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A Survey of Staff Engagement with GenAI Tools

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Abstract: The initial concern of the widespread engagement with Generative Artificial Intelligence (GenAI or GAI) was the threat that this technology posed to the academic integrity of student assessments in the 2022/23 year. However, nearly two years since the release of ChatGPT, this study investigates whether academics and staff now utilise GenAI for their work activity. The purpose of this study was twofold: 1) to investigate uptake of GenAI amongst staff, and 2) specifically the use of the Microsoft Copilot (was Bing Chat) which is preferred by the institution. Of the 108 academic staff who opened the internally circulated survey, 24 participants completed the survey, which consisted of five Likert scale questions, and replicated the questions circulated by Watermeyer and co-researchers in their 2023 study. This 2024 internal study of BNU staff found that some 71% have used a GenAI tool for work purposes in the 2023/24 academic year, which is consistent with findings from recent literature. Furthermore, this 2024 internal study found that 54% of colleagues have used ChatGPT within the past six months (first six months of 2024), whereas 21% of colleagues have used the Microsoft Copilot.

Keywords: Generative, GenAI, Artificial Intelligence, AI, Large Language Models, LLMs, ChatGPT, Higher Education, Academic Workload

Introduction

Artificial Intelligence (AI) is not a new phenomenon, however, the publication of OpenAI's ChatGPT in late 2022 (Vallance 2022) was quick to garner worldwide attention, reaching 1 million users in five days (Buchholz, 2023), 100 million users in two months (Milmo, 2023; UNESCO, 2023), and is estimated to have in the region of 180 million active users as of May 2024 (Duarte, 2024). The term 'Generative AI' (GenAI or GAI) has emerged from the application of the transformer architecture (Vaswani et al., 2017) to create Generative Pretrained Transformers (GPTs) which are applied in Large Language Models (LLMs). GenAI is defined as applications that produce output such as written text, programming code, audio, images, or video in response to a prompt (often a question). Popular applications such as ChatGPT, Microsoft's Copilot, Google's Gemini and others, quickly grew in popularity amongst students for their perceived usefulness in answering assignment questions (Folkes, 2023).

Some education providers were quick to publish guidelines that specify how students should 'appropriately' use such GenAI tools with their assessments. Although, a review has found little consistency between approaches taken by institutions and also perceived usefulness to students and academics alike (Lukes et al. 2023). Furthermore, in a survey of over 2000 academic researchers

worldwide, nearly half (46%) have reported that their institution does not specify the same level of guidance on using AI for research and scholarship activity (Oxford University Press, 2024).

Whilst the immediate response was to prevent the threat to the integrity of student assessment for the end of the 2022/23 academic year, the longer-term integration of GenAI into every day practice presents a different set of questions. This research intends to investigate whether academic staff themselves use this technology and engage with the institutionally endorsed tool Microsoft Copilot (was Bing AI at the time of subscription in December 2023).

Research Questions

The scope and design of the study will be aligned to the following two Research Questions (RQs):

- RQ1: What percentage of BNU staff members use GenAI for work activity?
- RQ2: To what extent do BNU staff members utilise Microsoft Copilot?

Related Work

Watermeyer and colleagues (2023) conducted a national survey in June 2023, and of the 284 UK academics who responded (most full-time employees from pre-1992 universities), just over half of those surveyed stated that they used GAI (GenAI) tools for work-related purposes. However, over 70% of those who responded stated that GAI tools are affecting how they work, and 83% anticipated that they would use GAI tools more in the future. Even within specialist interest computing and computer science groups, Prather and co-researchers (2023) found from its 57 instructors (77% self-identified as men, representing western countries such as USA 45%, UK 17% and Canada 8%) that only 23% use GenAI regularly for programming code, 32% regularly GenAI tools when working with text (emails, reports, summaries) use 70% thought University policy on GenAI was unclear. However, like the study conducted by Watermeyer and colleagues (2023), 68% of instructors thought that they would use GenAI more in the future for teaching activities.

Similarly, a worldwide survey of 784 academics conducted between June and July 2023 by the Gruyter found that 71% are 'familiar' or 'quite familiar' with the tool ChatGPT (Abbas et al. 2023). However, they found that just 10% academics use the tool weekly, and just 4% use the tool daily, and whilst a high percentage were familiar with the tool in 2023, nearly 40% (39%) never use ChatGPT.

An August 2023 survey of over 200 UK university senior managers revealed that nearly 40% thought the use of AI in HE was unethical and should not be allowed due to fears of cheating and plagiarism (Anthology, 2023, p.4). Although nearly 40% of the same sample also thought that GAI could provide personalised learning experiences, as well as enhance student engagement and interactivity.

Oxford University Press (2024) conducted a global survey of over 2000 academic researchers in March 2024 (46% from the USA, 17% from Europe, 11% from the UK and 9% from Asia), and across a variety of subject disciplines (humanities: 40%, social sciences: 32%, science and mathematics: 17%, medicine and health: 11%, engineering and technology: 6%). Over three quarters (76%) have used a GenAI tool to aid their research practice.

Method

Due to the poor generalisability of education research, this study sought to replicate survey questions from other studies investigating GenAI use at HEIs (Anthology, 2023; Prather et al. 2023; Watermayer et al. 2023). The survey deployed by Prather and computing colleagues (2023) utilises closed questions on a five-point Likert scale (from strongly disagree to strongly agree, with neutral in the middle). Watermayer and co-researchers (2023) deployed a small survey of three closed questions on three category scale of (Yes/No/Unsure). Both surveys shared questions on current usage of GenAI, and the expectation of future use.

The survey for this study was devised to contain five 'closed' questions - Watermeyer and colleagues' three questions (Q2, Q3 and Q4), and two BNU specific questions. National and international surveys (Anthology, 2023; Prather et al., 2023; Watermeyer et al., 2023) have reported demographic data and subject discipline representation in their results. However, internal discussions at BNU on this study deemed that this level of specificity would be risk being able to identify colleagues. Therefore, it was agreed that it would be appropriate to differentiate between broader classifications of staff (Professional Service Employee, Academic, and Management), which would become Q1. Finally, Q5 directly asks staff whether they have engaged with Microsoft Copilot / Bing AI, to collect data in response to RQ2.

At the end of April 2024, an article was published on BNU's internal employee network (BEN) which outlined information pertaining to the study and contained the link to the online survey. All staff from BNU's three campus' have access to BEN, and engagement with the article and survey was voluntary and self-selecting. All colleagues at BNU have a Microsoft 365 account and were required to log in to the complete the survey on BNU's SharePoint server as a Microsoft Form. It was made clear to colleagues in the information sheet that only the principal researcher (Nicholas Day, the author of this paper) would have access to the names of participants who completed the survey, and no names would be published in any subsequent reporting.

Analysis

The link to the online survey, alongside information on the study, was posted on BNU's Bucks Employee Network (BEN) on 30th April 2024, and the remained open until 10th May 2024. The BEN article received 108 views, and 24 participants completed the online survey.

Question 1 (Q1) asked participants to *"Please indicate which category best describes your employment at BNU"* and Figure 1 below reveals the representation of BNU staff roles in this survey. The largest population of university staff represented in the sample are Professional Service Employees (PSE) – 58% of the sample. Academics represented 38% of the sample and Management, the remaining 4% of the sample. The low representation of the Management category may be a result of unclear selection criteria. For example, those employed under academic contracts and hold an academic title (e.g. Associate Professor), who also direct, lead and influence teams of lecturers and teaching fellows. There is a likely to be a clearer distinction between PSE and Academic contracts, but it is acknowledged that the survey could have specified clearer guidelines around leadership roles for academics who also undertake management responsibility.

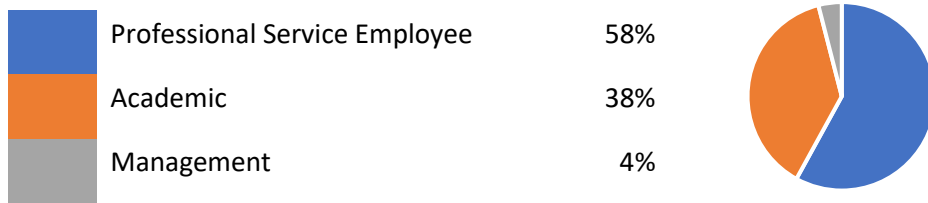


Figure 1. The results of Question 1 regarding staff employment at BNU.

Question 2 (Q2) replicated Question 1 from Watermeyer and colleagues’ (2023) survey: “Do you use generative AI tools (for example Bing Chat or ChatGPT) for work-related purposes?”. Participant responses revealed that most BNU staff (71%) have used GenAI for work-related activity. Other studies (Abbas et al. 2023) did differentiate between daily, weekly and monthly use of GenAI tools, for which repeated and frequent usage is different from a one-time use of GenAI. However, this survey was focused on ascertaining whether staff are still engaged with GenAI tools nearly two years on from the initial interest in LLMs; of which, results indicate that most are still engaged with the technology.

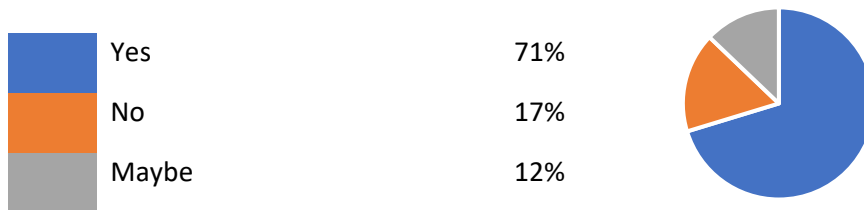


Figure 2. The results of Question 2 regarding use of GenAI for work purposes.

For comparison, Figure 3 below shows Watermeyer and colleagues’ survey of 284 academics across the UK in June 2023, in which only half of colleagues (51.5%) were using GenAI tools at the time, some six months after the release of ChatGPT in December 2022. Almost a year on from June 2023, 71% of BNU staff had used GenAI in this May 2024 survey. Of the academic sample represented in this survey, 89% of academics had used GenAI, and the remaining 11% were unsure. The increased majority of academics could be the result of policy guidance produced by universities for the 2023/24 academic year, which may not have been in place during the 2022/23 year (Oxford University Press, 2024; QAA, 2023). Afterall, it was reported that some universities were slow to provide effective guidance (if at all) by the end of the 2022/23 academic year (Lukes et al., 2023; McDonald et al. 2024). Furthermore, it needs to be recognised that due to the self-selecting nature of this survey, those interested in GenAI may have been more likely to engage with survey and contribute their usage patterns.

Question	Response	Percent (%)
Do you use generative AI tools (like ChatGPT) for work-related purposes?	Yes	51.5
	No	47.7
	Unsure	0.8

Figure 3. The results of Question 1 from Watermeyer et al (2023).

Results of Question 3 (Q3), which replicate Question 2 of Watermeyer and colleagues' 2023 study: "Are generative AI tools (like Bing Chat or ChatGPT) changing how you work?", revealed that more than half of BNU staff said 'yes' (54%), with nearly 21% being more cautious with 'maybe' and a quarter (25%) saying no.

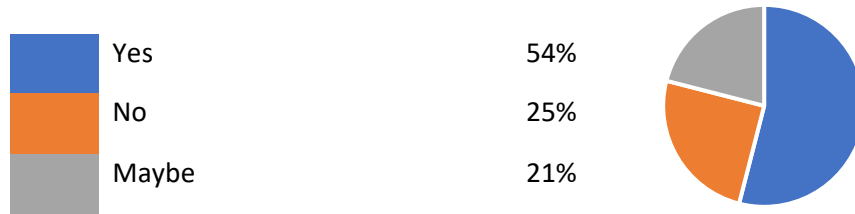


Figure 4. The results of Question 3 regarding the impact of GenAI on work.

As Figure 5 below shows, Watermeyer's original question did not include a 'maybe' response - participants had to choose either 'yes' or 'no'. In retrospect, strict adherence to the exact responses would have been preferred for a direct comparison. Nevertheless, Watermeyer and co-researchers' results show that roughly a quarter of the population in June 2023 thought GenAI would not affect their work, which is comparable with BNU staff feeling in May 2024. Of the academic sample represented in this 2024 study, 66% thought 'yes', 11% thought 'no', and 23% were not sure, speculating 'maybe'. The introduction of the 'maybe' category in this 2024 study indicates that some are not yet convinced whether it will or not. However, a year on from June 2023, despite the differing categories, it would appear that staff are less convinced that GenAI will change their role. Indeed the 'maybe' and 'no' populations sum to 46% of the sample. Nearly two years, staff are more likely to have a realistic and 'grounded' understanding of these models – aware of what they can do well, but also their limitations and where they are not helpful.

Are generative AI tools (like ChatGPT) changing how you work?	Yes	72.3
	No	27.7

Figure 5. The results of Question 2 from Watermeyer et al (2023).

The results for Question 4 (Q4), which replicated Watermeyer and colleagues' Question 3: "Do you anticipate using generative AI tools (like Bing Chat or ChatGPT) more or less in the future?" show that most (79%) BNU staff expect to use GenAI tools more in the future. This distribution was almost identical amongst the sample of academic colleagues – 77% agreed with the proposition that they would use GenAI tools more in future compared to 23% who did not think that their usage pattern would change.

Despite Question 3 indicating that fewer staff think that GenAI will impact the way they work, the results of Question 4 show that they do envisage that they will make more use of tools in the future.

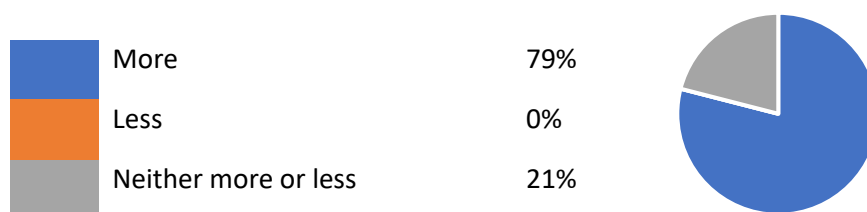


Figure 6. The results of Question 4 concerning the anticipated future use of GenAI.

Furthermore, these 2024 results are broadly equivalent to the findings of Watermayer and colleagues in 2023, as shown in Figure 7 below. A slight reduction in the ‘more’ category, and a slight increase in the ‘neither more or less’ (essentially ‘the same’ pattern of usage). This may be a result of realistic expectations of the technology as discussed previously.

Do you anticipate using generative AI tools (like ChatGPT) more or less in the future?	More	83.2
	Less	0.4
	Neither more or less	16.4

Figure 7. The results of Question 3 (anticipated future use of GenAI) from Watermayer et al (2023).

Finally, the results of Question 5: *“Please select the GenAI tool that you have engaged with most frequently over the past six months (for work activity)”* reveal that ChatGPT was the most widely used tool amongst BNU staff. In response to RQ2, this question reveals that roughly one fifth of the survey population indicated that they had used Bing AI (now known as Copilot). BNU directed staff to use Bing AI in December 2023, and therefore this is helpful evidence to quantify usage trends six months on. Whilst this survey did not attempt capture the reasons why staff prefer a given GenAI tool, at least it tells us that further work is required to convince staff to use Copilot over ChatGPT, if indeed BNU is to continue with their endorsement of the tool.

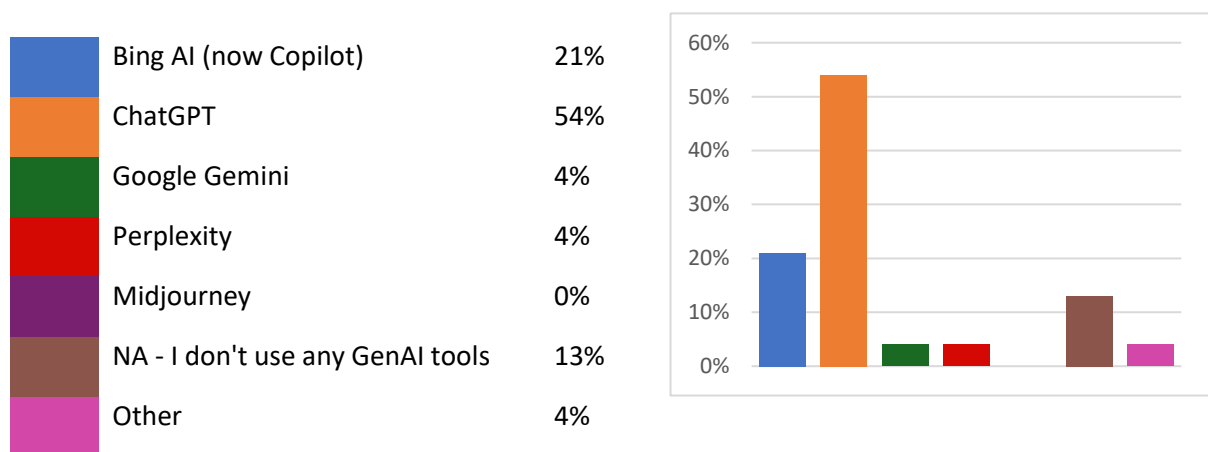


Figure 7. The results of Question 5 showing the most used GenAI tools in 2024.

Threat to Validity

Whilst this survey would have benefited from a greater response rate, communications associated with this research needed to be sensitive to the wide range of views regarding AI. The results of this study are of interest to the University Executive Team (UET) for informing their digital strategy and research-informed teaching strategy, as well as the uptake of their endorsed GenAI tool (Microsoft Copilot).

An option was considered which involved a UET endorsement of the study, which would involve an email being sent directly to colleagues, promoting the link to the article on BEN. This would have likely led to more views, and perhaps more completions. However, this would have changed the tone of the study, and the subtext regarding the reason for undertaking the survey.

In hindsight, it may have been tempting to take that risk, to boost engagement with the survey and more completions. Nevertheless, it is encouraging that the results are broadly aligned with the findings in the literature.

Conclusion

Nearly two years on from the publication of ChatGPT, it appears that the novelty of using GenAI has not worn off. This research study has found that most (71%) BNU staff sampled have used GenAI tools for work activity over the first six months of 2024. Furthermore, it was found that ChatGPT is the most commonly used GenAI tool (54%) amongst staff, compared with the 21% that use Microsoft Copilot. It would therefore be wise to regularly remind colleagues to not input sensitive data into ChatGPT.

Future Recommendations

Whilst it would be beneficial to continue to monitor usage trends of GenAI in academia, there is a body of evidence showing that GenAI continues to be used in the present by most stakeholders of most industries. With no sign of slowing down, the emphasis in academia may well move from simply policing how students use AI to integration of these tools into the curriculum, assessments and teaching sessions. Given that most industries outside of academia are also adopting AI for some activity, it is likely that the job skills of tomorrow will involve safe and productive use of GenAI tools. Furthermore, for student assessment to be authentic, it will have to keep up with how GenAI tools are used in industry. Therefore, in order for academics and staff to teach the job skills of tomorrow, they will first have to develop their own experience of GenAI so they are able to pass this on to their students. Future research should consider how academics can best upskill with this technology and integrate this in their work, so to demonstrate best practice to the students. Future research should also survey how industry best uses AI, and how academia can teach and assess these new skills through their curriculums.

Author Declaration and Acknowledgement

Given the concern regarding authorship and integrity, I, Nicholas Day, confirm that I have typed the entirety of this content with my own fingers. GenAI tools have not contributed content to this paper. As the context of this paper concerns human utilisation of artificial intelligence tools for educational purposes, I thought it was important that my own domain knowledge of the context at BNU, and research experience prevailed in the design, approach and writing of this project.

Furthermore, thanks are extended to BNU's Impact Centre for Enhancement of Environment and Innovation for granting research funding to support this project. The design of this project has been discussed extensively by BNU's ethics committee, and senior colleagues who represent the interests of University Colleagues Union (UCU) the University Executive Team (UET) have been consulted and have worked with me on the messaging that is presented to colleagues.

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