

Informal Learning Medium Among Gen Z Undergraduate Students

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Abstract

Many studies show the dominance of informal learning in various contexts including in higher education institutes. Informal learning, characterized by its unstructured and self-directed nature, plays a crucial role in the educational experiences, especially for Gen Z, a generation known for its technological fluency and preference for flexible learning approaches, increasingly relies on informal mediums such as social media platforms, online forums, and video-sharing sites for knowledge acquisition. These mediums not only complement formal education but also offer personalized and engaging ways to explore diverse topics. This study investigates the most commonly used informal learning mediums among Gen Z undergraduate students, the factors influencing their preferences, and the impact on their academic and personal development. Data was collected through surveys with undergraduate students who studied informal learning through Adult Learning subject at Universiti Teknologi Malaysia. Findings reveal a strong inclination towards visually interactive platforms and peer-to-peer learning environments, highlighting the need for educational institutions to recognize and integrate these mediums into broader learning frameworks. By understanding how Gen Z students leverage informal learning, this research provides insights for educators and policymakers to enhance student engagement and support lifelong learning in an increasingly digital world and also encourages the use of selective medium for informal learning.

Keywords: Informal learning, social media, Gen Z, undergraduates, higher education

Abstrak

Pelbagai kajian menunjukkan peranan penting pembelajaran tidak formal dalam pelbagai konteks, termasuk dalam institusi pengajian tinggi. Pembelajaran tidak formal—yang dicirikan oleh sifatnya yang tidak berstruktur dan bersifat sendiri—memberi impak besar terhadap pengalaman pembelajaran, khususnya dalam kalangan Generasi Z (Gen Z) yang dikenali dengan kemahiran teknologi serta kecenderungan terhadap pendekatan pembelajaran yang fleksibel dan diperibadikan. Pelajar Gen Z kini semakin bergantung kepada platform pembelajaran tidak formal seperti media sosial, forum dalam talian dan laman perkongsian video untuk memperoleh ilmu pengetahuan. Medium ini bukan sahaja melengkapi pendidikan formal, malah menawarkan pendekatan yang lebih menarik dan disesuaikan untuk meneroka pelbagai topik. Kajian ini meneliti medium pembelajaran tidak formal yang paling kerap digunakan dalam kalangan pelajar sarjana muda Gen Z, faktor yang mempengaruhi pemilihan mereka, serta impaknya terhadap perkembangan akademik dan peribadi. Data dikumpulkan melalui soal selidik yang dijalankan ke atas pelajar sarjana muda yang mengambil subjek Adult Learning di Universiti Teknologi Malaysia. Dapatan kajian menunjukkan kecenderungan tinggi terhadap platform interaktif secara visual dan persekitaran pembelajaran rakan sebaya. Penemuan ini menekankan keperluan institusi pendidikan tinggi untuk mengiktiraf dan mengintegrasikan medium ini dalam kerangka pembelajaran yang lebih luas. Dengan memahami cara pelajar Gen Z memanfaatkan pembelajaran tidak formal, kajian ini memberikan panduan berguna kepada para pendidik dan penggubal dasar dalam usaha meningkatkan keterlibatan pelajar, menyokong pembelajaran sepanjang hayat, serta menggalakkan penggunaan medium yang bersesuaian dalam era digital masa kini.

Kata kunci: Pembelajaran tidak formal, media sosial, Generasi Z, pelajar sarjana muda, pendidikan tinggi

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1.0 INTRODUCTION

Informal learning is now considered increasingly important both in the individual context and in the workplace. At the national level, the authorities should take advantage of this in providing education and awareness to the people, thereby improving the nation, by optimizing the medium that is widely used in informal learning. Scholars expect that informal learning will become an increasingly significant aspect of students' education and should be examined more meticulously (Decius et al., 2024; Barth et al., 2007; Jamieson, 2009; Peeters et al., 2014). The same is true at the workplace. In an organizational context, perhaps this can minimize training and save costs, as the 70-20-10 model highlights the dominance of informal learning (Clardy, 2018; Johnson, Blackman, Buick, 2018). Therefore, informal learning needs to be seen as fundamental, necessary, and valuable in its own right, at times directly relevant to employment (Coffield, 2000).

Father of Andragogy, Knowles (1950) started with the term ‘informal adult education’ where informal learning has happened by contacting experienced people informally. It has been rephrased and reframed by many scholars, while Berg and Chyung (2008) suggested informal learning as predominately unstructured, experiential, and non-institutional. Informal learning refers to everyday life experiences and through those experiences, individuals learn something (Merriam and Baumgartner, 2020). It enables individuals to develop themselves and have a positive impact on individuals (Marsick, 2009) as well as the interactions and actions of individuals in their lives (Abd. Hamid, 2018). Informal learning lets learners determine their path and begin within their comfort frame. Learners shall not feel stressed with other things such as a deadline for submission, a course outline that needs to be followed, and dealing with competitive classmates.

Informal learning can occur in two forms, with intention or without intention. Studies show that it happens a lot unintentionally and is expressed by Marsick and Watkins (1990) as incidental learning or unplanned learning, implicit learning (Eraut, 2004), and unsystematic learning (Khair, 2008). This is supported in the workplace (Cseh, Watkins, and Marsick, 1998), among professionals (Cheetham & Chivers, 2001), and in higher education (Decius, Dannowsky, and Schaper, 2024; Gramatakos and Lavau, 2019). Something that is learned through practice and the experiences gained are also counted as informal learning. It is a lifelong process that happens in silence (Decius et al., 2024, 2019, 2021) and is driven by the learner through deliberate actions such as experimenting, seeking feedback, and reflecting. Students are more motivated and better equipped to overcome challenges when liberated from traditional learning methods (Nur Ilianis Adnan et al., 2021; Al-Rahmi and Zeki (2017).

Kamis et al. (2005) studied informal learning in Malaysia. From 2262 respondents, Malaysian involved in informal learning through five activities namely; reading (85.3%), watching television (TV) (94%), contacting others (76%), listening to the radio (75.8%), and attending knowledge circle (*majlis ilmu*), as reading activity seems to concentrate around scope on religion. Mohamed Al-Sabaawi, Mohamed Dahlan, and Faisal Shehzad (2021) found the importance of social media among academic researchers in Universiti Teknologi Malaysia for intellectual exercise. Within 64 respondents, the platforms being used are Facebook (30.20%), YouTube (26.56%), Wikipedia (17.16%), LinkedIn (12.50%), others (5.76%), Blogs (4.18%) and Twitter (3.64%). Al-Aufi and Fulton (2015) also found that Facebook and YouTube as the most popular mediums among humanities and social sciences academicians in Ireland and Oman.

Although the study of informal learning in Malaysia by Kamis et al. (2005) is comprehensive throughout the country, at that time, social media was just about to develop all over the world and yet not popular. The study conducted on the role of social media in and outside the country did not consider TikTok, whereas now TikTok has such a large influence regardless of age and background. In July 2020, TikTok became the most downloaded app, establishing itself as a popular social networking platform where young users share videos ranging from 3 to 60 seconds (Nur Ilianis Adnan et al., 2021). Recently, the top five social media which ranked by the number of monthly active users are Facebook, YouTube, Instagram, WhatsApp, and TikTok (Statista, 2024). If previously Gen Z did not get a place in the referred literature, research should be done to focus on Gen Z in higher education institutions since, over the years ahead, Gen Z will account for more than a third of the global population, making it essential to understand and analyze their habits and consumption patterns (Cortés Quesada et al., 2023).

■ 2.0 LITERATURE REVIEW

2.1 Social Media As Mediums For Informal Learning Among Gen Z

Higher education now is moving together with technological advancement to blend with the needs and compatibility of the new generation by considering formal, informal, and virtual learning environments (Taib et al., 2020). The use of informal learning terms nowadays needs some adjustment and addition by injecting the element of technology to cope with the higher demand for ‘all information at their fingertips.’ Since Gen Z does well on visual content, social media has been chosen as one of the indispensable technologies for achieving the desired outcomes where (Balakrishnan et al., 2017; Aydin, 2012; Karvounidis, Chimos, Bersimis, & Douligeris, 2014; Mbatha, 2014; Roblyer, McDaniel, Webb, Herman, & Witty, 2010; Rogers-Estable, 2014) many higher education students rely on social media. Gen Z or Generation Z (born between 1997 to 2012) actively gain knowledge through social media like Instagram, Twitter, and YouTube (Rothkrantz, 2015; Serbanescu, 2022; Szymkowiak et al., 2021) whereas Olipas and Leona (2020) found that social media has a great impact to students’ learning. As a techno-savvy generation, they favor interactive and engaging learning experiences that allow for constant connection and social interaction enabled by advanced communication capabilities. They absorb information more efficiently through visuals such as images, infographics, videos, and interactive simulations. Also, as digital natives, they rely heavily on technological tools and instruments to play a significant role in their educational experience. They might feel overwhelmed and dull in situations where they have to deal with traditional text-heavy learning materials.

2.2 Factors Influencing Their Preferences And The Impact On Their Academic And Personal Development

This section explores some of the factors influencing their preferences identified in previous studies and makes additional points on the impact on their academic and personal development. The methodology, including sampling and survey, is significantly influenced by factors identified in the literature below.

2.2.1 Interactive Contents

Interactive content in any medium of informal learning is one of the key factors driving user engagement. Users especially Gen Z students are more likely to interact with entertainment and something that interests them instead of just attending a formal lecture class or reading a literature textbook. Interactive content can transform learning experiences into dynamic and collaborative participation where the content itself interacts with users or students to play games or even exchange ideas during forums. Furthermore, critical thinking was explored in designing an interactive learning environment (Song & Cai, 2024; Ismail et al., 2016). Students with high critical thinking abilities are more productive and able to analyze information, thus solving problems creatively.

2.2.2 *Easy to Focus*

Because of no strict rules or guidelines during the informal learning process, students were able to drive their motivation throughout the learning so that they can easily focus and timely completion is assured. Students can consider themselves in a comfortable environment and vigorously absorb information. By taking into account emerging technology news and insights (Azman et al., 2021; Hayes et al., 2020), students will not feel stressed or overwhelmed and easily blend in with the learning environment that uses short videos.

2.2.3 *Source of Info*

As an essential source of wisdom, informal learning addresses uncertainties and fills gaps in the learning experience, thus, it is interrelated with formal education. As informal learning relates to adolescence, it often happens unplanned and naturally where it derives new knowledge from everyday experiences. Social learning and sharing are good examples of an informal learning process, where people can get a lot of information during an informal session. Other than traditional ways to let informal learning happen, social media also plays a big role in becoming the primary source of information. It is crucial in educating, entertaining, and elevating users' knowledge.

2.2.4 *Receive Instant Feedback*

The adaptation and flexibility of learning needs are relatable to informal learning styles since it is not pragmatic, casual, and unstructured. What the students learned from their experiences can directly transfer into practice and provide instant feedback and quick solutions for their issues. Instant feedback, which is a crucial part of learning and improving, can help students ensure they are on the right track and appropriate for real-time solutions. But then, it still has a disadvantage where the instant feedback might not be rational or logical since it may lack explanations - depending on how it is delivered and received - or something caught on in an emotional. As (Ray & Singh, 2018) said, the millennial generation is essential to providing constructive feedback and recognition, and Gen Z is even more.

2.2.5 *Improve Understanding*

Since the dependency of informal learning is according to their own pace of learning and current level of understanding, students can adjust their comprehension level to make the learning journey more accessible and adaptable, whereby this improves learners' ability to communicate effectively, boosts their motivation, and strengthens their teamwork skills (Nadwa ZULKIFLI et al., 2022). Students who understand their preferred learning styles can accelerate their learning progress and make use of whatever resources they receive.

2.2.6 *Larger User Globally*

This kind of factor is effected on students who choose social media as their medium of informal learning. According to (Nadwa Zulkifli et al., 2022), as recorded in the Global Digital Report 2021, nearly 4.20 billion people worldwide are using social media and it continuously increasing yearly, whereby over 3 billion downloads around the world are recorded for TikTok applications and it becomes one of the global hit (Dean, 2022).

2.2.7 *Attention Span*

Even though technology helps a lot in improving the quality of life, it has limitations when it comes to adopting new changes in life practice. Practically, students can concentrate on doing things or focus on the subjects taught within the attention span. Furthermore, attention and memory skills are interconnected. The connection between attention and memory is complex and multifaceted (Cowan et al., 2025). The relationship between these two is dependent on the ability to focus and remember the knowledge or particular details received at that time and retrieve the information that is stored in the long-term memory brain. The reliance on technology particularly contributes to the shrinking of attention span. Rather than using their memory skills, students may rely more on their technological devices to save and recall information - for instance, when storing and retrieving their parents' phone numbers in their mobile phones. Moreover, some social media nowadays promote short reels and videos where the content is rapidly changing, and students can just keep on scrolling for their interest. It results in constant interruptions that reduce students' ability to focus.

■ 3.0 METHODOLOGY

This study adopts the approach of Kamis et al. (2005) to study informal learning in Malaysia. However, various social media are listed, and the respondent is allowed to choose a few choices. The respondents have been taught the concept of adult learning, and they were instructed to choose the significant medium that influenced them in person, including in the context of the learning process at university. The population of undergraduates who studied informal learning through Adult Learning subject in Universiti Teknologi Malaysia is around 330 plus. The questionnaire was given through WhatsApp, and we received 85 responses. Given the growing discussion around responsive research methods, we utilized WhatsApp as a platform for data collection. (Mwanda, 2022; Richardson et al., 2021) and used to get agile data.

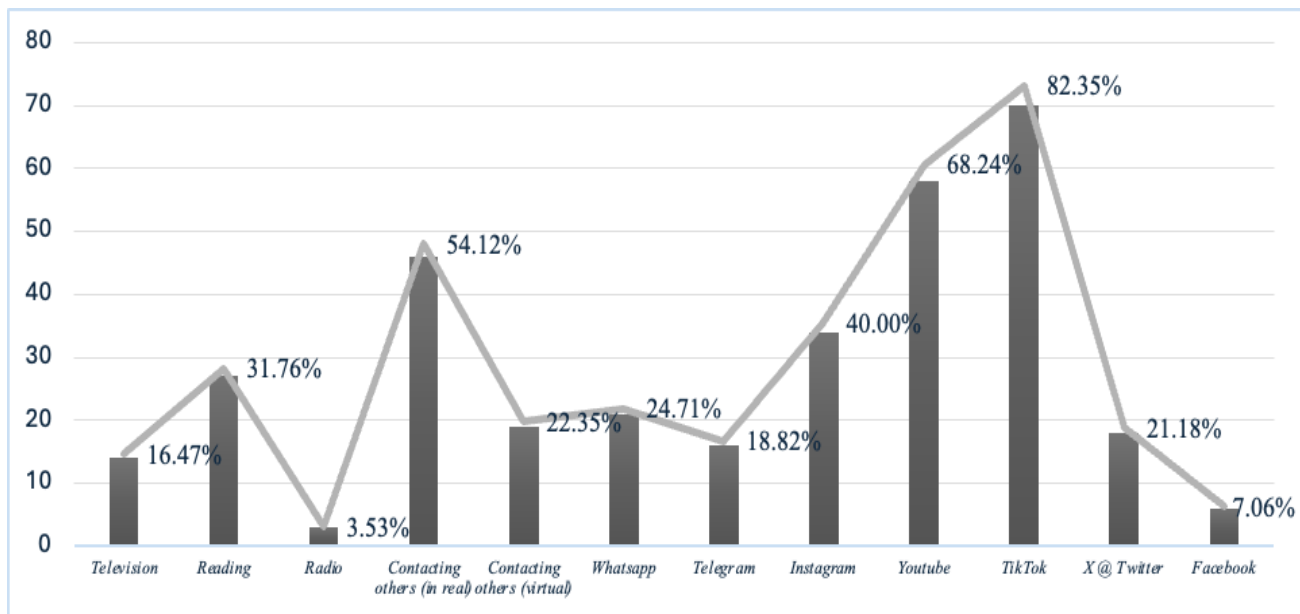
■ 4.0 RESULTS

The study shows that Gen Z undergraduates participate in informal learning through 12 media or methods as shown in Table 1 below.

Table 1 Medium of informal learning chosen by Gen Z undergraduates

Medium of informal learning	Frequency	Percentage (%)
Television	14	16.47
Reading	27	31.76
Radio	3	3.53
Contacting others (in real)	46	54.12
Contacting others (virtual)	19	22.35
WhatsApp	21	24.71
Telegram	16	18.82
Instagram	34	40.00
YouTube	58	68.24
TikTok	70	82.35
X @ Twitter	18	21.18
Facebook	6	7.06

The respondents voted for the survey that included several mediums of informal learning that they mostly learn through. The total of 85 respondents was deemed to be valid for analysis. TikTok and YouTube got the highest-voted (82.35%) and (68.24%), then followed by Contacting Others (in real) (54.12%), Instagram (40.00%), and Reading (31.76%).

**Figure 1** Rank of informal learning medium chosen by Gen Z undergraduates

It is clearer to refer to the bar chart in Figure 1 to see the rank of informal learning mediums chosen by Gen Z undergraduates, as below are the top five popular informal learning among them:

1. TikTok
2. YouTube
3. Contacting others (in real)
4. Instagram
5. Reading

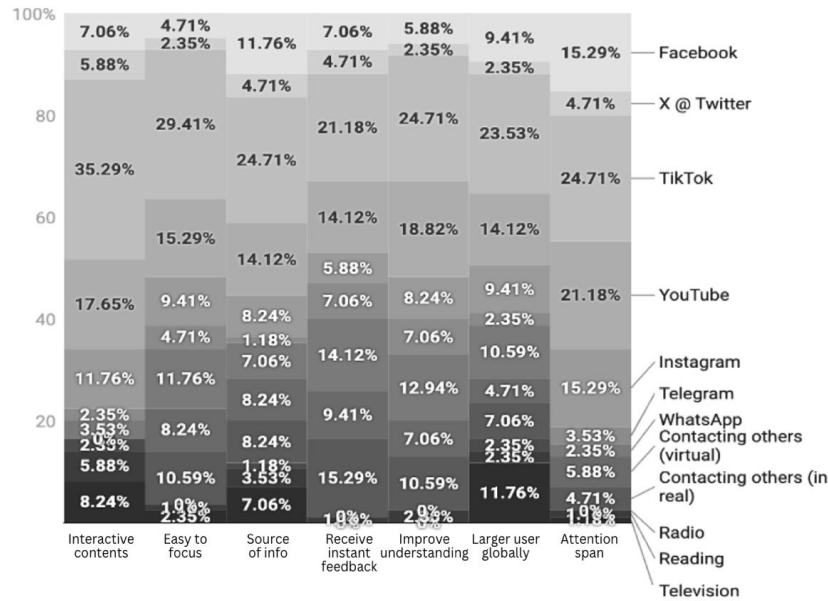


Figure 2 Factors influencing Gen Z informal medium preferences

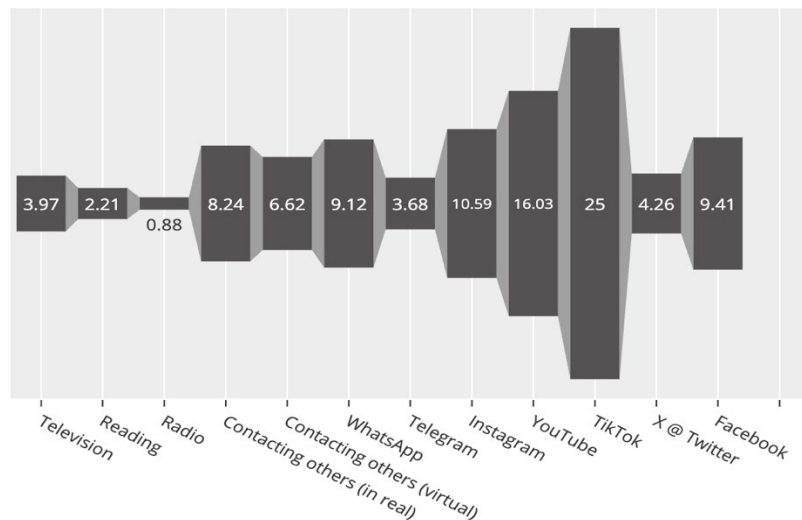


Figure 3 Factors influence rate (by percentage)

5.0 DISCUSSION AND RECOMMENDATION

TikTok and YouTube got the highest-voted (82.35%) and (68.24%). This is not surprising because these two mediums offer video and interactive content that attracts viewers to stay focused and is easy to learn, especially attracting Gen Z as they are one of the larger users (Dentsu Aegis Network, 2020). TikTok offers quick and short videos that have trend-driven interactions, while YouTube provides a platform for video or learning in-depth content. Most respondents also voted for Contacting Others (in real) (54.12%) as their choice of informal learning medium. From this type of medium, they can find solutions by getting a quick response from others, sharing, and discussing ideas for better understanding. Other than videos and interactive content that most wanted, respondents still voted for Reading as their medium for informal learning (31.76%), showing that books and reading materials are still relevant.

Further responses to the questionnaires found in Figure 2 and their factors influence rate calculated by percentage in Figure 3 indicate that the predominance of the respondents who voted for TikTok and YouTube agree that both platforms deliver videos with interactive content that keeps them engaged and makes learning more accessible and enjoyable. Most social media platforms are developed with strong algorithm mechanisms that can automatically detect user's preferences and interests. Users may interact and concentrate more on their interests, which may lead to a longer attention span. They also agree that TikTok and YouTube help them improve their understanding of certain issues, and the contents can be trusted. Meanwhile, students who favor Contacting Others (in real) for their preferences type of informal learning concur with direct communication, allowing learners to clarify doubts, receive instant feedback, and improve understanding. Almost 20% of the respondents agree that content from Reading is trusted, but due to the technological tides, they cannot have a longer attention span during reading.

Choosing social media as the preferred medium for informal learning can have significant impacts on student's academic and personal development, in both positive and negative ways. On the positive effects, these platforms help access diverse knowledge, which provides a wide variety of educational content, from academic tutorials to life hacks. It enables students to learn topics beyond the formal syllabus. The bite-sized content keeps students motivated, more focused, and interested in learning, which helps make hardcore subjects more accessible and easier to understand. Social media that provides a platform that allows users to create, share, and engage with content helps students develop skills and enhance their digital literacy and critical thinking. It also promotes flexibility in learning as the on-demand nature of these platforms allows students to learn at their own pace and convenience, where it can fit the education into their schedules. All interactive features in social media, like comments and reactions on the content with emojis or collaborations with other users, promote knowledge sharing and social learning where students use their conceptual model, promoting peer-to-peer education (Azman et al., 2021; Roderick, 2020).

On the negative impacts, the fast-paced content can lead to shallow understanding, as in-depth exploration of topics may be limited. According to a study conducted by Microsoft in 2015, the average human attention span reduced from 12 seconds to just 8 seconds. Humans with short attention spans may affect their focus when doing a task and can easily be distracted by many factors, compared to individuals who can focus for a longer time, allowing them for deeper comprehension and may increase their performance. Furthermore, entertainment content can also distract students from their educational goals, where students feel more excited when exploring social media for their excitement rather than studying. This can hinder academic performance, and the ability to acquire new knowledge may be limited. The lack of rules and regulations on publishing content may expose students to inaccurate or misleading information. Therefore, students should know how to filter and recognize the correct information when choosing social media as an instrument for their informal learning medium. High dependency on digital tools also makes students over-reliance on social media platforms, which might reduce students' engagement with traditional and structured learning resources. According to (Baskoro et al., 2023; Katoningsih & Sunaryo, 2020), the digital literacy of Gen Z does not guarantee proficiency in skill development, especially in critical thinking. Without having critical thinking skills, students may face problems in analyzing information and become vulnerable to being misled. Concerning social-emotional development, prolonged screen time could negatively impact students' well-being, including sleep disturbances, social skills, and even worse, may lead to anxiety and depression. According to (Devi & Singh, 2023; Twenge et al., 2018), there is a parallel connection in research between excessive screen time and the level of mental health issues (depression, anxiety, and other mood disorders). Screen time obsession also results in high numbers of obesity in children and adults (Robinson et al., 2017). Binge-eating, high-calorie and low-nutrient food taking while screen time leads to an unhealthy diet. The minimum movement and lack of physical activity because of spending hours scrolling on social media are also a factor in weight gain and obesity. Furthermore, screen content, including advertisements for unhealthy foods, significantly impacts food preferences and decisions.

6.0 CONCLUSION

In conclusion, social media especially TikTok, YouTube, and Instagram are very significant for respondents. Contacting others in real and reading are still not left behind as tools in informal learning. Future research needs more data with different sample and to explore their needs and preferences.

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Conflicts of Interest

The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper

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