



**NIGERIAN SOCIETY OF DATA  
ANALYSTS AND BUSINESS  
INTELLIGENCE EXPERTS**  
*Powering Innovation and Impact Through Data*

# **BEYOND DATA: LEADING IN THE AGE OF INTELLIGENT MACHINES**

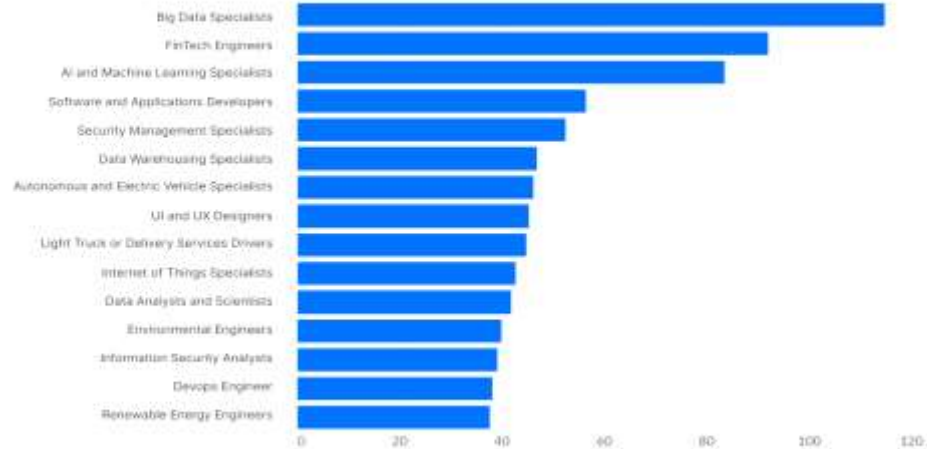
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# THE NEW SUPERPOWER: HUMAN + AI COLLABORATION

Top fastest growing jobs, 2025-2030



Source: World Economic Forum, Future of Jobs Report 2025

GLOBAL ADMISSIONS



**10 years ago, we manually cleaned datasets.  
Today, AI does that in seconds, so what becomes our real value?**

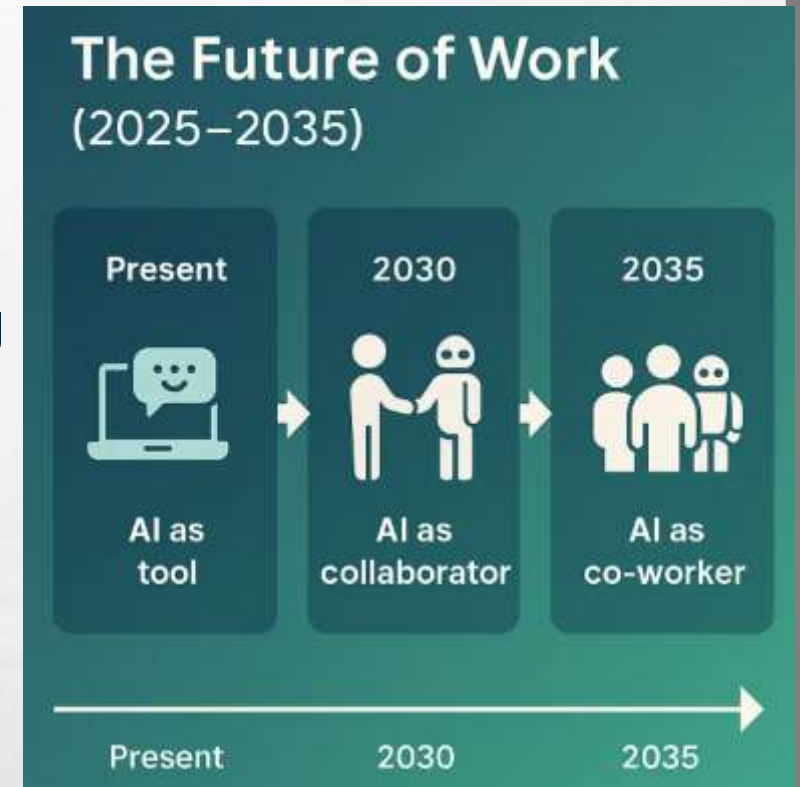
# THE EVOLUTION OF DATA WORK: FROM MANUAL TO MACHINE-AUGMENTED

**Era of Manual Data Work (Pre-2020s) → ETL, SQL pipelines, manual cleaning**

**Era of Automation & Cloud (2020–2024) → Data engineers & scientists empowered by scalable tools, MLOps & automation**

**Era of AI Co-Workers (2025–2030) → AI does 70-80% of data work, this will be the new normal at this era**

**Humans shift into judgment, ethics, strategy, and storytelling.**



**Because - You are no longer the tool operators - you are the intelligent layer that guides AI.**



# THE AI TIPPING POINT

- **HOW LLMS, AUTONOMOUS AGENTS, AND FOUNDATION MODELS HAVE RESHAPED THE DATA PIPELINE.**
- **TRADITIONAL BI → MODERN AI-ENABLED DECISION ECOSYSTEMS.**
- **THE SHIFT FROM STATIC DASHBOARDS TO QUESTIONS ANSWERED ON DEMAND.**
- **WHAT USED TO TAKE TEAMS WEEKS NOW TAKES MINUTES.**

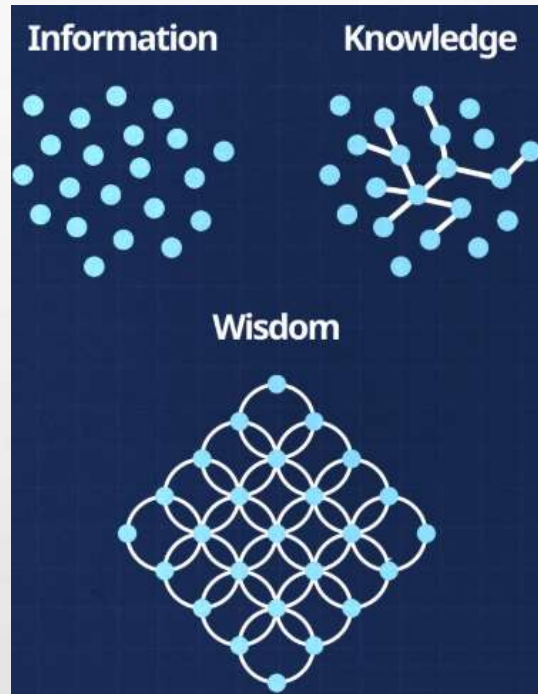


**AI DIDN'T REPLACE DATA PROFESSIONALS → IT REPLACED TASKS.**

# WHAT AI CAN DO... AND WHAT IT CANNOT DO

## AI EXCELS AT:

- **PATTERN RECOGNITION**
- **DATA PROCESSING**
- **GENERATING SUMMARIES**
- **PREDICTIVE MODELING**
- **AUTOMATING ROUTINE WORKFLOWS**



## AI FAILS AT:

- **CONTEXT**
- **ETHICAL REASONING**
- **DOMAIN JUDGMENT**
- **BUSINESS TRADE-OFFS**
- **UNDERSTANDING CONSEQUENCES**

**Your new superpower:**

**Bridging data and judgment, intelligence and wisdom.**

AI is getting smarter every day. But there are 7 skills it will NEVER master. While many fear being replaced...

Smart leaders are doubling down on what makes them human.  
Because AI is a tool, not a threat.

The real question is:  
Are you sharpening the skills AI can't touch?

HERE THEY ARE THE 7 SKILLS! 🖱️

# 7 Skills AI Can't Replace (Yet)

By Daniel Postawig

-Make yourself irreplaceable in 2026



## 1. Emotional Intelligence



**AI can:** Analyze sentiment in text.

**Only humans can:** Feel what's unsaid in a room and respond with genuine care

**Your Move:**

- Listen without thinking about what you'll say next
- Check in with teammates beyond work tasks

## 2. Creative Problem-Solving



**AI can:** Generate multiple solutions.

**Only humans can:** Connect random dots that shouldn't work but do.

**Your Move:**

- Flip problems upside down: "What if success looked different?"
- Give yourself permission to explore "stupid" ideas first

## 3. Ethical Judgment



**AI can:** Follow programmed rules and guidelines

**Only humans can:** Navigate moral gray zones where right isn't obvious

**Your Move:**

- Ask yourself: "Would I want this decision on the front page?"
- Pick the tougher path when it's the right one

## 4. Relationship Building



**AI can:** Track connections and suggest networking

**Only humans can:** Build trust through vulnerability and consistency

**Your Move:**

- Reach out just to say hi, not to ask for favors
- Connect two people who could help each other grow

## 5. Strategic Vision



**AI can:** Predict patterns from historical data

**Only humans can:** See the future others miss and bet on it

**Your Move:**

- Block thinking time on your calendar (no fires allowed)
- Challenge your own beliefs: "What if I'm wrong about this?"

## 6. Cultural Intelligence



**AI can:** Translate languages and explain customs.

**Only humans can:** Bridge different worlds with respect and curiosity

**Your Move:**

- Do your homework on cultural norms before meetings
- Invite others to share their view, then actually hear it
- Call out your own blind spots first

## 7. Adaptive Learning



**AI can:** Process information instantly

**Only humans can:** Transform experience into wisdom and grow from failure

**Your Move:**

- Dedicate 30 minutes daily to learning something fresh
- Volunteer for projects that scare you a little



# THE NEW SKILLS DATA PROFESSIONALS NEED TO THRIVE

## Problem-solving

**We can not solve our problems with the same level of thinking that created them - Albert Einstein**

## Working with people

**soft skills like empathy, conflict resolution, communication, and decision-making are vital**

## Top 10 skills of 2025

Source: Future of Jobs Report 2020, World Economic Forum

### Type of skill

- Problem-solving
- Self-management
- Working with people
- Technology use and development

-  Analytical thinking and innovation
-  Active learning and learning strategies
-  Complex problem-solving
-  Critical thinking and analysis
-  Creativity, originality and initiative
-  Leadership and social influence
-  Technology use, monitoring and control
-  Technology design and programming
-  Resilience, stress tolerance and flexibility
-  Reasoning, problem-solving and ideation

## Self-management

**We learn from failure, not from success! - Bram Stoker, author of Dracula**

**A growth mindset is the belief that talents and abilities can be developed – without denying the importance of talent - Carol Dweck**

## Technology use and development

**not only about having programming skills, it's also about understanding the power of technology, its use, and how to control it. This will allow people to truly understand how their work can be done in a much more efficient and agile way.**

# THE NEW SKILLS DATA PROFESSIONALS NEED TO THRIVE

## AI COLLABORATION SKILLS:

- **PROMPT ENGINEERING → TURNS INTO PROBLEM FORMULATION**
- **KNOWING WHEN AI IS WRONG**
- **DESIGNING HUMAN-AI WORKFLOWS**

## STRATEGIC DATA LEADERSHIP:

- **TRANSLATING INSIGHTS INTO BUSINESS ACTIONS**
- **SETTING DATA PRIORITIES ALIGNED WITH REVENUE, COST, AND IMPACT**

## HUMAN SKILLS:

- **STORYTELLING**
- **INFLUENCE**
- **ETHICS**
- **DECISION SCIENCE**

## SYSTEM-LEVEL THINKING:

- **UNDERSTANDING ENTIRE AI-DRIVEN ECOSYSTEMS**
- **MANAGING DATA GOVERNANCE AND QUALITY AT SCALE**

## CONTINUOUS LEARNING MINDSET

- **UNLEARNING OLD WORKFLOWS**
- **ADAPTING TO AI-DRIVEN TOOLS RAPIDLY**

**The skill that matters most in an AI world is your ability to think.**





# THE NEW ROLES EMERGING IN THE AGE OF INTELLIGENT MACHINES



## THESE ARE SOME ROLES THAT DIDN'T EXIST A FEW YEARS AGO:

### 1. AI WORKFLOW DESIGNER

- DESIGNS HUMAN/AI COLLABORATION WORKFLOWS.

### 2. DATA PRODUCT OWNER

- OWNS DATA PRODUCTS LIKE ASSETS, NOT REPORTS.

### 3. AI ETHICS & RISK OFFICER

- ENSURES DATA FAIRNESS, TRANSPARENCY, ACCOUNTABILITY.

### 4. NARRATIVE STRATEGIST

- TURNS AI OUTPUT INTO BUSINESS STORIES THAT INFLUENCE DECISIONS.

### 5. AUTONOMOUS PIPELINE SUPERVISOR

- OVERSEES AI-DRIVEN PIPELINES THAT FIX THEMSELVES.

### 6. PROMPTS ENGINEER

- DESIGNING, TESTING, AND REFINING PROMPTS TO IMPROVE AI MODEL OUTPUTS FOR TASKS LIKE CONTENT GENERATION, SUMMARIZATION, AND PROBLEM-SOLVING.

# HOW TO LEAD IN THE AGE OF INTELLIGENT MACHINES

## 1. LEAD WITH VISION

- **BE THE ONE WHO UNDERSTANDS WHERE TECHNOLOGY MEETS BUSINESS PROBLEMS.**

## 2. LEAD WITH PEOPLE

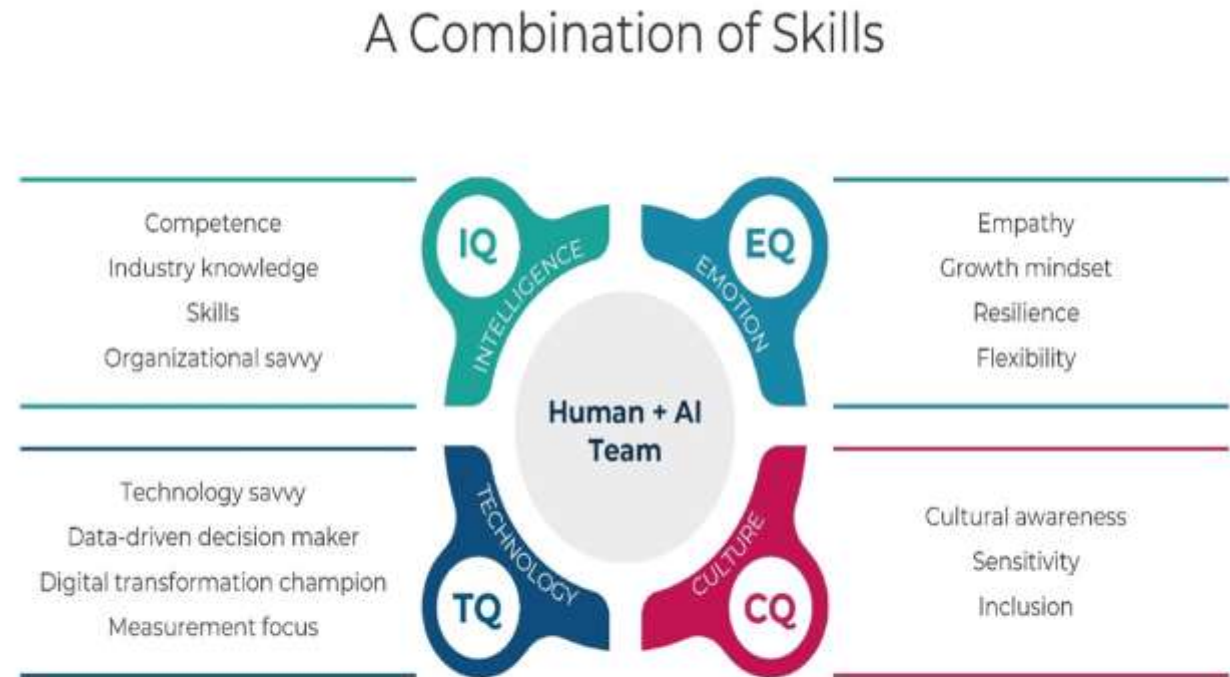
- **AI ENHANCES HUMAN TEAMS — BUT PEOPLE BRING MEANING, TRUST, AND CREATIVITY.**

## 3. LEAD WITH ETHICS

- **EVERY DATA DECISION AFFECTS LIVES, OPPORTUNITIES, FAIRNESS.**

## 4. LEAD WITH ADAPTABILITY

- **THE BEST DATA LEADERS CHANGE FASTER THAN THE TOOLS.**



**THE BEST DATA LEADERS CHANGE FASTER THAN THE TOOLS.**

**When AI does the data work...  
what uniquely human value will YOU deliver? – ask  
yourself, the answers is what we discuss through  
out**

# **A STRATEGIC ROADMAP FOR THE NEXT 12–24 MONTHS**

**The future belongs to those who lead - not those  
who wait.**

## **STEP 1 — AUTOMATE THE BOTTOM 50% OF YOUR WORKLOAD**

- **STOP DOING THINGS AI CAN DO FOR YOU.**

## **STEP 2 — UPSKILL IN AI TOOLS**

- **AUTOML, VECTOR DATABASES, AGENT WORKFLOWS, RAG SYSTEMS, AI EVALUATION.**

## **STEP 3 — START BUILDING DATA PRODUCTS**

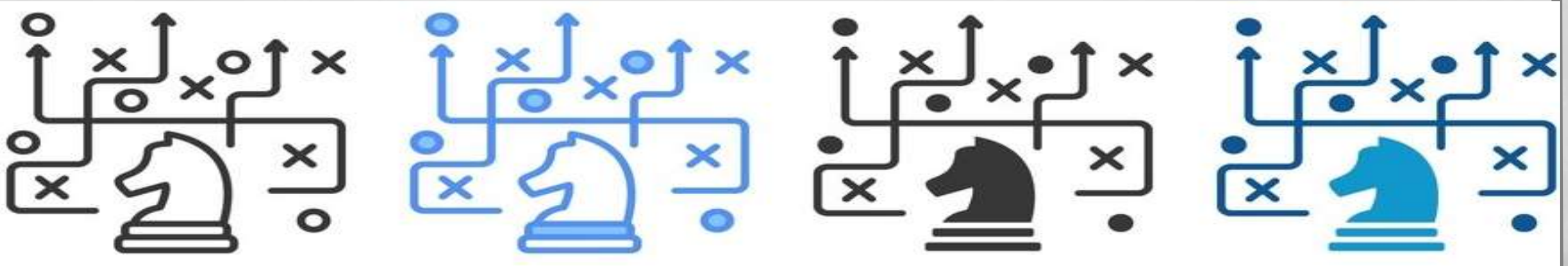
- **MOVE FROM DASHBOARDS → PRODUCTS THAT DELIVER OUTCOMES.**

## **STEP 4 — EMBED YOURSELF IN BUSINESS DECISIONS**

- **BECOME THE GO-TO DECISION ADVISOR.**

## **STEP 5 — BUILD YOUR AI LEADERSHIP BRAND**

- **SPEAK, GUIDE, MENTOR, HELP TEAMS NAVIGATE COMPLEXITY.**





**AI WON'T REPLACE  
YOU - BUT DATA  
PROFESSIONALS  
USING AI WILL**

**\*THANK YOU\***



**LET'S NETWORK &  
SHAPE THE FUTURE !!**

**For more discussions reach me via teams: [ashikin@utar.edu.my](mailto:ashikin@utar.edu.my)**