

COLLABORATION BETWEEN HUMAN AND AI IN COUNSELLING

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Abstract

The integration of Artificial Intelligence (AI) in counseling has opened new avenues for enhancing the effectiveness and reach of mental health services. This paper explores the potential of AI to augment the counseling process by automating administrative tasks, providing data-driven insights, and offering additional resources for therapeutic interventions. Despite the advancements, the traditional counseling process remains prevalent in less technologically developed regions, highlighting the need for a balanced approach that combines human empathy and AI efficiency. The study emphasizes the importance of human-AI collaboration, where AI serves as a tool to empower individuals and achieve their wellness goals while maintaining the core values of the counseling profession. By examining current applications and limitations of AI in mental health, this paper aims to provide guidelines for effective human-AI collaboration, ensuring that technological advancements enhance rather than replace the essential human element in counseling.

Keywords: Artificial Intelligence (AI), Mental Health Services

1. Introduction

The integration of Information and Communication Technology (ICT) to education platform has paved way for the emergence of online guidance and counseling services, which have become invaluable for students seeking academic guidance and support, inconsiderate of their locations. As a result, many online counselling platforms have been designed, created and patronized, this allow students to connect with guidance counsellors to receive persona-social interventions, career guidance as well as information about choice of universities, programs, scholarships, and admissions criteria.

However, in the recent few decades, education sector has recorded another significant ICT development by incorporating Artificial Intelligence technology (AI) into the learning environment. (Hajar Majjate et al). Nevertheless, the guidance and counseling process, particularly in less technologically developed countries, is still being carried out in a traditional manner or through static educational websites that offer only general information about universities and colleges, such as graduation rates, admission requirements, and study costs based on students research.

However, the collaboration between human and AI is reshaping industries, in enhancing productivity and pushing to the wider boundaries of development in different sectors. Ewell, (2023) is of the view that, the synergy between humans and machines is not just a futuristic concept, it is happening presently across various sectors such as healthcare, education, manufacturing industries and its impact is significant. In view of this therefore, the focus of this paper presentation is to provide an awareness campaign to scholars and counsellors in particular to embraced and adopt the human-AI collaboration in facilitating counselling process for the enhancement of human development.

2. Method

The research design for this study employs a qualitative approach to explore counselors' perceptions and experiences regarding AI integration in their practice. The study involves conducting in-depth interviews and focus groups to gather rich, descriptive data from counselors across various educational and clinical settings. Participants are selected through purposive sampling to ensure a diverse representation of experiences with AI technologies. Data collection methods include semi-structured interviews and focus group discussions, which aim to uncover insights into counselors' experiences, challenges, and perceived benefits of using AI in counseling. Additionally, document analysis will be conducted on relevant materials, such as guidelines from the American Counseling Association, to understand existing frameworks and recommendations for human-AI collaboration. The data collected will be analyzed using thematic analysis to identify common themes and patterns related to AI integration in counseling practices. Ethical considerations, such as obtaining informed consent and ensuring participant confidentiality, will be strictly adhered to throughout the study. However, the research may face limitations in terms of generalizability due to its qualitative nature and the specific focus on regions with varying levels of technological development.

3. Results and Discussion

3.1. *The Concept Of Artificial Intelligence (AI)*

Artificial intelligence (AI) broadly is intelligence exhibited by machines, particularly computer systems. It is a field of research in computer science that develops and studies methods and software that enable machines to perceive their environment and uses learning and intelligence to take actions that maximize their chances of achieving defined goals. Artificial Intelligence deals with computers simulating human intelligence. The simulation involves the completion of tasks resembling those carried out by human intelligence, including reasoning, language comprehension, problem-solving, and decision-making (Sheikh et al., 2023).

In facts, Artificial intelligence is the ability of a computer or computer –controlled robot to perform task that are commonly associated with the intellectual processes characteristic of human, such as the ability to reason. Areas of Artificial Intelligence More common methods research areas related to Artificial Intelligence (AI) are: Machine and deep learning, neural network, computer vision, natural language processing and robotics. Natural language processing (NLP): This simply means using computer programs to analyse and produce natural text and speech. This includes for example machine translation, speech recognition, speech synthesis, optical character recognition, text-to-speech and smart text input. (Ailisto et al, 2018,)

Machine learning: This is computerised systems, which can improve their performance the more experience or data obtained and they can perform without clear instructions relying on patterns and conclusions. Machine learning can be used for classification and predictions based on data available in the system; identify objects in images and transfer speech into text. Computer vision: Computer vision can also be called as machine vision, means methods that promote extracting information from a picture automatically and understanding the content of the picture, which can be in different forms like ultrasound picture or 3D picture. (Ailisto et al, 2018,)

Robot: Robot is a device, which includes sensors and actuators that detect the environment, with which the device can perform different actions in its environment and can affect the physical environment around them. (Stanford University, 2016) Artificial neural network: This imitates the function of neurons in the human brains. Artificial neural network

stores information through learning and are also used in advanced image and speech recognition and translation as well as in online stores' recommendations. (Guresen, & Kayakutlu, 2011)

3.2. *The Concept Of Guidance and Counselling*

The term guidance has been coined from the word 'guide' which originally means to direct someone on an issue or programme, to enlighten or assist to lead person to know options of what to do in relation to situation that demands decision making (Okobia and Okorududu, 2006.) Shetzer and Stone (1976) defined guidance as the process of helping individuals to understand themselves and their World. Durojaye (1972:8) also defined guidance as "a complex process which encompasses the total needs of the individual student(s) to be directed or guided by someone who is professionally trained"

However, several attempts have been made to define counselling like its twin associate 'Guidance'. Lewis (1970) stated that counselling is a process by which a trouble person is helped to feel and behave in a more personally satisfying manner through interaction with specialized and uninvolved person. Shetzer and Stone (1976) see counselling as a wide range of designed activities to aid individual in solving their problems. Okobia and Okorududu, (2006) summarized guidance and counselling as a programme made up of relevant services as well as processes of helping individuals within and outside the school environment to realize their fullest potentialities in their emotional, moral, academic and vocational development. Guidance and counselling has three components which includes persona-social, vocational

3.3. *Human -AI / Human Machine Collaboration (HMC)*

Human-AI collaboration, Human Machine Collaboration (HMC) Collaborative AI mean the same thing. HMC can be defines as coming together of people and technology to create and produce an output. Human-AI collaboration eventually, allow companies and organization to use AI to interact with employees, clients, patients, customers and others. According to Linda (2023), Human-AI collaboration is a merger of people and AI driven technology to create or produce things and knowledge.

Furthermore, collaborative AI refers to combination of human and machine intelligence to work together to solve complex problems and perform a tasks. In this systems, human and machines complement each other's strength, with AI providing speed and accuracy while humans providing creativity and critical thinking. The goal of AI collaborative is to enables human and machine to work together to solve complex problems that are beyond the capabilities of either party alone.

Collaboration paradigm recognized that AI and human have complementary strength and it cannot be seeing as replacement of human jobs. Artificial Intelligence excels in data processing and repetitive tasks while human bring creativity, empathy and clear understanding of a phenomenon. Together AI and human can achieve remarkable results.

For instance, in healthcare sector AI is playing a pivotal role in medical diagnosis. Machine learning models can analyse medical images like x-rays and MRIs with credible accuracy, thereby helping doctors detects disease earlier and more precise. Another example specifically in Education environment, AI is paving way for personalized learning experiences.AI algorithms analyse students' data to identify individual strength and weaknesses, enabling teachers to direct their instructional methods to each students' needs. According to Bernard (2022) the future of work is not about humans being replaced by robots. Rather, it is about us learning to work alongside smart, automated technology that will augment our capabilities while allowing us to focus on skills that are uniquely humans.

3.4. Collaboration Between Human And AI In Counselling

For the facts that American Counselling Association (ACA) defines counselling as professional relationship that empowers diverse individuals, families and groups to accomplish mental health, wellness, education and career goals. Kapla, Tarydas & Gladding (2014), analyse and divide this definition into three major components of counselling: forming professional relationship: empowerment and accomplishing goals.

Since the goal of counselling may require fulfillment of these three components, while AI technology facilitates in empowering individuals to accomplish their desire aspirations in life, this implies that the role of AI technology to guidance and counselling is wise –verse. However, we might say that if one or two of the requirements are met by an Artificial Intelligence (AI), then that AI is getting closer to functioning as a counsellor. For example, an AI capable of empowering an individual towards accomplishing a wellness goal is partially functioning as a counsellor because two of the three requirements are met. If AI takes on a more prominent role in counselling, we should expect to see the functions of counsellor met by artificial intelligence. It can be concluded that AI can assist counsellors by automating administrative tasks, providing data-driven insights and offering additional resources for therapeutic interventions.

3.5. Guidelines for Human-AI Collaboration in Counselling

American Counselling Association (2000) provided recommended guidelines for the use and collaboration between Human –Artificial Intelligence (AI) and counselling process. The recommendations cut across many areas of counselling, such as practice, advocacy, research, and ethics. The recommendations serve a number of purposes, including among others are: to raise awareness on the influence of AI in counseling; to assist professional counsellors and counsellors-in-training regarding Human -AI collaboration especially in clinical and educational settings. Compliance to the recommended guidelines surely can assist counsellors to emphasize on Human- AI collaboration and integration in counselling process The guidelines are as follows:.

- a. Learn more about the essentials of artificial intelligence: For effective Human-AI collaboration, counselors should learn about AI essentials, including algorithms and how AI shows up in daily life, such as in social media, marketing campaigns, and in smart phones.
- b. Artificial intelligence Subfields: AI subfields should be understood by potential Human-AI Counsellor, such as machine learning, neural networks, natural language processing, computer vision, and robotics. For example, counselors can learn about large language models (LLMs) and their use in machine learning. LLMs are used in “generative AI,” such as ChatGPT
- c. AI applications in mental health: Counsellor should know the three current ways of AI applications in mental health which includes “personal sensing” (or “digital phenotyping”); Natural language processing and chatbots (D’Alfonso, 2020).
- d. Be open minded, informed, and educated: Have an open mind (ready to learn) to technological advances that can improve professional practice. Efficiencies that can reduce the administrative burden on practitioners are not automatically unethical.
- e. Avoid over-reliance on AI: However AI enhances efficiency, but it should not replace the essential human element in counseling. Counsellors should maintain a balanced approach, ensuring that the therapeutic relationship remains central and probably that is the essence of Human-AI collaboration in counselling.
- f. Counsellors should stay informed about the focus of AI on world of work:-Counseling history is steeped in the vocational guidance movement of the early 20th century. Because of constant changes in the technology, AI posed special challenges for career counseling.

Therefore, Counselors in collaboration with AI should explore career developmental models that will provide for rapid changes in the labour market.

- g. Advocate for transparency in AI algorithms: According to Fulmer et al., (2021), transparent AI includes three factors: Accessibility, Interpretability, and Controlled Maintenance. Accessibility means that the AI should be available and responsive to the peoples' needs. Interpretability implies the output of an AI, must be easy to understand and user-friendly. In view of this therefore, counselors could advocate for transparency and actively be part of inspection teams, especially in the use of AI algorithms, to ensure that AI is built fairly and is comprehensive, and then relaying their findings accurately back to the counseling community. (NB3AI algorithms)
- h. Limitations of AI in diagnosis and assessment in counseling: The use of AI device or machine as the only tool for diagnosis and assessment by counsellor should be avoided. Nevertheless, AI can be a supportive tool which assist counselor in making professional judgment; therefore, counselors must obtained adequate training to understand the limitations and the use of AI in counselling process. Counselors must critically evaluate AI-assisted diagnostic suggestions and incorporate their clinical expertise, understanding of the client's history, and cultural context to ensure a comprehensive and ethically sound assessment.
- i. Seeking for informed consent: Counselors should clearly inform clients about the use of AI tools/gadgets in their counseling process, explaining their purpose and potential benefits. It is necessary for the counsellor to obtain clients' informed consent for the use of AI-assisted tools and its implications in therapeutic encounter.
- j. Ensure data security and privacy: AI platforms designed for counseling services and training purposes should prioritize data security and privacy from the outset. Moreover, the principles of "Privacy by Design" should be incorporated while utilizing AI counselling platforms. The principle will guarantee the security of personal identity and personal health information. Also can ensure the secure and confidential handling of sensitive data, fostering trust and compliance in their use for counseling services.
- k. Conducting research on the Impact of AI on counseling: A dearth of research currently exists on how AI can have impact on counseling (Fulmer, 2019). AI shows potential to influence several areas of clinical practice (e.g., diagnosis, practice management, automating documentation), counselor education, and research approaches; thus, more research is needed to discover AI's potential in these areas. Counselors and counseling researchers are encouraged to take up the charge to conduct research that transforms counseling practices and training for better client care and wellness.

4. Conclusion

It has become necessary to encourage counselors to adapt and embrace technological tools in order to help effectively meet the evolving needs of students in the current educational landscape and provide them with support that aligns with the contemporary educational paradigm. For enhancing significant potential for efficiency and effectiveness in career and mental health counselling,, counsellors should integrate AI including machine learning and natural language generation.

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