

Superpowered by AI: Detection, Labelling, and the Infrastructure Challenge

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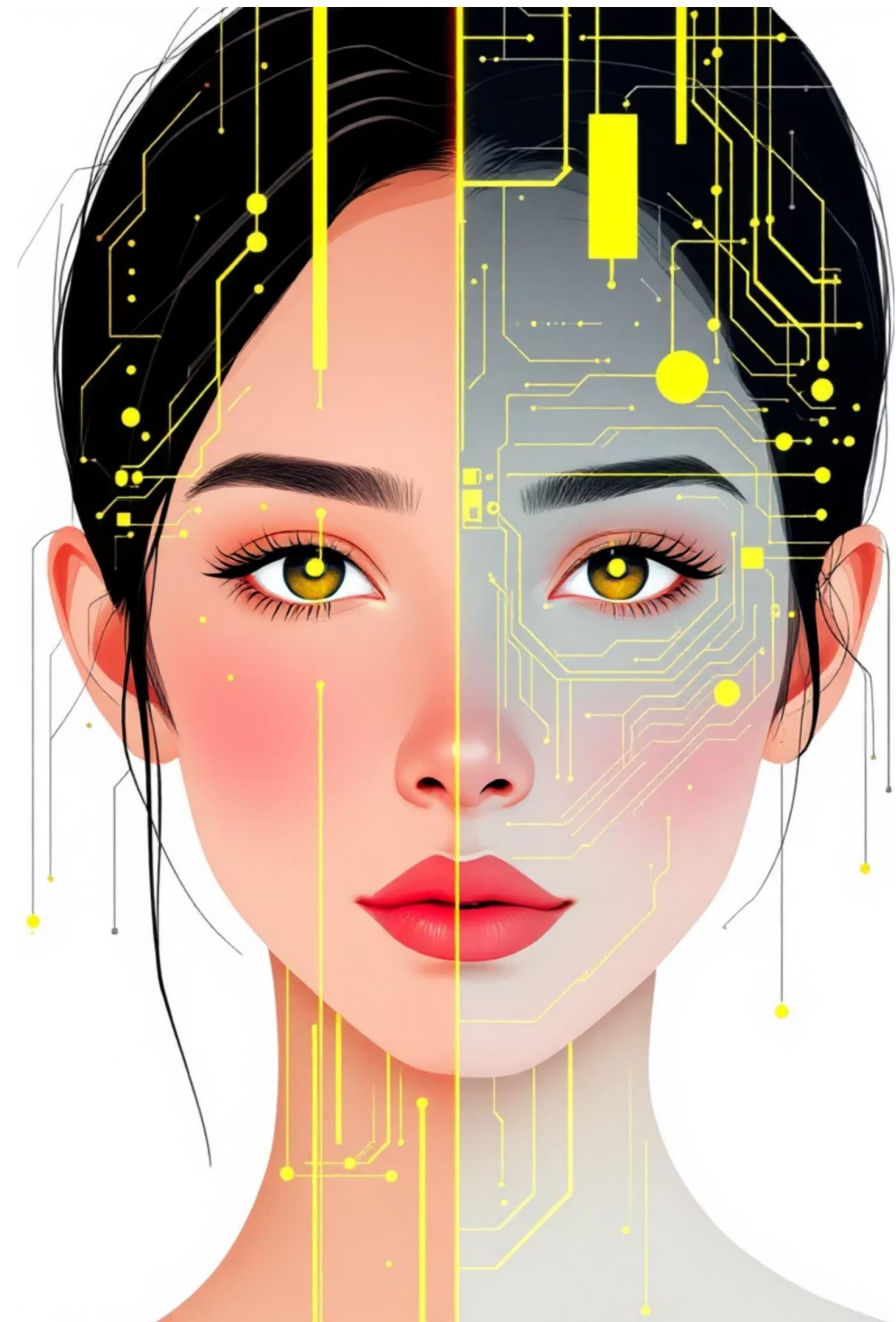


DATA SCIENCE LAW LAB



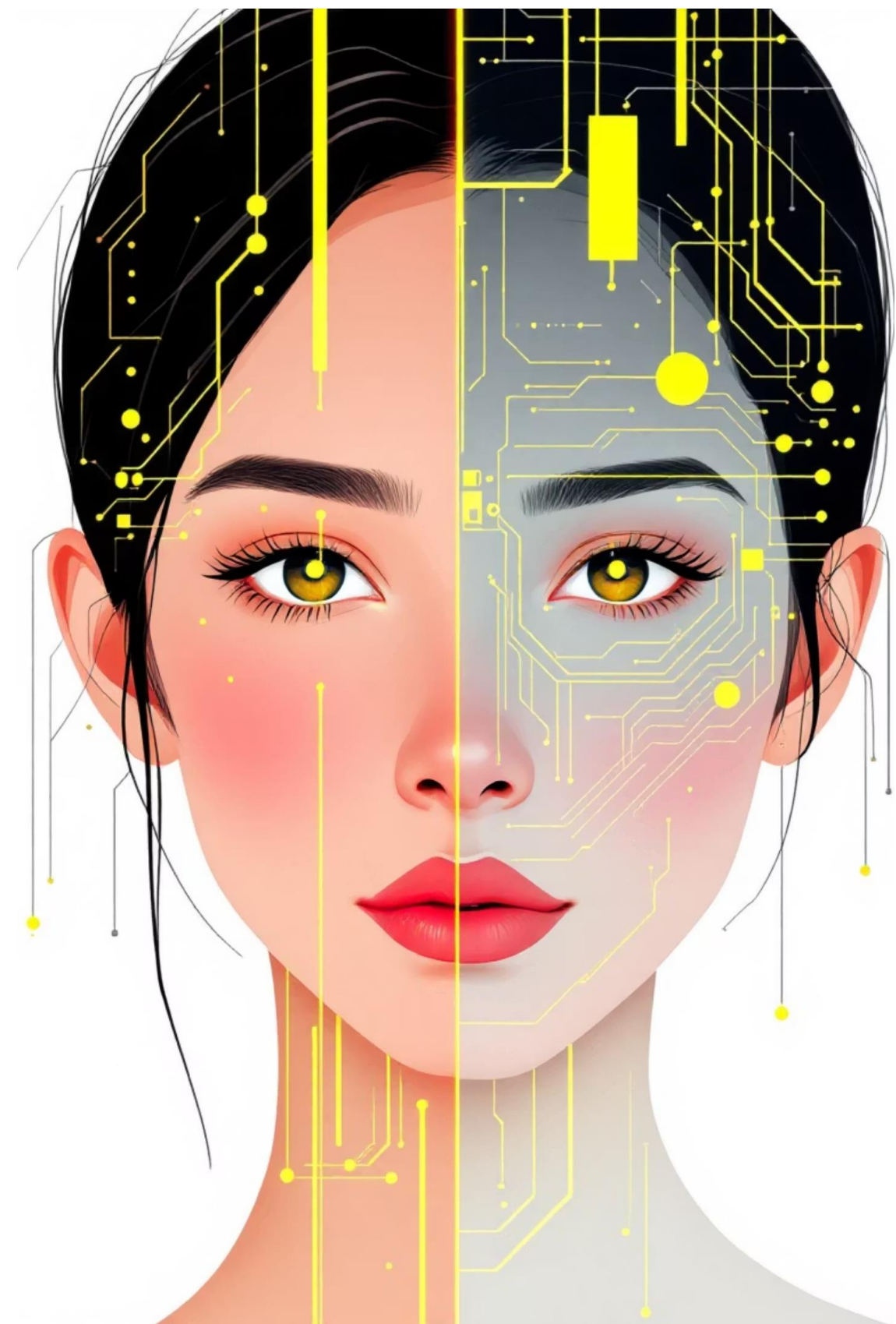
From "Is it me?" to "How do we manage it?"

- Dual nature of content
- AI driven
- Stretched legal frameworks
- Detection and labelling challenges



From frameworks to functions

- Understanding synthetic media
- How experienced: Practical implications
- How regulated: Legal and policy framework
- How governed in terms of technical implementation



How AI is fueling the rise of synthetic media

Opportunities

- Creative Industries
- Inclusive storytelling
- Heritage preservation
- Digital culture

Risks and Challenges

- Low Barrier to Entry
- Deception and manipulation
- Identity misappropriation
- Dual-use nature

Legal implications of synthetic media



African context challenges

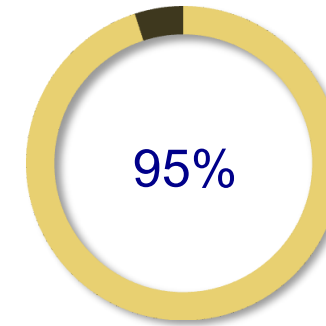
Democratic process risks

IP systems must adapt

Detection and labelling

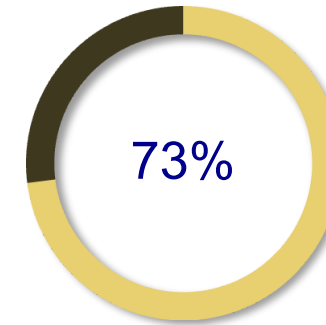
Why the Urgency?

- As synthetic media becomes more realistic, the difference between "real" and "fake" content is narrowing at an alarming rate, raising the bar for reliable detection systems.
- Labelling AI-generated content transcends mere ethical considerations; it represents a fundamental requirement for traceability, transparency, and trust in digital ecosystems.



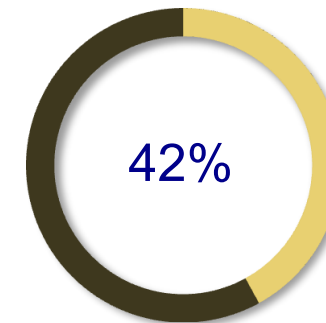
Realism Threshold

Modern synthetic media realism compared to authentic content



Detection Gap

Percentage of synthetic content that evades current detection systems

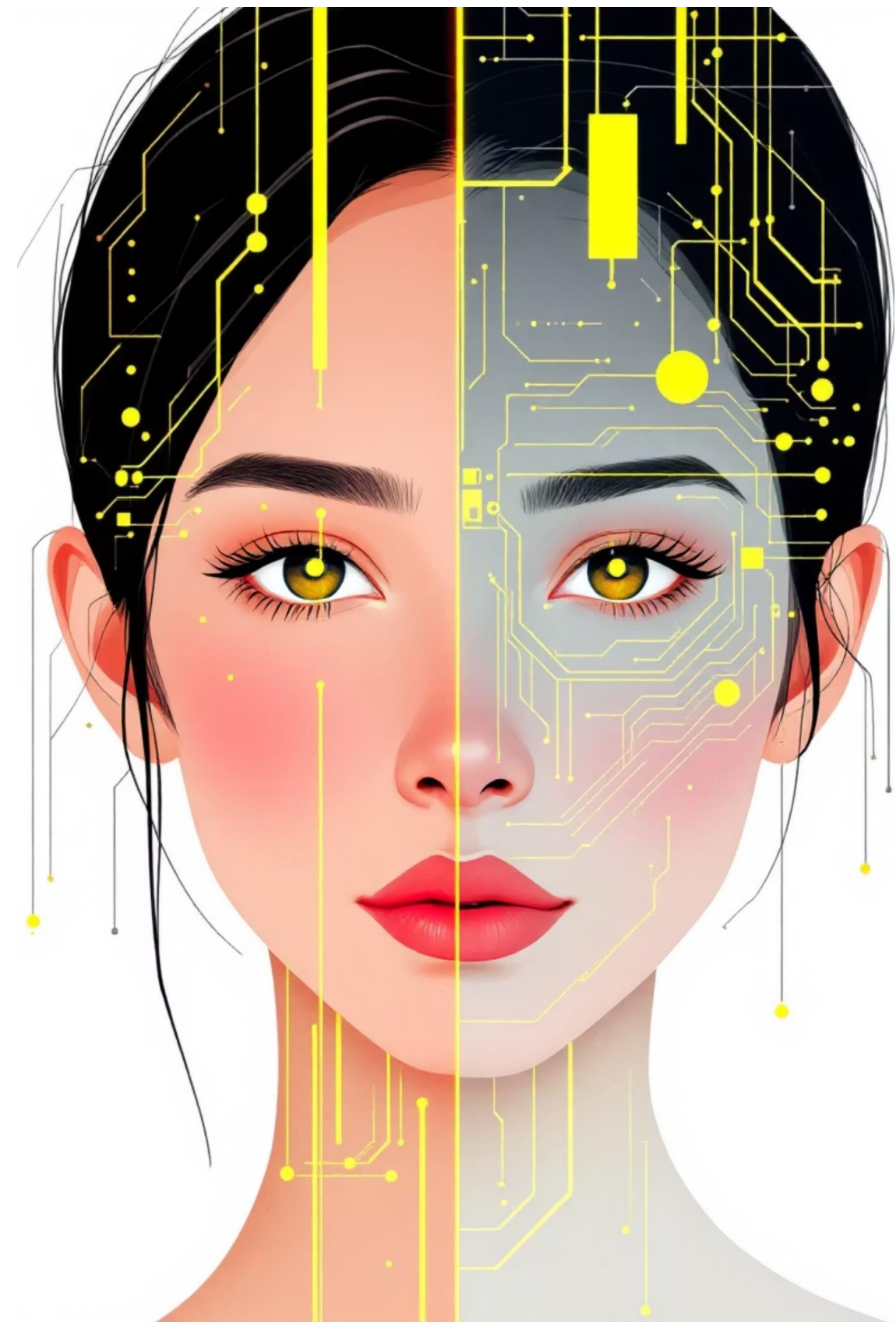


User Awareness

Proportion of users who can reliably identify synthetic media

Legal implications of synthetic media

- Understanding synthetic media
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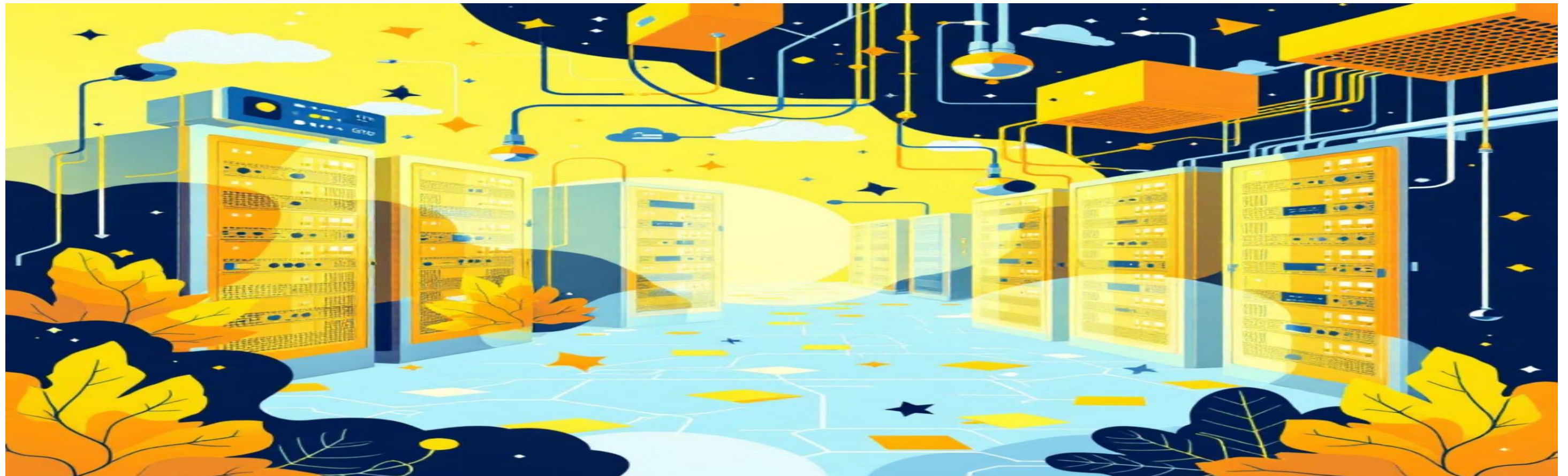
The detection challenge: Technical complexity and scale

Emerging Detection Techniques

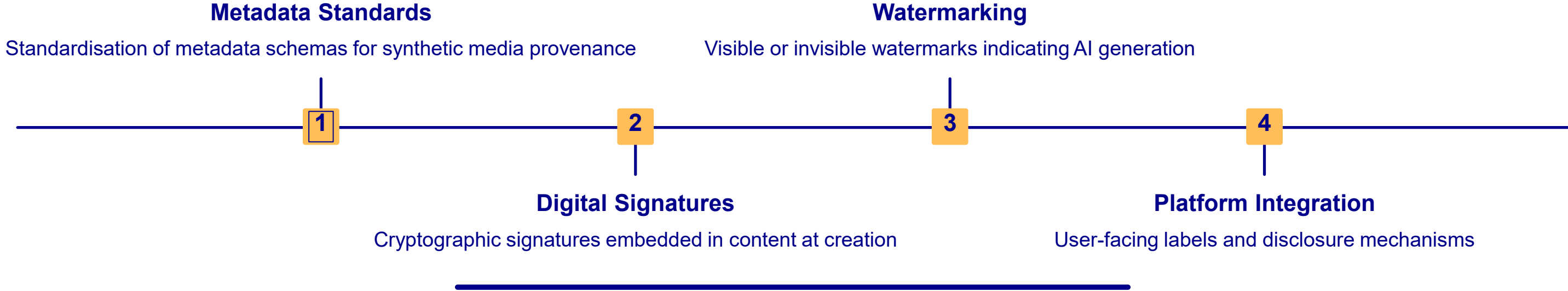
- Forensic analysis
- Machine learning models trained to identify synthetic patterns
- Blockchain-based provenance tracking

Technical Capacity Constraints

- Computational resources required for real-time detection at scale
- Expertise to develop and maintain detection system
- Access to training data



The labelling imperative: Content transparency and accountability



 **AI-Generated Tags**

 **Platform Interfaces**

 **Digital Watermarks**

 **Metadata Tracing**

Infrastructure and Scale

Detection and labelling at scale demand robust infrastructure capable of processing vast quantities of content in real-time across diverse platforms and formats.



Computational Infrastructure



Network Connectivity



Interoperability Standards



Multi-Stakeholder Governance



Sustainability and Affordability



Context-Appropriate Design



Global and Regional Calls for Transparency in AI-Generated Content

European Union

The EU AI Act includes requirements for transparency and labelling of AI-generated content, establishing comprehensive obligations for providers and deployers of AI systems

United States

Various state-level initiatives and federal proposals address synthetic media disclosure, with particular focus on electoral contexts and consumer protection

China

Regulations require labelling of AI-generated content and impose obligations on platforms to implement detection and disclosure mechanisms

India

Emerging frameworks address synthetic media in the context of broader digital governance initiatives and information technology regulations

The African Landscape

54

African Countries

Number of African nations participating in AI governance discussions

12

Regional Initiatives

Active regional frameworks addressing digital content transparency

23%

Implementation Rate

Percentage of African countries with specific synthetic media regulations

Legal Foundations for Labelling and Transparency



Copyright Law



Image and Personality Rights



Trade Marks and Certification

The Role of Legal Structures in Supporting Infrastructure and Scale

01

Mandate Labelling Disclosures

02

Support Accountability Mechanisms

03

Enable Technical Integration



Infrastructure Imperative #1

Scalable Detection Platforms

Modular Architecture

Incident-Response Workflows

Cross-Platform Integration

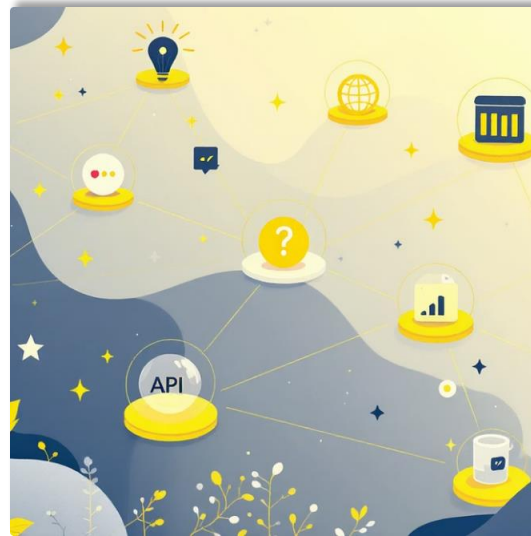
Scale Built In From the Start

Infrastructure Imperative #2

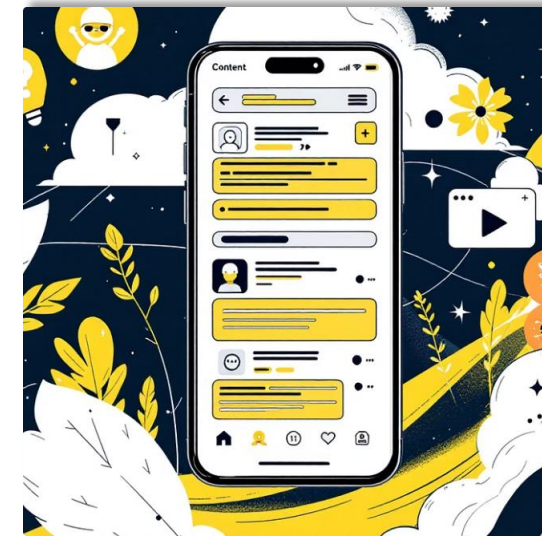
Metadata, Registries and Label Ecosystems



Metadata Standards and Registries



Platform and API Integration



User-Facing Display

Who issues the label? How is it enforced? How is it displayed to end-users? How is metadata retained and audited over time?

Infrastructure Imperative #3

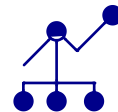
Standards, Interoperability and Multi-Stakeholder Governance

The Interoperability Challenge



Standards Bodies

Establish technical specifications and protocols



Interoperability

Enable cross-platform coordination



Multi-Stakeholder Governance

Coordinate diverse participants

Infrastructure Imperative #4

Skills, Capacity Building and Sustainable Investment

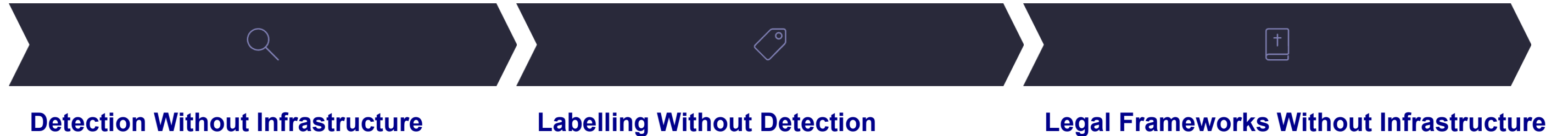
People and Expertise

Sustainability and Maintenance

Adaptation and Evolution

Putting It All Together

The Detection, Labelling and Infrastructure Challenge



Thank you for your attention