

DATA SCIENCE IN

VIDEO GAME INDUSTRY

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The Industry's Projection in 2020

\$159.3 billion of revenue



2.7 billion players



~59 Tb of data per day



Efficient Use of Data Science



8 DS Applications in Gaming



Game Development



Visual Effects & Graphics



Game Monetization



Personalised Marketing



Game Design



Fraud Detection



Object Identification



Social & Customer Analysis

Supercell // Clash of Clans



Generated revenues of c.a. \$2 billion in 2017 without introducing any new game.









Information



Knowledge





Insight Thinking

Supercell // Pitfalls



Caned 3 games in 2011/12 due to poor monetization, despite some positive reviews.



Pitfall 1
Did not interest
players long enough



Pitfall 2
Difficult gameplay



Pitfall 3
Launched on wrong
platform

Supercell // Success Factors



Reimagined Process: Completely re-think processes by applying data and analytics in such a way as to dramatically increase quality, lower costs and speed time to delivery.



Customer Intelligence: Capture data on customer behaviour and preferences, both expressed and observed, to provide more enriching experiences, tailored offerings, and secure a long-term loyal relationship.



New Business: Use data in new ways to create new monetization streams, either directly from the data itself, or as a by-product of understanding the data to uncover new opportunities.



Balanced Risk/Reward: Increase confidence in decision-making processes to optimize business outcomes and increase agility without incurring undue risk.

Al in the Video Game Industry

Machine Learning // Reinforcement Learning

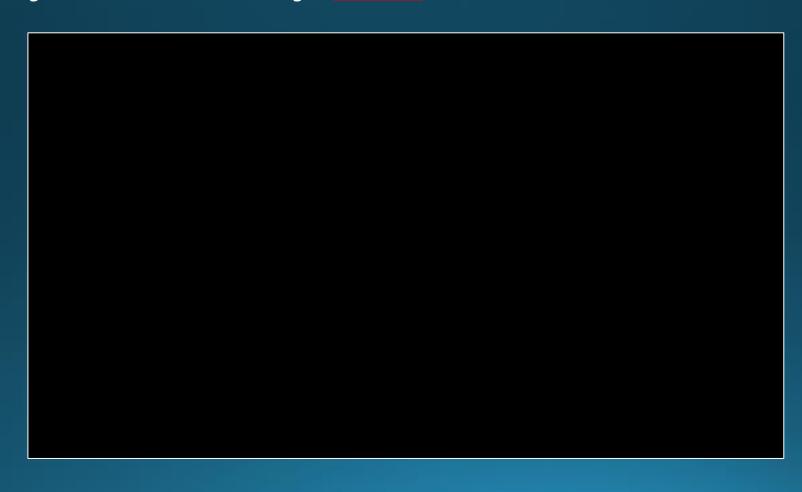


Environment

- More powerful Al (realistic NPC)
- Reveal hidden flaws in previously unquestioned analysis (game testing)
- Rebalancing of gameplay on-the-fly (gameplay personalization)

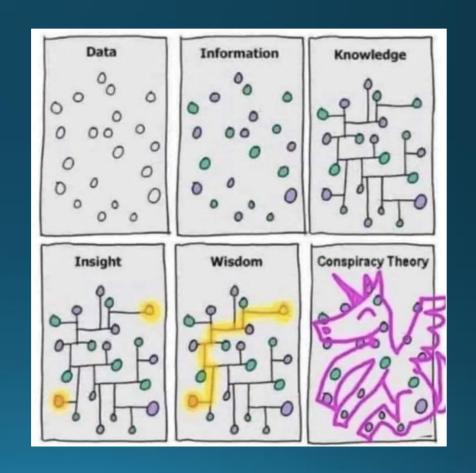
Al in the Video Game Industry

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Conclusion

- Industry has been growing exponentially with increasing number of active players.
- Data-driven culture to build the best gaming experiences and in turn increases revenue.
- Digitally mature by taking advantages of technological developments to constantly evolve the way they work.
- Early Al adopters in bringing games to life and improving the gameplay experiences.



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