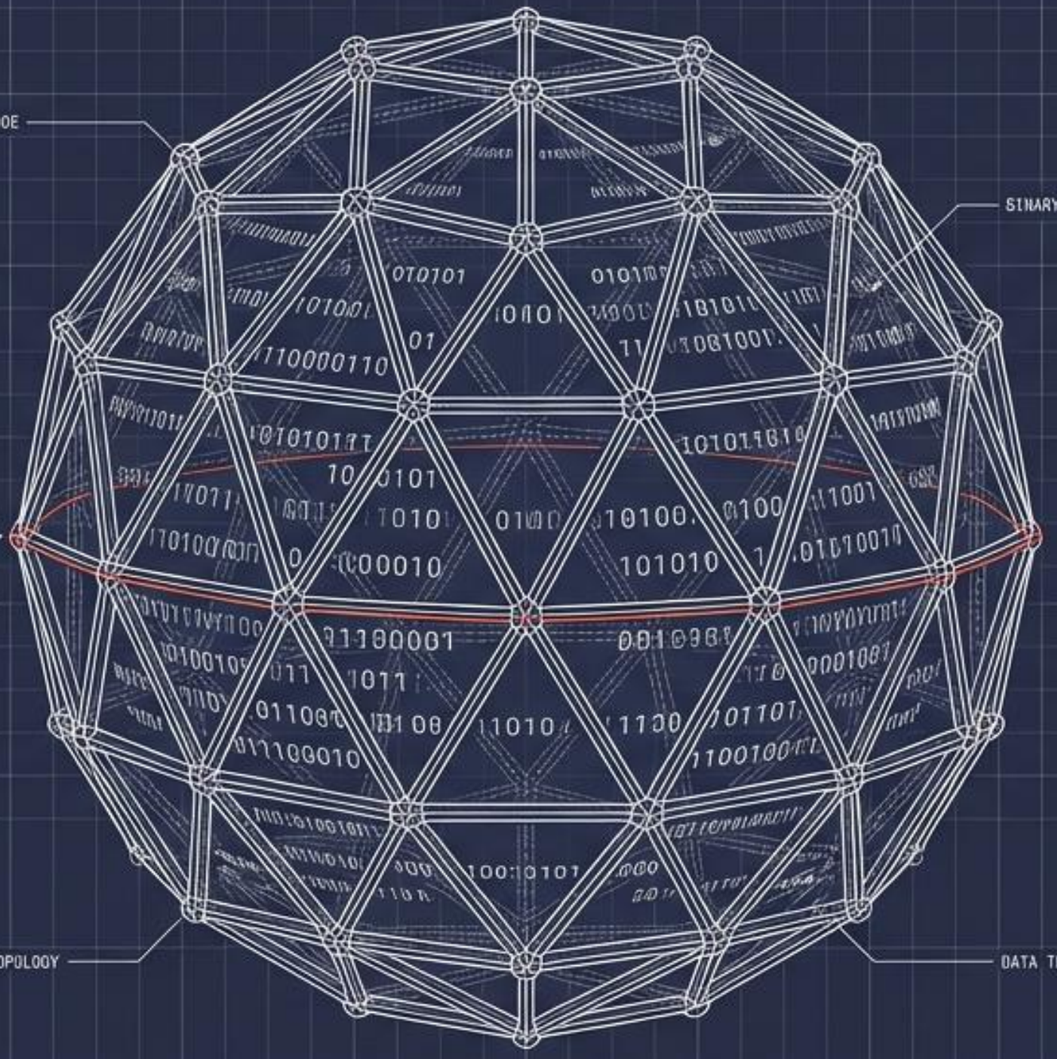
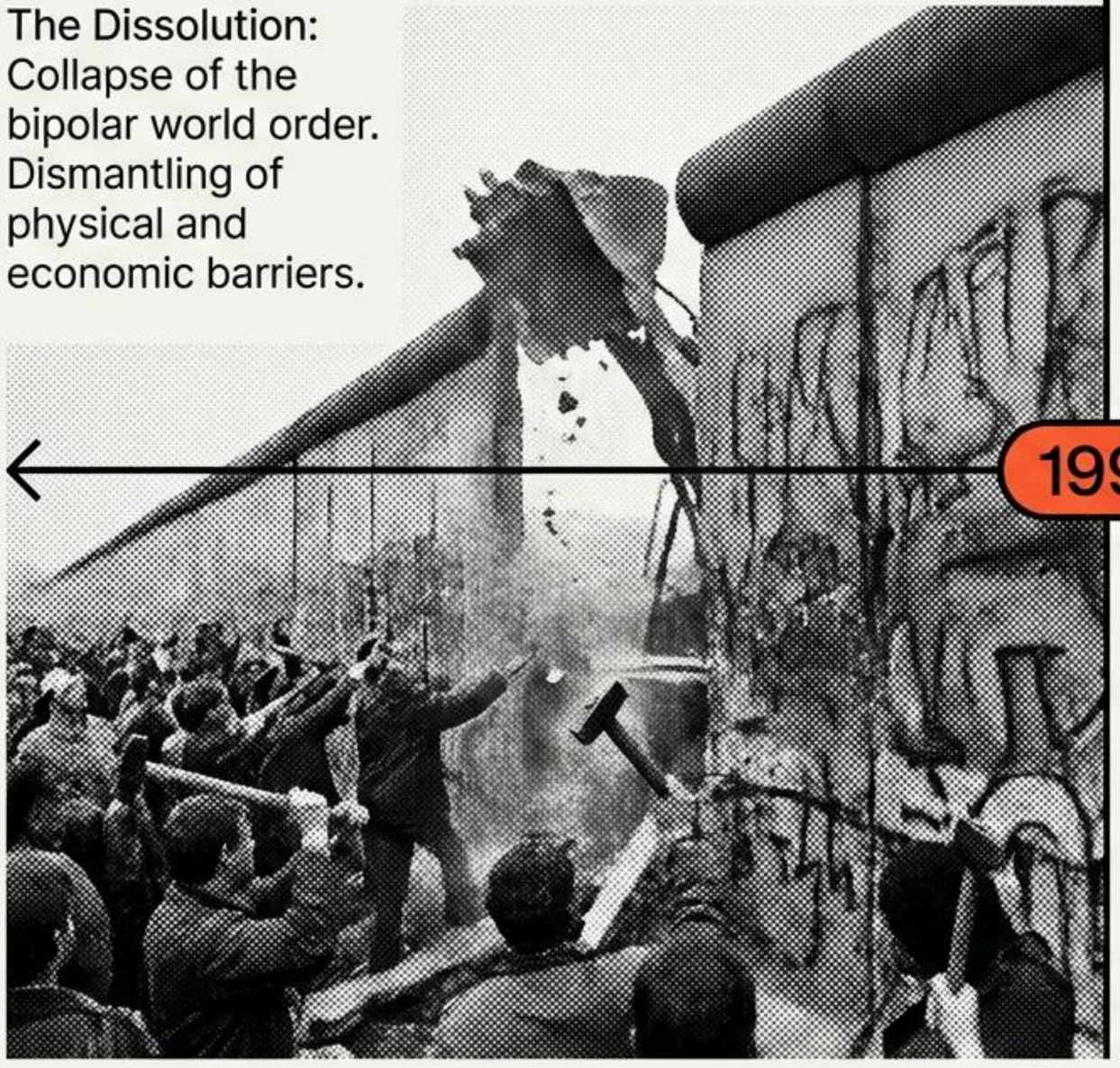


THE ENGINE OF THE GLOBAL ECONOMY

THE SOCIOLOGICAL, HISTORICAL, AND TECHNICAL EVOLUTION OF GLOBALIZATION (POST-1991)

The Paradigm Shift (1991)

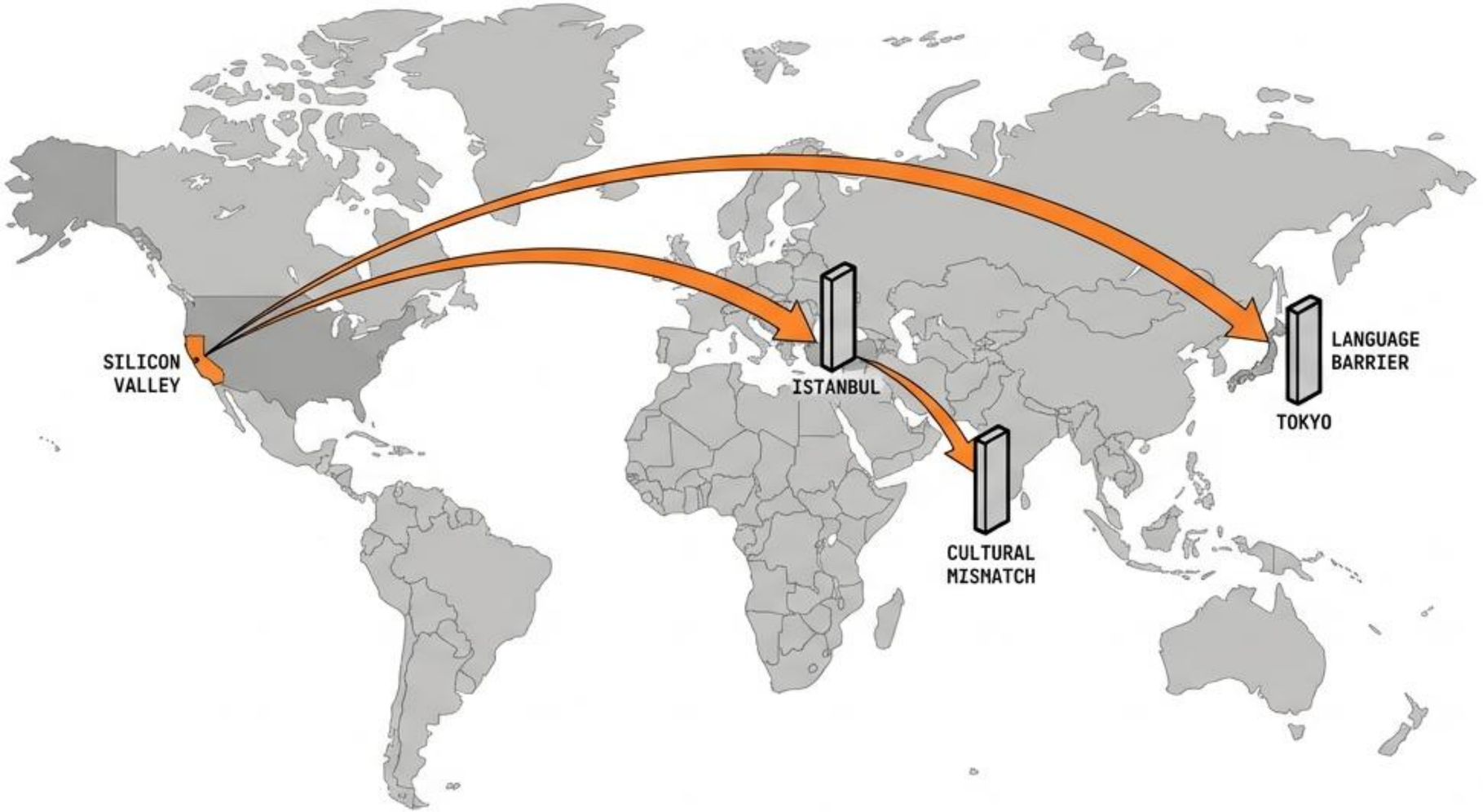
The Dissolution:
Collapse of the bipolar world order.
Dismantling of physical and economic barriers.



1991

The Connection:
Commercialization of the World Wide Web.
Information becomes universally accessible.

Time-Space Compression



David Harvey's 'Shrunk Globe': Real-time interaction becomes the norm.

Economic Integration: Capital and products flow to emerging markets.

The Obstacle: Products designed in Silicon Valley cannot be simply 'dropped' into local markets.

The “English-Only” Era (1980s)

Hardcoding:
Text buried in source code

Incompatibility:
No support for Cyrillic, Kanji, or Arabic

Ethnocentrism:
Designed for US-ASCII only

The Commercialization of Translation

If users cannot read it, they cannot buy it.

Paradigm Shift: Translation moves from art to industrial necessity. Source texts evolve from static books to dynamic software interfaces.

The GILT Framework

G11n: The Macro Decision
I18n: The Technical Architecture
L10n: The Cultural Adaptation
T9n: The Linguistic Transfer

Globalization (G11n): The Strategy

Phase: Decision & Strategy
Who: Management, Finance, Legal, Marketing
The Goal: Assessing market potential and entry requirements.

Example: “Should we enter the Arab market?”

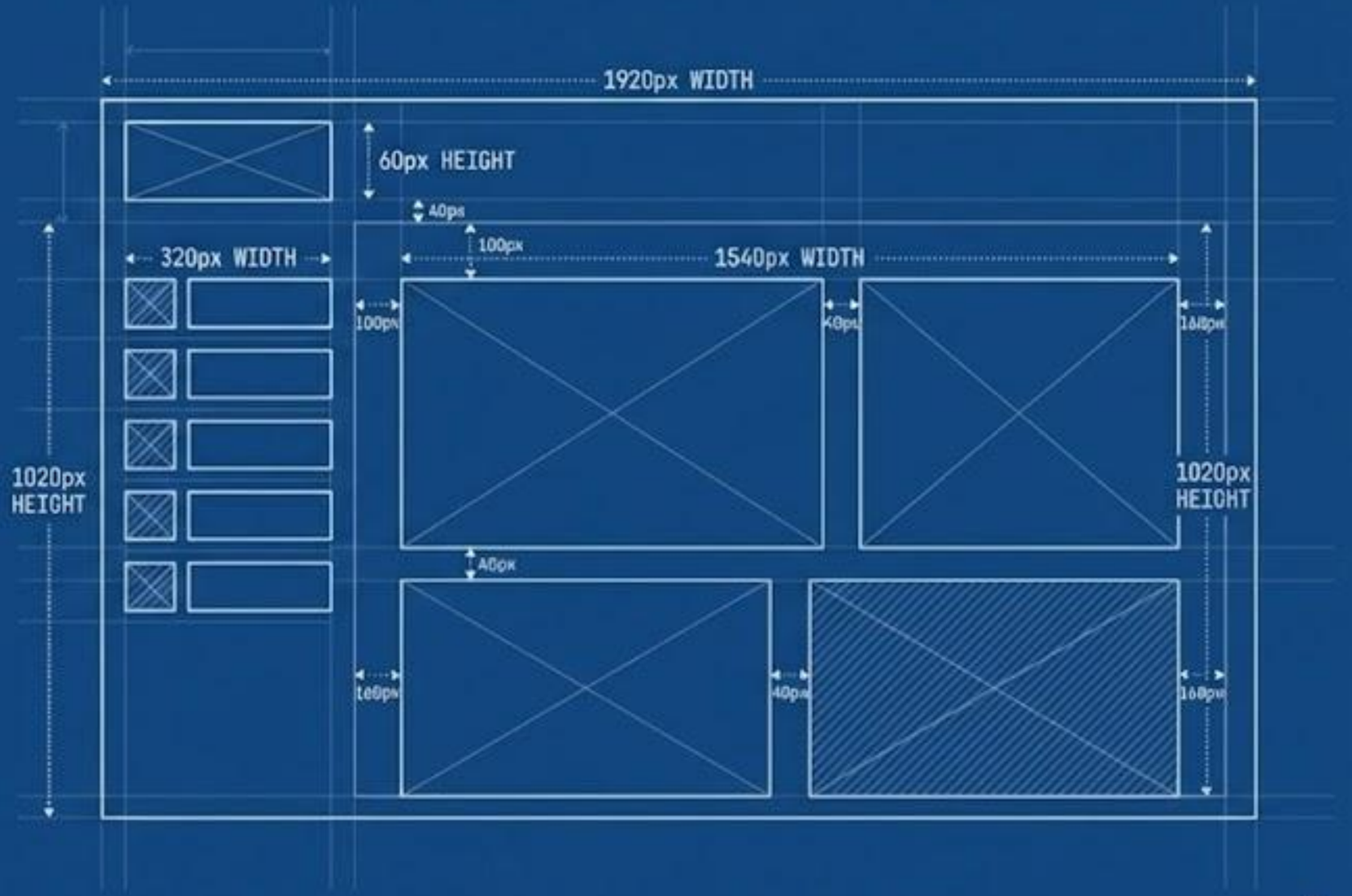
Internationalization (I18n): The Architecture

Phase: Engineering & Design

Who: Developers, UX Designers

The Metaphor: Building the ‘Stage’ so the ‘Play’ (translation) can be performed.

Goal: Creating a culturally neutral infrastructure.



Strategy vs. Engineering

G11n

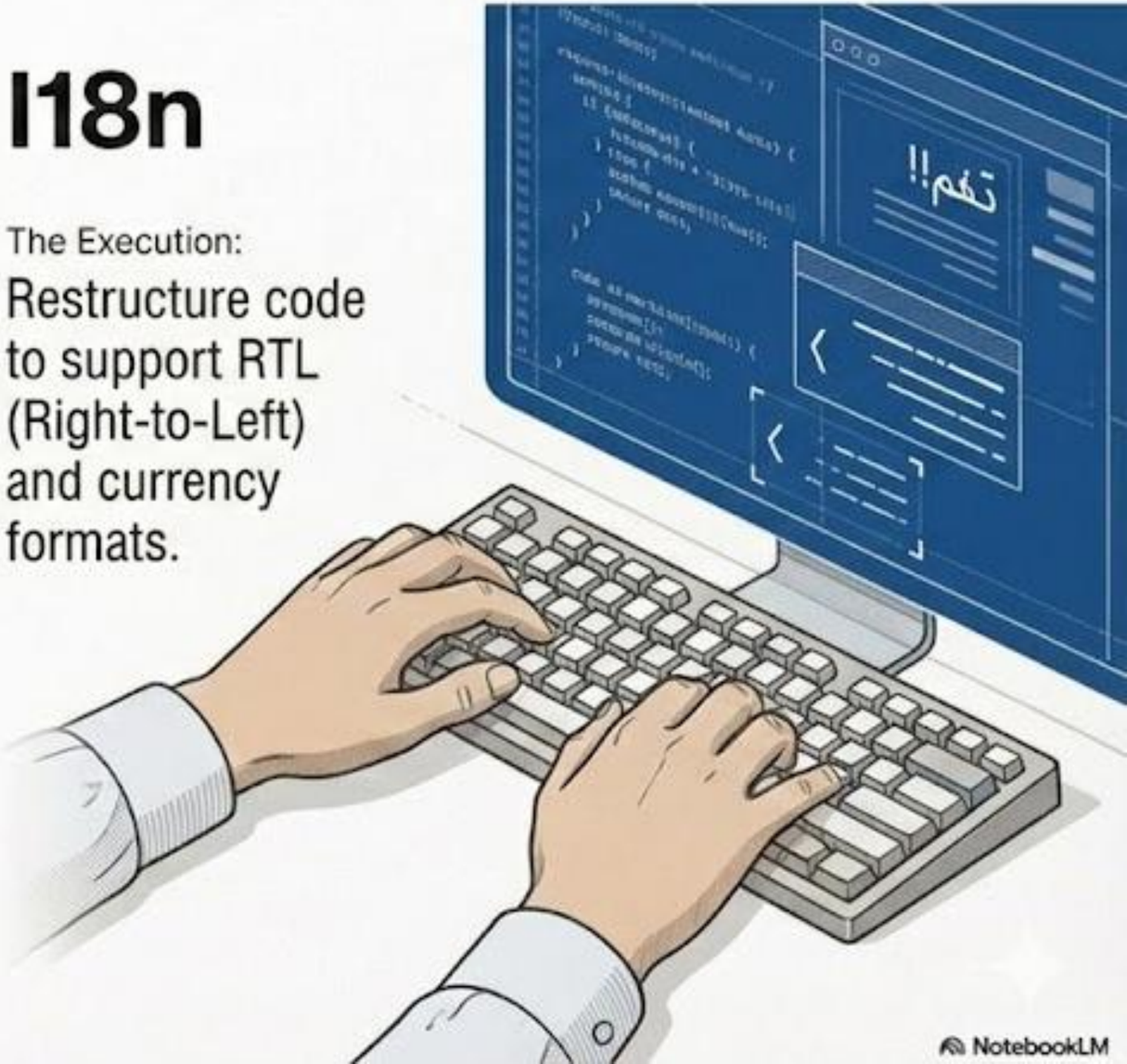
The Decision:

Allocate budget to enter Middle East market.

I18n

The Execution:

Restructure code to support RTL (Right-to-Left) and currency formats.



Mechanics: String Externalization

Before and After

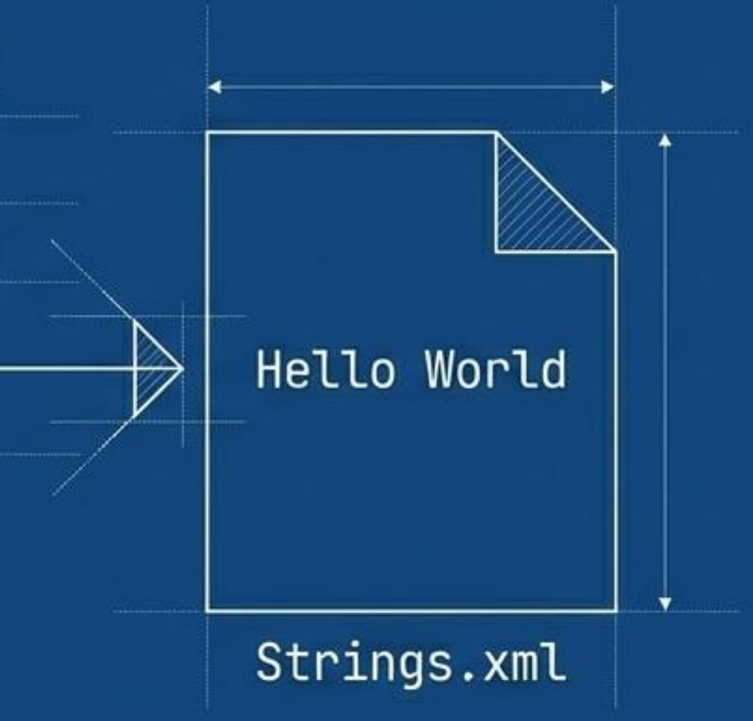
BEFORE

```
printf("Hello World");
```

HARDCODED

AFTER

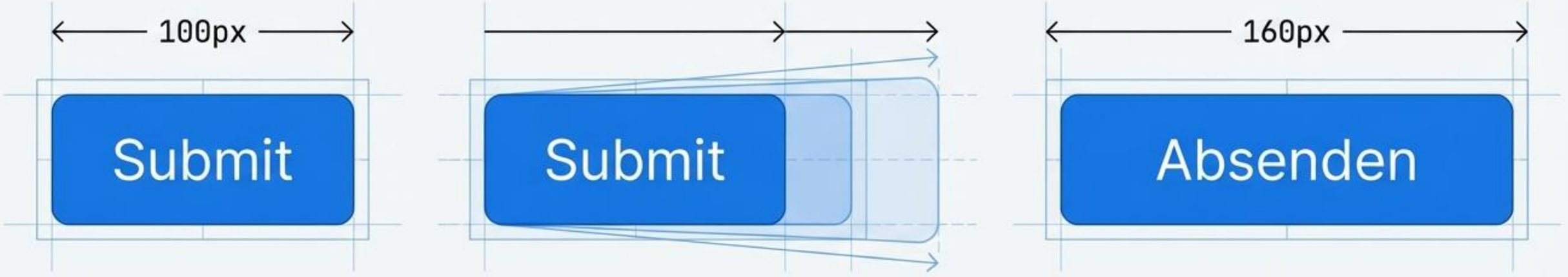
```
printf(getString(ID_WELCOME_MSG));
```



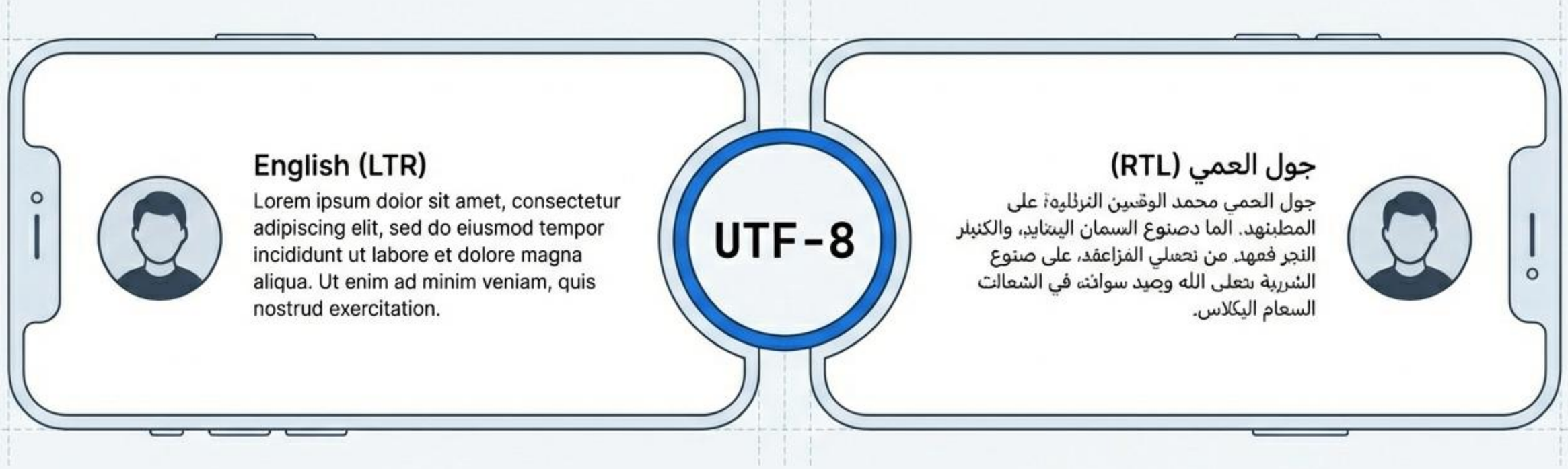
Goal: Separate Code from Content.
Translators never touch the source code.

Mechanics: UI Flexibility

Text Expansion: German/French often require 30% more space than English.
Elastic Design: UI must adapt dynamically without breaking layout.
Standards: Adaptation of Date, Time, and Physical Formats.

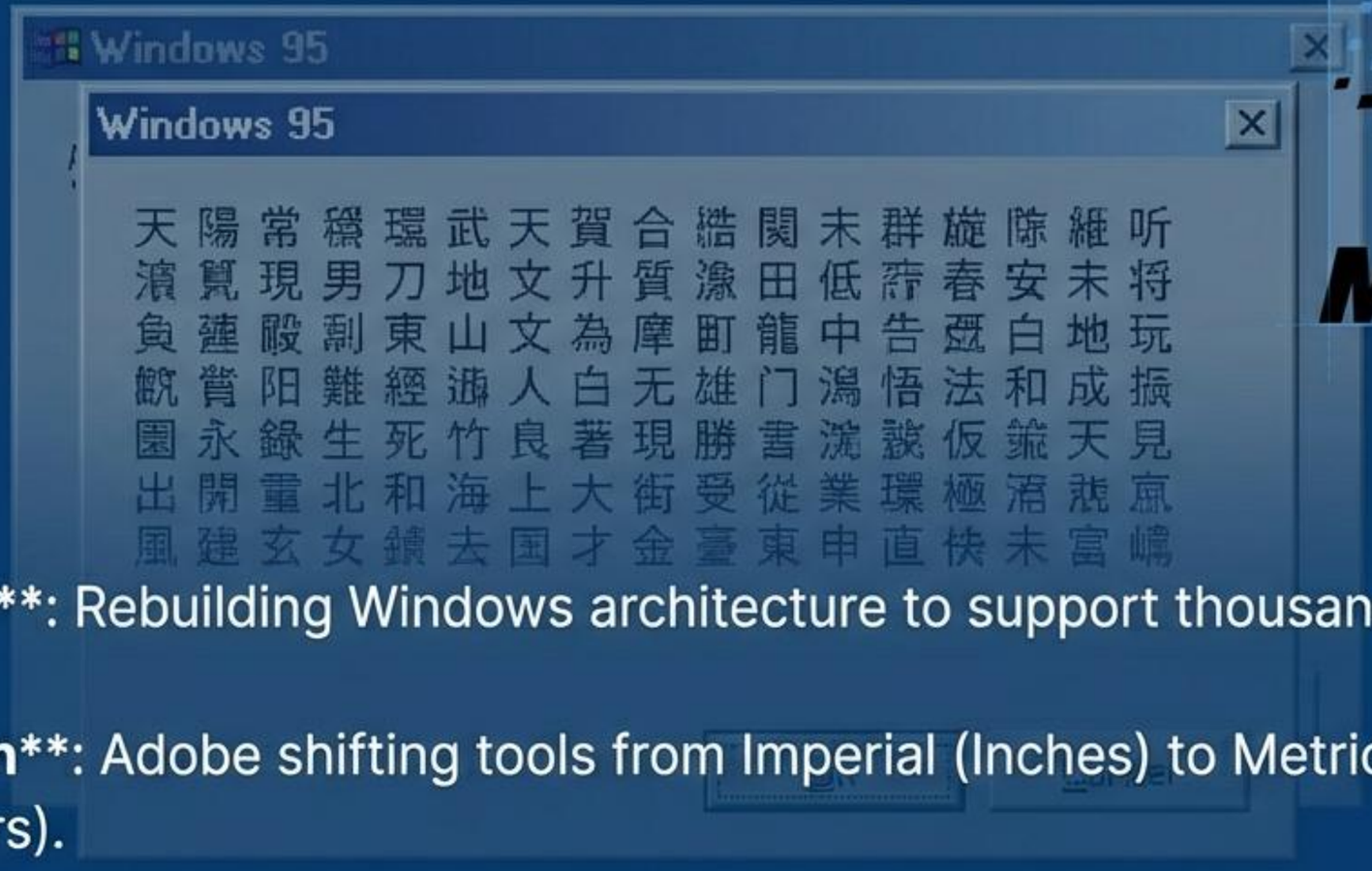


Mechanics: Bidirectional Support & Unicode



RTL Support: Architecture must flip for Arabic and Hebrew reading patterns.
Unicode: Universal encoding standard preventing character corruption.
**Ensures display of complex scripts: ș, ğ, å, 語.

The Catalyst: Microsoft & Adobe



The Challenge: Rebuilding Windows architecture to support thousands of Kanji characters.

The Adaptation: Adobe shifting tools from Imperial (Inches) to Metric (A4/Centimeters).

The Lesson: Rewriting source code for every country is impossible. I18n was the scalable fix.