

WELCOME TO THE

AI FUTURE SUMMIT







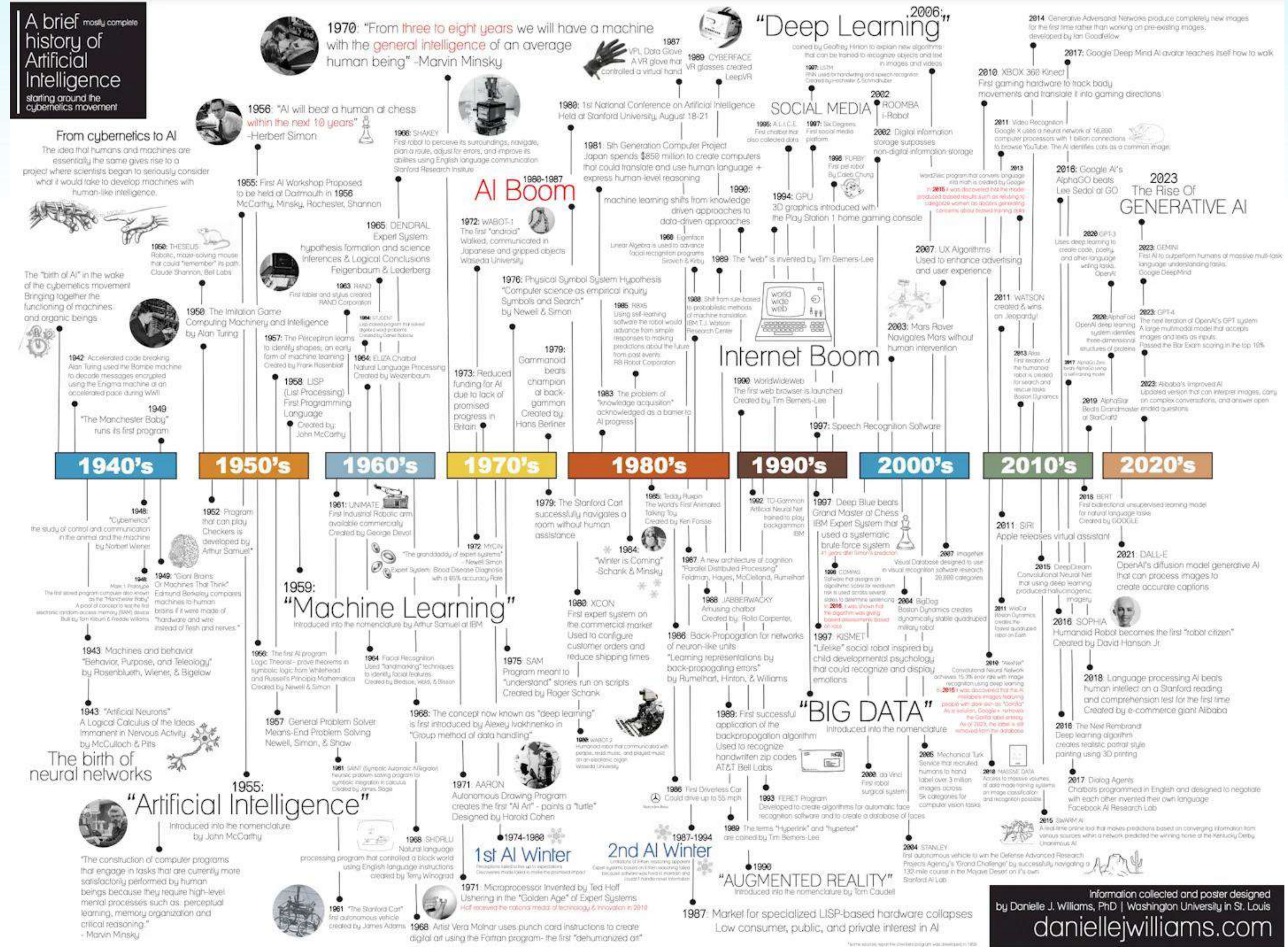
Murray Izenwasser

OZ

SENIOR VICE PRESIDENT
DIGITAL STRATEGY

Before We Look to the Future...

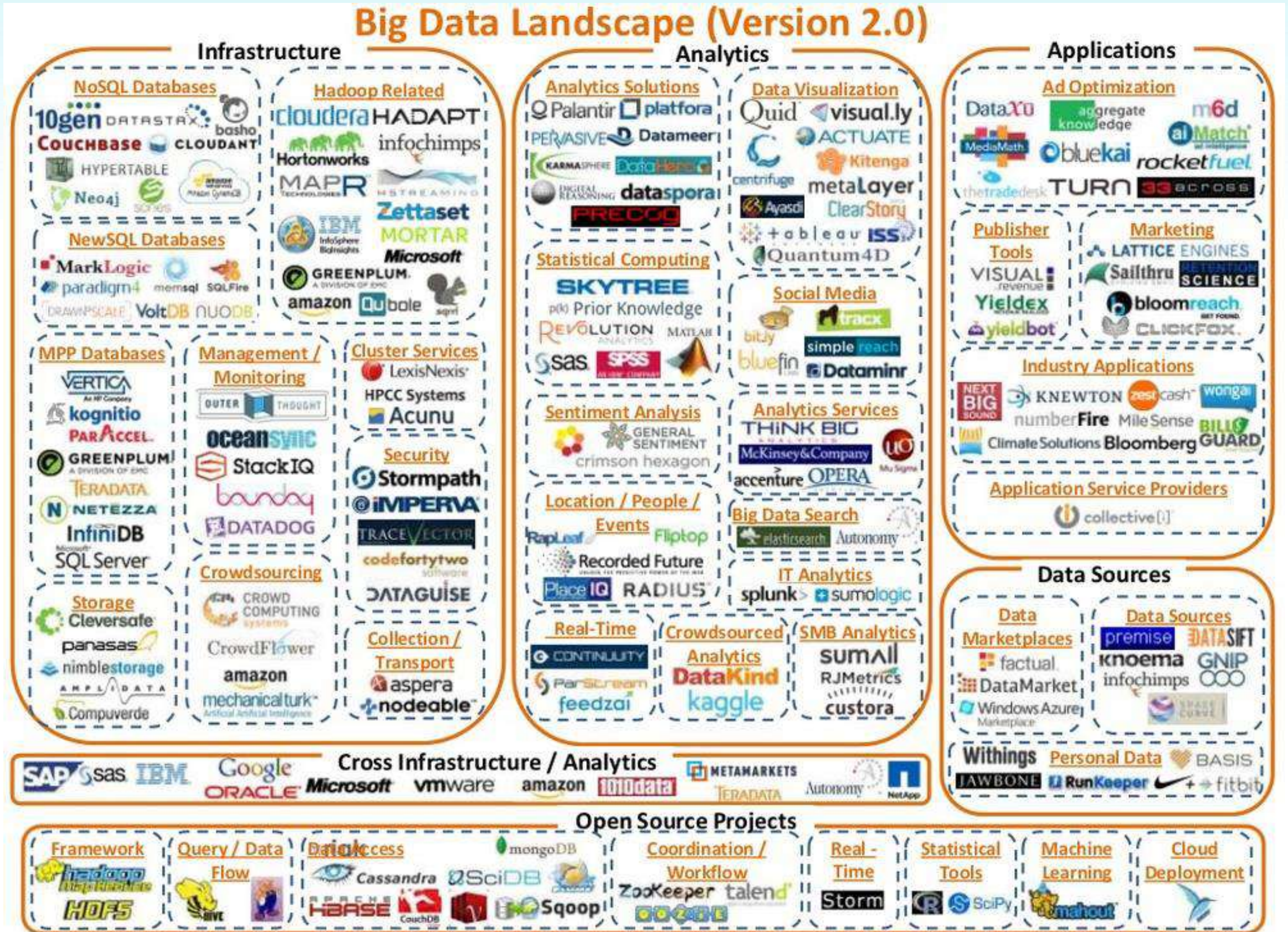
LET'S TAKE A QUICK GLANCE AT THE PAST



Information collected and poster designed by Danielle J. Williams, PhD | Washington University in St. Louis
daniellejwilliams.com

Before 2015

THE CONVERSATION WAS ABOUT 'BIG DATA'



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RISE OF OPENAI AND MAINSTREAMING



OPEN AI FOUNDED

NON-PROFIT ESTABLISHED
BY TECH LEADERS



TALENT ATTRACTION

TOP RESEARCHERS JOINED
FROM ACADEMIA AND
TECH



OPEN DIALOGUE

PUBLIC DISCUSSIONS
BEGAN ON AI'S
POTENTIAL IMPACT



2015

SOMETHING CHANGED



TECHNICAL ADVANCEMENTS

DEEP LEARNING IN IMAGE AND
SPEECH RECOGNIZATION
ALPHAGO DEMONSTRATED HUMAN-
LEVEL GAME PERFORMANCE



CONSUMER PRODUCTS

AI POWERED VOICE ASSISTANTS GAINED
POPULARITY
RECOMMENDATION ALGORITHMS
IMPROVED USER EXPERIENCES



DATA TO KNOWLEDGE

AI SHIFTED FROM PROCESSING
DATA TO GENERATING INSIGHTS
STRATEGIC VALUE OF AI BECAME
APPARENT



AI BREAKTHROUGHS AND CONSUMER INTEGRATION

AI FOUNDATIONS

2015

EARLY EXPLORATION OF AI'S POTENTIAL BY BUSINESSES AND RESEARCHERS

FOCUSED ON TECHNOLOGIES, AUTOMATION, DATA PROCESSING, AND EFFICIENCY



*WORDS REMOVED: AI, BUSINESS, DATA, USE, MORE, SUCH

*SEARCH: AI IN BUSINESS, 2015, ~27400 WORDS, 10 ARTICLES

EARLY AI PILOTS AND CAUTIOUS ADOPTION

2017

MACHINE LEARNING PILOTS
PREDICTIVE ANALYTICS, CUSTOMER
SEGMENTATION, AND DECISION-MAKING

NATURAL LANGUAGE
PROCESSING (NLP)

EARLY CHATBOTS AND VIRTUAL
ASSISTANTS FOR CUSTOMER SERVICE

ROBOTIC PROCESS
AUTOMATION (RPA)

REPETITIVE BACK-OFFICE TASKS LIKE
BILLING AND DATA ENTRY

RECOMMENDATION ENGINES
PERSONALIZE PRODUCT AND CONTENT
SUGGESTIONS



2019

AI PILOTS AND EARLY STRATEGIC SCALING

WIDESPREAD AI EXPERIMENTATION

77% OF COMPANIES IMPLEMENTED AI YET ONLY 31% SAW BUSINESS VALUE

SPECIFIC BUSINESS USE CASES DELIVERED THE MOST VALUE

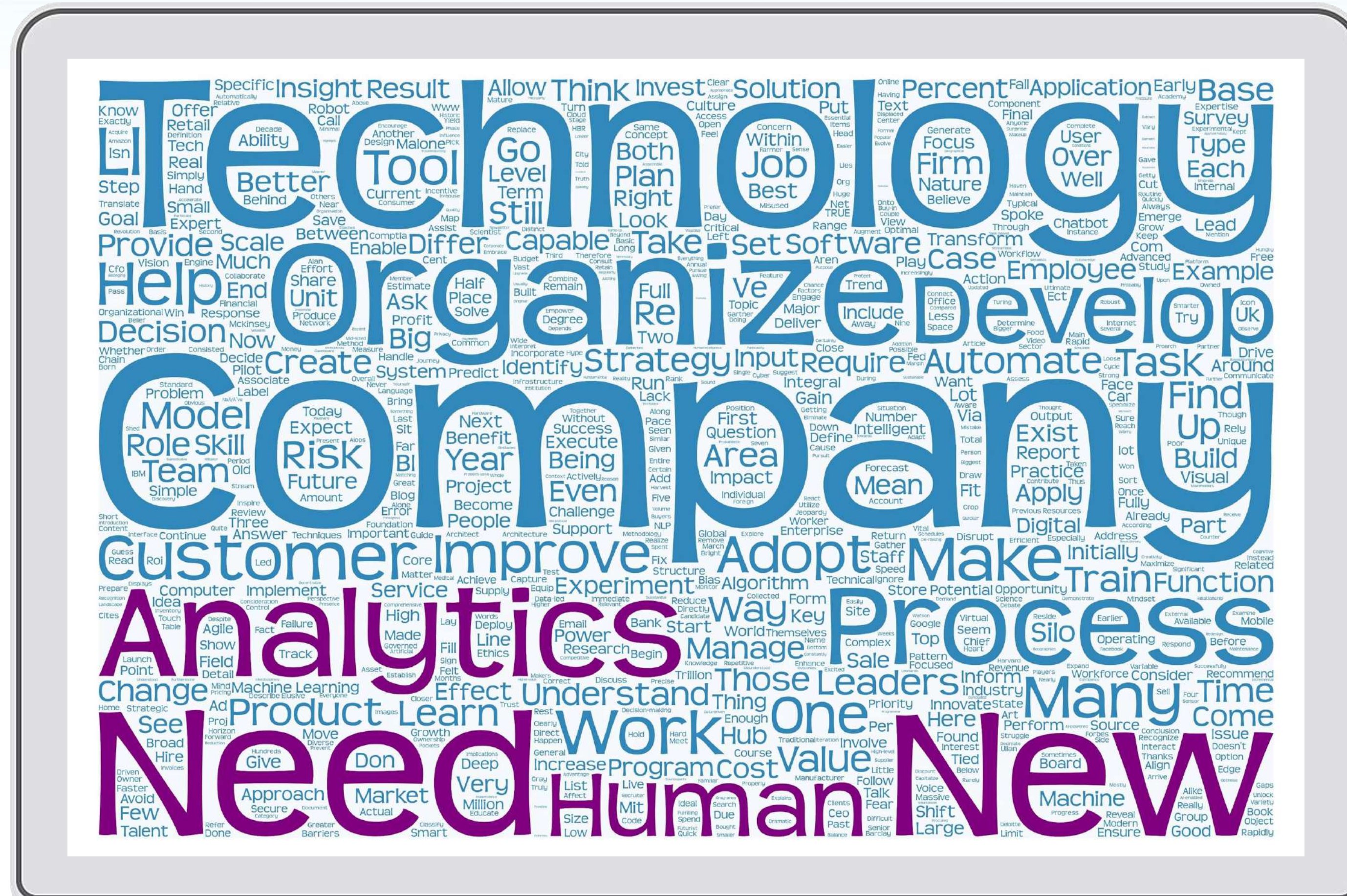
SALES AND MARKETING: MACHINE LEARNING, CHATBOTS, AND RPA

ORGANIZATIONAL AGILITY WAS LACKING

ONLY 29% OF ENTERPRISES WERE AGILE ENOUGH TO RAPIDLY EXPERIMENT WITH AI

DATA INFRASTRUCTURE WAS CRITICAL

60% OF COMPANIES: DATA ARCHITECTURE NOT READY FOR ENTERPRISE-WIDE AI



2020

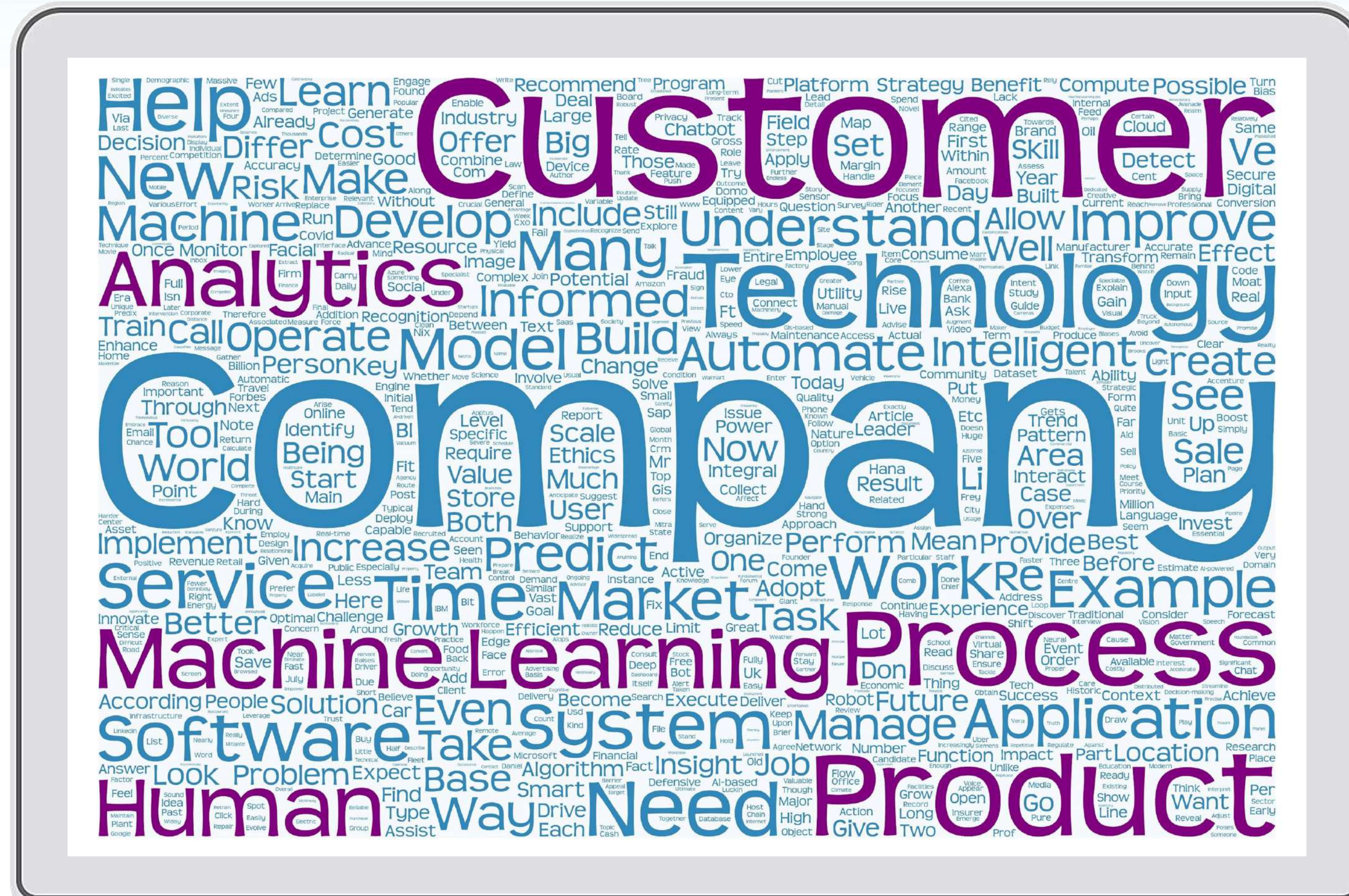
AI-DRIVEN AUTOMATION AND PERSONALIZATION

COVID-19 ACCELERATED AI ADOPTION
AI CHATBOTS AND DIGITAL ASSISTANTS BECAME ESSENTIAL FOR CUSTOMER SERVICE AND REDUCING 'HUMAN 2 HUMAN'

PERSONALIZED MARKETING TOOK CENTER STAGE
AI PREDICTED CUSTOMER NEEDS, TAILORED RECOMMENDATIONS TO IMPROVE ENGAGEMENT AND RETENTION

AI-POWERED BUSINESS INTELLIGENCE DROVE INSIGHTS
TOOLS LIKE MICROSOFT POWER BI HELPED DATA-DRIVEN DECISIONS BY ANALYZING LARGE DATASETS

NATURAL LANGUAGE PROCESSING (NLP) BECAME A KEY TOOL
NLP ENABLED COMPANIES TO AUTOMATE COMMUNICATION AND ANALYZE CUSTOMER SENTIMENT EFFECTIVELY



2021

DATA-CENTRIC AI AND SCALING CHALLENGES



FOCUS SHIFTED TO HIGH-QUALITY, RELEVANT DATA COMPANIES EMPHASIZED ENSURING DATA ACCURATELY REFLECTED WHAT AI SYSTEMS NEEDED TO LEARN

WIDER PROCESS AUTOMATION AND IMPROVE EFFICIENCY BUSINESSES ADOPTED MACHINE LEARNING OPERATIONS (MLOPS) TO BRIDGE THE GAP BETWEEN PILOT PROJECTS AND DEPLOYMENT

KEY BUSINESS STRATEGY: AI-DRIVEN PERSONALIZATION PREDICTIVE ANALYTICS AND RECOMMENDATION SYSTEMS FOCUSED ON CUSTOMER SATISFACTION

SCALING AI REMAINED A CHALLENGE

80% OF AI PROJECTS WERE STUCK IN THE PROOF-OF-CONCEPT PHASE

2022

PERSONALIZATION, ETHICS, AND EXPLAINABILITY

AI BECAME INTEGRAL TO
BUSINESS STRATEGIES
84% OF C-SUITE EXECUTIVES
SAW AI AS CRITICAL TO
ACHIEVING GROWTH GOALS

PERSONALIZATION BECAME A
PRIMARY FOCUS

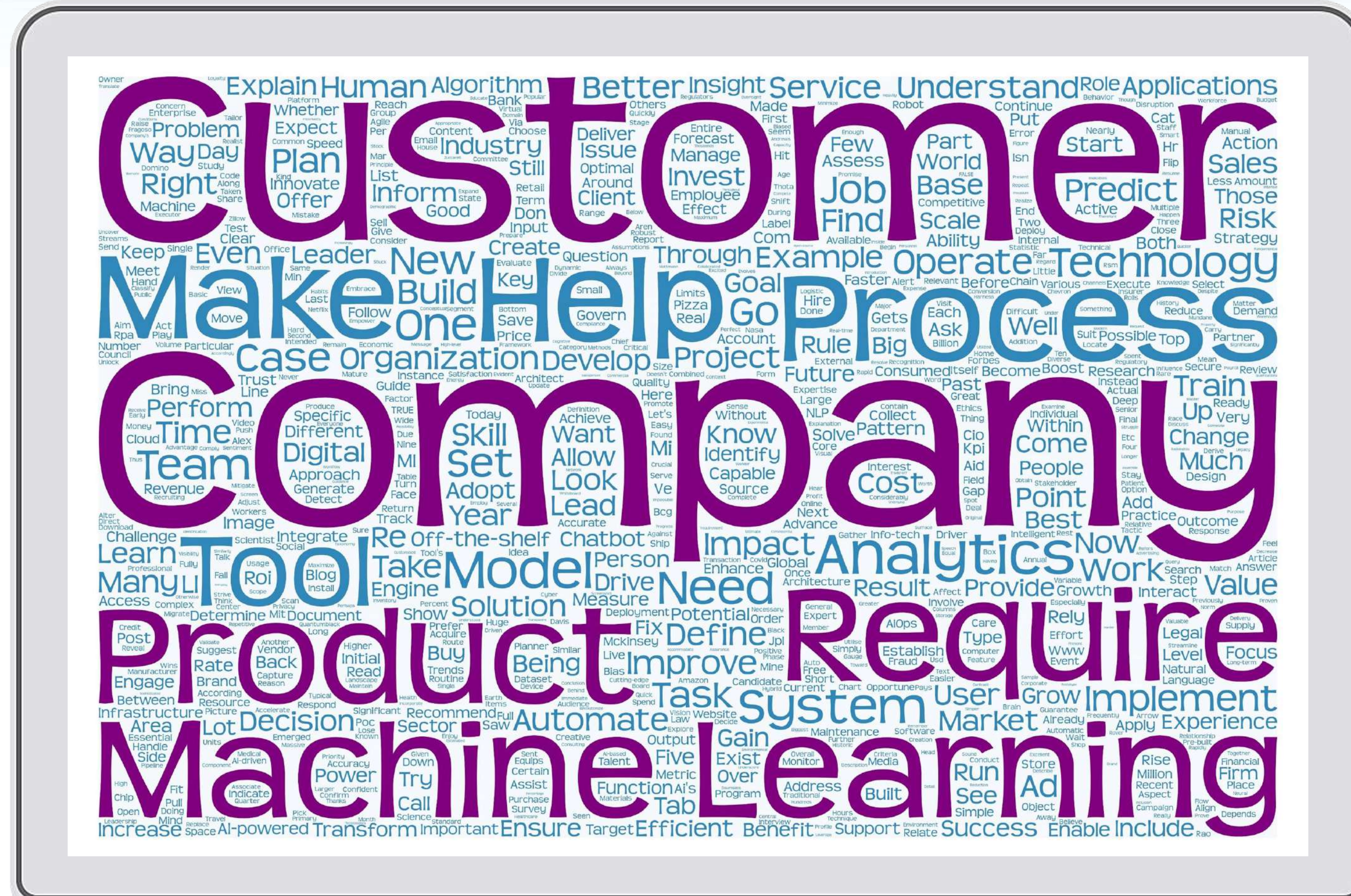
AI-DRIVEN INSIGHTS USED TO
TAILOR CUSTOMER
EXPERIENCES, OPTIMIZING
RECOMMENDATIONS AND
CUSTOMER SERVICE

ETHICS AND EXPLAINABLE AI
GAINED IMPORTANCE

TRANSPARENCY AND FAIRNESS
CONCERNS PUSHED BUSINESSES
TO FOCUS ON EXPLAINABILITY
TO BUILD TRUST AND MEET
REGULATORY REQUIREMENTS

AI TOOLS IMPROVED
OPERATIONAL EFFICIENCY

MLOPS AND AIOPS
TECHNOLOGIES HELPED
STREAMLINE BUSINESS
PROCESSES AND REDUCE
COSTS.



2023

GENERATIVE AI

GENERATIVE AI REVOLUTION
WIDELY ADOPTED FOR
MARKETING CONTENT, CODE
GENERATION, AND CUSTOMER
SERVICE TASKS

AI ENHANCED PERSONALIZED
CUSTOMER EXPERIENCES
BUSINESSES USED AI TO
OPTIMIZE PRODUCT
RECOMMENDATIONS,
MARKETING, AND CUSTOMER
SUPPORT

PROCESS AUTOMATION BECAME
A FOCUS

AI STREAMLINED OPERATIONS
AND REDUCED COSTS IN AREAS
LIKE SUPPLY CHAIN
MANAGEMENT AND INTERNAL
PROCESSES (MLOPS & AIOPS)

ETHICAL CONCERNS GREW
BUSINESSES IMPLEMENTED
EXPLAINABLE AI TO ADDRESS
BIASES, PRIVACY ISSUES, AND
MISINFORMATION RISKS



2024

CURRENT AI INITIATIVES

WHAT WE ARE SEEING

PRODUCTIVITY

STREAMLINE BUSINESS WORKFLOWS, MANAGE TASKS, AND FACILITATE COLLABORATION BY AUTOMATING ROUTINE PROCESSES SUCH AS NOTE-TAKING, SCHEDULING, AND PROJECT MANAGEMENT

CONTENT AND MEDIA

GENERATE AND REFINE CREATIVE CONTENT, SUCH AS IMAGES, TEXT, AND VIDEOS, ACCELERATING THE PRODUCTION OF MARKETING AND MEDIA ASSETS

SECURITY

AUTONOMOUSLY MONITOR, DETECT, AND RESPOND TO POTENTIAL THREATS, SAFEGUARDING ENTERPRISE SYSTEMS AND ENSURING COMPLIANCE

EXPERIENCE

IMPROVE INTERACTIONS BY PERSONALIZING SUPPORT, AUTOMATING COMMON QUERIES, AND HANDLING END-TO-END SERVICE REQUESTS, ENHANCING THE OVERALL USER EXPERIENCE

DATA INSIGHTS

ANALYZE LARGE DATASETS TO PROVIDE ACTIONABLE INSIGHTS, GENERATE SUMMARIES, AND SUPPORT DATA-DRIVEN DECISION-MAKING

DEVELOPER / AUTOMATION

SUPPORT CODING, DEBUGGING, AND DEPLOYMENT, WHILE AUTOMATION AGENTS HANDLE COMPLEX BUSINESS PROCESSES, REDUCING THE NEED FOR MANUAL INTERVENTION



2024

B U S I N E S S U S E C A S E S

SALES

MARKETING

CUSTOMER SERVICE

HUMAN RESOURCES

FINANCE & ACCOUNTING

OPERATIONS

IT & TECHNOLOGY

MANAGEMENT

LEGAL & COMPLIANCE

RESEARCH &

DEVELOPMENT

STRATEGY & PLANNING

Document Version Control
Mergers & Acquisitions Analysis
Automated Code Review
Risk Analysis in New Product Development
Decision Support Systems
Automated Literature Review
Predictive System Maintenance
AI-Driven DevOps Automation
Predictive Experiment Planning
Automated Due Diligence
R&D Process Optimization
Automated Call Transcriptions
Supply Chain Optimization
Cash Flow Forecasting
Inventory Management
Intellectual Property Management
Production Scheduling
Employee Engagement Surveys
Real-Time Customer Sentiment Analysis
AI-Powered Interview Scheduling
Compliance Monitoring
Scenario Planning
Customer Segmentation
Product Innovation Analysis
Application Performance Monitoring
Ticket Prioritization
Capacity Planning
Risk Assessment
Configuration Management
Automated Financial Reporting
Software Deployment Optimization
Dynamic Sales Script Suggestions

Sentiment Analysis
Credit Scoring
Market Entry Analysis
Sentiment Analysis in Market Research
Talent Matching
Social Media Monitoring
Legal Discovery Automation
Supplier Performance Monitoring
Opportunity Analysis
Website Personalization
SWOT Analysis Automation
Accounts Receivable Optimization
Strategy Execution Tracking
Policy Management
Sales Call Analysis
Predictive Turnover Analysis
Resume Screening
Marketing Funnel Analysis
Lead Scoring
IT Asset Management
Performance Appraisal Assistance
Expense Policy Compliance
Network Traffic Monitoring
Invoice Processing Automation
Logistics Route Optimization
Security Threat Detection
Litigation Outcome Prediction

Intelligent Chatbots
Ad Targeting Optimization
Order Management Automation
Expense Report Management
Automated Document Review
Risk Scenario Modeling
Content Generation
Help Desk Automation
Proactive Service Offerings
Competitor Analysis
Prototype Testing Analysis
Automated Tax Compliance
Dynamic Content Personalization
Speech-to-Text for Call Centers
Automated Email Marketing
Self-Service Recommendations
Diversity & Inclusion Monitoring
Warehouse Automation
Predictive Maintenance
Campaign Effectiveness Prediction
Learning & Development Recommendations
Demand Forecasting
Automated Proposal Generation
Strategic Alignment Monitoring
Contract Analysis
Predictive Sales Insights
Customer Behavior Prediction
AI-Driven Hypothesis Testing
Sales Forecasting
Customer Health Scoring
Real-Time HR Query Resolution
Agent Assist Tools

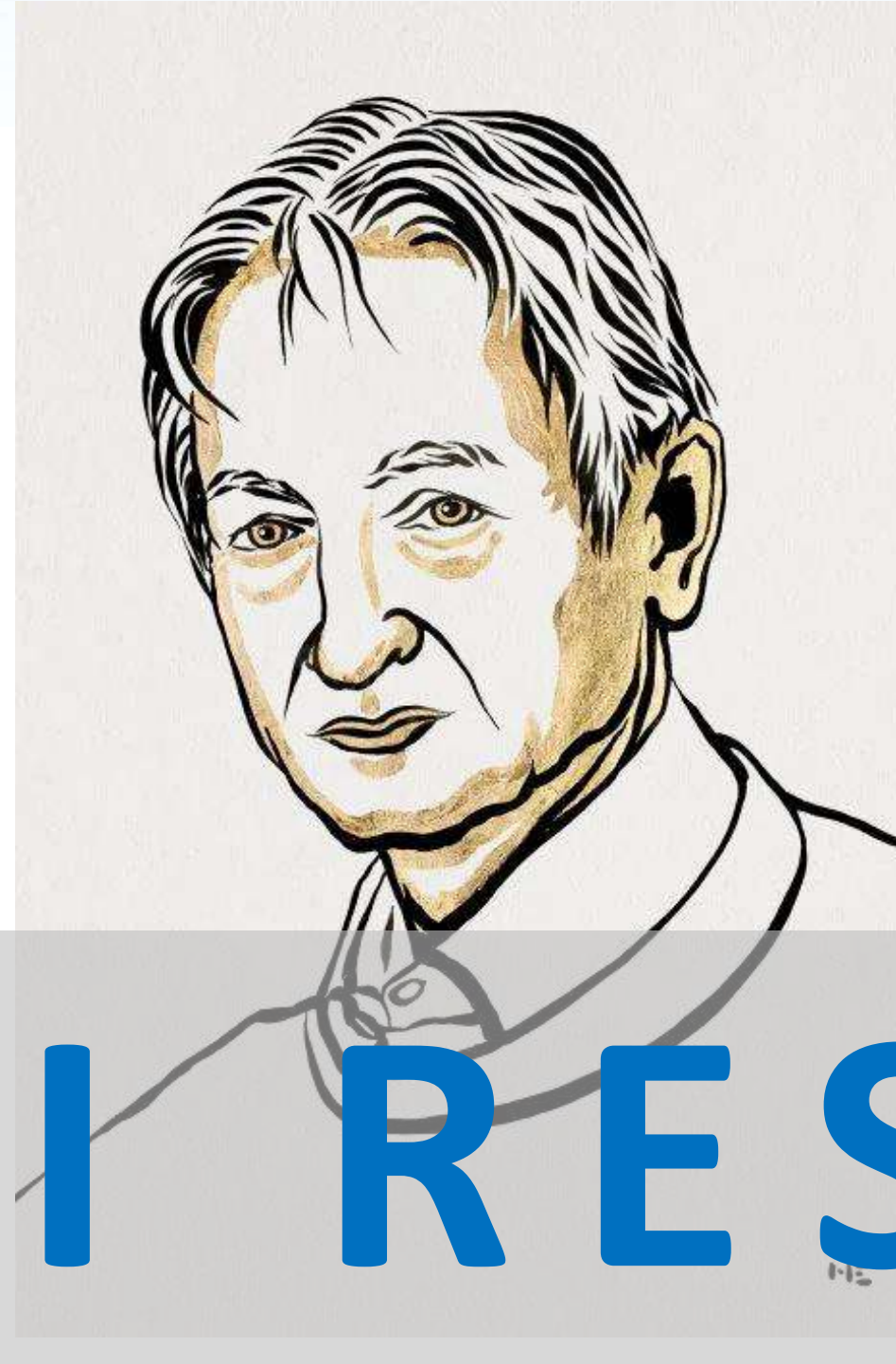
2024

NOBEL PRIZES



JOHN J.
HOPFIELD

THE NOBEL PRIZE
IN **PHYSICS** 2024



GEOFFREY E.
HINTON

THE NOBEL PRIZE
IN **PHYSICS** 2024



DAVID BAKER

THE NOBEL PRIZE
IN **CHEMISTRY**
2024



DEMIS HASSABIS

THE NOBEL PRIZE
IN **CHEMISTRY**
2024



JOHN M. JUMPER

THE NOBEL PRIZE
IN **CHEMISTRY**
2024

AI RESEARCHERS

2024

A I - B A S E D I N D U S T R Y D I S R U P T I O N

BUSINESS / TECHNOLOGY

How AI Is Powering On-demand Fashion

Resonance used AI and other cutting-edge tech to make over its on-demand fashion service, turning it into a new self-service platform called Resonance One.

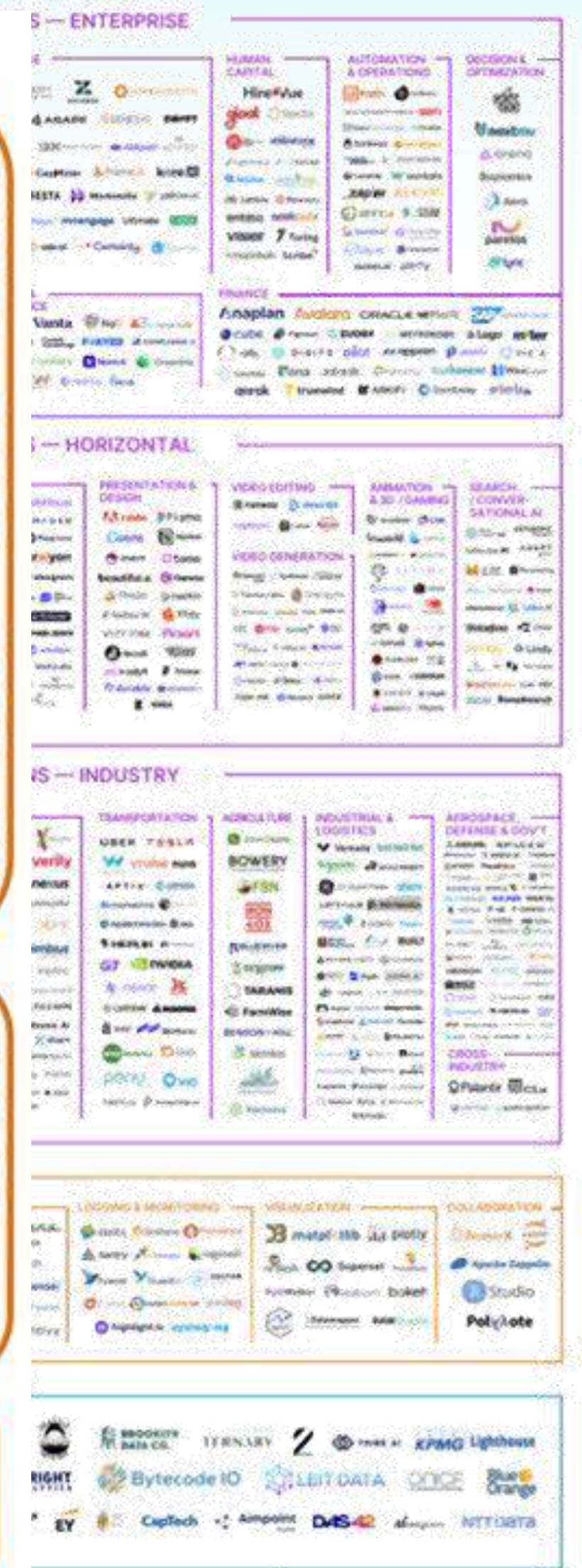
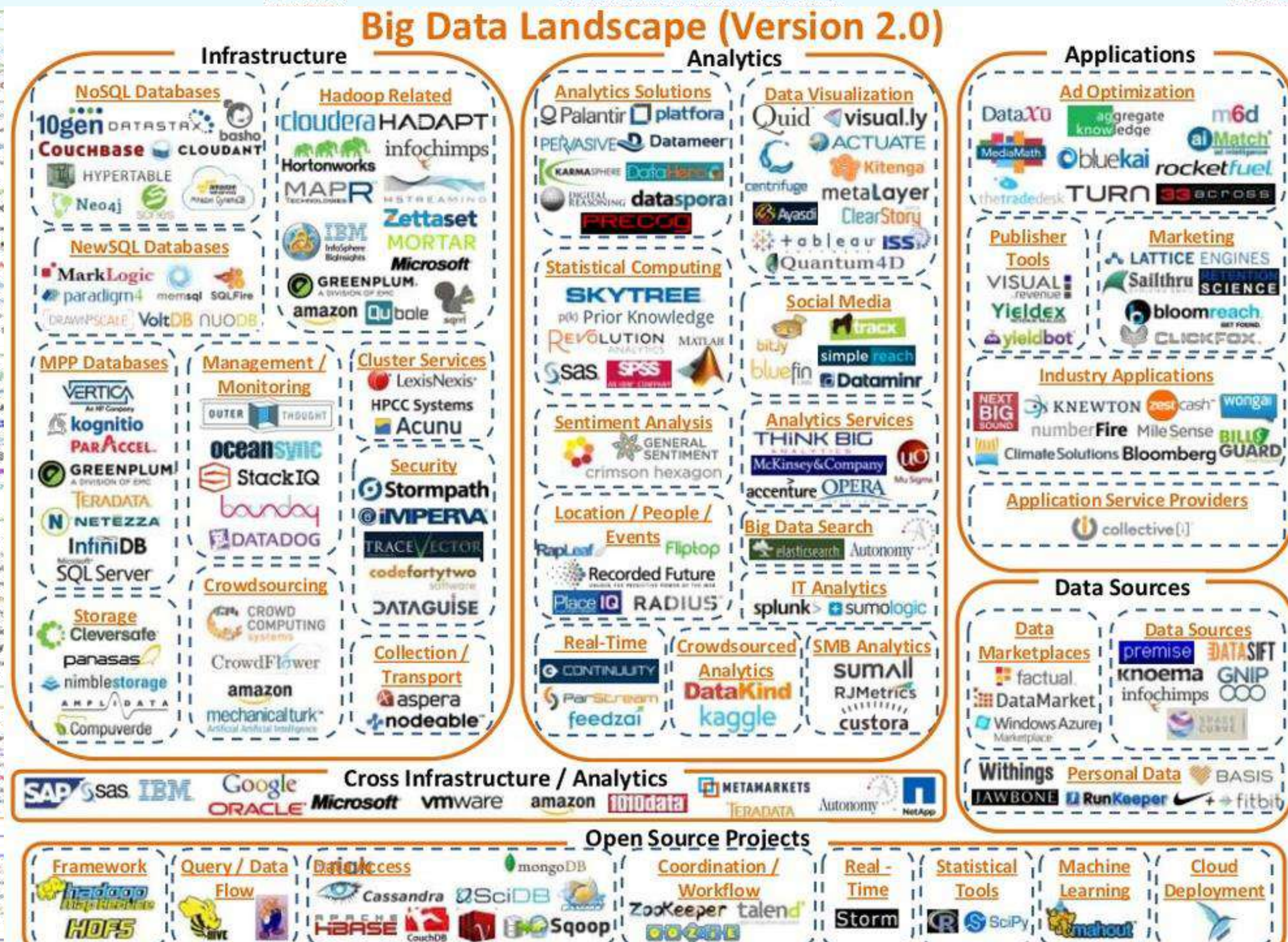
By **ADRIANA LEE**
SEPTEMBER 13, 2024, 1:00AM



2024

AI LANDSCAPE

THE 2024 MAD (MACHINE LEARNING, ARTIFICIAL INTELLIGENCE & DATA) LANDSCAPE



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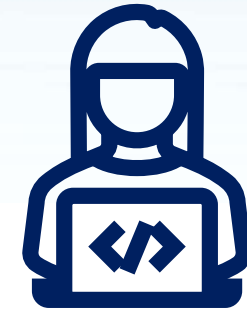
FIRSTMARK EARLY-STAGE VENTURE CAPITAL

2029

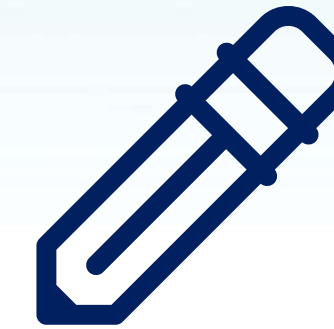
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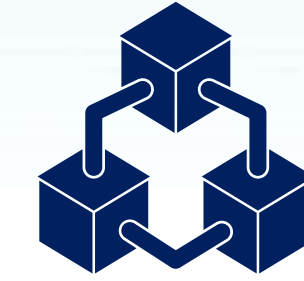
AI AS A
FOUNDATIONAL
TECHNOLOGY



HUMAN-AI
COLLABORATION



AI
GOVERNANCE
AND ETHICS



AUTONOMOUS
SYSTEMS AND
AI-DRIVEN
AUTOMATION

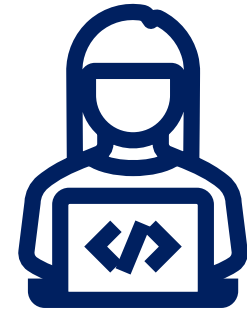
AI WILL LIKELY BE DEEPLY INTEGRATED INTO BUSINESS OPERATIONS, INFRASTRUCTURE, AND DECISION-MAKING PROCESSES. CONVERSATIONS ABOUT AI MIGHT SHIFT AWAY FROM "HOW CAN WE ADOPT AI?" TO "HOW DO WE OPTIMIZE AND GOVERN AI THAT'S ALREADY IN PLACE?" AI WOULD BE A PART OF EVERYDAY TOOLS, ENABLING REAL-TIME DECISION-MAKING, PERSONALIZED EXPERIENCES, AND AUTOMATION. IT WILL BE AKIN TO HOW WE NOW TREAT CLOUD COMPUTING—UBIQUITOUS AND ESSENTIAL, BUT NOT ALWAYS THE CENTER OF CONVERSATION.

2029

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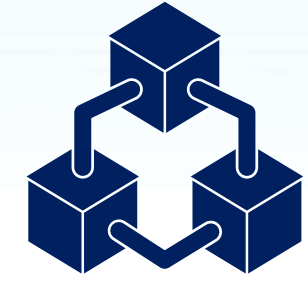
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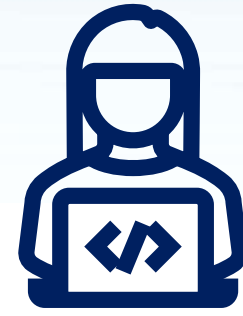
THE FOCUS MIGHT MOVE TOWARD HUMAN-AI COLLABORATION, WHERE AI ASSISTS IN DECISION-MAKING BUT WORKS ALONGSIDE HUMANS TO ENHANCE CREATIVITY, EMPATHY, AND ETHICAL JUDGMENT. INSTEAD OF REPLACING ROLES, AI WOULD AUGMENT CAPABILITIES. DISCUSSIONS WILL LIKELY INVOLVE HOW WE NAVIGATE THE RELATIONSHIP BETWEEN HUMAN EXPERTISE AND AI AUGMENTATION TO ACHIEVE OPTIMAL OUTCOMES.

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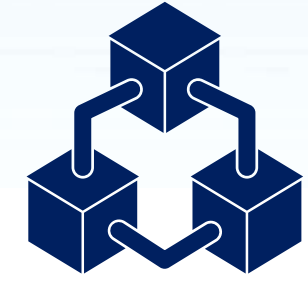
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AS AI BECOMES CENTRAL TO BUSINESS, GOVERNANCE, TRANSPARENCY, AND ETHICAL CONSIDERATIONS WILL LIKELY DOMINATE THE CONVERSATION. BUSINESSES WILL GRAPPLE WITH ISSUES LIKE AI ACCOUNTABILITY, BIAS, EXPLAINABILITY, AND FAIRNESS. REGULATIONS WILL LIKELY INCREASE, AND COMPANIES MAY NEED TO BALANCE AI INNOVATION WITH COMPLIANCE.

2029

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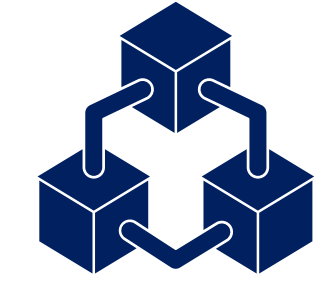
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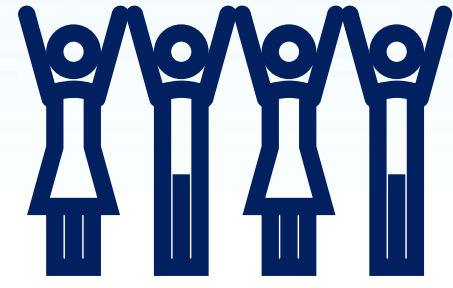
BY 2029, WE'LL PROBABLY BE DISCUSSING AUTONOMOUS SYSTEMS—RANGING FROM SELF-MANAGING SUPPLY CHAINS TO AI-LED BUSINESS DECISIONS. THESE WILL SHIFT FROM PILOT PHASES TO WIDESPREAD, TRUSTED DEPLOYMENT. AI-POWERED AUTOMATION WILL GO BEYOND REPETITIVE TASKS AND EXPAND INTO STRATEGIC DECISION-MAKING, CREATIVE GENERATION, AND HIGH-LEVEL OPERATIONS.

2029

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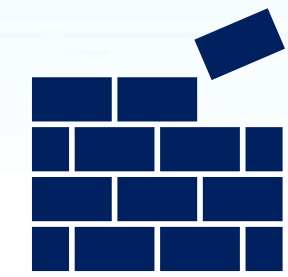
AI IN
SUSTAINABILITY
AND SOCIAL
IMPACT



AI
PERSONALIZATION
AT SCALE



AI
AUGMENTED
CREATIVITY
AND
INNOVATION



AI AS
INFRASTRUCTURE

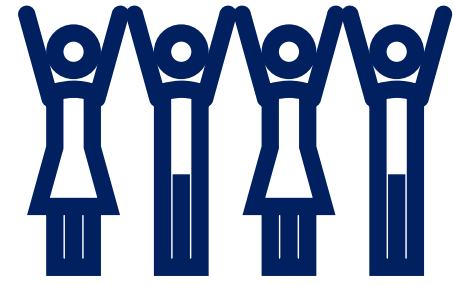
CONVERSATIONS MIGHT FOCUS ON AI'S ROLE IN ADDRESSING GLOBAL CHALLENGES LIKE CLIMATE CHANGE, HEALTHCARE, AND SOCIAL INEQUALITIES. AI-DRIVEN CLIMATE SOLUTIONS, ENERGY EFFICIENCY, AND HEALTHCARE ADVANCEMENTS WILL LIKELY BE CRUCIAL PARTS OF BUSINESS STRATEGY AND CORPORATE RESPONSIBILITY.

2029

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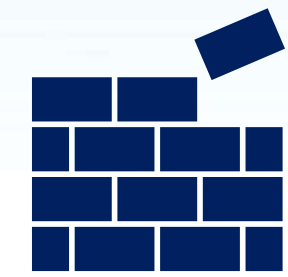
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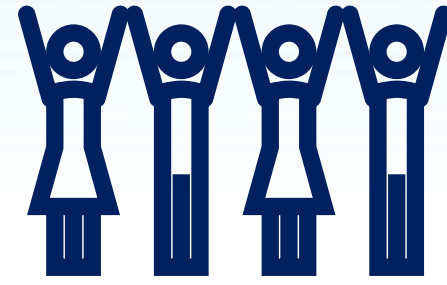
AI-DRIVEN PERSONALIZATION WILL LIKELY CONTINUE EVOLVING, ALLOWING BUSINESSES TO OFFER HYPER-PERSONALIZED EXPERIENCES, PRODUCTS, AND SERVICES. THIS WILL AFFECT EVERYTHING FROM CUSTOMER ENGAGEMENT TO EMPLOYEE WORKFLOWS.

2029

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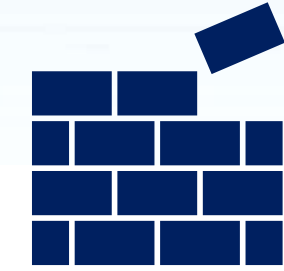
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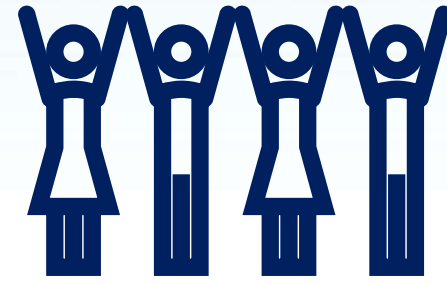
AI'S ROLE IN AUGMENTING HUMAN CREATIVITY AND INNOVATION COULD LEAD TO NEW FORMS OF PRODUCT DESIGN, MARKETING STRATEGIES, AND CONTENT CREATION. AI COULD ASSIST WITH IDEATION, PROBLEM-SOLVING, AND EVEN PRODUCT DEVELOPMENT IN WAYS WE'RE JUST BEGINNING TO EXPLORE.

2029

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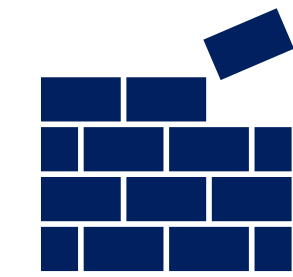
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AI AS
INFRASTRUCTURE

BY 2029, AI COULD BE PART OF THE INVISIBLE INFRASTRUCTURE THAT POWERS BUSINESSES. IT WILL HANDLE BACK-END PROCESSES LIKE DEMAND FORECASTING, DYNAMIC PRICING, RISK MANAGEMENT, AND COMPLIANCE MONITORING, SIMILAR TO HOW CLOUD COMPUTING WORKS BEHIND THE SCENES TODAY.