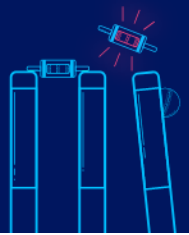
ICC | NIUM

# NEXT IN

A </Global Hackathon> challenging you to enhance the digital cricket fan experience



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Team Name : Team Wasuli

Problem Statement : Use AR/VR technologies to create a gamified experience for cricket fans.

Brief about the Idea:

## Presenting - the most immersive and realistic experience ever achieved

Introducing our award-winning metaverse platform, now equipped with a brand new gamified cricket ground, that is set to revolutionise the way cricket fans experience the sport!
With the use of cutting-edge AR/VR technology, we've created an immersive experience that allows fans to play and explore the game like never before.
Our immersive metaverse platform provides an unparalleled virtual cricket stadium experience using AR/VR technology.
Features include a gamified cricket ground with NFT ticketing, a completely explorable stadium, and the ability for fans to play cricket using Augmented Reality and Virtual reality.
Fans can also scan the sportsperson to access player statistics.

The platform includes a historic virtual cricket museum and is the most immersive and realistic virtual stadium experience ever.

## Opportunity :

This platform presents a unique opportunity to revolutionise the way cricket fans experience the sport. Here are some opportunities that our platform offers:

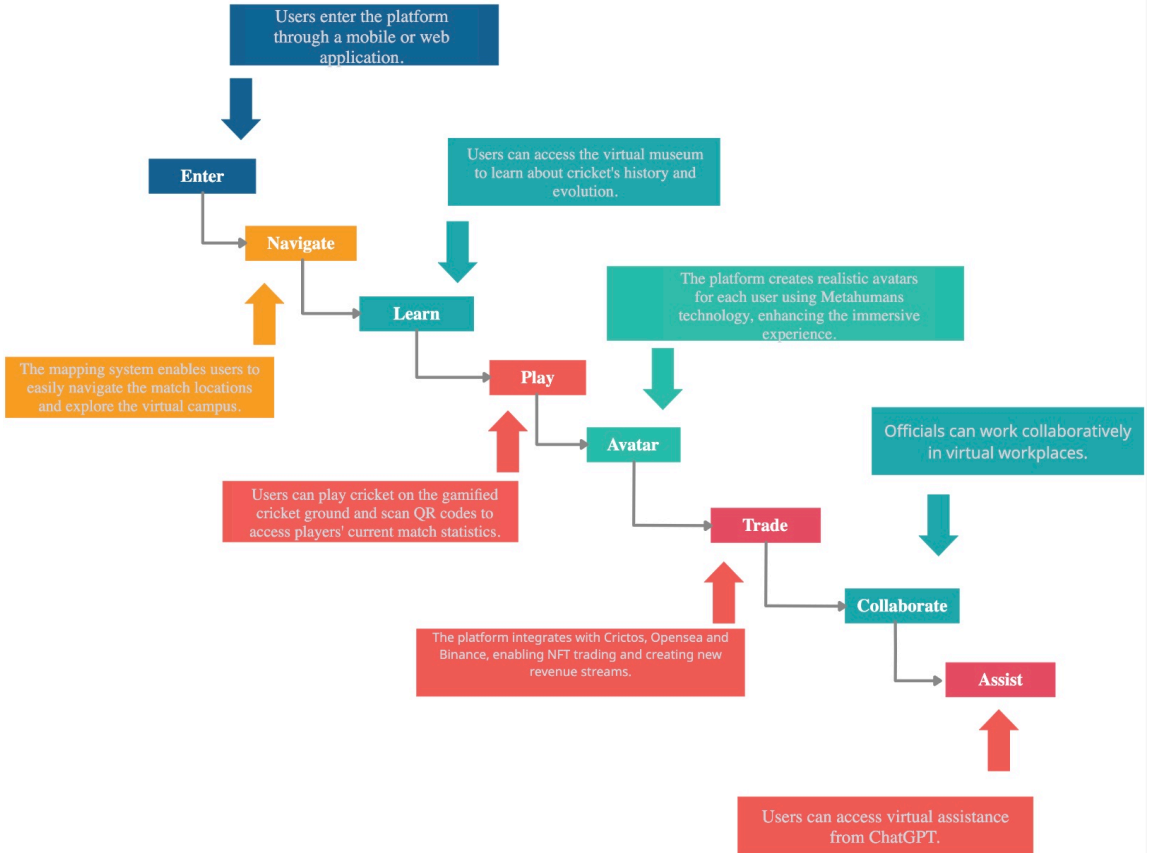
- The platform offers a **unique and engaging fan experience** that goes beyond just watching a game.
- The gamified cricket ground and **NFT ticketing** allow fans to immerse themselves in the sport like never before.
- The use of AR/VR technology takes this experience to the next level by allowing fans to **play the game themselves, explore the stadium, and learn about the sport's rich history**.
- Incorporating a mapping system helps fans easily **find their way around the stadium** and locate the infrastructures they need to access.
- The use of NFTs and other blockchain-based technologies provides an added layer of security, ensuring that fans have a **seamless and secure experience**.
- The platform's unique features, such as the ability to **scan QR codes** and access player statistics during the game, set it apart from other cricket-based AR/VR experiences.
- The historic virtual cricket museum and **educational resources** offer fans an in-depth understanding of the game's rich history and rules, providing a differentiated experience that is unmatched by other platforms.
- The platform's integration with **Chatgpt, Opensea and Binance** for NFT trading offers new revenue streams for both the platform and the stadium.
  Overall, the platform presents a unique opportunity to create an **engaging and educational experience** for cricket fans, while also solving the way-finding challenges faced by visitors to large campuses.

## List of features offered by the solution :

**Link to prototype - https://www.youtube.com/watch?v=_w0l9vOQNaQ**

- **Realistic gaming experience**: The gamified cricket ground provides an opportunity for fans to play cricket in the platform using Augmented and Virtual reality . Fans can explore the stadium, scan QR codes at the back of the players, and access the players' current match statistics.
- **Geo-fencing and Mapping**: Our platform incorporates a mapping system that enables fans to navigate the match locations easily. The mapping system is accessible through a mobile or web application.
- **High Graphical Fidelity**: The platform provides an immersive experience with high graphical fidelity, making the virtual campus feel like a real one.
- **Realistic Avatars**: The use of Metahumans technology enables us to create realistic avatars for each user, enhancing the platform's immersive experience.
- **Crictos, Opensea and Binance Integration**: Our integration with **Crictos, Opensea and Binance** enables NFT trading, creating new revenue streams for the platform and the stadium.
- **Virtual Assistant**: ChatGPT integration provides virtual assistance to users, helping them navigate the campus and access the resources they need.
- **Virtual Workplaces**: Our platform offers virtual workplaces that allows officials to work collaboratively in a virtual environment.
- **Virtual Museum**: Our platform includes a historic virtual cricket museum, allowing fans to learn about the sport's rich history and evolution.

# Process Flow Diagram/Usecase Diagram:



## Business Logic of the solution :

The business logic of our platform is centered around two key revenue streams:

1. **Advertising and Sponsorship**: As our platform will attract a large number of students, staff, and visitors, we anticipate that advertising and sponsorship will be a major source of revenue. We will work with local businesses and sponsors to promote their products and services to our user base. This can take the form of banner ads, sponsored events, or other creative advertising methods.

2. **Match Tickets as NFTs**: Our NFT ticketing generates revenue for us even in resales of tickets  , we take 10% on the total price the NFT has been sold for. Our NFT marketplace allows users to buy ticket matches, merchandises and also buy NFTs of their favourite player

3. In addition to these revenue streams, our platform offers a **unique value proposition** that sets us apart from other solutions in the market. The immersive metaverse platform, coupled with the mapping system and virtual assistant, provides a comprehensive wayfinding solution that solves a major pain point for large campus visitors. The platform's gamified cricket ground and virtual museum are also unique features that provide an engaging experience for cricket fans. Overall, the combination of innovative features and revenue streams make our platform a compelling business opportunity.

## Technology used :

- **Languages**: C++, Visual Scripting, HLSL
- **Platforms**: Unreal Engine, Blender, MetaHuman
- **APIs**: Nanite, Lumen, Chaos Vehicles, MetaHuman, Quixel Bridge, Mass AI
- **Hardware**:
    A. GPU: NVIDIA GeForce RTX 3060 Laptop GPU
    B. CPU: Intel(R) Core(TM) i7-10870H CPU @ 2.20GHz
    C. Memory: 16 GB RAM (15.84 GB RAM usable)
- **Current resolution**: 1920 x 1080, 144Hz
- **Operating system**: Windows 11
- **Sponsored Tools**: Unreal Marketplace, CGTrader, TurboSquid
- **Technology Stack**: Unreal Engine, Blender, MetaHuman
- **Frameworks**: Unreal Engine: Nanite, Lumen, Chaos Vehicles, MetaHuman, Quixel Bridge, Mass AI, OpenSea, Binance NFTs

## Estimated cost of/after implementing the solution :

- **Development Costs**: The development cost of the platform will depend on the number of developers involved, their expertise level, and the time taken to complete the project. Assuming a team of 6 developers working for 6 months, the development cost can range from $100,000 to $300,000.
- **Infrastructure Costs**: The infrastructure cost of the platform will depend on the server requirements, storage requirements, and the data transfer requirements. Assuming a moderate user base of 10,000 monthly active users, the infrastructure cost can range from $10,000 to $30,000 annually.
- **Integration Costs**: The integration cost of the platform will depend on the number and complexity of integrations required. Assuming the integration with OpenSea, Binance, and ChatGPT, the integration cost can range from $10,000 to $20,000.
- **Maintenance Costs**: The maintenance cost of the platform will depend on the number of bugs, errors, and feature requests that are raised. Assuming a moderate level of maintenance, the maintenance cost can range from $10,000 to $20,000 annually.

Therefore, the estimated cost of implementing this solution can range from $130,000 to $370,000 for the first year, and $30,000 to $70,000 annually thereafter. It is important to note that these estimates are subject to change based on the specific requirements of the project.

# Newly added features with their unique benefits :-

## 1. Live Player Statistics using Augmented Reality:

- Allows users in the stadium to view live statistics of the player using AR, providing an immersive and engaging experience for fans.
- Gives real-time updates on player performance, scores, and other relevant metrics, overlaid onto the user's physical surroundings.
- **Enhances the overall viewing experience by offering a more interactive and dynamic way to follow the game.**
- Provides a deeper understanding of the game and players, which can improve engagement and fandom.
- Offers a more convenient and accessible way to view player statistics, without the need for separate websites or apps.

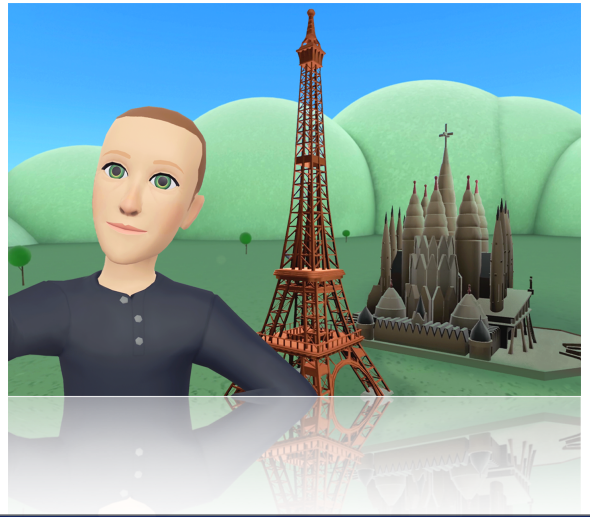
## 2. Motion Capture:

- Provides a cost-effective way for users to get motion capture feedback without expensive equipment.
- Offers a more personalised and interactive experience for users to improve their cricketing technique.
- **Helps users and their coaches/trainers to track their/their students' progress over time** and set achievable goals for improvement.
- Provides a fun and engaging way for users to learn and practice cricketing skills.
- Enhances the overall realism and immersion of the cricket experience on the metaverse platform.

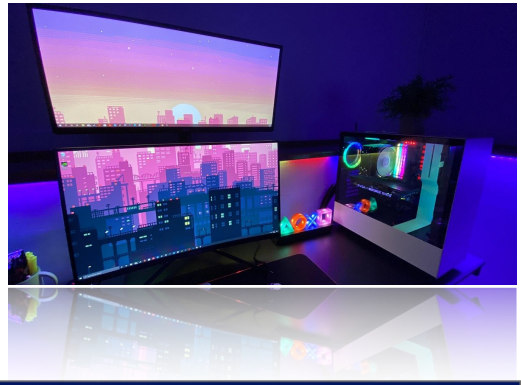
## 2. Fully Functional NFT Ticketing implementation:

- Allows for easy and secure ticket purchases, with less risk of fraud or scalping.
- Unlike conventional methods, **ticket resale among fans would result in additional profit** margin for the organising committee (generally ICC).
- Provides a unique and collectible souvenir for fans that can appreciate in value over time.
- Offers increased revenue streams for the platform and the stadium through the sale of NFT tickets.
- Provides a more eco-friendly and sustainable option by reducing paper ticket waste.
- Allows for greater flexibility in ticket ownership, transfer, and resale.

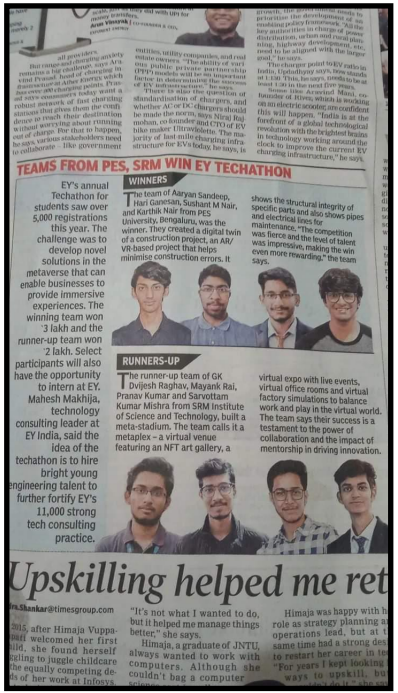
| What's better? | Meta's - Horizon World | Cricket'22 |
| --- | --- | --- |
| Is it Better than them? | ✓ | ✓ |



| What do you need? | Expensive Mo-Cap suit | Expensive AR/VR equipment | High-end hardware equipped computers? |
| --- | --- | --- | --- |
| Do you need it? | ✗ | ✗ | ✗ |

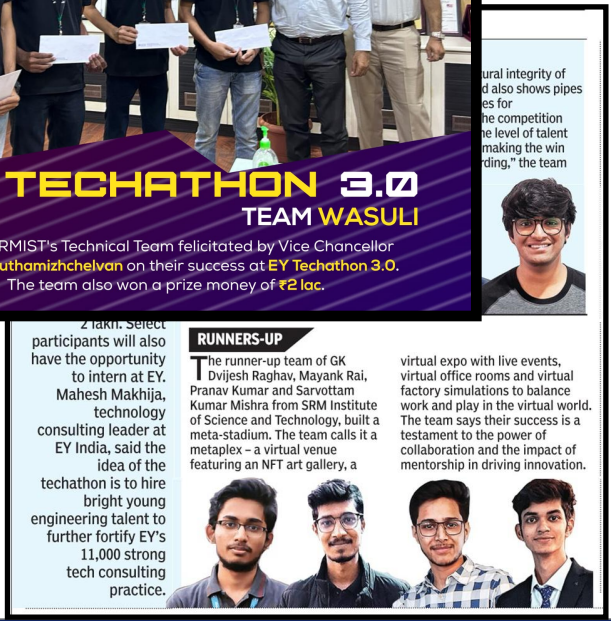
# EY Techathon 3.0 & EthForAll 2023
# WINNER Team (For best MetaPlex project)



TEAMS FROM PES, SRM WIN EY TECHATHON

WINNERS

RUNNERS-UP

Upskilling helped me ret

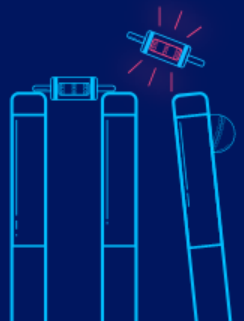


RUNNERS-UP

The runner-up team of GK Dvijesh Raghav, Mayank Rai, Pranav Kumar and Sarvottam Kumar Mishra from SRM Institute of Science and Technology, built a meta-stadium. The team calls it a metaplex – a virtual venue featuring an NFT art gallery, a virtual expo with live events, virtual office rooms and virtual factory simulations to balance work and play in the virtual world. The team says their success is a testament to the power of collaboration and the impact of mentorship in driving innovation.

participants will also have the opportunity to intern at EY. Mahesh Makhija, technology consulting leader at EY India, said the idea of the techathon is to hire bright young engineering talent to further fortify EY's 11,000 strong tech consulting practice.

**Source - THE TIMES OF INDIA**

# Thank you



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