

Working with Beliefs: AI Transparency in the Enterprise

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Abstract—Dramatic success of machine learning has led to a torrent of Artificial Intelligence applications in various enterprises. Enterprises have come to a realization that in order to remain in competition, they must integrate AI with all their workflows. The use of AI in enterprises is increasing rapidly and is expected to become one of the most significant technological segments. AI can be beneficial to enterprises in a number of ways that changes the way in which organizations communicate & innovate their processes, engage with customers, and assess the sales process. AI can be useful to the enterprises in many forms, starting from problem solving applications and reasoning to social intelligence solutions and natural language generation.

Index Terms—AI transparency

I. INTRODUCTION

According to the father of Artificial Intelligence, John McCarthy, it is “The science and engineering of making intelligent machines, especially intelligent computer programs”. Artificial Intelligence is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think.

Artificial intelligence is a science and technology based on disciplines such as Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering. A major thrust of AI is in the development of computer functions associated with human intelligence, such as reasoning, learning, and problem solving.

Artificial intelligence is a branch of computer science that aims to create intelligent machines. It has become an essential part of the technology industry. Since the invention of computers or machines, their capability to perform various tasks went on growing exponentially. Humans have developed the power of computer systems in terms of their diverse working domains, their increasing speed, and reducing size with respect to time.

At the moment companies are using autonomous processes to improve operations, and change the face of customer service (through, for example, AI-powered chat bots), while spurring innovation to new heights. AI is a set of algorithms that can solve a specific set of problems – and it works best with a large amount of quality big data.

Almost every industry will be impacted and transformed by

‘AI’ and automation in the next few years. Manufacturing – perhaps more so than others – is one industry currently seeing the benefits of implementing this technology in operations. Over the next five years, these smart factories – using tech like robots and automation – will act as the catalyst for a new global economy and herald in Industry 4.0.

Simply, AI and automation – like some other emerging technologies – will allow businesses to cut costs, boost productivity by freeing up workers from more mundane tasks, increase agility and flexibility, and spur innovation – all the buzzwords.

Indeed, when done right, implementing this technology will allow businesses “to grow revenues, product lines and offer differentiated customer experiences,” says Barry Matthews, head of UK, Ireland and Netherlands at ISG.

But, there are various problems that are encountered when AI is used by enterprises. The same is explained using the following figure.

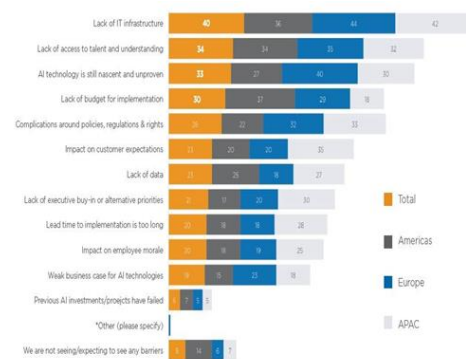


Figure 1: "What barriers are you seeing or expecting to see when trying to achieve AI realization across your organization?" split by respondent region. Asked to all respondents (200)

Fig. 1. Graph showing various problems that are encountered when AI is used by enterprises

Adoption rate of AI by SMEs and large enterprises in North America is comparatively high when compared to other regions. Asia Pacific is expected to be the fastest growing market for enterprise AI. Rising demand for enterprise AI in emerging countries such as Japan, China, and India is driving the market growth. Europe is also expected to show significant growth in enterprise AI over the forecast period. Middle East &

Africa region and South America are also expected to contribute toward growth of the market with lucrative opportunities in the long run.

There are various active players in the development of AI which includes AWS, Google Corporation, IBM Corporation, Intel Corporation, Microsoft Corporation, Oracle Corporation, SAP, Sentient Technologies, and Wipro Ltd.

The study is a source of reliable data on:

- Market segments and sub-segments
- Market trends and dynamics
- Supply and demand
- Market size
- Current trends/opportunities/challenges
- Competitive landscape
- Technological breakthroughs
- Value chain and stakeholder analysis

II. TRANSPARENT AI

We would say, the pragmatic selection of AI frameworks in endeavors that are making the move to Augmented Knowledge relies upon enabling not simply AI engineers be that as it may, vitally System Integration (SI) designers and business . Current AI frameworks, which include basically an AI design as the "human-on top of it", forget these essential voting public. In light of our encounters, we set the take after 4 mainstays of Transparent AI:

A. Available AI

SI specialists and business partners ought to have the capacity to make inquiries of AI without experiencing the AI specialist's interface. Advancement around there is most heartily being driven by the business, in light of the fact that there is business interest for this.

B. Reasonable AI

The answer that the AI returns with ought to be went with a few clarification, as the gathering of people for this answer is presently no longer simply the AI build. Advancement is this zone is most vigorously being driven by DARPA's XAI venture.

C. Intuitive AI

The non-AI design does not have a dataset to assess the AI's answer against. What they do have is convictions. It ought to be workable for the non-AI specialist to associate smoothly with the AI framework to alter the AI, maybe by altering its dataset in light of its answers. This procedure would proceed until either the AI is refreshed or the convictions are refreshed or both.

D. Tunable AI

Intelligent AI frameworks empower a inspired client to refresh an AI through simple communications. Making that a stride further, Tunable AI alludes to sets of innovations that can, given an AI framework, naturally recognize usable "tuners" for

an AI that can be used by end-clients.

III. REFLECTIONS FOR AI TRANSPARENCY

Human encounters have a tendency to be exceedingly dimensional; there are numerous angles to the human experience. There is too inconstancy to those encounters. Similarly, human convictions, which are a result of human encounters, might be portrayed as being lower in dimensionality and also in inconstancy. When we present computerized performing artists, advanced information, furthermore, computerized basic leadership (AI), we wind up at various focuses on the Dimensionality-Variability diagram of Fig. 2.

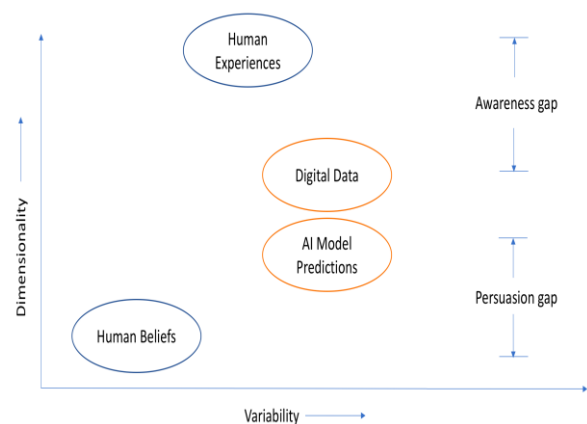


Fig. 2. Dimensionality-Variability diagram

Since computerized information may not catch everything that is experienced, we may see computerized datasets as having lower dimensionality than the information hidden human encounters. The forecasts made by AI from computerized datasets, may at that point be further lower in dimensionality, like the dimensionality contrast amongst encounters and convictions.

Two issues show up when an individual is given AI choices. In the event that they don't trust them since they don't line up with their convictions, they point to the absence of familiarity with the dataset as for their encounters. We should call this the Awareness Gap. The mindfulness hole is frequently utilized as a first line of safeguard to dismiss AI that offers no real way to alter it, autonomous of its logic highlights. Likewise, if an AI's choice isn't lined up with the client's convictions, it is critical that the AI have the capacity to comprehend this hole and convince the client by applying strategies from subjective science. One issue we find in the reasonableness writing is excessively of a certain supposition that sanity is a triumphant convincing contention though in reality this is a long way from the case.

Shutting the Persuasion Gap requires, in our experience, the capacity of the AI to draw in instruments that people routinely use to refresh their conviction frameworks, and plan of action to levelheadedness is just a single such system.

IV. CONCLUSION

The legitimized energy about current AI has brought numerous individuals in non-specialized parts in the undertaking into the circle of AI communication. Ventures are re-architecting themselves to go from "Insights Apart" – human and machines insights being separate – to genuine human-AI joint effort. In numerous endeavors, fusing AI into work processes experiences a crucial phase of testing in the event that it can function admirably with the current human chiefs in that work process. Human chiefs utilize arrangement with their existing

convictions as a method for tolerating AI into their group, much as they may for tolerating another human group part.

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