



Arab Academy
for Science, Technology & Maritime Transport
الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري



معهد تدريب الموانئ
Port Training Institute

Training and Organizational Development Conference **TOD'25**



The Impact of **Artificial Intelligence** on the Future of the Human Workforce

"Building Today's Talent, Achieving Tomorrow's Excellence "

03-04 **DECEMBER** | 2025

Helnan Antoiades Palace Hotel
Alexandria- Egypt

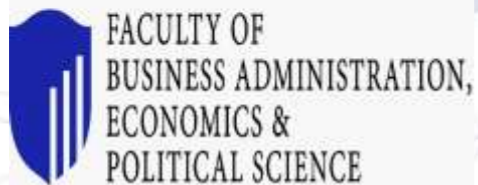


Training and Organizational Development
Conference **TOD'25**

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Transforming HR Practices Through Artificial Intelligence "Shaping Human Capital & Organizational Culture"



Dr. Bassant Adel Mostafa

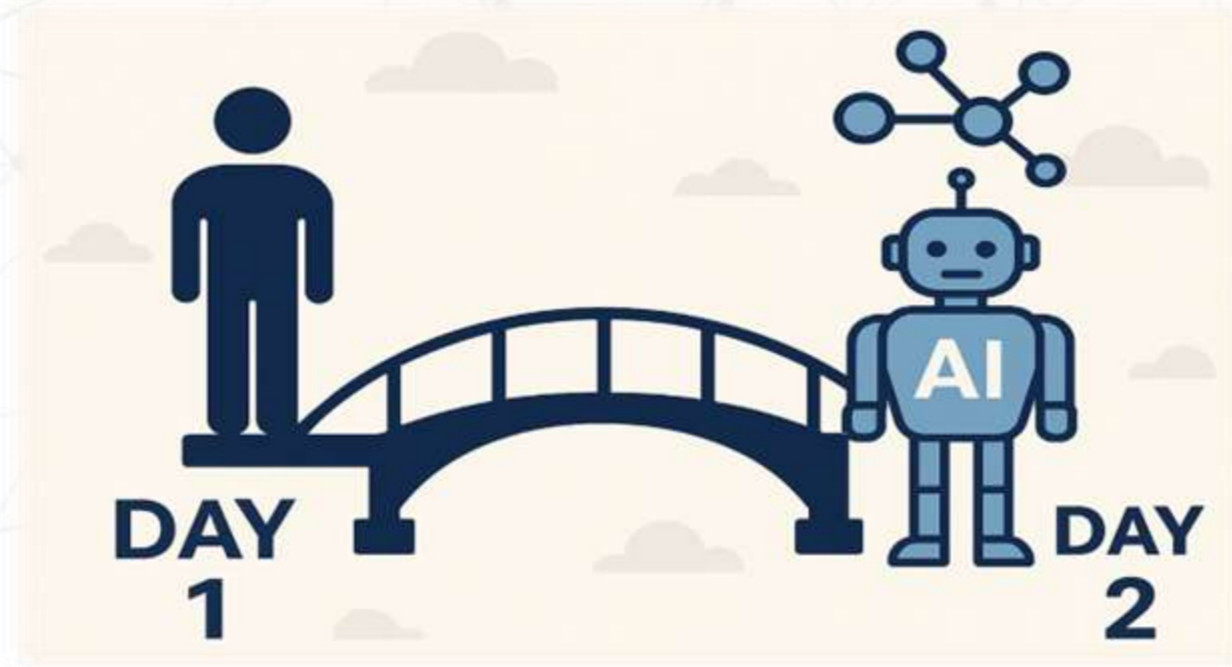
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“How AI truly transforms HR practices and human capital”



“AI transforms HR not by replacing the human element, but by amplifying it”

- Automates administrative tasks
- Strengthens people development
- Enhances decision-making
- Enables strategic HR leadership

Why AI Matters Now ?

- Rapid digital transformation pressures on organizations.
- Human capital must adapt to new skill demands.
- HR becomes the architect of future workforce capability.
- AI augments learning, development, and culture-building.

AI in Recruitment and Selection:

- Candidate Sourcing.
- CV Screening.
- Chabot and Virtual Assistants.
- Video Interviewing and Analysis.
- Candidate Matching and Ranking.

AI Tools in Recruitment and Selection:

 **attract.ai**

 **Manatal**

Hire★Vue

AI in Training and Development:

- Personalized Learning paths
- Adaptive learning platforms.
- AI-powered skill gap analysis.
- Automated performance feedback.
- VR/AR immersive training.
- Chatbots & virtual assistants for learning support.



AI Tools in Training and Development:



ChatGPT



talent  **lms**



VALAMIS

Challenges in Using AI in HR:

Despite its benefits, AI adoption in HR isn't easy.

- Skills Gap.
- Resistance to Change.
- Data Quality & Transparency Issues.
- Ethical & Trust Concerns.
- Cost Concerns.

Given all these AI tools, changes and challenges...

Who leads this transformation?

Leadership is the **starting point** for AI transformation to succeed.

What leadership behaviors and capabilities that truly drive real performance outcomes?



To understand which **leadership capabilities** truly drive performance in an AI-enabled environment, we **conducted an empirical study inside one of Egypt's leading public institutions.**

Designed a conceptual model linking **AI-driven leadership capabilities to sustainable performance.**

- Collected data from **366 middle and senior managers**
- Measured three leadership dimensions:
 - Technical capability
 - Adaptive capability
 - Transformational capability

Key Findings

- AI-driven leadership significantly improves sustainable performance.
- **Transformational capability** is the strongest predictor.
- Leaders who leverage AI create more agile, innovative cultures.

Variables	β (Beta Coefficient)	Significance (p-value)	R ²	Interpretation
AI-Driven Leadership (Overall Model)	0.673	p < 0.001	0.388	Explains 38.8 % of variance in Sustainable Performance
Technical Capability	0.202	p < 0.001	0.558	Significant positive predictor
Adaptive Capability	0.239	p < 0.001		Significant positive predictor
Transformational Capability	0.356	p < 0.001		Strongest predictor of performance

Implications for HR and Human Capital

HR must develop leaders who:

- Understand and apply AI tools.
- Adapt quickly to digital change.
- Inspire and motivate people.
- Foster experimentation and innovation.
- Support ethical, transparent AI use.

“AI transformation is ultimately a leadership transformation.”

Practical Actions

- Integrate AI literacy into leadership development.
- Build an agile, learning-oriented culture.
- Establish ethical and transparent AI practices.
- Embrace change management strategies to resistance.
- Use data-driven insights to guide HR strategies.
- Invest in continuous digital upskilling.

“AI can transform HR — but only when leaders transform first.”

Dr. Bassant Adel, Ph.D., FHEA

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*Thank
you*

A close-up image of a fountain pen nib, positioned at the end of the 'Thank you' text, suggesting a handwritten note or signature.