Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills

Mohammad Awad AlAfnan¹, Samira Dishari¹, Siti Fatimah MohdZuki²

¹Liberal Arts Department, American University of the Middle East, Kuwait

²University Technology MARA, Shah Alam, Malaysia

Corresponding Author: Mohammad Awad AlAfnan, Email: mohammad.al-afnan@aum.edu.kw

Abstract

This study explores the development of soft skills in the Artificial Intelligence era. Initially, the study, through an anonymous online survey, explored why students use AI and Large Language Models (LLMs). It was found that students use AI for general and academic purposes. From a general perspective, students use AI and LLMs for (1) convenience, (2) lack of time, and (3) lack of curiosity/interest. From an academic perspective, students use AI and LLM platforms as they (1) lack familiarity/knowledge, (2) lack basic skills, (3) lack confidence, (4) have an eagerness to score high grades, and (5) wish to provide different perspectives. To assist in developing students' soft skills and discourage possible destructive outcomes in the AI era, the study suggests integrating AI platforms as part of teaching. This integration can be carried out by (1) introducing AI tools to students in a productive manner, (2) aligning the use of AI tools with the curriculum and teaching styles, (3) planning lessons and interactive activities using AI platforms, and (4) using AI tools to provide feedback and vice versa. In communication courses, instructors shall (1) create a supportive environment, (2) organize classroom discussions and debates, (3) create public speaking opportunities, (4) provide room for oral communication practices, (5) integrate the use of technology and multimedia, and (6) provide feedback and reflection. In business writing courses, instructors shall (1) encourage effective communication in classrooms, (2) facilitate collaboration and teamwork, (3) use role-play scenarios, (4) introduce project management tools, (5) teach professional etiquette, and (6) organize networking events. In composition courses, instructors shall (1) embrace technology, (2) teach students to critically evaluate online sources, (3) design assignments that require critical analysis, (4) encourage creative writing assignments, (5) promote imagination and originality, and (6) conduct workshops. These practices, which are provided in line with AlAfnan's taxonomy of educational objectives, shall assist students in developing their soft skills in a way that maintains the relevance of classroom teaching in the AI era.

Keywords: soft skills; teaching and learning; artificial intelligence; communication; business writing; composition

1. Introduction

Soft skills are integral to all job roles which makes them in high demand by employers for almost all organizational roles. These soft skills can be referred to as transferrable skills or employability skills by employers. In general terms, soft skills are the personality characteristics, attitudes, and

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

social abilities we use to communicate with others. They are the skills that companies look for since they show employees the ability to operate productively and pleasantly with others. As they connect to our personalities rather than being traditionally identified with a particular job, soft skills are extremely adaptable. Even while soft skills are less tangible than hard skills and may still be learned and improved, employers respect any credentials employees have that demonstrate a drive to improve them.

In this era, the artificial intelligence (AI) era, the development of soft skills among university students has come under a lot of pressure as students may opt for convenience rather than hard/smart work. Artificial intelligence chatbots, these days, have an impeccable ability to answer questions, write essays, solve mathematical equations, pass exams, analyze data, create PowerPoints, and so forth [1]. Students these days may not see the need or realize the urgency to develop soft skills as they get more and more dependent on artificial intelligence platforms. They can provide answers to questions and solve equations based on AI-generated responses. They may even pass exams regardless of the AI-generated index as plagiarism detection software providers did not reach a point where they can confidently claim that a given material is generated by AI chatbots. Studies have also shown that AI detection reports generated by plagiarism detection software providers are not accurate [2]. In addition, as plagiarism detection software providers invest in developing their ability to detect AI-generated material, AI chatbot providers also invest in making their AI-generated material seem more and more human-like up to a stage that cannot be differentiated from human-developed material.

This study targets this dilemma and strives to provide answers to several research questions on the development of soft skills in general, and the development of communication, business writing, and composition soft skills, in particular, in the AI era. In specific, below are the three questions that drive this study.

- 1. How can instructors assist students in developing communication soft skills in the AI era?
- 2. How can instructors assist students in developing business writing soft skills in the AI era?
- 3. How can instructors assist students in developing composition soft skills in the AI era?

2. Soft Skills

The majority of academics agree that professors are vital in helping students develop their personal and professional skills. [3] makes the argument that teachers should be proactive in developing soft skills in their curricula to increase the employability of future employees [3]. Even though higher education institutions offer, most of the time, high-quality instruction, the emphasis is primarily on teaching students' hard skills. As a result, students cannot rely on finding decent employment after graduating from higher education institutions as they, at times, lack soft skills [4]. Nevertheless, the bulk of academics are bitterly aware of this despite such advanced intentions. Furthermore, this problem is not simply a problem for developing countries [4]; it also presents a substantial challenge for the most industrialized countries in the globe.

According to a review of the literature on the topic, despite its widespread use, there is no scientific agreement on how to define the term "soft skills" in educational theory. They can be viewed as traits [5], behavioral or interpersonal skills [6], non-technical competencies [7], interpersonal

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

qualities [3], non-technical or non-domain skills [8], and non-technical traits and behaviors [9]. According to [3], soft skills are intangible, nontechnical, personality-specific, and more closely correlated with character characteristics and social skills than they are with technical proficiency or knowledge. [5] believes that soft skills should be thought of as a habit and adds that they are the positive characteristics anticipated in a nice and truthful person. Thus, based on the definitions provided above, it is clear that cross-cutting soft skills are personal and interpersonal metaqualities and meta-abilities that are essential for any potential employee who wants to contribute positively to both his or her professional development and the growth of the organization for which he or she will work [10].

Some academics define soft skills by linking them to other characteristics. According to [11], soft skills are measured by the Emotional Intelligence Quotient (EQ), whereas hard skills are measured by the Intelligence Quotient (IQ). According to [12], social and soft skills are interchangeable terms. Additionally, according to [13], they reflect a dynamic combination of cognitive and metacognitive skills, interpersonal, intellectual, and practical skills. Although many critics have asserted that because soft skills are closely tied to one another and relate to individual attributes, it is difficult to discern between them [12], [13]. Studies have tried to categorize them and draw analytical contrasts between them. Decision-making, problem-solving, creative and critical thinking, communication and interpersonal skills, self-awareness, empathy, coping with emotions, and stress were all identified as essential soft skills in a study conducted by the World Health Organization at the start of the 1990s [14].

The European Union member states have established a set of cycle or level descriptors as part of the Qualifications Framework of the European Higher Education Area to describe typical expectations of accomplishments after each of the three Bologna cycles. The so-called Dublin Descriptors are broad generalizations that describe the expected outcomes in terms of degrees of competence reached as opposed to knowledge acquired. They are made up of five components: the capacity for lifelong learning, knowledge and understanding, knowledge and understanding applied, decision-making, and communication. To describe the nature of the entire qualification, the descriptors are not subject-specific or limited to academic, professional, or vocational areas, but rather emphasize the acquisition of transferable skills, effectively incorporating the most recent research recommendations that emphasize the importance of soft skills in achieving expected performance levels. As a result, academic instruction faces a challenging obstacle. On the one hand, it could be easier to pass on features that include personal qualities within the family or in the beginning stages of schooling. when developing, youngsters are more prone to accept new developments and learn faster. On the other hand, classic approaches, including the lecture method, are still often utilized in academic settings. These days, higher education teaching faces another challenge in the path of developing soft skills which is Artificial intelligence (AI).

These days, students may go for convenience to generate responses and make submissions. These submissions, according to [1], [2], can be original. In addition, given that AI reports on Turnitin shall not be used for punitive purposes [2], students might become dependent on these AI tools and lose the race and the opportunity to develop soft skills during their higher education years. To

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

avoid these scenarios, this study examines how to assist teachers in helping students develop soft skills during their university years in this AI era.

3. Artificial Intelligence Tools

Artificial intelligence, as defined by [15], is a computer system's ability to do human activities (including thinking and learning), which are frequently only achievable with human intellect. AI technology in education provides a previously impossible degree of flexibility and adaptability. Technology is revolutionizing education and making teaching in classrooms and schools easier for educators. According to [16], artificial intelligence is used in almost every facet of modern life. Artificial intelligence and other contemporary technologies are completely changing the way we communicate with one another. It develops cutting-edge teaching techniques that are tested in a variety of environments. More efficient management and achievement of educational goals can be achieved with the use of new educational technology. According to [17], innovative technology development has an impact on teaching approaches. The recent fast advancements in technology have made the use of AI in education increasingly evident. This article explores the use of AI in education, specifically focusing on ChatGPT 4.

According to [18], GPT-4 is more inventive and collaborative than before. It can produce, edit, and iterate with users while collaborating with them on artistic and technical writing tasks like songwriting, screenwriting, or identifying their writing style. According to [19], GPT-4 demonstrated notable accuracy gains over GPT-3.5, passed several standardized tests, and was able to summarize and remark on texts and images. Several academics said that the model's restricted architecture precluded others from extending GPT-4's accomplishments, making it a "dead end" for the scientific community since Open AI withheld any information on the development of ChatGPT 4 [20].

Even though ChatGPT is the most well-known AI app, it wasn't the first app to be released. In addition to ChatGPT, there is a large number of AI tools that can be used to accomplish different purposes. They can be used to boost efficiency, save time, and spark creativity [2], but they can also be used to generate material that can be claimed as the original contribution of students and maybe professionals [1]. In terms of chatbots, we have ChatGPT and Bard. ChatGPT is the first chatbot to ignite the market, ChatGPT is currently the leader in its field. It is flexible and simple to use, and it is powered by OpenAI's GPT-3 and GPT-4 models. Users may utilize ChatGPT to create marketing content, conduct market research, or create sales letters. Users may automate ChatGPT and use the AI chatbot's capability from apps by connecting ChatGPT to Zapier. Google responded to ChatGPT by creating Bard. It is continually being enhanced to improve accuracy and interface with other Google products like Workspace and Search. The difference between ChatGPT and Bard is that ChatGPT can offer content that has been created until 2021 while Bard's content is up to date as it is connected to Google's search engine, which can, at times, be an advantage over ChatGPT's Chatbot.

For content creation, AI app creators came up with several tools including Jasper, Copy.ai, and Anyword. Jasper is a potent platform for AI content generation that rewards users who require a lot of material. It comes with a large number of templates to get you started, connects to the internet

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

to discover sources and study, and even enables AI image generation. Users can link Jasper to countless other applications. A more relaxed option that serves as a writing co-pilot is Copy.ai. Users must choose the finest options to include a document from the lists that are generated by prompts. This app works better for copywriting that demands more thought and revision. In addition to these two, Anyword assists marketers by cutting down the content development process into manageable steps. This starts by adding a prompt to produce a few titles. Then users can select a favorite and view an outline that was generated. They can proceed to create the final piece after making the necessary adjustments to the outline to reflect what users wish to cover.

AI has also been developed to include text enhancement tools. In this category, we have Grammarly, Wordtune, and ProWritingAid. The widely used spell and grammar-checking program is called Grammarly. It is a comprehensive solution that keeps language, mainly English, on target. It also enables tone adjustment and provides shortcuts for difficult or lengthy sentences. Users may use it practically in any place there is a text box because it has many extensions and connectors. Grammarly's main rival, ProWritingAid, provides a wealth of information to help users monitor their grammar, style, and spelling performance. The lifetime plan, which enables users to utilize all of these capabilities without adding a new monthly cost, is one of the key benefits. In addition to these two text enhancement tools, we also have Wordtune. Using Wordtune, users may get a large number of phrase options to make writing better. They may quickly search synonyms, request that entire phrases be rewritten, and incorporate the ideas into a final copy when they enter the material they wish to be checked.

Using AI, users may also create videos. Descript, Wondershare Filmora, and Runaway are among the most popular video-creating AI tools. Descript is a tool that can turn videos into scripts. The written script is then edited, rather than trimming the audio and video tracks using a timeline. The movie automatically gets cropped as users proceed. Similar principles apply to the remaining editing, speeding up the process of editing the talking head videos. The Wondershare Filmora program adds a series of AI tools to the mix that enables users to eliminate backgrounds, denoise poor-quality recordings, and enhance sound quality. All of this is combined with the traditional video editing user interface, so users will not ever get lost. The third video creation app is Runway. Runway includes several intriguing capabilities that enable users to create videos using artificial intelligence, hone their own AI models, and paint specific portions of frames using text cues. This software is expanding quickly.

In addition to the above, app developers created image-generation AI apps. We have DALL·E 2, Midjourney, and Stable Diffusion in this category. The makers of ChatGPT, OpenAI, have developed an image generator called DALLE 2. Whether users are novices or experts at creating picture prompts, this app helps them generate results. Midjourney helps users to produce amazing results, even if they do not have the experience. Although using Discord to access it initially seems counterintuitive, users will spend hours turning their imagination into vibrant pixels if users get the hang of it. DreamStudio, which is created by Stable Diffusion, is also one of the image creation AI apps that help users create images of their choice.

AI was also developed to include note-taking (i.e., Mem) and meeting transcription apps (i.e., Fireflies). Mem, which is a notetaking app, employs artificial intelligence to tag and connect the

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

notes users take, saving time for the organization. Users only need to collect information in bits and pieces, save it, and Mem's AI features will keep everything connected and structured. When users need to find those notes, they can use the search bar and automated tagging to browse through everything they wrote on each subject that is important to them. With Fireflies, which is a meeting transcription app, users can easily record all of their meetings while keeping track of the topics of conversation. It contains a separate bot named Fred that can summarize the meeting's information, produce text, and look through the past to get results for the search.

Table 1: AI Applications-Functions, names and uses

AI Applications-Functions	Names		Uses	
Chatbots	-	ChatGPT	-	Provide answers to prompts or
	-	Bard		questions.
			_	Create content
			_	Conduct research
			-	Create correspondence
Content creation	-	Jasper,	-	Provide templates for content
	-	Copy.ai		creation
	-	Anyword.	-	Enables AI image generation
		-	-	Editing and proofreading
Text Enhancement	-	Grammarly	1	Spell and grammar checking
	-	Wordtune	-	Enables tone adjustment
	-	ProWriting	-	Provides shortcuts for difficult
		Aid		or lengthy sentences
			_	Provide suggested phrases
Video creation	-	Descript	-	Turn videos into scripts
	/ -\	Wondershar	_	Editing the written script
		e Filmora	-	Trimming the audio and video
	-	Runaway		tracks using a timeline
			_	Eliminate backgrounds
			_	Denoise poor-quality recordings
			_	Enhance sound quality
			_	Create videos using artificial
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				intelligence
Image-generation	-	DALL·E 2	-	Create images using options.
	-	Midjourney	_	Create a background
	_	Stable	_	Edit the background
		Diffusion		_
Note-taking	-	Mem	-	Takes notes during meetings
Meeting transcription	_	Fireflies	_	Takes notes during classes
Inbox management	-	SaneBox	-	Writing emails
_	-	EmailTree	_	Getting rid of unnecessary
				emails
			_	Setting priorities for messages
			_	Adding tags to keep things
				organized

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

Presentation Slides	- Decktopus - SLidego - Beautiful.ai	 Creating presentations with text and slides Editing images Create new text provides layouts and styles Sets presentation's colors Locates royalty-free photos in the library
Conduct research	- Genei - Aomni	 Read the article and provide suggestions Providing extra material Providing extra resources Integrating the resources into the research

These days, we also have AI apps that can assist users in scheduling (i.e., Reclaim, Clockwise, Motion). Reclaim assists in preserving routines, ensuring that users never fall behind on their weekly goals. More than that, changing their schedule, will protect the time they need to do crucial chores. To prove to users that it works, Clockwise plans a one-hour break shortly after users begin using it. Clockwise can assist teams in saving one hour per week. The settings can be changed to create the perfect day for users, one in which work, breaks, and meetings coexist together. Motion puts a strong emphasis on project management, assisting users in keeping track of all the work they still need to do. Users can instruct the AI engine when a task should appear on the calendar and how to arrange the other tasks by adjusting each activity's priority.

AI can also write emails and generate inbox management. It is assumed that professionals spend a very long time on their emails. Using AI, these days, users can create reply drafts and keep things current. SaneBox, for example, scans your inbox to identify the people users typically correspond with, the newsletters they subscribe to, and the pointless emails that arrive daily. Based on that, it can assist users in getting rid of unnecessary emails, setting priorities for messages, and adding tags to keep things organized. EmailTree, on the other hand, can organize users' inboxes, follow up on messages, and automate some responses. It accomplishes this by analyzing the emails users receive and recommending the most logical course of action for follow-up [21].

And last but not least, AI can also assist users in preparing presentations and slide decks. Decktopus, for example, can be used to create presentations in a very simple style. Users enter the topic of their presentation, the intended audience, and the goal. Decktopus will create a complete presentation with text and slides, allowing users to edit the images or create new text. Beautiful.ai, which is another AI presentation-generating app, provides layouts and styles. Users shall only choose their presentation's colors, look for royalty-free photos in the library, and then get to work assembling it. Tables and sliders can be used to update data. On SLidego, users can choose the subject, writing style, and overall format. After creating the entire presentation, users may edit each slide, add their information, and utilize AI to write, create photos, or create more presentation slides.

AI can also develop research. For example, users may upload their research on Genei and list the principal terms and areas of their project. The software will browse the web for pertinent content and make suggestions for additional sources to include. After that, you check their credibility and let the AI do the work by processing the material, providing a summary, extracting a list of common keywords from the photos inside, and gathering all the references to other works. Aomni, which is another AI research app, does topic research using AI agent technology. When users submit a question or topic, it will create a task list for them to complete to get the answers. It will also conduct web searches, scan the material on each page, and provide a summary of the entire process.

As such, AI can, these days, generate material that may help students pass exams and make complete submissions. This puts lecturers and instructors in a situation where they can't evaluate or discriminate between hard-working students and AI-dependent students, which is a huge challenge.

4. Why Students Use AI Apps to Accomplish Tasks

AI apps provide students with convenient solutions to almost all their needs [22], [23]. AI apps can provide accurate answers to questions without the need to search using search engines that provide billions of results. The answers are most likely accurate. AI apps also write essays following the established mechanism of writing essays following guidelines and word limits. These AI-generated essays were given 89% by experienced composition examiners [1]. AI apps can also generate answers to theoretical communication questions and the answers were given 98% by experienced communication instructors. In regards to case study analysis, AI apps can analyze case studies, and the analysis was given 85% by established and experienced communication instructors. Regarding business writing, AI apps can generate answers to theoretical and applied business writing questions. These answers were given by 95% and 76% respectively by established business writing instructors. As such, regarding communication, business writing, and composition, depending on AI apps can help students pass exams and receive good results. These results are original and based on plagiarism detection software [2]. However, why would students opt for the use of AI apps?

To answer this question, an online survey was distributed to anonymous college and university students. The answer had three question that are (1) do you currently study in a college or university? (2) Do you use AI as part of your study? If the answer to this question was yes, the students were asked a third question that is (3) why do you use AI as part of your study? The students were allowed to either provide a new answer or select/vote for an answer that was provided by previous respondent. In three months, the survey received 1456 responses. Out of the 1456 students, 1276 students admitted that they use AI for the reasons below.

Table 2: Why college/university students use AI and LLM apps

Reasons for use	Number and	Reasons for use	Number and
	percentage of		percentage of
	respondents		respondents
	_		_

Convenience	639 (50.07%)	Lack of curiosity/interest in the subject	124 (9.71%)
Lack of time	956 (74.92%)	Eagerness to score a high grade	627 (41.93%)
Lack of familiarity/knowledge in the subject	581 (45.53%)	Lack of basic skills to accomplish tasks	204 (15.98%)
Provide a different perspective	1245 (97.57%)	Lack of confidence in their abilities	964 (75.54%)

The answer to the questions shows that students use AI for general and academic reasons. From a general perspective, the answer is (1) convenience (50.07%), (2) lack of time to accomplish tasks (74.92%), and (3) lack of curiosity/interest (9.71%). However, from an academic perspective, we find that students use AI apps for several reasons that include (1) lack of familiarity/knowledge in the subject (45.53%), (2) lack of basic skills to accomplish tasks (15.98%), (3) lack of confidence in their abilities (75.54%), (4) eagerness to score a high grade (41.93%), and (5) provide a different perspective (97.57%). From an academic perspective, the use of AI apps to accomplish tasks is a cheating attempt. Students who submit AI-generated assessments and answers claiming that they are generated/written by them is similar to the practice of copying other students' assessments or plagiarizing from other sources. It is also similar to the practice of asking another person to write the answer on their behalf. In all these cases, the students claim that a certain submission or answer is theirs when it is not. The general and academic reasons for using AI apps to generate assessments are discussed in the following sections.

5.1. General Reasons for Using AI Apps

We have four main general reasons for using AI apps and chatbots for students that are convenience, lack of time, and lack of curiosity/interest. In general terms, students join universities and colleges to learn and acquire knowledge and skills in their perspective fields and other fields to develop into well-rounded graduates who can carry and accomplish job-related tasks. Some students may view this experience (university experience) as a compulsory or a bridging stage before moving to the next phase in their lives. Some other students may view these university years as the perfect time to enjoy the late stage of teenage and early adulthood. They may get involved in social and entertaining activities that would spend most of their time. They may find themselves in situations where they do not have the time to attend classes and later on read their material and prepare and submit their assessments. They, as a result, opt for the use of AI to accomplish their academic tasks and generate their assessments. The three main general reasons for using AI apps by students are discussed below.

1. **Convenience**: Unlike search engines, which provide billions of results that would all pop up as similar to published material and eventually be marked as plagiarism (if not properly

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

- referenced) if checked by similarity detection software, AI chatbots provide one answer to questions and generate a complete writeup for given tasks. This advancement in technology can be used for convenience by students, especially since similarity detection software providers proclaim that their AI detection report index shall not be used for punitive purposes. Some students may find in this advancement an opportunity to generate answers for assessments and original (in terms of plagiarism similarity), and most of the time accurate, answers to given questions.
- 2. Lack of time: As we have students who depend on AI chatbots to either accomplish lastminute work or assessment, we also have students who depend on AI as they may not have the time to accomplish these tasks. These situations can be two-fold. At times, students are given an unrealistically short period to accomplish tasks or submit assessments, which does not leave room for students but depend on these AI chatbots as they cannot accomplish these tasks before deadlines. Some other times, students waste a lot of time and remember the given tasks last minute. The latter scenario falls under the second point above as students waste given grace periods and remember at the last minute to accomplish tasks. In the former scenario, students cannot be blamed as they are not given enough time to accomplish the given tasks. As lecturers introduce a task and set a deadline to accomplish it, they need to be realistic when setting deadlines. Lecturers shall also have in mind that in university education students register for several courses. As students have due dates and deadlines for one course, they also have deadlines and due dates for other courses. For that, students shall be given enough time to work on the accomplishments of their tasks to make sure that they are not stressed out, on the one hand, and to minimize their dependence on AI, on the other. In addition, writing a 750-word well-organized and well-referenced essay may take more than 3 hours for students. Generating a similar essay using AI chatbots does not take more than a minute or two. Students may opt for using AI chatbots to generate their academic writeups in a very short time. This, from some students' perspective, saves a lot of time and energy and, on the other hand, accomplishes the required task by the instructor, especially since the outcome will not pop up as plagiarism as mentioned earlier. The use of AI chatbots to accomplish academic tasks can be considered, by some students, as a perfect solution for situations where students forget to work on their homework or assessments. The use of these AI chatbots comes in handy for last-minute submissions before deadlines.
- 3. Lack of curiosity/interest: In universities, not all students study majors of their choice and register for compulsory and, sometimes, elective courses of their interest. If students register in majors that they do not like, they will most likely find themselves in situations where they lack interest, curiosity, and a sense of inquiry in the given courses, concepts, and theories. Students find themselves in situations questioning the effectiveness of taking these courses and nevertheless the effectiveness of seeking/building knowledge in these fields of study. This may lead to dependence on AI apps to accomplish academic tasks. In these situations, it is the responsibility of instructors to explain to students the importance of their courses and the importance of achieving the learning outcomes. In other words, instructors shall make their courses relevant to the professional, academic, and personal

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

lives of their students. If students realize the importance of what they learn, they will strive to learn it.

The attitude described above reveals a lack of seriousness and maturity in accomplishing academic tasks as it also reveals a lack of time management, prioritizing, multitasking, decision-making, stress management, and work ethic skills. As these students grow up believing they strive to achieve their personal, societal, and behavioral independence, they, grow into being AI-dependent. Their brains are taken hostage by ideas created by artificial intelligence machines up to a stage where they do not create their ideas. This absolute dependence on artificial intelligence leads to what [1] called human unintelligence, or the complete dependence on AI apps and chatbots. To target this attitude or behavior students and instructors alike shall work on changing perception and develop a holistic approach towards learning and personal and professional development.

5.2. Academic Reasons for Using AI Apps

From an academic perspective, there are five possible reasons for using AI apps by students. The five reasons are (1) lack of familiarity/knowledge in the subject, (2) lack of basic skills to accomplish tasks, (3) lack of confidence in abilities, (4) eagerness to score a high grade, and (5) provide a different perspective. A quick look into these five reasons may suggest that students and lecturers alike share responsibility for students' decisions to use AI tools to answer questions and generate answers.

- 1. Lack of familiarity/knowledge: If a student is not familiar with the concepts, the student will opt for conducting research, asking lecturers, registering for private tuition, hiring someone to complete the task, or, these days, generating answers and/or assessments using AI. Students are encouraged to conduct research and ask instructors to improve their understanding and familiarity, but they are certainly discouraged from registering for tuition, hiring instructors to complete their tasks, and using AI. Instructors in classes shall increase their students' familiarity with discussed concepts. This can be carried out by giving examples, providing scenarios, solving exercises, and involving the overwhelming majority of students, if not all students, in these practices. Having hands-on activities, exercises, and discussions in classes helps students increase their familiarity with the subject. This, nevertheless, assists students in their accomplishment of tasks and requirements in assessments. As a result, students will not see the need to depend on AI tools to accomplish their academic tasks as they become familiar with the tasks.
- 2. Lack of basic skills: The lack of basic skills to accomplish tasks can be considered one of the most evident reasons for using AI tools to accomplish tasks. According to [24], around two-thirds of world youth do not obtain basic skills (i.e., students can dependably use fundamental conventions to answer straightforward issues involving whole numbers, but they are unable to make direct conclusions or carry out evident regular activities following explicit directions). This lack of basic skills leads to either dependency on other sources to accomplish these tasks or dependency on AI tools as the most accessible and convenient option. Therefore, universities and faculty members need to invest in developing their students' basic skills to make sure that they can accomplish tasks. Interestingly, the lack of basic skills is not only a problem in developing countries, but it is also a problem in

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

- developed countries. According to [24], 25 percent of young learners in developed and high-income countries lack basic skills. As such, the problem is huge and it needs a lot of attention as the lack of these basic skills, on the one hand, and the accessibility of AI tools, on the other, may lead to further dependence on AI and human unintelligence.
- 3. Lack of confidence: Confidence has an important effect on students' progress as it also has an important effect on students' abilities to learn. If a student does not have confidence in his/her ability, the student will look into other ways to accomplish a task, this can be AI tools. Studies have shown that more confident learners are more likely to push themselves and learn new things [25], [26]. Even though the optimal method is boosting students' level of confidence, however, students need assistance in boosting their confidence. Instructors shall work on generating and upholding students' level of confidence by encouraging them to participate in classes, providing them with a safe environment to share their thoughts, and helping them in their preparation for exams or assessments. In addition, instructors shall carry out confidence-boosting activities in classes to boost the performance of high achievers while boosting the confidence of underachievers. With a high level of confidence, students will believe in their abilities to accomplish the tasks without the need to depend on any external assistance.
- 4. Eagerness to score high grades: Students, in general, can be divided into learning-centered and grade-centered. By default, learning-centered students are high achievers in terms of grades and learning outcomes. As these students work hard on grasping and comprehending the expected concepts, they also achieve high grades in assessments. After all, assessments are usually designed to test the achievement of courses' learning outcomes. Grades-centered students, however, usually face difficulties achieving the grades they want to achieve. Their focus is usually not centered on the achievement of learning outcomes; their focus is switched toward the given grades. As they do not achieve high grades, they start looking into ways and methods to achieve better grades, and this may lead to the use of AI tools. Instructors, in these cases, have a big role to play. They need to divert the attention of students from grades and gradebooks to the achievement of learning outcomes. If students realize that the achievement of learning outcomes almost automatically leads to achieving high grades, grades-centered students will switch their focus to learning, especially since they are already motivated to work hard.
- 5. Provide a different perspective: At times, especially in communication, business writing, and composition courses, thinking outside of the box is very important. Different perspectives provide depth to write-ups and enrich the outcome. Students who find themselves stuck with an idea may seek the assistance of AI chatbots to provide them with a different perspective or new ideas. This may eventually lead to sinking into the habit of consulting AI tools in all writeups. It has been noticed that as there are students who copy the entire assessment or submission from AI tools, there are also students who submit assessments that are partially generated by AI tools. To avoid such practices from happening, instructors shall always hold brainstorming sessions and open discussions in classes to help students have complete ideas about the topic in question. In fact, not only communication, business writing, and composition courses benefit from open discussions. All subjects benefit from discussions as they allow students to process knowledge rather

than just consume it. Once knowledge processing is achieved, students find it easy to generate their answers and submissions without the need to depend on AI tools.

The five listed reasons above provide a perspective for using AI tools by students from an academic perspective. The discussion emphasizes that it is the responsibility of students and instructors alike to minimize students' dependence on AI tools and exploit their abilities to depend on themselves and believe in their abilities.

6. Integrating AI tools in Classroom Teaching

Users' opinions of ChatGPT have been mixed throughout the previous few months of testing AI LLMs. According to [27], ChatGPT is one of the greatest AI tools available to the general population. [28] holds similar views, given its ability to generate writing that resembles that of a person. However, according to [29], ChatGPT adoption could have an impact on the market for knowledge works. According to [30], using ChatGPT may have an impact on decision-making since users may utilize the technology to generate automatic answers that might influence a choice. [30] suggests that this might have a detrimental effect on democracy. Recently, Turnitin announced that content created by AI can be identified by its program [31]. They stated that they have been developing an AI-powered solution lab for years to identify AI-generated content. They said that rather than relying just on publicly available data, their model has been meticulously trained on scholarly content extracted from an extensive database. According to [32], Turnitin is therefore more appropriate for spotting potential instances of plagiarism in student work. According to [33], plagiarism detectors are developing at a faster pace than AI writing tools. He claimed that ChatGPT in particular, as well as AI writing tools in general, may be used by Turnitin to identify content.

The students of this era are digital natives. A few years ago, there were several discussions on the importance of integrating technology in teaching as students are technology and smart devices dependent. These days, we have quite similar but at the same time different discussions. The discussion these days is on the importance of integrating AI tools as part of teaching. On the other hand, viewing AI tools as a challenge will neither help students nor instructors as they are available, accessible, and prevalent. On the other hand, focusing on the challenges of AI tools and ignoring their benefits will neither provide students with a comprehensive picture of education in this era nor urge students to stop using these tools. For that, we need to look into the benefits of AI tools and maximize their usage by integrating them into our classes and sessions to firstly, be able to provide up-to-date experience to our students and secondly, make students realize the shortcomings of these AI tools and the challenges they carry if we are dependent on them. To integrate the use of AI tools in our classes, instructors may do the following.

Table 3: Integrating AI in classroom teaching

Strategy	Methods of application
Introduce AI	Initially, instructors need to explain the purpose and benefits of using AI
tools to students	tools in the classroom to students. If need be, they may conduct sessions to
	help students become comfortable with the use of these AI tools.
Plan lessons	Instructors shall design lesson plans that incorporate the AI tools
and activities	effectively. They shall carefully think of how to integrate these tools into
	teaching methods and activities. Instructors shall make it clear to students

	that these tools are used for practice, but not for generating answers in exams.
Assess learning needs	Instructors need to identify how the use of AI tools will enrich their students' experience. They shall also think about the challenges. As soon as the decision is made, instructors shall use AI tools in a way that would target their students' needs.
Select appropriate tools	Instructors use different approaches in their teaching. Therefore, before integrating AI into teaching, instructors shall align the use of AI tools with their curriculum and teaching style. As of now, there are adaptive learning platforms, language processing platforms, data analysis platforms, collaborative learning platforms, and virtual reality platforms.
Hands-on activities	To use AI tools effectively, instructors need to develop interactive activities that require students to engage with AI tools. This could involve problemsolving exercises, case study analysis, business writing generation, research projects, or creative tasks. The use of AI tools to simply provide answers will hurt students.
Assessment and feedback	AI tools, these days, can be used for formative and summative assessment. These tools can be used to check on students' progress and development. This would assist instructors in giving feedback and feedforwards to students.
Reflect and adjust	As instructors integrate the use of AI tools into their teaching, they shall not forget the importance of reflecting and adjusting. They shall always reflect and adjust. That is, instructors shall evaluate the effectiveness of this integration. If the integration does not seem to have a positive effect, instructors shall adjust the terms of use. In this regard, consistent evaluation and student' feedback is of utmost importance.
Ethical considerations	Instructors shall also remember that it is important to teach students about the ethical implications of using AI, including data privacy, bias, and algorithmic decision-making.

As instructors integrate AI tools in their teaching, they need to realize that the goal of integrating AI tools is to enhance the learning experience and not to replace human interaction. Instructors shall strive for a balanced approach that combines the benefits of AI with effective teaching practices.

7. Developing Soft Skills in the AI Era

As mentioned earlier, even though AI tools have a large number of challenges, we shall not give up on their benefits. We shall integrate, as mentioned in the previous section. AI tools in classrooms. This may lead to positive effects as students learn how to use these tools ethically for

a purpose, however, it is also important to make sure that we insist on the development of soft skills. These soft skills as mentioned at the beginning of the study are the transferable skills that can assist students succeed in their careers. The focus in the following sections will be drawn to communication, business writing, and composition courses.

7.1 Communication Skills

Communication skills are among the most sought-after soft skills in this era. Employers need their employees to have the ability to effectively communicate with their coworkers, partners, collaborators, and customers. According to research, effective communication skills assist in increasing productivity, reducing conflict, enhancing teamwork, developing innovation, and boosting creativity [33]. These days, equipped with mobile phones that are connected to AI tools through the internet, students may neither see the need nor the urge to work on developing their effective communication skills. AI tools can generate speeches by simply providing the prompt. They can also generate visual aids by adding some key points and ideas. If they need to generate videos or pictures, students have AI tools that can do that for them. If the discussion is about modeling or media production, AI can also do the job in a very short time. In general terms, copying and originality are not a concern in these verbal and visual communication courses as the content is either verbally presented in the form of speeches or visually presented in the form of images and/or videos.

To assist students in developing soft skills in communication courses, instructors, professors, and teachers shall make clear to students the importance of these communication skills as part of their future careers, on the one hand, and vibrantly use class time to develop these skills, on the other hand. To highlight the importance of communication soft skills, instructors can use the compare and contrast method by showing students what they should do and how they shall develop in their social, academic, and professional lives. Instructors shall also show students the complete opposite of that by making references to the possibilities that may take place if students graduate without developing these skills. The compare and contrast method here shall also be supported by the persuasive method through the establishment of ethos, pathos, and logos strategies. The giving of examples and highlighting the difference between a graduate with effective communication skills and another graduate without these skills. Statistics and references to well-established people, forums, and bodies can assist in highlighting the importance. It is of the utmost importance that students know and comprehend why they need to learn a concept or develop a skill. Knowledge and understanding here will give students a reason to carry out the task.

In regards to vibrantly using class time to develop these skills, instructors may use the below-given strategies:

Table 4: Strategies to develop communication soft skills in the AI era

Strategies	Detailed methods
Create a	- Foster an open, respectful, and inclusive classroom environment
Supportive	where students feel comfortable expressing themselves without fear
Environment	of judgment.

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

	 Encourage active participation by valuing and acknowledging every student's contributions.
Classroom	- Organize regular class discussions and debates on relevant topics.
Discussions	This encourages students to articulate their thoughts, listen to others,
and Debates	and engage in constructive dialogue.
	- Assign roles or perspectives to students, promoting empathy and the
	ability to argue from different viewpoints.
Public	- Incorporate opportunities for students to give presentations or
Speaking	speeches. This helps them build confidence, structure their ideas,
Opportunities	and practice speaking in front of others.
opportunities	- Provide constructive feedback to help them improve their delivery
	and content.
Group Projects	- Assign group projects that require students to collaborate,
and	communicate, and delegate tasks effectively.
Collaboration	- Emphasize the importance of active listening, clear delegation, and
Condociation	conflict resolution within groups.
Written	- Assign writing assignments that require clear and concise
Communication	communication. This can include essays, reports, and summaries.
Practice	 Provide guidance on proper formatting, grammar, and organization.
Active	- Teach and model active listening techniques, such as maintaining
Listening Skills	eye contact, nodding, and asking clarifying questions.
Listening Skins	- Encourage students to paraphrase or summarize what their peers
	have said to demonstrate understanding.
Use of	- Incorporate multimedia elements like videos, podcasts, or online
Technology	discussions to expose students to different forms of communication
and Multimedia	and expression.
and Multimedia	- Teach them to analyze and respond to multimedia content critically.
Feedback and	- Provide regular feedback on both verbal and written communication.
Reflection	Highlight strengths and suggest areas for improvement.
Kenecuon	- Encourage self-assessment and reflection on their communication
Role-Playing	skills, allowing students to set goals for improvement. - Use role-playing exercises or simulations to help students practice
and	real-world communication scenarios, such as interviews or
Simulations	
Sillulations	negotiations.
	- Provide specific communication challenges for students to
Guart Smaalrana	overcome. Invite guest encelvers from various fields to share their experiences
Guest Speakers	- Invite guest speakers from various fields to share their experiences
and Notworking	and insights. This exposes students to different communication
Networking	styles and contexts.
	- Arrange networking opportunities where students can interact with
	professionals and practice interpersonal communication.

These strategies are presented in line with AlAfnan's taxonomy which added a lot of emphasis on integrating AI technologies as part of learning. Instructors shall also work on integrating and introducing AI tools to communication courses. introducing AI tools to communication courses

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

can be done effectively through several steps. Firstly, instructors can provide an overview of the various AI tools available for communication enhancement highlighting their benefits and applications in improving speaking, writing, listening, and interpersonal skills. This introduction can include demonstrations or case studies showcasing how AI tools can facilitate learning and skill development in communication. Next, instructors can incorporate hands-on activities or assignments where students engage directly with AI tools. For example, students could use AI-powered language learning apps to practice pronunciation or grammar, or they could collaborate on projects using AI-driven virtual communication platforms. These activities allow students to experience firsthand how AI tools can support and enhance their communication skills. Additionally, instructors can facilitate discussions on the ethical implications and limitations of AI in communication. This may include topics such as privacy concerns, biases in AI algorithms, and the importance of critical thinking when using AI tools for communication. Throughout the course, instructors should provide guidance and support to help students navigate and make the most of AI tools. This may involve offering tutorials, troubleshooting assistance, and feedback on students' use of AI tools in their coursework.

Students can harness AI tools to cultivate their soft skills in communication through diverse avenues. Language learning applications underpinned by AI furnish interactive exercises and pronunciation evaluations, fostering vocabulary expansion and grammatical finesse. Virtual reality simulations immerse learners in lifelike communication scenarios offering personalized feedback to refine speaking and listening abilities. Speech-to-text and text-to-speech utilities aid in articulation practice and clarity assessment, enabling students to scrutinize their communication patterns. Engaging with AI-driven chatbots and virtual assistants sharpens written communication prowess, while feedback platforms leverage AI to analyze performance metrics and pinpoint areas for improvement. Collaborative platforms enhanced by AI features facilitate remote group discussions, transcending language barriers with real-time translation and fostering effective communication. Emotion recognition software integrated into communication tools enhances empathy and interpersonal proficiency by analyzing facial expressions and vocal cues, enriching students' ability to convey and interpret emotions adeptly. By integrating AI tools, students embark on a journey of personalized learning, immediate feedback, and extensive practice, equipping them with indispensable soft skills for effective communication across diverse contexts.

In this regard, instructors need to remember that developing communication skills takes time and practice. Instructors shall be patient, provide consistent opportunities for growth, and celebrate students' progress along the way.

7.2. Business Writing Skills

University students shall develop the ability and the skills to write effective and clear business documents. As professionals regardless of major, they will need to produce inter-organizational and intra-organizational documents to achieve work-related tasks. The list of documents includes, but is not limited to, emails, letters, business messages, business notes, reports, and proposals. The teaching of writing these documents is not solely a genre-based teaching practice as in addition to teaching the structure of these business documents, students shall also be introduced to elements of effective business writing in terms of strategies, methods, and approaches. For example, based on the genre-based students taught to write effective workplace emails are taught to include an

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

informative subject (title) for the email, a salutation, an introduction, the body of the email, a closing, and a signature. However, in addition to learning these structure-based elements, they shall be also be taught how to write the email about style. For example, they shall be taught about the direct approach and the indirect approach to writing. They shall also be taught when and how to use these approaches.

In addition to the above, business writing students, in this era, shall also be introduced to digital literacy, technological communication, professionalism, ethics, and etiquette. In the AI era, Large Language Models (LLMs) can produce business correspondence almost instantly by providing prompts [1], [2], however, the style of these writeups, even though they seem natural through the use of Natural Language Processing (NLP), can be detected through in-depth analysis and evaluation of style [2]. Therefore, students shall be taught practically that the dependency on AI and LLMs will most likely not produce optimal results. Effective business communication is not solely dependent on language; it is also dependent on the strategies used in this text to achieve the goal of the communication, which is context-dependent. Therefore, mastering effective communication strategies in terms of choosing the suitable approach, following the established etiquette, adjusting the tone, fine-tuning the purpose, and personalizing the message are all important techniques that our business communication students need to master to achieve the intended purposes of their messages clearly and concisely.

Developing soft skills is crucial in the AI era, as technology continues to advance and reshape the workplace. Business writing courses can be a great platform to teach and enhance these skills. Business writing courses can assist in developing soft skills following the strategies listed below.

Table 5: Strategies to develop business writing soft skills in the AI era

Strategies	Detailed methods		
Effective	- Encourage active listening skills through group discussions		
Communication	and presentations, promoting empathetic communication.		
	- Emphasize the importance of clear, concise, and well-		
	structured writing, which translates into effective verbal		
	communication as well.		
Collaboration and	- Assign collaborative projects requiring teamwork, fostering		
Teamwork	skills like negotiation, compromise, and cooperation.		
	- Teach strategies for resolving conflicts within teams,		
	emphasizing diplomacy and mutual understanding.		
Leadership and	- Use role-playing scenarios to allow students to take on		
Initiative	leadership roles, making decisions and guiding team members.		
	- Encourage students to propose innovative business ideas,		
	promoting entrepreneurial and initiative-taking mindset.		
Adaptability and	- Analyze real-life business scenarios, discussing how		
Flexibility	companies adapted to changes, encouraging students to think		
	flexibly.		
	- Stay updated on industry trends, incorporating recent		
	examples of businesses adapting to technological changes.		

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

Time Management	 Introduce project management tools, teaching students to manage deadlines, prioritize tasks, and handle multiple responsibilities. Emphasize the importance of planning and structuring documents effectively, translating these skills into managing time for writing assignments.
Professionalism and	- Teach professional email etiquette, phone communication
Work Ethic	skills, and business meeting conduct.
	- Emphasize the significance of professional tone and language
	in business writing, reflecting a strong work ethic.
Critical Thinking	- Present real-world business problems, encouraging students to
	think critically and propose solutions.
	- Organize debates on ethical dilemmas in business, promoting
	critical thinking and analytical skills.
Empathy and	- Discuss cultural diversity in the workplace, teaching students
Cultural Sensitivity	to be sensitive to cultural differences and foster inclusivity.
	- Role-play exercises where students write from different
	perspectives, enhancing empathy and understanding of varied
NT . 1 . 1	viewpoints.
Networking and	- Invite professionals to share their experiences, encouraging
Relationship	students to network and build relationships in the industry.
Building	- Organize networking events, allowing students to practice
F 11 1 1 C . 10	their interpersonal skills in a professional setting.
Feedback and Self-	- Provide constructive feedback on assignments, focusing on
Reflection	both technical and soft skills development.
	- Encourage students to reflect on their communication styles
	and identify areas for improvement, promoting self-
	awareness.

The influence of AlAfnan's taxonomy is evident in providing these strategies. This can be seen about focusing on ethical and moral practices, on the one hand, and the emphasis on professionalism, critical thinking, and creative thinking on the other hand. Instructors shall also introduce AI tools in classrooms to integrate them as part of their teaching. Introducing AI tools to business writing courses offers a strategic approach to equip students with essential skills for the modern workplace. By contextualizing the increasing relevance of AI in business communication, instructors can demonstrate various AI-powered writing tools tailored for business contexts, such as grammar checkers, writing assistants, and text summarization software. Through hands-on exercises, students can explore practical applications of these tools, ranging from enhancing report clarity to automating routine writing tasks. Discussions on ethical considerations foster critical thinking about responsible AI usage, addressing concerns like data privacy and algorithm bias. Providing feedback on students' use of AI tools encourages reflection and continuous learning, ensuring they're prepared to adapt to evolving technologies. Overall, integrating AI tools into business writing courses empowers students to leverage technology effectively to enhance their communication skills and succeed in the dynamic digital landscape of today's business environment.

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

Students can develop soft skills in business writing through the utilization of AI tools in various ways. Firstly, AI-powered grammar and style checkers can assist students in refining their writing by providing instant feedback on errors in grammar, punctuation, and style. These tools can help students improve the clarity, coherence, and professionalism of their written communication. Additionally, AI-driven writing assistants can offer suggestions for enhancing vocabulary, sentence structure, and overall readability, empowering students to craft more compelling and persuasive business documents. Furthermore, AI-based text summarization tools can aid students in synthesizing complex information and conveying key points concisely, a crucial skill in business communication. By leveraging AI tools, students can receive personalized guidance, immediate feedback, and opportunities for continuous improvement in their business writing skills.

By employing these strategies, instructors can create a dynamic and supportive learning environment where students can develop and refine their business writing skills effectively. Providing a mix of theoretical knowledge, practical exercises, and feedback opportunities will empower students to communicate professionally and confidently in the business world. The established confidence through ongoing exercise and tasks will reduce/eliminate students' dependency on AI and LLMs.

7.3. Composition Skills

Teaching students composition is essential as it equips them with the ability to communicate effectively, both academically and in the professional world. Writing skills are foundational to expressing ideas clearly, persuasively, and coherently. Through composition, students learn not only to convey their thoughts but also to structure their arguments logically, enhancing their critical thinking abilities. Additionally, strong writing skills are crucial in various fields and careers. In the workplace, individuals are expected to produce reports, emails, and other documents that are clear, concise, and professional. Teaching composition prepares students for these demands, ensuring they are competent communicators. Composition fosters creativity and self-expression. It provides a medium for individuals to articulate their emotions, opinions, and insights, promoting self-confidence and self-awareness. In the digital age, where online communication is ubiquitous, teaching students composition also includes educating them about responsible digital communication, including online etiquette and digital citizenship.

The ability to write well is not just a tool for academic and professional success but also a means for civic engagement. Effective writing enables individuals to participate in public discourse, advocate for social causes, and engage with their communities. It empowers them to voice their concerns and contribute meaningfully to society. Teaching composition nurtures lifelong learning. Writing is a skill that continues to be valuable beyond formal education. Whether individuals are pursuing higher education, entering the workforce, or simply communicating in their personal lives, the ability to compose coherent and persuasive texts remains a vital aspect of their ongoing learning and development. In classrooms, to teach composition skills to university students in this AI era, instructors shall use these strategies.

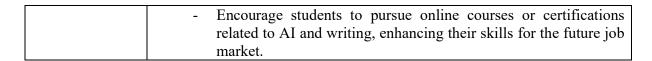
Teaching a composition course in the AI era requires a thoughtful approach that integrates traditional writing skills with digital literacy, critical thinking, and awareness of AI technologies. Here are some strategies to effectively teach composition in the AI era:

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

Table 6: Strategies to develop composition soft skills in the AI era

Strategies	Detailed methods
Embrace	- Utilize learning management systems and online platforms for
Technology	assignments, discussions, and peer reviews.
	- Introduce students to AI writing assistants like Grammarly and
	provide guidance on their proper use.
Digital Literacy	- Teach students to critically evaluate online sources, discerning
	credible information from misinformation.
	- Discuss ethical considerations related to AI-generated content,
	plagiarism, and intellectual property rights.
Critical Thinking	- Design assignments that require critical analysis of AI-related
	topics, encouraging students to form their own opinions and
	arguments.
	- Organize debates on AI ethics, automation, and other relevant
	topics to foster critical thinking skills.
Creativity and	- Encourage creative writing assignments that explore speculative
Innovation	fiction involving AI technologies, promoting imagination and
	originality.
	- Integrate multimedia elements like videos, infographics, and
	podcasts into assignments, allowing students to express their ideas
C 11 1	in diverse ways.
Collaborative	- Assign collaborative projects where students work together to
Learning	analyze AI applications in various fields, fostering teamwork and communication skills.
	- Implement peer review activities using AI tools, enabling students
	to provide constructive feedback on each other's writing.
Feedback and	- Use AI tools for initial feedback on grammar and style, allowing
Revision	you to focus on higher-order concerns in your feedback.
100 (151011	- Conduct workshops guiding students on how to interpret AI-
	generated suggestions and incorporate them effectively into their
	revisions.
Ethical	- Discuss the issue of bias in AI algorithms, exploring how biases
Considerations	can affect writing and language use.
	- Analyze the impact of AI on future job markets and the skills
	students need to thrive in an AI-driven workforce.
Real-World	- Invite guest speakers from AI-related fields to provide real-world
Applications	insights, demonstrating the practical applications of writing skills
	in the AI era.
	- Examine case studies of AI-driven content creation in marketing,
	journalism, and other fields, illustrating the evolving nature of
	writing professions.
Continuous	- Keep yourself updated with the latest AI technologies and their
Learning	applications in writing and communication.

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496



Teaching composition in the AI era requires a balance between traditional writing skills and the integration of technology. By fostering critical thinking, digital literacy, and ethical awareness, students can develop the skills necessary to navigate the complexities of writing in an AI-driven world.

8. Conclusion

This study examined the development of soft skills in the artificial intelligence era. It is well established among scholars that soft skills are very important in education [34], [35], [36], [37], [38], [39]. Artificial intelligence has forced a change of practices in educational institutions as students have platforms that can provide them with information and assessment submissions without any plagiarism similarity. To make sure that students and graduates have the hard skills and soft skills needed in workplaces, institutions and instructors need to come up with new and innovative ideas to develop these skills.

To discourage students from using these AI platforms for assessments or encourage them to use them constructively, we need to understand the reason for their usage. This study identified several general and academic reasons for using AI in submissions. From a general perspective, students use these AI and LLM platforms for (1) convenience, (2) lack of time to accomplish tasks, and (3) lack of curiosity/interest purposes. From an academic perspective, students use these AI platforms as they may (1) lack familiarity/knowledge in the subject, (2) lack basic skills to accomplish tasks, (3) lack confidence in their abilities, (4) have an eagerness to score a high grade, and (5) to provide a different perspective. These perspectives shall be addressed by students and instructors alike to avoid unlearning in educational institutions.

This study suggests integrating AI platforms as part of teaching and stopping perceiving them as a threat. They shall be accepted as a reality and as an opportunity that would assist students in their learning. This integration can be carried out through several methods that include introducing AI tools to students in a constructive manner, aligning the use of AI tools with the curriculum and teaching style, planning lessons and interactive activities using AI platforms, using AI tools to provide feedback and vice versa, and before all emphasizing ethical factors and considerations when using AI to make assessment submissions.

This integration shall provide students insights into the use of AI platforms in an effective manner, but the challenge of losing the cutting edge in developing soft skills continues. For that, in communication courses, instructors shall create a supportive environment, organize classroom discussions and debates, create public speaking opportunities, introduce group projects, provide room for written communication practices, integrate the use of technology and multimedia, and provide feedback and reflection. In business writing courses, instructors shall encourage effective communication in classrooms, facilitate collaboration and teamwork, use role-playing scenarios, incorporate recent examples of businesses, introduce project management tools, teach professional etiquette, organize debates on ethical dilemmas, discuss cultural diversity in the workplace, foster

Citation information: Mohammad Awad AlAfnan, Samira Dishari, Siti Fatimah MohdZuki, Developing Soft Skills in the Artificial Intelligence Era: Communication, Business Writing, and Composition Skills, *Journal of Artificial Intelligence and Technology* (2024), DOI: https://doi.org/10.37965/jait.2024.0496

inclusivity and organize networking events. In composition courses, instructors shall embrace technology, teach students to critically evaluate online sources, design assignments that require critical analysis, encourage creative writing assignments, promote imagination and originality, assign collaborative projects, and conduct workshops. These practices shall assist students in developing their soft skills in these areas in a way that maintains the relevance of classroom teaching in the AI era.

This study, as it proposes strategies and techniques to develop soft skills in the AI era, paves the way for future reconsiderations of current teaching practices. The new developments in the last few years shall lead to new teaching strategies, approaches, and methods to not only develop soft skills but also develop teaching and learning in the AI era.

Conflict of interest statement

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- [1] AlAfnan, M. A. Dishari, S., Jovic, M., & Lomidze, K. (2023). ChatGPT as an educational tool: Opportunities, challenges, and recommendations for communication, business writing, and composition courses. *Journal of Artificial Intelligence and Technology*, 3(2), 60-68.
- [2] AlAfnan, M. A. & MohdZuki, S. F. (2023). Do artificial intelligence chatbots have a writing style? An investigation into the stylistic features of ChatGPT-4. *Journal of Artificial Intelligence and Technology*, 3(3), 85-94.
- [3] Robles, M. M. (2012). Executive perceptions of the top 10 soft skills needed in today's workplace. *Business Communication Quarterly*, 75(4), 453-465. doi: 10.1177/1080569912460400
- [4] Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge. NAWA *Journal of Language and Communication*, *2*(1), 146-154.Retrieved from: http://ir.nust.na/bitstream/10628/39/1/The%20Importance
- [5] Khanna, V. (2015). Soft Skills: A Key to Professional Excellence. *International Journal of Research in Engineering, Social Sciences*, *5*(1), 32-40. Retrieved from http://indusedu.org/pdfs/IJRESS/IJRESS 728 43155.pdf
- [6] Nathan, S. K. & Rajamanoharane, S. (2016). Enhancement of Skills Through E-learning: Prospects And Problems. *The Online Journal of Distance Education and e-Learning,* 4(3), 24-32. Retrieved from https://www.researchgate.net/profile/Senthil Nathan28/publication/342
- [7] Stewart, C., Wall, A., & Marciniec, S. (2016). Mixed Signals: Do College Graduates Have the Soft Skills that Employers Want? Competition Forum, 14, 276-281.Retrieved from https://www.researchgate.net/publication/3
- [8] Kaushik, P. & Bansal A. (2015). Enhancement in soft skills through students training intervention. training, International Journal of Advanced Information Science and Technology 38(38).

- [9] Klaus, P., Rohman, J. M. & Hamaker, M. (2007). The hard truth about soft skills: workplace lessons smart people wish they'd learned sooner. HarperCollins e-books.
- [10] AlAfnan, M. A. (2018). Language use as a resource: E-communication dimensions of register variation in a professional context. Journal of Progressive Research in Social Sciences, 7(2), 502-526.
- [11] Verma, S. (2013). Enhancing employability-soft skills. Chandigarth-Delhi-Chennai: Pearson.
- [12] Carneiro, P., Crawford, C., & Goodman, A. (2007). The impact of early cognitive and non- cognitive skills on later outcomes. London: Centre for the Economics of Education, London School of Economics.
- [13] Haselberger, D., Oberhuemer, P., Pèrez, E., Cinque, M., Capasso D. (2012). Mediating soft skills at higher education institutions, handbook of the ModES project: Lifelong learning programme, http://www.euca.eu/en/prs/modes-handbook.aspx.
- [14] WHO (1993). Life skills education in schools. Genève: WHO.
- [15] Sadiku, M. N., Ashaolu, T. J., Ajayi-Majebi, A., & Musa, S. M. (2021). Artificial Intelligence in Education. *International Journal of Scientific Advances (IJSCIA*), 2(1), 5-11.
- [16] Joshi, S., Rambola, R. K., & Churi, P. (2021). Evaluating Artificial Intelligence in Education for Next Generation. *Journal of Physics*, 17(1), 12-39.
- [17] Huang, J., Saleh, S., & Liu, Y. (2021). A Review on Artificial Intelligence in Education. *Academic Journal of Interdisciplinary Studies*, 10(3), 206-206.
- [18] Open AI. (2023). ChatGPT 4. Retrieved from: https://openai.com/product/gpt-4
- [19] Metz, C. & Collins, K. (2023, March 14). 10 Ways GPT-4 Is impressive but still flawed. *The New York Times*. Retrieved from: https://www.nytimes.com/2023/03/14/technology/openai-new-gpt4.html
- [20] Vincent, J. (2023, March 15). OpenAI co-founder on company's past approach to openly sharing research: We were wrong. *The Verge*. Retrieved from: https://www.theverge.com/2023/3/15/23640180/openai-gpt-4-launch-closed-research-ilya-sutskever-interview
- [21] Rebelo, M. (2023, July 13). The best AI productivity tools in 2023. Retrieved from: https://zapier.com/blog/best-ai-productivity-tools/
- [22] Marr, B. (2019). 13 mind-blowing things Artificial Intelligence can already do today. Retrieved from: https://www.forbes.com/sites/bernardmarr/2019/11/11/13-mind-blowing-things-artificial-intelligence-can-already-do-today/
- [23] Neill, J. (2023). How can AI be used by university students? Retrieved from: https://www.timeshighereducation.com/student/advice/how-can-ai-be-used-university-students
- [24] Hanushek, E. A. and Woessmann, L. (2022). The basic skills gap. *International Monetary Fund*. Retrieved from:

 https://www.imf.org/en/Publications/fandd/issues/2022/06/basic-skills-gap-hanushek-woessmann

- [25] Elms, A. K., Gill, H., & Gonzalez-Morales, M. G. (2023). Confidence is key: collective efficacy, team processes, and team effectiveness. *Small Group Research*, *54*(2), 191-218.
- [26] Gill, R. (2023). Why building confidence can benefit learners and help them to achieve. Retrieved from: https://www.ncfe.org.uk/all-articles/confidence-benefits-learners/
- [27] Roose, K. (December 5, 2022). The brilliance and weirdness of ChatGPT. The New York Times. Retrieved December 18, 2022.
- [28] Lock, S. (December 5, 2022). What is AI chatbot phenomenon ChatGPT and could it replace humans?. The Guardian. Retrieved December 5, 2022.
- [29] Krugman, P. (December 6, 2022). Does ChatGPT mean robots are coming for the skilled jobs? (HTML). The New York Times. Retrieved December 6, 2022.
- [30] Cowen, T. (December 6, 2022). ChatGPT could make democracy even more messy. Bloomberg News. Retrieved December 6, 2022.
- [31] Chechitelli, A. (2023). Sneak preview of Turnitin's AI writing and ChatGPT detection capability. Retrieved from: https://www.turnitin.com/blog/sneak-preview-of-turnitins-ai-writing-and-chatgpt-detection-capability
- [32] Conroy, S. (2023). Can Chat GPT be detected by Turnitin? Turnitin's AI detection has been developed Retrieved from: https://www.wepc.com/tips/can-chat-gpt-be-detected-by-turnitin
- [33] Jolaoso, C. (2023, May, 10). 10 tips for effective communication in the workplace. Retrieved from: https://www.forbes.com/advisor/business/effective-communication-workplace/
- [34] Majid, S., Liming, Z., Tong, S., & Raihana, S. (2012). Importance of soft skills for education and career success. *International Journal for Cross-Disciplinary Subjects in Education*, 2(2), 1037-1042.
- [35] Scheerens, J., van der Werf, G., & de Boer, H. (2020). Soft skills in education. Springer International Publishing.
- [36] Pachauri, D., & Yadav, A. (2014). Importance of soft skills in teacher education programme. *International journal of educational research and technology*, 5(1), 22-25.
- [37] Pachauri, D., & Yadav, A. (2014). Importance of soft skills in teacher education programme. *International journal of educational research and technology*, 5(1), 22-25.
- [38] Padhi, P. K. (2014). Soft skills: Education beyond academics. IOSR *Journal of Humanities and Social Science*, 19(5), 1-3.
- [39] Qizi, K. N. U. (2020). Soft skills development in higher education. Universal *Journal of Educational Research*, 8(5), 1916-1925.