



Panaverse

Certified Web 3.0 and Metaverse Developer Program

Preparing Developers Globally for the Next
Generation of the Internet

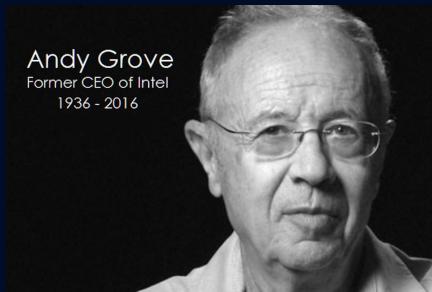
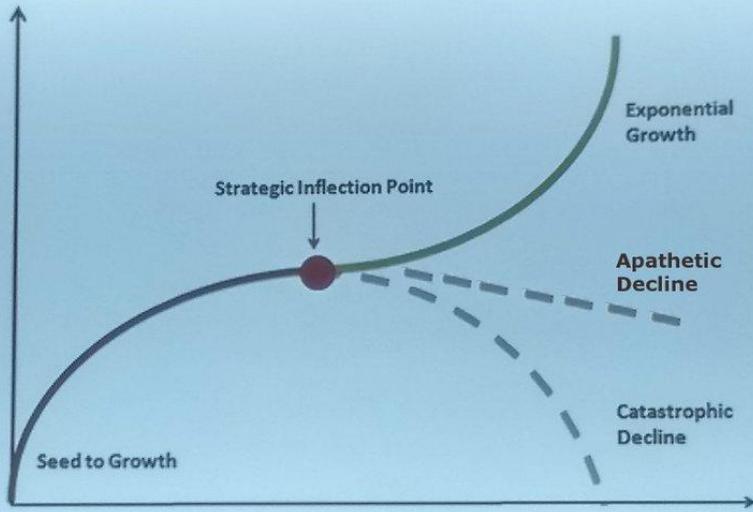
Zia Khan

MA, MBA, MAC, MSE, CPA, and CMA
<https://www.linkedin.com/in/ziaukhan/>

www.panaverse.co

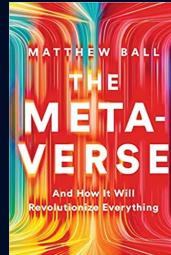


Strategic Inflection Point



“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

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**

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





BBC NEWS



PlayStation 3.567

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

13 Trillion

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

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



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

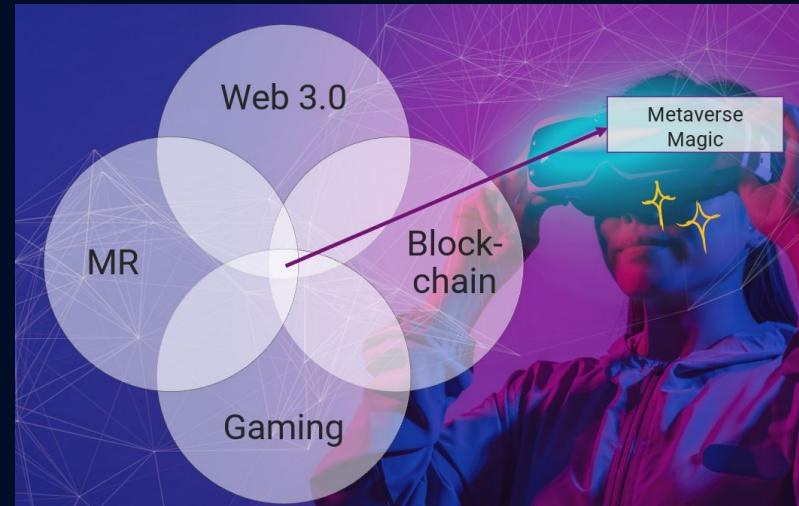
Traditional
Financial Services,
Credit Cards
for Consumer
Protection-Linked
Use Cases

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?

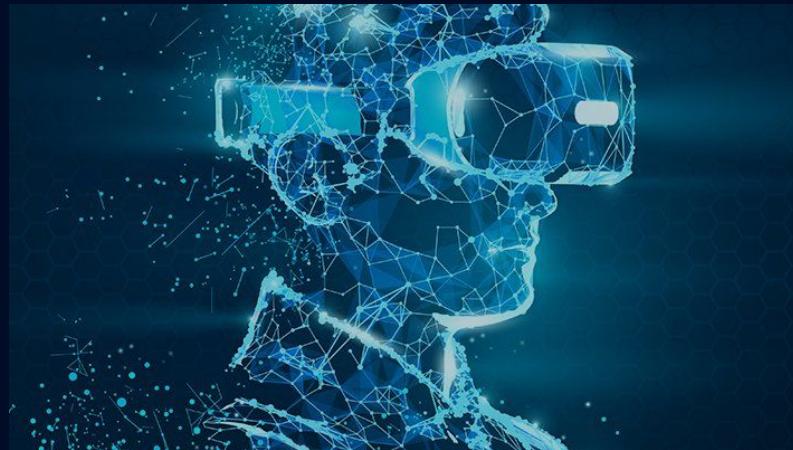
APIs will:

- 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

Study Plan

- **4 Hours of Onsite Classes per Week**
- **2+ Hours of Live Online Classes per Week**
- **Pre Recorded Videos**
- **Presentation Projects**
- **Coding Projects**
- **Complete Projects to Earn Dollars**

Prime Directives of the Program

Students who do not fulfill these three requirements will immediately be dropped from the program:

- Pass All Quizzes**
- Complete and Submit All Projects
(No copy-paste allowed)**
- Earn Dollars in the International market, as per faculty direction**

Developer Skill Set: Web2



TypeScript

Frontend & Backend
Development



VS Code

Integrated Development
Environment



Next.js

Front End Development
Framework



AWS CDK

Infrastructure as Code



Serverless

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



CLI

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

1 Year Certification Program

- Onsite, Online, and Pre-recorded classes
- Partnerships with Universities and NGOs to utilize excess capacity on weekends and evenings.
- Onsite classes in auditoriums.
- Four hours of onsite classes per week, the rest in online classes and recorded videos.
- Two hours of online classes per week.
- Students selected based on entrance exams at a mass level.
- Program cost less than \$20 per month.





1 Year Post Graduate Diploma



PGD in Web 3 and Metaverse				
ID	Quarter	C-Code	Course Title	Cr-H
1	1		Intro to Computer Science	3
2	1		Introduction to Programming	3
3	1		Object Oriented Programming	3
4	2		Advanced Web 2.0 Development	3
5	2		Metaverse Development	3
6	2		Smart Contract Development	3
7	3		Decentralized App Development	3
8	3		Cross Platform Metaverse Development	3
9	3		Serverless API Development	3
10	4		Advanced Web 3.0 Development	3
11	4		Computer Graphics Programming	3
12	4		Designing & Developing Metaverse DApp Experiences	3
Total				36



2 Year Associate's Degree



Associate's Degree in Computer Science (Web 3 and Metaverse)

ID	Semester	C-Code	Course Title	Description	Cr-H
1	1		Intro to Computer Science	Web 3 & the Metaverse	3
2	1		Introduction to Programming	C# for Metaverse	3
3	1		Object Oriented Programming	TypeScript	3
4	1		English-I	Elective - Expository Writing	3
5	1		UI/UX Design	Elective - Arts & Humanities	3
6	1		Linear Algebra	Elective - Quantitative Reasoning	3
7	2		Advanced Web 2.0 Development	NextJS	3
8	2		Metaverse Development	Unity & C#	3
9	2		Smart Contract Development	Solidity & Hardhat	3
10	2		English-II	Elective - Expository Writing	3
11	2		Pakistan Studies	Elective - Civilization Courses	3
12	2		Applied Physics	Elective - Natural Sciences	3

2 Year Associate's Degree

Associate's Degree in Computer Science (Web 3 and Metaverse)					
ID	Semester	C-Code	Course Title	Description	Cr-H
13	3		Decentralized App Development	EthersJS, NextJS, & Solidity	3
14	3		Cross Platform Metaverse Development	Unity & C#	3
15	3		Serverless API Development	Amazon Web Services	3
16	3		English-III	Elective - Expository Writing	3
17	3		Tokenomics	Elective - Social Sciences	3
18	3		Physics for Game Developers	Elective - Natural Sciences	3
19	4		Advanced Web 3.0 Development	DAO, Oracles, Graphs, DeFi, & Tokenomics	3
20	4		Computer Graphics Programming	Elective - Quantitative Reasoning	3
21	4		Designing & Developing Metaverse DApp Experiences	Elective - Arts & Humanities	3
22	4		Political Science & Government	Elective - Social Sciences	3
23	4		Comparative Religion	Elective - Civilization Courses	3
Total					69

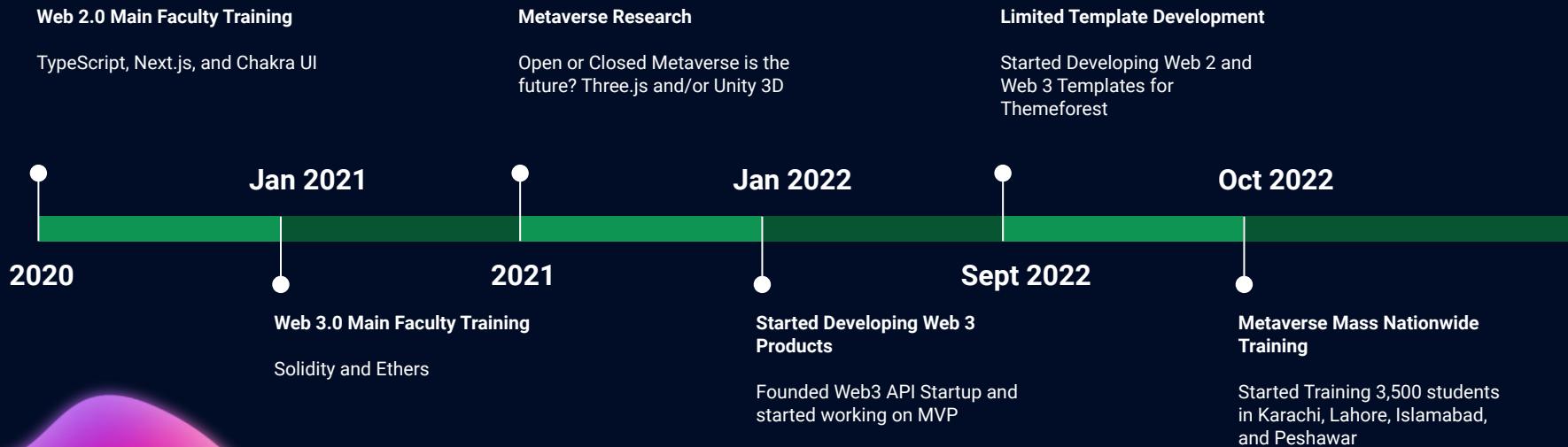
Why Us?

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



www.piaic.org

The Pakistan Panaverse Timeline



The Global Panaverse Timeline





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.