



How can IT teams harness AI strategically and ethically for competitive advantage

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Presented by Katie King

THE WORLD IS CHANGING
THE WORLD IS CHANGING
THE WORLD IS CHANGING



WILL YOU AND YOUR ORGANISATION CHANGE

WITH

IT?



Meet Katie King

- 30-year career in consulting and marketing
- Published Author on AI
- Voted Top 10 AI Influencer 2023 by AI Time Journal
- CEO of AI in Business and Zoodikers
- Member of APPG taskforce for Enterprise Adoption of AI



A Quick Poll Before We Begin...

What do you fear most about AI?

- Making my role redundant
- Impact on my privacy
- Changing our culture and dehumanising us

A Quick Poll Before We Begin...

What do you believe will be the biggest benefit of AI to your current role?

- Making us more productive
- Enabling us to add more strategic value
- Understanding stakeholders better

A wider look at the family of AI

AI in Different Forms



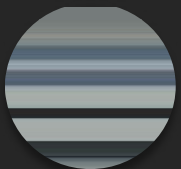
Interactive
AI



Visual
AI



Functional
AI



Analytic
AI



Generative
AI

Interactive AI refers to developing AI systems that can engage in human-like conversations and respond dynamically to user inputs.

- **Common Examples:** Chatbots; Smart Personal Assistants
- **Real World Use Cases:** Amazon's Echo devices, Apple's Siri



AI in Different Forms



Interactive

AI



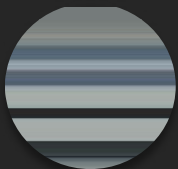
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Visual Artificial Intelligence is an aspect of computer science that teaches machines to make sense of images and visual data the same way people do.

- **Common Examples:** Computer Vision; Augmented Reality; Facial Recognition
- **Real World Use Case:** Some insurers use Visual AI to assess the damage from vehicular accidents to draft a claim



AI in Different Forms



Interactive

AI



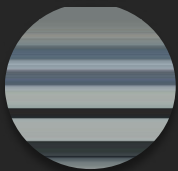
Visual

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Functional AI also scans huge amounts of data and searches for patterns and dependencies in it. However, instead of giving recommendations, functional AI takes actions.

- **Common Examples:** IoT Solutions; Robots
- **Real World Use Case:** An IoT sensor on a manufacturing line notices a malfunction, and sends a command for the machine to shut down before further damage is incurred



AI in Different Forms



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Powered with machine learning, analytic AI scans tons of data for dependencies and patterns to ultimately produce recommendations or provide a business with insights.

- **Common Examples:** Sentiment Analysis; Risk Assessment; Market Insights
- **Real World Use Case:** Various retailers use analytic AI to forecast demand and make smarter inventory recommendations



AI in Different Forms



Interactive

AI



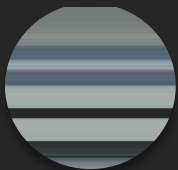
Visual

AI



Functional

AI



Analytic

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Generative

AI

Generative AI is the process of AI algorithms generating or creating an output, such as text, photo, video, code, data, and 3D renderings, from data they are trained on.

The purpose of generative AI is to create content, as opposed to other forms of AI, which might be used for other purposes, such as analysing data or helping to control a self-driving car.

- **Common Examples:** ChatGPT; Bard; DALL-E
- **Real World Use Case:** A marketing team could use generative AI to craft copy for websites, social media, emails, etc.



How can IT harness AI?

AI in IT

1. Automation of Routine Tasks

- IT Operations Management: AI automates many routine IT tasks such as system monitoring, patch management, and incident detection.
- Service Desk Automation: Chatbots and virtual assistants powered by AI handle common IT support queries, automate ticket generation, and provide faster resolutions to technical problems.

2. Enhanced Cybersecurity

- Threat Detection: AI & ML models help in identifying cyber threats by analyzing network traffic, spotting anomalies, and detecting malware based on patterns.
- Response Automation: AI-powered systems automate parts of the response to security breaches, such as isolating affected systems, applying patches, and notifying security teams of urgent issues.
- Fraud Detection: AI is used to monitor transactions in real-time and detect fraud by spotting unusual patterns of activity

AI in IT

3. Data Management and Analytics

- Data Processing
- Predictive Analytics
- Business Intelligence: AI enhances data analytics tools by providing deeper insights.

4. Development and DevOps

- AI in Software Development: AI is improving software development by assisting developers with code generation, bug detection, and testing automation.
- DevOps Automation

5. Cloud Optimization

- Resource Management: AI is used to optimize cloud resource usage by predicting demand, scaling resources dynamically, and managing costs.
- Self-Healing Systems: AI can detect performance degradation in cloud environments and automatically trigger solutions, such as reallocating resources or restarting services

AI in IT

6. AI-Powered IT Infrastructure

- Intelligent Networks
- Edge Computing: AI is increasingly being used in edge computing environments, where processing needs to be done locally, close to where data is generated.

7. IT Workforce Transformation

- Changing Skill Requirements: growing demand for IT professionals who understand both traditional IT infrastructure and emerging AI technologies.
- Collaboration with AI: AI-driven tools for coding or cloud management enhance the productivity of developers and engineers.

8. AI in Decision-Making

- Strategic IT Decisions: AI tools analyze vast amounts of IT performance data and help predict future trends, enabling better planning and resource allocation.
- Risk Management: AI aids in evaluating risks associated with IT projects, such as cost overruns or technical failures

AI in IT

9. AI Integration in IT Products and Services

- AI as a Service: Cloud providers like AWS, Microsoft Azure, and Google Cloud offer AI as a service, allowing IT teams to integrate AI and machine learning capabilities without needing to build these systems from scratch.
- AI-Powered Applications: From CRM to ERP systems, many enterprise applications are now integrating AI to enhance features like customer insights, forecasting, and automation, providing better service and product offerings to end users.

10. Innovation and New Business Models

- AI-Driven Innovation: AI allows IT departments to innovate more rapidly, such as building smart systems, personalizing services for

AI must be the enabler for other departments



AI in Marketing



Crafting Experiences

Marketers can use AI to bridge the gap between online and in-person experiences, differentiate, and build loyalty.

- **Real World Use Cases:** AI-powered tailored emails based a website or store visit; Loyalty programmes; 'Smart Mirrors' in fitting rooms



Content Creation

Marketers can use AI to craft engaging copy for all of their channels and modify it for different audiences, geographies, languages, etc.

- **Real World Use Cases:** Social media copy, website content, AI-generated artwork, video closed captioning, etc.



Reputation Management

Marketers and comms pros can use AI to keep tabs on customers' perceptions and attitudes, success of their campaigns, and discussions of their brand across platforms.

- **Real World Use Cases:** Social listening tools, sentiment analysis platforms



AI in HR & People Management

AI in HR & People Management



Talent
Acquisition



Employee
Retention



Data
Automation



Learning &
Development

AI can help to make the hiring process quicker and more effective.

- **Examples:** Keyword scanning for CVs and LinkedIn profiles; Conducting stages of the interview process; assessing candidate suitability and culture fit; Candidate sourcing; Automated candidate engagement



What impact is AI having on different industries

AI in local government

Key benefits of AI for local government

- Integrated into local government operations to enhance efficiency, improve service delivery and reduce costs. Data analysis, customer service and urban planning.
- Process vast amounts of data quickly, identifying trends and patterns that can inform real-time decision-making.
- Resource allocation, budget planning and public health monitoring - already established.
- AI-powered chatbots and virtual assistants are increasingly used to manage routine enquiries from residents, freeing up human staff for more complex issues. 24/7 customer service, improving citizen satisfaction and streamlining operations. Chatbots can answer questions about services, report issues and guide residents through processes.

Key benefits of AI for local government

- Urban planning and management: AI-driven traffic management systems optimise traffic flow, reduce congestion & improve air quality. Anticipate issues before they become critical, saving money and enhancing public safety.
- More personalised public service experience to meet the specific needs of individuals or communities, enhancing effectiveness in healthcare, education & social services.
- Smart city initiatives: IoT sensors and AI analytics create more responsive and sustainable urban environments. Smarter energy grids, better waste management systems and more efficient public transportation.

Key benefits of AI for local government

- AI-driven predictive analytics - enable councils to anticipate and respond to challenges such as climate change, economic shifts and population growth more effectively.
- Ethical considerations, data privacy and an ongoing digital divide = issues councils find themselves grappling with.
- Potential to revolutionise local government, supporting efficiency, responsiveness and tailoring solutions to the needs of increasingly tech-savvy citizens.

AI in banking

Banks & Financial Institutions



- **BNP Paribas** is using chatbots to answer client questions while AI seeks to detect and prevent fraud and money laundering.
- **Mastercard** is using an AI engine in its marketing team to spot micro trends by wading through billions of conversations on the internet.
- **TD** has developed tools that enable the bank to offer customer them tailor-made services based on their data. I.e. if the bank knows that a customer is in the process of buying a house, marrying, or having a child, this data informs the products and services they might be offered.

AI in healthcare

8 impacts of AI in healthcare



8 impacts of AI in healthcare

1. Enhanced Diagnostics and Imaging
2. Personalized Medicine
3. Operational Efficiency
4. Improved Clinical Decision Support
5. AI-Driven Drug Discovery
6. Patient Engagement and Self-Care
7. Reduction in Medical Errors
8. Robot assisted surgery

AI in defence

AI in defence

1. Autonomous Weapons and Drones

- AI-powered autonomous systems, such as drones and unmanned vehicles, are revolutionizing military operations

2. Surveillance and Reconnaissance

- AI-driven systems can process vast amounts of data from satellites, sensors, and intelligence reports to monitor and predict enemy movements

3. Cybersecurity

- AI plays a crucial role in defending against cyber threats

4. Decision Support Systems

- AI is enhancing decision-making at strategic, tactical, and operational levels

AI in defence

5. Logistics and Supply Chain Management

- AI is optimizing military logistics by improving efficiency in supply chains and equipment maintenance

6. AI in Intelligence Analysis

- AI systems are assisting in processing and analyzing intelligence data, which is often vast and unstructured

7. Simulated Training and AI-Driven Combat Exercises

- AI is used to enhance military training through simulations and augmented reality

AI in defense

8. AI in Missile Defense

- AI is being applied in missile defense systems to enhance detection, tracking, and interception

9. AI for Strategic Analysis and Policy Development

- AI helps defense planners and policymakers by providing tools for strategic analysis

AI and regulation: the macro issues

UK and US landmark agreement



1st April 2024:

- The UK and US AI Safety Institutes laid out plans to build a common approach to AI safety testing and to share their capabilities to ensure these risks can be tackled effectively.

Regulation has arrived in the EU

- The European Union (EU) Artificial Intelligence (AI) Act entered into force on 1st August 2024
- It unifies AI regulation across the single market's 27 member states.
- Several broad aims:
 - it seeks to use legal mechanisms to protect the fundamental rights and safety of the EU population when exposed to AI
 - to encourage investment and innovation in the technology
 - and to develop a single, unfragmented market for “lawful, safe and trustworthy AI applications”.



Getting Started

1. AI Mindset

- ___ Vision
- ___ Openness
- ___ Ability to Change
- ___ Flexibility
- ___ Realism

___ **Section total**

2. C-Suite Support

- ___ Comfortable
- ___ Eager
- ___ Aligned
- ___ Partnerships
- ___ Driving Forward

___ **Section total**

3. Business Case

- ___ Solves Needs
- ___ Strategic KPIs
- ___ Iterative
- ___ Processes Ready
- ___ Competitive

___ **Section total**

4. Experiment

- ___ Tools/Vendors
- ___ Proof of Concept
- ___ Prepared to Fail
- ___ Documentation
- ___ Cohesive Data

___ **Section total**

5. Collaboration

- ___ Departmental
- ___ Human/Machine
- ___ Academia
- ___ Supply Chain
- ___ Long Term Vision

___ **Section total**

6. AI Talent

- ___ Learning & Dev
- ___ Reskilling Plan
- ___ Executive Talent
- ___ Resources
- ___ Funding

___ **Section total**

7. Culture

- ___ Departmental
- ___ Outward Facing
- ___ Fairness
- ___ Long Term
- ___ Motivationx

___ **Section total**

8. Innovation

- ___ Agile
- ___ Innovative
- ___ Open
- ___ Future-looking
- ___ Transformative

___ **Section total**

9. Wider Impact

- ___ Ethics
- ___ Trade Bodies
- ___ Input
- ___ Responsibility
- ___ Compliance

___ **Section total**

10. Roadmap

- ___ Strategic Plan
- ___ Funding
- ___ Success Criteria
- ___ Readiness
- ___ Authority

___ **Section total**

0 - 20: Traditional

Currently operating traditionally. A novice in AI. Research tools and vendors, get clear on need, and structure your strategy.

21 - 35: Transitional

A promising start with room to grow. Look closely at your score, analyse the gaps, and identify where to focus your efforts.

36 -50: Transformational

Exploiting the benefits of AI. Review your score to identify your next area of opportunity. Keep up the good work!

Scan to complete virtually





Month

Month

Month

Month

Month

Month

1

2

3

4

5

6

New Behaviours

New Processes

Watching Brief

Tools to Research

Culture & People

Proofs of Concept

Creating a Playbook for AI

1. Define Objectives and Scope
2. Understand AI Capabilities and Tools
3. Develop Use Cases
4. Build a Team and Assign Roles
5. Create Implementation Guidelines
6. Ensure Data Privacy and Ethics
7. Test and Refine
8. Measure Impact
9. Document and Share Best Practices
10. Stay Agile and Evolve

QUESTIONS?

QUESTIONS?

QUESTIONS?

QUESTIONS?

