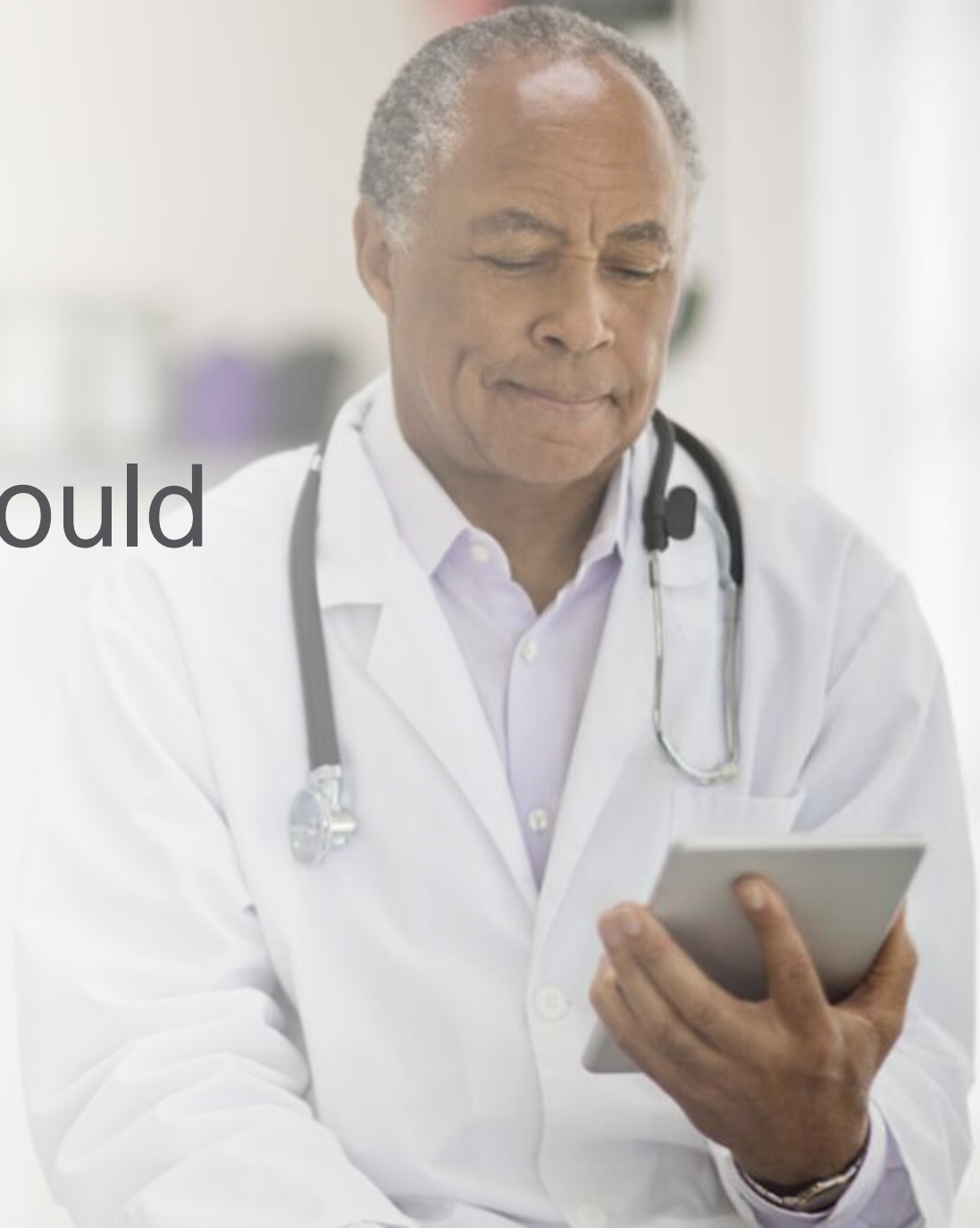


AI strategy: why should you care?

Josh Cutler, Chief Data Scientist
UnitedHealthcare



Disclosures

Financial Disclosures:

- None

What needs to be in my AI strategy?

1. Be clear about **why** you even have an AI strategy.
2. Understand the parts of your organizations that you want to adopt AI... and **when**.
3. Evaluate your **risk acceptance** and how much transformation you are comfortable with.
4. Put together a technological **roadmap** that accommodates your risk.
5. Identify a strategy to **build trust** in your deployment of AI.
6. Build the right **team**.

Why have an AI strategy?

Some changes will happen **to us**, many will be **driven by our readiness**.

Your AI strategy should be linked to specific business goals.

The whole point is to make you more effective.

Examples of areas that are either revenue-increasing or cost-reducing:

- Developing smarter more effective products
- Improving business processes
- Eliminating repetitive tasks

There is nothing magic about being successful with AI. You still need:

- Clearly defined objectives (e.g., “decrease the cost of adjudicating a claim”)
- Clearly defined KPIs (e.g., “decrease the number of faxes manually entered into the system by X%”)
- Clear ownership of the outcome (e.g., “Josh and his team will own that outcome in 2021”)

A good strategy will be clearly aligned to your business goals.

Healthcare & machine learning

Actuarial & Underwriting

Care Pathways
Clinical Decision Support
Physician Productivity

Machine Learning Native

Are we ready to build a new plan or provider from the ground up based on the benefits from ML?

Are we ready to let AI guide a patient down certain care paths?

Are we ready to let AI look at radiological imagery and make determinations?

Consumer Marketing

Genomics

Digital
Digital Therapeutics
Telemedicine
Wearables IoT

Risk Adjustment
Quality
Administrative Processes
Payment Integrity
Revenue Cycle
Utilization Management
Claims Adjudication

What is your time horizon?

Is your organization ready to jump in with two feet? Or is this a 10-year endeavor?

- The impact of AI today is different from that of 10 years in the future
- Consumer expectations will be changing during that time period

This is a RAPIDLY changing technology landscape.

- 10 years ago (2011):
 - Watson won its first *Jeopardy!* match. Today, it is effectively defunct.
 - Siri launched on the iPhone.
- 5 years ago (2016):
 - Microsoft launches Tay and must immediately pull it.
 - Google wins with AlphaGo.

A good strategy will set **long term goals** while providing **incremental interim value**.

What technology investments should I make?

Given the rapid pace of change and potential false starts, how can we invest our efforts intelligently?

Investments in data infrastructure and hygiene almost always pay off

- Having ready access to your data is and will be a prerequisite to taking advantage of advancements in AI
- Despite all the change over the past 10 years, these investments would still have been smart

Much of the work in AI is being done by a select few vendors

- Smaller vendors, if they do good work, WILL be acquired
- Vendor data lock-in works against good data access / hygiene

Evaluate your TCO vs. ability to capture gains due to rapid advancement in AI

- Certain applications of AI have very large compute requirements, are these better suited for the cloud?
- There are rapid advancements in purpose-built hardware for doing AI. Will this stabilize?

A good strategy will help **you execute your plan** while being **robust to rapid change** in the state of the art.

How can I build trust with AI?

As with any new technology there will be skepticism, much of it well earned.

Understand your constituencies and their risk tolerance:

- Clinicians (e.g., a clinical recommendation vs. automatic note summarization)
- Members (e.g., refilling a prescription via chatbot vs. getting a diagnosis)

Smaller low risk wins, help build trust.

- Think about applications where an AI is not the sole decider, but rather making recommendations.
- Think about processes where you still have a human in the loop.
- AI should make your humans better!

Understand potentially supply and demand imbalances

- If you are aligned to your business strategies, then there should be demand for a solution.
- Introducing AI to solve problems that aren't priorities can have more downside than upside.

A good strategy will help introduce change while being trusted by your constituents.

Who do I need to make this happen?

The right composition of people is dependent on how ambitious your AI agenda is.

Roles that may be appropriate for your strategy:

Vendors

- If off-the-shelf solutions solve your needs.
- If infrastructure / culture / timing barriers make having your own team infeasible.
- If your work is exploratory and you are unsure about long term financial commitments.

Pitfalls:

- Most AI work is not one-and-done. Vendors can be expensive and the wrong model for the long term.
- If your work is very niche/custom. Most off-the-shelf solutions may not work optimally.
- If you have concerns about bias/ethical use/etc. Many vendors are not yet advanced in this space.

Who do I need to make this happen?

The right composition of people is dependent on how ambitious your AI agenda is.

Roles that may be appropriate for your strategy:

Data Science Team

- When you will be creating novel technical analyses / products / tools.
- When you will be responsible for updating / assessing vendor solutions over time.
- When you need in-depth businesses understanding, where insiders are most appropriate

Pitfalls:

- Data science teams without proper guidance/leadership can be orphaned within an organization
- Hiring a team without the proper data infrastructure in place can hamstring their efforts
- It can be difficult to identify and grow this talent without anyone in house to begin

Who do I need to make this happen?

The right composition of people is dependent on how ambitious your AI agenda is.

Roles that may be appropriate for your strategy:

Chief Data Scientist

- When you have a long-term strategy requiring coordination of multiple technical teams / agendas.
- Where there is a supply and demand mis-match and you need executive ownership for the strategy

Pitfalls:

- AI leaders will need buy-in from other executives to achieve their agenda. Get this first.
- Hiring a leader before goals/role expectations are defined can cause churn.
- Hiring this role with an expectation mismatch around timing. Building AI products vs. short-term reporting.

A good strategy will ensure that you have the right people in place to succeed.

What needs to be in my AI strategy?

1. Be clear about **why** you even have an AI strategy.
2. Understand the parts of your organizations that you want to adopt AI... and **when**.
3. Evaluate your **risk acceptance** and how much transformation you are comfortable with.
4. Put together a technological **roadmap** that accommodates your risk.
5. Identify a strategy to **build trust** in your deployment of AI.
6. Build the right **team**.