DigitalWorld 2023 & NexComm 2023

Theme
AI - 360 Degrees around ChatGPT

Achievements and impossible-to-happen
    In-context situation patterns (dues to massive data and considering large time span).
    Doubts on Temporal aspects (especially with human perception of time)
    Lack of access to personalized information (individual brains).
    Lack of considered private (even shared) information (private discussions, private experiences)
    Lack of access to non-visible information.
    Lack of testing when in doubts (all resistors are green)

A result:

Some of arts, narrative, and music pieces (some might even make sense) a la Horoscope.
Same goes for Abstracts, surveys, etc. (collections of existing true/fake, facts/impostures, ...!)
Yet failing: Log (-3) = Log x => x = - 3 | One cannot longer trust solutions with quadruple integrals

(from public information)

- No matter how well-programmed AI machines are to respond to humans, humans are unlikely to develop such a strong emotional attachment to them. Therefore, artificial intelligence cannot replace humans, especially given that connecting with others is vital to business growth.

- Humanized AI
Humanized AI is that which **understands human emotions** like happiness, stress, urgency, anger and pain when humans display them through speech, facial and physical expressions, and has considerable empathy to respond to the end user in a human-like or natural manner.

- **NOT feeling human emotions, ONLY recognizing human emotions.**

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Moderator

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Panelists

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- **ChatGPT: Enemy or Friend?**
  - What is ChatGPT?
  - What is ChatGPT good/bad at?
  - What would we gain (Pros) and lose (Cons)?
    - tasks, jobs, occupations, applications
    - ethical and legal matters, security and confidential information matters, regulations and guidelines
    - impact on education, research, industry, economy, society
    - abilities and skills development
  - What should we do then?
    - education, research, jobs, industry, economy, regulations/guidelines, society
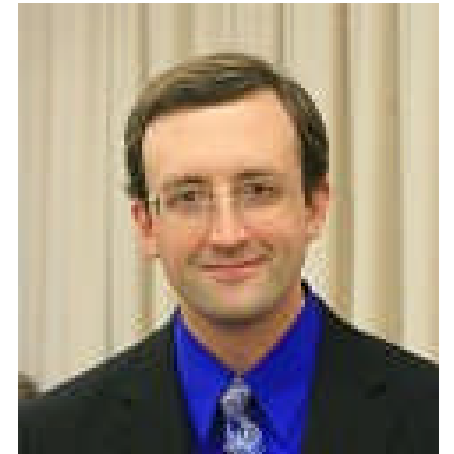
Kenji Suzuki

- **Popular Fiction about ChatGPT**
  - "ChatGPT is a language model": it says it is, but no – it's a conversational QA system.

  - ChatGPT is creative: this is still an interpolative model.

  - ChatGPT is a victory for neural computing: it's a victory for human computation and reinforcement learning.

Using AI in Human Resource Management (HRM) – Some reality checks

- What *promises* does AI hold for HRM?
  - Provide **intelligent assistance in HR services** (e.g., chatbots)
  - **Streamline time-consuming routine tasks** (e.g., candidate sourcing and screening, standard communication during the recruitment process, job ads and their promotion)
  - **Improve decision quality** by systematic analysis and intelligent decision support (e.g., performance feedback, candidate assessment, early detection of attrition)
  - Foster HR outcomes (= employee **satisfaction**, **performance** and **retention)**

- What *flaws* should we be aware of when using AI in HRM?
  - Risk to **reinforce** organizational decision **biases**
  - Some **concerns** by **managers** (doubt on precision of algorithms) and **employees** (e.g., because of privacy issues)
  - High **investments** for KI systems and training with company-specific data (in particular for Smaller and Medium-sized Enterprises, **SME**) – seems to be a major barrier for AI implementation ( )
  - Opportunities and drawbacks may **cancelling out** with respect to attracting, motivating and retaining talents (even with humans a slight disadvantage of AI as compared to humans)

- *Thesis*: AI-based technologies have an **enabling effect** for HRM (cost, time, quality). However, they are rather a tool to support **transactional** leadership activities than a technology that allows reaping the benefits of **transformational** leadership. The challenge for HR practitioners is to intelligently **combine** AI technologies with direct human-to-human interaction.

A closer look on AI for routine tasks in HRM:

- AI-enhanced chatbots can help to automate administrative tasks and to directly engage with employees based on human-like conversations (e.g. in HR services) [1]

- AI for designing job advertisements, promoting jobs and communicating with candidates [2]
  - Recruiters are not necessarily good in writing job ads – even standard KI such as ChatGPT is able to generate job advertisements and emails for candidate communication in good professional quality (also finding the right tonality)
  - However, for attracting outstanding talents, you need to go the last mile on your own:
    - realistic job previews with detailed information about the specific job and its context as means to improve self-selection and retention of candidates [3]
    - Studies show that recruiters' behavior has a significant effect on applicant attraction [4]

- AI in candidate sourcing and screening
  - Examples: pre-screening resumes, video-recorded interviews analyzed by AI technology – AI tools outperform humans in screening applicants and reduce time by factor 10 [2]
  - Risk of recruitment bias (prominent example: former Amazon's AI hiring tool [5]) – if high performers used as benchmarks display some biases with respect to gender, education, race or age, the AI will learn and perpetuate the biases [6], and lead to discriminatory practices in hiring and selection
  - Even if non-discriminatory: leading to less workforce diversity which may limit the capacity for organizational creativity and readiness for change

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AI-based decision making and automated feedback

- AI can **improve decision quality** (better information processing, being

  impartial and "treating all equally" – with positive effects on *procedural* justice

  (but: keep an eye on biases)

- AI has been found to increase the quality of **performance feedback**, but has two counteracting effects on employee productivity;

  - Productivity-enhancing *"deployment effect"* (resulting from higher accuracy, consistency and relevance of feedback)

  - *"disclosure effect* (i.e. employees negatively perceiving recommendations and decisions made by algorithms even if they are of good quality)

- The "**brutal honesty**" of AI-based feedback can also prevent employees from furthering [1]

- The lack of **emotional intelligence** in AI technologies (e.g. effective and meaningful communication, acknowledging the boundaries of employees) limits the benefits for employee satisfaction, organizational commitment and retention

[1] Votto, A. M., Valecha, R., Najafirad, P., & Rao, H. R. (2021). Artificial intelligence in tactical human resource management: A systematic literature review. *International Journal of Information Management Data Insights*, *1*(2), 100047.

[2] Chen, Z. (2023). Collaboration among recruiters and artificial intelligence: removing human prejudices in employment. *Cognition, Technology & Work*, *25*(1), 135-149.

[3] Phillips, J. M. (1998). Effects of realistic job previews on multiple organizational outcomes: A meta-analysis. Academy of Management journal, 41(6), 673-690.

[4] Uggerslev, K. L., Fassina, N. E., & Kraichy, D. (2012). Recruiting through the stages: A meta-analytic test of predictors of applicant attraction at different stages of the recruiting process. *Personnel Psychology*, *65*(3), 597-660.

[5] Lavanchy, M. (2018). Amazon's sexist hiring algorithm could still be better than a human. *The Conversation*.

[6] Lee, I., & Shin, Y. J. (2020). Machine learning for enterprises: Applications, algorithm selection, and challenges. *Business Horizons*, *63*(2), 157-170.

[7] Upadhyay AK, Khandelwal K (2018) Applying artificial intelligence: implications for recruitment. SHR 17:255

[8] Tong, S., Jia, N., Luo, X., & Fang, Z. (2021). The Janus face of artificial intelligence feedback: Deployment versus disclosure effects on employee performance. *Strategic Management Journal*, *42*(9), 1600-1631.

ChatGPT: How to separate Real Intelligence from Powerful Machines?

- Beware: ChatGPT Extracts from Sources Originating from Human Activities

- Explain the basics again: What is a Algorithm, what is Boolean Logic?

- Roger Penrose: All Classical Computers are Universal Computers

(Mathematical Proof often Ignored)

- Richard P. Feynman Key Note Speech on Simulating Physics

Difference between Universal Computer and Quantum Computer?

- Explain: The Unique Position of Human and Animal Intelligence and embrace its added value

- Fear summarized as

"Computers Will Take Over" "Computers Will Become Smarter"

Is dangerous if majority really believes this.

- Eduction:

Mandatory Report use of ChatGPT – use it, but report – Open Source Approach

- Beware of Replacing Crucial Positions in Society (Judges, Psychiatrists, Teachers),

Output highlights

- Deep learning, quick information gathering, reinforcement learning are useful for providing useful services; on this, ChatGPT provides prompt 'news-by-request'

- Impact of AI is visible in education, research, jobs, industry, economy, regulations/guidelines, society

- Up-front acceptance should be cautiously considered, as malicious features might alter the output.

- AI-based tools are improving the decision quality and the quality of feedback; the lack of emotional intelligence affect organizational recruiting, commitment, and retention

- Humanity will not be replaced by artificial entities as they do not posses

a)   - personalized memory(ies)

b)   - instant personalized thinking

c)   - visibility on any personal past activity

d)   - feeling of fear, emotions (eventually mimicking by instructions/learning or capable of understanding them from humans)