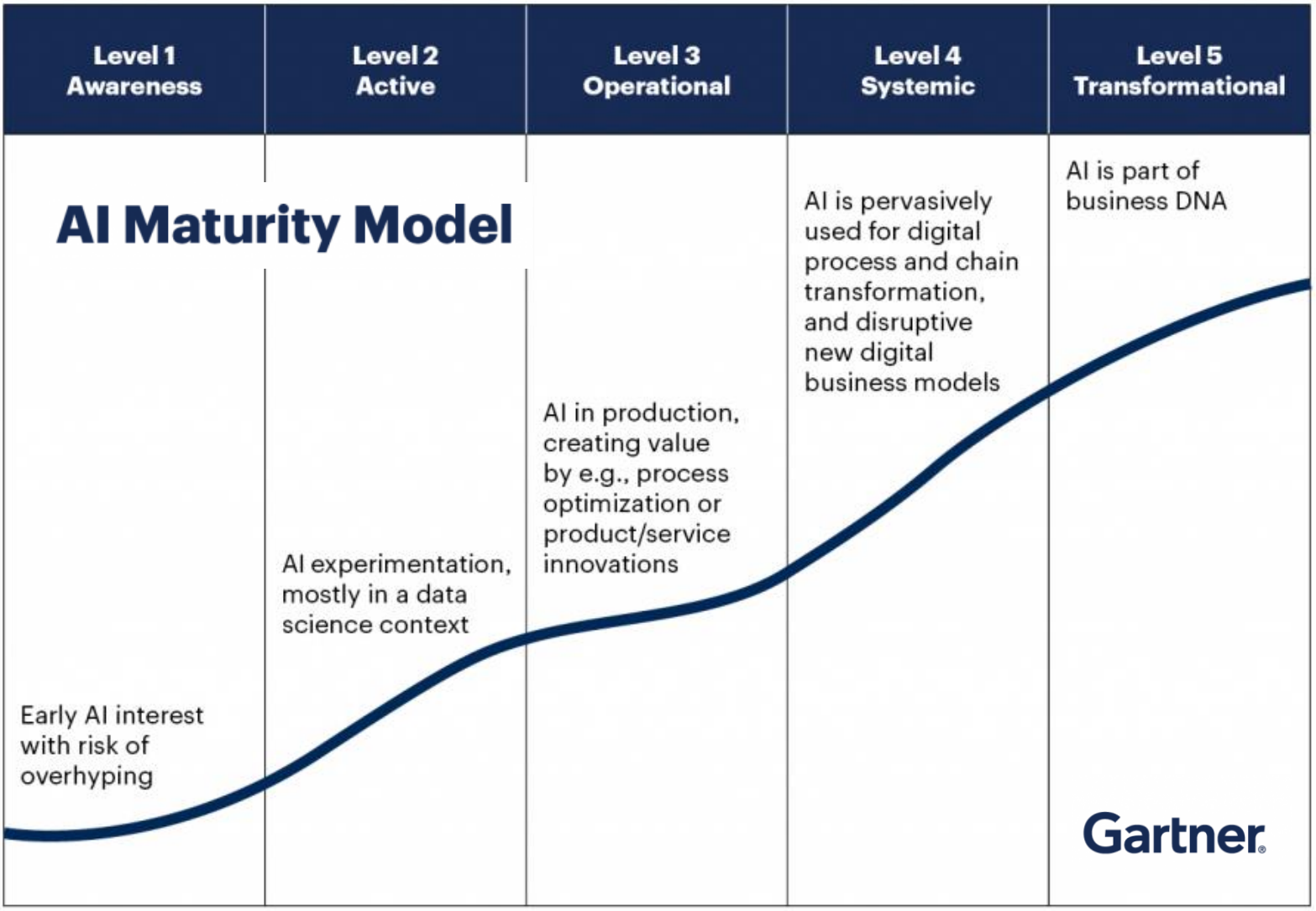
AI Maturity Matrix Roadmap

HEALTH MANAGEMENT TheAcademy

Objectives of the roadmap:

- Help organizations assess where they are in maturity and know what to work on next
- Inclusive consideration of human, technology, and process factors
- Right balance of flexible (especially re: vendor strategy) vs opinionated.



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Source: Gartner

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	Level 1 Awareness	Level 2 Active	Level 3 Operational	Level 4 Systemic	Level 5 Transformational
Description	*Early AI interest with risk of overhyping*	*AI experimentation, mostly in a data science context*	*AI in production, creating value by process optimization or product/service innovations*	*AI is pervasively used for digital process transformation and disruptive new digital business models*	*AI is part of business DNA*
CULTURE					
Strategic Clarity / Alignment of AI Deployment	Senior and functional leaders have: - No leadership interest in AI deployment	Senior and functional leaders have: - **Clearly expressed interest** and **intent** to deploy AI across the health system	Senior and functional leaders have: - Interest and intent to deploy AI - List of potential **opportunity areas** to deploy AI initiatives and tools by functional area or service line	Senior and functional leaders have: - Interest and intent to deploy AI - Clear **roadmap** of AI deployment - **Vetted** and shared the AI deployment with health system - **KPIs** and progress plan developed	Senior and functional leaders have: - Interest and intent to deploy AI - Clear roadmap of AI deployment - Vetted and shared the roadmap - KPIs and progress plan developed - **Documented owners** of AI deployment
AI Champions Within Org	Leaders want the org to explore ways to use AI but lack understanding of what AI can be used to support. - Leaders defined as functional area or service line leaders	Leaders want the org to explore ways to use AI and are **willing to help** the org figure it out. - Leaders defined as functional area or service line leaders	Leaders want the org to explore ways to use AI and are willing to help the org figure it out, and **help identify other champions**. - Leaders include **C-suite** in addition to functional/ service line leaders	*Plus Level 1-3 features C-suite and functional leaders create **implementation guidelines to leverage AI** in day-to-day activities throughout the org	*Plus Level 1-4 features C-suite and functional leaders **educate all members of the health care system on the value of AI** and feel responsible for AI implementation
AI Literacy Within Org	- Unclear definitions of AI - No vision for use of AI within org	- **Map goals** for current and future state for AI literacy - Received **buy-in and interest from org leaders** on need for increased AI literacy	- Map goals for current and future state for AI literacy - Received buy-in from org leaders - **Developed cheat sheets for AI definitions** and potential use cases; share across the org	- Map goals for current and future state for AI literacy - Received buy-in from org leaders - Shared cheat sheets for AI definitions and potential use cases - **AI literacy program:** asynchronous and synchronous training	*Plus level 4 features - All org members (new and existing) have **annual training and testing on AI literacy**

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CULTURE, continued					
Change Management Principles for AI Adoption	Staff has pushed for more innovation and more technology use, but some skepticism exists	Leadership has performed initial discovery to identify ways tech and AI can improve health system (opportunity assessment)	- Leadership has performed initial discovery to identify ways tech and AI can improve health system (opportunity assessment) - **AI solutions built alongside organizational users** (interviewing and iterating alongside functional / services line leaders **Mass buy-in** from org staff achieved on push for more AI use across all levels	- Leadership has performed initial discovery to identify ways tech and AI can improve health system (opportunity assessment) - AI solutions built alongside organizational users (interviewing and iterating alongside functional / services line leaders Mass buy-in from org staff achieved on push for more AI use across all levels	- Leadership has performed initial discovery to identify ways tech and AI can improve health system (opportunity assessment) - AI solutions built alongside organizational users (interviewing and iterating alongside functional / services line leaders - Mass buy-in from org staff achieved on push for more AI use across all levels - AI tech is **continuously accepted and used** at all levels of the org - **Open channels exist** for org to suggest new tech and AI developments - Org **capital planning** bakes in new AI deployment models

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GOVERNANCE					
Ethics & Equity in AI Initiatives	- Gaps and risks in Ethics & Equity relating to AI are initially understood and accepted	- **AI equity standards** and metrics are defined	- AI equity standards and metrics are defined - **Documented processes** to review ethical standards - **Ethical review board:** assess ethics and equity prior to implementation	- **Equity Review process conducted regularly** for all solutions (w/ Automation & Alerting)	- **Automation** of Review Process with human review (ethical review board) by code / exceptions - Ethical review board **incentivized** on proper metrics
Dedicated Governance / Responsibility Structure	- No governance committee formed, no clear owner of AI initiatives/deployment/monitoring - Haphazardly launching new AI initiatives across the org with no visibility across functional areas	- No governance committee formed, no clear owner of AI initiatives/deployment/monitoring - Haphazardly launching new AI initiatives across the org with no visibility across functional areas - Functional or service line leaders have **raised their hand informally** to support initiatives	- **Multiple owners** of AI strategy exist at the functional or service line level - **Shared learning** exists of where AI initiatives are deployed across the org	- **Multiple owners** of AI strategy exist at the functional or service line level—meet frequently amongst each other to share key learnings - Shared learning exists of where AI initiatives are deployed across the org	- **One AI owner** with a **team** of key stakeholders - Review board and AI gov. committee **aligned** on strategic goals, implementation guidelines, cadence for reviews - Governance committee **incentivized** - Org- and service line- meetings to **highlight AI initiatives**
Documented Prioritization Process of AI Adoption	- Executive alignment not well organized	- Have an understanding for **what success looks like** for the org - **Inventory** of existing solutions - Process for determining if AI is **right tool**	- Know what success looks like for org - Inventory of existing solutions - Process for determining if AI is right tool - Can assess **workflow integration** - Ability to **estimate ROI** upfront	- Know what success looks like for org - Inventory of existing solutions - Process for determining if AI is right tool - Assess workflow integration - Can estimate ROI upfront - Process for **portfolio management** - Identify **new** gaps and opportunities	- Know what success looks like for org - Inventory of existing solutions - Process for determining if AI is right tool - Assess workflow integration - Estimate ROI upfront - Process for portfolio mgmt. - Identify new gaps and opportunities - Leveraging AI is **standard of care and workflow** for org operations

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VALUE PROPOSITION					
Value Creation of AI Initiatives	- Select an initial methodology to evaluate AI value created throughout the org	- Select an initial methodology to evaluate AI value created throughout the org - List of **products implemented** and producing value	- Select an initial methodology to evaluate AI value created throughout the org - List of products implemented and producing value - **Value assessment toolkit** in place	- Select an initial methodology to evaluate AI value created throughout the org - List of products implemented and producing value - Value assessment toolkit in place - **Translate** how ROI of individual AI implementation projects produce value to the org	- Select an initial methodology to evaluate AI value created throughout the org - List of products implemented and producing value - Value assessment toolkit in place - Translate how ROI of individual AI implementation projects produce value to the org - Work with leaders who own ROI reporting to **share transparently** across the org - Create **dashboard** to track value creation

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OPERATIONAL / FINANCIAL BUSINESS CASE					
AI Performance Monitoring & Observability	- Little to no standardized process for assessing AI deployment / initiatives - Either no dedicated team or disparate teams evaluating AI implementation	- Established frameworks and protocols for assessing and deploying new AI initiatives **(proof of concept)** - **Team dedicated to evaluating** success of AI initiatives	- Established frameworks and protocols for assessing and deploying new AI initiatives - **Team dedicated to evaluating** success of AI initiatives - Have a plan and cadence to **assess drift** (AI model deterioration)	- Established frameworks and protocols for assessing and deploying new AI initiatives - Team dedicated to evaluating AI success and **incentivized on performance monitoring** - Regularly assess drift - **Automate** AI monitoring - **Clear processes for evaluating vendors / point solutions**	- Established frameworks and protocols for assessing and deploying new AI initiatives - Team dedicated to evaluating AI success and incentivized on performance monitoring - Regularly assess drift - Automate AI monitoring - Clear processes for evaluating vendors / point solutions - 90% of AI use cases are **automatically monitored and formalized compliance** and ethics reports are standard practice
Organizational Business Case on AI Investment	- No agreement on ROI goals	- Leadership **agrees** on ROI goals (soft vs. hard ROI) and standards for achieving ROI	- Leadership agrees on ROI goals - Gathered **proposed AI projects** - **Budgeted** for AI projects by service and functional area - Key **operations** set up to launch projects - System set up to **monitor ROI** and assess performance	- Leadership agrees on ROI goals - Gathered proposed AI projects - Budgeted for AI projects by service and functional area - Key operations set up to launch projects - System set up to **monitor ROI** and assess performance	- Leadership agrees on ROI goals - Gathered proposed AI projects - Budgeted for AI projects by service and functional area - Key operations set up to launch projects - System set up to monitor ROI and assess performance - Consistent **demonstrated ROI** at org level - Ability to **lookback** at ROI expectations vs budget vs performance

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INFRASTRUCTURE					
Technology Integration & Infrastructure for AI Adoption & Scalability	- Data is not embedded into the cloud - Data is scattered across internal and external pathways - Use at least one electronic health record (EHR) across the health system - Use point solutions across the org - No dedicated team of data scientists / engineers	- All **data** in **the cloud** - Use only **ONE** (EHR) across the system - Point solutions used but are clearly documented and info about use cases are known across the org - Identify **vendor management plan** for AI features provided by point solution vendors - No dedicated team of data scientists / engineers	- All data in the cloud - Use only ONE (EHR) across the system - Identify vendor management plan for AI features provided by point solution vendors - Have **a cloud infrastructure partner and deploy** (AWS, Microsoft, Google, Python, Juniper Notebooks…) - Establish **set of protocols for monitoring** effectiveness and success of AI applications	- All data in the cloud - Use only ONE (EHR) across the system - Invested in **High-Performance Computing** (HPC) infrastructure to handle the computational demands - Have a cloud infrastructure partner and deploy - Establish protocols for monitoring AI effectiveness and success - Mix of **contracted and employed** data scientists, machine learning engineers, and healthcare domain experts that can help develop, deploy, monitor, and maintain AI applications	- All data in the cloud - Use only ONE (EHR) across the system - Invested in High-Performance Computing (HPC) infrastructure to handle the computational demands - Have a cloud infrastructure partner and deploy - Establish protocols for monitoring AI effectiveness and success - Team of **employed** data scientists, machine learning engineers, and healthcare domain experts that can help **develop, deploy, monitor, and maintain AI** applications - Develop **user-friendly interfaces** to interact with AI applications seamlessly - Provide in-depth **training programs** for healthcare staff to use AI tools and understand insights generated from them - Dedicate people and create frameworks to continuously **evaluate ethical implications** of AI applications