

UNIVERSITI TEKNOLOGI MARA

**ARTIFICIAL INTELLIGENCE (AI)
INTEGRATION AMONG CREATIVE
ART UNDERGRADUATE
STUDENTS: A UITM CASE STUDY**

AIMAN DANIEL BIN ROSLAN

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June 2026

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AIMAN DANIEL BIN ROSLAN

Thesis submitted in fulfilment
of the requirements for the degree of
Master (Arts and Design)

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I certify that a Panel of Examiners has met on 8 April 2026 to conduct the final examination of Aiman Daniel bin Roslan on his Masters of Arts thesis entitled “Artificial Intelligence (AI) Integration Among Creative Art Undergraduate Students: A UiTM Case Study” in accordance with Universiti Teknologi MARA Act 1976 (Akta 173). The Panel of Examiners recommends that the student be awarded the relevant degree. The Panel of Examiners was as follows:

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I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

Artificial intelligence (AI) is rapidly reshaping the creative industry, yet little is known on how Malaysian design students cope with it. Existing studies on AI literacy tend to focus on science and technology fields, leaving a significant gap of the creative arts. This study tackles that gap by exploring how thirty final-year undergraduate graphic design students from Universiti Teknologi MARA (UiTM), Puncak Alam weave AI into their academic work. Framed by Expectancy–Value Theory (EVT), this study captured student perspectives through six focus group discussions (each 60–90 minutes long), probing their experiences, attitudes, and the perceived costs and benefits of using AI. The findings reveal selective adoption. For instance, while 93% of participants use ChatGPT to spark ideas, few explored design-specific tools like Adobe Firefly or Photoshop Beta. Students consistently praised AI for boosting efficiency and aiding brainstorming but expressed heavy reservations about its impact on authenticity and originality. A clear disconnect presented, with institutional policies lagging behind the rapid realities of the design industry, forcing students to depend on other sources for guidance. From these discussions, four key themes emerged: authenticity concerns, perceived benefits and costs, institutional misalignment, and demand for guidance. The study highlights the need for immediate AI literacy initiatives supported by workshops and ethical guidelines, as well as longer-term curriculum reform and lecturer training. A discipline-specific model of critical AI integration is recommended to ensure that student preparedness for industry demands while safeguarding the originality and cultural heritage central to the design profession.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR’S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS	xi
CHAPTER 1 INTRODUCTION	1
1.1 Research Background	1
1.2 Motivation for This Work	6
1.3 Problem Statement	9
1.4 Research Objectives	15
1.5 Research Question	15
1.6 Significance of Study	15
1.6.1 Theoretical significance	16
1.6.2 Methodological significance	16
1.6.3 Social significance	17
1.6.4 Summary	18
1.7 Scope and Limitations	19
1.7.1 Scope	19
1.7.2 Limitations	20
1.8 Ethical Considerations	21
1.9 Thesis Outline	22
CHAPTER 2 LITERATURE REVIEW	24
2.1 Introduction	24
2.2 Digital and AI Literacy	25
2.3 Superintelligence by Nick Bostrom	26

2.4	Artificial Intelligence Concepts and Application	27
2.5	The Tidal Wave of Artificial Intelligence	31
2.6	AI Literacy in Creative Disciplines	32
2.7	Critical Perspectives on AI Literacy Education	33
2.8	AI in Malaysia	34
2.8.1	National AI Initiatives and Policy Framework	34
2.8.2	Summary	40
2.9	Expectancy-Value Theory (EVT)	41
2.9.1	Prior Applications of EVT in Technology Adoption and Educational Contexts	44
2.9.2	Extending EVT to Creative Arts	45
2.10	Conceptual Framework	47
2.11	Application of Framework and Theoretical Contribution	50
2.12	Summary	51
CHAPTER 3 RESEARCH METHODOLOGY		55
3.1	Introduction	55
3.2	Research Design	56
3.3	Participants and Sampling	57
3.4	Instrument Development	57
3.5	Data Collection Methods	58
3.5.1	Pre-Focus Group Survey	58
3.5.2	Focus Group Discussions (FGDs):	59
3.6	Data Analysis	59
3.7	Trustworthiness and Rigor	61
3.8	Ethical Considerations	62
CHAPTER 4 RESULTS		63
4.1	Introduction	63
4.2	Participant Background and AI Usage Patterns	65
4.3	Thematic Analysis Findings of FGD's	67
4.3.1	Theme 1: Authenticity Concerns	69
4.3.2	Theme 2: Perceived Benefits of AI Tools	72

4.3.3	Theme 3: Institutional Contradictions	74
4.3.4	Theme 4: Demand for Guidance	76
4.4	Cross-Cutting Observations	79
CHAPTER 5 DISCUSSION		80
5.1	Introduction	80
5.2	Authenticity as a Primary Cost Barrier in Creative Contexts	80
5.3	Expectancy Beliefs and the Text-Based AI Divide	82
5.4	The Demotivating Effect of Institutional Contradictions	83
5.5	Theoretical Extension of EVT for Creative Fields	85
5.6	Bridging the Gap of Policy and National Aspiration	86
CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS		89
6.1	Introduction	89
6.2	Findings by Research Question	90
6.3	Recommendations	92
REFERENCES		95
APPENDICES		104
AUTHOR'S PROFILE		111

LIST OF TABLES

Tables	Title	Page
Table 3.1	Summary of Research Data Collection and Analysis	55
Table 4.1	AI Tools Usage Among Participants (<i>n</i> =30)	66
Table 4.2	Themes and Subthemes	67
Table 4.3	Mapping of Emergent Themes to EVT Constructs	68

LIST OF FIGURES

Figures	Title	Page
Figure 2.1	Research Framework Based Off EVT	41
Figure 2.2	The Conceptual Framework of this study based on Expectancy- Value Theory (EVT).	48
Figure 3.1	Research Framework Based On EVT	56

LIST OF ABBREVIATIONS

Abbreviations

4IR	Fourth Industrial Revolution
AGI	Artificial General Intelligence
AI	Artificial intelligence
AIGE	National Guidelines On AI Governance and Ethic
AI-Rmap	National AI Roadmap
BNM	Bank Negara Malaysia
CCA	College of Creative Arts
EMR	Electronic Medical Record
EVT	Expectancy-Value Theory
FS4A	Future Skills For All
GAIV	Global AI Village
GenAI	Generative Artificial Intelligence
HIDE	Hotspot Identification by Dynamic Engagement
ID	Identification
LLM	Large language model
MACC	Malaysia Anti-Corruption Commission
MASTIC	Malaysian Science, Technology Information Centre
MOU	Memorandum of Understanding
NACS	National Anti-Corruption Strategy

NAI	Narrow Artificial Intelligence
NAIO	National AI Office
NFT	Non-fungible token
NIMP	New Industrial Master Plan
OECD	Organisation for Economic Co-operation and Development
SDT	Self-Determination Theory
STEM	Science, Technology, Engineering, and Mathematics
UiTM	Universiti Teknologi MARA
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPM	Universiti Putra Malaysia
UTM	Universiti Teknologi Malaysia
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

1.1 Research Background

The trajectory of artificial intelligence (AI) has moved far beyond its origins as a specialised computational field. It now functions as a powerful transformative force, one on a global scale at that, by actively reshaping established practices across numerous sectors. This disruption is that much more profound particularly within the creative industries. In the creative context, tasks and processes that were once considered to be the exclusive domain. One that consists of human intuition, skill, and emotional expression are increasingly becoming more and more augmented. In certain instances, they are being entirely automated by sophisticated algorithms (Liang, 2024; Zailuddin et al., 2024). The implications for creative education are significant. Raffaghelli and Stewart (2020) argue that digital literacy frameworks in higher education have been slow to respond to the pace of technological change, particularly in disciplines where human expression is central. This lag is compounded in creative fields by the absence of discipline-specific AI governance frameworks, leaving students and educators to navigate adoption without institutional scaffolding. The recent emergence of Generative AI (GenAI) has dramatically accelerated this shift even more. As a subset of machine learning, GenAI can produce novel text, imagery, and other media from simple user prompts. This capability introduces a paradigm of unprecedented opportunity. It also, however, raises significant ethical dilemmas that the creative world must now confront (Chan & Hu, 2023). In the artistic career sector, the field of graphic design is located precisely at the intersection of artistic expression and effective communication. Graphic design is finding itself at the heart of this transformative and powerful transition. As of currently, AI tools are rapidly without a wind of caution, becoming embedded within professional workflows. This integration and new dynamic demands a new form of literacy from the upcoming generation of practitioners.

The conceptual foundations of AI itself warrants a brief exploration. The concept of machines capable of human-like thought has been a subject of academic and public discourse for over half a century, traceable to the pioneering work of Alan Turing

(Kaplan & Haenlein, 2019). In modern and simple terms, AI is a multifaceted technology. Its prowess is evident in diverse applications, from commercial retail to the unsettling creation of 'deepfake' videos, in which the latter posing a tangible threat to psychological security and political stability (Pantserev, 2020). This very range highlights the duality of the technology and the profound responsibility required in its application. Fundamentally, AI is built upon several key components. These include machine learning, deep learning, neural networks, natural language processing, and computer vision (Takyar, 2023). Generative AI, or GenAI, refers specifically to those machine learning algorithms designed to create new data. They generate outputs this can be text, images, or codes that plausibly mimic existing datasets in response to user prompts (Chan & Hu, 2023).

To pull this discussion this into even further depth, at a more specific and micro scale instead of the global scale, it is only right that we turn to Malaysia, our country. The Malaysian national context as whole, mirrors this global change. Although, in particular and of peculiarity, it has its own unique dynamics when it comes to this new brought upon change. Firstly, the Ministry of Science, Technology and Innovation (MOSTI) has published its take on AI framework, known as Malaysia National Artificial Intelligence Roadmap (AI-Rmap 2021-2025) in December 2023. Not that much later, late next year in September 2024, they released the National Guidelines On AI Governance and Ethics (AIGE). AIGE, follows the principles set by United Nations Educational, Scientific and Cultural Organization (UNESCO), the Organisation for Economic Co-operation and Development (OECD)), the European Commission, and others to guide the development of Trusted and Responsible AI. It delivers a thorough ethical framework based on seven fundamental principles: Fairness, Reliability, Safety and Control, Privacy and Security, Inclusiveness, Transparency, Accountability, and the Promotion of Human Welfare and Joy. These principles, although relevant in every sector adopting AI, gain an even specific significance in creative sphere, particularly in education, where the issues at hand encompass not only technical skills but also concerns regarding artistic control, cultural representation, and ethical standards in the profession. It is also highly important to note and distinguish that the Malaysia Science and Technology Information Centre (MASTIC) is a department within the Ministry of Science, Technology and Innovation (MOSTI).

The Malaysian federal government has demonstrated a clear commitment to technological advancement. They have done and proved their word, putting the money

where the mouth is through strategic initiatives. In particular, there are a couple of important programs to be highlighted when discussing this subject matter and prove as an example even further. There are two programs spearheaded by the Malaysian government. Programs such as the national ‘AI untuk Rakyat’ and the Selangor state’s ‘Future Skills for All (FS4A)’ both aim to foster digital readiness and public awareness of AI (MyDIGITAL, 2025). The former example ‘AI untuk Rakyat’ program, was launched in early 2024 as the nation’s first self-learning online platform for AI literacy. It has seen a remarkable uptake. It has achieved of over one million participants in under six months which dramatically shattered the initial expectation and how to program is received. Concurrently, broader national policies like the New Industrial Master Plan 2030 (NIMP 2030) explicitly position AI as a critical driver for future economic growth and technological innovation. Despite this, there lies a critical and persistent gap, one that cannot be turned away and be seen. The matter is that there is the gap between these macro-level, top-down policy ambitions and their effective translation into specific pedagogical practices within higher education. This disconnect is especially pronounced in the creative arts (Ahmad & Ghapar, 2019). While the nation aspires toward a technology-driven economy, it misses on key factor that determines its success and achievability of this aspiration which is the preparedness of its future creative workforce to operate within an AI-saturated industry. The preparedness of these creative people in their future creative career remains heavily inadequately understood. It is also, arguably, insufficiently supported by current educational frameworks.

The implications of this transition are being intensely debated out loud social media, in different mediums such as writing, audio (podcasts) and videos within pockets of the whole global creative community, not just Malaysia. This shows that the creative industry and the people that make up for it are dealing with the same issue. In a very short span of time, AI has emerged as a prominent and disruptive force in creative spaces (Fam, 2024). While some users of AI embrace its potential, others voice deep-seated scepticism and anxiety regarding its implications for job security and artistic integrity. We see now that it is not rare, even common for individuals to get commissioned for creative work using AI. These individuals identify themselves as AI artists and some do not even disclose that they use AI for these commissioned artworks. In 2022, a game designer entered and won a Colorado state fair fine arts competition in the digital art category with his ‘Théâtre D’opéra Spatial’ made by MidJourney. It took victory over the more ‘traditional’ ways of making digital art. Soon after this

controversy, artists and the public alike took to ArtStation, a professional art portfolio website and social media to ban AI art. This incident triggered a widespread debate and led to protests from artists and the public alike which still persists today using it as a subject matter. However, there is a deeper fundamental ethical problem which lies beneath these tensions. Many of these powerful text-to-image models are trained on vast datasets, one in particular is the LAION-5B, which aggregate images from across the web often without the consent of the original artists (Chayka, 2023). This practice challenges the very core principles of intellectual property and authorship. It leaves and shows that the legal and ethical landscape of GenAI largely unregulated. In response to these global challenges, organisations like UNESCO, have released guidance for the use of GenAI in education, advocating for a human-centred approach to these emerging technologies.

It is within this complex and evolving landscape that the present study is situated in. This study focuses with the intentional focus on a pivotal group: final-year undergraduate students in the Graphic Design programme at Universiti Teknologi MARA (UiTM), Puncak Alam campus. These creative individuals stand at the critical boundary between structured academic training and the evolving requirements of professional practice. Their ability to engage with AI tools both critically and competently will significantly influence their personal employability. It is not limited to that but their whole future creative autonomy, and arguably, the broader cultural trajectory of Malaysia's creative industry. Therefore, understanding their current engagement with AI which includes their awareness, their perceptions, and their competencies is not merely an academic task. It is an urgent necessity to align educational outcomes with imminent industry demands.

Universiti Teknologi MARA was purposefully selected as the research site because of its established role in creative arts education in Malaysia. Expanding on this reason, the Faculty of Art and Design, was actually named as *Kajian Seni Lukis & Seni Reka*, (the study of arts and design) rather than what it is called and more commonly known now as *Fakulti Seni Lukis dan Seni Reka*. It began its history as *Kajian Seni Lukis dan Seni Bina* (Study of Fine Art and Architecture). It was considered and seen now as an early effort by the institution to make design education accessible locally at a time when such opportunities were largely confined to overseas institutions (Perpustakaan Tun Abdul Razak, Jabatan Arkib Universiti, 2018). The faculty's inception, which is a deliberate choice showed the pioneering spirit and the forward-

thinking approach to nurture local artistic and design talents within Malaysia. An initiative which broaden the horizons of design education on domestic level all the while paved the way, giving chance for aspiring artists and designers to dive deep into their passion, and making a living out of it without being bound by things like geographical constraints, thereby fostering a vibrant creative community deeply rooted in Malaysian heritage and creativity. It is because of these factors and implications; the study was deemed even more suitable at the institution considering the research topic. The selection of UiTM's Puncak Alam campus, specifically its Faculty of Art and Design, is deliberate and well-justified. Universiti Teknologi MARA holds a prominent position as a leading institution for creative arts education in Malaysia. Its Art and Design subject has achieved a notable ranking, placing in the top 240 globally in the 2023 QS World University Rankings by Subject. This accolade ultimately reflects the institution's commitment to excellence. Turning back to the Puncak Alam campus, the Puncak Alam campus itself in particular provides a unique and varied collection of art programmes under the Faculty of Art and Design, it is also housed within a modern infrastructure that includes forward-thinking and vibrant events which promotes discussion and creative communities like symposiums and festivals. Furthermore, UiTM's consistent performance in the Times Higher Education (THE) Impact Rankings demonstrates its dedication to the United Nations' Sustainable Development Goals (SDGs). This alignment is especially significant, as the research topic connects directly to several SDGs. Enhancing digital literacy and knowing the integration of AI contributes to SDG 4 (Quality Education) by promoting inclusive and equitable learning. It supports SDG 5 (Gender Equality) and SDG 10 (Reduced Inequality) by empowering a diverse student body with future-ready skills. The focus on ethical application aligns with SDG 16 (Peace, Justice, and Strong Institutions), and the necessary collaboration between academia and industry resonates with SDG 17 (Partnerships for the Goals). Universities, industries, and policymakers play a central role in determining how innovations such as AI are embedded in curricula and professional preparation (Xu et al., 2025). Within this landscape, student perspectives remain essential, as they directly shape learning approaches, creative processes, and eventual professional practice (Chan & Hu, 2023). This study addresses this gap by exploring the integration of AI among creative art undergraduate students at Universiti Teknologi MARA (UiTM), Puncak Alam campus. Guided by Expectancy–Value Theory (EVT), this study examines how the students' experiences with AI tools reflect factors of EVT which are expectancy

beliefs, task values, costs, and identity considerations. All of these factors that can significantly shape their adoption of emerging technologies in design education.

1.2 Motivation for This Work

The launch of ChatGPT (currently one of the most advanced AI chatbots created by OpenAI) in November 2022 is profoundly changing the field of education, signalling a new phase in the methods of learning and its delivery. This cutting-edge AI technology has transformed educational frameworks, providing a degree of customisation in learning that was once impossible. ChatGPT, thanks to its advanced language processing features, is rapidly transforming classrooms to deliver personalised educational experiences that address the individual needs, strengths, and challenges of every student (Walter, 2024). During industrial training or internships as most often are part of university syllabus in their course of study which are sometimes a requirement to complete a diploma or a degree, students are exposed to the industrial workflow. Industrial training or internships is a deliberate choice and is there to provide a measure to prepare them with experiences and testing their acquired skills and knowledge for their eventual employment after completing the study. Furthermore, it allows them to learn the ropes of the current on goings and apply but also challenge what they have learned in a classroom or academic setting to the real world. Within these settings, students may explore and learn a number of skills and knowledge to add to their arsenal. Even tips and tricks through this lived-experiences in an industrial setting. What is most often in these settings, is that it is made very clear that output is significantly more important than the process due to the work nature. With the advent of AI and its rapid integration into society, the design workflow, processes, all of skills and know-hows, and its entirety is changing right under the radar. This is done with the general consensus of to just accept the changes brought forth in open arms and change with the times in order to keep up. Rationales like time and efficiency are usually the cause and the main reason used to further cement these changes. It is important to note, analyse, review what is being discarded and for what reasons, to know what value it holds even if there is a legitimate reason why it should be abandoned. The same can be applied to what it is being subbed for. Is it worth it to discard and abandon certain practices and knowledge from doing these tasks for something new? Can the skills be adapted in any sense, shape or form? Can it be transferred? There are many use case of AI, especially given how

accessible it is nowadays and how lucrative the paid versions which provide better services are as an options. In many academic fields, AI is used in essay writing, subject or topic research but still there lies an unclear and unanswered question with much nuance perhaps, when it comes to creative courses, it remains unanswered of how much AI can be implemented or even allowed to be used in producing art.

As highlighted by (Xianghan O'Dea, 2024), more empirical studies are needed to explore the adoption of GenAI (e.g. other than ChatGPT) in different country contexts. It is also important and necessary to examine institutional policies for the effective integration of GenAI in teaching and research so that the academic and support staff can effectively guide and support the ethical and equitable use of GenAI among students. This shift highlights the undocumented student readiness for the industry and uncertain role AI has in art and design programmes. Creative art students, particularly those of graphic design programmes are at a critical intersection between traditional design process and AI-assisted process. Rather than completely relying on the human touch of art, they are also bounded or driven by computer driven assistance. Their tools, instead of solely brushes and paints, are computers and software applications. Their perception, readiness and openness to AI can influence their transition into the evolving job market. Ultimately, their choice and practices inevitably shapes the design world. It is also important to note UNESCO's call for human-centric approach to AI, especially in education. In Malaysia, studies that focuses on AI literacy, readiness or perception within the art and design realm are incredibly limited if compared to STEM fields.

Addressing and understanding the student's attitude or status quo of AI among them is imperative, and even more valuable because of the reasons stated above. Therefore, it is only appropriate that Expectancy-Value Theory is involved and used as base for this study. The findings using this Expectancy-Value Theory's theoretical framework, are crucial for educators to design more adaptive, responsive and future-ready design education programs. As is often seen in phenomenon and happenings in the world, one can infer and hypothesise that it takes a while for science to catch up with culture, data to catch up with technology without all irony. It is because of this, this study becomes all the more important. The motivation for this study stems from a conspicuous and critical gap in the existing body of literature and educational practice. The reason is to gather, and share these nuances of a unique circumstance in a unique time which are all valuable data in order to answer questions that have risen or may arise in the future. Even better if something of this precedent happens again. Globally,

research on AI literacy and integration has predominantly focused on Science, Technology, Engineering, and Mathematics (STEM) fields, where the perceived utility of AI is often clear-cut and its adoption framed in instrumental terms (Wang et al., 2023). In stark contrast, the experiences, attitudes, and motivational dynamics of students in the creative arts remain severely under-researched (Tien & Chen, 2024). This study is motivated by the imperative to address this disparity.

Another aspect that pushed as a motivation for this study is the early observations by the researcher. Crawford et al. (2024) found in their survey of 387 university students in Australia, it revealed that the use of AI chatbots was positively associated with perceived social support from AI, which was directly linked to self-reported academic achievement and indirectly influenced the intention to leave. However, the research found that it had mixed effects on psychosocial elements such as loneliness and belonging. In general, the findings indicated that AI chatbots offer both advantages and drawbacks for university students, especially when utilised as a means of social support. As the researcher has a close proximity to the field (working as a graphic designer) and past student of the programme, findings pointed to a complex and often conflicted relationship between design students and AI. While tools like ChatGPT were being widely adopted for textual tasks, there was a noticeable hesitancy and lack of guidance regarding the use of visual AI tools directly relevant to their discipline, such as Adobe Firefly or Midjourney. This paradox suggested that adoption cannot be pointed nor blamed to one sole reason or factor. It was not a simple function of availability but it may be instead, influenced by deeper factors related to identity, value, and cost. This study is motivated by the need to uncover these nuanced factors.

Furthermore, the rapid pace of AI development has created a significant lag in institutional response as pointed out by (Malaysian Science, Technology Information Centre (MASTIC), 2023). University policies, curriculum design, and lecturer preparedness are the first aspects to come to mind as to why this hiccup happens. Questions and doubts arise, questions like could university policies, curriculum design, and lecturers be out of sync with both the realities of the design industry, and the informal learning practices of students? This institutional misalignment creates a heavy, silent and a hazy atmosphere of uncertainty. As a result of this fragmented learning environment, the situation was just right to force students to navigate this new uncharted terrain themselves. Not only that, but with little or no formal guidance, it could potentially be reinforcing inefficient or ethically skewed and problematic practices.

This study is motivated by the urgent need to generate empirical evidence that can inform effective, timely, and discipline-specific educational interventions.

1.3 Problem Statement

In the rapidly evolving landscape of technology, artificial intelligence (AI) has become a defining feature of the 21st century, revolutionising the processes and possibilities within the creative arts discipline. The status of integration of artificial intelligence becomes an integral part in producing a creative arts student and the education in the creative programs provided by universities. The current issue at hand revolves around the need to comprehensively understand and address the status quo of AI and the integration levels among the students. Current studies mainly shed light on AI use in STEM fields or language learning, while paying little regard to creative domains where subjective evaluation and aesthetic judgment significantly diverge from objective assessment situations (Li et al., 2026). Even in the early stages of preparing for this study, it became evident that the gap exists. As society witnesses the transformative power of AI in various fields, understanding the need to prepare future creators and innovators in the creative arts to navigate such a new ever-evolving technological terrain becomes all the more necessary.

In the Malaysian context, where the creative industry plays a pivotal role in sustainable economic development, this study takes on added significance. Understanding the integration of AI among creative arts undergraduates aligns with Malaysia's national goals, while at the same time ensuring that the creative workforce current or in the making is equipped to contribute meaningfully to the nation's economic and cultural growth. As stated by the Deputy Minister of Communications and Digital, there are diverse initiatives, which includes upskilling and reskilling programs, have been introduced to cultivate a proficient workforce capable of utilising AI and taking advantage of it, using its potential in the industry. Advancement of technologies like AI within the creative industry will be increasingly harnessed by established local animation professionals. The government is also committed to prevent the marginalisation of any individual in the execution of policies and initiatives, aligning with the Malaysia Madani concept. The proof of this can be seen with two programmes; the Digital Literacy Empowerment Programme for Persons with Disabilities which sought to establish a connection between the disabled community and government

agencies, and the recently launched 'AI untuk Rakyat' in which civil servants are required to take in order to enhance their understanding of the utilisation of advanced technology. In the presentation of Budget 2024 on October 13 of last year, the Prime Minister revealed the establishment of the nation's inaugural AI study centre at Universiti Teknologi Malaysia (UTM), accompanied by an initial allocation of RM20 million to enhance the investigation of interdisciplinary AI.

Despite the national push for AI acculturation and talent development, there is still remains a gap in understanding how these policies are translating into practice within specific creative disciplines in higher education. Malaysia's national AI roadmap itself identifies a national challenge in regard to AI adoption in Malaysia specifically in universities. AI is offered as an academic programme in 17 Malaysian public and private universities, at both undergraduate and postgraduate levels. However, very few of these programmes explicitly state artificial intelligence in the degree conferred as AI is usually offered as a course rather than as a programme. Other courses which are related to AI include Machine Learning and Data. There are also three AI Centre of Excellence in public universities and there are collaborations with the industry to cultivate AI talents. Such initiatives were implemented. In the roadmap itself states that 'organizations are still behind in AI technology application' and that the 'top challenges to AI adoption are lack of talents' expertise and funding' (AI-Rmap Survey, p. 12). This research investigates whether these macro-level challenges are reflected in the micro-level experiences of UiTM's graphic design students, who are poised to enter a workforce where AI competency may soon be indispensable.

It is important to note that only 19% of Malaysians believe they possess sufficient digital skills for their job requirements. However, 57% of them claim to have enhanced their digital skills since the onset of the pandemic, surpassing the global average of 40%. Within this 57%, 46% had basic digital skills that they further developed, and 11% managed to acquire digital skills on the job despite initially lacking them (PricewaterhouseCoopers, 2021).

The Faculty of Art and Design of Universiti Teknologi Mara (UiTM) Shah Alam displayed a warm welcome to web3 by signing a memorandum of understanding (MOU) with Pentas.io, a blockchain technology platform that serves as a marketplace for non-fungible tokens (NFT) signalling an openness towards new technologies. In general, we can also observe across all programs of most universities, ChatGPT is allowed for students to use in order to aid them in their assignments with the Vice

Chancellor of UiTM, is of the view that AI technology will not affect the quality and academic integrity of higher education institutes including Universiti Teknologi MARA. It is safe to conclude that the most commonly introduced and taught AI tool, en masse at least through seminars and online discussions is ChatGPT. Nevertheless, this prevailing trend prompts an intriguing inquiry as to how educational courses and programs emphasising artistic proficiency and human creativity may need to adapt to accommodate this widespread utilisation of ChatGPT. This calls into question the intersecting realms of technology and artistic expression, urging educators and learners alike to navigate the evolving landscape where traditional approaches meet innovative AI-driven tools. Thus, while ChatGPT offers an undeniably convenience and efficiency in various applications, its dominance in educational settings signals a broader need for a nuanced examination of how artistic skills and human expression can harmoniously coexist with AI advancements. Bearing in mind of this, educators are challenged to strike a balance between leveraging the capabilities of AI tools like ChatGPT and nurturing the unique human qualities that define artistic endeavours. As the educational landscape continues to be reshaped by technological advancements, there is a growing imperative for programs and courses to foster a holistic approach that marries the advantages of AI with the invaluable complexities of human creativity, ensuring that students are equipped with both technical skills and the capacity for authentic artistic expression. A heavy question for courses and programs that require artistic skill and human expression. Dehouche and Dehouche (2023) found that Stable Diffusion with appropriate guidance and oversight from educators, can serve as a valuable educational tool for conveying technical concepts, as well as experiential aspects of artistic genres, movements, and aesthetics that define a cultural object. Then should creative arts courses opt for the ChatGPT of the arts like MidJourney, Stable Diffusion and Pika Labs to integrate in their creative process?

To further point out the knowledge gap between students and their knowledge of AI, a workshop on ChatGPT was conducted by lecturers of the Academy of Language Students at UiTM in June 2023. The participants were of diverse academic disciplines and some had no previous exposure to ChatGPT but possessed experience with other AI applications for academic use. The main purpose of the workshop was to educate and to also empower students with the essential skills to proficiently utilise ChatGPT in their academic pursuits. The workshop emphasises the importance of honesty, integrity and ethical conduct. It went into the diverse facets of ChatGPT, its origin, objectives

and a methodology for effective utilisation. Additionally, one speaker introduced the Socratic Dialogue Technique of Questioning as an approach to generate reasoned prompts for the AI to respond to. This thorough initiative by one of the most well-known public universities of the nation indicates that there is a gap in the digital literacy of AI amongst students across multiple academic disciplines. Nonetheless, it is important to note that this initiative is only done in one branch of that university. It also signifies that it is instrumental to equip the students with the knowledge to navigate and excel in this new era.

The lack of empirical data on the AI integration of Malaysian creative arts undergraduates in the realm of AI impedes our understanding of how these students will contribute to the future creative landscape. Prior research that studied AI adoption among teachers has shown that expectancy, value, and cost have a significant impact on AI adoption. Despite this, these results primarily focus on teaching and instructional environments. For example, it has been observed that educators demonstrate strong motivation for using AI when backed by experience and professional growth, even with persistent worries about creativity, data privacy, and workload (Özsaraç & Ergin, 2025). Nonetheless, there is still a limited understanding of how these motivational elements function among creative design students. These design students whose interaction with AI goes beyond practical application, it spills into realms of authorship, originality, and creative identity. In contrast to educators, design students utilise AI as a collaborative resource instead of just an educational support, potentially changing their perceptions and negotiations of expectancy, value, and cost. This study aims to explore the application of Expectancy-Value Theory in understanding AI adoption in creative design education. Without this invaluable data, items such as support and initiatives, ideas can that stem from understanding of the what is being studied (AI integration among creative art undergraduate students) is hindered. This study is further motivated by the recognition that literacy in AI for its integration extends far beyond technical proficiency. Literacy of and in AI encompasses numerous factors starting with ethical considerations, critical thinking, and adaptability. As John Sweller, a cognitive psychologist, states, "Cognitive load theory suggests that the limitations of human cognitive architecture must be kept in mind when designing instructional materials." This theory underscores the necessity of assessing the cognitive aspects of digital literacy as students engage with AI technologies. According to Countouris (2024), in order to remain competitive in a fast-paced market, retailers are actively exploring the

ways in which AI can assist them in adapting to changing customer preferences, addressing workforce challenges, and promoting sustainability initiatives. The impact of AI on retailers has been substantial, with 69% reporting a rise in annual revenue directly linked to the adoption of AI. Furthermore, 72% of retailers employing AI noted a reduction in operational costs. AI is playing a pivotal role in improving operational effectiveness, enhancing customer interactions, and fostering overall business expansion. Its current top five use cases are to store analytics and insights, personalise customer recommendations, adaptive advertising, promotions and pricing, stock out and inventory management, conversational AI.

Consider this scenario, when a design student leverages the power of AI to create compelling visuals tailored for a client's specific project, a complex issue arises in regards to who then holds the authorship of the artwork? Another pressing question arises, what occurs in instances where the AI inadvertently reinforces cultural stereotypes (negative or positive) due to its training data overly reflecting Western aesthetics and ideals? To question this even further, a heavy dilemma presents itself when educators have to evaluate the student. In this specific context, the creative growth of a student who heavily relies on AI to generate substantial portions of their work? How will that be tackled and solved? These questions are not just simply theoretical. They are far from being mere philosophical musings. They are crucial. They stand as critical hurdles that currently challenges the Malaysian design educators and students. This is the reality they are facing at the moment, and all the more sympathy is needed and should be given when we consider that both parties may frequently be lacking clear direction or institutional backing, perhaps both.

Universiti Teknologi MARA, being the largest public university in Malaysia comes with a clear objective to uplift the Bumiputera communities. Universiti Teknologi MARA holds a very unique place in the national AI framework. The Faculty of Art & Design at UiTM Puncak Alam plays a crucial role in nurturing and inspiring a significant number of talented graphic design undergraduates. These students form a vital part of Malaysia's vibrant creative workforce and are pivotal in shaping the future of the country's artistic landscape. It accommodates the future creative workforce and as part of an essential segment of Malaysia's creative labour force pipeline. These students are not merely theoretical "end users" within a policy framework. They are not just statistics or faceless entities within an educational body. They are actual vibrant individuals. They are people brimming with dreams, concerns, and the ability to make

a lasting impact on how artificial intelligence is integrated, contested, or reimaged within Malaysian creative circles.

And here is the gap, the space where this study finds its purpose: despite the national urgency articulated in the AI-Rmap and the ethical framework provided by the National Guidelines On AI Governance and Ethic, there remains a vast distance between policy articulation and pedagogical implementation. How are these students actually engaging with AI tools in their creative practice? What ethical considerations guide or have failed to guide? What is the status of their use of generative AI? How do educators balance the imperative to develop AI literacy with the responsibility to cultivate critical, ethically-informed designers who understand not just what AI can do, but what it should do?

The National Guidelines On AI Governance and Ethic clearly classifies graphic design students as "End Users," individuals who may be unaware of their use of AI technologies and require information about their rights and responsibilities to make informed choices. This categorisation is significant. It frames students not as mere consumers of technology but as active participants with responsibility and influence. The classroom thus transforms into more than just a location for technical education. It becomes a critical space for fostering what we might call digital citizenship and ethical literacy within the creative professions. So we must be honest about what we do not know. We do not fully understand how students are currently using AI. We do not know the extent to which they are aware of ethical implications. We do not know where the misalignments exist between national expectations and actual educational practice. And we certainly do not know how students themselves, the ones whose creative futures are most directly at stake perceive the role of AI in their development.

In conclusion, the absence of specific insights into the digital literacy of Malaysian creative arts undergraduates in the realm of AI hinders both academic understanding and strategic planning. This study not only addresses an immediate need for knowledge but also serves as a foundational step toward preparing the creative minds of Malaysia for the challenges and opportunities presented by AI in the digital age.

1.4 Research Objectives

The study is driven by these primary questions: In what ways are graphic design undergraduates at UiTM presently incorporating AI tools into their creative work? How aware are students of and involved with the ethical principles established in Malaysia's AIGE? What ethical dilemmas or conflicts do students face when utilising AI in their design projects? How do students view AI's impact on their creative growth and upcoming professional activities?

These inquiries are not simply theoretical tasks. They strive to grasp a change occurring in real time, capturing an instance of significant transformation before it shifts to normalisation. By situating these inquiries within Malaysia's distinct policy framework while being mindful of students' real-life experiences, this research aims to connect the frequently theoretical discussions of AI governance with the tangible, complex, human experiences of creative arts education.

- a) To examine the extent to which Malaysia's national AI policies are reflected in AI-related awareness, skills, and preparedness of creative arts undergraduates at UiTM.
- b) To analyse how creative arts undergraduates at UiTM integrate and perceive the role of AI in their current academic practice and future professional development.

1.5 Research Question

- i) What is the status quo of artificial intelligence (AI) use among creative arts undergraduates?
- ii) How is AI being integrated and utilised by creative arts undergraduate students for the future?

1.6 Significance of Study

Final year creative arts undergraduate students are at the intersection of studying and the working industry. Therefore, it is this point of transition where their perspective as students and future professionals must be considered and taken as empirical data which can be used for a number of reasons. The significance of this study can be classified into three; theoretical, methodological and social.

1.6.1 Theoretical significance

By exploring the integration of AI especially among Malaysian creative arts undergraduates is that it sheds light on an unanswered question that may or already has developed into an issue. As a whole, AI literacy in creative disciplines and courses is an often understudied area as compared to Science, Technology, Engineering, and Mathematics (STEM) or business. The aim of this study is to understand how these students interact cognitively with AI tools in their creative studies while adding depth to understanding AI in non-STEM fields. This study employs Expectancy-Value Theory (EVT) by contextualising its framework within the underexplored domain of AI adoption in design and creative context. It is used as a lens to interpret student attitudes towards AI tools. By identifying Universiti Teknologi MARA (UiTM) students' expectancies (confidence as a designer) and values (the relevance of AI literacy in their career) shape their engagement with AI, a link can be made between their confidence, perceived value in using AI, and engagement. It also offers understanding patterns of resistance or acceptance of emerging technologies in the creative domain. The findings can inform curriculum development, methods and what's needed for upskilling students before their employment. A reference for shaping curriculum design and pedagogical strategies in creative arts education. These frameworks may be adapted or replicated in similar contexts, laying the groundwork for further theoretical development in creative education. For the theory, it extends the application of Expectancy-Value Theory (EVT) into the under-researched context of creative arts education. Widening the digital literacy with AI as a catalyst for evolving creative skills and mind-set. It provides empirical evidence that the "cost" component of EVT holds disproportionate weight for creative students, often surpassing high utility value, due to its direct link to professional identity and artistic authenticity. This study contributes to a more nuanced theoretical model for understanding technology adoption in identity-laden disciplines.

1.6.2 Methodological significance

Qualitative framework is chosen for this study focusing on AI integration in Malaysian creative arts education due to its ability to provide rich, contextual qualitative data via focus group discussions. It also captures the unique, nuanced lived experiences,

student perspectives across the creative majors in their programme (graphic design, illustration, multimedia and advertising) and the understanding of AI integration, its development in creative education. With this, it establishes a baseline of AI integration competencies for comparison. Furthermore, the framework can be replicable for cross-cultural or cross-disciplinary studies, perhaps even in larger ASEAN context, informing a broader AI integration assessment in creative or non-STEM domains. It takes into accounts for cultural or institutional barriers to AI integration. In creative programmes such as the ones UiTM provides, it supports discipline-specific comparisons for example the difference between illustration and multimedia majoring. Qualitative framework methodologically integrates thematic analysis with the applied theory, EVT. Enabling the evaluation of psychological and contextual factors in tech adoption and goes well beyond surface-level assessment of AI readiness. This study demonstrates the efficacy of a qualitative approach, utilising focus group discussions, for uncovering the rich, contextual, and often emotional dimensions of AI integration. The rigorous application of thematic analysis provides a methodological framework for future research in similar contexts. The insights generated offer a baseline understanding of AI literacy in Malaysian creative education.

1.6.3 Social significance

As AI continues to integrate itself in creative fields, this study highlights the pressing social and cultural tension faced by upcoming generation of designers. One key area of concern is the perceived threat to artistic authenticity. Students and netizens alike have highlighted the fear of AI-driven creativity loss and the role in which artists play in society. Discussion and societal debates on AI art and automation in emotionally-driven fields that require the human touch are often held in social media. This study is able to raise and perhaps address the public awareness and concern on preserving artistic integrity and human expression, the core subject of these discussions. This further emphasises AI literacy as a matter of cultural, not just technical urgency in society and encourages dialogue on the philosophical value of art in this new AI age. Institution wise, this study identifies the gaps in university policies and real-world AI demands. Suggestions which promotes inclusive access to AI tools and digital skills such as the initiative taken by the United Arab Emirates who has become the first

country to offer ChatGPT Plus for free to all of its residents. Initiatives such as this ensures undergraduates are not left behind in tech-driven economies and empowers marginalised voices in reshaping the creative digital future. Findings of this study can inform national education policies for the creative industry, addressing the grey lines of ethics, copyright, and accreditation of AI art. It advocates of standardised training across institutions and prepares students to adapt, lead, and innovate in evolving digital ecosystems. The findings of this study have direct implications for educational practice and policy. This study provides university administrators, curriculum developers, and lecturers with evidence-based insights to develop structured AI literacy initiatives, revise curricula, and create clear ethical guidelines. By aligning educational outcomes with industry needs, this study ultimately contributes to empowering the future creative workforce of Malaysia, ensuring graduates can harness AI as a collaborative partner while safeguarding the human-centric originality central to the design profession.

1.6.4 Summary

In summary, the significance of this study is diverse. Stemming from its ability to fill a well-defined void in the current knowledge of AI integration within the particular framework of Malaysian creative arts education. Theoretically, this research offers potential to enhance the wider discussion on technology adoption by analysing the relevance of Expectancy-Value Theory within a creative field. It can even further be applied to other ASEAN or local creative setting. It aims to explore if established motivational theories, those typically confirmed in Science, Technology, Engineering, and Mathematics (STEM) areas, effectively encompass the distinct psychological terrain where practical values meet deep worries about artistic integrity and creative identity. On a practical level, the results are expected to deliver a vital, evidence-driven needs evaluation for educational organisations and policy-makers. By methodically gathering the on-the-ground experiences and obstacles encountered by graphic design students, the study seeks to provide meaningful insights that can guide a few things. Those are the creation of relevant curricula, efficient teaching methods, and consistent institutional policies regarding AI utilisation. Furthermore, the study carries significant professional import for the students themselves and the creative industry they will enter. It aims to express a shared experience that are frequently faced alone, thus validating student worries and enhance their growing paths. In the end, by connecting academic

research with the swift changes in the professional landscape, this study aids in the vital aim of readying a future creative workforce that is not just technically skilled but also critically and ethically involved with the tools defining their industry, thus improving their long-term job prospects and the cultural richness of the country's creative sector.

1.7 Scope and Limitations

This section outlines the intentional limits of the current study and the limitations that stem from those limits, along with methodological and contextual factors outside the study's framework. To differentiate, scope is the specific aspects the study intentionally examines, and limitations are the factors that constrain the depth or applicability of its results. However, both are crucial for a correct and accurate understanding of the findings.

1.7.1 Scope

The scope of this study was defined by three deliberate choices, each of which reflects the research objectives and the specific gap this study seeks to address. First, the study focuses exclusively on undergraduate students within the graphic design programme at Universiti Teknologi MARA (UiTM), Puncak Alam. This institutional focus was intentional. UiTM is the largest public university in Malaysia and holds a unique concentration of creative arts faculties, making it a particularly relevant site for investigating the policy-to-practice gap identified in Malaysia's national AI agenda. The decision to focus on a single institution follows the logic of qualitative case study methodology, wherein depth of contextual understanding is prioritised over breadth of coverage (Creswell & Creswell, 2018).

Second, the study focuses on four majors within the graphic design programme which are Graphic Design, Illustration, Advertising, and Multimedia. This range was chosen to capture disciplinary diversity within a coherent programmatic context, ensuring that findings reflect variation across specialisations whilst remaining bounded by a shared institutional and pedagogical framework.

Third, the study focuses specifically on students' perceptions and lived experiences of AI integration and that is, how students engage with, make sense of, and are motivated or deterred by AI in their academic and creative practice. This focus on

perception and integration, rather than on AI literacy as a measurable competency, reflects the interpretive, qualitative orientation of the study and the explanatory ambition of the Expectancy-Value Theory framework.

These scope decisions mean that the study does not examine the experiences of creative industry professionals, freelancers, or students in non-creative disciplines, nor does it seek to produce findings generalisable across all Malaysian universities or the broader global context. These exclusions are intentional, not oversights, and are consistent with the study's aims.

1.7.2 Limitations

Whilst the scope decisions above were deliberate, they give rise to a set of limitations that must be acknowledged when interpreting the findings. The most significant limitation is generalisability. Because the study is confined to UiTM Puncak Alam and to final-year students within a single programme, the findings are deeply contextual. They may not be directly transferable to students in private universities, other public institutions, or creative disciplines outside graphic design. Comparisons with other universities such as private institutions, where AI policies and resources may differ which could yield markedly different results despite using similar sampling parameters. Whilst this contextual specificity is a strength of qualitative inquiry, it does constrain the breadth of the study's implications.

A related limitation concerns the exclusion of interdisciplinary perspectives. AI integration in creative practice does not occur in isolation from technical and scientific domains. AI integration in creative practice occurs at the intersection of art and technology. It is precisely where many of the most significant developments are taking place. By focusing solely on creative arts students, the study does not capture the perspectives of students engaged in interdisciplinary programmes, nor does it account for the knowledge exchange between creative and STEM disciplines that may shape how AI is understood and adopted in practice.

Methodologically, the use of focus group discussions, whilst appropriate for the study's qualitative aims, introduces several constraints. Firstly, group dynamics may influence participation among participants. Participants who are more assertive may steer the discussion, whilst less vocal members may contribute less than their individual perspectives would otherwise suggest. Responses may also be shaped by social

desirability bias, wherein participants provide answers they perceive to be expected or acceptable rather than fully candid reflections of their experience. Additionally, there is a possibility that some participants misunderstood specific questions or AI-related concepts, which may affect the accuracy of certain responses. These are inherent characteristics of self-reported qualitative data and are acknowledged as factors that require careful consideration in the interpretation of findings.

The temporal limitation of the study is also significant. Data collection occurred between October and November 2024. This a specific moment, a short window of a snapshot in a rapidly and continuously evolving technological landscape. The AI tools, features, and usage patterns documented in this study are subject to change, and findings relating to specific tools such as ChatGPT, Adobe Firefly, or MidJourney may become contextually dated as newer and more capable systems emerge. While the theoretical and thematic conclusions of the study in regards to including identity cost, institutional contradiction, and the demand for guidance, are all likely to retain relevance beyond this window, tool-specific observations should be interpreted with this temporal constraint in mind (A. Chatterjee, 2022).

Finally, two contextual variables were not controlled for and may have influenced participants' responses. First, students' willingness to offer candid assessments of their institution's AI policies may have been tempered by a reluctance to openly critique UiTM, introducing a degree of institutional gatekeeping that could have limited the depth of data on policy-related themes. Second, the study did not account for disparities in participants' access to high-performance devices, reliable internet connectivity, or premium AI software subscriptions. These variations in resource access constitute an unmeasured variable that may have shaped individual experiences with AI tools in ways not fully captured by the findings.

1.8 Ethical Considerations

This study was conducted with the utmost regard for ethical research practices. This was undertaken heavily by the researcher following basic and UiTM's ethic rules. Formal approval was obtained from the Universiti Teknologi MARA Research Ethics Committee (Reference: REC/09/2024, PG/MR/467) after application of questions that will be presented to the participants. As a result, this study was classified as minimal

risk by the committee. Before the data collection was carried out, each participant was briefed on the study's purpose and procedures. The researcher also provided the participants with a printed comprehensive briefing as well as doing so orally. Written informed consent was secured from every participant. This was imperative as it emphasises they themselves volunteered to be a participant. It was also made clear; their right to withdraw at any time without penalty or things alike. Anonymity and confidentiality were guaranteed; all identifiable information was removed from the transcripts, and data are stored securely in password-protected files. The principle of researcher reflexivity was actively practiced to mitigate potential bias.

1.9 Thesis Outline

This thesis is methodically structured into six chapters that lead the reader from the fundamental context of the research to its concluding insights and implications. Chapter 1: The Introduction has outlined the research environment by detailing the role of AI in creative education, articulating a problem statement that highlights a significant gap in the Malaysian context, and presenting the research questions and objectives, along with the study's importance and constraints. Chapter 2: Literature Review will construct the scholarly foundation for this inquiry, presenting a comprehensive analysis of existing work across several domains. This will include an exploration of the evolution of digital and AI literacy, an examination of Malaysia's national AI policies and their implementation gaps, a review of international perspectives on AI in the creative industries, and a detailed exposition of Expectancy-Value Theory as the guiding conceptual framework.

Chapter 3: Research Methodology will provide a comprehensive and precise explanation of the research design and its execution. It will clarify the reasons for selecting a qualitative approach and utilising focus group discussions, describe the sampling strategy and participant demographics, and provide specifics on the tools and methods for data collection. The chapter will detail the structured approach of thematic analysis, adhering to the Braun and Clarke (2006) framework, and will comprehensively address the ethical concerns and validation methods used to guarantee the study's reliability. Chapter 4: Findings will showcase the outcomes of the thematic analysis, arranged according to the main themes that surfaced from the data. This chapter will

display these results in a narrative style, bolstered by direct, anonymised excerpts from the focus group transcripts to offer genuine evidence for every thematic conclusion.

Chapter 5: Discussion will analyse the results outlined in the prior chapter, integrating them with the literature examined in Chapter 2. It will examine how the findings correlate with, oppose, or complicate existing views of EVT in creative settings and the integration of AI in education. This chapter synthesises and argues the deeper significance of the findings. Ultimately, Chapter 6: Conclusion will encapsulate the main findings of the whole thesis, emphasising how the research questions have been answered. It will integrate the theoretical, practical, and methodological contributions of the study, consider the limitations retrospectively, and offer future-oriented suggestions for educators, policymakers, and upcoming researchers in AI and creative education.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the body of literature that informs the present study. It aims to build a clear understanding of how AI, digital literacy, and creative education intertwine with one another, and where current knowledge remains limited. The review begins with a broad overview of artificial intelligence and its applications. Tracing AI's evolution and highlighting its role in reshaping how societies work, learn, and create. To follow, it then narrows to discuss digital literacy and AI literacy, distinguishing between general technological competencies and the more specialised skills and critical awareness required to interact meaningfully with AI systems.

Artificial intelligence (AI) has moved rapidly from the periphery of technological innovation to the centre of everyday life. Its growing influence extends beyond automation and analytics into areas once thought distinctly human such as creativity, communication, and education. This is further backed by (Xu et al., 2021), the application layer of AI is becoming more and more extensive, and deeply integrated with fundamental sciences, industrial manufacturing, human life, social governance, and cyberspace, which has a profound impact on our work and lifestyle. This change has forced educators, researchers, and policymakers to reconsider what it means to be literate in a world increasingly shaped by intelligent systems such as AI. For creative disciplines in particular, where originality and self-expression are core, the rise of AI presents a unique situation. Both of opportunity and challenge.

Secondly, the review turns to AI in the Malaysian context, examining national initiatives such as 'AI untuk Rakyat' and Future Skills for All (FS4A), alongside examples from key sectors that make up the nation including education, financial, agriculture, healthcare, and governance. These examples demonstrate that Malaysia's AI development is not limited to technical or industrial use, but rather reflects a wider social and educational ambition aligned with the nation's digital transformation agenda.

The review then focuses on AI in the creative arts, drawing from global and local perspectives to explore issues of authenticity, authorship, and creative identity. While AI adoption in creative practice is expanding, much of the existing scholarship

remains theoretical or speculative, with limited data and attention to students' lived experiences particularly in Malaysia's higher education setting.

To conclude, the chapter introduces Expectancy–Value Theory (EVT) which became the theoretical framework grounding this research. EVT helps to explain the motivational factors that influence students' engagement with AI, encompassing their beliefs about capability (expectancy), perceived importance or usefulness (value), and perceived risks or sacrifices (cost). By applying EVT to creative education, this study contributes to a deeper understanding of how emerging technologies reshape learning motivation and creative artistic identity.

By moving from the general to the specific, this literature review lays the conceptual foundation for the study. It situates the research within global and national conversations on AI all the while identifying the gap it seeks to address which is the readiness and response of creative arts undergraduates in Malaysia as they navigate an increasingly AI-infused educational landscape.

2.2 Digital and AI Literacy

The concept or definition of digital literacy extends the concept of traditional literacy by including the ability to navigate, critically evaluate, and create content using digital technologies. In the contemporary context, to classify someone as being digitally literate means for them to have the skills to use digital tools, access information online, understand digital communication, and apply critical thinking. The latter is critical to assess the validity and relevance of digital content. This concept of digital literacy commonly understood today was introduced by Paul Gilster in his book of the same name (Gilster, 1997). Contrary to providing specific lists of skills, attributes, or attitudes defining digital literacy, Gilster presented it in broad terms. He characterised digital literacy as the capacity to comprehend and effectively utilise information sourced from diverse digital outlets, essentially framing it as literacy adapted to the digital era. It embodies the contemporary iteration of the conventional concept of literacy itself—the proficiency to read, write, and engage with information using the prevailing technologies and formats of the time, representing an indispensable life skill in order to navigate life of the time. Digital literacy is essential in a world where technology plays a central role in communication, work, education, and everyday life.

It is a multifaceted concept that extends beyond mere technical proficiency, encompassing the ability to access, evaluate, and utilise digital information effectively. In the context of this study, digital literacy refers to the proficiency of individuals in the creative arts programme to navigate and engage with digital technologies, more specifically within the realm of AI. More recent frameworks have sought to put AI literacy further than general digital competency. Long and Magerko (2020) define AI literacy as a set of competencies that allow individuals to critically evaluate AI technologies, communicate effectively with AI systems, and use AI as a tool to achieve their goals. More importantly, they distinguish between AI literacy as awareness (knowing AI exists and what it does) and AI literacy as agency (knowing how to use, critique, and shape AI in real world application). This distinction is particularly relevant to the present study, in which students demonstrate awareness of AI tools but variable agency in their deployment. AI technology has transitioned from a concept of futurists to a fundamental part of the business strategies of numerous organisations and a crucial strategic factor in the initiatives of various industries, healthcare, and global governments (Dwivedi et al., 2021). This expertise encompasses not just technical abilities but also includes critical thinking, ethical considerations, and the ability to adjust to the changing digital environment. It is an essential skill set that allows individuals to interact efficiently and successfully in the digital age. By having this skill (AI literacy) it can promote a comprehensive understanding of digital tools and their uses.

2.3 Superintelligence by Nick Bostrom

The concept of Superintelligence, as explored by Nick Bostrom, provides another crucial theoretical foundation for this study. In his book "Superintelligence: Paths, Dangers, Strategies," Bostrom (2014) defines Superintelligence as "an intellect that is much smarter than the best human brains in practically every field, including scientific creativity, general wisdom, and social skills." This definition sets the stage for understanding the potential impact of advanced artificial intelligence systems.

Bostrom examines the potential implications and risks associated with the development of Superintelligence, particularly in the context of AI systems. He argues that the emergence of Superintelligence could have profound and potentially existential consequences for humanity, as these systems may not necessarily align with human

values and interests. This perspective underscores the importance of developing robust governance frameworks and ethical guidelines to ensure the responsible development and deployment of advanced AI technologies.

The integration of Schwab's (2016) insights on the Fourth Industrial Revolution and Bostrom's (2014) perspectives on Superintelligence provides a comprehensive theoretical foundation for understanding the complex and multifaceted implications of technological advancements in the modern era. Together, these works highlight the transformative potential of emerging technologies and the critical need for proactive consideration of their societal impacts.

2.4 Artificial Intelligence Concepts and Application

Artificial intelligence (AI) is one of the most ground-breaking technological advancements in contemporary computing. It impacts various fields from healthcare to robotics even the creative domain. The phrase "artificial intelligence" was initially created by John McCarthy during the Dartmouth Conference in 1956, signalling the official beginning of AI as a separate area of research (Emmert-Streib et al., 2020). McCarthy initially described AI as "the science and engineering of creating intelligent machines," setting the primary goal of the field to mimic intelligent actions in computational systems.

According to Xu et al. (2021), AI refers to the simulation of human intelligence by a system or a machine. The goal of AI is to develop a machine that can think like humans and mimic human behaviours, including perceiving, reasoning, learning, planning, predicting, and so on. Intelligence is one of the main characteristics that distinguishes human beings from animals. With the interminable occurrence of industrial revolutions, an increasing number of types of machine types continuously replace human labour from all walks of life, and the imminent replacement of human resources by machine intelligence is the next big challenge to be overcome. This includes both the conceptual grasp of intelligence and the hands-on development of intelligent systems.

Modern definitions of AI often highlight its ability to allow computers and machines to replicate human cognitive functions. Specifically, AI denotes technology that enables computational systems to execute tasks necessitating learning, understanding, problem-solving, decision-making, creativity, and autonomous action

(Kaplan & Haenlein, 2018). A more comprehensive definition paints AI as "the capacity of a system to accurately interpret external information. Not only that but to learn from that information, and to utilise those insights to accomplish particular objectives and tasks via adaptable approaches" (Kaplan & Haenlein, 2018). This definition emphasises three essential elements: data analysis, ability to learn, and goal attainment adaptability.

The field of AI represents one of the most transformative technological domains of our time. So, to truly grasp its current state and future potential, it is essential to first understand the different categories of AI that researchers have established. These categories help to contextualise its capabilities and limitations by classifying systems according to their level of sophistication and generality. A fundamental and widely recognised framework within the domain of AI research involves a primary division between what is known as "Weak AI" and "Strong AI." This distinction is not just for technical sake but also carries profound philosophical consequences regarding the nature of intelligence and consciousness itself.

The first and currently dominant category is Weak AI, which is also frequently referred to as "Narrow AI." This term defines AI systems that are meticulously designed and trained to perform a specific task or a very narrow set of closely related tasks. According to Bory et al. (2024), Weak AI is not like General AI. Narrow AI has a restricted range. It functions according to a predetermined set of rules and is unable to demonstrate the same degree of comprehension or flexibility as a human. Narrow AI is the most prevalent type of AI we experience today. Narrow Artificial Intelligence (NAI) marks an important achievement in artificial intelligence, concentrating on specific tasks and applications. In contrast to General Artificial Intelligence (AGI), which seeks to replicate human cognitive skills across multiple areas, Narrow Artificial Intelligence (NAI) is focused on performing exceptionally well in particular tasks within a limited scope. This article presents a summary of NAI, its uses in various industries, issues in its creation and implementation, and future possibilities. These applications operate based on what is known as the weak AI hypothesis. This philosophical stance asserts that machines can be engineered to behave as if they are intelligent, thereby successfully simulating cognitive processes without possessing any genuine understanding, awareness, or consciousness. The effectiveness of a Weak AI system is measured solely by its performance within its predefined domain. Widespread, modern instances of Narrow AI are now deeply embedded in our everyday lives. Common examples include industrial robots and virtual personal assistants, such as Apple's Siri, use weak AI (S &

Raja, 2019). Therefore, intelligent voice assistants like Amazon's Alexa falls into the same pot as it too process natural language commands. Other similar instances include the chatbots used on social media sites for customer support. Another aspect is the intricate algorithms for sensor integration and instantaneous decision-making that drive the autonomous driving technologies in cars from firms like Tesla. The effectiveness of these systems showcases impressive task-specific optimization; however, it's important to understand that this capability does not imply the presence of more extensive, human-like cognitive skills or general problem-solving proficiency.

In direct contrast to Narrow AI stands the theoretical concept of Strong AI, which is often termed Artificial General Intelligence (AGI) in scientific literature. This anticipated stage of AI would have the capacity to comprehend, learn, and flexibly utilise its knowledge across a wide array of tasks, attaining a level of skill comparable to or even exceeding that of a human. This is echoed by (Ng & Leung, 2020) which indicates that Strong AI can exhibit human-like performance or hold intelligence comparable to that of humans. Such advanced AI would include the capability to reason, grasp context, and carry out intricate tasks that today's Narrow AI cannot understand or execute. Powerful AI with human-level intelligence must possess processes that can perceive, comprehend, reason, learn, and operate in the environment similarly to how humans can do so intelligently. This concept is consistent with the strong AI hypothesis, which asserts a significantly bolder statement. It suggests that a machine that can carry out intelligent tasks is not just mimicking thought but is authentically involved in the process of thinking. This might possibly include aspects of self-awareness and consciousness. Even with the thrilling recent advancements in machine learning models that have sparked considerable public debate, AGI continues to be solely a theoretical idea. Top experts in the field argue that reaching this milestone, if feasible, would necessitate revolutionary and currently unexpected progress in multiple domains. These essential advancements involve significant boosts in raw computational capacity, completely novel algorithmic frameworks, and a greater insight into the fundamentals of cognition. As a result, the disparity between the most advanced Narrow AI currently available and a self-aware AGI is vast, placing the latter idea firmly within the domain of scientific conjecture and discussions focused on the distant future.

A notably significant and swiftly progressing branch of contemporary Narrow AI is Generative AI (GenAI). This pertains to a category of AI methods that allow machines to generate completely new and original material. This material may contain

images, cohesive text segments, audio, and intricate design components. Generative AI models accomplish this by understanding the fundamental patterns and frameworks within extensive existing datasets. This sets them apart from conventional AI, which typically emphasises identifying patterns in data to execute tasks such as classification or forecasting. Instead, GenAI effectively produces original data outputs that convincingly mimic the training data it was trained on. This functionality is driven by sophisticated algorithms like Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs). In practical applications related to design and creativity, generative AI can generate a diverse range of outputs, from basic graphic components to complex user interface designs, therefore greatly enhancing and speeding up the human creative workflow.

With the ever-increasing integration of both specialised and generative AI systems into the fabric of everyday life across all levels of society, addressing a set of key issues has become critically important. The deployment of AI in essential and sensitive areas such as healthcare, criminal justice, and finance brings fundamental ethical principles to the forefront. Critical considerations include ensuring algorithmic transparency, establishing clear lines of accountability for automated decisions, actively working to identify and reduce societal biases embedded in training data, rigorously protecting individual privacy, and maintaining a suitable level of meaningful human supervision and control. The ethical consequences, the development of robust regulatory structures, and the broader societal effects of widespread AI adoption all demand careful, inclusive, and thoughtful assessment by a diverse group of stakeholders. It cannot be overstated how vital this ethical framework is to guarantee that the rapid pace of technological advancement proceeds in a responsible manner, ultimately benefiting human welfare and upholding human values as our interaction with technology deepens.

Looking toward the future, progress in AI will likely continue on two parallel tracks. The first track involves the continuous enhancement of capabilities within particular application areas, refining the power of both analytical and generative Narrow AI. The second, more profound track involves tackling essential philosophical and technical questions regarding the very nature of intelligence, the ultimate boundaries of machine learning, and the suitable, harmonious place for increasingly autonomous AI systems within human society. The trajectory of the field indicates a growing and deeper incorporation of AI technologies into various industries. This unavoidable growth

requires unparalleled collaboration among various professionals, such as computer scientists, area-specific specialists, ethicists, policy makers, and legislators. It is only through these collaborative endeavours that we can aspire to fully leverage AI's vast potential while actively tackling the major challenges it brings.

In summary, Artificial Intelligence is a vast and diverse domain that encompasses theoretical principles, continuous methodological advancements, and powerful real-world uses. Since its formal origin at the seminal Dartmouth Conference in the mid-20th century, the field has progressed considerably. Still, it keeps striving for its essential and bold aim which is to replicate and comprehend intelligent actions in machines. A thorough understanding of AI entails recognising its vast potential along with its existing limitations, distinguishing its different models and types, and valuing the significant ethical and philosophical dilemmas it compels us to face.

2.5 The Tidal Wave of Artificial Intelligence

We exist in a time of significant technological change. This period of time is commonly referred to as the Fourth Industrial Revolution (4IR). The concept of the Fourth Industrial Revolution (4IR) has gained significant attention in recent years, largely due to the influential work of Klaus Schwab, the founder and executive chairman of the World Economic Forum. Schwab (2016) outlines the key characteristics of this transformative period in his book "The Fourth Industrial Revolution," describing it as a fusion of physical, digital, and biological technologies.

The 4IR is fundamentally different from previous industrial revolutions, characterised by a range of new technologies that are merging the physical, digital, and biological worlds. These advancements include artificial intelligence, robotics, the Internet of Things, autonomous vehicles, 3D printing, nanotechnology, biotechnology, and quantum computing. According to Schwab, the 4IR will impact all disciplines, economies, and industries at an unprecedented rate.

Schwab further explores the transformative potential of the 4IR in his work "The Unprecedented Paradigm." He argues that this revolution will lead to a significant shift in industrial capitalism, fundamentally changing the global production and supply network through ongoing automation and the integration of smart technologies. Moreover, Schwab emphasises the social, political, and economic implications of the 4IR, as it introduces an era of embedded connectivity and augmented social reality.

Central to this transformation is AI, a collection of technologies that impart machines with skills formerly deemed uniquely human: to learn, reason, address issues, and comprehend language (Malaysia National Artificial Intelligence Roadmap [AI-Rmap], 2021). This is not a science fiction dystopia; instead, it is the concrete reality we experience every day. From the algorithms that shape our social media feeds to the predictive text that finishes our sentences, AI has seamlessly integrated itself into the fabric of contemporary society.

The worldwide adoption of AI is not just a technological fad but a crucial necessity for a country's competitiveness. The government of Malaysia, via the Ministry of Science, Technology and Innovation (MOSTI), clearly indicates in its AI-Rmap that AI represents a "game-changer in Malaysia's pursuit to advance and transform into a high-tech nation by 2030" (AI-Rmap, 2021, p. 4). This perspective is supported by evidence. A research referenced in the roadmap indicates that AI might contribute a notable 1.2% to Malaysia's yearly GDP growth, an essential enhancement in the economic environment following the pandemic (AI-Rmap, 2021, p. 12). Nations that ignore this trend, the document warns, risk missing out on immense economic opportunities and may struggle to remain relevant in an increasingly digital global economy.

2.6 AI Literacy in Creative Disciplines

When it comes to creative fields, safe to say, AI literacy takes on a different shape. Compare to Science, Technology, Engineering, and Mathematics (STEM) disciplines where AI applications usually focus on data analysis or automation, creative arts students must grapple with heavier questions. These questions that may strike at the heart of their professional creative identity. Cetindamar et al. (2022) argued that AI literacy in creative contexts must integrate technical fluency with the ability to critically a number of things. This integration must include evaluating AI-generated aesthetics, understanding intellectual property complexities, and leverage AI as a collaborative tool without surrendering artistic authority.

However, this specialised and different form of AI literacy presents a few distinct challenges unique to the art world. According to Xianghan O'Dea (2024), the

rise of GenAI has raised concerns about academic and research ethics. However, it could also be seen as a unique opportunity to explore ways of using such disruptive technology for moving teaching and learning practices forward. Those who practice creative work (especially professionally or for educational purposes) must balance efficiency gains with authenticity concerns. They must understand when AI can enhance their creative processes, and when it might compromise their artistic vision. Not only that, they must navigate the ever-evolving definitions of creativity, authorship, and originality in an AI-mediated landscape.

Past research has proved that AI does have the ability to serve as a valuable educational tool in creative fields when implemented thoughtfully. Dehouche and Dehouche (2023) examined the use of AI image generators like Stable Diffusion in teaching artistic genres and movements. Their results indicate that with proper educational guidance, AI tools can assist students in grasping technical ideas and experiential components of different artistic practices. To guarantee that students cultivate critical viewpoints, they need careful guidance; otherwise, they will merely achieve technical skills.

2.7 Critical Perspectives on AI Literacy Education

AI literacy in education has not all been all sunshine and rainbows. Not all approaches to AI literacy prove equally effective. Kim et al. (2022) caution against "solutionist" perspectives that paints AI literacy purely as a skills-based competency. The argument was that by focusing solely on instrumental training, it neglects the critical reflection necessary for responsible creative practice. This critique is extremely relevant for design education, where students must develop not just technical abilities but also thoughtful approaches to human-centred creativity.

The risk of superficial or shallow AI literacy education extends beyond individual skill development. When institutions are dead set on operational training, over critical engagement, they may inadvertently reinforce false beliefs about a technology's neutrality. Students might master AI tools, learning to use them efficiently without even questioning whose perspectives these tools embody, what biases they contain, or how they might reshape creative practices and professional norms.

To have an effective AI literacy education specifically in creative fields, we must therefore pursue multiple objectives simultaneously. Firstly, it must build

technical competence all the while promoting critical awareness. Alongside it, it has to also encourage experimentation while keeping ethical guardrails. An effective AI literacy education must acknowledge AI's potential to enhance creativity while protecting the human elements that make creative work meaningful.

2.8 AI in Malaysia

In order to truly grasp the environment in which Malaysian creative arts undergraduate students are shaped, bounded, and trained in, it is essential to first investigate the national framework for artificial intelligence (AI). This part of the literature review outlines the strategic, top-down effort for AI integration led by the Malaysian government. It will further point out its widespread application in critical fields, then focus on identifying the specific discrepancy between these wide-ranging initiatives and their execution in educational methods within creative higher education.

2.8.1 National AI Initiatives and Policy Framework

Malaysia has identified AI as a key focus for the country's progress. The Malaysian government introduced the Malaysia National Artificial Intelligence Roadmap (2021-2025) to offer thorough guidance for AI implementation across various sectors. It has an optimistic vision of making Malaysia a nation where AI augments jobs, drives national competitiveness, encourages innovation and entrepreneurship to bring economic prosperity, social good and improves people well-being. As for its mission which is to create and thriving national AI ecosystem that allows everyone (government, business, and people) to capitalise on the benefits of AI in a secured and safe manner for economic prosperity and social well-being. This plan presents six key strategies: establishing AI governance, advancing AI research and development by having a robust AI research and development ecosystem, escalating digital infrastructure to enable AI, fostering AI talents and skilled workforce, acculturating AI by increasing AI awareness and AI adoption, and finally, kick-starting a national AI innovation system (Malaysian Science, Technology Information Centre (MASTIC), 2023). These strategic initiatives demonstrate the government's dedication to establishing Malaysia as a regional centre for AI.

The foundation of Malaysia's official AI strategy is the National AI Office, also known as NAIIO. NAIIO is formed under the Ministry of Digital, it was established to serve as the central governing body for promoting the nation's AI initiatives. Its official aim is to establish Malaysia as a leader in AI technology and applications within the region. NAIIO is essential in influencing policies and regulatory structures, promoting innovation, speeding up AI integration, developing talent, and ensuring that AI advancements are ethical, inclusive, and advantageous for all Malaysians. In line with Malaysia's aspirations for high-income status, the NAIIO aims to position the country as a leader in AI innovation regionally, fostering a sustainable and inclusive economy driven by AI. AI technologies are seen as crucial for accelerating the country's shift to a knowledge-based economy, as they can facilitate automation, data analysis, and machine learning. This creates considerable chances to improve the competitiveness of sectors in the international arena. A main objective of NAIIO is to ensure that the benefits of AI are widely distributed across society, promoting an inclusive digital economy that incorporates all individuals, ensuring no one is left behind (The National AI Office (NAIIO) - MyDIGITAL, 2025).

The Malaysian government has strategically recognised the imperative of AI literacy, launching significant initiatives to prepare its citizens for a digital future. The national program 'AI untuk Rakyat', launched in January 2024, aims to raise public awareness and understanding of AI through self-paced online modules available in multiple languages, an initiative that achieved over one million participants within its first six months (MyDIGITAL, 2025). Parallel to this broad national effort, the Selangor state government implemented the Future Skills for All (FS4A) program, which focuses specifically on digital economic growth and inclusive education through public-private partnerships designed to equip educators and underserved students with digital and AI competencies (MyDIGITAL, 2025).

2.8.1.1 AI use in Malaysian education

To further point out the use of AI in the Malaysian context, we can see a large blanket of AI use across multiple sectors that make up the nation's productivity. For example, in the education sector Future Skills for All (FS4A) spearheaded by the state of Selangor is being implemented as part of the state's education strategy. The Selangor state is keen to future-proof the next generation by making the students digital ready for

global pace by equipping them with essential digital skills. The strategy employs public-private partnership model (PPP), collaborating between government (state and federal), private tech (Google, CelcomDigi), non-governmental organisation (NGO) like UNICEF and education institutions. Advancing FS4A Selangor Scale-Up, is rooted in the aspirations of Rancangan Struktur Negeri Selangor 2035 with Teras 1 centres in digital economic growth and Teras 3 focuses on inclusive education. It targets schools in Gombak, Petaling Utama, Petaling Perdana and Klang with tiered rollout in 3 phases. Computer Science and Design and Technology educators will be trained as Master Trainers to disseminate digital skills in their districts, ultimately impacting more than 13,000 students in 88 schools. The initiative particularly focuses on low-income and underserved communities, tackling educational disparities and enhancing digital literacy. More importantly, it also enhances the Selangor government's AI Trailblazers initiative, which seeks to allow students to be not only consumers but also creators in the field of AI, this very closely aligned with the value and expectancy aspects of the Expectancy-Value Theory. Through focused training, financial support for school initiatives, and tailored learning resources, FS4A exemplifies a model for enhancing systemic capabilities in digital education within Malaysia's evolving educational environment. The gap between policy ambition and pedagogical practice is not unique to Malaysia. Zawacki-Richter et al. (2019), in a systematic review of AI in higher education, found that whilst institutional interest in AI adoption was growing globally, implementation at the curriculum level remained fragmented and inconsistent, particularly in non-STEM disciplines. This finding contextualises Malaysia's challenge within a broader international pattern of institutional unpreparedness.

2.8.1.2 AI use in Malaysian Finance

Recently, in the financial sector, Malaysia has just launched its own AI-powered bank, Ryt Bank. Ryt Bank, claims to be the first AI-driven bank globally and signifies a notable advancement in Malaysia's digital landscape. It is supported by a coalition of the YTL Group and SEA Limited and functioning under the supervision of Bank Negara Malaysia (BNM). Their fundamental concept is to place AI not as a secondary resource but as the centrepiece of its customer interaction and service provision framework. Different to what is generally seen, this marks a basic shift from the general adoption

of AI which in traditional financial institutions, often uses it in limited capacities such as customer support chatbots or backend data processing.

The bank's commitment to an AI-first strategy is reflected in its leading digital assistant, "Ryt AI." This technology is largely propelled by ILMU, the first large language model (LLM) developed locally in Malaysia (Zulhusni, 2025). Establishing a national LLM signifies a strategic achievement, reducing reliance on overseas technology and advancing broader goals of digital sovereignty. One major improvement of Ryt AI is its capability to comprehend and respond to natural, conversational language, including operating in a mix of Bahasa Malaysia and English. This ability is not just a technical feature but a purposeful design choice aimed at enhancing user experience by integrating cultural and contextual relevance.

2.8.1.3 AI use in Malaysian Agriculture

In agriculture, National AI Office (NAIO) launched its first project, Rakan Tani. A strategic, state-driven effort to leverage AI not merely for technological advancement but for tangible socio-economic development, specifically targeting the stabilisation and modernisation of the agricultural sector. The Rakan Tani platform exemplifies a holistic approach to deploying AI in a challenging, real-world environment. It moves beyond simplistic automation to address the entire agricultural value chain, tackling chronic issues like market volatility, financial exclusion, and supply chain inefficiencies. Its core innovation is an AI-powered pre-harvest commerce system, which connects farmers with buyers early in the cultivation cycle. This mechanism uses predictive analytics to facilitate order matching, allowing farmers to secure favourable prices based on projected yields. This introduces a vital aspect of financial stability into a typically unpredictable livelihood, directly enabling smallholder farmers. To further demonstrate its integrated design, Rakan Tani incorporates AI to ease access to both public and private services. This includes automating the application process for government subsidies by integrating with national identification (ID) systems. This reduces bureaucratic hurdles. Moreover, the platform financially innovates by allowing AI-generated pre-harvest orders to serve as collateral, enabling farmers who are often excluded from traditional banking to access funding. This is complemented by real-time digital payout systems that alleviate cash-flow challenges.

Its multi-stakeholder governance is key to the project's potential success and can become a model for similar interventions. The development of Rakan Tani is not an isolated technological venture but the product of a strategic collaboration between the Ministry of Digital, the Ministry of Agriculture and Food Security, academic institutions like Universiti Putra Malaysia (UPM), and private sector actors such as Segi Fresh and the Global AI Village (GAIV). This consortium guarantees that the technological solution is based on agricultural knowledge, market conditions, and expandable business assistance. Crucially, the design philosophy prioritizes accessibility and inclusivity. The service is delivered through the ubiquitous WhatsApp platform and supports local languages. Greatly reducing the entry barrier for a community frequently on the disadvantaged side of the digital divide. This human-centred approach guarantees that the advantages of AI are not limited to a tech-savvy elite but reach the core of the agricultural labour force.

In conclusion, the Rakan Tani initiative serves as a seminal example of a "citizen-centric" AI application. It demonstrates how a thoughtfully designed AI ecosystem, supported by strong public-private-academic partnerships, can be harnessed to drive sectoral transformation. By providing a blueprint for using AI to enhance market efficiency, financial inclusion, and supply chain resilience, the project sets a significant benchmark for how emerging economies can strategically deploy advanced technologies to empower traditional sectors and foster sustainable, equitable growth.

2.8.1.4 AI use in Malaysian Healthcare Landscape

Malaysia is moving from theory to practicing AI in healthcare, offering tangible solutions to long-standing challenges. Rather than replacing clinicians, AI is emerging as a powerful supportive tool, enhancing precision and efficiency across various medical specialties.

According to the National Artificial Intelligence Office (NAIO), applied AI is facilitating quicker and more precise disease identification, leading to a decrease in inaccuracies in pathology reports. This technological changes not only boosts precision but also greatly improve operational effectiveness. By optimizing standard processes, AI enables healthcare professionals to concentrate on other pressing and intricate cases. The efficiencies gained by this are significant, with some projections indicating a 50% decrease in diagnostic response times and operational cost reductions of as much as

30%. In the end, this series of advancements such as quicker diagnoses, more effective personnel, and reduced expenses, culminates in one essential result: enhanced care for patients.

The Ministry of Health has deployed AI systems to improve healthcare delivery and disease management. During the COVID-19 pandemic, Malaysia developed the Hotspot Identification for Dynamic Engagement (HIDE) system, which used AI to predict potential infection hotspots and guide public health interventions (Dzulkifly, 2021). This application demonstrated AI's potential for addressing urgent public health needs.

World Health Organization (WHO) (2023) reported that the mental health disorders affect nearly 29% of the Malaysian population. A study by Ng Kok Wah (2025), found that AI in its form as a transformative tool has emerged victorious and helpful in mental health care. Its role and form in chatbots, and serving countless other functions like being able to make predictive analysis, automating routine tasks, early detection of issues, and crisis prevention is instrumental. It helps patients' mental health care by providing innovative and tailored solutions that can greatly improve the provision of mental wellness assistance. Administrative efficiency has also been targeted through AI implementation. Digital primary care clinics utilising AI-automated patient registration and workflow management have reported reductions in waiting times to below 30 minutes (San, 2025). From a public health economics perspective, pilot programmes have explored cost-effective integration of AI into existing diagnostic infrastructure.

These instances together highlight a distinct pattern: AI is being practically incorporated in Malaysia to enhance human capabilities, tackle efficiency challenges, and ultimately, establish a more adaptive and fair healthcare system.

2.8.1.5 AI use in Malaysian Governance and Infrastructure

The integration of AI is becoming a cornerstone of institutional reform within Malaysian governance. The Malaysian Anti-Corruption Commission (MACC) is leveraging AI as a pivotal tool within its National Anti-Corruption Strategy (NACS) 2024–2028. The agency's leadership has described AI as a practical weapon to detect, monitor, and prevent corrupt practices, fundamentally transforming anti-corruption efforts (Prime Minister's Department, 2024). A fundamental aspect of this is the

minimisation of human interactions in administrative procedures through digitalisation, which directly reduces chances for corruption especially in the form of bribery and misuse of authority's power.

Operationally, the MACC employs a suite of AI technologies. This includes natural language processing to analyse unstructured data, open-source intelligence tools for tracing digital footprints, and optical character recognition for accurate document digitisation. The process is enhanced with automated data preparation and identification of suspicious patterns, while AI-driven dashboards provide immediate insight into case handling and resource distribution. AI-based platforms are utilised in governance for essential tasks like handling whistle-blower reports, monitoring digital evidence, and improving oversight of public organisations.

Public engagement has also been modernised through AI. To connect with younger demographics, the MACC launched 'SARA' (Saya Anti-Rasuah), a digital ambassador on TikTok powered by conversational AI. Supported by generative AI tools, the commission produces high-quality content without traditional production methods, a strategy that has received regional recognition for its effectiveness in public communication.

The MACC's commitment to utilising AI as a new weapon against increasingly complex corruption crimes signifies a decisive shift in its operational doctrine (Mohd Noor, 2025). However, the efficacy and ethical implementation of these systems, particularly concerning data privacy and algorithmic bias in investigative contexts, calls for an ongoing critical scrutiny as these technologies become more deeply embedded in the fabric of national governance.

2.8.2 Summary

While these national and state-level efforts indicate a strong top-down push for AI adoption and digital readiness, their focus is largely on general literacy and broad awareness. Its instrumental, skill-based orientation misses the critical reflection that is core in creative disciplines, where students must grapple with questions of authorship, originality, and the meaning of human creativity in an AI-mediated world. A significant and unaddressed gap exists in understanding how these macro-level policies translate into specific pedagogical practices within distinct disciplines, particularly within creative education in public universities. Despite the profound implications and

growing role of AI, research on its application within design studies remains few.

2.9 Expectancy-Value Theory (EVT)

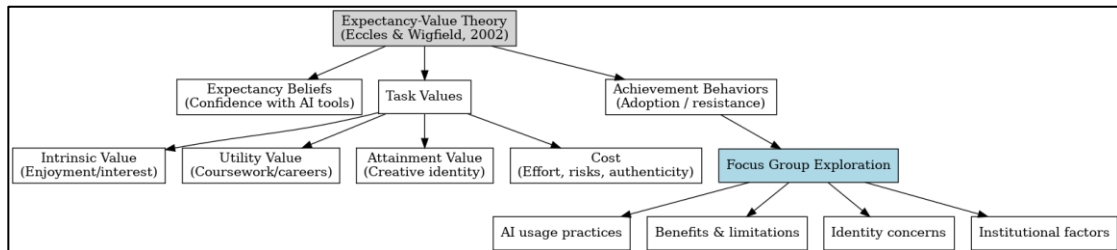


Figure 2.1 Research framework based off EVT

Expectancy-Value Theory (EVT) provides a strong psychological framework for understanding motivation, particularly in educational and technological contexts (Eccles & Wigfield, 2002). The theory posits that an individual's motivation to engage in a task is determined by their expectancy for success (belief in their ability to perform the task) and the value they assign to the task. Within this study, EVT is applied to understand the motivational dynamics that shape how creative arts undergraduates at UiTM engage with, resist, or selectively adopt artificial intelligence tools in their academic and creative practice. The five key constructs of EVT as operationalised in this study are defined as follows. The expectancy component of EVT includes individuals' beliefs of their ability to succeed at a given task. These beliefs develop through a number of reasons such as past experiences, social comparisons, feedback from others, and self-assessment of skills. In technology adoption contexts, expectancy beliefs relate to self-efficacy. Self-efficacy refers to a users' confidence in their capacity to learn and effectively use new tools. Higher expectancy beliefs generally indicate greater willingness to engage with technology and persevere through challenges. In essence, expectancy beliefs refer to students' confidence in their ability to successfully use AI tools in their creative work. In technology adoption contexts, expectancy beliefs are closely related to self-efficacy which is a user's perceived capacity to learn and effectively operate new tools (Bandura, 1997; Bong, 2001). Students with high expectancy beliefs are more likely to engage with AI tools persistently and explore their capabilities, whilst those with low expectancy beliefs may avoid or minimise usage

despite recognising potential benefits. In the context of this study, expectancy beliefs are particularly relevant to understanding the divergence between students' adoption of text-based AI tools such as ChatGPT and their reluctance to engage with visual AI tools such as Adobe Firefly or MidJourney. Expectancy-value theory is defined as a framework that posits that achievement-related choices are motivated by individuals' expectations for success and the subjective value they assign to tasks, which includes components such as attainment value, intrinsic value, utility value, and cost. This theory emphasises the interplay of competence-related beliefs and task values in influencing motivation and achievement outcomes (Leaper, 2011).

The value component of EVT is a bit more complex. Eccles and Wigfield (2002) identify four distinct types of task value. Attainment value refers to the significance an individual places in doing well on a task and relates to identity and self-concept. In creative disciplines, attainment value is bound together with the development of a distinctive artistic voice, professional identity, and a sense of authorship. If students perceive AI as threatening their ability to develop or express this identity for example, by producing generic or homogenised outputs, then the attainment value of mastering AI tools may diminish significantly. Second, intrinsic value refers to the enjoyment or interest gained from the task itself. In creative practice, intrinsic value is particularly prominent. Students often derive deep meaning from the hands-on process of making, from the gradual development of a concept, and from the physical and cognitive engagement with their craft. Where AI automates or bypasses elements of this process, intrinsic value may be reduced even when utility value increases. Utility value includes the perceived usefulness of the task to achieve future goals whether academic, professional, or practical. In educational technology contexts, utility value is often the primary driver of adoption as students engage with tools they believe will help them perform better or prepare them for the workplace (Wang et al., 2023). In this study, utility value is reflected in students' recognition of AI as beneficial for efficiency, ideation support, and industry readiness. While cost represents the negative aspects of engaging in the task, this includes effort required, opportunity costs, and psychological costs such as anxiety, identity threat, or loss of authenticity. Cost is typically the least examined construct in EVT research, yet it is theorised to carry particular weight in contexts where task engagement poses a risk to self-concept (Perez et al., 2019). In creative fields, cost calculations extend beyond time and effort to encompass threats to artistic authenticity, concerns about plagiarism, and anxieties about the perceived

devaluation of human creative labour. This study argues that cost is the dominant EVT construct in understanding creative arts students' relationship with AI, a proposition supported by the findings. To visualise the values and cost, they are listed in the list below:

1. Attainment Value: The personal importance of doing well on the task.
2. Intrinsic Value: The enjoyment or interest derived from the task itself.
3. Utility Value: The perceived usefulness of the task for achieving future goals.
4. Cost: The perceived negative aspects of engaging in the task, which can include effort, time, opportunity cost, and psychological cost.

EVT has been effectively and widely applied to understand technology adoption in education. Seminal and contemporary studies show that students' confidence in using digital tools (expectancy) and their perception of their usefulness for academic and career goals (utility value) significantly influence their engagement intentions and usage patterns (Bong, 2001; Wang et al., 2023). However, it is crucial to note that this body of study is predominantly situated in Science, Technology, Engineering, and Mathematics (STEM) or general education contexts. In a study by Yin and Goh (2025) done with 609 university students additionally reinforces the significance of Expectancy-Value Theory in influencing interaction with AI education. The results of the study which sought to understand factors influencing student behavioural intentions in Singapore's AI education indicated that students' beliefs about expectancy and value had a substantial impact on their intention to learn and utilise AI. It is also important to note that various aspects of cost of EVT generated opposing outcomes: whereas effort cost had a detrimental effect on intention, emotional cost was discovered to enhance students' motivation to learn about AI. Another significant factor which determines AI interaction was background factor. Background factors were demonstrated to interact with expectancy, value, and cost beliefs in influencing behavioural intention. These results emphasise the intricacy of motivational dynamics. This indicates that not every perceived cost serves as an obstacle, but can sometimes function as a catalyst for engagement.

2.9.1 Prior Applications of EVT in Technology Adoption and Educational Contexts

Before applying EVT to the specific context of AI integration in creative education, it is necessary to establish the framework's empirical track record in related domains. Doing so demonstrates that EVT is not merely a theoretical proposition but a framework with a sustained history of application in educational technology research, lending credibility to its adoption in the present study.

EVT was first applied systematically to academic motivation by Eccles and colleagues in the early 1980s, examining how students' beliefs and values predicted course selection and achievement in mathematics (Eccles et al., 1983). Subsequent decades saw the framework extended progressively into technology-related educational contexts. Bong (2001) demonstrated that EVT constructs in particular utility value and expectancy beliefs, significantly predicted university students' course performance and their intentions to continue engagement with specific academic domains, establishing EVT as a predictor not only of present behaviour but of future adoption decisions.

In the context of digital technology adoption, Wang et al. (2023) applied EVT to examine university students' intentions to use AI tools in learning, finding that utility value and expectancy beliefs were the strongest predictors of engagement, whilst cost — particularly effort cost — moderated adoption particularly among students with lower prior experience with digital tools. This finding is directly relevant to the present study, in which students' varying levels of AI familiarity produced markedly different adoption patterns.

EVT has also been applied in e-learning and educational technology contexts more broadly. Trautwein et al. (2012) found that EVT constructs predicted students' homework engagement and self-regulated learning behaviours, demonstrating the framework's utility beyond classroom task settings. Akin to EVT, Chiu (2022) applied self-determination theory (SDT) to understand students' engagement in online learning. Student engagement, fuelled by motivation as described by self-determination theory (SDT), is essential for learning. that perceived autonomy, relatedness, and competence are important predictors of the four dimensions of student engagement. Perceived relatedness serves as the key indicator of behavioural, emotional, and agentic engagement, while perceived competency is the primary indicator of cognitive engagement. This parallel to the present study's finding that identity cost functions as a

primary barrier to AI adoption in creative practice lends further empirical support to the EVT framework's applicability here.

Within creative disciplines specifically, the application of EVT remains limited, which is itself a gap this study seeks to address. Fleischmann (2024) identified authenticity and authorship concerns as significant barriers to AI adoption among graphic design practitioners and students, findings that align closely with the cost and attainment value dimensions of EVT, even where EVT was not explicitly named as the theoretical frame. Tien and Chen (2024) similarly found that design students' motivational orientation towards AI tools was shaped by a complex negotiation between perceived utility and perceived threat to creative identity. A distinct dynamic that EVT's multi-dimensional value structure is uniquely positioned to capture.

Taken together, these prior applications demonstrate that EVT is an empirically grounded framework with established relevance to technology adoption, digital literacy, and motivational dynamics in educational settings. Its extension to creative arts AI integration in the present study is therefore theoretically justified and empirically anchored.

2.9.2 Extending EVT to Creative Arts

Özsaraç and Ergin (2025) applied EVT in their study to determine the factors that drives teachers to use AI in preschool education. Their study found that teachers generally reported high levels of expectancy and perceived value. Not only that but moderate perceptions of cost. Factors such as professional experience, postgraduate qualifications, and frequent use of AI in instructional planning were associated with stronger motivation and lower perceived barriers. Their qualitative insights further showed that AI was perceived to first, enhance instructional quality and secondly, enhance professional efficiency. Despite these upsides, the participants also noted their concerns in regards to aspects such as data security, overreliance on screens, reduced creativity, and increased workload. The findings suggest that familiarity with AI tools contributes to higher self-efficacy and fosters more positive value perceptions while reducing perceived costs. Applying EVT to better understand AI integration among creative arts students requires acknowledging discipline-specific characteristics. In creative fields, the cost component of EVT carries substantial weight. Costs include not just time and effort but also potential threats to creative authenticity, professional

identity, and artistic integrity. A concern that is less prominent in contexts where personal creative expression proves less central such as STEM is that students may perceive AI use as risking what makes their work distinctively theirs. Flake et al. (2015) claims that the cost factor of the Expectancy-Value theory are often overlooked in empirical research. To gauge and prove this claim, the study comprehensively employed methods such as conducting a literature review of theory and existing measurement, a qualitative study with students, a content alignment with experts, exploratory and confirmatory factor analysis, and a correlational study. The study found that the cost dimension are associated with multiple other aspects. These aspects are and can be identified such as motivation constructs, and the student's own performance. The study also redefined the cost factor of the Expectancy-Value theory as consistent with their theoretical review and qualitative inquiry. The student focus groups of the study further confirmed that the cost factor is especially significant, even principal when their motivation is considered.

The intrinsic value aspect also operates differently in creative contexts. Creative students often obtain deep enjoyment and meaning from a hands-on creative processes. This could be physical manipulation of materials, the gradual development of artistic vision, and the problem-solving involved in making their ideas a reality, bringing vision (what they see in their mind) into real life. Should AI automate certain aspects of these processes, it may reduce intrinsic value even if it increases utility value through better efficiency. This tension conflict among different value types creates motivational complexity that is absent in straightforward efficiency-driven adoption scenarios.

Attainment value proves to be particularly significant for creative students. The definition of success in creative fields depends heavily on developing their distinctive personal style (despite it not showing in the final artwork) and artistic voice. If students perceive AI as a threat to this uniqueness by homogenising creative outputs or enabling others to easily imitate their artistic styles, the attainment value of mastering AI tools may diminish. On the other hand, if AI helps students achieve aesthetic goals currently beyond their technical skills, attainment value may increase.

A clear and meaningful gap exists in applying and testing EVT within creative arts education, where motivational factors are deeply entangled with emotion, self-expression, and, most importantly, creative autonomy and professional identity. These factors can heavily influence perceptions of cost and value. In creative domains, cost calculations are not merely about time or effort; they encompass threats to artistic

authenticity and professional value, suggesting that EVT requires modification and extension to fully capture the motivational dynamics at play in fields like design. By applying EVT in creative contexts, this study contributes to the literature by providing empirical data on AI integration within Malaysian creative education while extending theoretical understanding of how student attitudes towards AI reflect complex negotiations between technological utility, professional identity, and creative authenticity rather than simple skill-based adoption patterns. This study focuses on two key questions: (1) how students' confidence in using AI tools reflects their expectancy beliefs, and (2) how students' perceptions of AI's utility, intrinsic interest, and costs (including authenticity concerns) shape their adoption behaviours.



Plate 2.1 The View of the Kompleks Alam Bina & Senireka, Fakulti Seni Lukis & Seni Reka UiTM Puncak Alam. Source: BMES Maintenance Services Sdn. Bhd.

2.10 Conceptual Framework

The framework recognises changing relationships. Experiences with adoption shape expectancy beliefs (successful experiences enhance confidence; negative ones diminish it) and task values (uncovering new creative opportunities raises intrinsic value; facing limitations or authenticity issues heightens perceived costs). This recurring relationship indicates that early adoption choices influence later involvement in continuous manners.

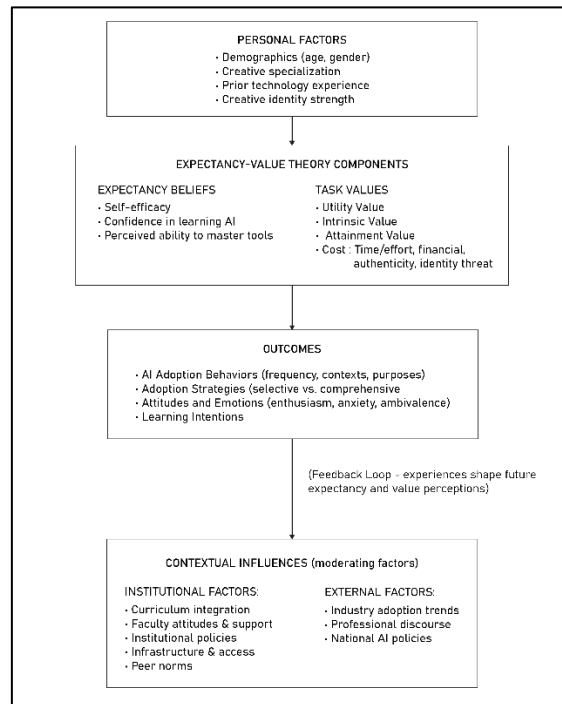


Figure 2.2 The Conceptual Framework of this study based on Expectancy-Value Theory (EVT).

The conceptual framework guiding this investigation represents a synthesis. It integrates the core components of Expectancy-Value Theory (EVT) with a range of factors that are specifically pertinent to the adoption of artificial intelligence within creative education. This integrated model, as visualised in Figure 2.2, positions the adoption behaviour of students as the central outcome to be understood. It proposes that this behaviour is not a simple reaction to technology, but is fundamentally driven by the motivational dynamics outlined in EVT. More specifically, an individual's expectancy beliefs and their subjective task values. Nonetheless, the framework importantly recognises that these motivational factors do not develop separately or all of a sudden.

The motivational factors are actively influenced and altered by a variety of personal, institutional, and professional factors unique to the setting of a creative arts education.

Central to the model are the basic principles of Expectancy-Value Theory. Expectancy beliefs reflect a student's confidence in their capability to effectively learn and utilise AI tools. This confidence growth of the students is not unpredictable, it actually relies on a base of previous encounters with digital and creative software. The availability of educational materials, whether online guides, peer support, or structured training from institutions, also plays a significant role. The faculty's role is especially crucial in this context. When the lecturers demonstrate they actually use of AI and offer

clear directions, it significantly enhances student confidence. Moreover, initial experiences with these tools regardless of being viewed as successful or not, can significantly influence a student's lasting confidence in their own abilities.

At the same time, task values include the different motivations a student may have for interacting with AI. Utility value refers to the perceived effectiveness of AI in achieving practical objectives. This can be enhancing coursework efficiency, realising difficult creative ambitions that they themselves cannot realise yet, or developing skills considered essential for future jobs. Intrinsic value is the sheer enjoyment or intellectual curiosity that the exploration of AI might spark. Attainment value however is a lot more personal, it concerns the importance of being competent with AI for a student's sense of identity and self-worth as an emerging creative professional. Regardless, the cost aspect reflects the perceived drawbacks. These are not just monetary obstacles alike the costs associated with premium tool subscriptions. They are an accumulation of the considerable investment of learning effort, the opportunity cost of time taken away from developing traditional skills, and possibly more deeply in a creative domain. The identity-related cost of undermining one's sense of authenticity and artistic integrity.

These essential motivational elements are also refined by a range of individual and contextual influences. A student's demographic characteristics, such as gender and socioeconomic status, may significantly affect their initial access to technology and influence their foundational attitudes. Their particular creative focus, whatever they may be, may it be illustration, advertising, multimedia or graphic design, might lead them to varied interactions with AI, influenced by the standards of their subfields.

A student's entire history with technology provides the foundational layer upon which AI-specific self-efficacy is built. Perhaps most critically, the strength and nature of a student's creative identity, including their attachment to established, traditional workflows, will heavily colour how they perceive the value and cost of integrating a non-human agent into their creative process.

The educational environment itself constitutes a powerful formative layer. Institutional and environmental elements shape the present and immediate context in which motivations are developed. How far the official curriculum purposefully incorporates AI into projects and learning goals sends a powerful message to students. The behaviours and encouragement (or lack thereof) from instructors are continually observed and absorbed by these students. Whether specific or vague, official institutional policies on the use of AI in assignments establish a regulatory environment

that students must navigate. The tangible issues of infrastructure and accessibility, like the presence of robust computing power and technical assistance, serve as significant facilitators or obstacles. However, in the final analysis, the actions and evolving norms within a student's circle of friends create a robust social context that influences individual choices.

Looking past the university boundaries to the wider industry and professional landscape. It strongly influences how students perceive value. Understanding the fast integration of AI in professional creative sectors and the demands of future employers adds a sense of urgency to the educational journey. The ongoing discussions among seasoned experts and industry heads regarding the function and ethics of AI create a story that students engage with. On a broader scale, national policies and public discussions advocating for AI literacy to enhance economic competitiveness create a societal context that influences how students perceive the value of these skills.

Ultimately, the confluence of these motivational, personal, institutional, and professional factors manifests in a set of tangible outcomes. These are the observable and reported behaviours and attitudes that this study seeks to document and explain. They range from the practical which can be the frequency, context, and specific purposes of AI tool adoption, to the strategic, such as the distinctive patterns of how students choose to weave AI into their creative process. They also encompass the affective domain, including the complex emotions of enthusiasm, anxiety, or ambivalence that accompany this technological integration, as well as the students' forward-looking intentions to continue developing their AI competencies.

2.11 Application of Framework and Theoretical Contribution

This framework directs the collection and analysis of data in the study. Focus group protocols examine expectancy beliefs by inquiring about confidence, abilities, and learning experiences. They investigate task values by exploring perceived advantages, interest, job relevance, and issues. They examine contextual elements by analysing institutional policies, faculty advice, and peer impacts.

The framework also establishes the theoretical contribution of this research. The study examines if the components of EVT function alike across various creative arts disciplines or need adjustments for areas where identity, authenticity, and creative expression are key. The study specifically investigates if cost factors in creative settings

are more significant than in areas previously analysed, possibly overshadowing utility and expectation beliefs that generally forecast adoption in EVT contexts.

Initial results from this study indicate that cost elements tied to creative authenticity are indeed more impactful in creative education compared to Science, Technology, Engineering, and Mathematics (STEM) environments. This finding suggests that EVT uses in creative areas must clearly prioritise cost factors and evaluate identity-related expenses in addition to practical costs such as time and effort. This theoretical enhancement would strengthen EVT's ability to explain technology adoption in areas where professional identity and personal expression are essential to the practice

2.12 Summary

To sum up, a review of the relevant literature reveals a multifaceted landscape surrounding the integration of artificial intelligence by undergraduate students within the creative arts in Malaysia. This examination has traversed several interconnected domains, each contributing a vital perspective to the overall picture. The starting point for this inquiry was necessarily the conceptual foundations of digital and AI literacy. It is important to recognise that digital literacy itself is not a static concept. Its definition has progressively evolved. Initially, it was often equated with the mere operation of computer systems and software. Now, however, its scope has broadened considerably. It now encompasses a more critical set of capabilities. These include advanced critical thinking skills. They also involve ethical reasoning in digital spaces. Additionally, they require an ability for adaptive learning in environments that are becoming increasingly technologically complex.

Drawing from this basis, AI literacy emerges as a distinct, specialised subset of skills. This form of literacy is focused specifically on the understanding of artificial intelligence systems. It requires understanding how to assess their results and constraints critically. Crucially, it also entails utilising these powerful tools in a responsible and ethically responsible way. When this concept is applied to the creative fields, however, the requirements become uniquely nuanced. The standard technical proficiency is, of course, a necessary component. Yet, it is far from sufficient. The conversation must expand to address profound concerns that are central to artistic practice. Questions of authorship become ambiguous. The very notion of authenticity

is challenged. The stability of an artist's professional and personal identity is called into question. These are not secondary issues. They are, for the creative individual, often the primary point of contention.

The national context of Malaysia provides another critical layer of understanding this. There exists a clear commitment from the government towards fostering a technologically advanced society. This is demonstrated by strategic initiatives such as the National AI Roadmap. The 'AI untuk Rakyat' program further shows an intention to democratise understanding. Yet, the implementation of these high-level aspirations reveals a more divided reality. The integration and adoption of AI technologies has been notably uneven across different sectors of the economy. Progress is more visible in areas like healthcare and financial services. Larger enterprises have also been more skilled at integration. In contrast, small and medium-sized businesses, or SMEs, face steeper difficulties. Academic institutions, particularly those dedicated to the creative arts, also encounter significant barriers. As a result, a noticeable gap has emerged. This is the gap between policy ambitions and the actual practices on the ground. For creative education, this gap manifests as a distinct lack of discipline-specific guidance. Students and educators are left without a clear framework for action.

Looking beyond national borders offers a valuable international perspective. Globally, the creative industries are grappling with a dualistic reality. AI tools present remarkable opportunities. They can boost productivity in real concrete ways. They enable forms of experimentation that were previously thought unimaginable. Simultaneously, they also introduce significant challenges. Anxieties regarding the authenticity of AI-generated art are widespread. There are serious concerns about the future of employment for creative professionals. The fundamental value of creative labour is being re-evaluated. In response, design education institutions worldwide are navigating a period of profound uncertainty. Their approaches to integration vary dramatically. Some have embraced the technology with enthusiasm. Others have responded with cautious restriction, imposing limits on its use. Within this global context, the position of Malaysian creative education appears to be one of catching up. It lags not only behind developments in its own commercial industries but also behind evolving pedagogical trends internationally. This situation creates a difficult scenario for students. They are often forced to navigate the complexities of AI integration on their own, without the benefit of systematic, institutional guidance.

To make sense of the individual decision-making processes within this complex environment, this review turns to motivational theory. Expectancy-Value Theory, commonly referred to as EVT, provides a solid framework. This theory examines the mental processes that drive engagement. It suggests that an individual's choice, perseverance, and performance can be understood through two primary components. The first is expectancy belief. This is essentially a person's confidence in their own ability to successfully perform a given task. The second component is task value. This is a broader assessment of the task's significance, its intrinsic interest, its perceived usefulness, and the associated costs. Applying this lens to the integration of AI in creative contexts reveals fascinating observations. It suggests that cost considerations may carry an unusual weight. For an artist or designer, they represent more. These are not merely time or financial costs. They are often identity-related costs. The potential compromise of one's creative integrity, or the fear of producing inauthentic work, serves as a significant psychological barrier. This dimension of cost may, therefore, be far more influential in creative fields than it is in more technical domains like Science, Technology, Engineering, and Mathematics (STEM).

Therefore, the conceptual framework for this investigation integrates the core components of Expectancy-Value Theory. It weaves them together with a series of factors that are specific to creative education. These include personal artistic identity, institutional policies, and evolving professional norms. This synthesis results in a comprehensive model. It is a model designed specifically to investigate the nuanced process of AI adoption among design students.

In synthesis, the various strands of literature examined here collectively establish a clear conclusion. This review has traced the evolution of AI, highlighted the emerging need for AI literacy, and examined global and Malaysian developments in creative education. It has also identified key concerns around ethics, fairness, and creative integrity in an AI-augmented learning environment. These insights reveal that while creative students are increasingly exposed to AI, guidance, structure, and literacy development remain uneven. This directly shapes the present study's focus. The first research question which is, *What is the status quo of AI use among creative arts undergraduates?* is grounded in the literature showing that adoption patterns and confidence vary widely among students. The second question, *How is AI being integrated and utilised by creative arts undergraduate students for the future?* is shaped by the gaps in current research around creative motivation, skill development, and

ethical readiness. By connecting these gaps to motivational theory, this review lays the foundation for exploring how students currently navigate AI and how they imagine its role in their creative futures. To sum up, the integration of AI into creative education is not a simple, nor a linear process. It represents a deeply complex phenomenon. Understanding it requires diverse strategy, an approach from all sides of the field. Attention must be paid simultaneously to technical, motivational, institutional, and cultural dimensions. Consequently, any attempt to understand how Malaysian design students navigate this new terrain demands sophisticated frameworks. These frameworks must be capable of a dual recognition. They must acknowledge the universal dynamics of technology adoption. At the same time, they must be sensitive to the discipline-specific concerns that are unique to, and definitive of, creative practice itself. The next chapter explains how this study was designed to investigate these questions through focus group discussions with final-year creative arts students.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter serves to articulate and justify the methodological framework undertaken for this investigation. The study aimed to explore the complex phenomenon of artificial intelligence (AI) integration among a specific cohort: creative arts undergraduates within the Graphic Design programme at Universiti Teknologi MARA (UiTM), Puncak Alam. To effectively understand the subtle perceptions and real-life experiences of these students, a qualitative research design was considered the most suitable. This method provided the necessary flexibility and depth to understand their perspectives on the benefits, limitations, and broader implications of integrating AI tools into their creative practice.

The primary instrument for data collection was a series of focus group discussions (FGDs). This method was purposefully chosen to encourage an engaging exchange of ideas, enabling participants to expand on each other's perspectives and collaboratively create understanding around a topic that is both innovative and personally meaningful. The ensuing dialogue offered rich, textual data that forms the core of this study's findings. The table below shows the summary of method used for this study.

Table 3.1
Summary of Research Data Collection and Analysis

Component		Details
Participants		30
Number of focus group discussions		6
Duration of focus group discussion		60-80 minutes
Analysis method		Thematic Analysis, following the systematic phases outlined by Braun and Clarke (2006).

The following sections will systematically detail the philosophical assumptions that underpin this qualitative inquiry. Furthermore, it will elaborate on the specific

research design, the rationale behind the site and participant selection, the development of data collection instruments, and the procedures for thematic analysis. A critical discussion on the role of researcher reflexivity will be included, alongside a thorough outline of the ethical safeguards implemented throughout the research process. The primary goal of this chapter is to offer a clear, logical, and thorough description of the methodological exploration. This transparency is fundamental to establishing the trustworthiness and credibility of the study's subsequent findings and conclusions.

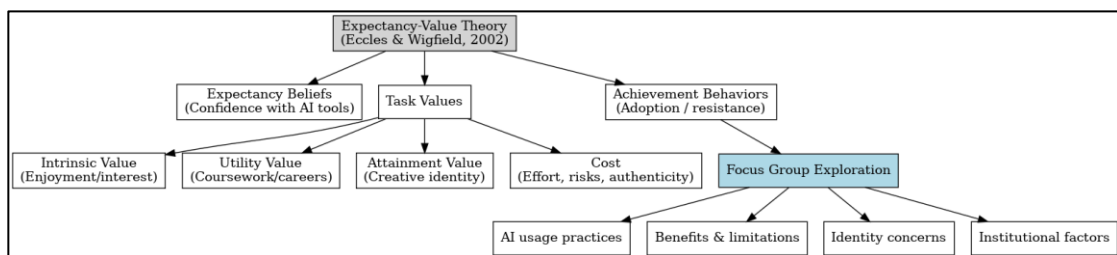


Figure 3.1. Research framework based on EVT

3.2 Research Design

As mentioned in the introduction of this chapter, this study adopted a qualitative research design. Qualitative design was adopted to generate rich, nuanced insights into students' experiences. Qualitative approaches are particularly appropriate when the research objective is to explore meanings, interpretations, and processes rather than to test hypotheses or establish statistical generalisability (Creswell & Creswell, 2018).

The study was conducted within the Faculty of Art and Design at Universiti Teknologi MARA (UiTM), Puncak Alam campus. The university was selected due to its established role as a leading institution for creative arts education in Malaysia and its specific relevance to the research problem. The focus on final-year undergraduate students from the graphic design programme was deliberate. The reason as to why they are chosen is because these participants have completed most of their coursework, and have gone through industrial training (subject in their course which requires them to intern). They also possess developed creative identities, are engaged in industry-facing projects, and stand at the cusp of transitioning into professional practice. Their perspectives therefore provide rich, retrospective reflections on their educational journey and forward-looking considerations about their careers.

Expectancy-Value Theory (EVT) served as the guiding theoretical lens for this study. The framework shaped the development of the data collection instruments, informed the semi-structured questioning route for focus groups, and provided a structure for interpreting the participants' beliefs, values, and reported behaviours related to AI.

3.3 Participants and Sampling

The target participants for this study was final-year undergraduate students enrolled in the graphic design program at UiTM Puncak Alam. The program comprises four distinct majors: Graphic Design, Illustration, Advertising, and Multimedia. This diversity ensured that a variety of specialisations within the broader graphic design field were represented.

This study employed a purposive sampling strategy to select participants. Purposive sampling involves intentionally selecting individuals who have experience with the central phenomenon being investigated, in this case, the use of AI in academic design work. This non-probability sampling technique is standard in qualitative research where the goal is to gain in-depth insights from information-rich cases rather than to achieve statistical generalisability.

A total of thirty participants were recruited. The sample size was determined based on the principle of data saturation, the point at which new data collection no longer yields additional novel insights or thematic categories (Mocănașu, 2020). The sample was distributed across the four majors to capture a spectrum of viewpoints: Illustration (n = 7), Advertising (n = 8), Multimedia (n = 7), and Graphic Design (n = 8).

3.4 Instrument Development

The semi-structured interview questions used to guide the focus group discussions were developed to reflect the three primary constructs of expectancy-value theory. The three primary constructs of the theory are expectancy, value and cost. The questions were further organised into personal, academic, and environmental aspects to capture students' expectancy beliefs, perceived value, and perceived cost in this study's case AI integration. The full list of questions is provided in Appendix 1.

Questions related to students' confidence, familiarity, and anticipated success in using AI tools (Q2, Q5, Q9) were designed to capture the expectancy component, particularly in terms of self-efficacy and future-oriented beliefs.

The value component was explored through multiple dimensions. Intrinsic value was addressed through students' initial perceptions and feelings towards AI (Q1, Q2), while utility value was examined through perceived benefits, relevance to industry, and applicability in education (Q3, Q6, Q8). Attainment value was reflected in students' views on necessary AI-related skills and their importance to future professional identity (Q7).

The cost component was captured through questions addressing concerns, challenges, and perceived drawbacks associated with AI usage (Q2, Q3, Q6), including issues such as overreliance, ethical considerations, and potential impact on creativity.

Additionally, contextual factors such as students' academic background, tools used, and perspectives on educator–industry collaboration (Q4, Q10) were included to provide supporting insights into the environmental influences shaping expectancy, value, and cost perceptions.

3.5 Data Collection Methods

Data collection for this study occurred between October and November 2024 and utilised two primary instruments: a pre-focus group survey and semi-structured focus group discussions.

3.5.1 Pre-Focus Group Survey

Prior to each focus group discussion, participants completed a brief demographic and AI familiarity survey. This instrument served to establish a baseline understanding of the participants' prior knowledge and usage patterns. The survey asked participants to indicate which specific AI tools they had used. This was presented as a multiple choice question from a provided list with an option at the bottom as to write what AI tools they have used themselves should it not be provided in the list. The list includes options such as ChatGPT, Midjourney, DALL-E, Adobe Firefly, Canva (Magic Write/Design), Microsoft Designer, Jasper AI, and Runway AI. This data provided essential context for the subsequent qualitative discussions.

3.5.2 Focus Group Discussions (FGDs):

The primary data for this study were collected through six focus group discussions. Each FGD consisted of 4 to 6 participants and lasted between 60 and 90 minutes. The group setting was chosen as it fosters interaction and allows participants to build upon each other's ideas, highlight shared concerns, and reveal points of disagreement, thereby generating data that would be less accessible in individual interviews.

A semi-structured protocol was developed to guide the FGDs. The protocol was informed by the constructs of Expectancy-Value Theory and was organised around four key domains:

1. Experiences and Usage: Probing specific instances of AI use in coursework and creative tasks.
2. Perceived Benefits and Limitations: Exploring the utility value and intrinsic value of AI tools.
3. Identity and Cost Concerns: Investigating attainment value and perceived costs, such as threats to authenticity, authorship, and skill development.
4. Institutional Context: Examining the role of curriculum, lecturer guidance, and university policies.

The protocol was piloted and refined to ensure clarity and relevance. All FGDs were conducted in familiar and accessible campus settings, audio-recorded with participant consent, and later transcribed verbatim to facilitate accurate analysis.

3.6 Data Analysis

The process of interpreting the rich and insightful discussions focus groups was guided by the established principles of thematic analysis, specifically the phased framework proposed by Braun and Clarke (2006). The process did not begin with coding, but with a phase of deep immersion. This involved repeatedly reading through the verbatim transcripts, almost to the point of memorisation, to become intimately

familiar with the nuances and underlying currents within the participants' narratives. Initial impressions and observations were jotted down freely during this stage. Following this immersion, the more systematic work of generating initial codes followed. Here, the data was examined line-by-line to identify and label any segments that appeared significant. This coding was not purely mechanical but it was a dual process. Some codes were anticipated. This was informed by the study's conceptual framework, such as those relating to perceived costs or values. Yet, many others emerged unexpectedly directly from the students' own words, capturing concepts that the initial framework had not fully foreseen.

After a complete set of codes was created, the analytical emphasis transitioned to a higher level of abstraction. This required organising the many separate codes, searching for relationships and trends among them. It involved organising and categorising, questioning how varied codes could unite to convey a broader, cohesive narrative about the student experience. The initial thematic categories were subsequently thoroughly examined and evaluated. They were re-evaluated against the initial codes and, importantly, against the complete dataset again. This pivotal stage helped to polish the themes, guaranteeing they were not merely convenient constructs but genuinely reflective of the shared narrative. Certain themes were merged with others, while others were separated, in a repetitive process of refinement.

The outcome of this refinement was the clear identification of four central themes that captured the core of the students' experiences: a pervasive anxiety over Authenticity Concerns, a clear recognition of the Perceived Benefits of AI Tools, a frustration with Institutional Contradictions, and a strong, unified Demand for Guidance. Each of these themes was then carefully defined and named to capture its ethos. The final, and perhaps most crucial, step was to weave these analytical insights into a coherent report. The findings were presented as a narrative, anchored and brought to life by the direct voices of the participants through selected excerpts from the transcripts, providing concrete evidence for each thematic conclusion.

The method in which the analysis was done was inductive in orientation. By doing and adopting such approach, it allowed the themes to emerge naturally from participant narratives. It was simultaneously informed by the constructs of Expectancy-Value Theory, which served as a sensitising framework throughout the analytical process. This dual approach, combining inductive thematic analysis with a deductive

theoretical lens, is consistent with a reflexive qualitative methodology in which theory guides interpretation without constraining emergence (Braun & Clarke, 2006).

The EVT constructs which are expectancy beliefs, attainment value, utility value, intrinsic value, and cost were not used as predetermined codes. Rather, these constructs informed the researcher's orientation during familiarisation with the data. The constructs also were applied interpretively during the theme development and review phases. This approach allowed the study to remain responsive to the richness of participant experience whilst maintaining theoretical coherence across the research design, data collection, and analysis phases.

3.7 Trustworthiness and Rigor

To guarantee the reliability and authenticity of the qualitative results, a comprehensive strategy for validation was needed. It was meticulously applied during the research process. This began with the implementation of researcher reflexivity, in which the researcher's position as a graduate student within the same academic department was swiftly handled. While this shared institutional background helped in building rapport with participants, it also necessitated a disciplined effort to set aside personal assumptions. For this purpose, comprehensive reflexive memos were written after each focus group discussion, acting as a tool for continuous critical self-assessment. In addition to this internal review, the study engaged in peer debriefing, where the evolving coding schemes and thematic structures were regularly scrutinised in discussions with the research supervisor. These sessions provided an essential external perspective, challenging the researcher's interpretations and mitigating analytical bias. Furthermore, to ground the analysis in the participants' own experiences, a member checking process was implemented. A subset of participants was allowed to review and verify summaries of the discussions and the emergent themes for accuracy. Finally, the integrity of the entire analytical journey was supported by maintaining a comprehensive audit trail. This detailed log documented all significant research decisions. The progression of codes into themes, and the rationale behind interpretive shifts. By doing so, it created a transparent chain of evidence from the raw data to the final conclusions.

3.8 Ethical Considerations

This study was conducted in strict adherence to ethical principles. Ethical approval was secured from the Universiti Teknologi MARA Research Ethics Committee (REC/09/2024, PG/MR/467). All of the participants were provided with a comprehensive information sheet and gave written informed consent before participation. The consent process explicitly outlined the study's purpose, procedures, the voluntary nature of participation, and the right to withdraw at any time without consequence. Anonymity and confidentiality were guaranteed and was preserved through pseudonyms, and transcripts omitted identifying details. Audio files were stored on encrypted drives accessible only to the researcher. Participation was voluntary, with no material incentives. The study was categorised as minimal risk, but precautionary measures were taken to address possible discomfort in discussing sensitive issues (e.g., plagiarism, fear of dependency on AI). Participants were reminded again before the focus group discussion started that they could withdraw at any time without consequences.

CHAPTER 4

RESULTS

4.1 Introduction

This chapter of the thesis presents the findings derived from the study. This particular chapter offers a detailed interpretation of the data gathered through six focus group discussions involving final-year undergraduate students from the Faculty of Art and Design, Universiti Teknologi MARA (UiTM), Puncak Alam campus. A total of thirty participants took part in representing the four main disciplines under the graphic design programme which are graphic design, illustration, advertising, and multimedia. Each focus group consisted of students from a single major, allowing for more discipline-specific reflections on the integration of artificial intelligence (AI) into creative education and practice.

This primary purpose of this specific chapter is to provide a comprehensive exploration on the experiences, perceptions, and attitudes exhibited by these students as they navigate the complex terrain of the intertwined relationship between traditional creative training methods and the cutting-edge AI-driven tools. This essence of this study lies in unveiling the students' creative processes, methods and, their creative workflows have undergone a profound transformation due to the integration of emerging technologies, as expressed through their own individual narratives. Not only that, it is important to note the profound effect on the very concepts and notions of originality, authorship, and design identity. All of the aforementioned particulars have long underpinned or defined art and design education, becoming the very cornerstone of it. The critical examination laid out in this analysis vividly paints and brings forth the inherent tensions, promising opportunities, and lingering uncertainties that inevitably arise from this unison. This underlying shift places the students in a very delicate balance, one of external and intrinsic. The students find themselves caught between the conservative approach of the academic institution, the demanding expectations of the professional expectation, and their own intrinsic sense of curiosity towards exploring new horizons.

To provide a comprehensive contextual framework for the ensuing discussions in this chapter, it is important to start with a concise preview of how the participants

have engaged with various AI tools. This initial overview sets the stage for a detailed exploration that follows. Following this, a thematic presentation of findings which were uncovered through the rigorous thematic analysis process. In conducting this analysis, we adhered closely to the methodological guidelines outlined by the principles of Braun and Clarke (2006), which emphasise the significance of distinguish underlying patterns and extracting meaning from the qualitative data. Anchored within the theoretical underpinnings of the Expectancy-Value Theory (EVT), our analysis takes a nuanced approach that allows us to delve into the intricacies of the students' beliefs and aspirations in relation to AI. By adopting an EVT framework, we are able to gain valuable insights into how students' anticipations regarding AI-related outcomes and their perceived value they put on integrating AI, how it influences their attitudes and behaviours within the realm of creative education.

The themes that emerged through the thematic analysis are as follows:

1. **Authenticity Concerns:** Addressing how AI challenges traditional concepts of originality, creativity, and authorship within the design process.
2. **Perceived Benefits of AI Tools:** Highlighting the practical and creative advantages students gain when using AI to support ideation and production.
3. **Institutional Contradictions:** Exploring the inconsistencies between academic restrictions and industry expectations surrounding AI use.
4. **Demand for Guidance:** Reflecting participants' call for structured AI education, ethical literacy, and institutional clarity.

Each and every theme included in the analysis is meticulously portrayed through a nuanced combination of in-depth narrative analysis and direct quotations gathered from the participants themselves. This meticulous approach was adopted with the primary objective of authentically and vividly capturing the perspectives and viewpoints of the individuals involved in the study. By incorporating these direct quotations, the research aims to present a faithful representation of the lived experiences of the participants, and to ensure that their voices are accurately reflected in the findings. Furthermore, a critical element of this research methodology involves supplementing these first-hand accounts with analytical commentary that not only contextualises the participants' narratives within the existing literature but also draws out the theoretical

implications of their experiences. Through this integrative approach, the study seeks to establish meaningful connections between the participants' experiences and the broader educational landscape, shedding light on how creative individuals at Universiti Teknologi MARA (UiTM) in particular their Puncak Alam campus, are engaging with and responding to the ever-evolving integration of AI technologies in their academic pursuits and creative expressions. Ultimately, the exploration of these themes provides a comprehensive and multifaceted understanding of how students at Universiti Teknologi MARA (UiTM) Puncak Alam campus are interpreting, navigating, and engaging with the evolving landscape shaped by the ongoing integration of artificial intelligence into their educational and artistic endeavours.

4.2 Participant Background and AI Usage Patterns

This study involved thirty final-year undergraduate students from the Faculty of Art and Design, Universiti Teknologi MARA (UiTM), Puncak Alam. The sample was distributed across the four majors within the graphic design program: Graphic Design (n=8), Illustration (n=7), Advertising (n=8), and Multimedia (n=7). This distribution ensured that perspectives from various specialisations within the visual communication field were captured.

Data from the pre-focus group survey revealed a clear and striking pattern in the types of AI tools utilised by the participants. The results are summarised in Table 4.1 below.

Table 4.1
AI Tools Usage Among Participants ($n=30$)

AI Tool	Number of Users (n)	Percentage (%)
ChatGPT	28	93.3%
Perplexity	6	20%
Adobe Firefly	4	13%
QuillBot	2	7%
Microsoft Copilot	1	3%
Photoshop Beta	1	3%

When asked about their familiarity with AI, the students' responses pointed to a clear pattern. Almost all of the participants had used ChatGPT (93%). It was noted that they often used it as an everyday academic tool for research, brainstorming, and academic writing tasks across their coursework. All the while, only a handful of participants had experimented with visual AI applications such as Adobe Firefly or Photoshop Beta. This stark contrast reveals a strong leaning toward text-based tools. This presents a peculiar instance as even among students whose disciplines are inherently visual and would in hypothesis seemingly benefit more from image-generation capabilities. Instead, they greatly benefited from AI tools specialising in text. There are several factors that contributed to why this happens. Of which is the zero-cost nature of ChatGPT compared to premium visual AI tools, familiarity of conversational interfaces versus more complex visual generation workflows, and the lack of institutional guidance on visual AI tools usage.

These usage patterns set the stage for the themes that follow suit (Table 4.2), showing how the students negotiate the balance between utility, cost, and creative identity when working with AI. Thematic analysis of the focus group discussions revealed four major themes that frame the design students' complex relationship with AI in design education: authenticity concerns, perceived benefits, institutional contradictions, and demand for guidance.

4.3 Thematic Analysis Findings of FGD's

Table 4.2
Themes and Subthemes

Theme	Subthemes
Authenticity Concerns	Concerns over plagiarism; Threats to creative uniqueness; Risk of skill decline
Perceived Benefits of AI Tools	Ideation support; Improved workflow efficiency; Separation of brainstorming and execution
Institutional Contradictions	Restrictive academic policies; Gap with industry practices; Contradictory guidance on AI use
Demand for Guidance	Need for practical training; Desire for ethical clarity

It is important to clarify the relationship between the theoretical framework adopted in this study and the emergent themes reported in this chapter. Expectancy-Value Theory (EVT) served as a sensitising framework. By that, to clarify, the theory provided a conceptual lens through which the data were interpreted as opposed to a rigid coding structure from which themes were directly derived. This approach is consistent with qualitative research practice, wherein theoretical frameworks guide analytical orientation without predetermining findings (Braun & Clarke, 2006; Creswell & Creswell, 2018). As such, the four themes presented in this chapter the first being, authenticity concerns, followed by perceived benefits of AI tools, institutional contradictions, and demand for guidance all emerged inductively from participant narratives. Despite this, each theme is interpretable through one or more EVT constructs. Authenticity concerns reflect the cost dimension of EVT, in particular the psychological and identity-related costs associated with AI integration in creative process. Perceived benefits on the other hand map primarily onto two aspects of EVT which are utility value and intrinsic value. These two values captures students' instrumental and experiential assessments of AI tools. The third theme, institutional contradictions, undermine the formation of positive expectancy beliefs. This is due to students finding it hard to develop confidence in AI use within an environment of policy ambiguity. The last and fourth theme demand for guidance, reflects a desire to reduce

both perceived cost and expectancy uncertainty through structured institutional support. A full mapping of emergent themes to EVT constructs is presented in Table 4.3. The mapped themes to EVT showed that certain EVT domains are less prominent in the findings. One in particular is attainment value as a standalone theme. This is acknowledged and discussed in relation to the qualitative, inductive nature of the study, wherein constructs may surface as dimensions of broader themes rather than as discrete categories.

Table 4.3
Mapping of Emergent Themes to EVT Constructs

EVT Construct	Definition in this study	Emergent theme	How the theme reflects the construct
Expectancy beliefs	Students' confidence in their ability to successfully use AI tools	Institutional contradictions; Demand for guidance	Vague or restrictive institutional policies prevent students from forming confident expectancy beliefs. Without structured guidance, self-efficacy in using AI in particular visual tools, remains low
Attainment value	The personal importance students place on doing well using AI, tied to creative identity	Authenticity concerns	Students perceive AI adoption as a potential threat to their developing professional identity and artistic voice. The attainment value of mastering AI is diminished when students fear it will homogenise or delegitimise their creative output
Utility value	The perceived usefulness of AI for academic and future professional goals	Perceived benefits of AI tools	Students recognise AI in particular ChatGPT, as practically useful especially for research, ideation, writing, and time management. Utility value is high for text-based tasks but perceived as low for visual AI tools due to output dissatisfaction
Intrinsic value	The enjoyment or interest derived from using AI in the creative process	Perceived benefits of AI tools; Authenticity concerns	AI offers convenience but reduces intrinsic satisfaction when it takes over the hands-on creative process students find meaningful. This tension produces conflicting emotions. AI's utility is acknowledged but intrinsic value is compromised

Cost	The perceived negative consequences of AI adoption including time, effort, psychological burden, and identity threat	Authenticity concerns; Institutional contradictions	Cost is the dominant EVT dimension in this study. Students perceive high psychological cost specifically the threat to creative authenticity and originality as the primary barrier to a fuller AI adoption. Institutional ambiguity compounds this cost by adding anxiety and ethical confusion
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4.3.1 Theme 1: Authenticity Concerns

The initial theme, then, became the most emotionally intense conversations centred on the effects of AI. Its effect on the core principles of creativity and originality. Students expressed a profound concern that AI represented not merely a new instrument, but a power that could diminish human creativity, standardise artistic expressions, and fundamentally change the essence of the creative process.

4.3.1.1 Concerns over Plagiarism

A major and recurring concern was the portrayal of AI as an advanced tool for plagiarism. Participants did not see it as a truly creative entity, they perceived it as a system that reuses and repurposes existing human work without credit, and so stripping the creative process of its authenticity and ethical foundation.

One participant expressed this with stark clarity, stating, *“AI in design, I think it's plagiarism. It's not plagiarism, it's something like, it's not the idea from the artist or design itself.”* (P1, FGD1). This sentiment was not isolated. It was a refrain that echoed the underlying fear of many other participants. Another participant elaborated on this, describing the output as fundamentally derivative: *“It's something that's combined with every other people's work. That's what it's like... this is not me, if you do this, it's not me.”* (P2, FGD1). The phrase “this is not me” is particularly impactful. It highlighted how personal identity and self-expression are intertwined in the act of creation for these students. This is further solidified with another participant’s comment that touched on the ethics of using AI, *“For me, AI in design,*

first, it can be a useful, helpful tool for a designer, but second, it can cause copyright infringement and steal others' work.” (P3, FGD3)

The moral discomfort, on the ethics side, went beyond their own work to a sense of solidarity with the broader artistic community. The participants expressed deep worry for professional artists whose styles and livelihoods are absorbed into these AI systems. *“I follow a lot of artists on IG and Twitter... it's something that's worrisome... because it copies them simultaneously, and then ethical issues,” (P2, FGD3)* shared one student. This point of view frames AI not solely as a tool, but as a morally questionable entity within the creative landscape. One participant made a clear stand in which they said, *“AI art is still human art. The AI did not design that thing. It takes from human design. So AI art is our art actually. They're stealing from us.” (P4, FGD4)*. This sentiment was powerfully summarised by another participant who called AI-generated art a *“Frankenstein type of art... stealing from us.” (P4, FGD3)*.

4.3.1.2 Threats to Creative Uniqueness

Aside from ethics, students regularly critiqued the aesthetic quality of AI generated content. They described it as skilfully produced but lack in emotion and spiritual depth. They noticed a widespread "uniformity" in AI-generated visuals, a homogenisation that threatens the diversity and uniqueness of human artistic expression.

A common observation was that AI generates a type of generic perfection that lacks the human touch. *“It's perfect, but it doesn't feel alive,” (P1, FGD2)* one participant noted. As a follow up to this comment, *“One AI-generated image is not accurate. It's very distorted. For example, hands. It has six or seven fingers. That one is very scary.” (P4, FGD5)* This particular comment captures a widely held view that it is imperfection that often gives art its distinctive charm and depth. Another student described AI art as *“soulless” (P4, FGD5)*, suggesting that the absence of human struggle, intention, and emotion (basically effort) in the creative process results in work that is aesthetically pleasing but ultimately hollow.

This homogenisation was again noted in the limitation of styles. Students found that AI struggles to deviate from popular, trending aesthetics as opposed to exactly what they had pictured in mind. *“The ideas that the AI gives are mostly very trendy, very new ideas... it's very modern,” (P2, FGD3)* observed one participant. They tested this by prompting for niche styles like watercolour but found the results remained stubbornly *“semi-realistic”*

(P2, FGD3). This leads to a flattening of the visual landscape, where *“you can tell when it's made by AI. It all looks the same.”* (P4, FGD1). This sameness was seen as antithetical to the goal of developing a unique personal style which is a core pursuit in art and design education.

4.3.1.3 Risk of Skill Decline

Students grappled with the concept of the "artist's ego" but not as arrogance, as the core of creative identity which encompasses the pride, ownership, and personal investment in one's work. Using AI for core creative tasks was seen by many as a surrender of this identity and a direct threat to the skills they have worked hard long to develop. *“When I use AI, I feel like my work is not original. It's not something that comes from me.”* (P2, FGD1)

The desire for personal ownership was a powerful motivator for avoiding AI in final artwork. *“I still have some ego. For me. I still have ego,”* (P1, FGD1) confessed a student, explaining their reluctance. This "ego" is tied to the satisfaction of mastery. Another participant revealed a deeper insecurity, stating, *“If I use too much images in AI... I won't feel I'm talented enough to come up with that originally. So I think I can't share this, my artwork with other people.”* (P4, FGD3). Here, in this context, the use of AI creates a kind of imposter syndrome, undermining their sense of self as a skilled creator. One participant also shared the same sentiment noting that they have and would have a hard time to say that AI-generated artworks as truly their own, *“We can't be too confident to introduce this design as ours.”* (P3, FGD3)

For illustration majors, the physical, tactile process was sacrosanct. *“The process of drawing is important to art because it's an art... Although the drawing process is tired, but it's an enjoyment for an artist,”* (P3, FGD5) one argued. They feared that depending too much on might lead to what another called *“artistic atrophy”* (P3, FGD1), where the essential muscles of creativity both physical and cognitive weaken from lack of use. *“If we rely too much on AI, we lose the skills we spent years building.”* (P3, FGD5). In particular, there is a strong sentiment that AI does not give them what they want, *“As an artist, you have a lot of ideas, but AI does not... When you put on that prompt, sometimes it gives you a jumbled, monster, blurry image.”* (P2, FGD3). The very distinct "hand" of the artist, in creation, modifying their artwork on the go in the process, their approach to mark-making, all of these were perceived to be at risk.

4.3.2 Theme 2: Perceived Benefits of AI Tools

Despite significant concerns, students demonstrated a remarkably pragmatic and strategic approach to AI. They actively integrate it as a powerful functional tool within their normal and creative workflows. Its use was mainly restricted to specific, non-final stages of the design process where it could enhance their abilities without replacing their creative control.

4.3.2.1 Ideation and Research Support

The most widely accepted use of AI was in the preliminary stages of their creative process which is ideation and research. Tools like ChatGPT and Perplexity AI were hailed as indispensable for enabling them to break through creative blocks and accelerating the information-gathering phase, effectively acting as a digital brainstorming partner and research assistant. One in particular shows a preference of AI over lecturer due to time efficiency and self-confidence issue. As they shared: *“Usually, I ask ChatGPT if I don't understand what is needed of me to do. Like, for example. Why don't you ask the lecturer? Why don't? I'm shy. But if we're doing, like, Pukul 2 malam.”* (P1, FGD4). The participant explained that if they confided and consulted with their lecturer, the approach may take a longer time and their need to immediately resolve their questions may come at an inappropriate time (outside class hours). This, of course does not happen with AI as it is very quick and accessible at all times.

Students frequently turned to AI when they found themselves stuck. *“When I don't have an idea, I can use it to get more ideas,”* (P4, FGD1) shared one, a sentiment that was nearly unanimous. It served as a catalyst, sparking directions they might not have considered. Its use in research was even more pronounced. *“It saves a lot of time when you are using AI compared when you are researching about the ideas all by yourself,”* (P5, FGD2) explained a multimedia student. They highly valued the ability to get quick, summarised information, albeit they remained cautious. Often cross-referencing AI-generated information with traditional sources. A student highlighted a preference for Perplexity

AI because it *“provides really good references that I can refer to,”* (P3, FGD2) providing a layer of verifiability that platforms like ChatGPT were perceived to lack.

4.3.2.2 Improved Workflow Efficiency

Students actively and enthusiastically utilised AI features when they are already embedded within professional software like the Adobe Creative Suite. They use it to automate tedious and time-consuming technical tasks. This use was seen as a more acceptable use of AI ethics-wise, as it functioned as a tool to execute the designer's clear intent rather than conjuring up full final artwork. *“I like to play with colours. Every time I want to find the best colour, I use AI.”* (P2, FGD1)

Participants provided concrete examples, such as using generative fill in *“Photoshop Beta, where they have this AI function that you can prompt the section that you want to change it,”* (P5, FGD2) for tasks like replacing a background or removing an unwanted object. In video editing, AI was used for *“captioning... reduce the noise at the back... let the AI cut out those unrelated scenes,”* (P2, FGD1) using applications like Wondershare Filmora. This use-case was generally accepted because it managed the "grunt work," which allows the designer to focus on more advanced or higher-order creative decisions and narrative construction. The benefit was straightforward and compelling: *“It makes things faster,”* (P5, FGD1) and allowed them to work more efficiently. AI.

4.3.2.3 Separation of Brainstorming and Execution

A crucial and non-negotiable boundary emerged across all discussions: the strong consensus against using AI to generate final artwork. This was the definitive "line in the sand" where practical tool-use crossed over into what was perceived as a breach of creative integrity and skill.

Participants were explicit about this boundary. *“I try to avoid using AI in my design, like, AI images in my design... I don't use it on my, the thingy, the design. I'm not using it to showcase that this is my skill,”* (P2, FGD3) asserted one student. Another student also confessed a clear boundary using AI as they said, *“For me, I only use AI for concepts, like writings only, like plot, storyline, but I never use AI for visually.”* (P4, FGD3). The final artwork was viewed as the ultimate testament to their acquired skills, creative vision, and personal identity that they have garnered over the years. To outsource its creation was, in their opinion, would

dismiss the very purpose of their education. As another student firmly stated, *“For final artwork, yeah, I don't agree. Because it's final artwork. Like, come on, you want to be a graphic designer, right? Not the AI artist or something. Don't bring down your values as a graphic designer student.”* (P4, FGD3). Another group expressed confidence in completing design tasks without AI, suggesting that some outcomes and processes are simple enough to produce manually by a basic graphic design student. As they discussed: *“I think we can do it ourselves. It's not that hard.”* (P3, FGD2). *“Find a bird and toss it into the sky. I don't think it's that hard. If it's something achievable within that time, I think.”* (P1, FGD2). *“Yes, if it's achievable within that time, maybe yes. Or if you're really on last minute, instead of aiding with AI prompt, just look for birds PNG on Google and just add it. And, you know, remove background.”* (P3, FGD2) *“Remove background. Birds PNG. Yes.”* (P1, FGD2).

4.3.3 Theme 3: Institutional Contradictions

In most of the discussions, the students reported navigating a landscape of significant ambiguity and contradiction regarding their institution's stance on AI. This led to a noticeable disconnect between their self-directed, pragmatic use of the technology and the formal curriculum, which was perceived as being out of sync with the realities of current design industry.

4.3.3.1 Restrictive Academic Policies

The main perception among students was that UiTM had maintained a default policy of restricting or discouraging the use of AI. This is especially true for creative assignments and formal assessments. This created an environment where students felt the need to self-censor or use these tools discreetly, despite their clear functional benefits.

A participant pointed to a clear example of this restriction: *“UiTM doesn't encourage students to use AI... even for our exams, we can't use ChatGPT.”* (P2, FGD1). This outright ban in above mentioned contexts fostered an official institutional stance that framed AI as an illegitimate shortcut instead of a professional tool. This policy extended also influenced the creative studio for some, with students noting that certain lecturers were *“stubborn”* (FGD5, P3) in their insistence on purely manual, traditional methods. As a result, the outcome of this situation was a feeling of working with one hand tied behind their back,

forcing them to ignore tools they knew were becoming standard practice outside the academic bubble. One student noted, *“Lecturer mostly not agree with AI.”* (P3, FGD1).

This limiting environment left them with a sense of frustration and annoyance amongst them as they felt they were being prepared for a version of the design industry that is outdated. Uniquely, a participant shared an experience from their diploma studies that illustrated perceived unfairness in how AI use was allowed. They recounted, *“During diploma, we could not use AI for our final project. It had to be our original ideas. But there was one student who was the top student. He always submitted late, but he was the best in the class. His idea for a three-series ad was strong, but he could not execute it. The lecturer knew he could not do it, so he asked to use AI, and all the lecturers agreed. Other students had to struggle with photoshoots and deadlines, but he was allowed to use AI just because he was a top student. In the end, he used the AI output completely and only edited the lighting to make it look better”* (P3, FGD1). This account reflects a student perception that AI policies were applied inconsistently, raising concerns about fairness and equal opportunity in creative assessment.

4.3.3.2 Gap with Industry Practices

A major source of stress and anxiety was the gap students saw between the skills and workflows emphasised in their curriculum and those demanded by the fast-paced creative industry, which is rapidly and openly adopting AI. They worried that the institution's cautious approach is stunting their growth, leaving them professionally exposed and uncompetitive.

This fear was often fuelled by first-hand experience in the industry when they interned. One student shared an insightful anecdote from their sister's experience at a major tech company: *“They hired a lot of people... And then, like... 2 years ago... They had a problem... And now, there are only 2 or 3 teams. And they depend on AI. Now, they're using a template.”* (FGD1, P1). This real-world evidence made the threat of technological displacement seemed urgent and set in stone. This student further states that *“In the industry, even they use AI. Even me. I use AI. I use ChatGPT... To generate copywriting for the invitation poster. They encourage people to use ChatGPT.”* (FGD1, P1). Another student, while reflecting on their internship, stressed the time-pressure in the industry, noting that without AI skills they will get left behind, *“if you want to do everything manually, it will take so much time... They might get fired.”* (P5, FGD2). The curriculum's main focus on traditional processes, albeit foundational, was seen as insufficient without new, forward-looking training in the

digital tools that are actively reshaping professional practice. This created a pressing anxiety that they were lagging, fearing that upon graduation, they would be *“too far back with the other people”* (P5, FGD2) who possessed better technologically adept.

4.3.3.3 Contradictory Guidance on AI Use

Perhaps one of the most confusing aspect for students was the inconsistent and frequently contradictory messages they received from the institution and its faculty. The absence of a coherent, clear stance created a "grey area" where students were left to decipher the rules on a case-by-case basis, leading to ambiguity and ethical confusion.

This contradiction manifested in several ways. While official policy might be restrictive, individual lecturers sometimes offered an unspoken or even explicit "green light." *“There is one lecturer, that kindly encourages us to use AI. He encourages us to use ChatGPT to find information on our research.”* (P3, FGD3). This created a patchwork of permissions where what was forbidden in one classroom was encouraged in another. Furthermore, students cited the hypocrisy of seeing the university itself use AI-generated imagery for official communications. *“I saw a lot of notices from UITM... when I saw AI-generated image. That really boosted my morale... It's like what we learn, it's like a waste of effort.”* (P2, FGD5). The most common contradiction was the unspoken understanding between students and lecturers. As one participant paraphrased a common lecturer sentiment: *“I know you guys have no idea. So if you want to use AI, use it. But don't take the idea there 100%.”* (P2, FGD1). This informal, "wink-and-nod" advice forced students to navigate through hazy ethical boundaries without a clear structure, reflecting the institutional confusion surrounding AI. They were at the same time told not to use it, understood to be using it, and shown by the institution's own actions that it was, in fact, being used.

4.3.4 Theme 4: Demand for Guidance

In direct response to the institutional gaps and their own ethical dilemmas, students emphasised the absence of structured rules on AI usage and ethics. They called for formal modules in the form of an elective or mandatory subject, workshops, and clearer assessment policies to ensure that AI is used responsibly. They also issued a clear and consistent call for structured, formal education on AI. They were not seeking

permission to use it carelessly, but rather for the knowledge and structures to use it wisely, effectively, and responsibly.

4.3.4.1 The Demand for Technical Mastery

The students recognised to effectively leverage AI is a skill in itself. In order to do so, they must learn and master a new form of literacy they termed "prompting." They expressed a desire to move beyond inefficient trial-and-error and learn the methodologies for communicating with AI to achieve precise and sophisticated results.

"I think the most important one is... Prompting. Prompting has become a skill. Not everyone knows about prompting," (P3, FGD2) one student astutely observed. They desired specialised training on how to write prompts, understand AI capabilities and limitations, and integrate AI-generated elements into challenging projects. This was not about replacing design skills but improving them their arsenal of traditional knowledge and skills with a new technical competency vital for the modern-day designer's toolkit.

4.3.4.2 Desire for an Ethical Framework

Beyond technical skills, the most urgent request was for education on the ethical part of AI. Students were keenly aware of the moral quagmire but felt ill-equipped to navigate it on their own. They explicitly asked for guidance to establish their own professional ethical boundaries.

Participants pleaded for what one called *"an ethical prompting class,"* (P4, FGD3). They wanted to engage in discussions about copyright, intellectual property, the ethical sourcing of training data, and the environmental impact of AI systems. They sought to answer difficult questions for themselves: When is it acceptable to use an AI-generated asset? How should AI be disclosed to clients or in portfolios? *"We need to question ourselves when we create this, for example, logo, like if we use AI, are we really a graphic designer?"* (P4, FGD3). This reflection shows a mature understanding that the technology demands a parallel development of ethical literacy.

4.3.4.3 Workshop and Industry Collaboration for Integration Guidance

Students suggested specific models for how this guidance could be integrated into their education. These ideas ranged from adding modules into existing courses to stand-alone workshops and symposiums that feature industry professionals. One participant emphasised the need for lecturers to stay informed about AI developments rather than discouraging students from using them. They remarked, *“Maybe educators can be more aware of what’s going on. Instead of saying ‘you guys don’t use AI, I don’t like it,’ they could at least give us a snippet about what’s happening, since they would know anyway.”* (P3, FGD2). Students also raised the importance of ethical guidance when learning to use AI. One participant shared, *“You have to know how to prompt, but also prompt responsibly. Maybe we need an ethical prompting class”* (P1, FGD2). They added, *“AI is a robot. It does not have ethics. We must have ethics, so we should learn ethical graphics and ethical prompting.”*

There was a preference for practical, hands-on learning. *“I would prefer a one-time workshop. Where students can get like hands-on experience,”* (P3, FGD2) suggested one participant. Others advocated for ongoing engagement, such as “elective subjects” (P5, FGD5) or periodic talks. A key recommendation was to bridge the gap between academia and industry directly: *“Maybe they can come and collaborate with the lecturers here to teach students on how to use AI in a more proper way.”* (P5, FGD2). However, one participant expressed concern that cultural attitudes toward discipline may affect how students use AI. They reflected, *“Compared to other countries, Malaysians are not as disciplined. For example, in Japan they learn discipline from young, so they have stronger self-control. Here we are more laid-back, so some students might end up misusing AI”* (P2, FGD1). This perception highlights a student belief that cultural habits around discipline and self-regulation could influence responsible AI use in educational settings. In all, the students believed that by learning from individuals, communities or corporations that have already integrated AI into their creative work, they could gain the realistic, applied knowledge necessary for a successful transition from academia to their future careers.

This comprehensive analysis of the findings reveals a student body at a critical juncture, caught between a reverence for traditional creative values and the pragmatic pull of technological advancement. They are actively forming their own ethical codes and workflows in the absence of clear institutional leadership, demonstrating both a deep anxiety about the future and a resilient capacity for adaptation. The following

chapter will discuss these findings in the context of existing literature and explore their profound implications for the future of design education.

4.4 Cross-Cutting Observations

Cross-cutting analysis revealed that concerns about creative authenticity were expressed consistently across all participant groups, suggesting these identity-related costs transcend individual demographic characteristics and reflect broader disciplinary concerns in creative education.

CHAPTER 5

DISCUSSION

5.1 Introduction

This study explored the perceptions and adoption of artificial intelligence (AI) among design undergraduates at Universiti Teknologi MARA (UiTM) in their Puncak Alam campus through the lens of Expectancy-Value Theory (EVT). The findings revealed the students walk a fine line of integrating AI into their creative process and work. They acknowledged the clear benefits of AI for specific tasks while also confront significant challenges that deeply affect their developing identities as creative individuals. To reiterate, notably, the students demonstrated a keen awareness of the advantages AI offers for specific tasks, but juxtaposed with formidable hurdles that significantly impact their evolving identities as creative thinkers. The findings paint a picture not of complete dismissal or blind acceptance, but of a profoundly strategic and restricted involvement. A strong contradiction of the students' strong expectancy beliefs and the recognition of AI's utility value for efficiency. Both are strongly held back by the high costs perceived to their creative identity and originality. This measured adoption strategy results in a strategic, bounded adoption process where AI is used early in their creative process particularly ideation but rarely for final execution. This discussion interprets and contextualise these findings, outlining their contribution to understanding motivation in creative education and their implications for pedagogy and institutional practices.

5.2 Authenticity as a Primary Cost Barrier in Creative Contexts

The significant findings uncovered by this study strongly suggested and provided compelling evidence that creative students place a substantial emphasis on the "cost" element within the EVT equation. For creative students, the "cost" component in the EVT equation carries a substantial amount of weight, one that is perhaps likely greater than in other academic domains. It was a paramount finding and stood out as a crucial revelation, shedding light on a prevailing issue. The pervasive concerns that AI undermines originality and constitutes a form of "cheating" were not minor

considerations; they were perceived as fundamental threats to the participants' developing professional identities. This aligns with global scholarly concerns that AI could potentially dilute human originality and devalue creative labour (Fleischmann, 2024). Therefore, the implications drawn from this study are clear: within an educational environment, the fears and implications associated with AI's influence are not simply theoretical but strike at the heart of personal and motivational aspects for individuals striving to establish themselves in their chosen professions. This finding of this study echoes that in an educational setting, these concerns are acutely personal and deeply motivational.

The findings were also parallel with observations from other craft-based educational fields. For instance, Vartiainen and Tedre (2023) noted similar fears among educators that AI could lead to a 'homogenisation of perspectives' and a 'black-boxing of creativity,' where the intricate decision-making process becomes opaque. When students express that using AI "damages their ego," they are articulating a concern, fearing that their personal growth and the formation of their artistic identity are being short-circuited. This introduces a critical perspective that should be central to any discussion of AI in design education: a purely instrumental, skills-based approach to AI literacy is not only inadequate but might also intensify these identity-related fears. By teaching students how to use AI tools without simultaneously foster a critical literacy that questions when, why, and with what consequences these tools should be used, educational institutions risk validating the very anxieties that hinder deeper adoption. The present study demonstrates that students are intuitively aware of this risk. This introduces a critical perspective for curriculum design. It is crucial to recognise that is not enough to simply provide a purely instrumental, skills-based approach to AI literacy, which focuses only on the "how-to." Focusing solely on the technical "how-to," falls short of addressing the broader ethical considerations encompassed in the "should-we" aspect. Failure to consider this ethical dimension may inadvertently contribute to exacerbating existing fears and concerns associated with AI. Therefore, to have a comprehensive, effective and responsible integration, there must include a strong component of critical digital literacy. This consists of creating educational environments where students can actively engage in questioning and scrutinise the impact of AI on various aspects such as aesthetics, authorship, and the evolving landscape of their professional roles. Such approach which fosters an environment that fosters critical inquiry and analysis, individuals can better navigate the complexities of

AI's influence. It is essential to reduce the identity-related costs that currently obstructing fuller exploration. Through embracing this multifaceted approach, we can empower individuals to perceive AI as a collaborative tool that enhances creativity rather than a disruptive force, thereby unlocking its full potential for positive contribution and innovation rather than a threatening force in creativity.

5.3 Expectancy Beliefs and the Text-Based AI Divide

Building on the initial point, it is essential to acknowledge a second observation that may seem paradoxical at first. What was observed is the clear difference in adoption rates between text-based and visual AI tools. Even though they work in a field that is inherently visual, participants demonstrated a strong preference for and comfort with ChatGPT, while their interaction with design-specific tools like Midjourney or Adobe Firefly was notably low. This can be understood through the intricate dynamics of expectancy beliefs. Students formed optimistic expectations beliefs about ChatGPT. This likely due to its high perceived accessibility, ease of use, and evident usefulness for various academic tasks. From researching and summarising information to structuring assignments and overcoming writer's block. ChatGPT emerged as a versatile tool that resonated with users. Its seamless integration with mobile devices and its engaging, conversational interface paved the way and diminished the initial barriers to entry, thus positioning ChatGPT as a compelling and risk-free entry point into the realm of artificial intelligence.

In stark contrast, the development of expectancy beliefs for visual AI tools faced significant obstacles arising from a combination of low outcome expectations and high perceived costs, notably associated with effort and time expenditure. Participants frequently expressed frustration with the output of visual AI generators, describing them to be appeared monotonous in style, easily identifiable as AI-generated, and often misaligned with their specific artistic creative vision. This repeated experience of dissatisfaction damaged their confidence, their self-efficacy, in their ability to successfully wield these tools to achieve their intended creative objectives. While some participants acknowledged that this might be a limitation of their own proficiency of prompting skills in triggering desired results, this very acknowledgment further reinforced the perception of a steep and daunting learning curve. Participants found themselves grappling with the dual challenge of managing their expectations for what

visual AI could offer them while navigating the intricacies of refining their own input techniques to achieve more of the results they had in mind. The conflict between their expected outcomes and the actual outputs received from visual AI tools kept and echoed a sense of frustration and disillusionment. As a result of this experience, it further complicates their journey towards genuinely mastering these new found tools and integrating them without hiccup into their creative workflows. The persistent discrepancy they encountered between their creative visions and the results obtained from visual AI generators prompted a sense of hesitation and hesitancy in fully embracing these technological innovations. This ongoing struggle to bridge the gap between their aspirations and the reality of visual AI's output instilled in participants a deep-seated fear about their potential for success in leveraging these tools effectively to manifest their artistic intentions.

Compounding this problem is the institutional environment which plays a pivotal role in shaping the dynamics surrounding AI use in educational settings. When institutional policies are vague or outright restrictive in regards to AI use in assessments, they are actively hindering the development of the very expectancy beliefs necessary for students to persevere through the challenging initial phases of mastering complex visual AI tools. With no formal validation mechanisms, structured support, or guided training programs from their institution, students logically and naturally reach the conclusion that the immense investment of time and effort required to achieve high proficiency in AI skills is too great of a cost. The absence of the mentioned particulars, leads not only discourages students but also fosters a pattern of strategic avoidance behaviour. This finding highlights a crucial deficit in the current educational landscape and suggests a divergence from more integrated approaches observed in some Western design curricula (Zailuddin et al., 2024). Consequently, there emerges a pressing need for educational institutions to pivot towards more targeted and specialised support measures that can empower students to engage meaningfully with AI technologies and unlock their full potential within educational contexts.

5.4 The Demotivating Effect of Institutional Contradictions

The third key theme emerging from the data revolves around the significant confusion and lack of motivation caused by institutional contradictions, painting a vivid picture of students navigating a bewildering transitional experience. Students find

themselves existing in a liminal space. The students are caught between national-level rhetoric that is enthusiastic in promoting AI adoption as a catalyst for economic competitiveness on one side and the harsh, frequently conflicting realities displayed through rigid and unclear classroom policies on the other. In this delicate balancing scenario, students witness their university's strategic use of AI in marketing and communication, contrasted with the conflicting instructions they receive from their lecturers. These directives, varying from subtle disapproval to explicit banning of AI incorporation in academic tasks, sharply contradict the prevailing theme of welcoming AI in the educational realm. The contradiction is further highlighted by a student's insightful remark, "The university says we must embrace AI, but in class, we are told not to use it," presents a significant barrier to widespread adoption and implementation in education. This discrepancy not only hinders the incorporation of AI technologies into academic practices but also highlights the intricate set of challenges students encounter as they manoeuvre through the changing landscape of technology in education. By highlighting the inherent conflicts between broad institutional narratives and everyday classroom interactions, this theme emphasises the complex factors obstructing the smooth integration of AI in education.

As Xu et al. (2025) argue, such institutional inconsistency creates an environment of uncertainty that weakens technology adoption by muddying the perceived value and legitimacy of the tools. This inconsistency acts as a deterrent to embracing new tools by clouding the perceived value and legitimacy attributed to them. For Universiti Teknologi MARA (UiTM) students, these mixed messages directly lower the attainment value (the importance of doing well in a task using AI) and the utility value (the usefulness of AI for future goals) of AI within the confines of formal learning context. The devaluation of AI is two-fold, it affects both the attainment value, which signifies the importance of excelling at tasks involving AI, and the utility value, which indicates the future relevance and practicality of AI within their educational and career trajectories. When the institution responsible with validating the proficiency of its students in emerging technologies sends conflicting signals regarding the benefits and value of a transformative technology, it diminishes students' motivation to fully engage in exploring its potential. This scenario inadvertently, as a consequence, directs the students towards informal, self-directed learning pathways, which, while valuable, tend to reinforce the use of familiar, accessible tools like ChatGPT. As a result, this hinders the development of a more comprehensive and discipline-specific AI

proficiency that includes visual and spatial tools. The repercussions of this direction are far-reaching, ultimately resulting in students being ill-prepared for an industry that is fast in incorporating these very AI technologies into its core operations. The education institution, therefore, is not merely a passive regulator of standards but a pivotal actor whose policies and support structures (or lack thereof) directly mould student efficacy and motivation in mastering complex subjects like AI. This strategic role cannot be overlooked and stressed enough, especially in an era where proficiency in AI is intrinsically linked to students' readiness to tackle the demands of a dynamically evolving job market landscape, as underscored by Alarie & Cockfield (2021).

5.5 Theoretical Extension of EVT for Creative Fields

This study contributes significantly advances current theoretical frameworks in this case Expectancy-Value Theory (EVT) by demonstrating that the fundamental principles of Expectancy-Value Theory are applicable within creative settings, it also emphasises the nuanced and contextual nature of their interplay. In the realm of graphic design education specifically, the cost factor holds a paramount, significant, and at times decisive, weight. This study provides empirical evidence that for these students, a high utility value and even favourable expectancy beliefs can be overridden by the weight of costs deeply connected to the notions of professional identity and artistic integrity. Intriguingly, this consideration or phenomenon appears to be substantially stronger than in Science, Technology, Engineering, and Mathematics (STEM) environments, where the cost calculus is typically more often revolve around time, effort, and the identification of opportunities for advancement and success.

This finding is essentially a manifestation of an unresolved crisis of value in the age of AI, as identified by Tien and Chen (2024). According to them, the core task for design education is to redefine the respective design values attributed to human designers and artificial intelligence. Building on this assertion, this study contributes to that essential redefinition by showing that, for students, at least from their perspective, the value in question is intrinsic and irrevocably linked to the concept of authenticity. Therefore, as a result, any theoretical model or pedagogical framework that fails to centrally address these identity-related costs runs the risk of being insufficient and ineffective in the sphere of creative educational contexts. Consequently, in order for Expectancy-Value Theory (EVT) to serve as a robust framework in creative education,

it must be modified to explicitly acknowledge the heightened importance of identity-cost and the profound impact of institutional policies on the development of student expectancies.

5.6 Bridging the Gap of Policy and National Aspiration

Building upon the identified institutional contradictions, this study's findings reveal a deeper and more systemic misalignment that exists: a significant gap is evident between the current, informal AI practices embraced by creative arts undergraduates and the ethical and strategic aspirations outlined in Malaysia's national policy frameworks. Although students demonstrated a notable adaptability in integrating AI tools during ideation and academic tasks, it is essential to recognise that this behaviour has largely evolved organically, without the scaffold of structured ethical literacy framework. This spontaneous development stands in sharp contrast to the envisioned integration laid out in Malaysia's key national documents, highlighting the pressing need for a more deliberate and comprehensive approach to fostering ethical awareness and strategic alignment within the realm of AI practices among the student body.

According to the MOSTI National AI Guidelines (2023), the use of AI in all sectors, including education, should be firmly anchored and tightly aligned in foundational principles such as accountability, transparency, and human-centricity. The findings of this study, however, suggest a clear gap between these policy aspirations and student practice. For instance, students' anxieties about authorship and "cheating" directly stem from a lack of transparency in the creative process, while their unguided use of tools sidesteps formal frameworks for accountability. This discrepancy highlights an urgent need to integrate a unison of AI ethics, governance, and critical literacy directly into creative arts curricula. This shift should transcend the existing notion that such educational aspects are exclusively relevant to technical or computer science domains, thereby providing students with a more comprehensive understanding of the ethical considerations inherent in leveraging AI technology responsibly within artistic pursuits.

This misalignment discussed becomes even more pronounced when we take into account the broader range of national initiatives that are in place. Within the context of the nation's Fourth Industrial Revolution (4IR) policy, there is a consistent emphasis on the critical need for adaptability and digital fluency across all industries. A cornerstone

of this effort is the AI untuk Rakyat initiative, which seeks to democratise AI understanding for all citizens. Its stated goals are to ensure Malaysians can grasp the capabilities, risks, and ethical use of AI. Yet, as per the findings of this study, despite the clear intentions behind this nationwide effort, it appears AI untuk Rakyat underutilised by the respondent group. Interestingly, a few of the participants mentioned learning about AI through informal channels like TikTok, YouTube, or peer networks, relying on these sources rather than through formal educational structures or promoted government platforms. This particular observation indicates that the faculty, and the university system at large, has a crucial role to play in actively promoting and integrating these public, nation-building tools such as the AI untuk Rakyat initiative to supplement or even act as a foundational component of their own digital literacy initiatives.

Ultimately, the consequences of this disparity extend well beyond the university environment into the career prospects of these students. It is worth noting that for most individuals pursuing a career in graphic design, this path represents not only a departure from conventional career trajectories but also a venture into the realm of gig work, characterised by the unique ability to undertake assignments remotely (MyDigital Corporation & Ipsos Malaysia, 2024). This particular characteristic renders graphic design a lucrative and flexible option for new graduates embarking on their professional journey. If we see it from this perspective, the proactive embrace of artificial intelligence (AI) tools in this field can be interpreted as a form of gig-economy future-proofing. By naturally integrating these advanced technologies into their workflow, intuitively adapting to tools that promise to increase their productivity and competitiveness, students are positioning themselves to boost their efficiency and competitive edge in the market. However, it is essential to recognise that shift of AI reliance, this strategic adaptation is a double-edged sword. It comes with inherent risks have the potential to adversely impact creative individuals. Without a solid foundation in critical AI literacy, this pragmatic use risks leading to unintended consequences such as de-skilling, an erosion of core skills integral to graphic design. Core aspects of graphic design, such as the rigorous cognitive process involved in ideation and the craftsmanship of copywriting, are skills that constitute the unique and enduring value of a human artist. Failure to approach the integration of Generative AI (GenAI) with ethical considerations and a critical creative mindset could gradually erode these essential skills. At the same time, for entrepreneurial spirits in the creative realm,

Generative AI stands at a critical juncture. GenAI teeters precariously between being a tool for unparalleled efficiency and a potential agent of creative dilution. The current educational framework, as it stands, is inadequately prepared to guide individuals through this delicate equilibrium, leaving them to navigate this intricate landscape fraught with challenges and opportunities.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This study titled "Artificial Intelligence (AI) Integration Among Creative Art Undergraduate Students in Malaysia: A UiTM Case Study" concludes and offers recommendations in this final chapter. This final chapter aims to provide a number of items, the first being an overview of the main conclusions, followed by emphasising the significance of the research, and lastly, to provide practical recommendations based on observations, data collection and analysis. This qualitative study employed Expectancy-Value Theory in order to help explore how design students at Universiti Teknologi MARA (UiTM) Puncak Alam perceive and integrate AI into their academic and creative practices. Findings revealed that students engage with AI selectively, valuing its utility for ideation but are apprehensive about its potential impact on their creative identity and originality due to perceived high costs associated with its integration. This tension give rise to a clearly delineated, and bounded adoption process. This shows and highlights that while the students are curious and exhibit as such, they are not adequately prepared for AI integration in their creative design process or workflow, much less doing so seamlessly. It has become evident that there exists a profound gap. The length of which has now been determined. Furthermore, a stark disconnect was identified between two factors; the restrictive institutional policies and the AI-driven realities of the design industry, which resulted in creating a fragmented learning environment. This makes the student heavily reliant on informal avenues for learning and exploration. There seems to be this everlasting tug of war between the universities' ability of student preparation and the industry's urgency for well-rounded employees. This perpetual struggle, added with the AI hesitancy exhibited by the students and employers' AI urgency, heavily underscores a need for upskilling initiatives to prepare graduates for hybrid (human-AI) design workflow. Without clear guidance from the government, the task is up to universities to work more closely with the industry to supply its needs while preserving the values and techniques that makes formal education unique. Here is where Malaysia stands today, the National AI Roadmap (AI-Rmap 2021-2025), which was created by MOSTI, has specified essential AI applications in agriculture, healthcare,

and education. It highlighted the values of reliability, inclusiveness, and accountability. These principles of which must now be integrated into innovative classrooms. The National AI Governance and Ethics (AIGE) Guidelines, introduced in 2024, have a set of robust ethical standards for AI which are consistent and align with international best practices. This initiative offers a framework that places and has positioned Malaysia among the more advanced countries in tackling AI governance thoroughly. Additionally, these guidelines demonstrate the nation's commitment to fostering a responsible and sustainable AI ecosystem. The government's ongoing dedication to this endeavour is exemplified by The Ministry of Digital is in the process of creating the National AI Technology Action Plan 2026-2030, which will expand on the groundwork set by the earlier roadmap, indicating that the government is extremely dedicated to leverage new AI technology to stimulate economic growth and maintain Malaysia's global competitiveness. Furthermore, it is crucial to emphasise the significance of establishing clear guidelines and regulations for individuals working in the creative arts sector. Without such regulatory frameworks in place, there is a risk of losing the essence of what makes each and every culture its own. The essence of our cultural heritage, traditional craftsmanship, and artistic skills. These invaluable aspects of society are akin to grains of sand carried away by the wind, slipping through our fingers before we can grasp them again. Therefore, it is imperative that measures be taken to protect and preserve the rich tapestry of cultural diversity and artistic expression that define Malaysia's creative landscape. Efforts must be made to safeguard these precious treasures for current and future generations to cherish and draw inspiration from, ensuring that they remain an integral part of the nation's identity and heritage.

6.2 Findings by Research Question

The first research question is: What is the status quo of AI use among creative arts undergraduates?

The findings showed that students do use AI in their learning environment and creative processes, quite often so, however, they do utilise it unevenly. Their level of confidence varies between each student due to their technical and ethical confidence gaps. We discovered that the students often use AI for tasks they deem menial and would take a longer time for them to accomplish. These tasks are often in the realm of researching for a topic, ideation, refinement, translation and writing. Different to what would be

expected by creative arts students (using AI to create artwork). Another interesting finding is that many see AI as a helpful companion that can cover up the skills they lack or are not that well versed in. They also used AI in clutch as it supports them when they feel unsure. One instance of this was admitted by one of the participants, they used AI during late-night work or when they are hesitant to approach lecturers. The students' use of AI were also motivated by a number of factors such as convenience, time pressure, and confidence issues. Students also learn about AI from each other, not from formal instruction by their respective lecturers. This led to an inconsistent proficiency in AI and occasional dependence. The ethical judgement was quite universal amongst them. Majority of the students exhibit a high level of ethical awareness and choose to use AI solely as a creative aid, never as a solution where the outcome is largely made by AI. They cited concerns of plagiarism, unethical data training that steal other artists' work. The students were guided more by peers than lecturers when it comes to AI. Overall, the adoption of AI is widespread and motivated by practicality and convenience but strongly shaped by varying levels of literacy and vague academic expectations.

The second research question is: How is AI being integrated and utilised by creative arts undergraduate students for the future?

A large majority, if not all the students hold high expectations for the integration of Artificial Intelligence (AI) into the sphere of creative work. This sentiment or belief was reinforced during their practical training experiences, particularly within the context of internships. For them, AI is no longer an optional addition, rather, it has become an anticipated standard, it would be the norm with the absence of its utilisation equated to deliberately placing oneself and choosing to lag behind in modern practices. The students' collective perspective view AI as a multifaceted tool that can enhance productivity, capable of support in ideation, fostering innovation and expand the horizon creative possibilities. They firmly distinguish AI as a facilitator and enhancer, and explicitly do not see AI as something that can replace nor surpass human creativity and ingenuity. At the same time, their keen awareness extends to ethical considerations surrounding AI implementation. They expressed strong concerns relating to fairness, authenticity, and academic integrity (given their setting but in general as well). Suggesting a requirement for detailed guidance on AI applications, the students warrant a clear guidance on AI use. A more inviting and informative approach. Initiatives in the form of structured learning and to understand ethical boundaries navigating such technology. They believe AI literacy should be taught formally through classes on

prompting, ethics, responsible use, and creative originality. Students also emphasise the need for educators and institutions to stay up-to-date with AI developments so they can guide rather than prohibit. In doing so, it would leave their doubts behind and eliminate any grey areas. Their future vision aligns with collaboration between human creativity and AI capabilities. This is further supported by fair policies, ethical practices, and equal access to AI tools. In short, students anticipate a creative future where AI is integrated thoughtfully, guided by strong values and clear academic structures while underpinned by equitable policies, ethical standards, and universal AI resource availability.

6.3 Recommendations

Based on the findings of this study, we can propose two essential levels of action for universities to consider in enhancing their approach to integrating AI literacy into their curricula. In the short term, universities must move beyond a solely skills-based approach. Curriculum integration should include critical digital literacy and imperatively so. This comprehensive approach should involve the integration of content that prompts students to engage in discussions surrounding important topics such as authorship, bias, and the ethical considerations related to the utilisation of AI in design. By creating designated spaces within academic settings for these dialogues to take place, students would have the opportunity to explore these complex issues regularly, thus enriching their understanding and critical thinking skills. This continuous discourse not only provides a valuable educational experience but also serves to diminish identity-related obstacles by reframing AI as a beneficial tool for promoting critical thinking and creativity rather than a mere challenge to the creative process. Therefore, universities should also ought to provide structured AI literacy initiatives. These initiatives must be designed to equip students with the necessary knowledge and skills to navigate this rapidly evolving field. These initiatives should encompass a variety of educational interventions, including workshops and ethical guidelines, to ensure that students are adequately prepared to engage with AI technologies proficiently. To facilitate a progressive learning experience, universities may consider implementing workshops or mandatory modules which systematically guide students from fundamental to advanced levels of AI literacy. These initiatives may come in many forms including workshops and ethical guidelines. Workshops or mandatory modules that progress from

fundamental to advanced levels can slowly acclimate students rather than shock them with nuanced and complex aspects of AI. These should start with demystifying how generative AI works, its capabilities, and its limitations. This must then advance to hands-on, technical sessions on crafting effective prompts for visual AI, iterating on outputs, and integrating AI-generated assets into broader design workflows. This structure is crucial for building the self-efficacy (expectancy beliefs) that students currently lack with visual tools. Alongside skill, this equips them with critical awareness of opportunities and risks. To parallel this effort, universities should also invest in lecturer training and resources. Providing them with access to licensed AI tools and technical support to experiment and innovate in their teaching without facing personal financial or logistical barriers would be invaluable. The professional development for lecturers is extremely vital in promoting and easing the path for student exploration and mastery. Training their lecturers will equip them with both the technical skills to use visual AI tools and the pedagogical knowledge to guide students in their responsible and critical application. Not only that, lecturers also need to feel confident and competent before they can effectively guide their students. Should this succeed, it can create a community of practice where lecturers can share syllabus, assignment designs, successful strategies, and challenges related to AI integration can foster a collaborative and supportive environment. This bottom-up sharing of best practices can be a powerful driver of organic, sustainable change within the institution. Curriculum reform, university policy and academic guidelines must also align with industry practices to ensure graduate preparedness. The university must urgently develop and communicate a clear, coherent, and transparent policy on AI use in teaching and learning. Although it goes without saying, it must be developed in consultation with both faculty and students to ensure buy-in and must be visibly aligned with the national AI agenda and contemporary industry practices.

Future research should employ a mixed-methods approach with a larger, more diverse sample across multiple universities and creative disciplines such as film, music, or performance art disciplines to allow for broader generalisation and comparative analysis. Tracking a cohort of students as they transition from university into the workforce would provide invaluable insights into how their perceptions and use of AI evolve in a professional context. Another strategy that can be taken is to incorporate multi-stakeholder perspectives. Future research that includes the voices of lecturers,

university administrators, and industry professionals would offer a more holistic understanding of the ecosystem in which AI integration is occurring. By doing so, it can reveal alignment and friction points between these different groups. Future research may also specifically investigate whether perceptions and access to AI tools vary based on gender, socioeconomic background, or digital access, to ensure that AI literacy initiatives are equitable and inclusive which falls under two Sustainable Development Goals (SDG) 4: Quality Education and 10: Reduced Inequalities.

To sum it all, this insightful study has demonstrated and revealed that the journey towards meaningful AI integration in design education is as much about understanding the human psyche as it is about mastering new ever-emerging technologies. It works in a tandem, hinges on a deep comprehension of human behaviour and mastery of continuously evolving technologies. The pivotal question at hand is not just merely the possibility of incorporating AI into design education, but rather how it can be harnessed as a collaborative partner, and doing so correctly. Coming up with a strategic approach to utilising it as a collaborative ally in the creative process. As Malaysia advances in its national AI agenda, it is crucial that the educational trajectory we follow demonstrates a commitment to fostering critical literacy tailored to the demands of the digital age be it AI or upcoming technologies in order to equip students with the necessary skills and mind set. By empowering students, in this manner, it can foster and enable them to seamlessly integrate emerging new and advanced tools without compromising and instead preserving the human-centric originality (which are their creative identities) that remains the core of the profession. If this holistic approach is achieved, it will inevitably prepare and develop them to be not just skilled operators, but also nurture critical and ethical practitioners in an increasingly AI-driven world. The ultimate objective is a harmonious combination that honours both technological innovation and artistic legacy while positioning the field of design at the vanguard of the creative industries in the years to come.

REFERENCES

- Ahmad, M. F., & Ghapar, W. R. G. W. A. (2019). The Era of Artificial Intelligence in Malaysian Higher Education: Impact and Challenges in Tangible Mixed-Reality Learning System toward Self Exploration Education (SEE). *Procedia Computer Science*, 163, 2–10. <https://doi.org/10.1016/j.procs.2019.12.079>
- Alarie, B., & Cockfield, A. (2021). Will machines replace us? Machine-Authored Texts and the future of Scholarship. *Law Technology and Humans*, 3(2). <https://doi.org/10.5204/lthj.2089>
- Ariffin, A. S., Maavak, M., Dolah, R., & Muhtazaruddin, M. N. (2023). Formulation of AI Governance and ethics framework to support the implementation of responsible AI for Malaysia. *Res Militaris*, 13(3), 2491-2516.
- Babu, V. S., & Banana, K. (2024). A STUDY ON NARROW ARTIFICIAL INTELLIGENCE-AN OVERVIEW. *International Journal of Engineering Science and Advanced Technology (IJESAT)*, 24(04). https://www.ijesat.com/ijesat/files/V24I0428_1714383466.pdf
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W H Freeman/Times Books/ Henry Holt & Co.
- Berger, R. (2013). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234. <https://doi.org/10.1177/1468794112468475>
- Bong, M. (2001). Role of Self-Efficacy and Task-Value in Predicting College Students' Course Performance and Future Enrollment Intentions. *Contemporary Educational Psychology*, 26(4), 553–570. <https://doi.org/10.1006/ceps.2000.1048>
- Bory, P., Natale, S., & Katzenbach, C. (2024). Strong and weak AI narratives: an analytical framework. *AI & Society*, 40(4). <https://doi.org/10.1007/s00146-024-02087-8>
- Bostrom, N. (2014). *Superintelligence: Paths, Dangers, Strategies*. Oxford University Press, USA.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- Cetindamar, D., Kitto, K., Wu, M., Zhang, Y., Abedin, B., & Knight, S. (2022). Explicating AI literacy of employees at digital workplaces. *IEEE Transactions on Engineering Management*, 71, 810–823. <https://doi.org/10.1109/tem.2021.3138503>
- Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(1). <https://doi.org/10.1186/s41239-023-00411-8>
- Chan, C. K. Y., & Zhou, W. (2023). Deconstructing Student Perceptions of Generative AI (GenAI) through an Expectancy Value Theory (EVT)-based Instrument. *arXiv (Cornell University)*. <https://doi.org/10.48550/arxiv.2305.01186>
- Chatterjee, A. (2022). Art in an age of artificial intelligence. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1024449>
- Chayka, K. (2023, February 10). Is A.I. Art Stealing from Artists? *The New Yorker*. <https://www.newyorker.com/culture/infinite-scroll/is-ai-art-stealing-from-artists>
- Chiu, T. K. F. (2021). Applying the self-determination theory (SDT) to explain student engagement in online learning during the COVID-19 pandemic. *Journal of Research on Technology in Education*, 54(sup1). <https://doi.org/10.1080/15391523.2021.1891998>
- Collins, C., Dennehy, D., Conboy, K., & Mikalef, P. (2021). Artificial intelligence in information systems research: A systematic literature review and research agenda. *International Journal of Information Management*, 60, 102383. <https://doi.org/10.1016/j.ijinfomgt.2021.102383>
- Countouris, C. (2024, January 9). Survey reveals latest trends driving technological advancements in retail industry | NVIDIA blog. NVIDIA Blog. <https://blogs.nvidia.com/blog/ai-in-retail-survey-2024/>
- Crawford, J., Allen, K.-A., Pani, B., & Cowling, M. (2024). When artificial intelligence substitutes humans in higher education: the cost of loneliness, student success, and retention. *Studies in Higher Education*, 49(5), 1–15. <https://doi.org/10.1080/03075079.2024.2326956>
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed). Thousand Oaks: SAGE.

- Dehouche, N., & Dehouche, K. (2023). What's in a text-to-image prompt? The potential of stable diffusion in visual arts education. *Heliyon*, 9(6), e16757. <https://doi.org/10.1016/j.heliyon.2023.e16757>
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., . . . Williams, M. D. (2019). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
- Dzulkifly, D. (2021, May 4). *Khairy: HIDE system allows for transparent approach to containing Covid-19*. Malay Mail ; Malay Mail. <https://www.malaymail.com/news/malaysia/2021/05/04/khairy-hide-system-allows-for-transparent-approach-to-containing-covid-19/1971633>
- Eccles, J., Wigfield, A., Harold, R. D., & Blumenfeld, P. (1993). Age and Gender Differences in Children's Self- and Task Perceptions during Elementary School. *Child Development*, 64(3), 830. <https://doi.org/10.2307/1131221>
- Eccles, J. S., & Wigfield, A. (2002). Motivational Beliefs, Values, and Goals. *Annual Review of Psychology*, 53(1), 109–132. <https://doi.org/10.1146/annurev.psych.53.100901.135153>
- Emmert-Streib, F., Yli-Harja, O., & Dehmer, M. (2020). Artificial intelligence: a clarification of misconceptions, myths and desired status. *Frontiers in Artificial Intelligence*, 3. <https://doi.org/10.3389/frai.2020.524339>
- Fam, C. (2024, January 21). Art and algorithms: Creativity at a crossroads. The Star. <https://www.thestar.com.my/tech/tech-news/2024/01/22/art-and-algorithms-creativity-at-a-crossroads>
- Fathallah, R. (2021). Pedagogies for Democratic Participation in Design Studios: Towards More Inclusive Group Work among Interior Design Students. *International Journal of Art & Design Education*, 40(4), 736–747. <https://doi.org/10.1111/jade.12385>
- Flake, J. K., Barron, K. E., Hulleman, C., McCoach, B. D., & Welsh, M. E. (2015). Measuring cost: The forgotten component of expectancy-value theory. *Contemporary Educational Psychology*, 41, 232–244. <https://doi.org/10.1016/j.cedpsych.2015.03.002>

- Fleischmann, K. (2024). Generative Artificial Intelligence in Graphic Design Education: A Student perspective. *Canadian Journal of Learning and Technology*, 50(1), 1–17. <https://doi.org/10.21432/cjlt28618>
- Gilster, P. (1997). *Digital Literacy*. Wiley Computer.
- Hennink, M., & Kaiser, B. N. (2021). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. <https://doi.org/10.1016/j.socscimed.2021.114523>
- Home - MyDIGITAL. (2025, May 29). MyDIGITAL. <https://www.mydigital.gov.my/>
- Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, 62(1), 15–25. <https://doi.org/10.1016/j.bushor.2018.08.004>
- Kemp, S. (2023, February 13). Digital 2023: Malaysia — DataReportal – Global Digital Insights. DataReportal – Global Digital Insights. <https://datareportal.com/reports/digital-2023-malaysia>
- Kim, J., Lee, H., & Cho, Y. H. (2022). Learning design to support student-AI collaboration: perspectives of leading teachers for AI in education. *Education and Information Technologies*, 27(5), 6069–6104. <https://doi.org/10.1007/s10639-021-10831-6>
- Leaper, C. (2011). More Similarities than Differences in contemporary Theories of social development? *Advances in Child Development and Behavior*, 40, 337–378. <https://doi.org/10.1016/b978-0-12-386491-8.00009-8>
- Liang, J. (2024). Enhanced Art Design Education: Integrating Artificial Intelligence for Resource Optimization and Innovative Teaching. *Atlantis Highlights in Social Sciences, Education and Humanities/Atlantis Highlights in Social Sciences, Education and Humanities*, 239–247. https://doi.org/10.2991/978-94-6463-560-7_29
- Liao, J., Kumar, S., & Furuoka, F. (2025). Bridging the Digital Divide: How Internet Access Shapes Human Capital Development and Economic Inequality. *E-Bangi Journal of Social Science and Humanities*, 22(2). <https://doi.org/10.17576/ebangi.2025.2202.03>
- Li, Y., Yang, Y., Chen, L., & Bao, S. (2026). Factors influencing students' intentions to continue learning in AI-assisted painting courses. *Scientific Reports*, 16(1). <https://doi.org/10.1038/s41598-026-40663-8>

- Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, 1–16. <https://doi.org/10.1145/3313831.3376727>
- Malay Mail. (2025, September 17). “*AI is a new weapon*”: MACC says tech will cut probe times from years to months. Malay Mail ; Malay Mail. <https://www.malaymail.com/news/malaysia/2025/09/17/ai-is-a-new-weapon-macc-says-tech-will-cut-probe-times-from-years-to-months/191393>
- Malaysian Science, Technology Information Centre (MASTIC). (2023, December 1). *Official portal*. Malaysian Science and Technology Information Centre. <https://mastic.mosti.gov.my/publication/artificial-intelligence-roadmap-2021-2025>
- Ministry of Digital. (2025). *National AI Office*. Ai.gov.my. <https://ai.gov.my>
- Ministry Of Digital. (2025, February 25). *Ministry Of Digital Empowers Malaysians With AI Skills* [Press release]. <https://www.digital.gov.my/en-GB/siaran/Kementerian-Digital-Tingkatkan-Kemahiran-AI-Rakyat-Malaysia>
- Ministry Of Digital. (2025, February 6). *NAIO sets a new benchmark in Agritech with AI solutions through Rakan Tani* [Press release]. <https://www.digital.gov.my/en-GB/siaran/NAIO-sets-a-new-benchmark-in-Agritech-with-AI-solutions-through-Rakan-Tani>
- Mohd Noor, H. H. (2025, September 30). *SPRM manfaat AI perkukuh usaha perangi jenayah rasuah*. Harian Metro; New Straits Times. <https://www.hmetro.com.my/mutakhir/2025/09/1269860/sprm-manfaat-ai-perkukuh-usaha-perangi-jenayah-rasuah>
- Mocănașu, D. R. (2020). Determining the Sample Size in Qualitative Research. *International Multidisciplinary Scientific Conference on the Dialogue between Sciences & Arts, Religion & Education*, 4(1), 181–187. <https://doi.org/10.26520/mcdsare.2020.4.181-187>
- MyDIGITAL Corporation & Ipsos Malaysia. (2024). *What Gig Workers Really Want* [White paper]. <https://www.mydigital.gov.my/mycentre4ir>
- MyDIGITAL. (2025). *AI untuk Rakyat | Self learning online program*. Ai.gov.my. <https://aiur.ai.gov.my/#/home>
- Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2021). Conceptualizing AI literacy: An exploratory review. *Computers and Education. Artificial Intelligence*, 2, 100041. <https://doi.org/10.1016/j.caeai.2021.100041>

- Ng, G. W., & Leung, W. C. (2020). Strong Artificial Intelligence and Consciousness. *Journal of Artificial Intelligence and Consciousness*, 07(01), 63–72. <https://doi.org/10.1142/s2705078520300042>
- Ng Kok Wah, J. (2025). How Can Integrating Artificial Intelligence Technologies Advance Mental Health and Wellness in Malaysian Healthcare Systems and Enhance Societal Well-Being? *Archives of Women Health and Care*, 8(2). <https://doi.org/10.31038/awhc.2025821>
- Oppenlaender, J., Silvennoinen, J., Paananen, V., & Visuri, A. (2023). Perceptions and realities of Text-to-Image Generation. *arXiv (Cornell University)*. <https://doi.org/10.1145/3616961.3616978>
- Özsaraç, E. N. B., & Ergin, E. (2025). What drives teachers' use of AI in preschool education? A motivational perspective based on Expectancy-Value theory. *International Journal of Current Educational Studies*. <https://doi.org/10.46328/ijces.191>
- Pantserev, K. A. (2020). The malicious use of AI-Based deepfake technology as the new threat to psychological security and political stability. In *Advanced sciences and technologies for security applications* (pp. 37–55). https://doi.org/10.1007/978-3-030-35746-7_3
- Perez, T., Cromley, J. G., & Kaplan, A. (2013). The role of identity development, values, and costs in college STEM retention. *Journal of Educational Psychology*, 106(1), 315–329. <https://doi.org/10.1037/a0034027>
- Perpustakaan Tun Abdul Razak, Jabatan Arkib Universiti. (2018). *Sejarah fakulti – Kajian Seni Lukis & Seni Reka - UiTM Institutional Repository*. <https://ir.uitm.edu.my/id/eprint/61497/1/61497.pdf>
- PricewaterhouseCoopers. (2021, April 30). Malaysians are hopeful that their digital skills have improved since the pandemic began, but continue to be held back by fears of job security and automation [Press release]. <https://www.pwc.com/my/en/media/press-releases/2021/210430-digital-skills-improved-since-pandemic.html>
- Prime Minister's Department. (2024). *NATIONAL ANTI-CORRUPTION STRATEGY 2024-2028*. https://www.sprm.gov.my/admin/uploads_publication/strategi-pembanterasan-rasuah-nasional-2024-2028--en-08052024.pdf

- Putwain, D., Sander, P., & Larkin, D. (2012). Academic self-efficacy in research-related skills and behaviours: Relations with learning-related emotions and academic success. *British Journal of Educational Psychology*, 83(4), 633–650. <https://doi.org/10.1111/j.2044-8279.2012.02084.x>
- Raffaghelli, J. E., & Stewart, B. (2020). Centering complexity in ‘educators’ data literacy’ to support future practices in faculty development: a systematic review of the literature. *Teaching in Higher Education*, 25(4), 435–455. <https://doi.org/10.1080/13562517.2019.1696301>
- Russell, S., & Norvig, P. (2021). *Artificial intelligence: A Modern approach* (4th ed.). Prentice Hall.
- Salisu, A., & Ransom, E. N. (2014). The Role of Modeling towards Impacting Quality Education. *International Letters of Social and Humanistic Sciences*, 32, 54–61. <https://doi.org/10.18052/www.scipress.com/ilshs.32.54>
- San, K. G. (2025, February 2). *AI in healthcare will benefit all*. The Star. <https://www.thestar.com.my/news/nation/2025/02/03/ai-in-healthcare-will-benefit-all>
- S, S., & Raja, B. (2019). A Conceptual Overview and Systematic Review on Artificial Intelligence and Its Approaches. *International Journal of Emerging Technology and Innovative Engineering*, 5(12). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3519180
- Schwab, K. (2016). *The Fourth Industrial Revolution*. Currency.
- Shahril, M. (2023, October 30). How AI is Revolutionising the Industry - MIDA | Malaysian Investment Development Authority. MIDA | Malaysian Investment Development Authority. <https://www.mida.gov.my/how-ai-is-revolutionising-the-industry/>
- Takyar, A. (2023, August 23). *AI in Web3: How AI Manifests in the World of Web3*. LeewayHertz - AI Development Company. <https://www.leewayhertz.com/ai-in-web3/>
- Tien, Y. T., & Chen, R. (2024, March). Challenges of Artificial Intelligence in Design Education. In *Proceedings of the 2024 15th International Conference on E-Education, E-Business, E-Management and E-Learning* (pp. 123-126). <https://doi.org/10.1145/3670013.3670044>
- Touretzky, D., Gardner-McCune, C., Martin, F., & Seehorn, D. (2019). Envisioning AI for K-12: What Should Every Child Know about AI? *Proceedings of the AAAI*

- Conference on Artificial Intelligence*, 33(01), 9795–9799.
<https://doi.org/10.1609/aaai.v33i01.33019795>
- Trautwein, U., Marsh, H. W., Nagengast, B., Lüdtke, O., Nagy, G., & Jonkmann, K. (2012). Probing for the multiplicative term in modern expectancy–value theory: A latent interaction modeling study. *Journal of Educational Psychology*, 104(3), 763–777. <https://doi.org/10.1037/a0027470>
- Vartiainen, H., & Tedre, M. (2023). Using artificial intelligence in craft education: crafting with text-to-image generative models. *Digital Creativity*, 34(1), 1–21. <https://doi.org/10.1080/14626268.2023.2174557>
- Walter, Y. (2024). Embracing the future of Artificial Intelligence in the classroom: the relevance of AI literacy, prompt engineering, and critical thinking in modern education. *International Journal of Educational Technology in Higher Education*, 21. <https://doi.org/10.1186/s41239-024-00448-3>
- Wang, F., King, R. B., Chai, C. S., & Zhou, Y. (2023). University students’ intentions to learn artificial intelligence: the roles of supportive environments and expectancy–value beliefs. *International Journal of Educational Technology in Higher Education*, 20(1). <https://doi.org/10.1186/s41239-023-00417-2>
- World Health Organization (WHO). (2023, February 6). *Artificial intelligence in mental health research: new WHO study on applications and challenges*. World Health Organization. <https://www.who.int/europe/news/item/06-02-2023-artificial-intelligence-in-mental-health-research--new-who-study-on-applications-and-challenges>
- Xianghan O’Dea. (2024). Generative AI: is it a paradigm shift for higher education? *Studies in Higher Education*, 49(5), 1–6. <https://doi.org/10.1080/03075079.2024.2332944>
- Xu, J., Wan Mahmud, W. A., Hassim, N., & Li, C. (2025). Reasons for Establishing Film Festivals: A Systematic Literature Review. *E-Bangi Journal of Social Science and Humanities*, 22(2). <https://doi.org/10.17576/ebangi.2025.2202.07>
- Xu, Y., Wang, Q., An, Z., Wang, F., Zhang, L., Wu, Y., Dong, F., Qiu, C.-W., Liu, X., Qiu, J., Hua, K., Su, W., Xu, H., Han, Y., Cao, X., Liu, E., Fu, C., Yin, Z., Liu, M., & Roepman, R. (2021). Artificial Intelligence: a Powerful Paradigm for Scientific Research. *The Innovation*, 2(4). Sciencedirect. <https://doi.org/10.1016/j.xinn.2021.100179>

- Yin, S. X., & Goh, D. H. (2025). Understanding determinants of student behavioral intention in Singapore's AI education: insights from the situated expectancy-value theory. *Interactive Learning Environments*, 33(10), 5789–5804. <https://doi.org/10.1080/10494820.2025.2488141>
- Yusoff, S. M., Marzaini, A. F. M., Hao, L., Zainuddin, Z., & Basal, M. H. (2025). Understanding the role of AI in Malaysian higher education curricula: an analysis of student perceptions. *Discover Computing*, 28(1). <https://doi.org/10.1007/s10791-025-09567-5>
- Zailuddin, M. F. N. O., Harun, N. A. N., Rahim, H.A. A., Kamaruzaman, A. F., Berahim, M. H., Harun, M. H., & Ibrahim, Y. (2024). Redefining creative education: a case research analysis of AI in design courses. *Journal of Research in Innovative Teaching & Learning*, 17(2), 282–296. <https://doi.org/10.1108/jrit-01-2024-0019>
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1). <https://doi.org/10.1186/s41239-019-0171-0>
- Zulhusni, M. (2025, August 26). *Malaysia launches Ryt Bank, its first AI-powered bank*. AI News. <https://www.artificialintelligence-news.com/news/malaysia-launches-ryt-bank-its-first-ai-powered-bank/>

APPENDICES

APPENDIX 1

Focus Group Discussions Questions

FRAMEWORK / RANGKA KERJA:

(5-10 minutes per question / 5-10 minit setiap soalan)

1. Introductory (fosters interaction + focus on topic)
2. Transition (link intro to key, put AI in creative arts)
3. Key questions (Expectancy-Value Theory).
4. Closing / Penutup

Personal aspect:

1. **What is your first thought when you hear the term "AI in design"?**
Apakah yang pertama kali anda fikirkan apabila anda mendengar istilah "AI dalam seni reka"?
2. **How do you feel about using AI tools in your design work? Have you encountered any concerns or challenges, or has the experience been entirely smooth?**
Apakah perasaan anda tentang menggunakan alatan AI dalam kerja reka bentuk anda? Pernahkah anda menghadapi sebarang kebimbangan atau cabaran, atau adakah pengalaman itu lancar sepenuhnya?
3. **What potential benefits or drawbacks do you see in incorporating AI into your creative process? (Value component)**
Apakah faedah atau kelemahan yang berpotensi yang anda lihat dalam menggabungkan AI ke dalam proses kreatif anda? (Komponen nilai)

Academic aspect:

4. **Could you briefly tell us your major and what software/tools you are using in your final year creative project?**
Bolehkah anda memberitahu kami secara ringkas jurusan anda dan apakah perisian/alat yang anda gunakan dalam projek kreatif tahun akhir anda?
5. **How often do you come across AI tools or discussions about AI in your coursework or personal projects?**
Berapa kerapkah anda menjumpai alatan AI atau perbincangan tentang AI dalam kerja kursus atau projek peribadi anda?
6. **What do you think are the advantages and disadvantages of integrating AI into design education at UiTM?**
Pada pendapat anda, apakah kebaikan dan keburukan mengintegrasikan AI ke dalam pendidikan reka bentuk di UiTM?
7. **What AI-related skills do you think should be incorporated into your design curriculum to prepare you for future industry needs?**
Apakah kemahiran berkaitan AI yang anda fikir perlu dimasukkan ke dalam

kurikulum reka bentuk anda untuk menyediakan anda untuk keperluan industri masa hadapan?

Environmental aspect:

- 8. In what ways do you think AI is becoming relevant to your specific field (graphic design, advertising, multimedia, or illustration), and what are your thoughts on its growing role in the creative industry?**

Apakah cara yang anda fikir AI menjadi relevan dengan bidang khusus anda (reka bentuk grafik, pengiklanan, multimedia atau ilustrasi), dan apakah pendapat anda tentang peranannya yang semakin meningkat dalam industri kreatif?

- 9. How do you think learning about AI could affect your future career prospects in your chosen field? (Expectancy component)**

Pada pendapat anda, bagaimanakah pembelajaran tentang AI boleh menjejaskan prospek kerjaya masa depan anda dalam bidang pilihan anda? (Komponen jangkaan)

- 10. How can educators and industry professionals work together to better prepare students for the evolving role of AI in design?**

Bagaimanakah pendidik dan profesional industri boleh bekerjasama untuk menyediakan pelajar dengan lebih baik untuk peranan AI yang berkembang dalam seni reka?

APPENDIX 2

Demographic Questionnaire

SECTION A - DEMOGRAPHIC INFORMATION / BAHAGIAN A - MAKLUMAT DEMOGRAFI

1. Gender / Jantina :
 - Male / Lelaki
 - Female / Perempuan

2. Age / Umur :
 - 18-20
 - 21-23
 - 24-26
 - 27 or above / 27 ke atas

3. Majoring / Jurusan:
 - Graphic Design / Reka Bentuk Grafik
 - Illustration / Ilustras
 - Advertising / Pengiklanan
 - Multimedia / Multimedia

4. Background of study before degree / Latar belakang sebelum ijazah:
 - Pre-University/Foundation / Pra-universiti/Asasi
 - Diploma in Art/Design / Diploma dalam Seni/Reka Bentuk
 - Technical/Vocational Education / Pendidikan Teknikal/Vokasional
 - Other: _____ / Lain-lain: _____

5. Current semester / Semester terkini : _____

6. Used digital devices / Peranti digital yang digunakan:
 - Smartphone / Telefon pintar
 - Laptop / Komputer riba
 - Desktop PC / Komputer meja
 - Tablet (e.g. iPad, Wacom) / Tablet
 - Other: _____ / Lain-lain: _____

7. Daily internet usage / Penggunaan Internet Harian:
 - Less than 1 hour / Kurang dari 1 jam
 - 1 - 5 hours / 1 - 5 jam
 - 6 - 10 hours / 6 - 10 jam
 - 11 - 15 hours / 11 - 15 jam
 - 16 hours and above / 16 jam ke atas

8. AI tools used / Alat AI yang digunakan:
- MidJourney
 - DALL-E
 - Adobe Firefl
 - Canva (Magic Write, Magic Design)
 - Microsoft Designer
 - ChatGPT
 - Jasper AI
 - Runway AI
 - Other: _____ / Lain-lain: _____

APPENDIX 3

Informed Consent Form



اَوْنُوْ سَيِّتِيْ تِيْكَوْ لُوْ كِيْ بِمَارَا
UNIVERSITI
TEKNOLOGI
MARA

UNIVERSITI TEKNOLOGI MARA
FACULTY OF ART AND DESIGN
MASTER IN ART AND DESIGN (CAAD750)

Dear Sir / Madam / Miss,

Thank you for agreeing to participate in the research of studying the **ARTIFICIAL INTELLIGENCE INTEGRATION (AI) AMONG CREATIVE ART UNDERGRADUATE STUDENTS IN MALAYSIA: A UiTM CASE STUDY**.

The objective of this research are as follows:

1. To understand the current status quo of AI among creative arts undergraduates
2. To analyse the potential of AI towards the art & design undergraduate students,

You are identified as a suitable candidate for this research based on your experience and qualifications in the field of creative arts at the level of higher education. Your views and sentiments are essential to this research as it relates closely to art and design.

If you do agree to participate in this research, observations / interviews / documentations (video and audio) will be conducted to achieve a more detailed explanation of the research study. All information obtained by conducting the research study will be kept confidential and will be used for the purpose of this study only. The information and data obtained will be the property of Universiti Teknologi MARA and will be secured safely. Your participation is on a voluntary basis and you are entitled to withdraw at any time, if so you deem unfit.

Thank you your cooperation is appreciated.

Aiman Daniel bin Roslan
2023629952



اُونِيُوَرْسِيْتِي تِيْكْنُوْلُوْجِي مَآرَا
UNIVERSITI
TEKNOLOGI
MARA

UNIVERSITI TEKNOLOGI MARA
FAKULTI SENI LUKIS DAN SENI REKA
SARJANA SENI LUKIS DAN SENI REKA (CAAD750)

Tuan / Puan / Cik yang dihormati,

Terima kasih kerana sudi menyertai penyelidikan kajian **INTEGRASI KECERDASAN BUATAN (AI) DALAM KALANGAN PELAJAR SARJANA MUDA SENI KREATIF DI MALAYSIA: KAJIAN KES UiTM.**

Objektif kajian ini adalah seperti berikut:

1. Untuk memahami status quo semasa AI dalam kalangan mahasiswa seni kreatif
2. Untuk menganalisis potensi AI terhadap pelajar sarjana seni & reka bentuk,

Anda dikenal pasti sebagai calon yang sesuai untuk penyelidikan ini berdasarkan pengalaman dan kelayakan anda dalam bidang seni kreatif di peringkat pengajian tinggi. Pandangan dan sentimen anda adalah penting untuk penyelidikan ini kerana ia berkait rapat dengan seni dan reka bentuk.

Sekiranya anda bersetuju untuk menyertai penyelidikan ini, pemerhatian / temu bual / dokumentasi (video dan audio) akan dijalankan untuk mencapai penjelasan yang lebih terperinci tentang kajian penyelidikan. Segala maklumat yang diperolehi dengan menjalankan kajian penyelidikan akan dirahsiakan dan akan digunakan untuk tujuan kajian ini sahaja. Maklumat dan data yang diperolehi akan menjadi hak milik Universiti Teknologi MARA dan akan disimpan dengan selamat. Penyertaan anda adalah atas dasar sukarela dan anda berhak untuk menarik diri pada bila-bila masa, jika anda anggap tidak layak.

Terima kasih kerjasama anda amat dihargai.

Aiman Daniel bin Roslan
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AUTHOR'S PROFILE



Aiman Daniel bin Roslan holds a Diploma in Art and Design (Graphic Design & Digital Media) from the Faculty of Arts and Design in 2021 from Universiti Teknologi MARA (UiTM), Cawangan Melaka Kampus Alor Gajah. Soon after he pursued a Bachelor's Degree in the same field, graphic design from Universiti Teknologi MARA, Cawangan Selangor Kampus Puncak Alam. This thesis marks the successful completion of his Master's in Arts and Design of Universiti Teknologi MARA, Shah Alam. His research investigates Artificial Intelligence (AI) Integration Among Creative Art Undergraduate Students: A UiTM Case Study and looks forward to applying the insights from this work in his future career.

LIST OF PUBLICATIONS

- Roslan, A. D., & Kamaruzaman, M. F. (2025, September 24-25). Student Perspectives on AI Integration in Malaysian Design Education: Experiences and Implications for Educators [Conference presentation abstract]. 4th International Conference On Media and Social Sciences ICOMS
<https://masscomm.uitm.edu.my/index.php/icoms>
- Roslan, A. D., & Kamaruzaman, M. F. (2025). Understanding AI Integration Among Design Students. *E-Bangi Journal of Social Science and Humanities*, 22(4).
<https://dx.doi.org/10.17576/ebangi.2025.2204.10>