ROBOTICS APPLICATIONS IN HUMAN RESOURCE MANAGEMENT

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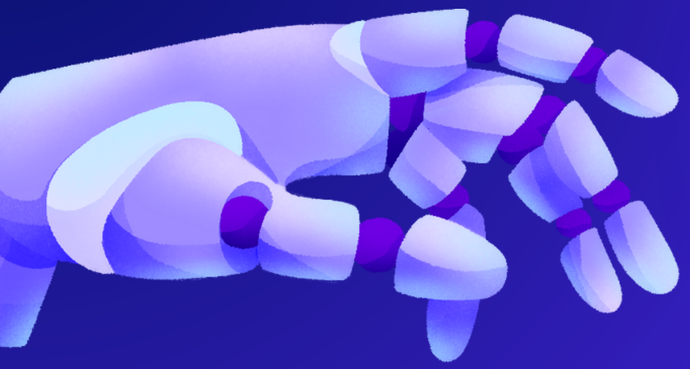
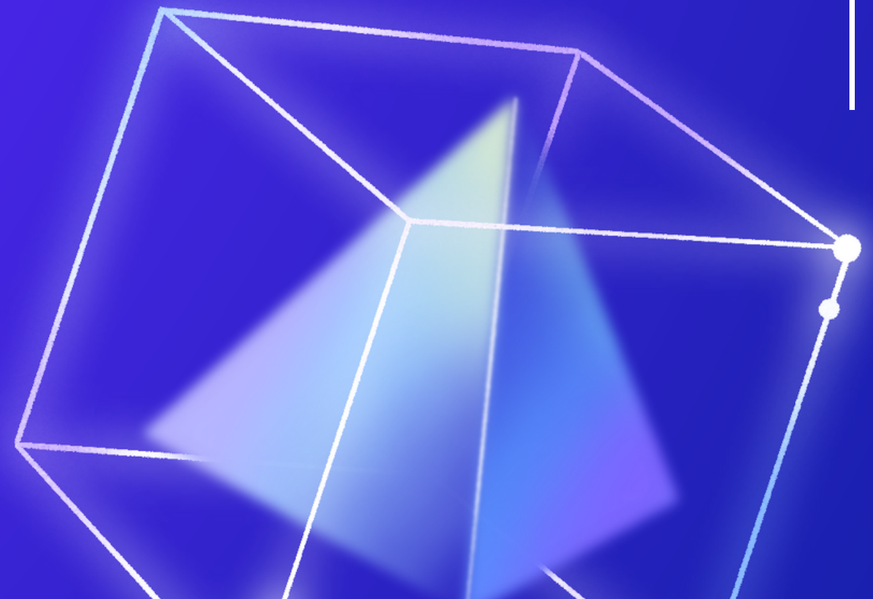


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HR FUNCTIONS



- HR Planning (Staffing)
- Job Analysis
- Managing Pay
- Recruitment / Selection
- Job Reduction
- Employee Relations
- Performance Management
- Training & Developnment

(Lepak, 2005)



DEFINITION

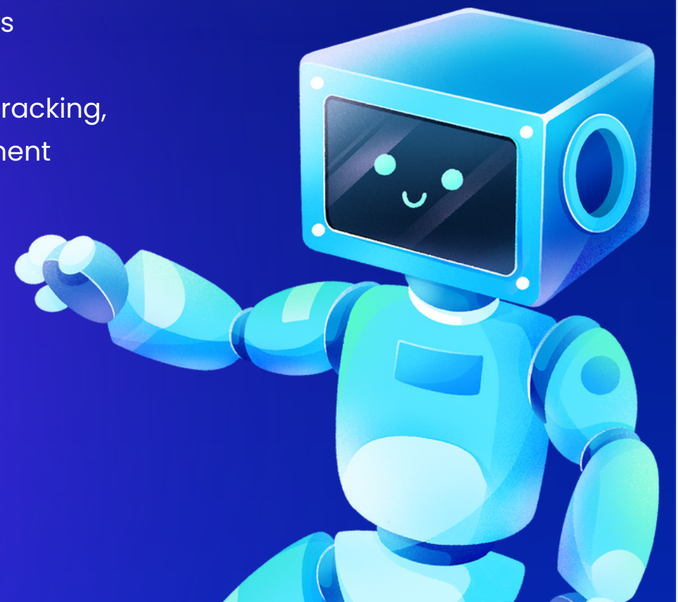
Robotics is a field that combines engineering and computer science to create and operate intelligent machines capable of assisting humans in a variety of tasks, with a focus on repetitive and rule-based activities (IBM, 2023)

FORMS

Robotic technology can take on various forms, such as a physical robot equipped with an AI brain to execute repetitive actions, as well as in the context of Robotic Process Automation (RPA).(UiPath Inc, 2017)

APPLICATIONS OF ROBOTICS AND RPA IN HR

Physical robots and RPA can assist HR in various aspects such as orientation programs, salary management, attendance and work schedule tracking, performance appraisal cycles, and reimbursement processes (Eastern Software Systems, 2023)



COMMON EXAMPLES

Vacuum cleaners, robot arms, etc.

PAIN POINTS ASSOCIATED WITH DELIVERING REPETITIVE ORIENTATIONS

Employee Onboarding and Orientation:
The Initial Stage of first touch = impression

01

Time-consuming Manual Data Entry Errors

The HR manager needs to spend 33% of their time handling administrative tasks (emplicity.com, 2020)

Creating and distributing documents such as offer letters, contracts, policies, and employee handbooks for each new hire can be a labor-intensive process

02

Poor Employee Engagement and Experience

New hires: need to filled many forms with repeated information

HR Office: The 87% disengagement rate is primarily caused by HR teams lacking sufficient time to address employee engagement (Eastern Software Systems, 2023)

03

Complex coordination

Coordinating training sessions, orientation programs, and scheduling individual meetings with different stakeholders can be a logistical challenge

04

Compliance and Documentation

Ensuring compliance with legal and regulatory requirements, such as employment contracts, tax forms, and confidentiality agreements, involves meticulous documentation and adherence to specific processes

ROBOTIC PROCESS AUTOMATION (RPA)

"RPA IS A FORM OF BUSINESS PROCESS AUTOMATION THAT ALLOWS ANYONE TO DEFINE A SET OF INSTRUCTIONS FOR A ROBOT OR 'BOT' TO PERFORM," (CASEY, 2020)

Typical RPA Workflow by using RPA

Preboarding and upload data by new hires

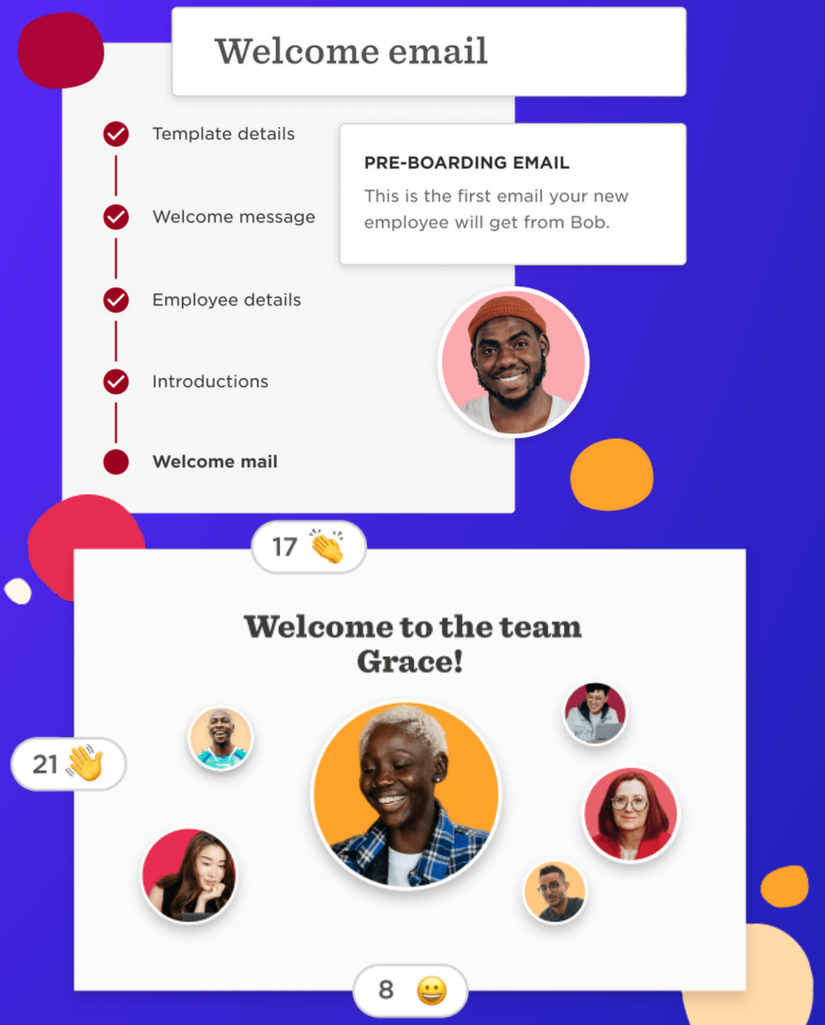
Official boarding Message to all

Welcoming message to new hire

Experience Customized Orientation

Training and Tests

Complete and Sign



ROBOTIC PROCESS AUTOMATION (RPA)

PROS AND LIMITATIONS

- Streamlining Repetitive Tasks: reduce manual errors and rework
- Optimizing Resource Utilization for HR professionals (50 % of the originally headcount can get the job done (Dhooper, 2023)) (using median 25K x 5 + 40K x 12 => save HK$990,000 annually)
- According to Alibaba, the cost of developing an RPA flow is $25,000 per year. (Alibaba, 2023)
- Enhancing employee productivity by freeing up time for more valuable work (Linkedin , 2023)
- Ensuring Compliance Efficiency and minimizing audit costs through improved efficiency
- Enhancing Data Accuracy and Quality (Linkedin , 2023)
- Enhancing decision-making capabilities through reliable data
- Efficiently scaling operations to meet demand while minimizing expenses (Bressington, 2023)
- Reduce Paper work for ESG goal as tend to favor organizations that actively pursue ESG (Kasia, 2023)

- Regulation and Compliance Challenges for fast-changing industry: pharmaceutical company
- Not be suitable for tasks that involve complex decision-making, creativity, or human interaction (Toczkowska, 2023)
- Cybersecurity



LIMITATIONS FOR CONDUCTING INTERVIEWS BY HUMANS

01

Biased Interview

70 % of companies indicated that appearance does indeed influence their willingness to hire during interviews (Yes123 Job, 2023).

02

Irrelevant Questions

Develops a favorable bias towards the interviewee based on personal connections or shared interests, such as supporting the same football team or holding similar viewpoints. (Johns, 2023)

03

Generalization

32% of hiring mistakes occurred because decision-makers opted for candidates based on personal likability rather than objective qualifications (Cooks-Campbell, 2023)

04

Cost of Poor Decision

A poor hiring decision can result in costs exceeding 30% of an employee's first-year earnings in terms of performance, have negative effects on employee morale and team productivity (Cooks-Campbell, 2023)

TENGAI - AI-EMBODIED ROBOT



OBJECTIVE 01
UNBIASED INTERVIEW

Conduct Unbiased Interview
"Blind interviews"
(Zengai AB, 2023)



OBJECTIVE 02
SCIENTIFIC SHORTLIST

Enable efficient and evidence-based candidate comparison and selection, facilitating a systematic approach
(Zengai AB, 2023)



OBJECTIVE 03
COST SAVING

Faster time to hire and delivering higher quality results, recruiters can effectively minimize the overall expenses associated with their recruitment process (Zengai AB, 2023)

PROS AND LIMITATIONS

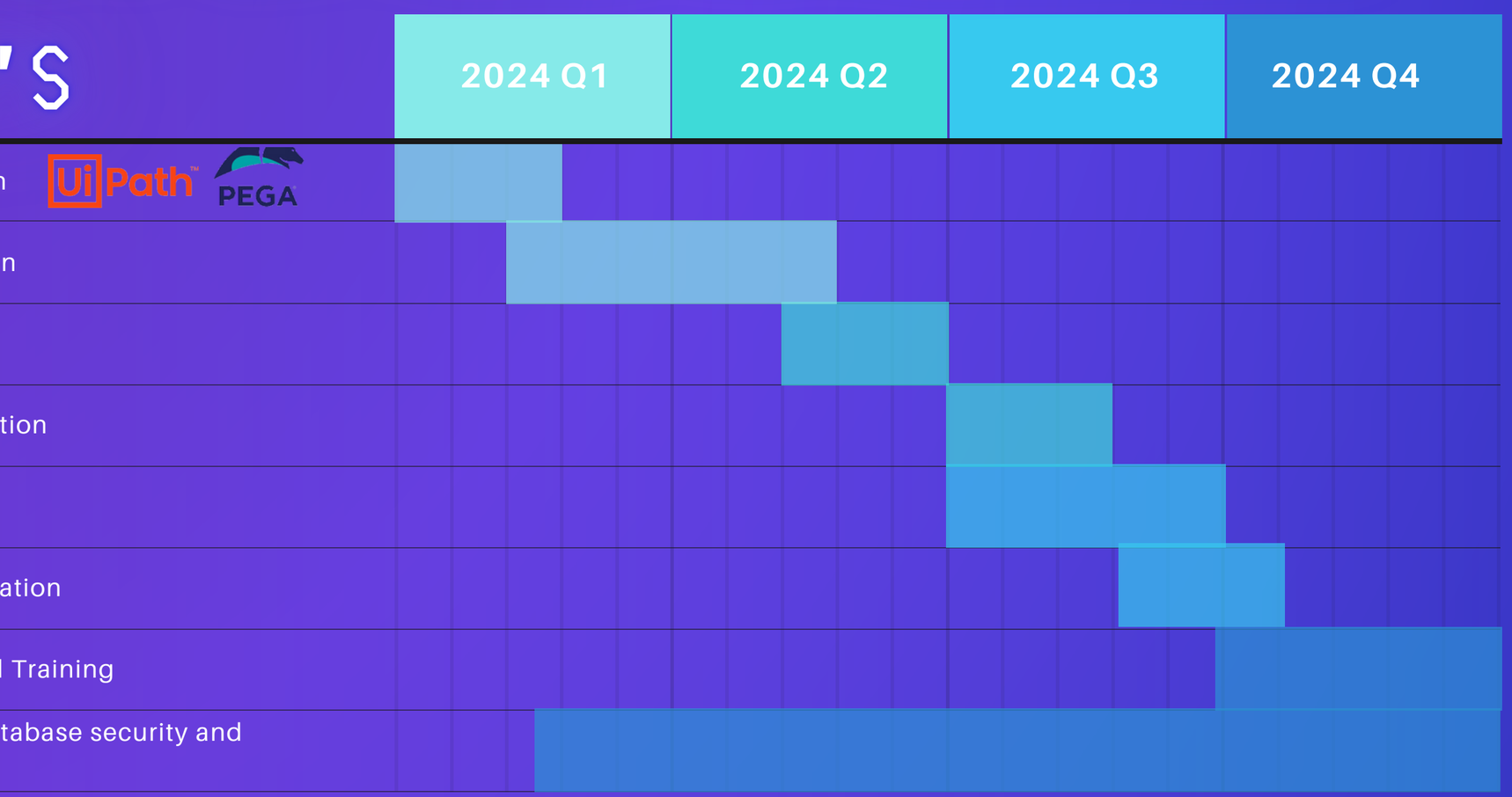
- Increased efficiency : 90% of candidates think Tengai's AI interview enhances the hiring process (tengai.io, 2022a)
- Enhanced candidate experience: 80% of candidates believe that a positive candidate experience significantly influences their decision to accept a job offer(tengai.io, 2022b)
- Standardization and Reduced bias: 80% of candidates think Tengai’ s AI interview can reduce the risk of discrimination (tengai.io, 2022c)
- Improved quality of hires
- Cost and time savings 100 hours (Apifonica, 2023)
- Scalability: Robot don’ t feel tired (HR in Asia, 2016)

- Lack of human touch and "Do I like to work with these colleagues?" cannot be experienced (BBC NEWS, 2019)
- Technical issues

GANTT CHART OF HR DIGITALISATION

(HR+IT+VENDOR, COLLEAGUES)

$ INITIAL COST OF “BOTS”: HK$25,000+ €795 (~HK$6,848)=HK$31,848



The Personal Data (Privacy) Ordinance
Cyberattack
Training! Training! Training!

THANK YOU!



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