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A Preliminary Study on the Impacts of Work Ethics in the Artificial Intelligence (AI) Era among Non-Technology Educators at Higher Education Institutions

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ABSTRACT

Technology is the game-changer in education. Online platforms, gamification, and AI are becoming prominent tools in teaching pedagogies. Technology is proven to bring people advantages and helps to minimise human effort in completing tasks. It can be a good tool for educators, especially for IT experts. However, it can become a barrier for educators with non-technology backgrounds who may have less knowledge in IT yet are expected to implement technology in their teaching and learning pedagogies. This study examines the challenges educators with non-technology backgrounds face in utilising technology in their teaching and learning methods and its impact on their work ethics as educators. Using the qualitative interview method of purposive sampling, six educators were teaching at private higher education. From the findings, the high workloads and the need for support are the main challenges in motivating educators to use technology in teaching pedagogies. These two challenges have demotivated all participants in teaching and thus affected their work ethics. This study suggests revisiting the workloads projected to the educators and providing professional development to control the main issue.

Keywords: *artificial intelligence (AI), COVID-19, information technology (IT), higher education, non-technology educator, pedagogy, work ethics, 5th Industrial Revolution*

INTRODUCTION

Education is set as one of the primary instruments in any societal problem. Therefore, education needs to transform and change according to the innovations required by each society based on its notions and needs. It must undergo a transformative journey to adapt to the AI era effectively. In the AI era, where advancements in artificial intelligence and automation rapidly reshape industries and societies, traditional education models must evolve to equip learners with the skills and knowledge needed to thrive in this changing landscape.

Education, particularly at higher levels, helps to improve people's lives, establish a stable institution and produce a quality nation (Elumalai et al., 2021). These outcomes are derived from the effects of quality students requiring them to understand and comprehend the knowledge they acquire from the institution. Completing all these cycles requires the educator's passion to upskill their teaching and learning pedagogies. However, the quality of education and its practice has been pressured with the coming of COVID-19 in March 2019 (Mafugu, & Abel, 2022; Xia, Hu, Wu, Yang, & Lei, 2022).

The pandemic has changed the nature of the work and its setting. Some professions were leveraged to a better position (Xia, Hu, Wu, Yang, & Lei, 2022). Yet, educators only have the chance to do so to work from home with greater responsibilities and expectations (Xia, Hu, Wu, Yang, & Lei,

2022; Mafugu, & Abel, 2022). Not only that, the pandemic gives some possible opportunities for workers to configure their careers, but, again, it always provides different opportunities to educators. Within the same period, some people find jobs that fit the right path, benefits, and work disposition for long-term effects (Hamimah Ujir, Shanti Faridah Salleh, Ade Syaheda Wani Marzuki, Hashimatul Fatma Hashim & Aidil Azli Alias, 2020) Yet, educators need help to adapt to their duties, which sometimes causes them to be swamped (Hamimah Ujir, et al., 2020).

Some also embrace the opportunities of remote work or work from home (WFH) because it allows people to work geographically off-limits (Hamimah Ujir, Shanti Faridah Salleh, Ade Syaheda Wani Marzuki, Hashimatul Fatma Hashim & Aidil Azli Alias., 2020). For some other professions, workers also care about the flexibility and freedom they should get after the pandemic hit us (Christian, 2021). Unfortunately, it did not work the same for the educator as they still had to work according to their class timetable and not do their respective administrative jobs, research, etc (Hamimah, et.al., 2020). All these changes caused extra workloads for the educator responsible for lecturing and other possible duties, including research, administrative work, consultation, etc. (Hamimah et al., 2020).

During the pandemic, educators may have to spend at least fewer hours a week in a physical office; now, some must spend more than 40 hours (Hamimah, et.al., 2020). This happens due to the expectation that all educators are far too familiar with information technology (IT), particularly via its artificial intelligence (AI) support systems (Hamimah et al., 2020). The consequence slightly shows how overworked culture has been nurtured in our post-COVID society (Uhlorn, 2020; Jamali et al., 2021) after the pandemic. According to Nurli Yaacob, Asmah Laili Yeon & Rohana Abdul Rahman (2018; 882), the type of workload bears by the educators usually consists of "teaching, supervision, research, consultation, administrative work, publication and community service". Calculating the working hours of an educator using the above-mentioned job descriptions may take more than 40 hours a week, considering the other job responsibilities that need to be fulfilled by the educators (Hamimah, et.al., 2020).

From the pedagogical perspective, the current educational curriculum should focus more on digital skills, data literacy, and computational thinking (EIT Digital, 2022). Educators and students need to understand the fundamental aspects of information technology, including AI and how it impacts fields such as sociology, healthcare, finance, and more. This includes the ethical considerations and implications of AI technologies.

Additionally, a shift towards personalised and adaptive learning experiences must be made. AI technologies can analyse individual learning patterns and preferences to tailor educational content and delivery methods (Momin Iqbal, 2023). Momin (2023) also ensures that each student receives a customised learning experience that maximises their potential and addresses their unique needs.

In tandem with this technological shift in education, educators must be equipped with the necessary skills to integrate AI tools and technologies into their teaching practices effectively. This may involve professional development programs and training initiatives to enhance their digital literacy and pedagogical skills using AI-powered educational resources (Momin, 2023).

Unfortunately, using technology sometimes causes a lot more trouble for the educator to maximise the application of technology in their teaching pedagogies. This is troublesome for educators, especially non-technology educators who are not usually experts in technology and its tools. According to Britannica, T. Editors of Encyclopedia (2024), "technology is the application of scientific knowledge

to the practical aims of human life or, as it is sometimes phrased, to the change and manipulation of the human environment". With different meanings of technology, it seems to bring a lot of advantages to human beings (Jon Agar, 2020). The advantage offered by technology is that extra effort is needed from non-technology educators to utilise it. This happened during the pandemic when educators were assumed to be able to utilise the online platform without providing proper training from the management of their institutions. This has caused a lot of hassle, especially the low engagement experienced by the students due to online teaching and learning during COVID-19 (Kocak & Goksu, 2023; Reymond, 2023).

The challenge increases for educators with a non-technology background who suddenly need to utilise the internet and online tools at all costs in their teaching and learning sessions. It is not an issue if the educator has IT knowledge and uses it all the time, but what happens to the non-technology background educator? Of course, it should be something other than memorisation and educator-centred learning points as the nation moves towards the 5th Industrial Revolution. Still, the requirements set by the institutions should be on the same page, considering the background of non-technology educators who are expected to teach and learn using online platforms. With the limitations of time and knowledge in digital technology, will these aspirations affect the work ethics of educators in fulfilling their teaching responsibilities?

Ethics is a branch of philosophy which involves moral behaviour and experience (Ongong'a & Akaranga, 2013). Universities are where academic institutions function to discover and propagate ideas, knowledge, and truth through educators (Hamimah, et.al., 2020). However, educators often face dilemmas such as teaching duties, evaluating students' works according to the stipulated time, against prejudice and discrimination over students' expectations, conducting and publishing articles through research, etc. (Hamimah et al., 2020). Not only that, but some institutions also encourage educators to do marketing to make sure they can explain further the courses that the university offers and the tasks listed in their key performance index (KPI).

The utilisation of technology, such as AI generative tools, gamification, etc., does put educators into trouble when they are expected to comply with the needs of the students (Momin, 2023; Kocak, & Goksu, 2023; Barrot, Llenares, & Del Rosario, 2021). If they cannot improve their teaching and learning, the other sceptical mindset will come when the educators use the traditional teaching method. All these situations require the educator to upscale their skills, but do they have the time, ability and knowledge to do so? This has caused many issues for non-technology background educators, who are not only about fulfilling their actual responsibilities but also complying with the new teaching pedagogies (Barrot, Llenares, & Del Rosario, 2021).

This study examines the challenges non-technology-background educators face in their teaching pedagogies and their impact on their work ethics. While many articles refer to the challenges of students in online classes (Barrot et al., 2021; Hussain et al., 2023; Xia et al., 2022), this study focuses on the challenges faced by educators, as they are the primary agents in preparing the materials for teaching and learning and conducting the classes.

Presenteeism and absenteeism pose significant challenges for employees and employers, impacting productivity, morale, and overall organisational performance. In a traditional understanding, issues of presenteeism and absenteeism relate to physical presence at the workplace (van der Feltz-Cornelis et al., 2020).

Presenteeism refers to workers coming to work despite being unwell or experiencing other personal issues that affect their ability to perform effectively (Van der Feltz-Cornelis, Varley, Allgar, & De Beurs, 2020; Theresa, Shean-Min Ng, Poh-Chuin Teo, Ong Choon Hee, 2022). This can result in decreased productivity, errors, and potentially spreading illness to coworkers (Van der Feltz-Cornelis, et. al., 2020; Theresa, et.al., 2022). Moreover, workers who feel pressured to be present at work even when they are not at their best may experience increased stress and burnout, leading to long-term negative effects on their health and well-being (Theresa et al., 2022). On the other hand, absenteeism occurs when workers frequently miss work or are consistently late due to illness, personal reasons, or disengagement. While occasional absences are inevitable, chronic absenteeism can disrupt workflow, strain team dynamics, and create additional burdens for coworkers who must pick up the slack (Van der Feltz-Cornelis, et. al., 2020; Theresa, et.al., 2022). Moreover, absenteeism can increase workers' costs regarding lost productivity, overtime pay, and temporary replacements (Hunter et al., 2021).

On the other hand, absenteeism among non-technologically savvy educators may occur when they feel overwhelmed or intimidated by the prospect of incorporating technology into their teaching (Momin, 2023). This can lead them to avoid engaging in professional development opportunities or collaborative initiatives focused on digital literacy (LeBlanc and Karp, 2016). Eventually, it can result in missed opportunities for growth and innovation in teaching practices and feelings of isolation or inadequacy among educators who need help adapting to the changing demands of the digital age.

The challenges of presenteeism and absenteeism among non-technologically savvy educators can have implications for work ethics within the educational context and influence student perceptions of work ethics (Van der Feltz-Cornelis, et. al., 2020; Theresa, et.al., 2022). Students may interpret educators' struggles with technology as a lack of dedication or professionalism, leading to decreased respect for authority and diminished trust in the educational system (Aydin, 2024). Additionally, inconsistent or ineffective teaching practices resulting from educators' technological limitations may undermine students' confidence in their learning experiences and the value of their education. (Johnson, 2016)

Consequently, this affects one's work ethic. Non-technologically savvy educators may feel pressure to demonstrate their dedication and commitment to their work by physically showing up in the classroom, even if they struggle to integrate technology into their teaching practices effectively (Momin, 2023). While this dedication is commendable, it can lead to a disconnect between effort and outcomes if educators cannot deliver high-quality teaching experiences due to their limited technological proficiency (Sivanisvarry Morhan, 2024). This challenges traditional notions of work ethics, as educators may prioritise physical presence over the ability to adapt and innovate in response to changing educational trends and demands.

METHOD

Using semi-structured interview sessions, this study deploys a qualitative method to find the challenges faced by educators with non-technology backgrounds when they conduct classes using online tools and their impact on their work ethics. Six educators were identified using purposive sampling. They are in education and have taught in tertiary education for at least three years at private higher institutions. These participants come from various fields of study, such as social sciences (political science), pure mathematics (mathematics and statistics), humanities (religion) and humanities (business). Though they all came from some other than an IT background, they have basic computer skills, such as using Microsoft Word, simple Microsoft Excel and basic PowerPoint. For the interview,

the questions were developed based on past studies. Using traditional transcription, this study used thematic analysis.

FINDINGS

In today's life, there is no solid excuse to be accepted for acquiring knowledge. However, time limitations may cause people to either self-motivate themselves for better upskilling rewards (such as earning knowledge outside of their capability) or work for the sake of working (without putting much effort into improving their skills).

This study found that time is one of the biggest factors that can hinder a person, particularly an educator, from upskilling themselves in different capabilities, such as understanding new AI generative tools, applying games in teaching pedagogies, etc. This study focuses on the challenges educators face with a non-technology background in applying technology. The impact of the pandemic still haunts these educators, who need to keep improving their teaching style, but there is little time left with all the unbearable workloads.

Among the preliminary themes the study managed to capture and discuss are the digital literacy challenges experienced by educators, presenteeism and absenteeism and work ethics at work.

(i) Challenge of Digital Literacy and the Need for Educator's Support

All participants in this research agreed that they cannot make digital illiteracy or that not coming from an IT background should hinder them from developing and implementing technology in their teaching and learning pedagogies. Below are two connotations received from two participants, highlighting their issues on lack of technology skills. Danial, who has taught at a private university for 25 years, mentioned.

> *"I have been teaching for 25 years now… and I am not good in technology. I cannot deny that it was very tough for me to use technology in my class… even to use online platforms such as Zoom or GoogleMeet, it was so hard for me… but, it should not become one of the reasons for me not to teach too. But I need support, since I am not from IT or have a vast knowledge on IT… I need management support, such as trainings. Like a sequence training to help us out in teaching…"*

Camelia, with 8 years of teaching experience at a private higher institution, shared the same viewpoint on the difficulties of incorporating IT in the classroom.

> *"I am a person who likes to write on the board while teaching… when Covid-19 came, I lost my teaching capabilities… I have limited knowledge on tools (online tools)… I was struggling, because I only use PowerPoint and whiteboard… and now, using the online apps to make sure my students understand the content…"*

Hence, educators with non-technology backgrounds need educator support, such as professional development and training. Such initiatives can help them better understand the new application tools needed in teaching and learning sessions. The ability to implement new teaching methods, such as utilising gamification, can be more interactive if they know the best processes required. Through professional development, it can boost educators' confidence and competency in delivering their

content. Not only that, but it will also improve the effectiveness of the teaching pedagogies, especially for educators with non-technical backgrounds.

The findings also show that the educator's support comes from more than just training on the available tools. It is also related to the leader's style. Participants were asked about the importance of leaders in providing training and work expectations in their tasks. Two excerpts mention how great leadership can boost work ethics despite the hardship of utilising technologies in their work. Aisya, in response to the leadership mentioned.

> *"... the leader should be clear and know what they want us to do... even though I am not good in IT, but, when he standardise, for example, each of us need to use same platform, which is Google Meet, we need to record the class, we need to do this and this, then we understand, what he want... rather than he say, up to you..."*

Erman also responded the same concerning the same discussion.

> *"...strict superior but still have leniency is a bless. But, too lenient until not following up the staff's doing or works is not a blessings, because usually when the hard time comes, such as the management wanting for a report and the person-in-charge is not doing that, the un-related people to the discussion will be in trouble..." (Educator E, 4 years of teaching at private higher institution).*

Both participants, Aisya, with 8 years of teaching experience, and Erman, who has been teaching for 4 years at different private higher institutions, shared the same perspectives on the need to have a supportive manager or supervisor who will supervise and instruct the employees carefully.

Based on this feedback, the attitude of the superior will also play a major role in getting the educator's support. There are few types of leadership, and in these findings, having a leader with transformational leadership is much needed since they usually build vision, inspiration, career growth, innovation and creativity. In any group work, setting a goal is necessary to make sure the goal will be achieved at the end of the day. However, leaders need to be clearer about the goals or vision of using technology in the teaching setting. In that case, it will greatly impact the employee's understanding of the requirements needed by the superior or management. Hence, in fulfilling the mission of utilising technology in an education setting, a leader should possess the knowledge and the right direction to achieve the goals.

(ii) Issues of Presenteeism versus Absenteeism

The issues of presenteeism and absenteeism are particularly relevant in the context of the inability to be technologically savvy, which directly affects educators, especially among baby boomers, Gen X, and Gen Y. Whether I am present or absent at work if I am not a technologically savvy educator has become one of the reasons for presenteeism and absenteeism among educators.

Presenteeism can manifest in educators feeling pressured to be constantly available and online, even when they are unwell or dealing with personal issues. These days, the problem of presenteeism happens because of illness, injury, fatigue, and lack of performance recognition (Koopman, 2002; Johns, 2010; Dudenhoffer, 2017), but now, it can be happening due to cyberbullying faced by educators while teaching the students through online platform (Paula da Costa Ferreira, Alexandra Barros, Nadia Pereira,

Alexandra Marques Pinto & Ana Margarida Veiga Simao, 2019). The lack of physical presence in the office can exacerbate this pressure, as employees may need to demonstrate their productivity through constant online activity. This can lead to burnout, as employees struggle to disconnect from work and maintain boundaries between their professional and personal lives.

In the context of non-technologically savvy educators, presenteeism and absenteeism can present unique challenges in delivering effective teaching and learning experiences. Non-technologically savvy educators may feel pressured to demonstrate their effectiveness by being physically present in the classroom, even when they need more skills or confidence to integrate technology into their teaching practices. This can result in missed opportunities to leverage digital tools and resources to enhance learning outcomes and engage students effectively. Additionally, presenteeism may lead to feelings of frustration or overwhelm among educators who struggle to keep pace with technological advancements in education.

Danial, who has more than 25 years of teaching at private higher institutions, explained that the force to keep on utilising the online platform, such as replying and responding to the chats from the students and online classes with online platforms, caused him to be 'absent' from the tasks, as an educator.

> *"I feel like it was too much… it is different from the previous time where students need to meet us face-to face… ah, it is hard to be honest"*

The limitation of knowledge, struggling, and juggling time in complying with the needs of technology usage in teaching and learning sessions can have a huge impact on an educator's motivation to be present during teaching and learning or to escape from their actual duty as educators.

(iii) Workload Challenge and Work Ethics

Excessive workloads are one of the significant issues among educators in both public and private higher education institutions. However, it may vary from one university to another, with different KPIs. The faculty usually prepares a specific teaching workload with the staff available at their institutions. However, it has become common for educators to be burdened with administrative work, not only by teaching, supervising, consulting, or researching. In those days, educators could hire assistants based on their capabilities and status (Nurli et al., 2018). With the utilisation of technology these days, many institutions have started to use online platforms to communicate with their students, which has caused educators to respond to their students immediately. Hence, apart from the existing teaching workload (for instance), educators are expected to give quick feedback to students via online platforms and no longer rely on face-to-face meetups.

With his 25 years of teaching experience at a private higher institution, Danial commented.

> *"For me, the biggest problem is too many chats and emails to review or reply… I am old, baby boomers like me are not good with technology. So, when we must use Microsoft Teams or Zoom or Google Meet to communicate with students, I have so many troubles, even until now…"*

At the same time, Camelia, with 8 years of teaching experience, expressed the same thought.

> *"I already have too many things on the plate. I also need to revise and revamp teaching pedagogies… now, they are adding another stuff to the plate… Imagine I have 60 students doing mathematic and I have to cater all the chats. Of course, not all will ask questions, but, I am not teaching only one subject… but I am also responding to students' chat within 24 hours"*

In addition to the demanding workload, all participants mentioned that responding to students' chats within 24 hours has become one of their institutions' KPIs. This is terrible for educators with a high workload and many questions posed by the students. Hence, revisiting the KPIs should be a good resort in resolving the issue of complying with the work and fulfilling the needs of the students.

The participants also mentioned that their unrealistic KPIs demotivate them to fulfil their tasks. Therefore, this issue should be addressed by the superiors of the higher management of education institutions. Batrisya mentioned how she feels swamped with the tasks she handles, even though she has experience teaching at a private higher institution for 8 years.

> *"Technology is good, but, this thing is sometimes killing us… (laugh) I am not good in handling my students' chats… to be honest, it is a lot… like really a lot… and I don't even bother to reply them. If they have any question, better ask me during class-hour"*

Does this response indicate bad work ethics? With the high workload and different types of KPIs educators must deal with, the tendency to neglect one of the tasks can become a common practice among educators. Danial responded to the stigma on workloads and KPIs, as shown below.

> *"It takes a while for me to reply to my students via chat… so, I usually ignore their chats and ask them to meet me during class hours or consultation time. Does that shows that I am not a good educator? I am sorry, but, for the past 20 years… that is how I treated my students (laugh)"*

The interview session proves that high workloads greatly impact an educator's work ethic. Thus, the faculty or respective person should find solutions for revisiting the KPIs or workloads to ensure that educators enjoy their professions and stay passionate until they retire. Most of the time, educators are known as the ones who must teach, consult, supervise, and do administrative work like keying in the data, etc. Still, many were not aware that monitoring courses repeatedly to make sure they comply with the expectations of the modules, updating the evaluation types, preparing different sets of question banks, updating the pedagogical methods of teaching and learning, coordinating with the industrial training, assisting the internship programme, etc. are among the unseen workload which usually not calculated in the workload, because it is not class-based working hours. Hence, the *unseen* workload mentioned may cause additional stress to educators with non-technical backgrounds, as now, they must have their own self-paced learning using technological teaching and learning pedagogies.

DISCUSSION

Committing to work is one of the main agendas of any employee and is what employers expect. Hence, the challenges educators face with a non-technology background in utilising technological applications are a must-hear issue, as educators are the backbone of any university institution.

Transforming education in the AI era requires a holistic approach encompassing curriculum

reform, personalised learning experiences, training, and collaborative efforts among stakeholders. By embracing these changes, the educational sector can empower students to harness the full potential of AI and drive innovation in the future workforce. To do that, collaboration between educational institutions, industry stakeholders, and policymakers is crucial to ensure that educational systems align with the demands of the AI-driven economy.

This includes establishing partnerships with technological companies to provide real-world learning opportunities, updating educational policies to accommodate emerging trends in AI education, and fostering interdisciplinary approaches that bridge the gap between AI research and education. Hence, non-technology background educators need strong support from the institution and a good leader to achieve the intention of utilising technology in the education setting.

Issues like presenteeism became standard after the pandemic hit us (Chandani, Opatha & Fernando, 2016). It has been mentioned that presenteeism caused an enormous collision over absenteeism because it 'forces' workers to attend to their work even though they are not fit. Presenteeism has gotten at a different pace, especially among educators, as they have been forced to cope with the changes that are taking place in the academic world (Lufkin, 2021). The issue of high workloads can be part of why educators opt for presenteeism. Thus, the management must curb this issue before it becomes a practice among the staff.

To address the challenges of presenteeism and absenteeism among non-technologically savvy educators, schools and educational institutions must prioritise professional development and training initiatives focused on digital literacy and technology integration. This may include providing ongoing support and resources for educators to develop their skills and confidence in using educational technology tools and fostering a culture of collaboration and mentorship where experienced educators can share their knowledge and best practices with their peers. Additionally, universities and higher learning institutions can invest in infrastructure and resources to ensure equitable access to technology for all educators, regardless of their level of proficiency.

Conversely, absenteeism among non-technologically savvy educators may be driven by frustration, inadequacy, or disengagement resulting from their struggles to effectively incorporate technology into their teaching practices. Suppose educators disengage from professional development opportunities or collaborative initiatives focused on digital literacy. In that case, this can raise questions about work ethics, potentially impacting their effectiveness and commitment to their educator role.

According to Teh Choon Jin in Sivanisvrry Morhan. (2024), in addressing the work ethics challenges related to presenteeism and absenteeism among non-technologically savvy educators, educational institutions must prioritise professional development and training initiatives focused on digital literacy and technology integration. By providing educators with the support and resources to enhance their technological proficiency, schools can empower them to deliver high-quality teaching experiences that align with the expectations of students, parents, and the broader community. Additionally, fostering a culture of collaboration, mentorship, and continuous learning can help educators overcome feelings of isolation or inadequacy, promoting a sense of collective responsibility and shared commitment to student success.

Also, the ability of students to grasp the knowledge will rely on the passion shown by the educators in their profession. The work ethic will be affected if the educator feels they need more support from the management to provide access to knowledge and tools the non-technology educators need.

Hence, professional development offered by the institutions can be part of the solution to cater to the needs of educator support. It is acceptable for the management to request staff to revamp their teaching pedagogies and study materials. Still, the condition should be aligned with the availability of support in improving their teaching and learning practices.

In a nutshell, the need for technological proficiency among educators significantly impacts teaching effectiveness and student learning outcomes. With the ability to leverage technology effectively, educators can create engaging and interactive learning experiences that cater to diverse learning styles and preferences. This can lead to disengagement and disinterest among students and hinder their ability to develop essential digital literacy skills for success in the 21st-century workforce. Most importantly, the learner must learn from the learned. It is unethical if the learned cannot impart good wisdom to the learner for their inability – or worse, for their oblivious attitudes – to adjust well to the 21st-century teaching and learning demands at higher educational institutions.

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