

The Human Factor: Why People Embrace (or Resist) Generative Artificial Intelligence

Vallari Chandna

School of Business, Maynooth University, Ireland

Praneet Tiwari

Trinity College Dublin, Ireland

Kanishka Mendhekar

 <http://orcid.org/0000-0001-9462-7290>

Cork University Business School, University College Cork, Ireland

ABSTRACT

The rapid diffusion of Generative Artificial Intelligence (AI) necessitates an exploration of why people adopt or reject it. A truly novel technology that has many of asking questions about intelligence, sentience, and the role of human beings needs to certainly be explored from a values standpoint. In this article, the authors use Schwartz's Values Framework to explore adoption of Generative AI. Yet, when it comes to adopting Generative AI, an individual's values are a part of a whole barrage of factors that may impact adoption. Other individual-level factors that are also likely to impact the adoption of Generative AI are explored in this article including varying levels of risk propensity of individuals, the ability to accept the black box problem of AI, varying levels of concern when it comes to biases, and ethical considerations regarding the workforce.

INTRODUCTION

In a matter of months, we have seen the rapid spread of Generative Artificial Intelligence (AI) through the easy availability of tools like ChatGPT, Stable Diffusion, Midjourney, Google Gemini, Microsoft Copilot, Adobe Firefly, and many more. It behooves us to explore whether the adoption of such tools is impacted by individual perspectives and characteristics and if so, what could these potential factors be.

Generative AI essentially refers to a type of AI designed to generate new, original data or content that is similar to examples it was trained on (Kanbach et al., 2024). Generative AI models are trained on massive datasets of existing content, and then by analyzing patterns and relationships involving this data, the models learn to mimic the styles and structures of the data (Budhathoki et al., 2024). Essen-

DOI: 10.4018/407610

tially, the various types of Generative AI, use the input of Big Data of a particular category based on their purpose, and they use this “knowledge” to create new outputs (Baidoo-Anu & Ansah, 2023). Open AI’s ChatGPT which is perhaps the most well-known of the current crop of Generative AI, is essentially trained on vast amounts of data including the Internet, and summarizes, synthesizes, and analyzes this unfathomable amount of data to primarily generate text content in response to the prompts which are input by users. Stable Diffusion is trained on online visual art from around the world and generates artistic visual output in the form of images or videos. Generative AI’s ability to generate novel content (whether text, images, audio, etc.), translate languages, and even aid scientific discovery, holds immense promise (Zhou & Lee, 2024).

Generative AI may have the potential to revolutionize content creation, but its widespread adoption hinges on a crucial factor: individuals. In this chapter, we do a deeper dive into individual characteristics, and related factors that better explain the adoption of Generative AI. We start by laying out the fundamentals of AI and Generative AI (a list of basic terms associated with Generative AI are included at the end of this chapter). We then discuss the critical role of individuals in widespread adoption of technologies in general. This is followed by our exploration of individual-level differences. We also utilize the theoretical underpinning of Schwartz’s Human Values Framework to shed more light on the human aspect when it comes to the adoption of Generative AI. This chapter thus seeks to explore various individual characteristics underlying the adoption of Generative AI. By focusing on the individual, we seek to highlight the critical role of the human component. Understanding these factors allows us to develop strategies to encourage responsible and beneficial adoption of Generative AI across various fields. Our chapter adds to the nascent literature on individual-centric factors influencing Generative AI adoption.

GENERATIVE ARTIFICIAL INTELLIGENCE

Background

At its core, the field of Artificial Intelligence (AI) is a part of the domain of computer science. The researchers, scientists, and engineers working in this field seek to create intelligent machines that can mimic human cognitive abilities (Alter et al., 2024). Over time, the term has evolved and is now distinct from Artificial Generalized Intelligence (AGI) which is understood to mean AI which completely replicates the complete spectrum of human intelligence. The latter may be a goal for many, but not something we are seeing currently. AI models or technologies are often referred to as intelligent agents that are essentially programs or robots that exhibit capabilities such as learning from data or experience to identify patterns followed by predictions, reasoning by analyzing data, and problem-solving such as when it tackles complex problems (Schmidgall et al., 2024; Yang et al., 2024).

Machine Learning and Deep Learning are the primary approaches underlying AI (Biju et al., 2024). Machine Learning focuses on training algorithms to learn data without explicit programming. The algorithms can analyze massive datasets, identify the patterns and relationships therein, and subsequently perform tasks or make predictions i.e. determine what comes next and generalize. Deep learning is inspired by the human brain and artificial neural networks are the underlying basis here to make models that excel at tasks like natural language processing. Generative AI leverages techniques from both. It primarily incorporates machine learning because it learns from vast quantities of data. It learns from this existing

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/the-human-factor/407610

Related Content

Recommender System for a Data Science Learning and Research Platform: Design, Development, and Implementation

Tenzin Doleck, Pedram Agandand Dylan Pirrotta (2025). *International Journal of Artificial Intelligence* (pp. 1-20).

www.irma-international.org/article/recommender-system-for-a-data-science-learning-and-research-platform/394241

Attitude Towards Teacher-AI Collaboration in Academic Writing Instruction: Transforming Future of English Language Teaching

Shawana Fazal (2025). *AI Applications for English Language Learning* (pp. 15-42).

www.irma-international.org/chapter/attitude-towards-teacher-ai-collaboration-in-academic-writing-instruction/372455

Playful Therapies: Use of Gamification in School Counselling

Kriti Vashishtha, Charu Dhankar, Shraddha Tripathiand Ruchi Joshi (2026). *AI in Learning, Educational Leadership, and Special Education: Innovations and Ethical Dilemmas* (pp. 157-186).

www.irma-international.org/chapter/playful-therapies/387516

A Multi Criteria Decision Making Method for Cloud Service Selection and Ranking

Rakesh Ranjan Kumarand Chiranjeev Kumar (2018). *International Journal of Ambient Computing and Intelligence* (pp. 1-14).

www.irma-international.org/article/a-multi-criteria-decision-making-method-for-cloud-service-selection-and-ranking/204345

Money Transaction Fraud Detection Using Harris Grey Wolf-Based Deep Stacked Auto Encoder

Chandra Sekhar Kolliand Uma Devi Tatavarthi (2022). *International Journal of Ambient Computing and Intelligence* (pp. 1-21).

www.irma-international.org/article/money-transaction-fraud-detection-using-harris-grey-wolf-based-deep-stacked-auto-encoder/293157