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Considerations for how to take advantage of AI in Healthcare

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Utilising Technology to Advance Healthcare

What problems are we trying to solve?

1) The physician documentation burden is over half of time spent working

“We will use AI to cut down and potentially half form filling by doctors….”

- Chancellor Jeremy Hunt

2) Clinical documentation and coding has declined in quality since COVID – Backlog, elective care shift, reimbursement scheme changes

- Elective Care Recovery Fund – April 2023

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What is Artificial Intelligence?

noun

the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

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Generative AI

Definition:

Generative AI is a subfield of AI that involves creating algorithms that can generate new data such as images, text, code, and music.

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Embracing technology advancements

AI

- Changes user expectations
- Creates new product capabilities
- Drives innovation

Front End Speech Recognition
→ Clinical Insights
→ Ambient Documentation
→ Auto-suggested working DRG

Computer Assisted Coding
→ Autonomous Coding
→ Billing Automation

Cloud

- Reduces customer total cost of ownership
- Deliver better customer experience
- Increasing security requirements

On Prem Application
→ Cloud Hosting
→ Cloud Native Application

Compliance & Governance

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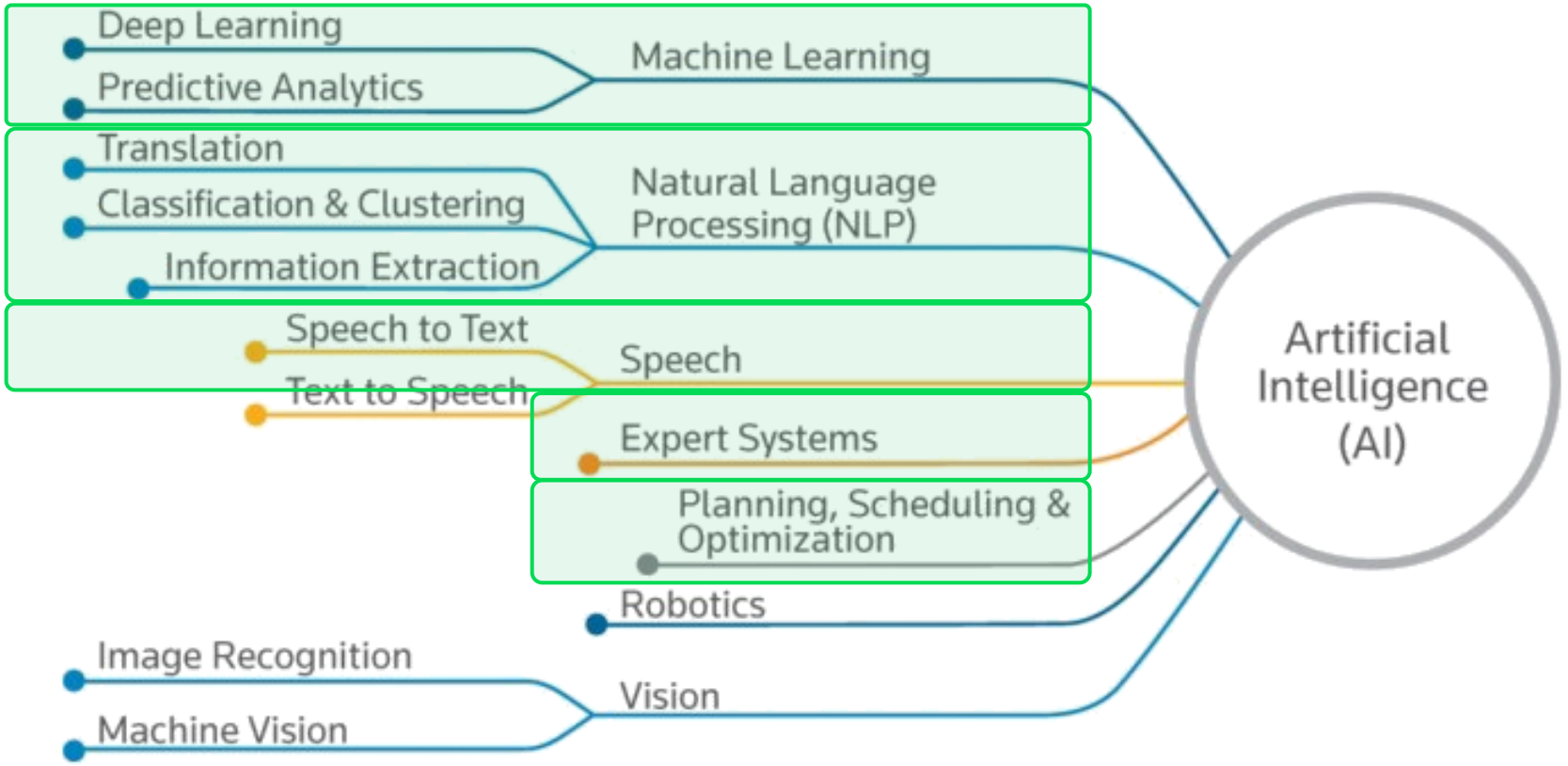
The next step in AI

Large Language Models (LLMs)

- Use a type of *machine learning* called *deep learning* to understand how characters, words, and sentences function together
- Involves the probabilistic analysis of massive amounts of unstructured data to recognize distinctions between pieces of content without human intervention



Source: Cloudflare.com

Source: Becoming Human: Artificial Intelligence Magazine, *What is Artificial Intelligence (AI)*, Sanket Garbhe

Incremental 3M technology

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Considerations

- Quality – What is good enough?
- Content – What is underneath the hood that makes insights and action viable?
- Workflow – How does the solution impact processes and people?
- Responsible AI – Compliance, Quality and Value

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Why a Thoughtful Approach

- AI Hallucinations credible
- Speech Recognition errors in Transcription
  - “Eyes and nose continue to be within normal limits” (I & O)
  - “History of sick as hell disease” (sickle cell)
  - “The last day the patient took their meds was for beaver.” (forever)
  - “Patient is alert and oriented, sedated on Propofol”. (alert and oriented as well as sedated?)

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Frameworks and Laws

Frameworks and Laws

Issues of Concern

- Quality
- Unbiased results
- Data usage
- Transparency

3M Response

- Team formed to monitor emerging standards
- Assess current process and controls against NIST
- Investments for compliance worldwide

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Connecting all the dots from Capture to Code

Real time speech under-standing

Ambient note generation

Physician Documentation Solutions

Virtual assistant automate tasks

Real-time Nudge / Query Resolution with EHR

AI-powered Worklists, Opportunities, and Evidence Sheets

Clinical Documentation Improvement

Advanced Analytics and ROI Impact

Case Review, Final Coding, DRGs, Quality Measures

Code Confidence, AS Codes, Evidence View

Auto-Suggested to Autonomous Coding

Actionable Edits, Code Sequencing, Audit Expert

ICD-10, MS DRG, APR DRG, Encoder, Reference Content

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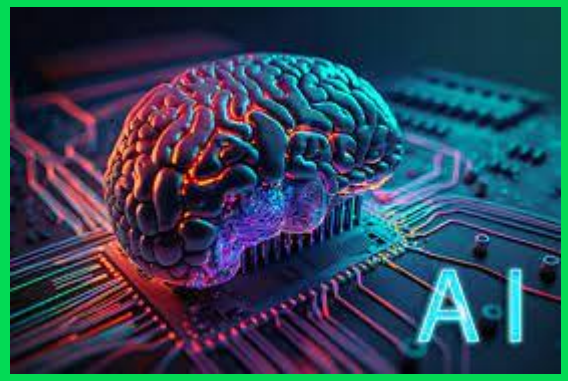
Take aways

- It is a rapidly changing landscape with the onset of LLMs in Healthcare
- Consideration of how your organization utilizes this technology to responsibly address needs
- Seek partners that are making investments to harness and deliver quality solution that are compliant and have measurable value



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