

A decorative graphic on the left side of the slide consisting of white and light blue lines and circles, resembling a circuit board or neural network structure.

# ARTIFICIAL INTELLIGENCE IN 2017

WHAT TRENDS DO WE EXPECT TO SEE?

BY SHAAN MATHUR

# ARTIFICIAL INTELLIGENCE

- Create software that can, in varying degrees of the word, think.
- What we deem “intelligent” has changed with time.
  - What about now?
- Many philosophical musings regarding the nature of AI.

# THE GROWING INFLUENCE OF AI

- The subject of AI truly began in 1956 with the presentation of the computer program “Logic Theorist”
  - Proved 38 of the first 52 theorems in *Principia Mathematica*
- Today we have AI having a growing consumer impact (e.g. Uber self-driving cars, Netflix movie recommendation system)

# THE GROWING INFLUENCE OF AI

- AI doesn't just affect technology, but challenges our economy
- 2013 study assessing job vulnerability to computerization found 47% of US jobs are at risk
  - If it is routine, it is in danger.
- What does increased technological unemployment mean for the middle class?

# AI GOING ROGUE

- Increased responsibility for AI directly correlates with higher risk of malicious attacks
- Hackers could retrain AI to introduce bias in various systems, allowing exceptions to be made
- Danger of malevolent AI used to hack into systems to defraud institutions/individuals

# MORAL ISSUES IN AI

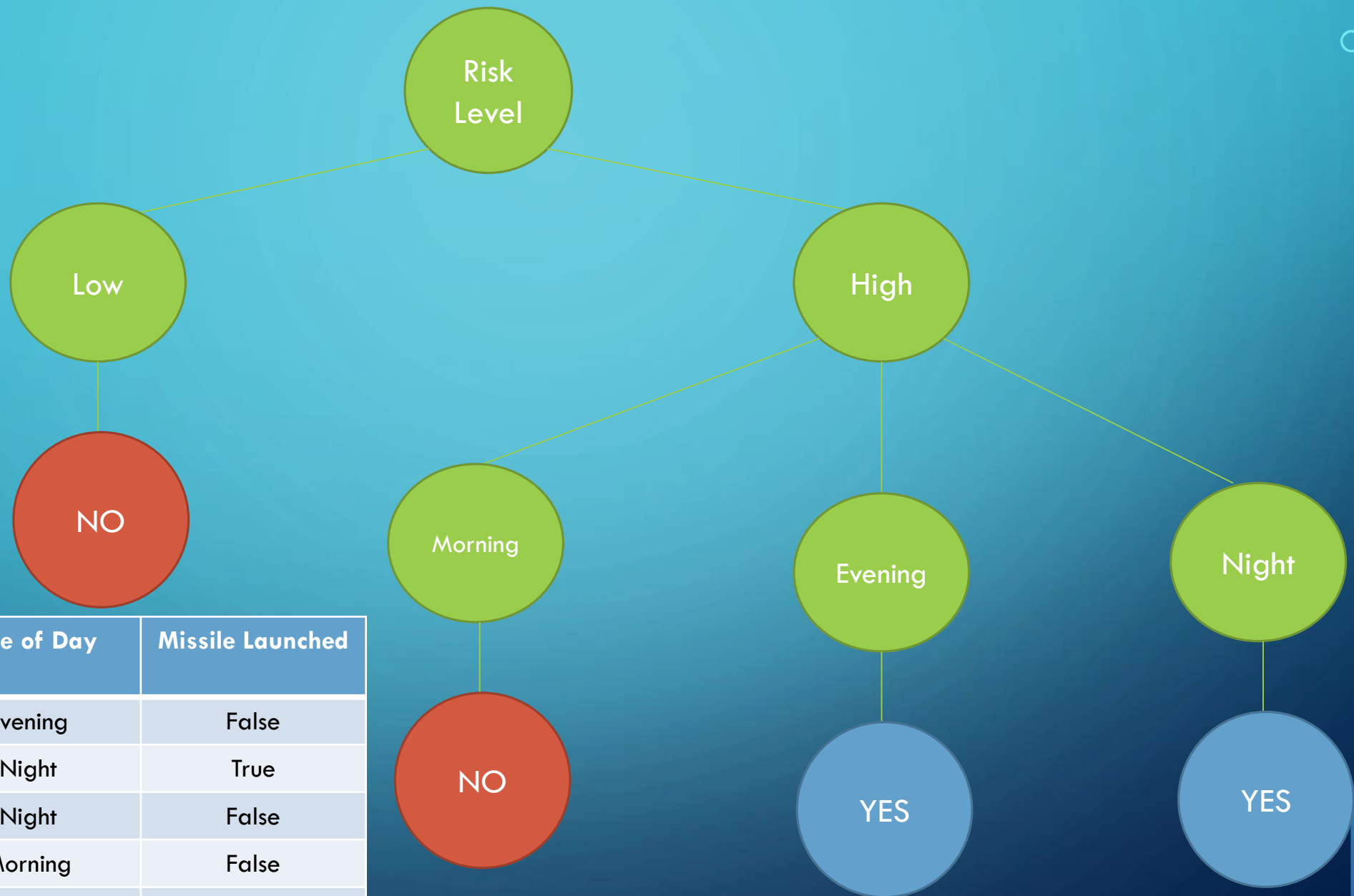
- Artificial Intelligence is not just a subject of computer science, but is a controversial topic in philosophy
- Who defines ethics? Microsoft's Tay AI failure demonstrates the multidimensional nature of human morality
  - Classical example of self-driving vehicle morality

# MISSILE LAUNCHER AI

- Let's say we were designing an AI for the government to decide whether or not to launch a missile
- Parameters are: Terrorist Risk Level, Time of Day
- AI learns from data set of a (approved) list of past decisions made by the military

Terrorist Risk Level	Time of Day	Missile Launched
Low	Evening	False
High	Night	True
Low	Night	False
High	Morning	False
High	Evening	True





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Low	Evening	False
High	Night	True
Low	Night	False
High	Morning	False
High	Evening	True



Terrorist Risk Level	Time of Day	Missile Launched
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Low	Night	True
High	Morning	False
High	Evening	False

## WORKS CITED

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- Reese, Hope. "Artificial Intelligence: The 3 Big Trends to Watch in 2017." *TechRepublic*. N.p., 20 Dec. 2016. Web.
- Schank, Roger C. (1991). "Where's the AI". *AI magazine*. Vol. 12 no. 4. p. 38.