Artificial Intelligence in Community Pharmacy Practice

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Disclosure Statement

Olivia Kinney has no relevant financial relationship(s) with ineligible companies to disclose.

and

None of the planners for this activity have relevant financial relationships with ineligible companies to disclose.

Learning Objectives

At completion of this activity, participants will be able to:

1. Define artificial intelligence and its origin;
2. Identify best practices for responsible use of artificial intelligence;
3. Discuss barriers to artificial intelligence implementation in pharmacy practice; and
4. Discuss use cases for artificial intelligence in pharmacy practice

The Buzz Around AI

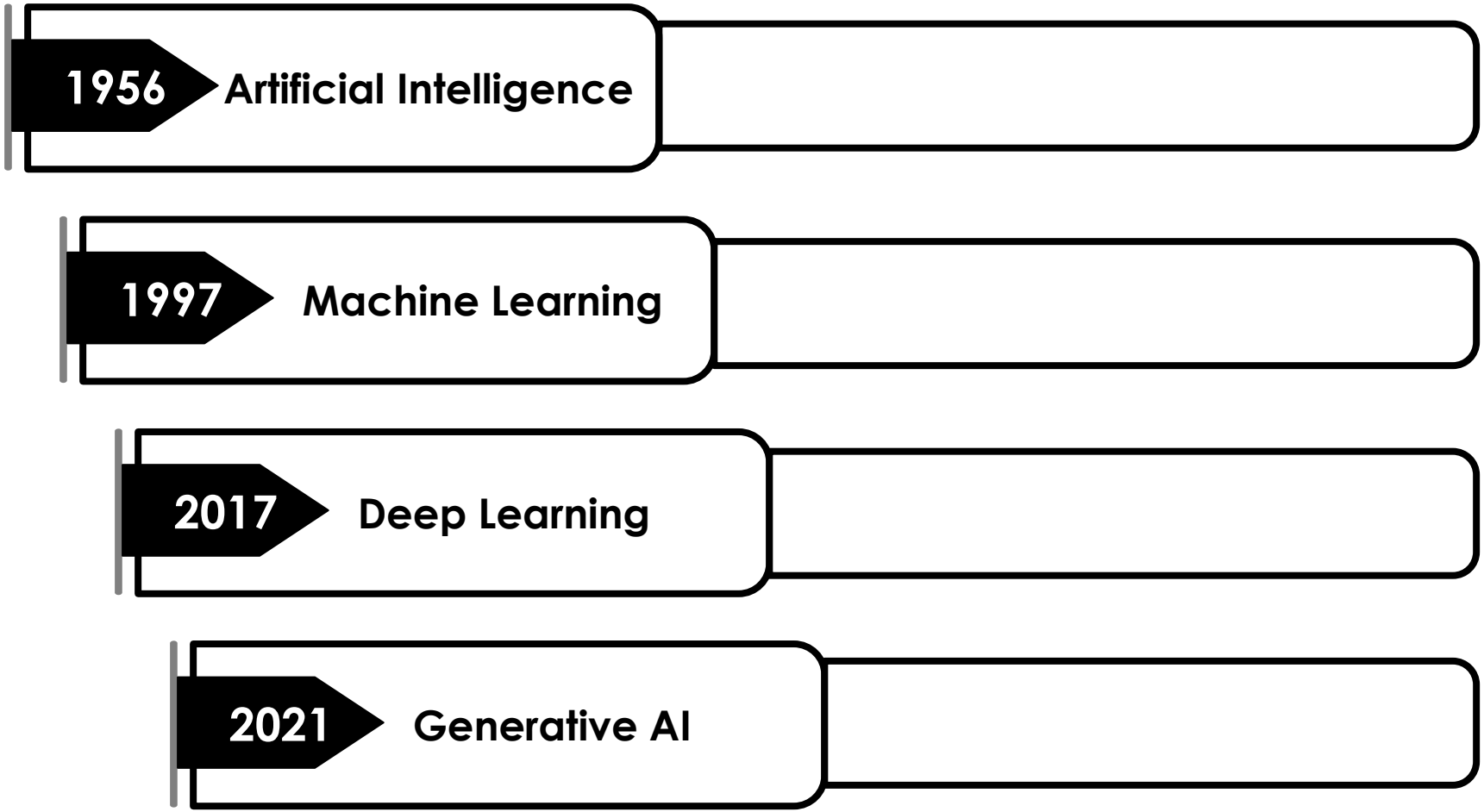
The future

of healthcare

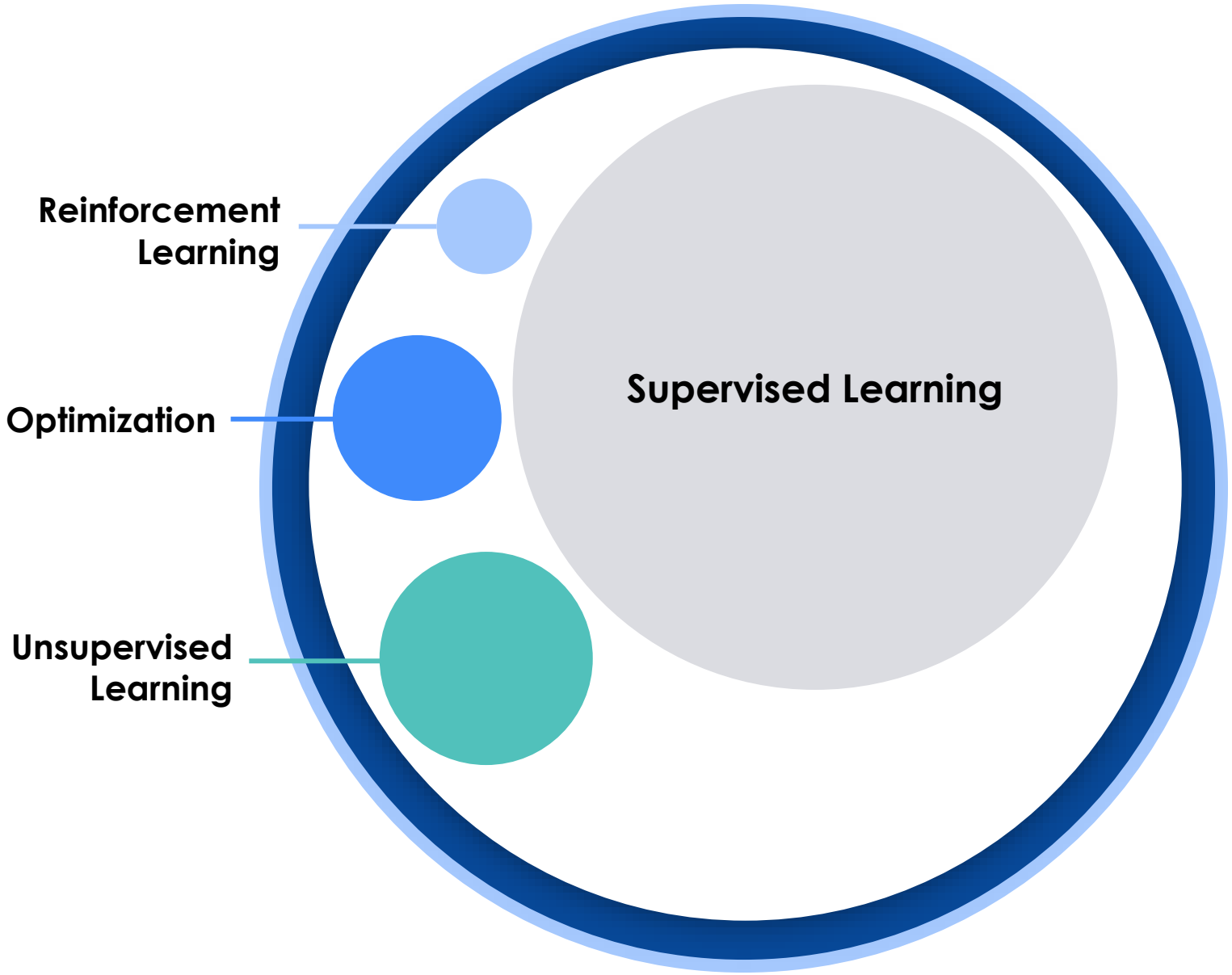
is **personalized,**

not **generalized.**

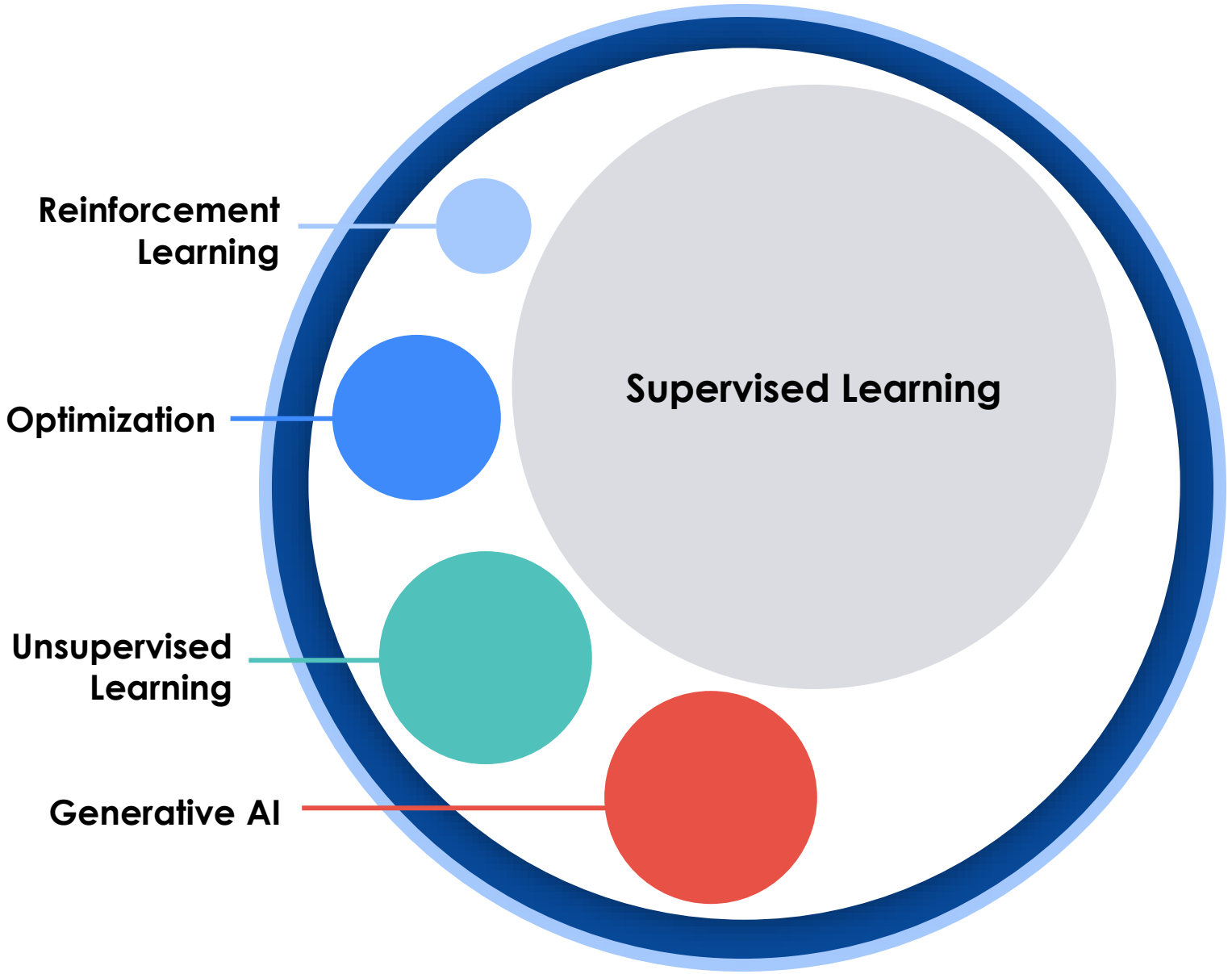
History


1956
Artificial Intelligence
1997
Machine Learning
2017
Deep Learning
2021
Generative AI

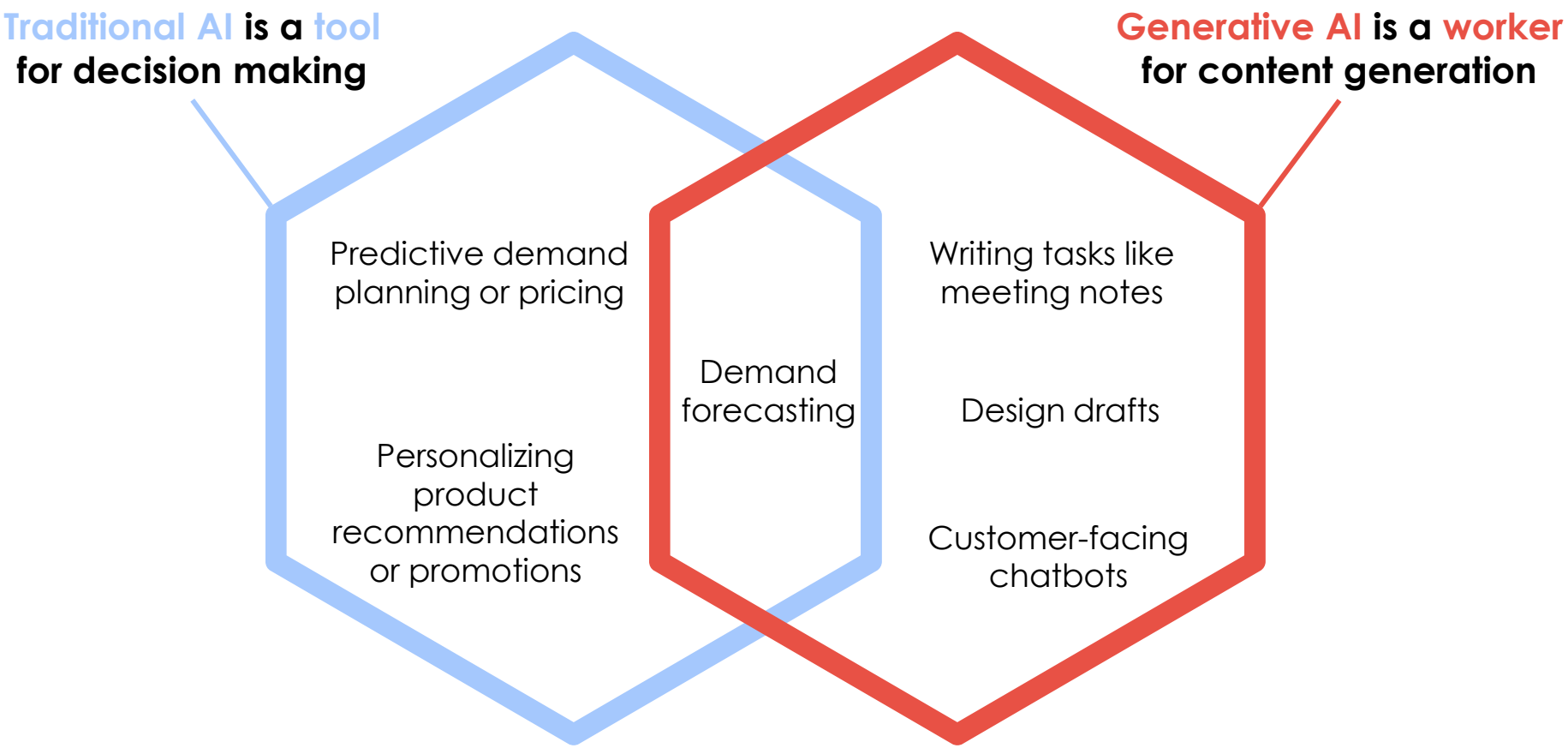
AI algorithms are our toolkit



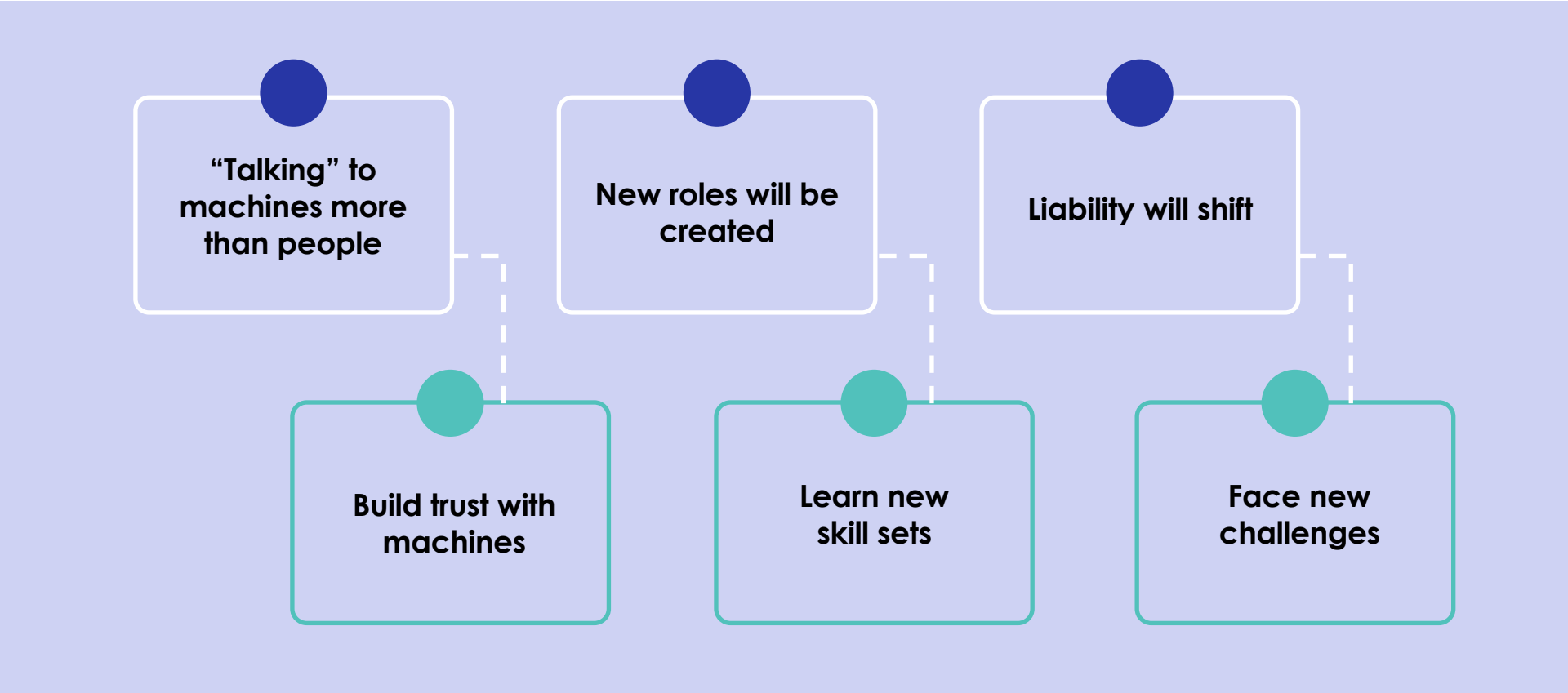
GenAI is the newest tool



Traditional vs. Generative AI



AI Drives Change



Responsible AI Use

ABC NEWS

Experts warn of rise in scammers using AI to mimic voices of loved ones in distress

CNN

Tom Hanks says dental plan video uses 'AI version of me' without permission

BSA The Software Alliance

Analysis: State AI Legislation Surges by 440% in 2023

THE WALL STREET JOURNAL.

New York City Passed an AI Hiring Law. So Far, Few Companies Are Following It.

NBC NEWS

House leaders launch bipartisan artificial intelligence task force

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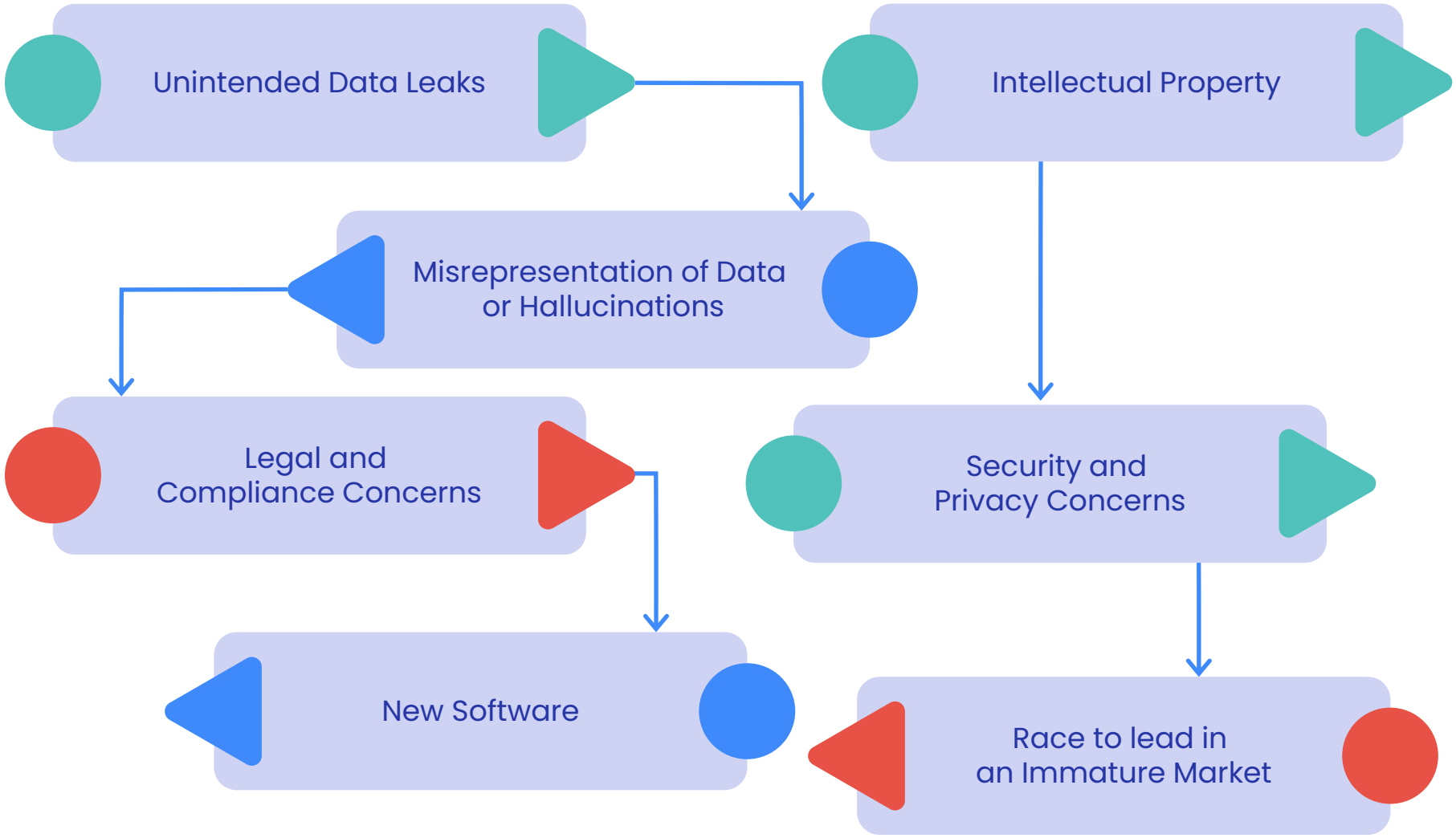
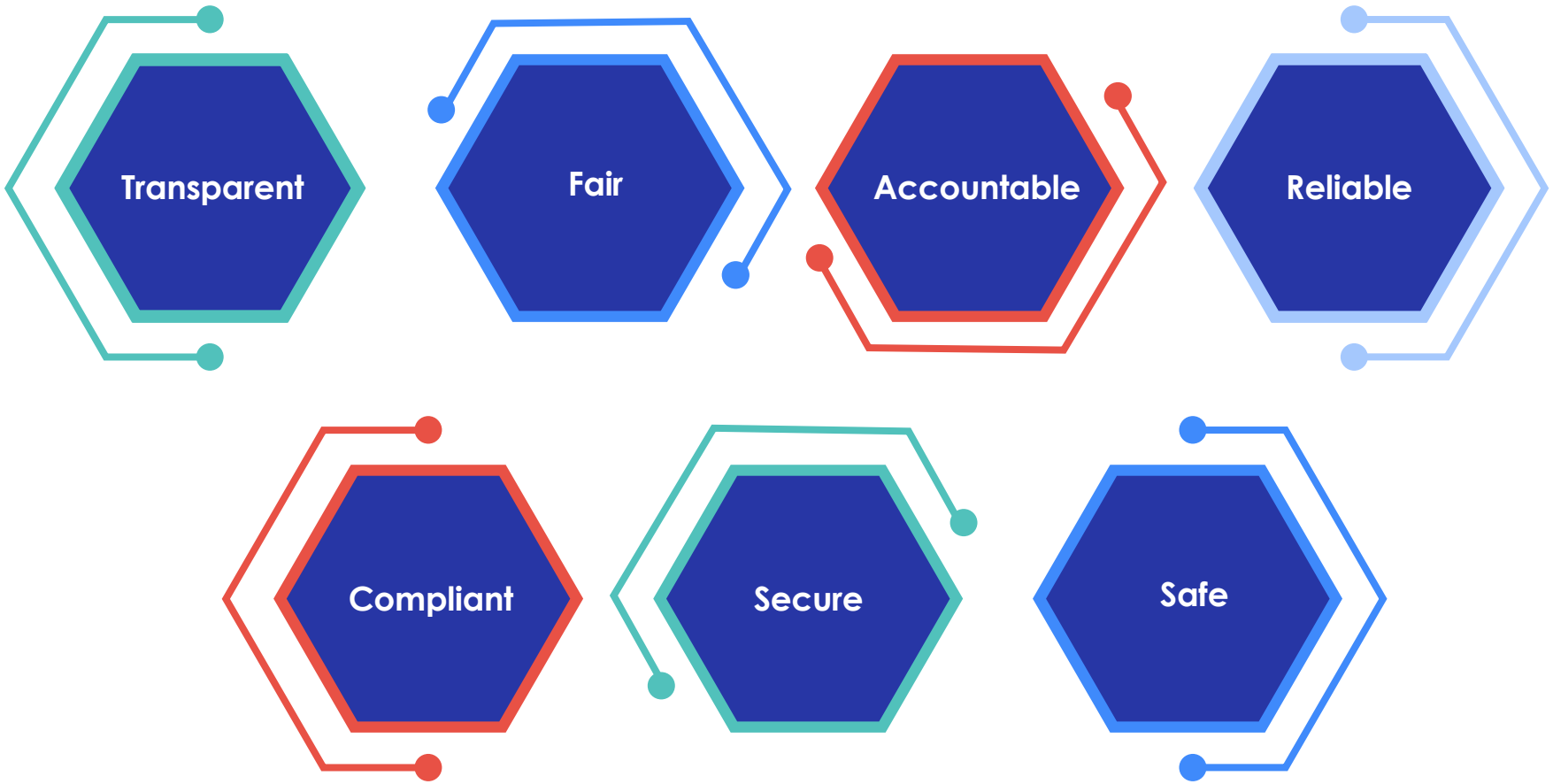
AI Introduces New Risks



Responsible AI Frameworks



Barriers to AI implementation in pharmacy practice

Barriers to AI Implementation

✓Culture of suspicion or fear

✓Cost

✓Technology capabilities

✓Upskilled talent

✓Data Infrastructure

What does AI mean for healthcare?

AI Use Cases in Pharmacy

JAPhA

Effectiveness of ChatGPT in clinical pharmacy and the role of artificial intelligence in medication therapy management

BioMed Research International

Artificial Intelligence-Based Data-Driven Strategy to Accelerate Research, Development, and Clinical Trials of COVID Vaccine

frontiers in Digital Health

Artificial Intelligence Solutions to Increase Medication Adherence

FIERCE Biotech

AI spots signs of mental health issues in text messages on par with human psychiatrists

thebmj

Generative artificial intelligence can have a role in combating vaccine hesitancy

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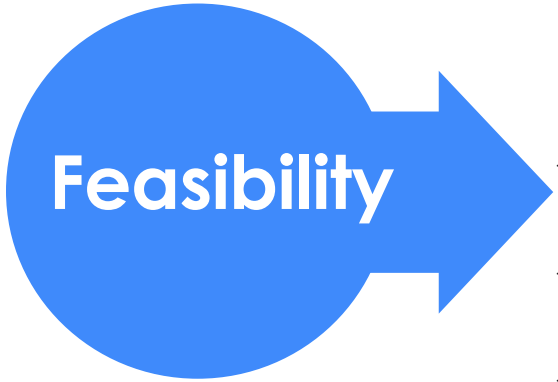
Identifying Opportunities

- ✓What are our priorities or problems?
- ✓What outcomes are we trying to achieve?
- ✓What is the value of solving?
- ✓How do we measure success?



- ✓Could AI provide a prediction or decision?
- ✓Is it ethical, legal, responsible?
- ✓Can we get the data & talent to build and maintain?

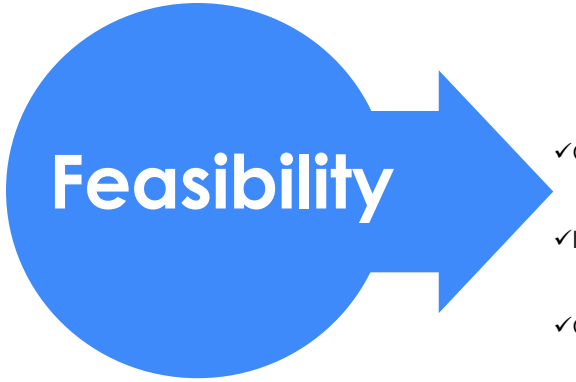
Use Case: Personalizing Customer Outreach

✓What are our priorities or problems?

✓What outcomes are we trying to achieve?

✓What is the value of solving?

✓How do we measure success?



✓Could AI provide a prediction or decision?

✓Is it ethical, legal, responsible?

✓Can we get the data & talent to build and maintain?

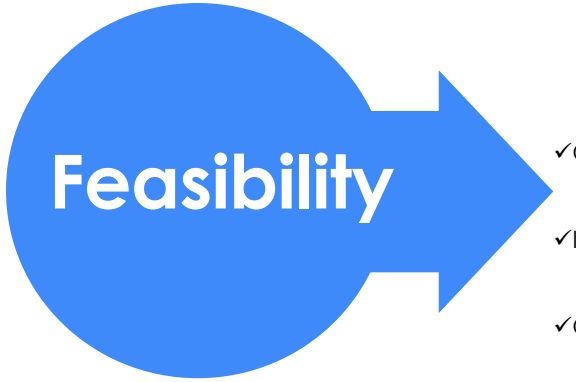
Use Case: Chatbot

✓What are our priorities or problems?

✓What outcomes are we trying to achieve?

✓What is the value of solving?

✓How do we measure success?



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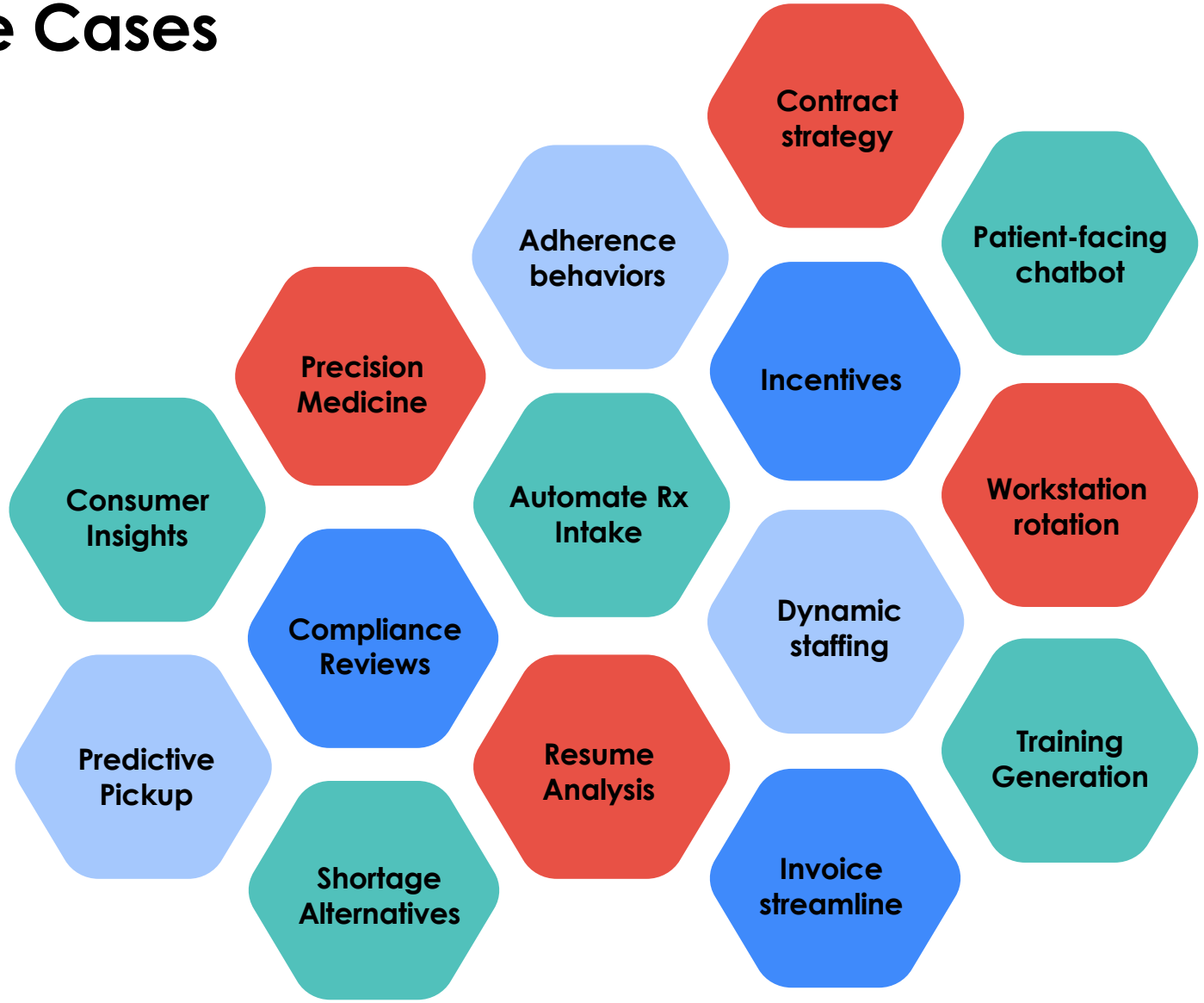
Use Cases


Contract strategy
Adherence behaviors
Patient-facing chatbot
Precision Medicine
Incentives
Consumer Insights
Automate Rx Intake
Workstation rotation
Compliance Reviews
Dynamic staffing
Predictive Pickup
Resume Analysis
Training Generation
Shortage Alternatives
Invoice streamline

AI is a resource to **improve** human connections, **not** replace them.

Researchers have been experimenting with artificial intelligence since the 1950's.

AI is accelerating due to demand for amplification of human power through automation, efficiency, and computing power.

AI Barriers include:
- culture,
- cost,
- skills, and
- data infrastructure.

Innovation in healthcare will give the ability to utilize data to personalize and impact patient care.

Without responsible practice, AI has potential for unintended consequences and may not perform the task as designed.

Identify impact and feasibility to prioritize your use of AI.

Data Science and AI are complex, but foundational knowledge enables everyone to understand its applications and value.

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References

Overview of artificial intelligence in medicine - PMC (nih.gov)

Advancing Patient Care: How Artificial Intelligence Is Transforming Healthcare - PMC (nih.gov)

AI in medicine: Where are we now and where are we going? - PMC (nih.gov)

ChatGPT passes MBA exam given by a Wharton professor (nbcnews.com)

Generative AI to Become a $1.3 Trillion Market by 2032, Research Finds | Press | Bloomberg LP

Fretting about election-year deep fakes, states roll out new rules for A.I. content. - The New York Times (nytimes.com)

AI, ChatGPT use in medicine can help or hurt patients – and doctors (usatoday.com)

Amazon spends $2.75B on Anthropic in largest venture investment yet (cnbc.com)

What is Artificial Intelligence (AI)? | IBM

The potential for artificial intelligence in healthcare - PMC (nih.gov)

Artificial intelligence (AI) algorithms: a complete overview | Tableau

Experts warn of rise in scammers using AI to mimic voices of loved ones in distress - ABC News (go.com)

BSA Analysis: State AI Legislation Surges by 440% in 2023 | BSA | The Software Alliance

New York City Passed an AI Hiring Law. So Far, Few Companies Are Following It. - WSJ

Thank you.

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Need More Information?

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