Leveraging generative AI tools for effective academic writing

Aprofitar les eines generatives d'IA per a una escriptura acadèmica efectiva

1

Aprovechar las herramientas de inteligencia artificial generativa para una redacción académica efectiva

# Aiswarya Balachandar

Lecturer and researcher

Specialist in Human Resource Development and Organizational Behaviour.

Loyola Institute of Business Administration, India

ORCID: https://orcid.org/0000-0002-7225-7353

Email: aiswarya.b@liba.edu

## Ramasundaram Gurusamy

Professor in Finance

Saveetha Engineering College, India

ORCID: <a href="https://orcid.org/0000-0002-0593-7308">https://orcid.org/0000-0002-0593-7308</a>

Email: ramasundaramg@gmail.com

**Abstract:** The intricate relationship between the creative demonstration and its creator is a subject of profound exploration and psychological satisfaction. An art form whether visual, literary or performative, serve as channels for the creator to externalize their innermost thoughts and emotions. This case narrates the art of writing (the skill set) which can evoke a sense of joy, enabling writers to channel their imagination, experience, and individuality into tangible forms.

The integration of AI-enabled technologies, such as ChatGPT, has undeniably revolutionized the landscape of the art of writing. The case is the pertinent concern about the potential loss of the art of writing and the subsequent impact on the joy of art delivery. This case study delves into the repercussions of the advent of ChatGPT on the traditional craft of writing and its influence on the emotional resonance of artistic expression through writing forms.

As AI algorithms like ChatGPT become increasingly adept at generating text, there is an increase in the erosion of the human touch in writing. There is a risk of losing the emotive power that comes from an artist's genuine connection with their creation. The study uncovers the effect of AI-generated content on the dilution of creative thoughts and subsequent happiness derived from its delivery.

**Keywords:** Chat GPT, writing skills, creativity, cognitive thinking, technology, artificial intelligence.

Resum: La intricada relació entre la demostració creativa i el seu creador és objecte d'una profunda exploració i satisfacció psicològica. Una forma d'art ja sigui visual, literària o performativa, serveix de canals perquè el creador externalitzi els seus pensaments i emocions més interiors. Aquest cas narra l'art de l'escriptura (el conjunt d'habilitats) que pot evocar un sentit d'alegria, permetent als escriptors canalitzar la seva imaginació, experiència i individualitat en formes tangibles. La integració de tecnologies amb IA, com ChatGPT, ha revolucionat innegablement el paisatge de l'art de l'escriptura. El cas és la preocupació pertinent sobre la possible pèrdua de l'art d'escriure i l'impacte posterior en l'alegria del lliurament d'art. Aquest estudi de cas aprofundeix en les repercussions de l'adveniment del XatGPT en l'ofici tradicional de l'escriptura i la seva

influència en la ressonància emocional de l'expressió artística a través de les formes d'escriptura. A mesura que algorismes d'IA com ChatGPT esdevenen cada vegada més hàbils en la generació de text, hi ha un augment en l'erosió del tacte humà en l'escriptura. Existeix el risc de perdre el poder emotiu que prové de la connexió genuïna d'un artista amb la seva creació. L'estudi descobreix l'efecte del contingut generat per la IA en la dilució dels pensaments creatius i la felicitat posterior derivada del seu lliurament.

**Paraules clau**: Chat GPT, habilitats d'escriptura, creativitat, pensament cognitiu, tecnologia, intel·ligència artificial

**Resumen:** La intrincada relación entre la manifestación creativa y su creador es un tema de profunda exploración y satisfacción psicológica. Una forma de arte, ya sea visual, literaria o performativa, sirve como canal para que el creador exteriorice sus pensamientos y emociones más íntimos. Este caso narra el arte de escribir (el conjunto de habilidades) que puede evocar una sensación de alegría, permitiendo a los escritores canalizar su imaginación, experiencia e individualidad en formas tangibles.

La integración de tecnologías habilitadas para IA, como ChatGPT, ha revolucionado innegablemente el panorama del arte de escribir. El caso es la preocupación pertinente sobre la posible pérdida del arte de escribir y el posterior impacto en la alegría de la entrega del arte. Este estudio de caso profundiza en las repercusiones de la llegada de ChatGPT en el arte tradicional de la escritura y su influencia en la resonancia emocional de la expresión artística a través de las formas de escritura.

A medida que los algoritmos de IA como ChatGPT se vuelven cada vez más hábiles para generar texto, aumenta la erosión del toque humano en la escritura. Existe el riesgo de perder el poder emotivo que surge de la conexión genuina de un artista con su creación. El estudio descubre el efecto del contenido generado por IA en la dilución de los pensamientos creativos y la posterior felicidad derivada de su entrega.

**Palabras clave:** Chat GPT, habilidades de escritura, creatividad, pensamiento cognitivo, tecnología, inteligencia artificial.

## I. INTRODUCTION

Prof. Dr. Anna: Having discussed the power strategies in our leadership lecture, Now I want you to prepare an assignment for your evaluation.

Read a biography of any leader of your choice, pick out instances in the chosen leader's life wherein the discussed strategies and the theory of leader member exchange (LMX) has been applied. Give your opinion on the same. The time duration you can take for submission is seven working days from today. Wish you all the best. Thank you. We shall meet in the next session.

Anna, professor in management Studies, specialized in leadership studies from a leading business school in India, has her own creative ways of evaluating the students, it is usually application-based evaluation rather than testing someone's memory of reproducing the already existing content.

The normal time taken to read a book varies between five to eight days. Students start downloading biographies or pick up books from library. The student is expected to read and digest the book, reflect upon the readings, and start writing to answer the assignment question objectively. The intent of this assignment work is to make the student read and write in his/her own way of creative disposition of expressing ideas on the subject.

Surprisingly the assignments were submitted within a day or two with no request for extension of deadlines, last minute submissions, no excuses, and no permissions that usually use to happen. The cause of this dramatic change is the invasion of the artificial intelligence enabled technology ChatGPT.

Anna is profusely shocked. Though she knew there might be some English corrections, grammatical errors and some content from ChatGPT she never did expect that the entire assignment would just be reproduced from the AI enabled technology. Though deep in her mind

she thinks that there is no fault in students getting support from technology and her value system does not permit her to stop students from doing so.

However, blocking the access to ChatGPT in the institution campus is not going to stop students accessing from elsewhere. She believes that this is not the right way to provoke or inspire students to enhance their creative and writing skills. Apart from various other modes of evaluating the students, writing skills and creative thinking adds to the list. This is supposed to be the most conventional and the best method of evaluation. (Lund & Wang, 2023). In a way ChatGPT can retrieve information, consolidate only the already existing content and data but not something new. (Lametti, 2022).

Creative writing is innovative. It will be first time born from the thoughts of the writer. However, for Anna when she is going through the content of different assignments submitted by students, she feels the standardized ways of writing amongst all, the standard of english language used and the similarity of the flow of thoughts are found in their submitted works.

Innovative thinking and creative ways of looking at a life history of a leader was missing. Though the students have chosen different leaders from the area of business, sports, politics, cinema, history, but the manifestation of the content and thoughts were found to be having the same flavor in the outputs.

It is not a copied or duplicated content from each other but since the source was common from which from every student had derived certain content, the outcomes were forced to have resemblance of ideas. (Stokel-Walker & Thorp 2023).

Though the expected outcome of the assignment is explained to the students the way in which the ideas must be flown the coherence of thoughts, the choice of words, the approach towards the issues, the weaving of thought process and content delivery depends on the creativity of the students. (Yan, 2023).

Moreso when it is a leadership lecture, and the assignment is related to leader and the theory to be addressed is Leader Member Exchange theory the aforesaid mentioned might be the same for all but the biography and its relatedness with the theory that is substantiated in the assignment will determine the depth of understanding. This will give clarity for the evaluator to differentiate one student from another. Being a descriptive content there is very remote chance of student having similar content when the range of choice of leaders is huge. The number of incidents in each one's life is varied. How it is approached is the line of creativity and linked with the theory is to be underlined. (Barrot, 2023). If it is a program or a mathematical derivation or a numerical problem, may be the final answer will be the same for all, but the approach to the problem need not be the same for all.

Therefore, the outcome of the submission is to develop creativity, innovative way of thinking and aesthetic writing. Being a leadership session where the student-participants are going to be leaders, a comprehensive knowledge, analytical thinking, strategic approach, creative thoughts and ideas, presentation of the ideas through writing are the intended learning outcomes of this course. (Imran & Almusharraf, 2023). The outcome is the writing skills when the content for writing is readily available the participants may not even attempt to try to go through a creative thinking process, innovative approach or to strategize the presentation. This is the problem Prof. Anna faces with the students as a course instructor.

Professor must start thinking creatively to evaluate the students, leaving behind old and conventional methods, check plagiarism for AI content, or supervised exam format where the students are put in a controlled environment restricting not only their movement but their creative and innovative thoughts also. (Pham & Sampson 2022).

## II. INK AND ALGORITHM

Any script, any material, whatever content, in any format, in the required volume is just retrieved from this technology. The only skill required by the user is generating prompts and requesting data in variety of forms as required. (Firat, 2023). It is advantageous that a lot of time is not spent in searching and collating, the correct and apt source is located quickly. The developed content retrieved from the source can be just read through, modified, or created as per one's requirement. No information which may have missed out while in search could be ensured through this new technology ChatGPT.

REVISTA DE EDUCACIÓN Y DERECHO. *EDUCATION AND LAW REVIEW* FECHA DE ENTRADA: 25-02-2024

NÚMERO 30 ABRIL - SEPTIEMBRE 2024 FECHA DE ACEPTACIÓN: 30-07-2024

ChatGPT has several applications in various fields, including academic writing, and it can be used to provide summaries, abstracts, and conclusions. This tool can generate guidelines for academic research based on text-based academic queries and paraphrase academic texts with concise content and structure, helping researchers articulate their ideas and focus their efforts more precisely. (Kohnke, Moorhouse, & Zou, 2023). ChatGPT produces impressively fluent writings in different genres; this tool learns from the user feedback (Tate, Doroudi, Ritchie, & Xu, 2023) it receives. ChatGPT has gained unprecedented popularity because it shows impressive abilities in many research fields.

This algorithm's knowledge base and natural language processing capabilities are advanced and vast due to applying big data and artificial intelligence. However, text analytics specialists can identify the generated content for comprehensive analysis. (Mahyoob, 2015 & Ahmed, Ali, Hussain, Baseer., & Ahmed, 2021).

Recently, human-machine competition in various industries has peaked, especially in language processing, which has led to the advent of many tools and their introduction to the broader public, such as spell checkers, morphological analysers. (Al-Garaady, & Mahyoob, 2022). speech recognizers and text classifiers (Mahyoob, 2020; Al-Garaady, Jeehaan, 2022; Zneit, 2016). The latest tool that has attracted the public attention is ChatGPT.

## III. LEARNING STYLE VERSES EVALUATION PATTERN

The experiential learning style theory is typically represented by a four-style learning cycle, which the learner touches all the bases namely, the concrete experience, reflective observation of the new experience, abstract conceptualisation, and active experimentation. (Kolb, 1984).

This integrated process of learning is mutually supporting and logical. It results in the complex and abstract mental models of learning. Kolb's learning theory (1984) explains people naturally prefer certain different learning style. Various factors like hereditary, life experience, environment, influence one's style of learning. This results in different styles of learning like divergent model, where the learners prefer to reflect on what they have observed, Accumulation, in which learners prefer concepts and abstract ideas, convergent style where the learners solve problems and enjoy applying to practical issues and accommodating style where challenges are relished to solve problems.

It is well understood that the evaluation pattern depends on the learning styles and the strengths of the learners. The different evaluation patterns like role plays, debates, presentations, poster making, case writing, etc, for all the above-mentioned modes, conceptualisation of the thoughts, synthesis of ideas, deliberation and presentation of ideas all requires a lot of creativity and innovation. This skill is slowly dying down is what Prof. Anna is concerned about.

# IV. CHAT GPT QUILL

Engineering students said that writing codes in software to correctly run and execute has become very easy with ChatGPT. There is no need to think and write the codes, just the requirement to be given to ChatGPT, to provide codes. (Lo, 2023). For hackathon competitions, they predominantly use ChatGPT, to generate innovative ideas, creating teams with matching and complementary skill sets, aid with coding, frameworks, or APIs, organizing content, and creating a visualization narrative to showcase their project. Students from management stream find it easy to prepare presentations on varied topics which was tedious before the advent of ChatGPT. (Patil & Abraham 2010). Students get the help of ChatGPT to find relevant academic papers, articles, and industry reports, saving time in searching for information. It assists students in drafting and refining their assignments, research papers, and presentations. They use ChatGPT for analysing case studies, identifying key problems, and proposing potential solutions. Altogether, ChatGPT has made the life of students so easy and simple. (Afzaal, Imran, Du, X & Almusharraf, 2022).

The intelligent tutoring systems, which replicate personalized one-on-one tutoring experiences, is successful in helping the students learn. (Zawacki, et al, 2019). Literature research on the use of AI systems in education found that these systems generally have a positive impact on the academic achievement of college students. (Afzal, et al., 2019). However, the faculty did not wish to stop the students from making use of the technology in this fast-moving world of artificial intelligence.

## V. MY ART AND ME

However, the Professor feels that students are missing out something. The time spent on searching in Google, searching in journals, searching in newspaper, searching in magazine, searching in books is not the time just spent on searching even if the student fails in finding and landing on the required information, during the process of searching there is a lot of learning, new information, new readings, new knowledge. (Sallam, 2023). In addition to this, all the collated information must be arranged in coherence and in the required order. This as well requires, imagination and skills in formatting like tense, verb, and grammatical versions.

The psychological dimension of artistic expression often accompanies the act of translating abstract concepts into tangible art. (Ray, 2023). The complex interplay between art forms and the creator's psyche highlights the multifaceted nature of joy and psychological fulfillment woven into the fabric of artistic expression and personal satisfaction.

On the other hand, if one must write on his /her own to create a piece of writing, either a book, an essay, a poem or an article, a story, the delivery requires a lot of creative imagination. The aesthetic skill, talent is what that makes ones writing, significant and brand the writer. The author, the poet, the journalist, the writer, is the creator of the piece of writing. He is the artist of the creation. (Lake et al.,2017). Like a painter, music composer, a dancer, a designer, writing is an art form. The manifestation of one's aesthetic sense is the piece of art, in the case of a writing the writer.

When a poem is read, we experience the words are chosen and woven together, making the reader to sweep off the feet. Someway it brings colors to life, mixed with emotions, it could be hurtful and cause irrevocable damage. (Niu & Sternberg 2006). Words carry power written or

spoken. Once upon a time we cultivated the habit of writing diary for children to develop the link amongst the mind, the imagination, memory, and skill of writing.

### VI. WRITING RENAISSANCE

Writing is best understood as a set of distinctive thinking processes which writers orchestrates and organizes during the art of composing. (Sadeghi & Ofoghi, 2011). It embodies the primitive art of expression to expand intellectual thoughts. Writing is considered as a medium of reflection like art and music enriching one's psyche. Just like a painter mixes colors together on a drawing board to design, writing puts words together to form something beautiful. (Sharples, & Pérez, 2022).

Many writers write for different purposes. Some state the best thoughts come only when we start writing. Writing is an act of generosity when people read and be moved by it and come to an understanding. Some authors feel that writing is a form of personnel freedom and a concentrated form of thought. (Yang, Zhou, Zhang, Li, & LC, 2022). It is like having children something good, pure, and perfect, a creation that lives and survives after the creator leaves the world.

Writing generally makes one feel that they could disappear for a moment, a karmic force that pushes one into an imaginative world. (Creely, 2023). The dignity of the person surfaces in writing and shines light upon. Many writers feel that writing is like a prison an island from which you will never be released, but is a kind of a paradise, the solitude, the thoughts, the incredible joy of putting into words the essence of what you are for the moment to what to want. (Li, & Ouyang, 2019). Writing is rather a gift to occupy a new world even it is for a short while. Writing and art forms is trying to fulfill one's artistic needs and hopefully to make sense to others worthy of reading. This joy of creation of art forms is diminishing with the inclusive technology.

### The contemplation

Now the professor is contemplating on the technology. Is she really allowing the students to experience the happiness of creating something on their own which they will remember for

lifetime or permit the students to adapt to the technology which gives readymade answers. By recognizing the distinct value of human creativity and emotional engagement, practitioners can navigate the dynamic intersection between technology and artistry, preserving the essence of the written words, while embracing the opportunities that AI innovation presents.

## Questions

- 1. What are the advantages of using Artificial Intelligence enabled ChatGPT.
- 2. What is the connection between the psychology of an individual and aesthetic intelligence.
- 3. What is the various other form of student evaluation that could be adopted.
- 4. What are the disadvantages of ChatGPT technology.
- 5. Discuss the issue of the ethics of using generative AI?

### VII. REFERENCES

Afzaal, M., Imran, M., Du, X., & Almusharraf, N. (2022). Automated and human interaction in written discourse: A contrastive parallel corpus-based investigation of meta discourse features in machine-human translations. SAGE Open, 12(4), 1-18. <a href="https://doi.org/21582440221142210">https://doi.org/21582440221142210</a>.

Afzal, S., Dhamecha, T., Mukhi, N., Sindhgatta Rajan, R., Marvaniya, S., Ventura, M., & Yarbro, J. (2019). Development and Deployment of a Large-Scale Dialog-Based Intelligent Tutoring System. Vol. 2, pp. 114–121.

Ahmed, B., Ali, G., Hussain, A., Baseer, A., & Ahmed, J. (2021). Analysis of Text Feature Extractors using Deep Learning on Fake News. *Eng. Technol. Appl. Sci. Res.*, vol. 11, no. 2, pp. 7001–7005. <a href="https://doi.org/10.48084/etasr.4069">https://doi.org/10.48084/etasr.4069</a>.

Al-Garaady, J., & Mahyoob, M. (2022). Public Sentiment Analysis in social media on the SARS-CoV-2 Vaccination Using VADER Lexicon Polarity. *Humanities and Educational Sciences Journal*, no. 22, pp. 591–609. https://doi.org/10.55074/hesj.v0i22.476.

Al-Garaady, Jeehaan (2022). An Analysis of Yemenis' Responses and Sentiments on social media Towards the emergence of the COVID-19 Pandemic. *Humanities and Educational Sciences Journal*, no. 27, 589–607. Available at SSRN: <a href="https://doi.org/10.55074/hesj.v0i27.621">https://doi.org/10.55074/hesj.v0i27.621</a>.

Barrot, J. S. (2023). Using ChatGPT for second language writing: Pitfalls and potentials. Assessing Writing, 57, 100745. <a href="https://doi.org/10.1016/j.asw.2023.100745">https://doi.org/10.1016/j.asw.2023.100745</a>.

Brenden M. Lake et al., (2017). "Building Machines that Learn and Think Like People," Behavioral and Brain Sciences 40 (2017): e253.

Chan, C. K. Y., & Lee, K. K. W. (2023). The AI generation gap: Are Gen Z students more interested in adopting generative AI such as ChatGPT in teaching and learning than their Gen X and Millennial Generation teachers? arxiv:2305.02878.

Civil, B. (2023, March 16). ChatGPT can hinder students' critical thinking skills: Artifcial intelligence is changing how students learn to write. The Queen's Journal. https://www.queensjournal.ca/story/2023-03-16/opinions/chatgpt-can-hinder-stude nts-critical-thinking-skills.

Creely, E. (2023). Conceiving Creativity and Learning in a World of Artificial Intelligence: A Thinking Model. In Creative Provocations: Speculations on the Future of Creativity, Technology & Learning (pp. 35-50). Cham: Springer International Publishing.

Firat, M. (2023). What ChatGPT means for universities: Perceptions of scholars and students. Journal of Applied Learning and Teaching, 6(1). https://doi.org/10.37074/jalt.2023.6.1.22

Hutson, M. (2022). Could AI help you to write your next paper? Nature, 611(7934), 192–193. https://doi.org/10.1038/d41586-022-03479.

Imran, M., & Almusharraf, N. (2023). Review of teaching innovation in university education: Case studies and main practices. The Social Science Journal. https://doi.org/10.1080/03623319.2023.2201973.

Kolb, D. A. (1984) "Experimental Learning: Experience as the Source of Learning and Development", Prentice-Hall, Englewood Cliffs, N.J.

Korn, J. & Kelly, S. (2023, January 5). New York City public schools ban access to AI tool that could help students cheat. CNN. https://edition.cnn.com/2023/01/05/tech/chatgpt-nyc-school-ban/index.html.

Lametti, D. (2022). AI could be great for college essays. slate.com. https://slate.com/technology/2022/12/ chatgpt-college-essay-plagiarism.html.

Li, X., & Ouyang, L. (2019). Challenges in the imitation of human poetry by AI. Artificial Intelligence Review, 52(3), 593-610.

Lo, C. K. (2023). What is the impact of ChatGPT on education? A rapid review of the literature. Education Sciences, 13(4), 410. <a href="https://doi.org/10.3390/educsci13040410">https://doi.org/10.3390/educsci13040410</a>.

Lund, B. D., & Wang, T. (2023). Chatting about ChatGPT: How may AI and GPT impact academia and libraries? Library Hi Tech News. <a href="https://doi.org/10.2139/ssrn.4333415">https://doi.org/10.2139/ssrn.4333415</a>.

Mahyoob, M. (2015). Semi-Automatic Annotation of Arabic Corpus: A Morpho-syntactic Study, Ph.D. dissertation, Aligarh Muslim University, Aligarh, India,

Mahyoob, M. (2020). Developing a Simplified Morphological Analyzer for Arabic Pronominal System. Available at SSRN 3599719. <a href="https://doi.org/10.2139/ssrn.3599719">https://doi.org/10.2139/ssrn.3599719</a>.

Niu, W. & Sternberg, R. J. (2006). The philosophical roots of Western and Eastern conceptions of creativity. J. Theor. Philos. Psychol. 26, 18–38.

Oliver, J. (2023). John Oliver on new AI programs: 'The potential and the peril here are huge'. The Guardian. https://www.thegu ardian.com/tv-and-radio/2023/feb/27/john-oliver-new-ai-programs-potential-peril.

Pham, S. T., & Sampson, P. M. (2022). The development of artificial intelligence in education: A review in context. Journal of Computer Assisted Learning, 38 (5), 1408-1421.

Ray, P. P. (2023). ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations, and future scope. Internet of Things and Cyber-Physical Systems, 3, 121-154. https://doi.org/10.1016/j.iotcps. 2023. 04. 003.

Sadeghi, A. & Ofoghi, N. (2011). The psychological factors affecting students' Creativity Inside the Class (CIC) (case study the University of Guilan, Iran). Procedia - Soc. Behav. Sci. 15, 263–270.

Sallam, M. (2023). ChatGPT utility in healthcare education, research, and practice: Systematic review on the promising perspectives and valid concerns. Healthcare, 11(6), 887. https://doi.org/10.3390/healthcare 11060887.

Sharples, M., & y Pérez, R. P. (2022). Story Machines: How Computers Have Become Creative Writers. Routledge.

Stokel-Walker C. (2022). AI bot ChatGPT writes smart essays—should professors worry? Nature. <a href="https://doi.org/10.1038/d41586-022-04397-7">https://doi.org/10.1038/d41586-022-04397-7</a>.

Tate, T., Doroudi, S., Ritchie, D., & Xu, Y. (2023). Educational Research and AI-Generated Writing: Confronting the Coming Tsunami. <a href="https://doi.org/10.35542/osf.io/4mec3">https://doi.org/10.35542/osf.io/4mec3</a>.

Warschauer, M., Tseng, W., Yim, S., Webster, T., Jacob, S., Du, Q, & Tate, T. (2023). The afordances and contradictions of Algenerated text for second language writers. https://doi.org/10.2139/ssrn.4404380.

Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. Education and Information Technologies. <a href="https://doi.org/10.1007/s10639-023-11742-4">https://doi.org/10.1007/s10639-023-11742-4</a>.

Yang, D., Zhou, Y., Zhang, Z., Li, T. J. J., & LC, R. (2022). AI as an Active Writer: Interaction strategies with generated text in human-AI collaborative fiction writing. In Joint Proceedings of the ACM IUI Workshops (Vol. 10).

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic Review of Research on Artificial Intelligence Applications in Higher Education—Where are the Educators? International Journal of Educational Technology in Higher Education, 16, 39.

Zhai, X. (2022). ChatGPT User Experience: Implications for Education. SSRN 4312418.

Zneit, R. S. A. Online Handwriting Signature Verification Based on Using Extreme Points Extraction. *Eng. Technol. Appl. Sci. Res.*, vol. 6, no. 4, pp. 1084–1088, 2016. <a href="https://doi.org/10.48084/etasr.694">https://doi.org/10.48084/etasr.694</a>.

Derechos de autor 2024 Aiswarya Balachandar, Ramasundaram Gurusamy



Esta obra está bajo una licencia internacional Creative Commons Atribución 4.0.