#### LABLAB.AI STABLECODE 24-HOURS HACKATHON

### **POLISPLEXITY: REVOLUTIONIZING CITIES** WITH AI CODE GENERATED SIMULATIONS

Unleashing the Future of Urban Planning with AI and VR, AR and XR



## THE PROBLEM: THE MULTIFACETED COMPLEXITY OF MODERN CITIES

Today's cities are not just urban spaces but complex ecosystems involving a dynamic interplay of human, cultural, and societal networks. Traditional models are inadequate for understanding and optimizing these intertwined systems.

# THE SOLUTION: HARNESSING THE POWER OF AI TO DECODE CITIES

Polisplexity employs AI and simulations to generate comprehensive models of cities that account for both their physical structures and the human activities that shape them. For example, our system could not only propose efficient transportation routes but also predict social and cultural impacts of those changes





### **EMPOWERING URBAN PLANNING THROUGH TECHNOLOGY**

#### HOW POLISPLEXITY WORKS

- Cities

  - Simulations: Our platform simulates the complex interactions between multiple aspects of city life.

  - sandbox for testing policies and
  - interventions.

Revolutionizing Our Understanding of

- Al Models: We utilize machine learning
  - to analyze both tangible aspects like
  - infrastructure and intangible factors
  - like human behavior and culture.

- Digital Twins: A multidimensional
  - digital replica of the city provides a

### **UNLOCKING THE POTENTIAL OF** POLISPLEXITY

#### SYSTEM ARCHITECTURE OVERVIEW

Components:

- Human Behavior and Cultural Analyzer
- Infrastructure and Resource Manager
- Social and Economic Policy Simulator
- Data Integration Core
- Complex Systems Intelligence
- Sustainable Development Planner

Planner





Information Integrator



City Urban Resources Planner

### THE POLISPLEXITY ADVANTAGE

#### INTEGRATIVE INSIGHTS FOR A THRIVING FUTURE

- Interdisciplinary: Caters to decision-makers in various sectors, from public health to economic development.
- Context-Aware: Adapts to local cultural, social, and economic contexts.
- Scalable: Designed to scale and adapt to cities of different sizes and complexities.











#### **BUSINESS MODEL**

#### SUBSCRIPTION MODEL

For continual access to data and simulations.

#### CONSULTANCY

Customized solutions for specific city-related challenges.

#### DATA PARTNERSHIPS

Collaborations with local governments, NGOs, and academic institutions for data sharing and research

### INVESTING

TAM: \$4 BILLION | SAM: \$800 MILLION | SOM: \$16 MILLION TOTAL ADDRESSABLE SERVICEABLE MARKET (TAM) AVAILABLE

he TAM includes all cities worldwide that could potentially use PoliSplexity. Considering the platform aims to tackle both urban and social complexities, this could be applied to every city globally. Let's say there are roughly 4,000 cities with populations over 100,000 where these issues are more pressing. If each city could potentially spend an average of \$1 million annually on such a platform, the TAM would be \$4 billion.n

# MARKET (SAM)

The SAM is the portion of the TAM that PoliSplexity can realistically serve. Suppose that PoliSplexity focuses initially on Englishspeaking countries with advanced technological infrastructure, like the United States, Canada, the UK, and Australia. Let's say that narrows it down to 800 cities

#### SERVICEABLE OBTAINABLE MARKET (SOM)

SOM is the realistically obtainable market share within the SAM, usually within a specified timeframe (e.g., 1-3 years). As a startup in a complex and competitive field, capturing 1-2% of the SAM in the first few years could be a realistic goal.



### SHAPE MORE THAN JUST CITIES—SHAPE CIVILIZATIONS

INTERESTED IN TRANSFORMING THE WAY WE UNDERSTAND AND INTERACT WITH CITIES? V

REACH OUT FOR COLLABORATIONS AND PILOT PROGRAMS. POLISPLEXITY@HADOX.ORG