



## GLOBAL DIGITAL WEEK 2023

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Líder de Tecnologías Inmersivas

lenovo











www.gidcomp.org

# AR and VR Solutions that Power the Enterprise Metaverse

Martand Srivastava | AR/VR Business Development, Lenovo

#### IS METAVERSE JUST A HYPE?

Corporations, VC, and PE have already invested more than \$120 billion in the metaverse in the first five months of 2022.

Large technology companies are the biggest investors—and to a much greater extent than they were for artificial intelligence (AI) at a similar stage in its evolution.

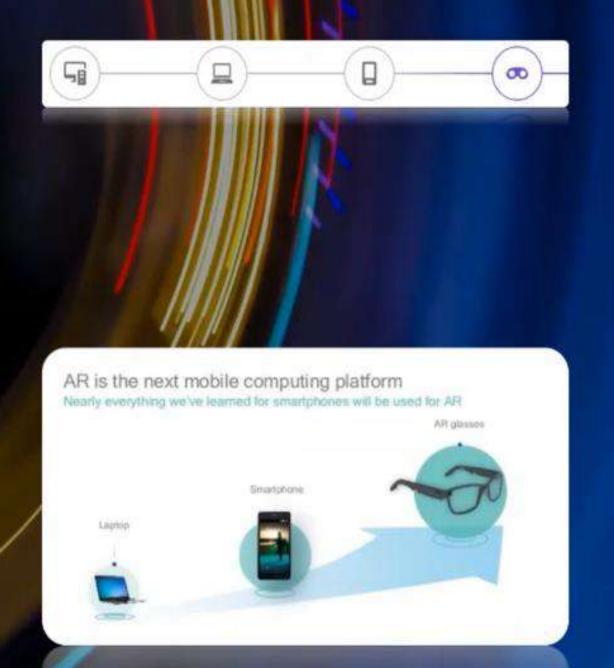
McKinsey estimates potential economic value of consumer and enterprise use cases of up to \$5 trillion by 2030—equivalent to the size of the world's third-largest economy today, Japan

#### What is the Metaverse?

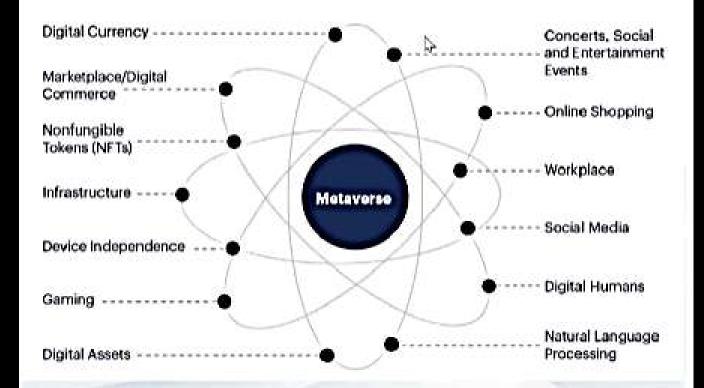
A virtual immersive world where large numbers of people can gather to play, work or socialize.

## Why Enterprise AR/VR? Why Now?

Many view AR as "the next mobile computing platform" and will scale to Smartphone volumes. The next big "enabler" in the evolution of the 3D internet or Web 3.0.



No matter what form the Metaverse worlds take in the future...



#### Elements of a Metaverse

Source: Gartner

#### ... XR will be the ultimate on-ramp



3D Worlds

**Avatars and Holograms** 

**Immersive Experiences** 

#### What are the different layers of the Metaverse?

CONTENT CREATION



**Creation Layer** 

Metaverse interest is

content, artists, and

creating growth in 3D

#### **Application Layer**

3D apps, tools, and solutions are developing next-gen solutions and applications



#### Cloud Layer

3D workflows are moving to the cloud to allow networked access to data





#### **Delivery Layer**

Distributed computing is a nascent and critical layer to enable greater device utility



#### **Devices**

3D devices are continuing to become seen as more mainstream



engineers

- ThinkStation
- ThinkPad





- ThinkReality
- ISV/SI Partners
- R&D Partners







- ThinkSystem
- HPC Data Centers
- · GPU Accel. Servers





- ThinkEdge
- ThinkAgile
- Networking / 5G





- ThinkReality
- VRS3
- A3/A6
- Motorola





#### **Metaverse Use Cases**

#### TRAINING -

The Metaverse will reimagine education by transporting the user into a true-to-life contextual environment (e.g., going back to a time in history, into an operating room to train surgical muscle memory through physical motions)





#### **Key Benefits:**

- VR training found to be 4x faster than classroom learners and 1.5x faster than e-learners
- Training content is scalable and assets reusable to make content creation cost effective

#### Dependencies:

- Hand tracking and haptics to improve interaction
- Low code 3D authoring to scale content creation

#### Lenovo Offerings:

- Lenovo VR Classroom; AR/VR Solutions
- Partnerships with VR training platforms (EngageVR, Uptale)

#### COLLABORATION -

The Metaverse will provide an always-on medium for enhanced 3D collaboration with avatars in virtual worlds or by bringing digital assets into the physical world.





#### **Key Benefits:**

- · Improved remote collaboration
- Real-time modification to 3D assets

#### Dependencies:

- Headsets to view 3D content
- Real-time rendering of 3D content
- 3D light-field on displays without the need for glasses

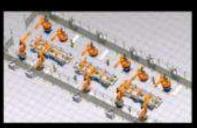
#### Lenovo Offerings:

- AR/VR Headsets and Software Platform
- Smart Collaboration Hardware
- Partnerships with collaboration tools (Microsoft, Zoom, Engage) and content creation tools (Adobe, Autodesk)

#### **Metaverse Use Cases**

DIGITAL TWINS

Digital Twins in the Metaverse will allow stakeholders across the enterprise to effortlessly create, simulate, and interact with 3D assets from the factory floor.





#### **Key Benefits:**

- Optimize the factory floor with simulation
- Monitor physical assets remotely

#### Dependencies:

- 3D asset management tools & integrations
- IoT sensors and data capture

#### Lenovo Offerings:

- AR/VR Headsets and Software Platform
- IoT Solutions
- Partnerships with cloud, PLM and ERP tools (SAP, ServiceNow, Autodesk)

#### CONSUMER, GAMING AND SOCIAL -

Tomorrow's consumers will primarily socialize in the Metaverse, buying and selling physical & virtual assets seamlessly. New opportunities and paradigms will arise for brands to market themselves in an innovative way.





#### **Key Benefits:**

 Dwell and conversion - AR advertisements have 4x longer viewing times than video and a 2x boost in conversions

#### Dependencies:

- Blockchain and NFT advancements for ownership
- Adoption of 3D in marketing workflows

#### Lenovo Offerings:

- Edge compute and 5G to enable experiences from anywhere
- AR/VR Headsets and Software Platform (Consumer offering TBD)

#### Challenges to Broad Adoption Remain

#### Global Enterprises Need Scalable Solutions



Each department has unique requirements for devices, apps, cloud, use cases & integration

- Device Fragmentation / Lock-in
- App Deployment & Provisioning
- Cloud Infrastructure
- · Content Management
- Unusable Devices

#### Complete E2E Enterprise Solution

### SOFTWARE & SOLUTIONS





#### DEVELOPMENT PLATFORM

- Unity SDK
- Extendable Sample Apps
- · Voice, Gesture, Gaze, Controller
- Image Recognition

#### **CLOUD PLATFORM & SERVICES**

- Management portal
- · MDM support
- · User and app provisioning
- Microservices
- Hosted or on-prem
- Asset Pipeline

#### **TURNKEY APPS & SOLUTIONS**

- · Certified third-party apps
- · Variety of use cases
- Android Mobile Device Support

#### **HARDWARE**



#### Lenovo







#### 3rd Party





#### SERVICES



#### CUSTOMER SUPPORT SERVICES

- · Device and warranty support
- · Software services and support
- · LISS

#### PROFESSIONAL SERVICES

- · Application Development
- · Cloud and on Prem-Set Up
- Systems Integration
- Deployment and Fulfillment



### **ThinkReality**











Remote Assistance Guided Workflow 3D Visualization Digital Twins Skills Training
Safety Education
Location Tours
Iterative Prototyping

Digital Models Remote Proctoring Quality Control Immersive learning Lab Training Distance Learning











## TIME

TIME Bost Inventions 3021

ThinkReality A3 Headset



66

When you sit down at your desk semetime in the near future, instead of furning on a monitor or opening your leptop, you may simply don a pair of Leticovo's thinkneatty A.S.Smart Glasses (\$1.499). Donnect the glasses to a computer or smartphone, and high-defention displays built into the lenses will show as many as few different deaktops floating in frost of you, you can continue multi-asking between Excel agreed/sheets or World documents as you normally would using a stendard keyboard, track pad or mouse, all while streaming a Spotify playist through the head-soft's built-in speakers. Commict the space to the Moto Grotophrate of doesn't yet support other products to take the experience on the go, expending their functionality.

TIME BEST INVENTIONS 2021 Lenovo



-Jason Cipriani.

#### Case Study: Micron Semiconductors

#### AR Enabled Workflows/SOPs

#### Remote Assist

- Allow lower skill operators to complete more complex tasks than before using AR/VR enabled workflows and trainings
- Enable operators to create their own digital step-by-step instructions to support preventive maintenance tastks
- Integration with existing systems
- Global deployment across all Fabs across Asia, EU and US
- Have remote expert / collaboration solution support for engineers to ensure uptime and improve productivity
- Improve machine uptime and remote trainings
- Virtual curtain feature to ensure privacy and security

Key Functionalities	Business Impact		
Ready to deploy solution     Device independent	Increased productivity     Reduce machine downtime		
III. Management Portal for device / user management	Faster employee ramp up     Remote employee		



#### 1978

founded in the basement of a dental office



#### \$27.7B USD

annual revenue (2021)



#### 43,000

 employees in 17 countries



## Virtual Reality

**ThinkReality** 









#### **Use Cases**

The Mirage VR 53 is an enterprise focused 3DoF VR headset targeting high Value use cases for:

- HUMAN RESOURCES TRAINING
- · SAFETY TRAINING
- SALES TRAINING

Video-based VR experiences are ideal for the VR S3 as it only requires 3DoF. Most content in these categories are created in this way.

#### ThinkReality

VR 53 is ready for ThinkReality out of the box.

- · Easy to deploy large quantities of devices
- Manage applications and updates remotely
- · Monitor device health, battery levels
- VR S3 Sold with ThinkReality or standalone



#### **Industry Average KPI Improvements**

Warehouse

(15-35%)

Productivity Gains in Picking Process

Manufacturing

(Near 0%

Error Rates Drop to Nearly 0% **Field Service** 

30-40%

Decrease in Service Resolution Time

Smarter technology for all



## ABOUT GLOBAL INSTITUTE FOR DIGITAL COMPETITIVENESS

INSTITUTO DE INVESTIGACIÓN TECNOLÓGICA DE ALTO IMPACTO



#### One goal, Create value through technology.

#### Through 5 different specific strategies:

- 1 Spread and promote the use of technologies to increase the efficiency of organizations regardless of their geographic location.
- 2 Connect the organizations and exercutives to create more value, sell more in an omnichannel and geopolitically fragmented world.
- Work together with authorities and institutions to remove barriers to technologies and trade.
- **Bringing experts, knowledge and cases** to communities or regions with little access to technological knowledge and digitalization to make opportunities inclusive.
- **5 Establish Committees by type of technology** to share uses, applications, as well as groups that want to interact, collaborate and test new applications in the practical field.



#### Accompanied by international senior leaders who manage committees

2<sup>nd</sup> committee 3<sup>rd</sup> committee 4th committee 1<sup>st</sup> committee Metaverses, Immersive Data Science & Big data, HR Smart Cities, Sustainability& **Blockchain and NFT. Digital** Technologies (AR, 3D, MR, VR), & Well-being Technologies, 4.0 Industry, Public Policy, E-**Economy, and Artificial Omnichannel Experiences & Digital Education Technology** government & Cybersecurity Intelligence. Commerce CTOs, CDOs, CIOs **Governments, Int. Organisms** CRHOs, COOs, CHOs. CEOs, CMOs. CSOs. **Technology applications** Macro

#### Affiliates will live an international Digital experience

Meetings will be held every 15 days as follows: E.g., Metaverse Committee

Channel	Time	Attendees	City	Face-to-face host
Metaverse	1.5 hours	10		
Face-to-face	30 min	4	CDMX	Sura
		2	Bogota	Coats
		4	Madrid	Let me Park

#### **ANNUAL OBJECTIVES OF THE COMMITTEES:**

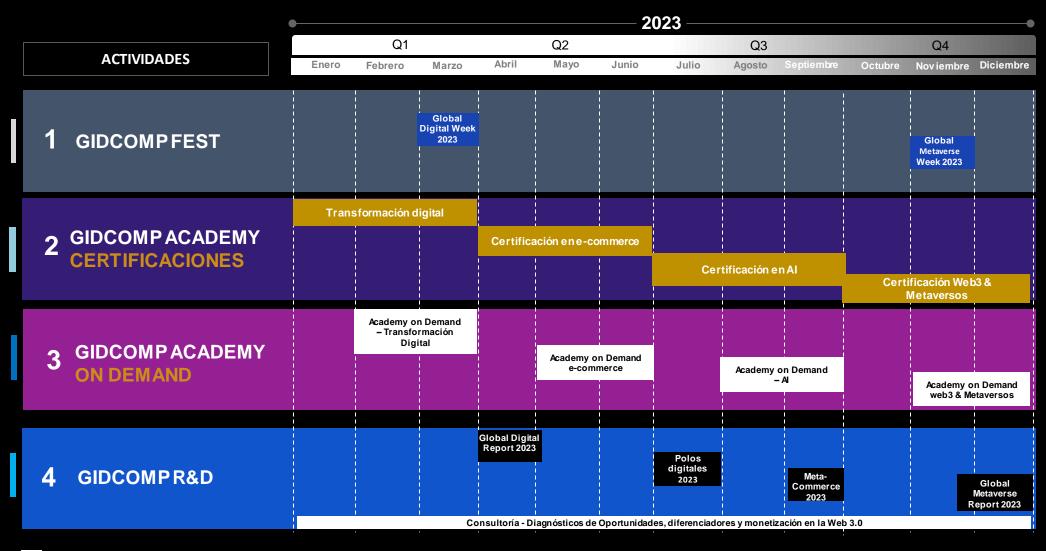
- Publish trends by technology.
- Collaborations with the media.
- Working papers.
- Video Cases and documentaries.
- International networking.
- Coordination of Roadshows.
- Recognition of executives
- Exposure of the brands that collaborate in the integration of knowledge.





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#### **Calendario GIDCOMP 2023**



Actividades de responsabilidad social de acceso al público, vía streaming y plataformas tecnológicas con marcas co-organizadoras.



GIDCOMP with its purpose of contributing to reduce the global digital divide holds several international festivals inviting Senior leaders to share and inspire people to create value and generate experiences in Web 3.0 with new technologies.

1 GIDCOMP Immersive Festivals



## GLOBAL DIGITAL WEEK2023

+ 100 experts

Check international experts

Day 1. Smart Cities

Day 2. Public policies

**Day 3. Digital Commerce** 

Day 4. Disruptive Business

Day 5. Wellness Technologies

From March 27 th to March 31st, 2023

## GLOBAL METAVERSE WEEK 2023

+ 100 experts

Check international experts

Day 1. Immersive technologies

Day 2. Omnichannel

Day 3. NFTs and Blockchain

Day 4. 3D and Web 3.0

Day 5. Immersive experiences

From November 11th to November 15th 2023





## 2 Digital Knowledge Bank

#### www.gidcomp.online

+200 Replays:

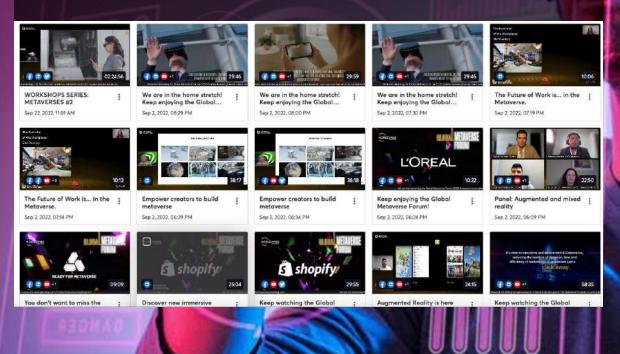
Keep your brand leaders up to date on technology trends. Global Digital Week 2022-2023 Replays Global Metaverse Week Replays 2022-2023

Marketplace for technology providers.

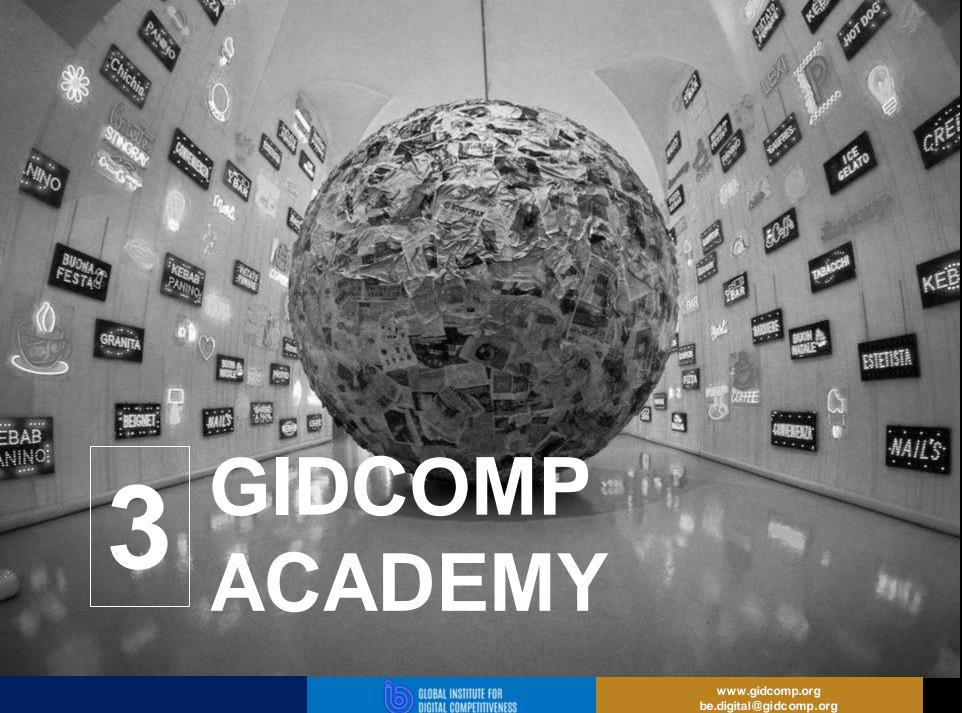
Don't miss the opportunity to be in touch with the leaders of large companies and organizations, get in touch with the leading brands!

The committees via their member brands will continuously broadcast the advances and trends in order to continue showing new applications to the audience and at the same time will be strengthening the digital knowledge bank for affiliates, which currently has more than 200 conferences, Mini MBA on demand, master classes, MOOCs, with more than 200 uninterrupted hours of content.

FUTURISTIC HILE







The Academy Division seeks to bring international practice experts together to share their pragmatic and tactical execution insights with leading global companies.

The main mission is for executives to develop practical skills in order to increase the efficiency and sales of brands.

## CERTIFICATION IN IA APPLIED TO MARKETING AND BUSINESS

Certification in AI for marketing and sales aims to help decision makers maximize results, optimize budgets, predict customer behavior, study, define and segment users, predict audiences and improve operational efficiency.

#### **Certification options**

A.Certification via applied project.

Mentors who are leaders in the subject matter of the project

#### B. Immersive certification in Dubai.

Includes visits to companies in the city, developing a proposal applied to your company.

#### **NEXT START DATES**

Summer 2023

Start: July 1st

Admissions closing

MAY15TH

Contactar aquí

"Boost your career in Marketing and Sales with our Al certification and learn from global brands."

### 16 COURSES TO BECOME AN EXPERT

12 COURSES CORE

4 COURSES ELECTIVE

ETING TECHNOLOGY

- Data analysis with AI
- Product strategy
- Research with Al
- Personalization with AI
- Journey optimization
- Consumer behavior with Al
- Content marketing Al
- Customer service

- Digital shift
- People Analythics
- Innovation culture
- Sensory technology
- Virtual stores
- Implementation of AI projects
- Openinnovation
- Search Engine Optimization (SEO)
- Powering your CRM
- Sales funnel conversions with Al
- Lead creation with Al
- Costumer success
- Automating the sales process
- Trade marketing Al

SALES LEADERSHIP



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## GIDCOMP R&D

Trend Studies, Reports and Digital Labs

#### Global Metaverse Report 2022

Release due November 2022

#### Global Digital Report 2023

Release due February 2023

Meta
Commerce 2023 Release

due June 2023

#### Polos digitales 2023

Release due November 2023







- CONTACT WITH CONSUMERS ESTEFANÍA YAGÜEZ, HEAD DE CONSUMER INTELLIGENCE DE L'ORÉAL
- 2. MARKETING Y BRANDING FERNANDO CANO, MANAGING DIRECTOR DE HAVAS METAVERSE

#### OMNICHANNEL TRADE

- 1. <u>VIRTUAL STORES</u> JONATHAN MÁSMELA, CEO OF LA COLONIA
- 2. <u>SELLS IN THE METAVERSES</u>—THORSTEN WALTHER, CEO OF INSPIFY

#### **MASSIVE METAVERSES**

- VIRTUAL COMMUNITIES MANAGEMENT, DANIELLE MCCONNELL, CMO FROM VIRTWAY
- 2. SPECIALIZED METAVERSES SORAYA CADALSO, CEO OF UTTOPION

Accessibility
Problems
Opportunities

Needs
Hyperconne ctivity

Color dots
Scenarios to catch Market Share

Current Portfoilio

- 1. Sneakers
- 2. Clothes
- 3. Accessories

Adapted portfolio (médium-term)

- 1. NIKELAND
- 2. Clothes with technology
- applicatives
- 3. Monitor accessories

Exemple: NIKE of non-exhaustive business units.

Note: Clic on the links to watch the international leaders' lectures.

ILLUSTRATIVE

Incorporate technology applicatives

Prioritization in terms of sales impact

Market fit. Short-term

Market fit. Medium-term

technologies

· Being the first to incorporate

Prioritization in terms of sales impact

### Technology adoption diagnostics





#### Some brands that are part of our international ecosystem



#### Reasons to join GIDCOMP:

- 1 To receive information on Business Intelligence and Technology trends
- **2** To leverage existing technology (leapfrog)
- 3 To generate networking / community
- 4 To have visibility of the applications in the use of technologies
- 5 To keep you informed and up to date with the latest news
- 6 To receive support or consulting
- 7 To train my team to face new market challenges.
- **8** To generate a relationship with Authorities
- Access to +200 Mentors from 52 countries and presentations of their models at the Global Digital Week & Global Metaverse Forum.









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www.gidcomp.org be.digital@gidcomp.org



#### How to become a member?

Send us an email to be.digital@gidcomp.org or a WhatsApp to: +52 56 1463 3902

The GIDCOMP seeks to unite and relate organizations linked to the international technological ecosystem to promote and develop digital capabilities in any location in the world.

The membership begins with the date of accreditation of payment in the bank account.

Valid 12 months from the date of payment.

Renew als begin to run from the expiration date of the current membership.



Our network of member Institutes promotes Innovation and Technology as factors that allow human and organizational progress and improve our lives. We contribute to supporting causes with our core business through Corporate Social Responsibility actions that are carried out through the Consultores sin Fronteras Foundation and the Global Institute for Digital Competitiveness <a href="www.gidcomp.org">www.gidcomp.org</a> We also believe in respect for Human Rights and not We do not discriminate in any program, activity, or person on the basis of sexual preference, income, religious preference, race, color, national origin, age, gender, or disability. GIDCOMP® All Rights Reserved 2023.