Harnessing AI ethically in the label industry

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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

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THE WORLD IS CHANGING

THE WORLD IS CHANGING

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WILL YOU AND YOUR ORGANISATION CHANGE

WITH IT?

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

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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 employees better

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Defining 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
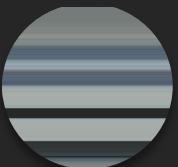
AI in Different Forms

Interactive
AI

Visual
AI

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AI

Analytic
AI

Generative
AI

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
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AI

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

Interactive
AI

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Analytic
AI

Generative
AI

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

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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.

AI Across Business Functions

AI
in Marketing
& CX

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AI in Marketing & CX

Crafting Experiences

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

Personalisation at Scale

AI to better understand customers, build more detailed personas, and segment their audiences more effectively.

- **Real World Use Cases:** Audience insight platforms; CRM; Lead generation and scoring

AI in Marketing & CX

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AI in Marketing & CX

Campaign Generation

AI to make sense of their data and translate it into customer-focused campaign ideas.

- Real World Use Cases: Creative campaigns for brands such as Coca-Cola, Lexus, Heinz, Stradivarius, and Kit-Kat

AI in Marketing & CX

Content Creation

Craft engaging copy for all 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.

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AI in Marketing & CX

Automated Engagement

AI to automatically engage their customers with messaging to keep the pipeline warm throughout their entire journey.

- **Real World Use Cases:** Push messaging, abandoned cart reminders, etc.

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AI in Marketing & CX

Reputation Management

Keep tabs on customers' perceptions and attitudes, success of campaigns, and discussions of brand across platforms.

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

Key Tools & Vendors

Chatbots & Virtual Assistants

- **Amelia AI**
- **Conversica**
- **Leena**
- **Talkdesk**
- **IBM Watson**
- **Zapier AI**
- **GPT-4**
- **YouChat**

Key Tools
& Vendors

Key Tools & Vendors

Generative AI

- **ChatGPT/Bard** (Content writing)
- **Jasper AI** (Content writing)
- **Rytr** (Content writing)
- **GetGenie** (SEO-optimised content)
- **Github Copilot** (Code/software)
- **Midjourney** (Imagery)
- **DALL-E** (Imagery)
- **Wombo** (Imagery)

Marketing Tools

Key Tools
& Vendors

- **Iterable**
- **Movable Ink** (Content)
- **Phrasee** (Content)
- **Brandwatch** (Social listening)
- **Concurred** (Audience insights)
- **6Sense** (Audience insights)
- **Adverity** (Analytics)
- **Brand24** (Social listening)
- **Semrush** (Keyword targeting for SEO)

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Sales Tools

Key Tools
& Vendors

- **Conversica** (Lead engagement & follow up)
- **Gong** (Team performance monitoring)
- **Pipedrive** (CRM)
- **Chorus.ai** (Conversation intelligence)
- **Demandbase** (Targeting)
- **Luna** (Lead sourcing and outreach)
- **Robin** (Research and outreach)
- **Momentum Sales AI** (Conversation summaries and insights)

HR Tools

Key Tools
& Vendors

- **Textio** (Spots bias in job postings)
- **Pymetrics** (Behaviour and skills insights)
- **HireVue** (Virtual hiring)
- **Loxo** (Candidate engagement)
- **Bamboo** (Employee record management and reporting)
- **Skillate** (Candidate analysis)
- **Taleo** (Workforce insights and performance monitoring)
- **Culture Amp** (Employee satisfaction insights)
- **Leena AI** (Employee satisfaction insights)
- **Obrizum** (Personalised learning & training)
- **Workera.ai** (Personalised learning & training)

AI & Your Industry

AI in labelling

- ## AI-powered Printing
  - With AI-powered print layouts, you can decrease the waste of your print material, make its best use, and produce better image quality while AI takes care of size, alignment, and other settings.

- ## Packaging & Label Design
  - AI tools and programs make the design procedure autonomous and can create multiple variations of each product design so that you can see a variety of options and make a wise choice from their collection. Compared to a human designer, an AI design tool works quicker and provides better results in less time with minimum instructions.

AI in labelling

- Inspection and Quality Assurance
  - AI also helps by enabling identification of defective products so they can be easily removed from the final product. This allows the rest of the batch to move through assembly lines faster without worrying about missing one piece of defective material in thousands upon thousands of others like it

Tesco

- UK grocer Tesco uses data-embedded barcodes made by a food tech company OAL on certain meat products, which it believes will quickly reduce food waste

- The label and date code verification solution is the only system currently on the market that can read the information contained within the barcode inline via existing scanners

- This protects Tesco's packaging line from otherwise expected errors, emergency product withdrawals (EPWs), and product recalls

Case Study: AMP Robotics

- Only about 16% of the over 2.1 billion tons of waste the world produces each year gets recycled

- AMP Robotics is an AI and robotics company that aims to change the way we recycle containers, paper, plastic, and other consumer packaging materials.

Case Study: AMP Robotics

- It is rolling out an AI-powered robot called "Cortex" that uses optical sensors to take in material rolls by, and then figures out what should be the next logical step (I.e, recycling plastic, or paper)— even if the instance looks different from anything it's ever seen before.

- At least four companies are rolling out similar line models in the hopes of turning a profit from the growing piles of hard-to-sort consumer recyclables.

Case Study: Sonoco

- Launched a tech project to track line performance and get real-time machine data for plant-to-plant and line-to-line comparisons

- Dashboards displaying machine run time, down time, run percentages, the top five reasons for downtime, current speed, average speed and a scrap overview were placed above the lines so that operators know the real-time status of their operations.

- In 4 years since Sonoco launched this project:
- *Uptime averages increased by 30%*
- *Changeovers reduced by 20%.*
- *Overall efficiency of the lines using this system improved by 15%*
- *Capacity increased by 3%*

AI in Action: Real-World Business Use Cases

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.

Reimagining architecture

AI art app Midjourney was used to create reimagined versions of famous American landmarks - with some striking and surreal results.

AI Envisions an Iconic Brand
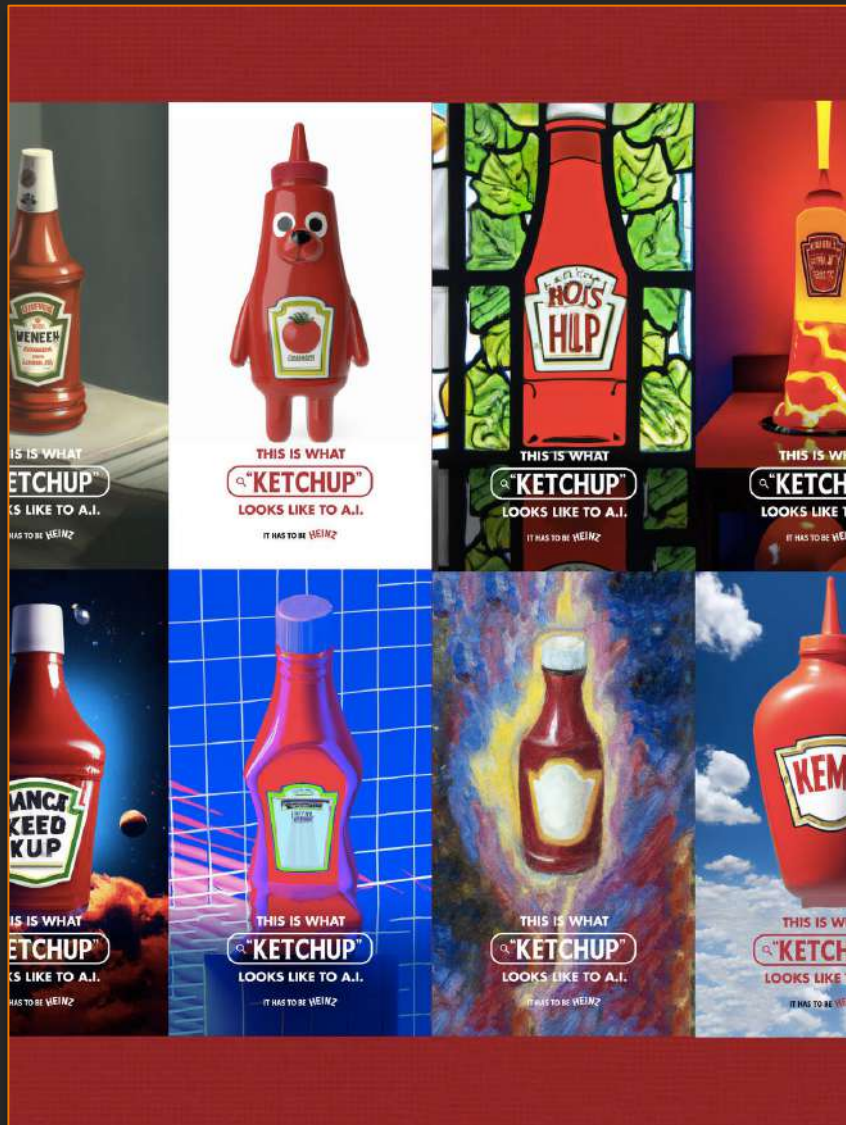
- Heinz decided to jump on the generative AI trend, and tapped Canadian agency Rethink for a creative campaign

- They asked AI "What does AI think ketchup looks like?", and the AI produced imagery that looked very similar to Heinz packaging

- They also asked Heinz brand fans on social media to come up with creative prompts such as 'Ketchup in space', which they then input into the AI image generator and turned into ads

- Heinz produced a run of special edition bottles replacing the label with Heinz AI images, and even created an art gallery in the metaverse where people flocked to view all the Heinz AI images.

- Generated over 850M earned impressions around the world (worth over 2500% more than their media investment) and received coverage in leading trade, art, tech, and lifestyle media outlets

AI Envisions an Iconic Brand
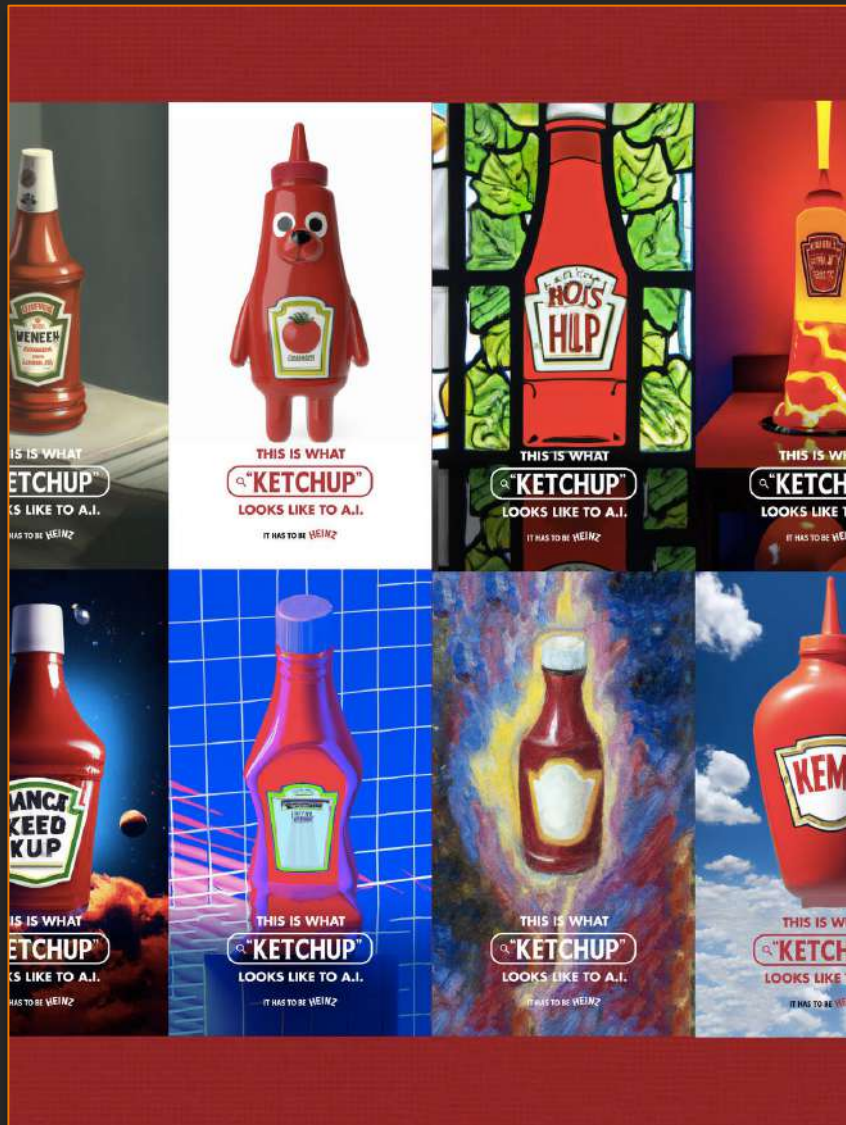
Getting Started

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**

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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

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AI	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
New Behaviours						
New Processes						
Watching Brief						
Tools to Research						
Culture & People						
Proofs of Concept						

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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

Macro Issues

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".

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.

AI for humanity

- A human in the loop is essential
- We need an international agency for oversight and monitoring of AI
- The requirement should be that societal good must come from the implementation of AI
- As an industry, DIY needs to calibrate risks and provide necessary guardrails

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Google Gemini's bias problem is just the start in AI diversity disasters

REBECCA GORMAN
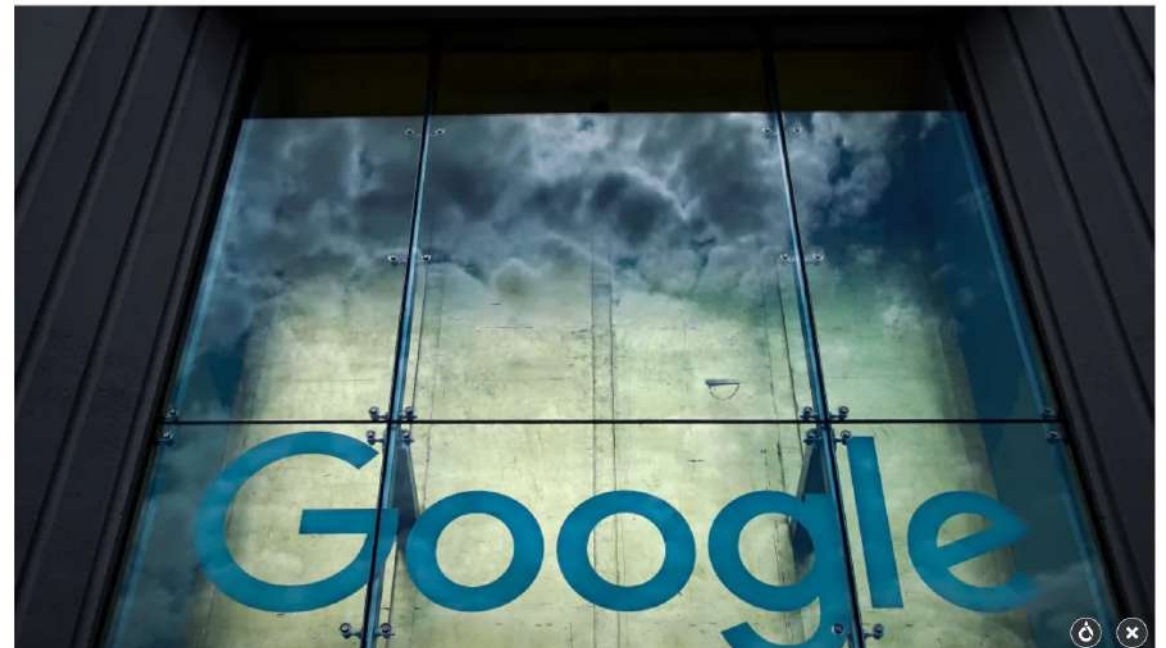
5 tips to enhance DE&I and reduce bias

1. Foster Inclusion: Encourage collaboration among diverse teams, promote open dialogue, and ensure everyone feels valued and heard.

2. Diverse Data Collection: To ensure fair outcomes, it is crucial to collect diverse and representative data for AI systems. This includes considering different demographics, perspectives, and experiences. By incorporating diverse data, AI models can provide more accurate and inclusive results.

3. Regular Bias Assessments: Review the algorithms, data sources, and training processes to recognize and prevent errors that may emerge. Implement mechanisms to address biases and ensure imperialness in decision-making.

5 tips to enhance DE&I and reduce bias

4. Engage Stakeholders: Seek input from different communities, experts and affected individuals to understand diverse perspectives and avoid unintended consequences. This approach helps create solutions that address various needs and concerns.

5. Ethical Frameworks: Develop clear, ethical guidelines for the use of AI systems in relation to DE&I. Establish principles that prioritize integrity, accountability, transparency and privacy. These frameworks can guide the development, deployment, and governance of AI technologies to ensure they align with DE&I goals.

THANK YOU

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THANK YOU
THANK YOU
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QUESTIONS?

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QUESTIONS?
QUESTIONS?
QUESTIONS?

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