

STRATEGIC INFORMATION SYSTEMS IV STV401T / B BTIP05 / BTIX05 - BTECH DEPARTMENT OF INFORMATICS

LECTURE: 07
ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS

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Inspirational Quotes

•	My	personal	quote:
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- ✓ "Always be a thought ahead. Do not fear the blank page, everything started somewhere"
- Quotes to consider as inspiration:
- ✓ Spencer Johnson, Who Moved My Cheese?
 - ☐ "Life moves on and so should we"
 - ☐ "The quicker you let go of old cheese, the sooner you find new cheese."
- Your quotes?
- **√** ???



#. Start-up Items to discuss

How Al is driving benefits across the organization [Influencing sales; Boosting operations; Engaging the customer; and Generating insights]

Series of key technologies commonly classified as Al

Artificial Intelligence and Expert Systems Components

Artificial Intelligence Architectural Overview

Expert Systems Components and Architectural Overview

Visit: https://ai.google/ and be inspired

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How AI is driving benefits across the organization



Influencing sales

3 in 4 organizations implementing Al increase sales of new products and services by more than 10%



Boosting operations

78% of organizations implementing Al increase operational efficiency by more than 10%



Engaging the customer

75% of organizations using Al enhance customer satisfaction by more than 10%



Generating insights

79% of organizations implementing Al generate new insights and better analysis

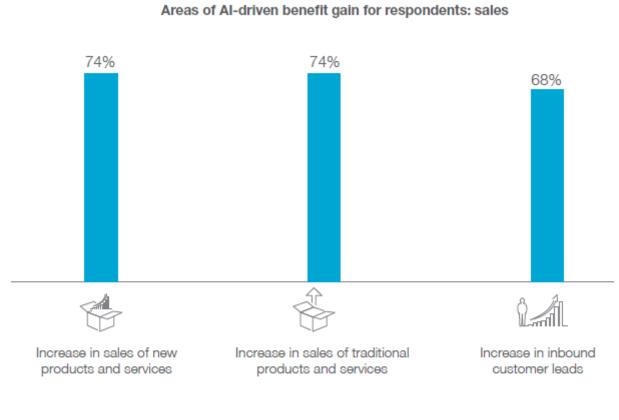
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How AI is driving benefits across the organization - Influencing sales

Influencing sales

- Increase in sales of new products and services
- Increase in sales of traditional products and services
- Increase in inbound customer leads



Share of firms implementing AI that observed more than 10 percentage point benefit in the respective area.

Source.

Capgemini Digital Transformation Institute, State of AI survey, N=993 companies that are implementing AI, June 2017

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How AI is driving benefits across the organization - Boosting operations

Boosting operations

- Increased operational efficiency
- Enhancement in employee productivity
- Reduced operational cost due to process improvement
- Greater legal/regulatory compliance at lower cost
- Reduced false-positives



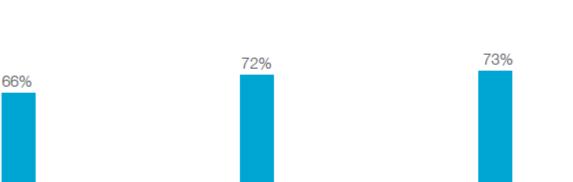
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How AI is driving benefits across the organization - Engaging the customer

Engaging the customer

- Reduced churn
- Reduced customer complaints
- Enhanced customer satisfaction



Share of organizations implementing AI that observe more than 10 percentage point gain on the following benefits





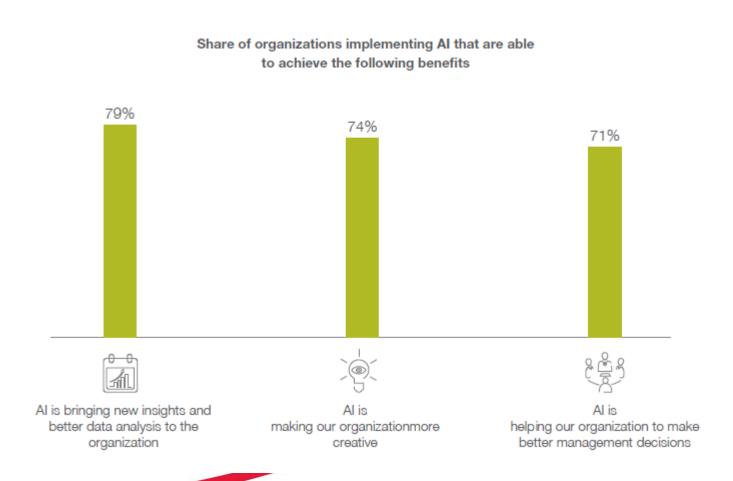
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How AI is driving benefits across the organization - Generating insights

Generating insights

- Al is bringing new insights and better data analysis to the organization
- Al is making our organization more creative
- Al is helping our organization to make better management decisions



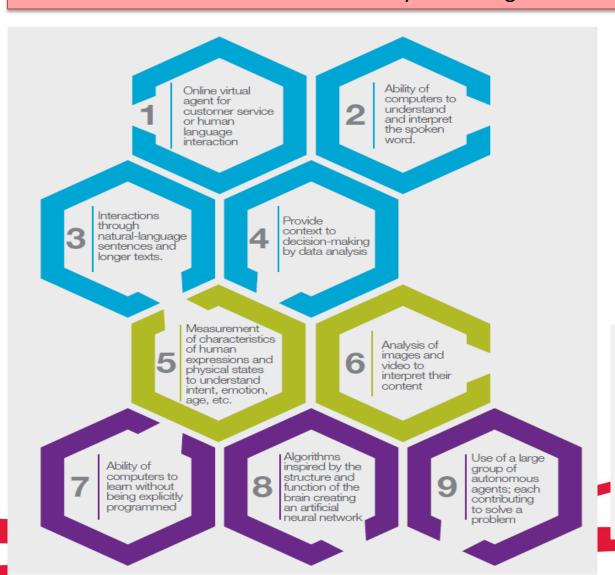
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Capgemini Digital Transformation Institute, State of AI survey, N=993 companies that are implementing AI, June 2017

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Series of key technologies commonly classified as AI



**Natural Language

• *Chat bots or Voice bots

*Speech Recognition

• *Natural Language Generation

**Computer Vision and Biometrics Intelligence

- •*Biometrics
- *Image and Video analysis

**Technology Foundations

- *Machine Learning
- *Deep Learning
- *Swarm Intelligence

Natural Language

Computer Vision and Biometrics Intelligence

Technology Foundations

- Chat bots or Voice bots
- Biometrics

7 Machine Learning

- 2 Speech Recognition
- 6 Image and Video analysis
- B Deep Learning
- Swarm Intelligence

Source:

Generation

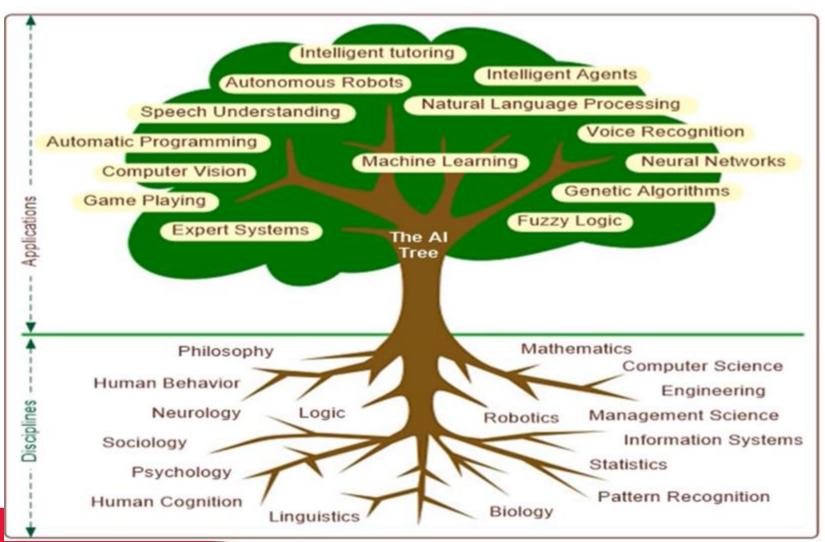
Natural Language

Capgemini Digital Transformation Institute Analysis



Artificial Intelligence and Expert Systems Components

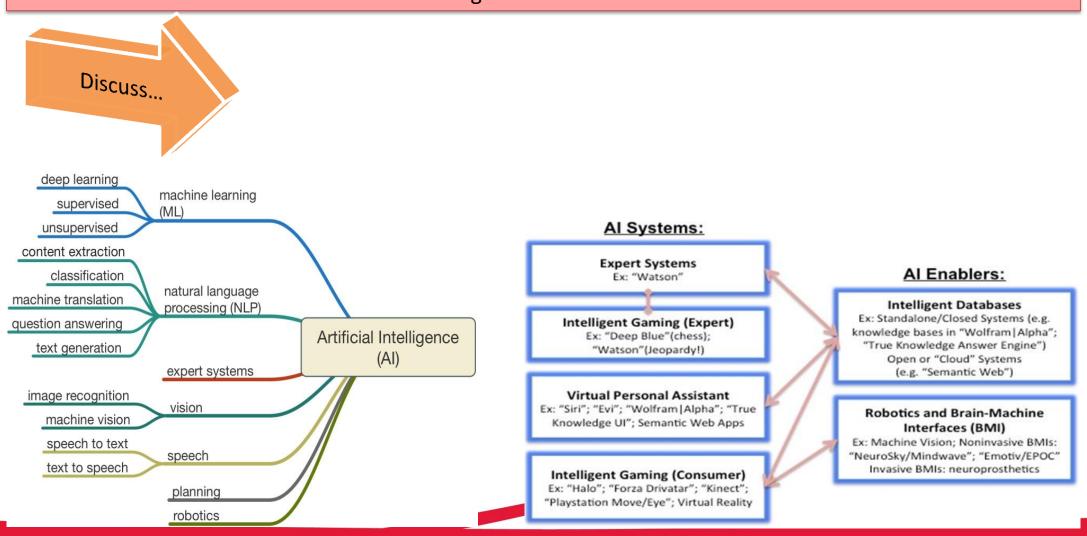




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Artificial Intelligence Architectural Overview



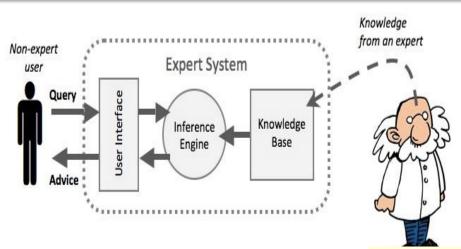
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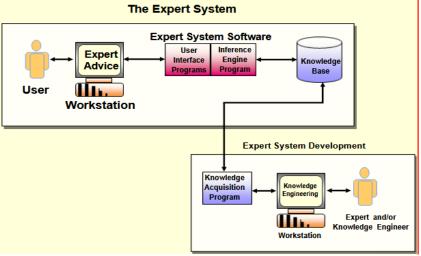
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Expert Systems Components and Architectural Overview

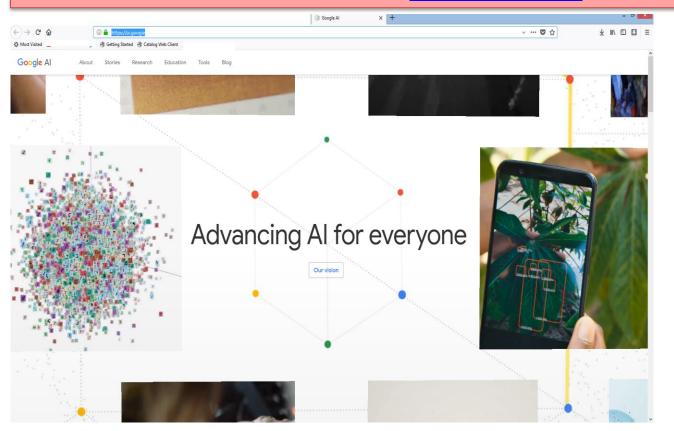








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At Google AI, we're conducting research that advances the state-of-the-art in the field, applying AI to products and to new domains, and developing tools to ensure that everyone can access AI.

Google's mission is to organize the world's information and make it universally accessible and useful. All is helping us do that in exciting new ways, solving problems for our users, our customers, and the world.

Al is making it easier for people to do things every day, whether it's searching for photos of loved ones, breaking down language barriers in Google

Translate, typing emails on the go, or getting things done with the Google

Assistant. Al also provides new ways of looking at existing problems, from rethinking healthcare to advancing scientific discovery.

Source: https://ai.google/about/

QUESTIONS & ENQUIRIES

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