

Ethical and Privacy Challenges in Using AI in Guidance & Counselling

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Abstract

The use of artificial intelligence (AI) in guidance and counselling brings great opportunities to improve accessibility and personalisation of services. However, its application also poses various ethical and privacy challenges that need serious attention. Key challenges include protecting the privacy of client data, maintaining confidentiality of information, avoiding bias and inaccuracies in AI algorithms, and ensuring professional responsibility remains with human counsellors. In addition, it is important that clients are given a clear explanation of the use of AI and consent is obtained prior to the application of this technology in counselling sessions. To maximise the benefits of AI in guidance and counselling, a careful and ethical approach is required, emphasising privacy protection and ensuring AI is used as a responsible tool that does not replace human professional judgement.

Keywords: AI, challengers,Privacy

1. Introduction

Information technology that is increasingly developing has become one of the necessities needed in all sectors and aspects of life, be it in the scope of business, economics, to education. (Budiman, 2017). Technology continues to develop in line with the era of globalisation. The modern 21st century is under the digital era or industrial revolution. This is described by a very rapid increase in technology (Herman Nirwana, 2021). This has resulted in significant changes in various aspects of life that increasingly favour quick and instant access through digital media. One of the main changes that occurred was the development of information and communication technology, which was accelerated by efforts to make it easier for individuals from various backgrounds to access information quickly and instantly. Various sectors are starting to adapt to this technological development. (Devi, 2022).

Counsellor is one of the most prestigious professions in the current era of development because it is closely related to issues of human development and how humans act in their social climate (Kushendar et al., 2018). Counsellors are dynamic professions that continue to adapt to social dynamics and changes and developments (Sholihah et al., 2019). In line with technological developments, the in providing services requires efficient innovation, so that potential counselees feel comfortable to seek counselling assistance voluntarily, so that the practice of online counselling as part of cybercounseling becomes commonplace. Cybercounseling is a promising alternative to replace direct or face-to-face counselling services (Hidayah, 2020). Various forms of



online counselling services, referred to as cybercounseling, can come in a variety of innovative e-counselling media such as websites, email, video conferencing, chat, instant messaging, computers, and other web-based networks. All of these continue to undergo rapid development and can be accessed easily through their respective mobile phone devices (Syamila & Marjo, 2022). Cybercounseling is an innovative work in counselling services due to the rapid development of technology and the increasing need for counselling (Ayub et al., 2022).

Cybercounselling does have its advantages in terms of reaching out to counsellors. However, in addition to its advantages, cybercounselling also has a number of disadvantages. There are debates around the drawbacks and hurdles that arise in the context of online counselling. Some of the challenges that arise in cybercounseling involve aspects such as privacy, qualifications, experience, and the counsellor's level of understanding of the counselling profession's code of ethics. There are also constraints related to basic technical issues of using information technology, such as the ability to operate video conferencing applications. Another important constraint is missing non-verbal cues in online communication, which are fundamental to developing an effective therapeutic relationship with the counsellor. All these limitations can hinder the smooth and effective achievement of goals in counselling (Munawaroh et al., 2021). The personal qualities of the counsellor will also determine the effectiveness of a counselling achievement (Suhendra, 2016).

2. Method

The influence of the rapidly developing information and communication technology society 5.0 tends to be artificial intelligence that is able to collect millions of data through the internet for all fields of life. Privacy is an important point to live a digital life. Privacy is defined as the space of each individual. Privacy as a social value regulates and limits individual social life (Bimantoro et al., 2021). Digital ethics is a set of rules and procedures created in order to reduce the harm caused by the use of digital technology (Ayu et al., 2022). So, digital privacy ethics are rules created to reduce the misuse of digital technology and protect individual personal information.

Ethics is important in counselling interactions. Ethical behaviours applied by professional counsellors in providing counselling services to counsees described in the professional code of ethics in the field of guidance and counselling (Lesmana, 2022). The professional code of ethics in guidance and counselling is a principle that cannot be separated from the life of counsellors. Since college, counsellors have been given an understanding and practical application of the counsellor's professional code of ethics, both in theory and practice (Rahardjo & Kusmanto, 2017). The

application of the counsellor's code of ethics can increase the level of accountability and integrity in the context of counselling (Masruri, 2016).

The research uses a literature study that functions in collecting, analysing, identifying and integrating relevant knowledge and data sources obtained in accordance with the research topic. By utilising literature in the form of books, supporting journals in obtaining accurate data to support a study

3. Results and Discussion

Experts are continually advancing artificial intelligence (AI) technology, allowing it to evolve rapidly. H. A. Simon asserts that artificial intelligence (AI) is a discipline that enables computers to carry out tasks more effectively than humans. Knight and Rich concur with Simon that artificial intelligence (AI) is a branch of computer science focused on creating computers capable of performing tasks as well as, if not better than, humans.

The purpose of developing artificial intelligence includes, among other things:

1. It is estimated that AI will be used to create software or robots that can help humans in their daily routines.
2. It is expected that the presence of AI will make machines smarter than ever.
3. It is hoped that it can really help humans in solving complex problems, such as through the development of smart calculators that count fast.

Humans can gain a variety of benefits that artificial intelligence also offers, such as:

1. AI is unbiased, no matter who the user is. The evaluations it produces are accurate and free from any external influences.
2. AI is unchangeable and consistent. It can be utilized repeatedly without variation.

One drawback of using AI is that, although it can operate tirelessly and continuously, the system cannot adapt to input that falls outside of its programmed parameters. Artificial Intelligence is a technology that enables computers and machines to imitate human intelligence and problem-solving skills. In the realm of computer science, AI encompasses both machine learning and deep learning. AI has the ability to learn from available data and improve its accuracy in classifications or predictions as time progresses.

There are several types of artificial intelligence:

1. Weak Artificial Intelligence (Weak AI), also referred to as narrow AI or artificial narrow intelligence (ANI), is designed to handle specific tasks. Examples include digital assistants like Siri and Alexa, as well as autonomous vehicles.

2. Examples are digital assistants such as Siri and Alexa, along with autonomous vehicles. AGI represents a theoretical type of AI that matches human intelligence, whereas superintelligence would exceed the capabilities of the human brain.

According to Goldman Sachs, it predicts that around 300 million jobs will be lost or degraded by artificial intelligence. That is, full-time jobs around the world can be automated by artificial intelligence. One example is ChatGPT. In their report, 18 percent of jobs globally can be computerized. This effect will be more pronounced in developed countries than in emerging markets. Administrative workers and lawyers are expected to be most affected by the effects, while physical or outdoor work such as construction and repairs are also affected. Although artificial intelligence adopts disruption, the innovation and intelligent evolution of these technologies also has the potential to increase labor productivity and global GDP.

Science and technology Before the existence of artificial intelligence, the world was introduced to the concept of robots with artificial intelligence through science fiction. In the 1950s, scientists, mathematicians, and philosophers introduced the concept of artificial intelligence, which was deeply embedded in their cultural mindset.

After the existence of Artificial Intelligence, technology continues to develop rapidly. Artificial intelligence has the potential to impact various sectors, including the advancement of autonomous vehicles, the analysis of big data, and the resolution of complex scientific problems. With the continued development of artificial intelligence, we can anticipate more innovations, intelligent evolutions and changes in the future.

Artificial intelligence (AI) is responsible and ethical in the context of scientific practice not as a critique of past efforts to develop artificial intelligence, but as a commitment to a more equitable landscape in which AI technology meets the real needs of those who rely on it. AI and automation have the potential to significantly improve the life cycle. However, the spotlight should be directed to how this technology enriches the expertise that is already inherent in our profession. As we enter this new era, AI will be reimagined not as artificially imitated intelligence, but as enhanced human intelligence. (Julie,2020)

Generative artificial intelligence (AI) holds the potential to transform drug discovery. Examples of companies utilizing generative AI platforms for drug discovery include Insilica Medicine, Exscientia, Iktos, Adaptyv Bio, and Absci. In this context, AI is employed to automate tasks, personalize content, and develop new products and services. Generative AI and small law firms to level the playing field, such as document research and review, case analysis, client service, and marketing. Increasing artificial intelligence (AI) in colleges to level the playing field, AI can demonstrate access to high-quality education and resources, guidance and support such as AI-

powered chatbots and virtual tutors, AI-enabled curriculum optimization, and facilitate dual specialization.

Generative artificial intelligence (AI) technology can improve agriculture in a variety of ways, such as early detection and prevention of plant diseases, resource optimization and precision agriculture, improved crop yields and crop breeding and genetic progress. Artificial intelligence (AI) is increasing in the agricultural industry by combining multiple data types, tracking all data points, leveraging round-the-clock monitoring and constant AI learning, and starting wildfires by placing AI-powered eyes in forests to keep an eye on wildfires and provide quick alerts. (Mongeon,P., & Paul-Hus, A, 2016)

AI has revolutionized various fields of science. In drug discovery and biotechnology, AI accelerates research by analyzing millions of chemical compounds to identify potential drug candidates more efficiently than traditional methods. In astronomy, AI processes data from telescopes and satellites, helping scientists discover new planets, map galaxies, and better understand cosmic phenomena. In physical and material science, AI aids in developing new materials with specific properties through simulations and machine learning.

In technology, AI has transformed several industries. In manufacturing, AI-driven automation enhances precision and reduces human error. In information technology, AI advances big data, cybersecurity, and network technology. AI also plays a crucial role in autonomous vehicles, enabling them to make safe decisions and reduce traffic accidents. In finance, AI improves risk analysis, fraud detection, and portfolio management. Additionally, AI enhances consumer technology through virtual assistants, content recommendations, and personalized services.

4. Conclusion

From the previous discussion, it can be concluded that Artificial Intelligence is a simulation of human intelligence, designed and programmed into machines to emulate human thinking processes. In computer science, artificial intelligence addresses cognitive challenges typically linked to human intelligence, including learning, creativity, and image recognition. This technology enables computers and machines to mimic human intelligence and problem-solving skills. With its rapid advancement, artificial intelligence can now handle complex tasks such as engaging in human-like conversations, generating original images and text, and making decisions based on real-time data. Additionally, artificial intelligence significantly impacts the fields of science and technology.

Data-Driven Decision-making, AI enables faster and more accurate decision-making by analyzing big data, impacting the economy, health, and public policy. New ethics and challenges,

The emergence of AI brings challenges related to ethics, privacy, and security, so strict regulations and ethical standards are needed.

Overall, AI is driving significant advances in science and technology, while also requiring us to address emerging social and ethical impacts.

References

- Abdussamad, Zuchri. 2021. *Metode Penelitian Kualitatif*. Makassar: CV. Syakir Media Press.
- Sugiyono. 2013. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Sujarweni, V. Wiratna. 2014. *Metodologi Penelitian*. Yogyakarta: Pustaka Baru Press.
- Devianto, Y., & Dwiasnati, S. (2020). Kerangka kerja sistem kecerdasan buatan dalam meningkatkan kompetensi sumber daya manusia Indonesia. *IncomTech: Jurnal Telekomunikasi Dan Komputer*, 10(1), 19–24.
- Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep learning*. MIT press.
- Marr, B. (2019). *Artificial intelligence in practice: how 50 successful companies used AI and machine learning to solve problems*. John Wiley & Sons.
- Russell, S. J., & Norvig, P. (2016). *Artificial intelligence: a modern approach*. Pearson.
- Mongeon, P., & Paul-Hus, A. (2016). Liputan jurnal Web of Science dan Scopus: analisis komparatif. *Scientometrics*, 106(1), 213-228.
- McCarthy, J. (2007). Dari sini ke AI tingkat manusia. *Kecerdasan buatan*, 171(18), 1174-1182.
- Julie, H., Alyson, H., & Anne-Sophie, C. (2020, Oktober). Merancangkegiatan literasi digital: interdisipliner dan pendekatan kolaboratif. Di2020 IEEE Frontiers in Education Conference (FIE)(hal.1-5). IEEE
- Syamila, D., & Marjo, H. K. (2022). Professional Ethics of Guidance and Counselling: Online Group Counselling and the Principle of Confidentiality. *Journal of Paedagogy*, 9(1), 116. <https://doi.org/10.33394/jp.v9i1.4527>.
- Hidayah, N. (2020). Application of Cognitive Behavioural Cybercounseling for BK Teachers in the Era of the Industrial Revolution 4.0. *PD ABKIN East Java: Open Journal System*, 1(1), 13-30.
- Syamila, D., & Marjo, H. K. (2022). Professional Ethics of Guidance and Counselling: Online Group Counselling and the Principle of Confidentiality. *Journal of Paedagogy*, 9(1), 116. <https://doi.org/10.33394/jp.v9i1.4527>.
- Astuti, F. A. (2021). Utilisation of Artificial Intelligence Technology for Health Strengthening and Recovery. *Journal of Intelligent Systems*, 25-34.
- Ursula, Abda, P. (2021). Getting to know online counselling service
- Ursula, Abda, P. (2021). Getting to know online counselling services. *Daiwi Widya*, 8(3), 62- 73.
- Sari, M. P., & Marjo, H. K. (2022). Literature Study of Online Counselling Code of Ethics.

Journal of Paedagogy: Journal of Educational Research and Development 9(1), 168-178.