

DUBAI INTERNATIONAL PROJECT MANAGEMENT FORUM

5th EDITION

الدورة الخامسة

8 - 11 December 2018 • MADINAT JUMEIRAH • DUBAI



PARALLEL SESSION STREAM

Building Nations and Expanding Boundaries through Augmented Intelligence:

Project by Project

Murat Bicak
Senior Vice President
Project Management
Institute

BUILDING NATIONS

www.dipmf.ae



1

Al is a multiplier for increasing human's creativity. We should use it to solve the wicked problems of the earth.

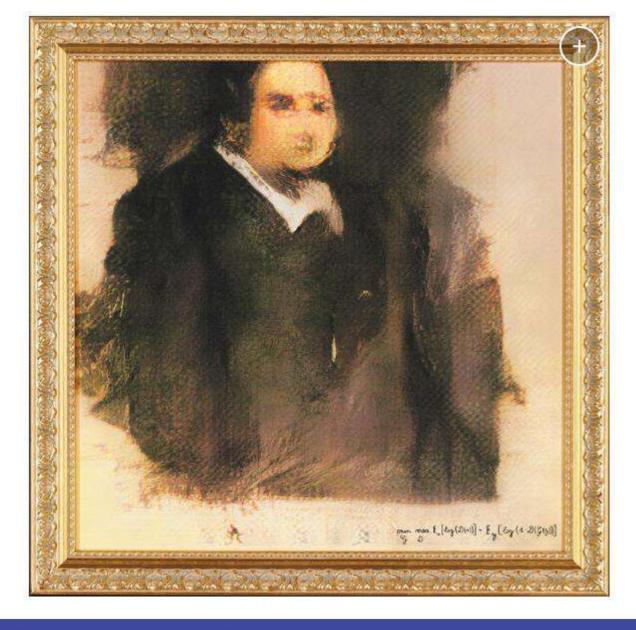












source: www.christies.com













$$\min_{G} \max_{D} \mathbb{E}_{x}[\log(D(x))] + \mathbb{E}_{z}[\log(1 - D(G(z)))]$$

source: www.christies.com

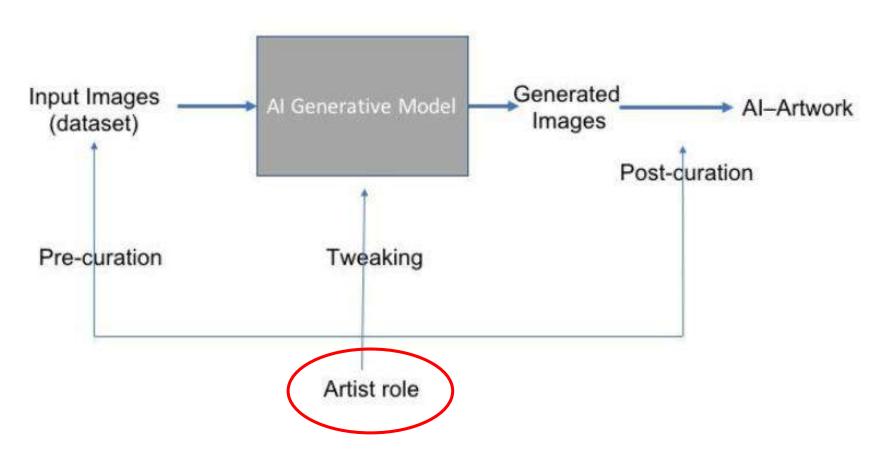












source: Al Art Creative Process. Courtesy of Ahmed Elgammal.















source: Al Art Creative Process. Courtesy of Ahmed Elgammal.











Al Art

75% of the time
human subjects thought
Al art
was made by a human artist.

Human Art

Only 48% of the time human subjects thought human art was made by a human.

source: Ahmed Elgammal.











Today, machines autonomously create artwork that we can hardly differentiate from work created by human artists.

Does that make machines creative?

Who is the creative agent in the process?













Climate change

- Clean power
- Smart transport options
- Sustainable production and consumption
- Sustainable land-use
- Smart cities and homes



Biodiversity and conservation

- Habitat protection and restoration
- Sustainable trade
- Pollution control
- Invasive species and disease control
- Realising natural capital



Healthy Oceans

- Fishing sustainably
- Preventing pollution
- Protecting habitats
- Protecting species
- Impacts from climate change (including acidification)



Water security

- Water supply
- Catchment control
- Water efficiency
- Adequate sanitation
- Drought planning



Clean air

- Filtering and capture
- Monitoring and prevention
- Early warning
- Clean fuels
- Real-time, integrated, adaptive urban management



Weather and disaster resilience

- Prediction and forecasting
- Early warning systems;
- Resilient infrastructure
- Financial instruments
- Resilience planning

source: PwC, WEF



























"There is nothing artificial about AI. It's inspired by people, it's created by people, and most importantly it impacts people. It's a powerful tool we are just beginning to understand. And that is a profound responsibility"

Fei Fei Li, Chief Scientist Google Cloud Stanford University













"A.I. is not negative or positive. It's in between. The future is not going to be a black or white. As with every technology on Earth, it really depends on how we use it and how we implement it."

His Excellency
Omar bin Sultan Al Olama





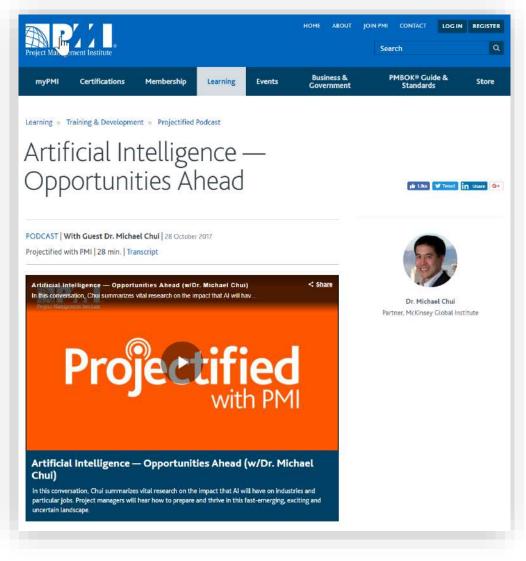


























Kids















STITCH FIX

YOUR PARTNER IN PERSONAL STYLE

Try the personal styling service for everyone! No matter your age, size or budget we've got styles for you.

 $WOMEN \rightarrow$

 $MEN \rightarrow$

KIDS →

















.



85+ data scientists 3,700+ employee stylists



Culture of teamwork, creativity, data and diversity

Transforming the way people find what they love







LTM Revenue²: \$1.2B LTM Adj. EBITDA³: \$45M



\$287M cash balance4

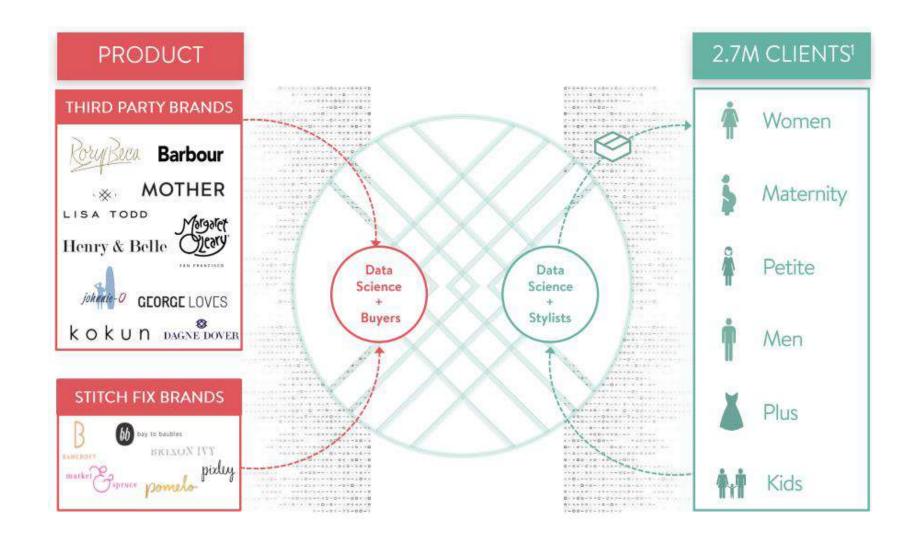












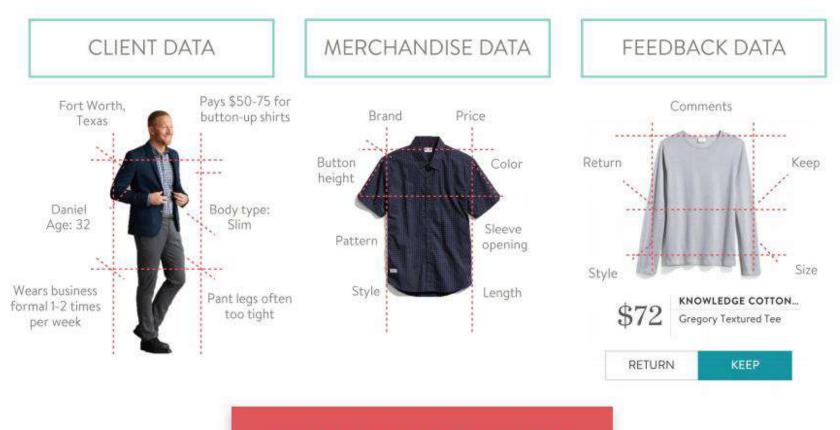












DATA THAT MATTERS





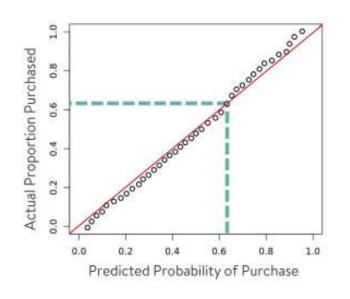


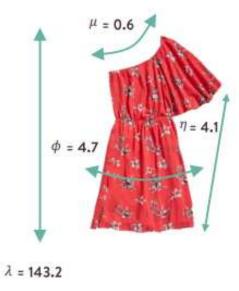




63% MATCH SCORE¹

















"Look at AI as a teammate that can do heavy things: heavy data analysis, heavy repetition of repetitive tasks...This allows people to focus on things like creative problem-solving and bouncing around ideas"

James Wilson, Author of Human + Machine: Reimagining Work in The Age of Al











The Jobs Landscape in 2022

Emerging roles, global change by 2022



Declining roles, global change by 2022



Top 10 Emerging

- 1. Data Analysts and Scientists
- 2. Al and Machine Learning Specialists
- 3. General and Operations Managers
- 4. Software and Applications Developers and Analysts
- 5. Sales and Marketing Professionals
- 6. Big Data Specialists
- 7. Digital Transformation Specialists
- 8. New Technology Specialists
- 9. Organizational Development Specialists
- 10. Information Technology Services

Top 10 Declining

- 1. Data Entry Clerks
- 2. Accounting Bookkeeping and Payroll Clerks
- Administrative and Executive Secretaries
- 4. Assembly and Factory Workers
- 5. Client Information and Customer Service Workers
- 6. Business Services and Administration Managers
- 7. Accountants and Auditors
- 8. Material-Recording and Stock-Keeping Clerks
- 9. General and Operations Managers
- 10. Postal Service Clerks



























Jobs will become an antiquated concept. Talent will increasingly work on projects and focus on delivering outcomes.























The New Organization Model

Organization Structure:

 $\hspace{1cm} \longrightarrow \hspace{1cm}$

Teams and Projects:

Jobs and Roles:

Managers:

Careers:

Flexibility and Space:

Rewards:

Culture:

Today

Hierarchical business functions

Teams formed slowly over time

Job descriptions, job levels, job titles

Managers "own" teams and people careers

Jobs are "owned" by the manager and not shared

People "assigned" jobs by management

People rewarded by level, tenure, experience

Inclusion, sustainability, diversity

Future

Projects, squads, teams, services

Teams assemble and disband quickly

Assignments, tasks, expert roles

Managers manage projects and "sponsor" people

Jobs open in transparent marketplace

People sought out based on skills, work on multiple projects

People rewarded by outcomes, reputation, sponsorship

Citizenship, collective thinking, shared values

source: Deloitte Consulting













Reimagine Work

- Assess tasks not jobs.
 Allocate work to machines and people, balancing the need for automation and augmentation.
- Create new job roles. Free people from function roles and build agile, project-based teams.
- Map skills to new roles. Assess internal capabilities required for new roles. Then match to existing skills or source new talent.



Pivot the Workforce

- Pivot the workforce to new business models. Orientate teams to support new customer experiences.
- Recognize the business case.
 Use automation to fuel growth by reinvesting savings in the future workforce.
- Organize for agility. Create flexible processes; manage the workforce to support both the core business and the new.
- Foster a new leadership DNA.
 Cultivate leaders at all levels to help pivot the workforce to new growth models.



Scale up New Skilling

- Prioritize skills for development.
 Strike the balance between technical, judgment, and social skills.
- Target 'new skilling.' Cater to different levels of skills and willingness to learn.
- Go digital. Use VR, AR and Al to accelerate the speed and scale of effective training.

source: Accenture



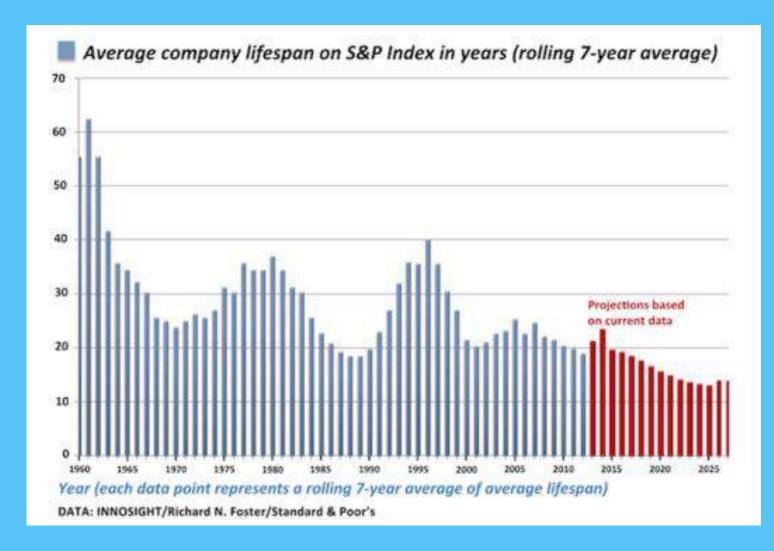












At the current churn rate 75% of S&P will be replaced by 2027

source: Innosight











Businesses recognize that value creation lies at the intersection of humans and intelligent machines



of business leaders expect the share of roles requiring collaboration with AI to increase in the next three years.



say that human-machine collaboration is important to achieving their strategic priorities.

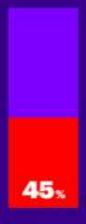


say that traditional job descriptions have become obsolete.

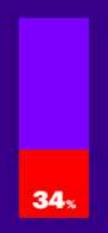
Workers are impatient to work with AI



It will be important to learn new skills to work with AI in the next 3-5 years.



Al will help me do my job more efficiently.



I am very confident in my skills to work with Al.

Their employers underestimate their willingness



of executives say they intend to increase investment in training and reskilling programs significantly in the next three years.

source: Accenture



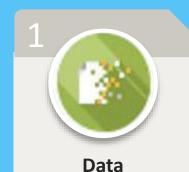








Top 6 Digital-Age Skills for Project Delivery



Science

Skills











PMI Pulse in Depth: The Project Manager of the World















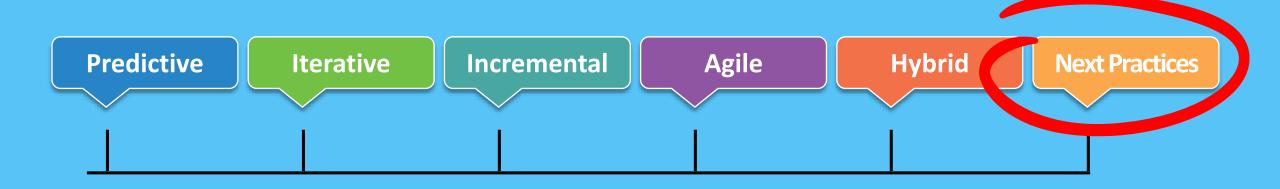








The Value Delivery Landscape













Summary Takeaways

- 1. All is a multiplier for increasing human's creativity.
- 2. All must be built responsibly and be used to benefit the larger society.
- 3. The future of work will be delivered by augmented teams; human machine partnerships will be central to success.
- 4. Jobs will become an antiquated concept. Talent will increasingly work on projects and focus on delivering outcomes.
- 5. Investing in Un-learning and Re-learning will be critical.











