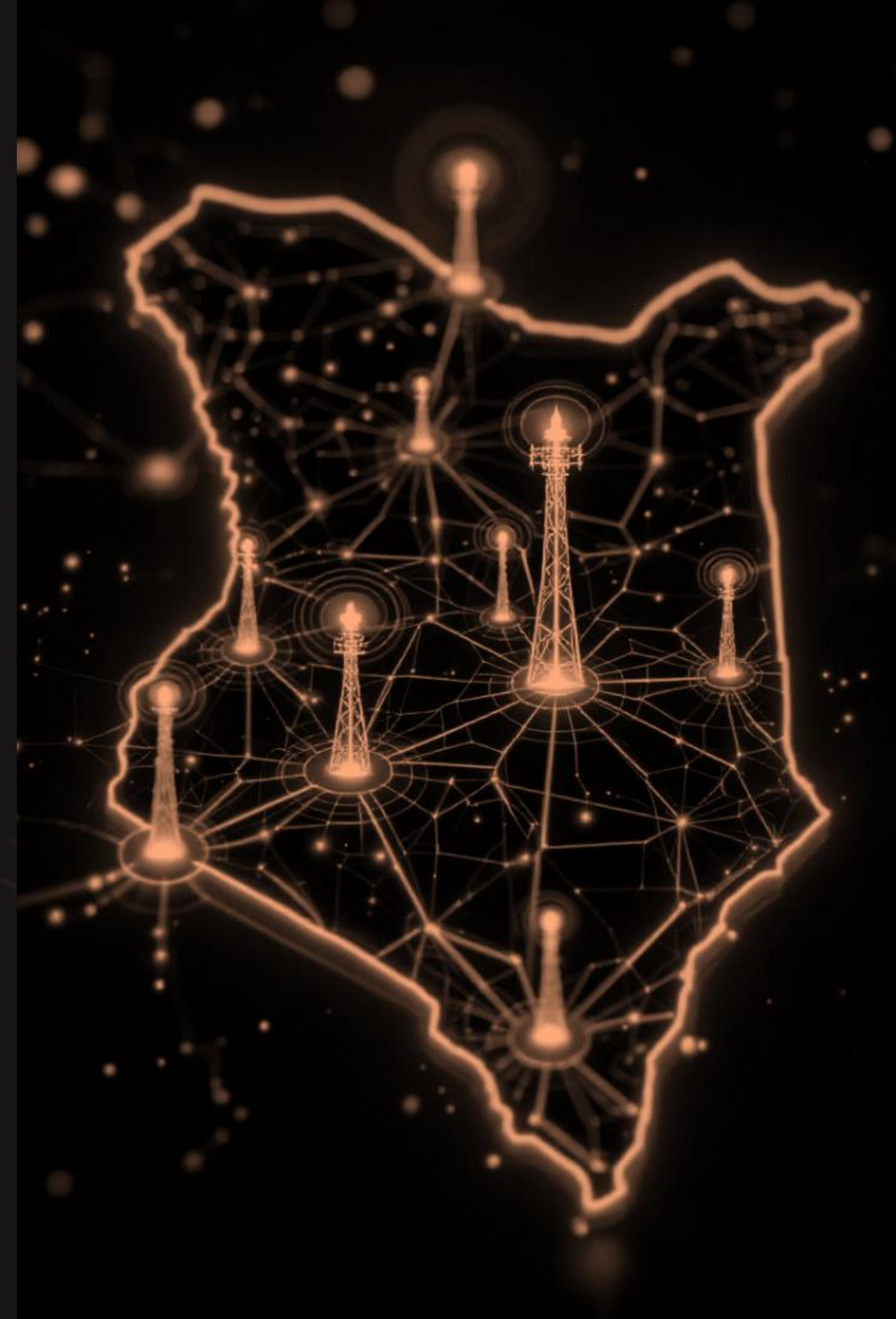
Optimized tower placement

Days

Planning Time Reduced

From months to days

Our system could help Giga by UNICEF identify disconnected schools, optimize tower placement, and reduce planning time. Enable local officials to drive connectivity projects.







# Our Commitment

1

Schools connected

2

Students empowered

3

Communities transformed

We measure success by the number of schools connected, students empowered, and communities transformed. Our goal is to create lasting, positive change through education.



# Join Us in Connecting Every School

The gap between connected and disconnected schools is not just digital; it's the gap between possible and impossible futures. Partner with us to bridge this divide.

