



# THE GAMING DUEL

The official newsletter of, IT CLUB ABVSME, JNU

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## Volume 2

## Issue 2



[infomatrix \(IT Club\)](#)



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# From the Editor's Desk

**Dr Priya Gupta**

**Faculty Advisor & Editor-in-Chief**



Every newsletter tells a story, and The Gaming Duel is no exception. It is not just a collection of pages; it is a window into the vibrant world of the Infomatrix – IT Club, ABVSME, JNU, where ideas meet innovation and curiosity meets opportunity.

In this edition, you will journey through the excitement of our hands-on technical workshops, hang out into thought-provoking articles, and explore industry trends that are shaping the future of IT, AI, gaming, and beyond. You will meet ideas that challenge the way we think about technology, stories that highlight the power of collaboration, and insights that might just spark your next big project.

Here, learning is not confined to classrooms. It is woven into every conversation, every experiment, and every challenge that our members take on. From decoding the possibilities of AI and IoT to analyzing global market shifts, our contributors bring fresh perspectives that keep this newsletter both a source of knowledge and a space for inspiration.

I invite you to read with curiosity, question with boldness, and dream with confidence. This edition is more than words on paper. It is an invitation to be part of a movement that cuddles change, nurtures creativity, and prepares us for the digital future.

*"The best way to predict the future is to create it." – Peter Drucker*

**Happy Reading!**



# From the Student Editor's Desk

**Vidhi Sharma**

Newsletter Volume 2 Issue 2



*“Think engagement is just clicks and scrolls? This month’s newsletter proves it’s all about the duel.”*

What if engagement wasn’t just measured in clicks—but in wins, challenges, and adrenaline?

In this edition of the Infomatrix newsletter, we dive into the world of gamification, where Gaming Duels are redefining how users interact, learn, and compete. Whether you're curious about how game mechanics are reshaping digital platforms or looking to design more immersive experiences, this issue has something for you.

Here’s what this newsletter will uncover when you read ahead:

A fresh perspective on gamification—how duel formats are being used to spark motivation, boost retention, and build community across apps and platforms. There would be newspapers and articles covering how companies are turning competition.

Also in this issue we’ll be covering:

A recap of our recent SQL Power-Backup Workshop, where members tackled real-time data challenges and explored practical tools for the modern IT landscape, followed by the news highlights and of course, our Quiz Corner—where you can test your knowledge on game mechanics, dopamine triggers, and more.

Whether you're a developer, designer, strategist, or just someone who loves a good challenge—this edition promises insights, inspiration, and maybe even a few “aha” moments.

*Ready to play? Let the duel begin.*

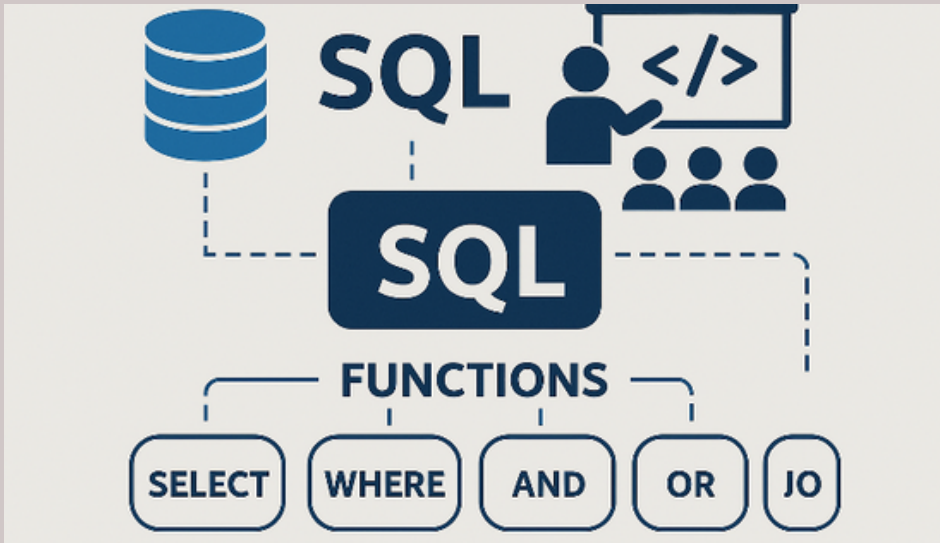
# CLUB ACTIVITIES

BY YUKTIKA DUGGAL AND ANSHUL YADAV

## OVERVIEW

The SQL Bootcamp organized by the Atal Bihari Vajpayee School of Management and Entrepreneurship, JNU, provided a comprehensive and hands-on learning experience in Structured Query Language (SQL), equipping participants with practical knowledge crucial for the corporate world. Over the three-day online session led by Dr. Sushant Kumar, attendees explored the foundational concepts of SQL, including data retrieval, table management, filtering, and joins, progressing to more query procedures.

The workshop emphasized how SQL is used to drive data-driven decision-making in real-world business environments, showcasing its role in database management, analytics, and reporting. With interactive sessions and live query demonstrations, participants gained insights into how SQL supports various operations in corporate settings such as CRM, financial reporting, and inventory control. The program not only strengthened their technical skills but also highlighted SQL's importance in enabling efficient data handling and strategic business intelligence.



As part of a college initiative aimed at boosting our technical fluency and career-readiness, I attended a focused 3-day SQL Workshop titled Power-Backup Workshop on Structured Query Language. The workshop offered immersive, hands-on experience with data querying and provided practical exposure to the core functionalities of SQL. Organized to bridge academic learning with industry applications, this initiative was a valuable stepping stone toward understanding enterprise-level database operations. The sessions were led by Dr. Sushant Kumar, Tech Lead at Tenneco (MNC). With a Ph.D and M.S. from the USA, over 15 years of experience, and certifications from Microsoft and Azure, Dr. Kumar brought a rare combination of deep technical knowledge and instructional clarity. His guidance throughout the workshop made even complex topics feel accessible and applicable.

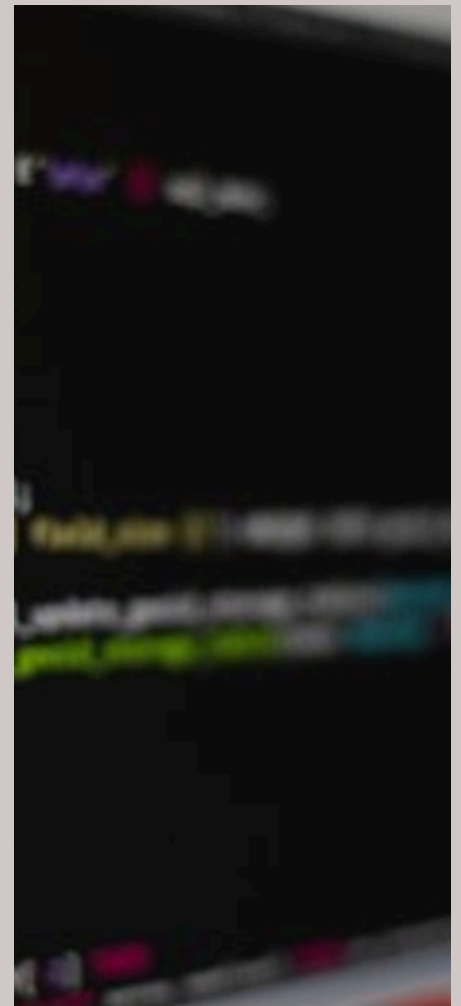
## SESSION DETAILS & INSIGHTS

On Thursday, 1st May, the workshop began with a foundational 2-hour session introducing SQL as a language and tool for structured data management. Dr. Kumar walked us through the basics: understanding relational database architecture, the role of SQL in organizing and manipulating data, and step-by-step installation guidance. Real-time demonstrations helped us set up SQL environments on our devices, and conceptual queries offered a solid launchpad for further learning.

The next session on Friday delved into intermediate concepts and practical logic-building. Over the course of two hours, we explored commonly used SQL functions such as AND, OR, IF, and BETWEEN. With scenario-based data samples, we practiced layering conditional statements and gained clarity on how SQL operators affect query results. The interactive nature of this session made it easier to experiment, debug, and understand the rationale behind each function.

“

**“IN A WORLD OF DATA,  
SQL IS YOUR VOICE”**





# CLUB ACTIVITIES

**JAWAHARLAL NEHRU UNIVERSITY**  
**ATAL BIHARI VAJPAYEE SCHOOL OF**  
**MANAGEMENT AND ENTREPRENEURSHIP**



## SQL BOOTCAMP



Get hands-on with the language powering data-driven decisions!

**REGISTER AT**  
  
<https://forms.gle/YENA7ojQz3Eah7fz>  
\*Session will be conducted online and links will be mailed to participants.

  
**DR. SUSHANT KUMAR**  
*(Speaker)*

- Ph.D. – Banasthali Vidyapith
- M.S. – Illinois Tech (USA)
- Tech Lead at Tenneco (MNC)
- 19+ Years of Industry & Research Experience
- Specialization: IT Systems, Databases, IoT, Machine Learning
- Microsoft & Azure Certified Professional

**COORDINATORS**  
**FACULTY**  
-DR. PRIYA GUPTA  
**STUDENT**  
-DEVESH CHAUHAN  
-MOKSHIKA

**Starting... 01 MAY 2025**  
**Dates & Timings:**

- Thursday: 4:00 PM – 6:00 PM | 01 May, 2025
- Friday: 4:00 PM – 6:00 PM | 02 May, 2025
- Saturday: 11:00 AM – 1:00 PM | 03 May, 2025

**PRE-REQUISITE**  
SQL server 2022 Dev Edition and SSMS 20 version

\*E-certificates will be provided to each participant that join session all 3 days

The final day, Saturday, pushed our understanding even further. This session focused on nested queries, multi-step filtering, and advanced logic combinations. Dr. Kumar patiently walked us through challenging examples, clarified syntax issues, and encouraged questions throughout. His doubt-clearing approach was especially helpful in deepening our confidence with real-time querying. The workshop wrapped up with a recap and collaborative discussion on how SQL translates into practical industry use—from SaaS platforms to HRTech and enterprise dashboards.

## ★ Overall Takeaways

Participating in this workshop enhanced my understanding of structured data handling and query logic. Beyond just syntax, it emphasized the practical implications of SQL across business functions. The exposure to real-time exercises and industry-grade insights offered a meaningful technical supplement to my academic curriculum. This learning journey not only sharpened my analytical skills but also highlighted the power of SQL in driving decisions across tech-enabled organizations

# THE GAMING DUEL

BY NANDINI, DIVYA SHARMA AND ANANYA RASTOGI



## “Nazara Tech ramps up international-gaming business”

Nazara Technologies is expanding its global gaming business, focusing on the US to drive long-term growth. The company reported a 66.7% YoY revenue increase and record ₹52.4 crore EBITDA in Q3FY25. Aiming for aggressive revenue and profitability growth in FY26, it recently raised ₹495 crore and invested in startups like ReelSaga. Nazara maintains a strong balance sheet, despite a possible loan provision for Wings. It sold its stake in OpenPlay and has seen a 39% stock rise, with a market cap of ₹8,170.13 crore.



## How Technology is Helping in Transforming Mobile Gaming Experiences

Mobile gaming dominates India's gaming revenue, driven by rapid tech advancements rather than gaming heritage. The rollout of 5G has boosted mobile gaming with faster speeds and low latency, enabling cloud gaming and on-the-go play. Technologies like AR, VR, blockchain, and cross-platform play have enriched the gaming experience. Graphical upgrades like ray tracing and 4K resolution enhance visuals, while intelligent NPCs improve engagement. Together, these innovations have made mobile gaming more accessible, immersive, and rapidly growing in India.

# THE GAMING DUEL

## GAME AND MARKET PATTERNS



### “CtrlS Datacenters to invest Rs 500 crore for greenfield data centre in Bhopal”

CtrlS Datacenters is investing ₹500 crore in a greenfield data centre in Bhopal’s Badwai IT Park, aimed at boosting central India's digital ecosystem. The AI-ready facility, spread across 5 acres, will support high-performance computing and create around 200 jobs. It is expected to contribute ₹7.5 crore annually each to SGST and CGST. With advanced infrastructure and 24/7 reliability, it will serve as a critical digital hub. CtrlS sees Madhya Pradesh as a strategic location with strong tech talent potential.



### “Make games great again’: After calling out Microsoft CEO Satya Nadella on hiring, Elon Musk made this big announcement”

Elon Musk is launching an AI-powered gaming studio under his startup xAI, aiming to disrupt what he sees as a stagnant, ideologically driven gaming industry. Announced via X, Musk plans to rival giants like Microsoft and Sony by focusing on fun, innovation, and AI-enhanced development.

Criticizing corporate dominance and “woke” elements in games, Musk emphasized player engagement over political messaging. His move follows public criticism of Xbox and Microsoft, particularly regarding diversity-focused hiring and in-game pronoun features, which Musk called “unacceptable.”



NAZARA TEC	
Financials	Q3FY24
Revenue	₹320.4 cr
EBITDA Margin	11.77%
Profit After Tax	₹25.77 cr

## “Nazara Tech ramps up international-gaming business”

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## “Artificial intelligence is about skill transformation, not job loss: TCS Global AI head”

Ashok Krish, Global Head of AI at TCS, emphasized that AI should be viewed as a catalyst for skill transformation, not as a threat to jobs. He highlighted AI as a cultural and board-level shift, not just a technological one. AI is self-reinforcing and will reshape work by automating tasks, leading to new services and roles. Adoption is accelerating across sectors like healthcare, BFSI, and manufacturing. Krish views AI as the most significant disruption in decades, democratizing knowledge and driving broad societal change.

## “Infosys approves Rs 51 crore ESOP grants for CEO Salil Parekh”



Infosys' board has approved stock incentives worth over ₹51 crore for CEO and MD Salil Parekh, as per his employment agreement. The grants include performance-based Restricted Stock Units (RSUs) under the 2015 and 2019 Stock Incentive Plans. These include ₹34.75

crore linked to company performance, ₹2 crore based on ESG goals, ₹5 crore tied to total shareholder return (vesting in 2027), and ₹10 crore under the 2019 plan. The RSUs will be granted on May 2, 2025, with vesting contingent on specific performance targets.

# THE GAMING DUEL



## **TCS, Vishal Sikka's Vianai Systems tie up to bring GenAI tools to boardrooms**

TCS has partnered with Vianai Systems, founded by former Infosys CEO Vishal Sikka, to bring conversational AI tools to enterprises through the 'hila' platform. Designed for executives like CFOs and CIOs, hila allows natural language interaction with complex business data to enable faster, more intuitive decision-making. TCS will adapt the platform for functions like finance, sales, and supply chain, offering integration and support. Emphasizing trust and accuracy, hila uses anti-hallucination techniques. The partnership supports TCS's broader GenAI strategy across industries like banking and insurance.



## **Capgemini acquires Delta Capita BV to boost financial crime compliance capabilities**

Capgemini has completed its acquisition of Delta Capita BV and Delta Capita Academy BV, enhancing its financial crime compliance (FCC) capabilities. The Netherlands-based entities bring over 200 experts in KYC services, anti-bribery and corruption, and regulatory consultancy. This move strengthens Capgemini's ability to deliver end-to-end FCC solutions across the financial services sector. Capgemini aims to integrate these capabilities with its global strategic and technology services, expanding its FCC footprint in Europe and offering more comprehensive compliance support to clients navigating complex regulatory environments.

# THE GAMING DUEL

## “Top Indian IT firms post weak Q4 results amid tariff, trade worries”



India’s top IT firms—TCS, Infosys, and Wipro—posted subdued Q4 and FY25 results, citing macroeconomic uncertainty and tariff impacts. Cautious client spending led to deferred wage hikes and weak revenue guidance, with Infosys forecasting 0–3% growth—its lowest in a decade. Hiring saw a modest rebound with 1,438 net additions in Q4 and 13,500 for the full year, led by TCS. Experts view the cautious hiring as a strategic shift towards AI-driven roles, with TCS and Wipro investing heavily in GenAI capabilities and training for future transformation demands.

## HCLTech integrates Nvidia AI software with GenAI solutions



HCLTech has integrated Nvidia AI Enterprise and Omniverse with its GenAI solutions—AI Force and SmartTwin—to accelerate enterprise AI adoption. The Nvidia AI Enterprise suite, including NeMo Retriever, NIM microservices, and Llama Nemotron models, enhances AI Force by improving code quality, speeding up development, and modernising legacy systems. SmartTwin leverages Nvidia Omniverse to build interoperable data pipelines and run advanced simulations, reducing reliance on physical prototypes and cutting costs. These integrations aim to boost engineering productivity and streamline AI-driven operations for faster business transformation.



# READER'S SECTION

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## Leveraging the Upcoming Disruption from AI and IoT

by AASHUTOSH SINGH



We are at the cusp of a technology tsunami, where there is the rapid convergence of AI as well as IOT. It is not just a fad; it's a game changer in the future of our society, reshaping the way we work, the way we live. Think of a world where your devices connect not just your stuff, but are smart, too — and you have the potential offered by Artificial Intelligence of Things (AI and IoT).



### Knowing the Shape of Things to Come

This is not just an upgrade; it's a transformation. ML and IoT are utterly modifying the way corporations operate in nearly all industries, creating a wave of opportunities and challenges. We are moving away from legacy approaches and are becoming a data-centric, automated and customer-focused organization with a focus on real time insights, actionable intelligence and deep learning as well as a culture of experimentation, improvement and innovation.

- Job Market Influence: Get ready for a shake-up! Some of those routine jobs may be automated away, but a new ecosystem of positions requiring sophisticated technical and analytical skills is emerging. The essence? Adaptability and continued learning.
- Customized User Experiences: No more one size fits all. AI and IoT are personalizing products and services to how people act and what they prefer, ushering in an era of ultra-personal, hyper responder consumer experiences." Your devices may know what you need before you say anything at all!
- Smart Infrastructure is on the Move: We're finally making our cities smarter, our transportation modes more seamless, and our supply chains more transparent. From smart grids to hands-free garbage collection, our infrastructure is becoming smarter.



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## The Dynamic Duo: Pairing AI and IoT

At its core, AI is the ambitious goal of building computer systems that can learn, reason, and solve problems in ways that mimic human thought. On the other hand, IoT links tangible devices to collect and communicate data. That's when the magic happens. AI and IoT – The power of combined forces. This partnership

allows for interconnected devices to not only collect information but also analyze, interpret and act in real-time independently. This move from simply relaying data to doing smart things at the edge of networks vastly improves efficiency and responsiveness



### Exploring Sector-Wise Impacts

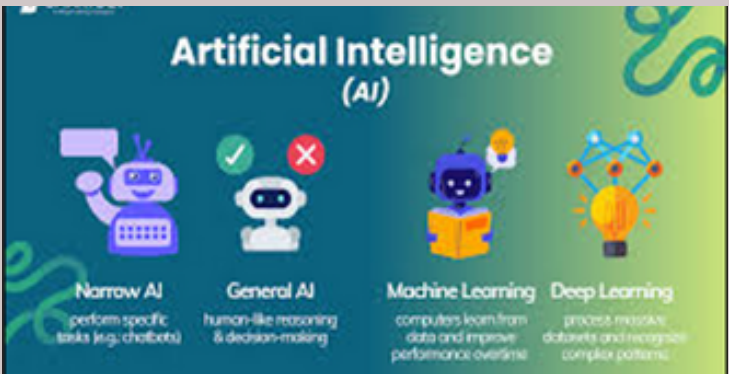
- The combined AI & IoT market consequences are profound – these twin forces of disruption are already ushering in a wave of change and advancement to countless industries, including:
- Health & Medical Services: Personalized treatments, wearables monitoring your health and AI assisted analysis of your medical imagery – AI and the IoT are about to turn healthcare on its head. What we're moving towards is prediction instead of reaction — earlier diagnosis, better management of the medical resources.
- Urban Infrastructure & Smart Cities: AI and the IoT can help addressing common urban problems, such as traffic management, energy use and waste disposal. Thanks to smart grids, intelligent traffic systems, and automated garbage collection, our cities are becoming more sustainable, more pleasant to live in.
- Farm and Field: Sensors buried in soil are watering new fields, drones are monitoring crop health, while AI & IoT forge new needle-pinned agriculture strategy. It signals higher yields, less environmental impact and good use of resources — an especially important consideration in the era of climate change.
- Retail & Supply Chain Management: Have you ever thought about how stores maintaining perfect inventory? Retail is being revolutionized with smart shelves, AI-driven promotion algorithms and real-time tracking. In the world of supply chain, AI and IoT bring unprecedented transparency, straightening out delivery paths for quicker, more precise deliveries.

### Steering the Future: AI and IoT Strategy in Review

"Avoiding the AI and IoT Revolution has required a measured and strategic approach:

- Infrastructure Readiness Key components are fast internet, reliable cloud storage, and crucial edgecomputing capabilities. And you know, “Security is not a product, but a process.” Powerful cyber security measures needs to be given priority.
- Data Governance and Integration: AI depends on the availability of high-quality data that has been well-maintained. The other two most important requirements are the development of ethical data governance, and user consent and privacy, to promote interoperability of disparate systems.

•**Workforce Development and Training Programs:** An industry on the move requires a trained workforce. It is essential to invest into educational programs in data science, cybersecurity and systems integration. The future will be for those who stay curious and stay in school.



•**Ethics & Regulation:** With AI and IoT making deeper inroads into our lives, concerns around fairness, transparency, accountability become increasingly important. What is required is cooperation between the world's governments and international organisations to develop coherent standards that encourage innovation and protect the public. “They are not being told, ‘with great power comes great responsibility.’”

**The Road Ahead: Challenges and New Directions New directions to take:**

Subtopics behind AI and IoT's potential are plentiful. Responses, scalability, and cybersecurity risks, discordant standards, that social displacement of every strategy has to be considered and strategic, cooperation, coordinated and careful.

However, on the horizon, there is a bright future of new opportunities to amplify the impact of AI and IoT:



•**5G Networks:** The critical enabler in providing ultra-low latency and high bandwidth, necessary for on-the-fly AI analytics.

•**Edge AI:** Information is processed closer to its source, resulting in increased privacy and efficiency.

•**Digital Twins:** Virtual replicas of physical systems that make possible predictive maintenance and optimization in a virtual world.  
**Autonomous Systems:** The future is trending toward self-driving cars, intelligent drones and robotics.

•**Sustainability Innovations:** AI and IoT come to the fore as powerful weapons against climate change, tracking and reducing energy expenditure, emissions, and waste.

**Closing: We Must All Drive to a Smarter Future**

•The combination of AI and IoT is a #GameChanger that has the power to completely transform any industry across the entire global economy. Strategically integrating the strengths of these technologies in partnerships can allow companies to increase efficiency, spur innovation, and drive and sustain value.

•But such a transition will demand ethical leadership and worker inclusivity and huge investment in infrastructure. It’s up to decisionmakers, educators, businesses and the rest of society to stand together to ensure that the AI and IoT revolution raises everyone up fairly and responsibly.



•“The way to be happy is to make the best of what you have.” Let’s build a smart, connected, AI and IoT-enabled future that is essentially empowering for humankind.

## Inspiring Future Research

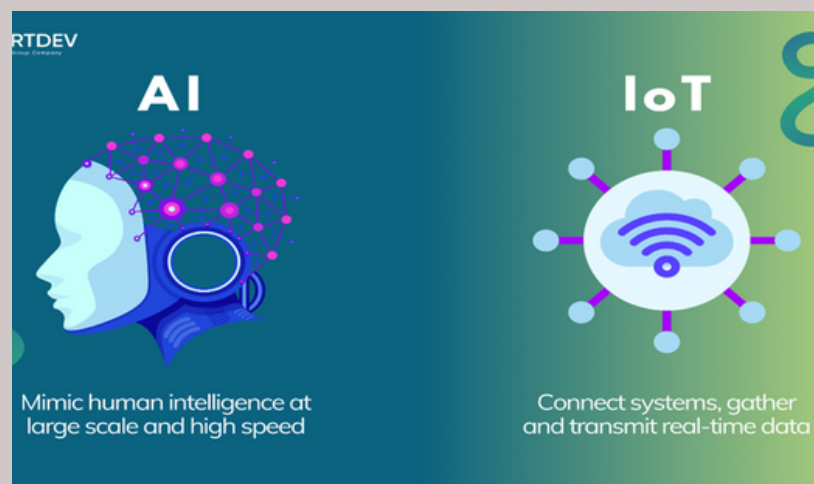
•For listeners wanting to dig deeper, you might look into the research of these thinker territories:

•Ethical AI and IoT Frameworks: How do we design holistic ethical norms and regulatory mechanisms that can keep pace with the rapid advancements in AI and IoT, especially with respect to data stewardship, fairness and liability.

•Sociological and Economic Role of AI and IoT Automation: An industrial study at the enterprise level on the long term impact of AI and IoT driven automation in certain job markets by considering the reskilling strategies and new job creation.

•Cross-Platform Interoperability Solutions for AI and IoT in Diverse Ecosystems: This includes new modalities and open standards for interoperability to tackle the problem of different device applications and platform adaptability in complex AI and IoT environments.

•AI and IoT for Climate Change Prevention: Analyzing specific use cases of AI and IoT in reducing carbon emissions and enhancing resource efficiency across various domains.



•Edge AI Security Models: Studying advanced (or next generation) cyber-defense mechanisms and architectures that are designed for use in edge AI deployments to address some unique threat vectors caused by distributed processing.

•So, let’s all keep exploring, experimenting and shaping a future where AI & IoT beautifully work together for the benefits of mankind!

## References

- Batty, M., Axhausen, K. W., Giannotti, F., Maat, K., Portugali, Y., & Wagner, P. (2012). Smart Cities: A New Paradigm of Urban Computing. *Journal of Urban Technology*, 19(3), 1–17.
- Schwab, K. (2016). *The Fourth Industrial Revolution*. Crown Business.
- Topol, E. J. (2019). *Deep Medicine: How AI Can Make Healthcare Human Again*. Basic Books.
- Wolfert, S., Ge, L., Verdouw, C., & Bogaardt, M. J. (2017). Big Data in Smart Farming—A review. *Agricultural Systems*, 153, 69–80.

# "AI in Action: How Workday and Similar Platforms Are Shaping the Future of Work"

by Sushma



## WORKDAY

A cloud-based financial management, human resources, and planning application, Workday, unlike a legacy ERP (enterprise resource planning) system, delivers real-time insights and bottom-line visibility to an organization's "drivers" (everyone from top management to the rank-and-file employee) to

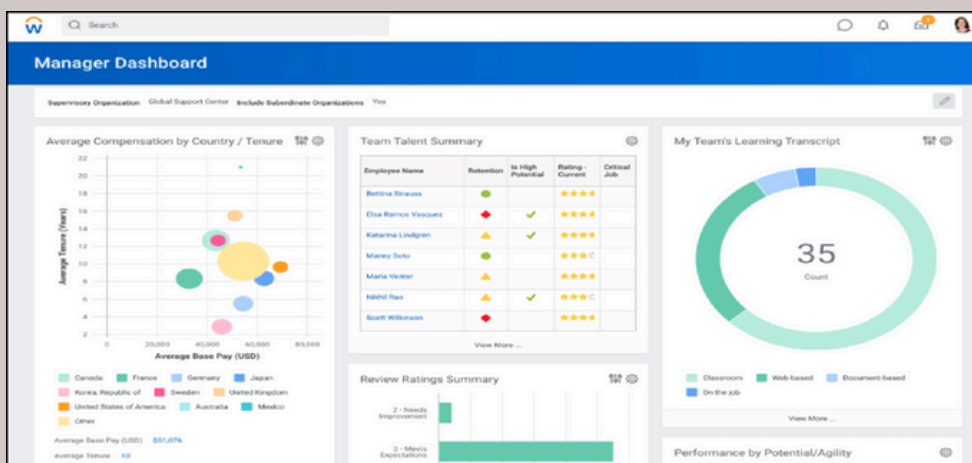
optimize business activities. Workday with its immediate "tell all" capabilities is the opposite of an ERP system that covers the "let's keep things running for as long as possible" motto that governs many businesses. Indeed, if Workday had a slogan, it could just as easily use the lighted sign in front of the studio that houses one of the infotainment news networks: "The Right Now Network."

## Key Features and Capabilities

**HCM Solution:** When it comes to HCM, Workday offers workforce planning, payroll, benefits, absence, talent acquisition, and employee learning all on a single platform.

**Dynamic Dashboards:** Extensive reporting and dynamic dashboards enable users to visualize KPIs and make data-based decisions. Users can customize reports and dashboards to make analysis easy and quick checks by managers and executives possible.

**Integrations and Customizations:** Workday Studio can be used to build integrations with third-party systems. This allows for much greater flexibility in addressing unique business requirements than with off-the-shelf connectors.



**Document Design and Management:** Workday provides a better way to design and manage documents that are used in HR, finance, and business planning for the ERP system.

## Security and Compliance

**Robust Protection:** Workday provides state-of-the-art security that protects its clients' data from prying eyes. The platform uses encryption, secure data storage, and real-time monitoring, which give Workday a level of protection comparable to a bank. Complying with global data-protection laws, from the stringent European GDPR to the American SOC 2 and the ISO 27001



that governs how companies handle private data, Workday maintains not just regulatory compliance but also the consistent security and privacy of its clients' data.

**Sector-Specific Safeguards:** Workday doesn't stop there. The company also makes sure that businesses in specific sectors—like finance, healthcare, or government—have the special protections they need to meet the unique security risks and compliance mandates of their industries. issues—might amount to a poor man's version of a comprehensive systems design.

## Case Study Example

Grameenphone and similar organizations have taken up Workday to manage HR data at a centralized point, reaping its rewards of speedy access, data privacy, and diverse reporting options, among other benefits. Yet even trusted systems can be made vulnerable by human or environmental factors, and Workday weighs security concerns such as privilege escalation and data theft heavily on its mind.

## Conclusion

Workday is a contemporary, cloud-based solution for ERP and HCM that merges automation, analytics, security, and integration. Its core principles of flexibility and compliance, and its drive for innovation in the workforce and business-operations space, qualify it as a trusted platform for serious organizations.

## References

1. Workday. (n.d.). Human Capital Management (HCM) Software | Workday US. Retrieved from Workday HCM Overview
2. Workday. (n.d.). Workday Integration Cloud Connectors for HCM [PDF]. Retrieved from Workday Integration Cloud Connectors
3. Ehnyf, Zeneesha. (2024, January 11). Workday and AI in HR. LinkedIn. Retrieved from LinkedIn Article
4. Workday. (n.d.). Compliance and Third Party Assessments | Workday US. Retrieved from Workday Compliance



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# "AI in Marketing: Transforming Strategies and Customer Engagement"

by ABHISHEK KUMAR TIWARI



Transform the way you approach marketing- and get to know your customers better than ever by Jordan Barker an excerpt taken from AI People Strategy- How to Hire, Develop & Keep the best people by Lucinda Carney at the heart of every customer strategy is the development of products that meet customer wants and needs.

## Introduction

Marketing as we know is being revolutionized by Artificial Intelligence (AI) through data-driven, personalized marketing which has never been more efficient. Computer systems that simulate aspects of human intelligence, such as learning, reasoning, and self-correction, are what is meant by AI (Russell & Norvig, 2021). Automated decision making in action When applied to marketing, AI plays on its strength to read consumer data, anticipate responses and produce model behaviour changes from a marketing approach once driven by gut, emotion and instinct.

Transitioning from traditional to AI-powered marketing requires the adoption of advanced technologies and tools such as predictive analytics, machine learning, natural language processing and computer vision.

These are the solutions enabling marketers to scale and personalize content, improve campaign performance, and enhance customer engagement on a scale never seen before.

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## AI Enabled Technologies in Marketing

### 1. Predictive and Machine Learning

Forecasting uses past data and models to predict the future. This is something marketers can use to recognize a trend and customer behaviour, enabling them to initiate their campaigns more responsively (Chaffey, 2022). Machine learning, a segment of AI, tightens these predictions by continuously learning from new data, becoming more accurate over time.



## 2. NLP and Bots

NLP makes it possible for computers to understand and generate human language. In marketing, it is used to support chatbots, automated agents which provide instant support services to users, which promote rapid response time and customer satisfaction (Huang and Rust, 2021). Chatbots also contribute to generating leads and providing post-sale services, offering a related user experience.

## 3. Computer Vision

Computer vision empowers AI to understand and analyze visual information. In the domain of marketing, it assists in the precise targeting of advertisements and the optimization of visual content, making certain that the proper kinds of imagery are directed at the right demographic. For instance, if a company uses AI in its marketing endeavors, that company can be almost assured that the imagery used to promote said company's wares is correctly being directed at the people most likely to buy those wares. In other words, AI can uphold and, in many instances, enhance the tenets of good advertising.

## Applications of AI in Marketing

The applications of AI cross through many different strategic and operational areas,

### 1. Personalization and Customer Segmentation

Product recommendations and emails are turned into very personal experiences by "smart" algorithms operating from vast troves of user data. But this is not a one-to-one experience, as marketers are also using AI to essentially target business segments with even more laser precision than they have in the past. When AI is used to target business segments with personalized experiences, it is doing the marketers' work (Gonzalez, 2018).

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## 2. Automation of Campaigns

Tools that use AI make the job of managing advertising campaigns easier. They do this by automating several functions—like scheduling emails, posting to social media, and personalizing content—for instance—across large numbers of recipients. The not-so-hidden benefit here is time savings.

## 3. AI-Driven Content Creation

Sophisticated AI tools such as Jasper.AI and Notion AI aid in content creation, allowing organizations to scale their content efforts without necessarily increasing headcount. These tools help in producing not just quantity but also, on most occasions, quality.

### Benefits and Challenges

#### Benefits

- **Cost Efficiency:** AI carries out simple steps in tasks that otherwise require much more human labor. Many of you will have experience using these systems at some level. Remember when you had to do school filing? Smooth filing, which for me was a several-hour task, now apparently takes place in real time.
- **Enhanced Return on Investment:** Simply put, we can know too much; we can do all kinds of things we think are good for business. But if we burn the midnight oil in a campaign, it can all shoot past the right target. Better is better.
- **Better Decision-Making:** In terms of smarts, we humans can't be topped; but in terms of doing stupid things with the smarts we have, we definitely can't be topped either. It's only through better data and action taken on these data that we can make logical business decisions.

#### Challenges

- **Ethics and Data Privacy:** Ethical and data privacy issues arise when the consumer data that companies collect and use are put to work in highly sophisticated and intelligent ways.



- 
- **Algorithmic Bias:** AI systems are trained on data, and if that data is biased, then the judgments from the algorithm are not going to be right.
  - **Integration:** Integrating AI systems within the company can require significant resources, particularly when both the AI systems and the company's legacy systems are operational.

## **Real-World Case Studies**

### **Amazon and Walmart**

A hallmark of AI's prowess is evident in Amazon's recommendation engine, which uses machine learning to personalize the shopping experience and push sales ever higher. What's more, the Mountain View, California-headquartered behemoth has managed to integrate AI across a great many aspects of its operation.

Conversely, Walmart—the world's largest retailer—uses AI to ensure the availability of products as well as to reduce waste in its supply chain and its overall inventory. (McKinsey & Company, 2022)

Conversely, Walmart—the world's largest retailer—uses AI to ensure the availability of products as well as to reduce waste in its supply chain and its overall inventory. (McKinsey & Company, 2022)

### **Financial and Automotive Sectors**

Artificial intelligence spots fraud in finance by way of transaction analysis, and it also enables the provision of more personalized banking experiences. Meanwhile, in the automotive sector, predictive maintenance and AI-driven customer support are doing wonders for both operational efficiency and user experience.

## **Future Trends**

The personalization of marketing will go deeper, thanks to AI. It is already happening at a greater scale and pace than we realize. New tools are emerging, powered by augmented intelligence, that will empower creatives to dream even bigger and to put into place ideas and strategies that will help brands connect with consumers at an unprecedented level.

## **Conclusion**

AI is an urgent requirement in today's marketing toolbox. It was once a futuristic

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notion, but now it's a serious contender for the most important new marketing concept. Its power to enable "true" personalization, to automate at scale, and to deliver (and to help work with) almost inconceivably large amounts of data make it a near necessity for modern marketers.

If you aren't already working with AI in some capacity, then you should be.

## References

- Chaffey, D. (2022). *Digital Marketing: Strategy, Implementation, and Practice*. Pearson Education.
- Davenport, T. H., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48(1), 24–42.
- Huang, M.-H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49(1), 30–50.
- McKinsey & Company. (2022). *The State of AI in 2022*. Retrieved from <https://www.mckinsey.com>
- Russell, S. J., & Norvig, P. (2021). *Artificial Intelligence: A Modern Approach* (4th ed.). Pearson.

# CASE STUDY: TECHSTART'S CMO DILEMMA

TechStart, a promising AI-based startup, is in a critical growth phase. The founders need a dynamic Chief Marketing Officer (CMO) to lead their expansion, but as a resource-conscious startup, they face a classic dilemma: how to structure a compensation package that attracts top-tier talent without draining their limited cash reserves. The key is finding the right balance between salary and equity.

You are the co-founder, and it's your job to create an offer that is both compelling and financially sound.

## The Challenge

Using the provided data and an Excel spreadsheet, you need to model and analyze different compensation scenarios to find the optimal offer for your new CMO.

Metric	Example Value	Your Input u can take of your choice
Industry Benchmark Salary	₹24,00,000	
Proposed Base Salary	₹18,00,000	
Proposed Equity (%)	1.5%	
Expected Annual Revenue (Year 3)	₹4,50,00,000	
Valuation Multiple (Revenue ×)	4	

## Your Task: The Financial Model

Using the above example inputs or your own figures, build a simple financial model in Excel to calculate the following derived metrics.

- **Equity Value:** = (ProposedEquity%) × (ExpectedAnnualRevenue) × (ValuationMultiple)
- **Total Compensation:** = ProposedBaseSalary + EquityValue
- **% Premium vs. Benchmark:** = ((TotalCompensation–BenchmarkSalary) / BenchmarkSalary) × 100
- **Equity-to-Total Compensation Ratio:** = (EquityValue / TotalCompensation) × 100‘



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## Questions to Solve

1. **Initial Offer Analysis:** Based on your initial proposed offer (₹18,00,000 salary and 1.5% equity), how does the total compensation compare to the industry benchmark? What does the Equity-to-Total Compensation Ratio tell you about this offer?
2. **The Candidate's Counter:** The CMO candidate comes back with a counteroffer of a ₹20,00,000 salary and 2% equity. How would this change your derived metrics? What is the new total compensation, and how much of a premium does it represent?
3. **The Hard Limit:** Your board has set a strict cap on total compensation for this role at ₹30,00,000. If you stick to the initial ₹18,00,000 salary, what is the highest equity percentage you could offer without exceeding this limit?
4. **Strategic Choice:** Considering the initial offer, the counteroffer, and the board's limit, which compensation structure would you ultimately choose? Justify your decision, discussing the trade-offs between cash-heavy and equity-heavy offers and what each signal to a potential CMO.

## Challenge Extension: The "What-If" Sheet

Create a separate tab in your Excel file called "What-If Analysis." In this sheet, adjust the Expected Annual Revenue and Valuation Multiple to see how a change in the company's growth trajectory impacts the CMO's equity value.

- **Scenario 1 (High Growth):** What if the company's revenue doubles in Year 3?
- **Scenario 2 (Lower Growth):** What if the valuation multiple is lower due to market conditions?

# IT QUIZ

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BY ANKITA SINGH AND MOKSHIKA ARYA

## Quiz: Trends in Gaming, VR, and AR

**1. What is the main goal of Virtual Reality (VR) technology in gaming?**

- A) Improve 2D graphics
- B) Enhance player immersion
- C) Reduce power consumption
- D) Shorten game lengths

**2. Which device is primarily used for VR gaming?**

- A) Gaming Keyboard
- B) VR Headset
- C) Wireless Router
- D) Smartwatch

**3. Augmented Reality (AR) differs from Virtual Reality because it:**

- A) Creates a fully digital world
- B) Blends digital elements into the real world
- C) Requires a VR headset
- D) Is only used for education

**4. Which game popularized AR gaming worldwide?**

- A) Minecraft
- B) Pokémon Go
- C) Fortnite
- D) The Sims

**5. What is the term for games that allow interaction across VR, AR, and traditional platforms?**

- A) Crossplay
- B) Extended Reality (XR)
- C) Free-to-play
- D) Blockchain Gaming

# IT QUIZ

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**6. Which of the following is a major trend in gaming technology today?**

- A) Monochrome displays
- B) Cloud gaming services
- C) Cartridge-based consoles
- D) Wired-only controllers

**7. What feature is common in next-generation VR headsets?**

- A) Black and white displays
- B) Eye tracking technology
- C) Manual calibration with joysticks
- D) Wired-only connectivity

**8. Which company is known for the VR platform 'Quest'?**

- A) Sony
- B) Microsoft
- C) Meta (formerly Facebook)
- D) Google

**9. In AR applications, what technology is commonly used to recognize the environment?**

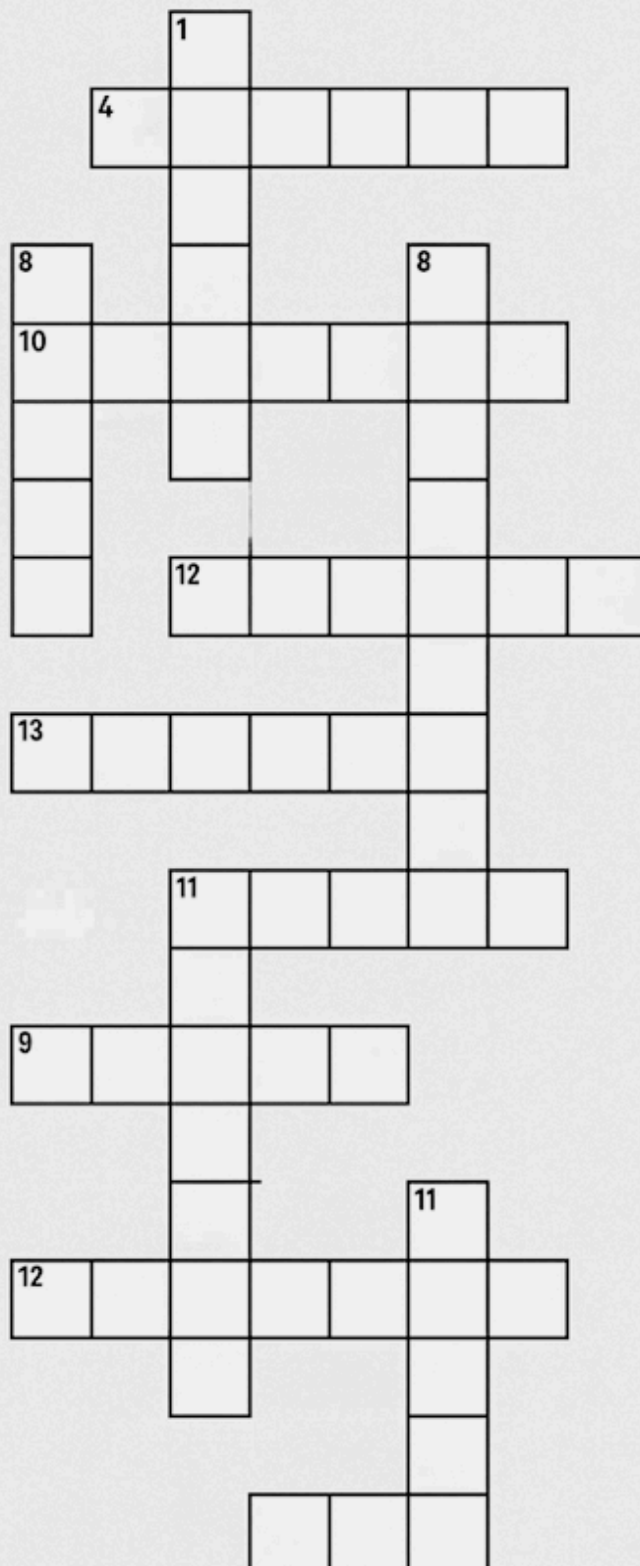
- A) QR codes only
- B) GPS navigation
- C) SLAM (Simultaneous Localization and Mapping)
- D) Static images

**10. What does 'haptic feedback' in VR gaming refer to?**

- A) Better sound quality
- B) Vibrations and physical sensations
- C) Visual-only improvements
- D) Real-time video streaming



## GAMING AND VR TRENDS



### ACROSS

- 1 VR headset maker Meta, formerly known as this.
- 4 Type of reality that blends the digital and physical worlds.
- 7 Means of cloud gaming.
- 8 Monitors eye movement in VR headsets.
- 10 Japanese mobile game that popularized AR.
- 12 Purpose of VR: to \_\_\_\_ players

### DOWN

- 1 Vibrations or other physical sensations in VR gaming.
- 3 Device used for VR gaming.
- 3 XR, short for extended \_\_\_\_.
- 5 Tech commonly used in AR for mapping the environment.
- 6 Describes a virtual world.
- 9 Feature of AR: \_\_\_\_ world elements.
- 11 Gaming trend: extended \_\_\_\_ (abbr.).
- 13 VR headsets offer an immersive \_\_\_\_.
- 14 The Sims used this type of graphics in 2000

# IT QUIZ

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## Answer Key

1 B) Enhance player immersion

2 B) VR Headset

3 B) Blends digital elements into the real world

4 B) Pokémon Go

5 B) Extended Reality (XR)

6 B) Cloud gaming services

7 B) Eye tracking technology

8 C) Meta (formerly Facebook)

9 C) SLAM (Simultaneous Localization and Mapping)

10 B) Vibrations and physical sensations

## Crossword Answer Key

### Across

1. FACEBOOK
2. AUGMENTED
3. STREAMING
4. EYETRACKING
5. POKEMON GO
6. IMMERSIVE
7. VR

### Down

1. HAPTICS
2. HEADSET
3. SLAM
4. VIRTUAL
5. REAL
6. XR
7. VR

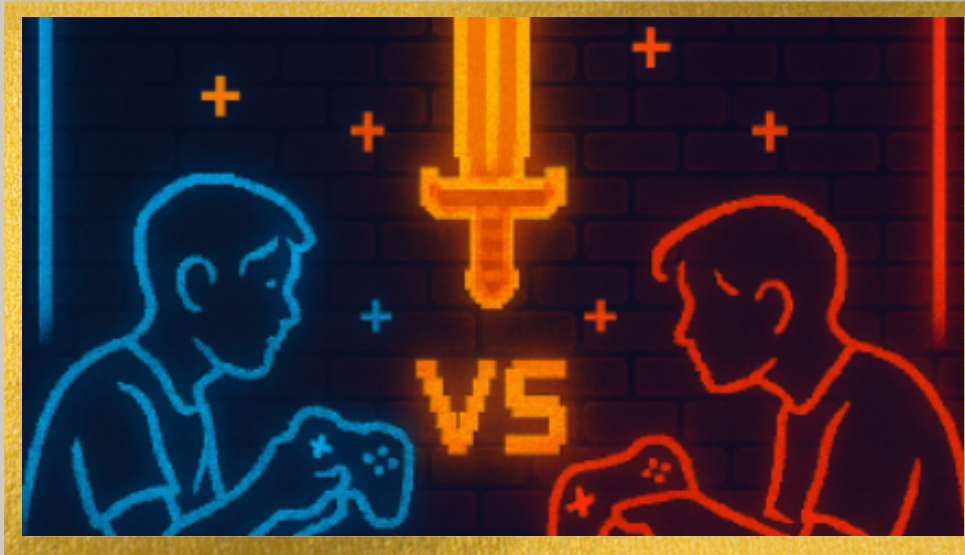
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**Welcome to the second edition of Volume 2, 2025 – Insights by Infomatrix!**

**Onwards and Upwards!**

**Stay tuned for our Next Edition, where we'll uncover how the festive period is driving innovation, digital adoption, and business growth across the country.**