



The Insane Future of Web 3.0 and the Metaverse

Getting Ready for the
Next Generation of the Internet

www.piaic.org

Syllabus: www.panaverse.co



What is the most significant invention in human history?



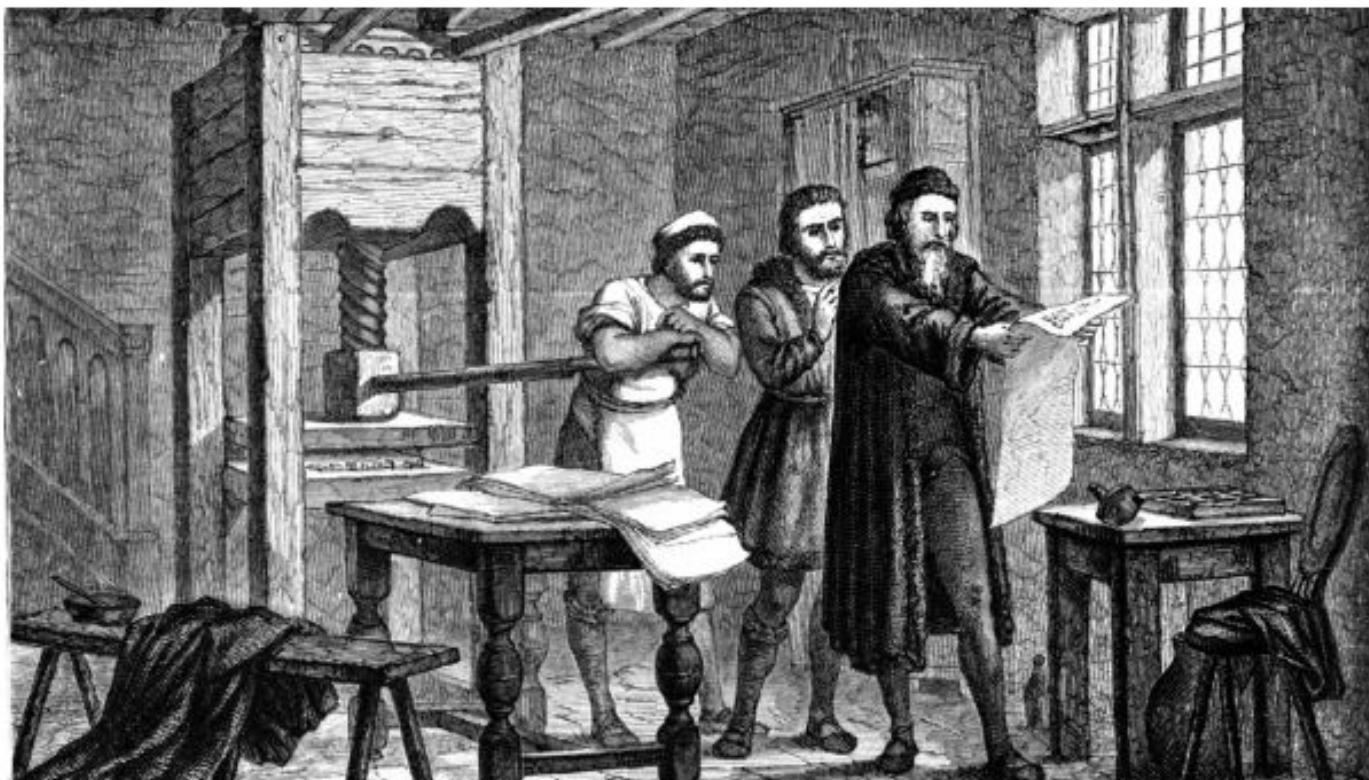
Without these inventions, life would not be the same for us.



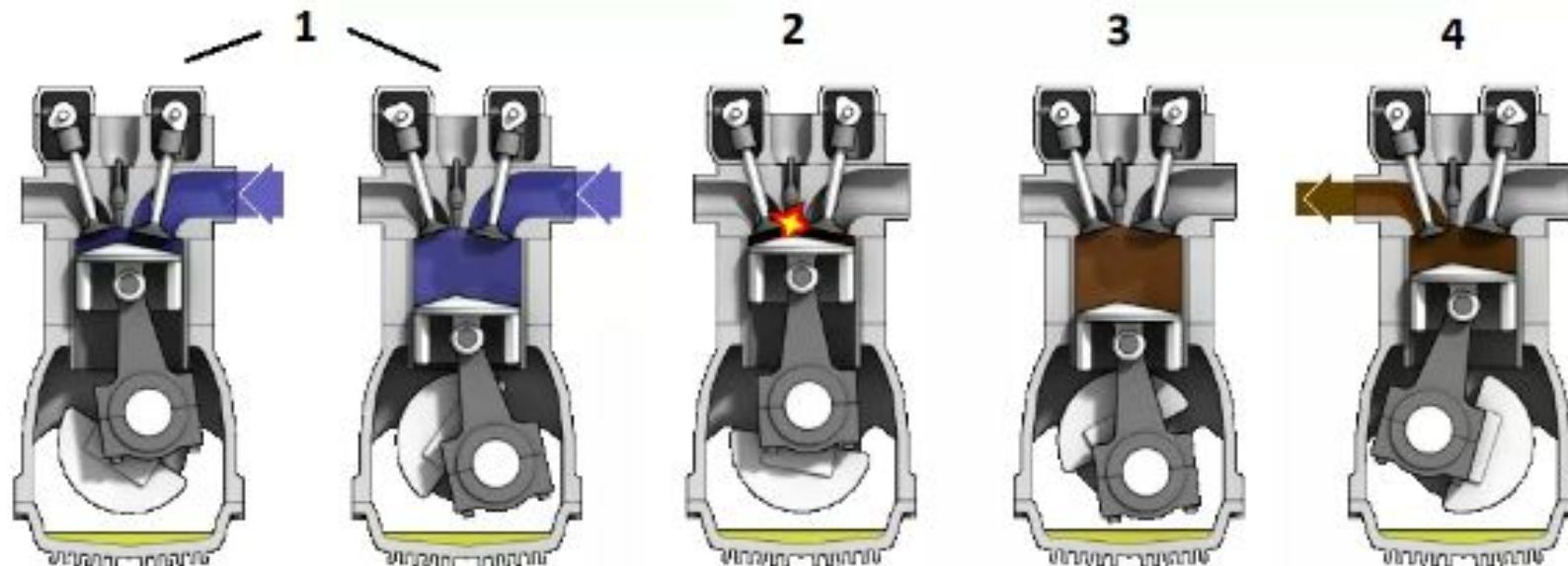
THE WHEEL



THE PRINTING PRESS



THE INTERNAL COMBUSTION ENGINE

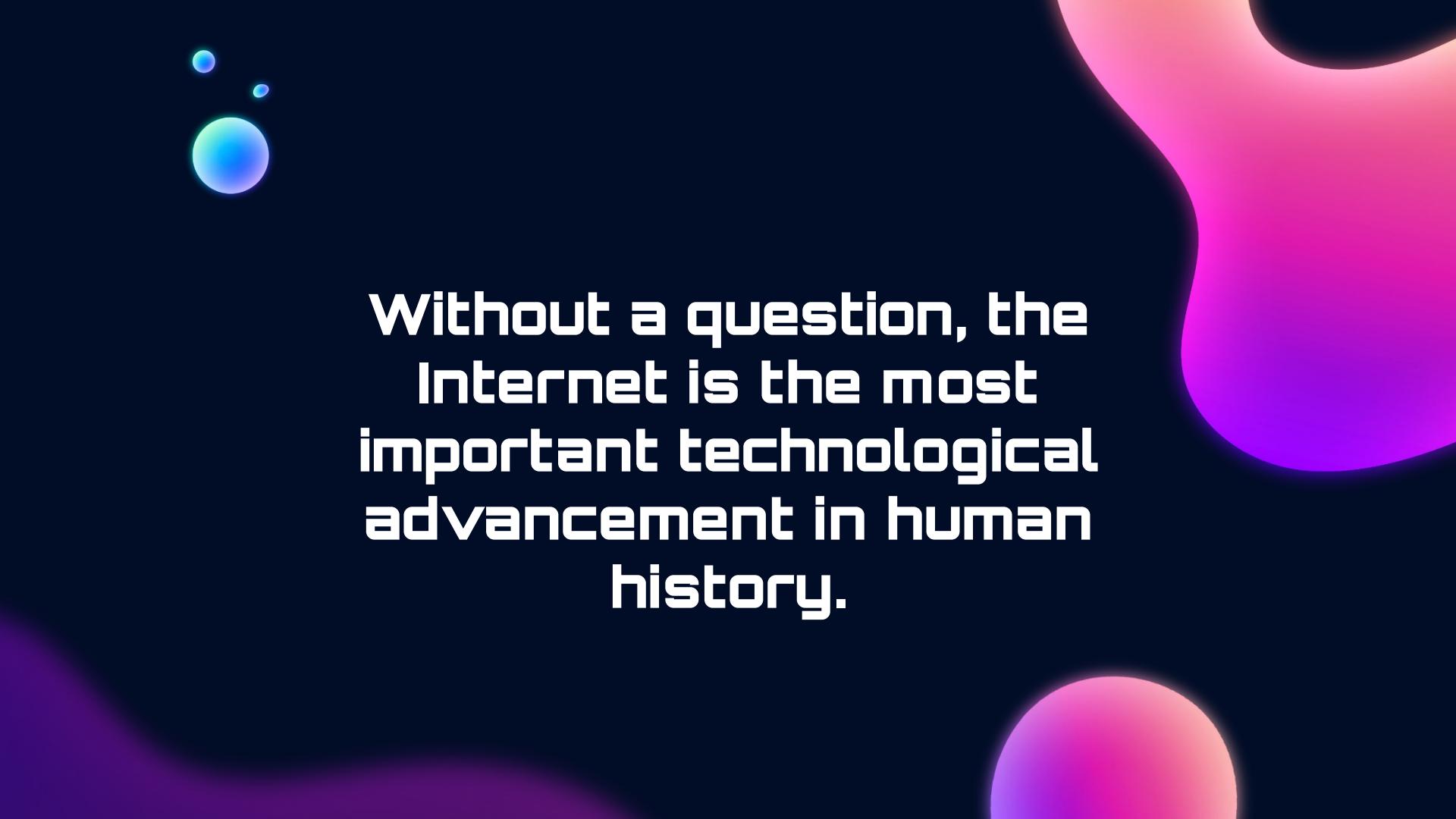


THE TELEPHONE



THE INTERNET



The background features a dark navy blue gradient. On the left side, there are three glowing, translucent spheres: a large blue sphere at the top left, a smaller blue sphere just below it, and a tiny blue dot positioned above the larger one. On the right side, there are two large, semi-transparent circles with glowing outlines; one is pink at the top right and the other is purple at the bottom right.

**Without a question, the
Internet is the most
important technological
advancement in human
history.**

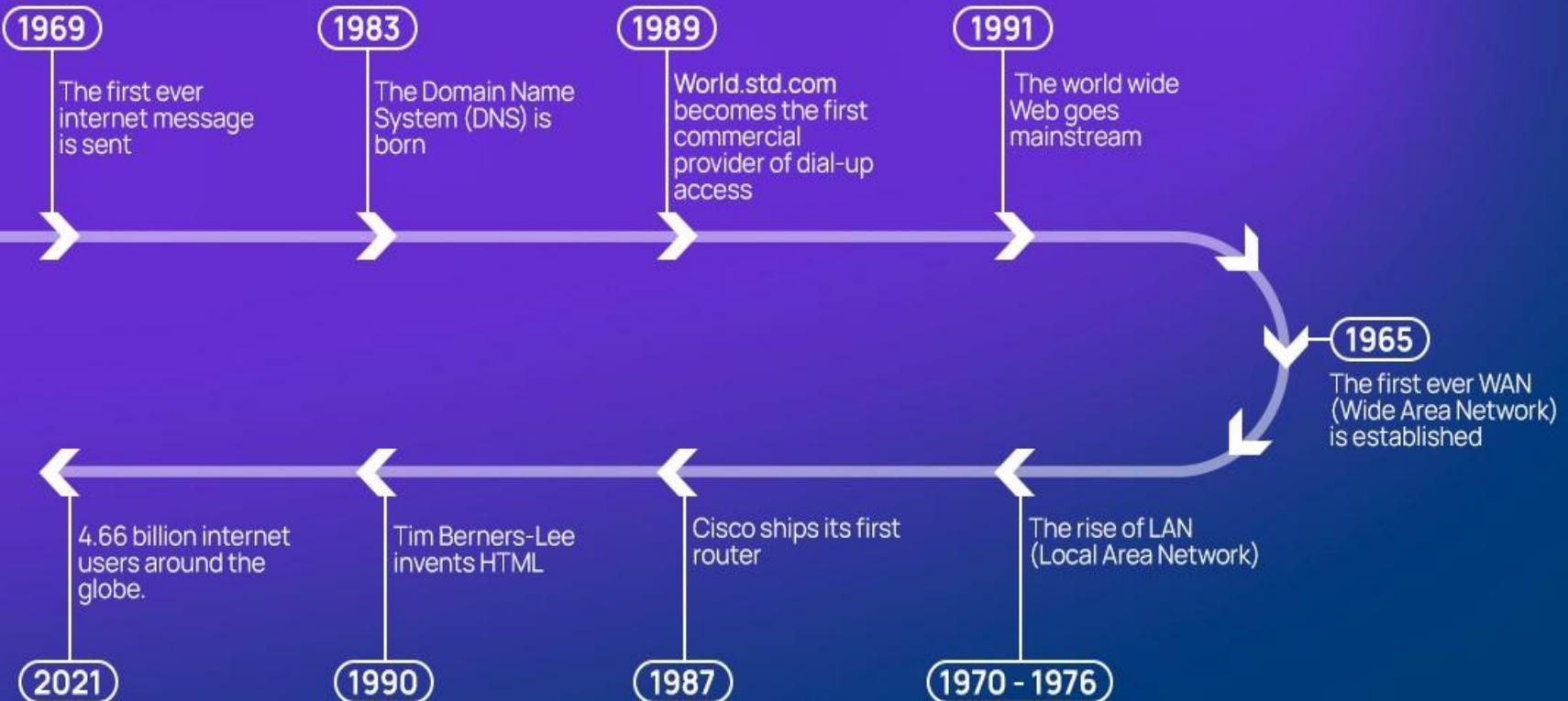


Internet is a Recent Innovation

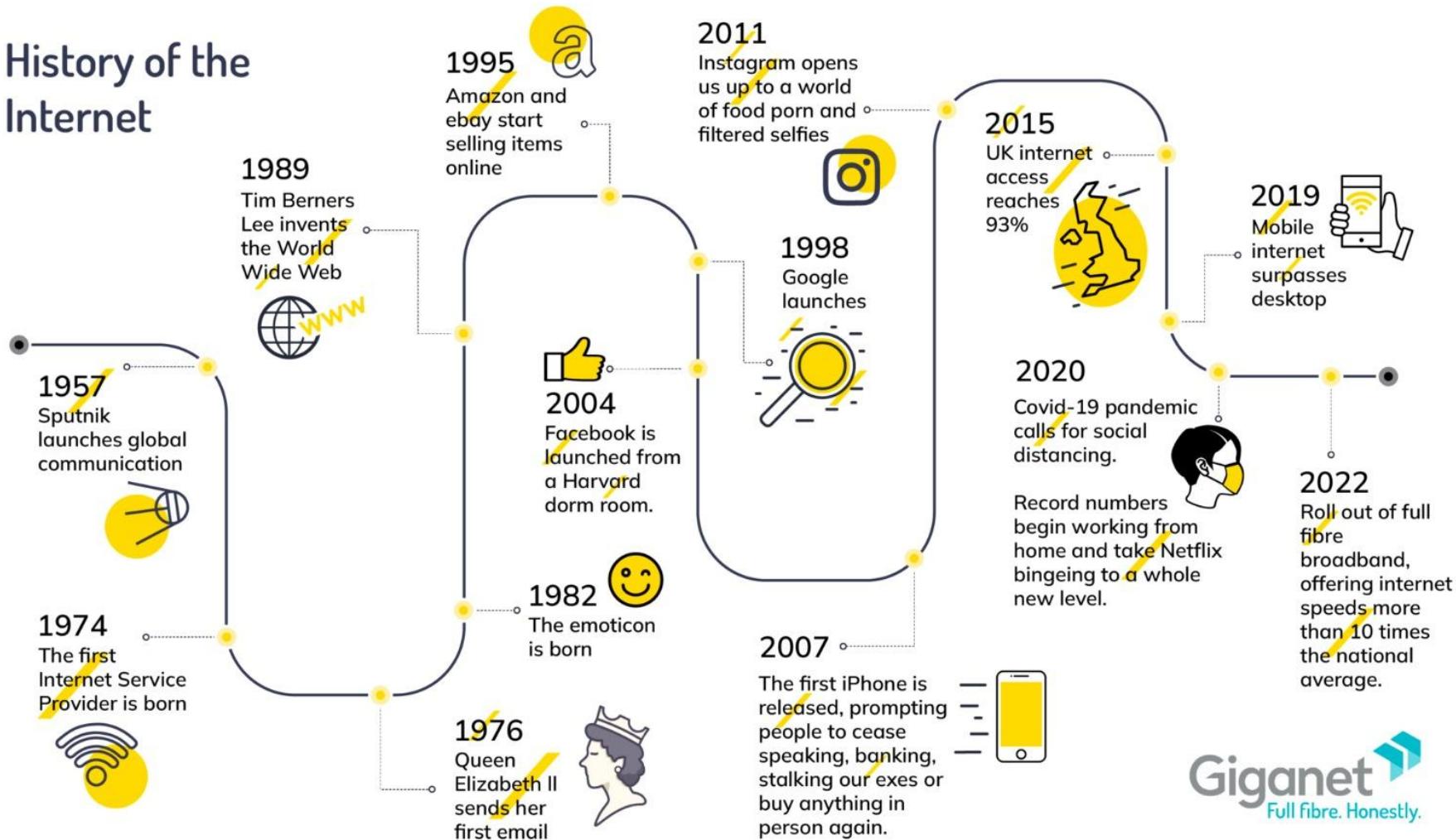


- The internet is a global system of interconnected computer networks that is used by billions of people worldwide.
- In **1960** - **First version of internet** (ARPANET) was created by group of scientists working for ARPA of U.S Defense Department.
- In **1989** - **Internet Evolved Further** from the invention of WWW by computer scientist Tim Berners Lee while working at CERN
- **Core Idea of WWW** - Combining the evolving technologies of computer, data networks and hypertexts into global information system.
- **Development of WWW** - it connected the world in a way that it had never been before.

Evolution of Internet



History of the Internet

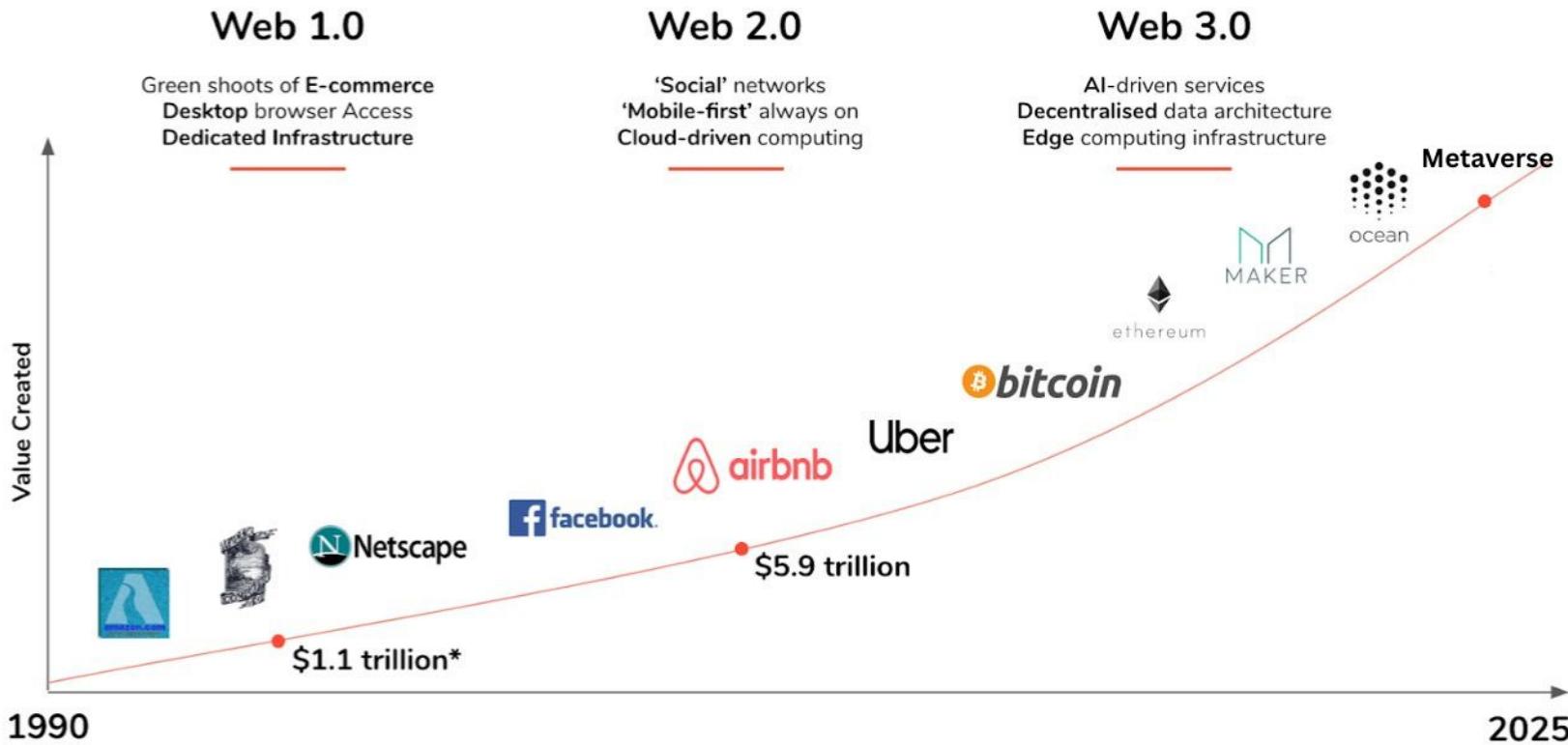


Giganet 
Full Fibre. Honestly.

We are just scratching the surface of what it can do for us

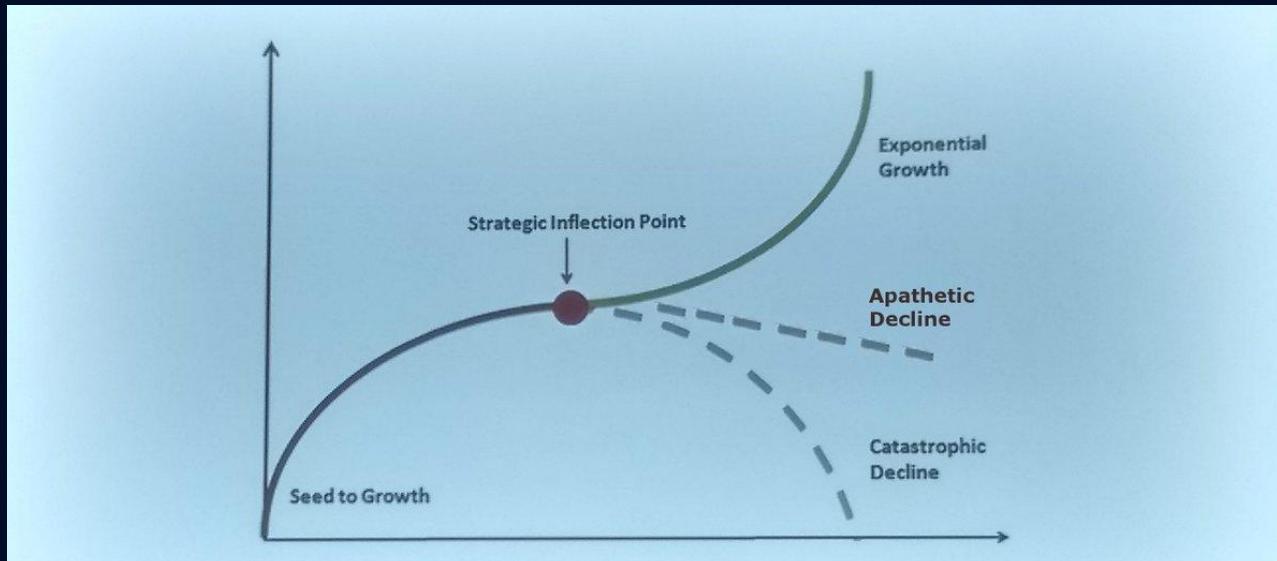
- **Improved Internet** - Web 3.0 and Metaverse add the new features and enhancements.
- **Reconceptualized Web** - Metaverse reimagines the front-end and Web 3.0 reimagines the back-end of the web.
- **Interconnection of Web 3.0 and Metaverse** - Both will work together and complement each other.
- **Concerns behind Web 3.0 and Metaverse** - Web 3.0 is primarily concerned with who will own and rule the internet of the future whereas, Metaverse is more focus about how users will interact using 3D, AR, VR
- **Kinds of Metaverse** - Virtual Metaverse will be for short duration usage and Augmented Metaverse will revolutionize the society.

The Evolution of the Web



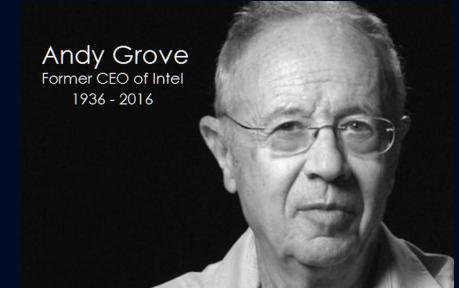
* Internet companies market cap as of 2000

Adapt or perish, now as ever, is nature's inexorable imperative



Strategic Inflection Point

Andy Grove
Former CEO of Intel
1936 - 2016



13 Trillion

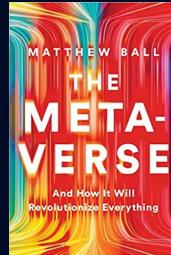
Citi estimates that total addressable market for the Metaverse and Web 3.0 Economy could grow from \$8 Trillion to \$13 Trillion with 5 billion unique global users by 2030.

[Metaverse and Money: Decrypting the Future](#)



“The future of the internet: A massively-scaled, persistent, interactive, and interoperable real-time platform comprised of **interconnected virtual worlds where people can socialize, work, transact, play, and create.**”

—Matthew Ball



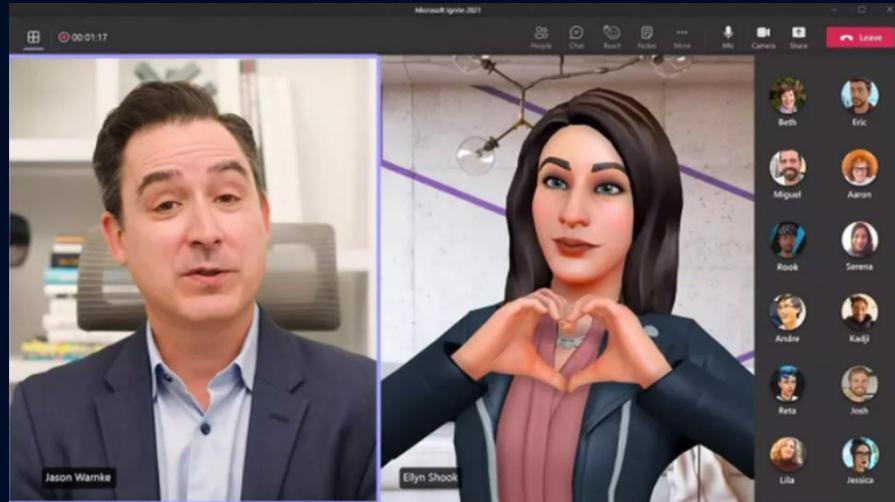
The Metaverse: And How it Will
Revolutionize Everything

“The metaverse is a 3D version of the Internet and computing at large.”



Expression:

- In the Metaverse, each user will have an Avatar, a fully multidimensional living depiction of themselves that can be customised to their choice.
- These Avatars will be rendered with every real feature of user and give sense of reality.



Teleportation

For so long, science has been attempting to achieve teleportation. With Metaverse, users can now teleport miles away with the blink of an eye.

Knowledge

Libraries are becoming obsolete as "googling" becomes more popular. But now in Metaverse user will be able to learn by just touching and looking them, a whole new revolution in educational industry.

Productivity

We moved from pen to keyboard. Metaverse will make it happen for its users to input commands by using voice gestures or even by thinking about them. You could send message just by thinking and moving your fingers.

Gross Metaverse Product (GMP)

UAE's economic success to be measured using 'Gross Metaverse Product' instead of GDP

Khaleej Times

**Minister of State for Artificial Intelligence, at Emirate's Metaverse Strategy at the Dubai Metaverse Assembly
Wed 28 Sep 2022**



BBC NEWS



Metaverse Use Cases



SMART
MANUFACTURING



HEALTHCARE



EDUCATION



DEVELOPER/
CREATOR ECONOMIES



VIRTUAL
ADVERTISING



VIRTUAL SPACES/
COMMUNITIES



SOCIAL
COMMERCE



DIGITAL EVENTS/
CONCERTS/TOURISM



VIRTUAL CITIES/
PUBLIC SERVICES

Metaverse Market Potential

Metaverse: narrow definition
2030 VR/AR headset users

900mn-1bn



Total addressable market estimate

\$1tn-\$2tn

Metaverse: broad definition
2030 unique internet users

5bn



Total addressable market estimate

\$8tn-\$13tn

Money in the Metaverse

The Metaverse will include existing forms of payments such as credit cards with Fiat money.

In addition, new forms of payments will be accepted:

- Cryptocurrency & Tokens
- Stablecoins
- Central Bank Digital Currencies (CBDCs)



In-Game Tokens



Examples

Robux, Minecraft, Linden dollars

Key Use Cases

Gaming

Limitations

Withdrawal Limits, Centralized Platform T&C, No Interoperability

Cryptocurrency



Examples

Bitcoin, Ethereum, Polygon, etc.

Key Use Cases

Virtual lands, NFTs, Gaming, DeFi

Limitations

Volatility, Energy Usage (Proof-of-Work based), Anonymity and AML Concerns

Stablecoins



Examples

USDT, USDC, Dai, BUSD

Key Use Cases

DeFi, International Payments, Settlement Currency for Trading, Entertainment, Shopping, Tourism

Limitations

Anonymity and AML Concerns, Collateralization Requirements

CBDCs



Examples

e-CNY, e-Naira, Sand Dollar

Key Use Cases

Domestic Payments, Targeted Subsidies, Public Affairs, Healthcare, Tourism

Limitations

Predominant Domestic Use Case a Challenge on Open Metaverse

Fiat Money (Current)



Examples

USD, GBP, EUR, CNY

Key Use Cases

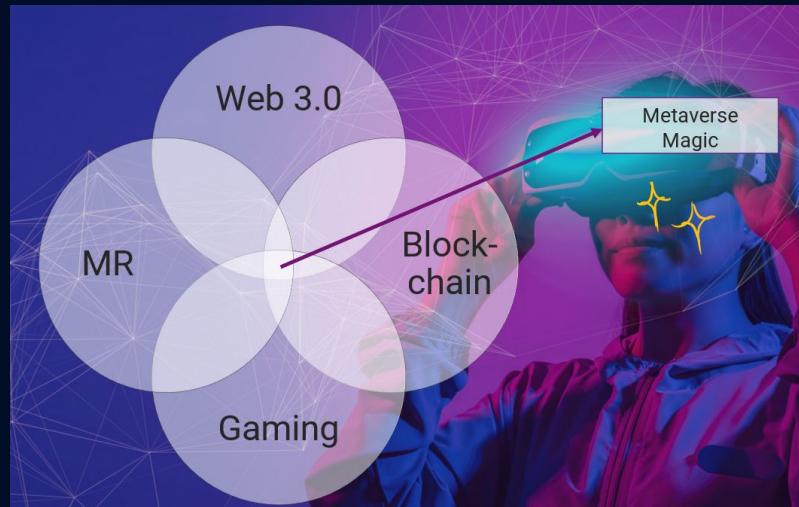
Traditional Financial Services, Credit Cards for Consumer Protection-Linked Use Cases

Limitations

Non-Tokenized, Account-Based, Micro-Payments Tough

What does Web 3 have to do with Metaverse?

- Based on ownership and decentralization and facilitated via blockchain, Web3 refers to the conceptual third iteration of the internet.
- The so-called “Open Metaverse” is built upon blockchain – mainly the Ethereum chain – and overlaps with Web3.
- Many Web2 centralized platforms will play an important role in the Metaverse, and even Web3 today relies on elements of centralization.



What's the Role of NFTs in the Metaverse?

- NFTs in the Metaverse enable a form of sovereign ownership for users/owners and are
 - Tradeable
 - Composable
 - Immutable
 - Mostly interoperable
- Increased interest from gamers, investors, and corporates in the NFT space in recent months.
- NFTs in the Metaverse are virtual items stored in a digital wallet that can be taken everywhere within the Metaverse.



What's the Role of AI in the Metaverse?

- AI for immersive digital worlds
- AI as a creative partner
- Intelligent networking
- Smart hyper-personalized games, experiences, education and welfare



What's the Role of APIs in the Metaverse?

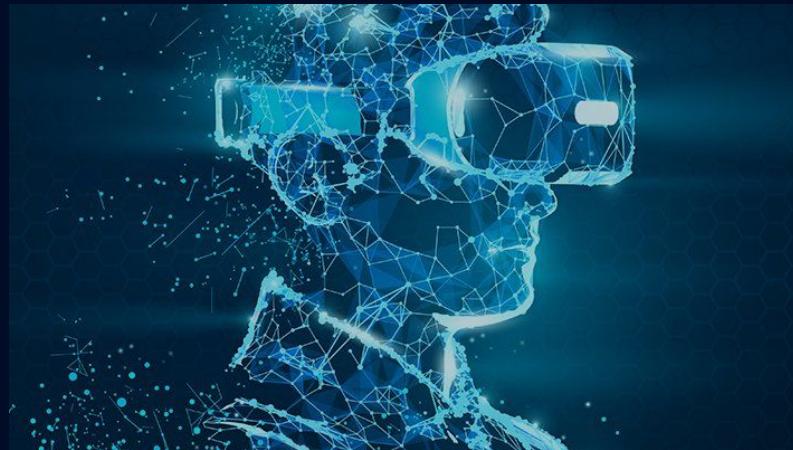
APIs will:

- Help create the Metaverse.
- Speed up immersive experiences development time and cut costs.
- Be used by Metaverse Developers to change product code without needing to start from scratch.
- Be used more heavily in the future, as the Metaverse proliferates.
- Be a fundamental building block of Metaverse, Web 3.0 and the future of the internet.



What's the Role of Cloud Computing in the Metaverse?

- The essence of the Metaverse is still cloud computing.
- Scalable AI and APIs can only be built economically on the cloud.
- Only Serverless Cloud Computing can meet the scalability requirements of the Metaverse.
- What Metaverse itself needs is computing, storage, machine learning, etc., which are inseparable from cloud computing.
- The architecture of Metaverse will be event-driven which means it will be a Serverless Metaverse.





Global Tech Talent Shortage

- The global talent shortage already amounts to 40M skilled workers worldwide.
- By 2030, the global talent shortage is predicted to reach 85.2M workers. Companies worldwide risk losing \$8.4T in revenue because of the lack of skilled talent.
- According to a CNBC report, the software developer shortage is alarming in 2022. The rate of unfilled IT jobs in USA increased to 918,000 vacancies at the end of 2021.
- Another report noted that by 2030, the number of software job vacancies would rise by almost 22%. The average growth rate of software developers in the USA is only 8% right now, and that clearly emphasizes there is already an overwhelming and severe shortage of skilled workers.



**85 Million
By 2030**

So who will build the Metaverse?



A Global Mass Developer Training Program will Solve the Talent Shortage



Panaverse is Unlike Any Other Program



EARN
WHILE YOU
LEARN

Developer Skill Set: Web2



TypeScript

Frontend & Backend
Development



VS Code

Integrated Development
Environment



Next.js

Front End Development
Framework



Terraform CDK

Infrastructure as Code



Serverless

AWS Lambda, API Gateway,
AppSync, and Aurora for API
Development



Panacloud CLI for API
Development

Developer Skill Set: Web3



Ethereum



Solidity



OpenZeppelin



Hardhat



Ethers.js



Metamask



Alchemy



The Graph



Chainlink

Developer Skill Set: 3D



WebGPU

Three.js - JavaScript 3D
Library



WebXR

Three.js - JavaScript 3D
Library



DAPP

Designing Metaverse DAPP
Experiences



C#

Unity XR Programming



Unity 3D

3D Development Platform



Blender

3D Modeling

Panaverse DAO

A decentralized autonomous organization (DAO) is an emerging form of legal structure that has no central governing body and whose members share a common goal to act in the best interest of the entity.

Panaverse DAO will be a hybrid of a business entity and an educational institution for all Web 3 and Metaverse Developers.



www.panaverse.dao



What is a DAO?



- A decentralized autonomous organization is an entity structure in which token holders participate in the management and decision-making of an entity.
- There is no central authority of a DAO; instead, power is distributed across **token holders** who collectively cast votes.
- All votes and activity through the DAO are posted on a blockchain, making all actions of users publicly viewable.
- The concept of a DAO is to promote oversight and management of an entity similar to a corporation. However, the key to a DAO is the lack of central authority; the collective group of leaders and participants act as the governing body.



How DAOs Work?

- The voting process for DAOs is posted on a blockchain. Users must often select between mutually-exclusive options.
- Voting power is often distributed across users based on the number of tokens they hold.
- For example, one user that owns 100 tokens of the DAO will have twice the weight of voting power over a user that owns 50 tokens.
- The theory behind this practice is users who are more monetarily invested in the DAO are incentivized to act in good faith.
- DAOs often have treasuries that house tokens that can be issued in exchange for fiat.

Panaverse Community

The concept of a Panaverse DAO will encourage people from all over the world to seamlessly come together to build a single Web 3 and Metaverse vision. With just an internet connection, token holders can interact with other owners wherever they may live.



www.panaverse.co

We will Help You

We have Extensive Experience of Conducting Mass Training Programs. Currently, we are running the President of Pakistan's Initiative for AI & Computing (PIAIC). We can help join this revolution.



www.piaic.org



Panaverse: Certified Web 3.0 & Metaverse Developer

www.panaverse.co

<https://discord.gg/GggDkBwJDr>

https://twitter.com/Panaverse_edu

<https://www.facebook.com/groups/panaverse>

The image shows a computer monitor displaying a webpage for a "Certified Web 3.0 and Metaverse Developer" program. The page has a green header with white text: "Certified Web 3.0 and Metaverse Developer: A Nationwide Program in Karachi, Lahore, Islamabad, Peshawar, and Faisalabad". Below the header, there is a section with smaller text: "Getting Ready for the Next Generation and Future of the Internet - join a 13 Trillion Dollar Industry with 5 Billion Users". The main content area contains the same program details again. At the bottom, there are buttons for "APPLY FOR ADMISSION NOW" and "Watch the Insane Future of Web 3.0 and Metaverse Video in Urdu". The monitor sits on a black stand against a dark background.