

Between Tradition and Innovation: How Gender and Age Shape Faculty's Conceptualization of Social Media in Academia

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ABSTRACT:

Both gender and age are now considered to be factors that influence the views and use of social media tools within teaching, professional development and academic tasks of educators in higher education. The purpose of this quantitative study is to describe the patterns of such faculty who teach in English-medium higher education programs, within the context of the Unified Theory of Acceptance and Use of Technology (UTAUT). Independent-samples t-tests and one-way ANOVA were used to compare differences between the four themes of use—in professional uses, social uses, academic uses and resources access, educational effectiveness and engagement, and information reliability. The professional and social usage of social media was higher among the male than the female faculty members as well as among the younger faculty members, and perceived educational effectiveness was higher with age than gender, expectations being the highest among younger faculty. Particularly female faculty and younger faculty were slightly more likely to rely on the information shared on social media. The results indicate that ICT knowledge and educational qualifications were positively correlated with technology proficiency and there was no independent relationship between gender and technology proficiency, or between age and technology proficiency. Because the sample was a large, geographically uneven convenience sample rather than a probability sample, these patterns should be read as exploratory rather than as national estimates. These results indicate that there

is not likely to be a single pathway to successful technology integration that will work for everyone in the faculty community, but that there will be differentiated professional learning opportunities that will meet the needs of senior faculty, junior faculty, female faculty, and male faculty.

Keywords: social media, faculty perceptions, gender, age-based analysis, UTAUT model, barriers.

Introduction

The changes in formal and informal education as a result of the use of social media platforms like Facebook, Twitter, Instagram, WhatsApp, YouTube and LinkedIn brings the teaching-learning process outside the classroom boundaries (Demeke, 2024; Perez et al., 2023). Nowadays, even most higher education institutions rely on these tools for administrative and managerial tasks and teaching (Xie & Correia, 2024). Social media can also facilitate inquiry-based, collaborative learning, and explores the capability to foster communities of practice and share academic content (Sabah, 2023; Büchi et al., 2023). This change has been expedited by the COVID-19 pandemic, which has made the use of such soft communicative tools the norm (Acuyo, 2022), and these have been linked to the quality of the overall learning environment (Sabah, 2023). Yet faculty experience many constraints: limited institutional support, protection of student privacy, concerns about misinformation, and potential for digital distraction all create challenges to integration and faculty needs specific CPD training to balance social media use with academic objectives (Acuyo, 2022; Ali et al., 2023).

Not all faculty members are adopting social media tools equally. Older faculty members also appear to be more hesitant than their younger counterparts to include social media into their instructional methods (Taher, 2023) and age appears to be the permitting variable; an educator's gender also significantly shapes attitudes toward misinformation and data privacy, with females more concerned than males (Alenezi, 2023). Such differences relate to the self-efficacy that faculty who were more confident in their ICT skills were more likely to

embrace the use of social media (Ajibade & Zaidi, 2023). Other factors, such as technology acceptance, workloads and institutional policies, make integration more complex. Taken together, these patterns inspire a systematic and demographically disaggregated examination of the influence of gender and age on faculty perceptions of social media in higher education.

Conceptual Framework

The Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003) is a theory that draws upon eight prior models of technology adoption including Davis's (1989) Technology Acceptance Model (TAM). The model is based on four constructs. Performance expectancy deals with the certainty that a technology will enhance job performance, including student participation or learning (Venkatesh et al., 2003). Effort expectancy is the ease of use, and accounts for why some faculty incorporate social media into their teaching more readily than others. Social influence refers to the influence of peers, colleagues and administrators on adoption decisions (Marín et al., 2023); facilitating conditions refer to the role of infrastructure, resources and institutional support. The effective measures of these constructs illuminate both external and personal factors influencing technology adoption (Akinoso, 2023).

The other two models that were considered were TAM and TAM2; however, UTAUT was chosen to use because it allows the examination of accommodators like gender and age in an explicit manner, which is key to this study's objectives. Although TAM is important, it does not provide much consideration of social and facilitating factors and the majority of the UTAUT2 applications are delivered at the student level and

not the faculty level. The present model extends the UTAUT with the four constructs as drivers of four faculty centred outcomes, where gender and age are seen as demographic correlates to differential adoption rates and ICT knowledge qualification and status of employment are used as proxies for facilitating factors rather than directly used as indicators of the construct.

Purpose, Research Questions, and Research Gap

This study investigates how faculty perceptions, usage patterns, and barriers to social media integration vary by gender and age group, addressing two research questions:

- (1) How do faculty perceptions and usage of social media differ by gender and age group?
- (2) What barriers do faculty face in integrating social media into their educational practices, and how do these barriers vary by gender and age? Here, barriers are operationalized primarily as lower scores on the Information Reliability and Educational Effectiveness themes, rather than measured through a separate, dedicated barriers scale.

Two corresponding objectives guide the analysis:

1. To quantify demographic differences in perceived adoption, educational value, and engagement using the four UTAUT constructs
2. To identify how privacy concerns, misinformation, and digital-literacy gaps differentially affect male versus female and younger versus older faculty.

While there has been a significant amount of research on the significance of social media in higher education, the bulk has focused on one level of the student body and/or over one moderator (gender or age) rather than jointly exploring their interactions. The use of UTAUT in a faculty environment rather than a business or student environment is still in its infancy, especially when these issues are addressed on a disaggregate basis with respect to demographics. This is done by surveying 1,547 faculty members from 44 countries, which fills these gaps and provides empirically informed knowledge of the

current gender and age divide in adoptions and adoption-related obstacles in academia and has practical implications for developing differentiated professional development programs and initiatives instead of a one-size-fits-all institutional policy.

Literature Review

Use of social media platforms has been a growing trend for disseminating information, engaging with community, and facilitating collaborative learning within higher education institutes, but as variance in use among faculty members by age, gender, and social context, access to information demonstrating all such functions has also varied (Perez et al., 2023; Alam & Mohanty, 2023). Social media sites like Instagram, Facebook, LinkedIn, and YouTube enhance communication and enable students to collaborate and add content and parts together to create a joint project (Bayona & Durán, 2024; Nan Censka et al., 2024). With this potential, certain institutions have developed formal programs around it: Universities have set up virtual social networks events through LinkedIn to facilitate their job placement trainings (Shafiq & Parveen, 2023), one documented example illustrates how a university utilized Twitter to successfully increase student participation and engagement for a classroom project (McLaughlin & Sillence, 2023).

Gender disparity exists with regard to technology adoption as well. However, several studies indicate that women tend to have a more “muted” approach to new educational technologies than men while this is not related to their technical skills but to socialization and traditional gender roles of women (Mukul & Büyüközkan, 2023; Brailovskaia et al., 2023). Brailovskaia et al. (2023) link men's heightened fear of missing out to greater social media engagement, an effect the authors attribute to general openness toward new technology rather than technical skill. The same can be said about the age differences where younger faculty members are more apt to seeing social media as an appropriate tool for dynamic, engaging pedagogy, but older faculty members tend to see

social media as disruptive or ill-suited to their dynamic pedagogy, consistent with a general generational difference between adopting technology for teaching and learning (Alam & Mohanty, 2023).

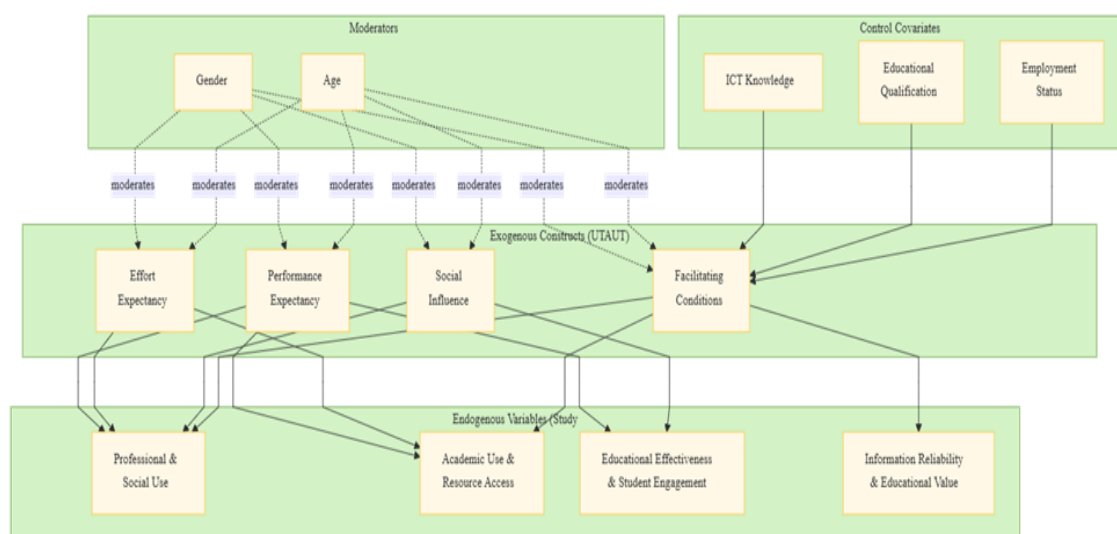
Disconnects in the integration process emerge with respect to both demographic factors. Along with other concerns related to privacy and data security, the lack of time is a major challenge for both faculty and students (Alam & Mohanty, 2023), especially considering faculty with multiple roles and responsibilities (Ali et al., 2023). Structured professional preparation, institutional support for professional preparation may remedy some problems that older faculty have with the skills needed to make use of the digital environment. Featuring heightened anxiety over online harassment and worry about personal data being obtained through social platforms, women, more than men, report that such issues limit their ability to engage and collaborate professionally online (Afzal et al., 2023).

Studies of these adoption models in the post-secondary education context continue to refine UTAUT and TAM perspectives on technology adoption. Liu et al. (2026) have modified the TAM to have an active-use construct to describe the process by which university teachers in Shanghai adopt and accept technology and its

impact on actual knowledge sharing behavior, suggesting that behavioral intent and active adherence are more important than ease of use in a digitally maturing environment. The study by Younas et al. (2026) also included digital literacy and privacy as constructs for new determinants to extend the UTAUT2, resulting in performance expectancy being the most significant determinant in the behavioral intention. Knowledge sharing behavior and active learning environments with technology enhance were found to be moderated by gender with a direct effect on TPACK and technology beliefs for the pre-service teachers (Zeng et al., 2025) similarly found that technology beliefs and TPACK for pre-service teachers from the Asia-Pacific region differed in terms of active learning environments with technology (Zhang et al., 2025) had a direct effect. These recent results support the current research's impetus to include gender and age as related but distinct factors impacting on social media adoption by faculty.

Perceived utility, institutional context, and demographic background combine to affect faculty's use of social media for professional development, communication, and academic life, suggesting the need for a study which allows them to be considered together rather than separately.

Figure 1. Conceptual Model: UTAUT Constructs, Demographic Moderators, and Study Outcomes



Gender and age moderate the relationships between UTAUT's exogenous constructs (Effort Expectancy, Performance Expectancy, Social Influence, Facilitating Conditions) and the four study outcomes; ICT Knowledge, Educational Qualification, and Employment Status serve as control covariates and proxies for facilitating conditions.

Methodology

Research Design.

A cross-sectional survey design was used in this study to collect the perceptions and patterns of social media usage among the faculty as one point in time. UTAUT was used as a theoretical framework and needs to be complemented by measurement scales that are psychometrically validated between the constructs of UTAUT: The 12-item instrument comprehensively encompasses behaviors and perceptions that are theoretically congruent with UTAUT's constructs, while performance expectancy, effort expectancy, social influence, and facilitating conditions were not measured with psychometrically validated UTAUT scales. Effort expectancy and facilitating conditions are mostly measured indirectly at the level of demographic proxies (ICT knowledge, employment status, qualifications) instead of using specific items as in Q1–Q10 deal with performance expectancy and social influence. The proposed approach adopted the perspectives of the UTAUT, allowing for broad reach across nations and also leaving room for confirmatory studies which employ psychometrically validated UTAUT measures (Al-Adwan et al., 2023; Kittinger & Law, 2024).

Sampling

1,547 higher education faculty from across 44 countries were recruited through convenience and snowball sampling and reached via professional networks, social media (Facebook, LinkedIn, WhatsApp) between January 2023 and June 2024. Higher education teachers who taught in English-medium programs in any field, not necessarily English-language programs, were eligible for the study, and it was not required that their university be located in an English-speaking

country. The selection of this definition was made because the problems of adoption will not be limited to a particular discipline and English medium instruction ensures the language uniformity needed to be able to compare different situations across nations. Recruitment covered a range of disciplines and institution types; because digitally active faculty were more likely to encounter and complete an online survey than less active faculty, self-selection biased the sample toward digitally engaged respondents. Consequently, results should be interpreted with respect to this group of digitally engaged faculty rather than faculty as a whole. As an Open, Multi-Platform distribution method, no Response rate could be calculated.

The realized sample was 53.5% male, 46.2% female, and 0.3% undisclosed, with qualifications spanning PhD (19.3%), Master's (47.6%), and Bachelor's (33.1%) (Table 1). The country distribution was highly uneven, with 11 countries contributing just one respondent, 23 contributing fewer than 10, and five countries accounting for 55% of respondents — a product of convenience-sampling reach through the recruitment channels used, not of deliberate stratification.

Instrumentation

All items were rated on a 5-point scale; the items referring to use were rated on a frequency scale (Never to Always); the perception items (Q5–Q12) were rated on an agreement scale (Strongly Disagree to Strongly Agree). One item ("social media has a negative effect on student learning") was reverse coded prior to composite scoring to ensure that higher scores indicated a more positive perception. All the constituent items were averaged to composite scores on 4 themes: Professional and Social Use (Q1 – Q3, range 3 – 15), Academic Use and Resource Access (Q4 – Q6, range 3 – 15); Educational Effectiveness and Engagement (Q7 – Q10, range 4 – 20); Information Reliability and Educational Value (Q11 – Q12, range 2 – 10). The data was collected using a required-response design, meaning that there were no missing data. An initial release/experimental test in 30 faculties across a

sample of 15 countries was conducted to further fine-tune words and to verify objectiveness at this level before full implementation.

There were significant differences in reliability between themes. The results indicated good internal consistency for Academic Use and Resource Access ($\alpha = 0.885$), and generally low internal consistency scores for all other subscales: Professional and Social Use ($\alpha = 0.341$), Educational Effectiveness and Engagement ($\alpha = 0.143$), and Information Reliability and Educational Value ($\alpha = 0.349$). The composition of such constructs is formative, and does not satisfy the criteria of fidelity to a single underlying construct as specified by Cronbach's alpha, as items relate to different facets of the same construct (for example, different items measure different aspects of Educational Effectiveness, that is, engagement beliefs, perceived negative effects, group benefits, and teacher–student interaction). The utility of construct was instead supported by the positive item-total correlations (ranging from .18 to .64, all were positive), through bootstrap resampling of 1,000 iterations that also showed the stability of group-mean differences, and for the two-item Information Reliability construct specifically, by an inter-item correlation of $r = .21$ ($p < .001$) and a spearman-brown coefficient of .35, which were both within modest values of acceptable cohesion for a two-item formative scale (Eisinga et al., 2013). Thus, results from the lower alpha constructs are considered patterns, ones that help to formulate new hypotheses, but not as validated facts about the psyche; results from the high-reliability construct of Academic Use seem to validate the more confirmative statements.

Data Analysis

Demographic traits and overall adoption tendencies were described. Four themes were analysed using independent-samples t-tests for gender and one-way ANOVA for age-group distribution and post hoc Tukey HSD test for

comparisons within each group on the same theme. Pearson correlations were used to explore the relationship among ICT knowledge, qualifications and employment, and ICT adoption. Gender and age were analysed independently as univariate tests (i.e. without using factorial tests); this design choice reflects the study's focus on testing each demographic factor against its own independent hypothesis, with joint factorial or interaction testing intentionally left to a planned confirmatory follow-up study, a decision discussed further as an acknowledged limitation below.

The scores were judged for normality using skewness scores (range from -0.84 to 0.52 in typical limits) and Q-Q plots, and the behaviour of these large samples ($N = 1,547$) was found to be acceptable for parametric test under the central limit theorem, which states that for sample sizes > 30 , scores tend to be normally distributed, even when they aren't originally. All comparisons were done assuming homogeneity of variance except for Professional and Social Use and Information Reliability where Levene's test showed they were heteroscedastic and were replaced by Welch-corrected t-tests and Games-Howell post hoc tests. Due to eight tests conducted (four themes $\times$ two demographic factors), a Bonferroni-adjusted threshold of $\alpha = .006$ was also applied as a conservative check; only Information Reliability and Educational Value (gender $p = .046$; age $p = .024$) missed this stricter threshold, and these results should be interpreted with caution (Cheung et al., 2023). Effect sizes are reported as Cohen's d for t-tests and partial eta-squared (η^2) for ANOVA, following conventional small/medium/large benchmarks of $0.20/0.50/0.80$ and $0.01/0.06/0.14$ respectively (Cohen, 1988). With this sample size, statistical power exceeds .99 even for small effects, so effect-size magnitude is emphasized over p-values throughout the Results.

Results

Table 1. Demographic Profile of Respondents (N = 1,547)

Variable	Category	n	%
Gender	Male	827	53.5
	Female	715	46.2
	Prefer not to say	5	0.3
Age group	21–25 years	75	4.7
	26–30 years	231	14.7
	31–40 years	500	31.7
	41–50 years	494	31.4
	51–60 years	223	14.1
	61 years or above	53	3.4
Highest qualification	Bachelor's degree	512	33.1
	Master's degree	736	47.6
	PhD	299	19.3
Employment status	Full-time	1,120	72.4
	Part-time	319	20.6
	Online/remote	108	7.0
Nationality (top 10 of 44)	Egyptian	332	21.1
	Pakistani	150	9.5
	Iranian	141	8.9
	British	130	8.2
	Tunisian	117	7.4
	American	73	4.6
	Canadian	70	4.4
	Indian	64	4.1
	Sudanese	56	3.6
	Saudi	33	2.1
	Remaining 34 nationalities (combined)	381	24.6

All 44 nationalities are listed, and a detailed country-by-country analysis is on request. Volunteering respondents was less of intentional sampling strategy and more of a convenience sampling, as 23 of the 44 countries gave less

than 10 respondents, while the top 5 countries account for 55% of the sample.

There was adequate variation in item-level responses and no significant response extreme bias. Most positive perceptions were towards

social media's support to academic advancement (Q5 mean = 4.22 SD = 0.74) and student engagement (Q7 mean = 4.15 SD = 0.75); whereas most negative perceptions were towards the negative effects of social media on learning outcomes (Q8 mean = 2.55 SD = 0.92) with least number of respondents perceiving negative impacts on social media to students learning outcomes.

Gender Differences

Independent-samples *t* tests showed significant gender differences with regard to three of the four themes. Male faculty reported higher Professional and Social Use than female faculty ($M = 12.52$, $SD = 1.59$ vs. $M = 11.96$, $SD = 1.94$; $t(1541) = 6.25$, $p < .001$, $d = 0.319$), a small-to-medium effect representing roughly 5% of variance and a 0.56-point gap on a 15-point scale. Female faculty reported slightly higher Academic Use and Resource Access ($M = 12.31$, $SD = 2.41$ vs. $M = 12.04$, $SD = 2.70$; $t(1541) = 2.08$, $p = .019$, $d = 0.106$), a small effect of limited practical significance. For the other factors, there was a marginally greater mean of trust in Information Reliability and Educational Value by female faculty ($M = 5.25$, $SD = 1.39$) compared to male faculty ($M = 5.11$, $SD = 1.48$); this finding was not statistically significant after Bonferroni

correction and should be viewed with caution ($t(1541) = 2.00$, $p = .046$, $d = 0.102$). For Educational Effectiveness and Engagement, there did not seem to be a significant difference between the genders, suggesting acceptance of levelled pedagogical value by social media in the classroom.

Age Differences

One-way ANOVA showed significant age-group differences across all four themes, consistently favoring younger faculty. The largest effect appeared for Educational Effectiveness and Engagement ($F(5, 1541) = 32.48$, $p < .001$, $\eta^2 = 0.095$), a medium-to-large effect in which faculty under 25 scored highest ($M = 14.53$) and faculty 61 and older scored lowest ($M = 13.38$; Tukey HSD mean difference = 1.15, 95% CI [0.67, 1.63], $p < .001$). Similar generational patterns held for Professional and Social Use ($F(5, 1541) = 10.13$, $p < .001$, $\eta^2 = 0.032$; under-25 $M = 13.08$ vs. 61+ $M = 11.81$), Academic Use and Resource Access ($F(5, 1541) = 8.73$, $p < .001$, $\eta^2 = 0.028$; under-25 $M = 12.88$ vs. 61+ $M = 11.77$), and Information Reliability and Educational Value ($F(5, 1541) = 7.46$, $p < .001$, $\eta^2 = 0.024$; under-25 $M = 5.92$ vs. 61+ $M = 4.67$). Table 2 summarizes all eight comparisons.

Table 2. Gender and Age Differences Across Thematic Constructs

Theme	Male	Female	<i>t</i>	<i>p</i>	<i>d</i>	<25	61+	<i>F</i>	<i>p</i>	η^2
Professional and Social Use	12.52	11.96	6.25	< .001	0.319	13.08	11.81	10.13	< .001	0.032
Academic Use and Resource Access	12.04	12.31	2.08	.019	0.106	12.88	11.77	8.73	< .001	0.028
Educational Effectiveness and Engagement	ns	ns	ns	ns	—	14.53	13.38	32.48	< .001	0.095
Information Reliability and Educational Value	5.11	5.25	2.00	.046	0.102	5.92	4.67	7.46	< .001	0.024

Male, Female, <25, and 61+ columns report group means (M) on each theme's scale. The first t, p, and d columns report the gender comparison; the second F, p, and η^2 columns report the age-group ANOVA comparing the youngest (<25) and oldest (61+) groups shown, drawn from the full 6-group ANOVA. ns = not statistically significant. Effect-size benchmarks follow Cohen (1988): $d = 0.20/0.50/0.80$ and $\eta^2 = 0.01/0.06/0.14$ denote small/medium/large effects. With $N = 1,547$, power exceeds .99 even for small effects, so effect magnitude is emphasized over p-values throughout. The Information Reliability gender comparison did not survive Bonferroni correction ($\alpha = .006$) and is reported as suggestive rather than confirmed.

Correlational Findings

ICT knowledge correlated positively with educational qualification ($r = .156, p < .001$) and, weaklier, with employment status ($r = .081, p = .001$), suggesting that professional stability and advanced credentials are modestly associated with stronger technology proficiency. Age showed essentially no relationship with ICT knowledge ($r = .027, p = .293$), and gender showed no meaningful relationship with daily social media use ($r = .040, p = .112$), indicating that once qualification and employment status are accounted for, demographic background alone does not strongly predict technical proficiency (Table 3).

Table 3. Correlation Analysis

Variable 1	Variable 2	r	p
Age group	ICT knowledge	0.027	.293
Employment status	ICT knowledge	0.081	.001
Gender	Daily social media use	0.040	.112
Qualification	ICT knowledge	0.156	< .001

Taken together, these results point to two distinct demographic stories. Gender differences are modest, theme-specific, and partly fragile under correction: men report somewhat more professional and social engagement, women report slightly more academic-resource use and information-reliability trust, and the two genders otherwise converge on perceived educational effectiveness. Age differences are larger, more consistent, and present across every theme, with younger faculty reporting more favorable perceptions throughout, most strongly for educational effectiveness. This asymmetry suggests that generational gaps in digital fluency, rather than gender per se, are the more substantively important driver of faculty attitudes toward social media in this sample.

Discussion

Because gender and age were tested independently rather than through a factorial or interaction analysis, any discussion below of their

concurrent or combined effect is interpretive rather than statistically confirmed.

Gender and Professional Engagement

This is particularly the case for the psychological phenomenon of FOMO (fear of missing out) that was identified as a key driver of men's online social media usage being greater than women's, and is also cited as an explanation for the use of social media for visibility to help professional networks by men, as found by Brailovskaia et al. (2023). As part of the UTAUT constructs, the pattern fits effort expectancy and social influence—the former seems to accept these platforms more readily into their professional lives while the latter appears to have more technical and cognitive frustration, as UTAUT asserts that perceived ease of use has the greatest influence on acceptance, particularly for groups with less prior exposure to a technology. The relative higher level of academic-resource use reported by female faculty members does not

necessarily reflect lower total levels of use, but rather a different field of use, in which female faculty members in this sample tend to use academic resources slightly more for direct academic, than for social, ends, including access to resources or the dissemination of research. If there were a gendered value of social media in education, it is less apparent in the sphere of educational effectiveness, as demonstrated by the similarities amongst genders at best.

Age and Performance Expectancy

There were also greater age differences than gender differences for all themes, and age differences aligned well with the performance-expectancy construct from the UTAUT model: younger faculty scored consistently higher than older faculty on Educational Effectiveness, indicating that younger faculty perceived greater performance benefits from social media, similar to Davis (1989) who originally identified perceived usefulness as a primary driver of technology adoption, and consistent with the findings of Xue et al. (2024) that the strongest predictor of behavioural intention in higher education settings is perceived performance expectancy. This does not suggest that older faculty members have made an early decision that technology does not help—it could also indicate low level exposure giving rise to doubt about whether there is any benefit to using it. This generational trend is similar to that noted by Taher (2023) and Xie and Correia (2024) about the broader use of social media for dynamic and engagement-based pedagogy by younger educators.

Facilitating Conditions and ICT Proficiency

The facilitation of these results is supported by various arguments that can be traced back to UTAUT, ICT knowledge being positively related to both qualification ($r = .156$) and employment status ($r = .081$), lead to greater technical proficiency, which in turn facilitates ICT acceptance, consistent with what Ajibade and Zaidi (2023) report and that expands the range of work linking ICT proficiency to digital transformation in education, with Mukul and Büyüközkan (2023); Akinoso (2023). Notably,

ICT knowledge showed no meaningful correlation with age or gender directly, suggesting that once qualification and employment status are accounted for, perceived barriers to ICT adoption are not reducible to gender or age; they may instead reflect unequal access to the qualifications, job stability, and institutional support needed to build technical skills. This reorients consideration of the action point for interventions: building upon the facilitating conditions, training, support and resource access found within this study to predict direct proficiency may be a more effective intervention target than assuming the deficits of older faculty or female faculty.

Reliability Concerns

Findings relating to the generalisation of faculty's trust in the reliability of information on social media are sensitive, and were not sustained by conservative correction and should thus be interpreted with care; rather, the overall picture in this literature suggests that women expressed more privacy concerns and misinformation about social media than men (Alenezi, 2023; Afzal et al., 2023). The finding here was more reliable however, as the younger faculty were meaningfully more trusting of social media information than the older faculty in their practice of evaluating sources, which will generally be a practice made easier by digital fluency. The reason either by gender, faculty members often find they don't know how to assess online information, is implying that an institutional solution to this problem is clear: instruction in the critical assessment of information found online, as a means of understanding the information itself, rather than competency in a particular platform.

Synthesis

In this study, when examining the four UTAUT constructs, age showed across all constructs a more consistent and significantly larger demographic correlate for social media adoption than gender did with adoption, and in one case (usability) was statistically fragile. That said, this asymmetry has something to teach us: that interventions focused mostly on gender may be

looking at a pattern embedded in a bigger one, but interventions focused on generational digital-fluency differences, the pairing of junior and senior faculty, structured onboarding to certain platforms as well as formal messaging by the institution about the digital fluency gains of certain groups may have a more reliable chance at directly addressing the primary driver of resistance observed in this sample. A one-size-fits-all, undifferentiated technology rollout approach is unlikely to be appropriate for either of these groups; rather, the data indicate that giving more time or attention to addressing the various issues that arise in the different phases of technology, whether broader or deeper, would be more likely to help both groups.

Limitations

In many respects, the implications of these findings are limited by a number of restrictions. Respondents were recruited through convenience sampling and snowball sampling using social media and professional email networks, rather than stratified random sampling, and this recruitment method was not matched to the extensive national spread of the sample. There are five countries with the most respondents (55% of respondents), and 23 of the 44 countries (52% of the sample) had fewer than 10 respondents each, so that should be taken as prescriptive of any given country's cohort of English-medium faculty in any given higher education institution, but rather as an indicator of exploratory patterns among the faculty members involved in digital professional networks at the time of data collection. The sample may include an over representation of faculty members who were already comfortable using technology and on-line tools, and therefore may overestimate feedback comfort levels with social media compared to all faculty and underestimate any challenges facing faculty less comfortable with on-line presence. Second, the purely quantitative design using a Likert scale does not allow for the exploration of why specific barriers, like privacy concern or reliability skepticism, manifest in the way that they do; mixed methods follow up might be more likely to reveal this than scale scores alone. Third, the cross-sectional design (January

2023-June 2024) does not allow us to conclude about changes in adoption or perceived barriers over time, as it becomes important due to the rapid changes in platforms and their educational applications over time.

Fourth, the Cronbach's Alpha results of the three of the four thematic constructs fell below the standard threshold, $\alpha = 0.70$, which accompanied formative rather than reflective design since within each construct there are various distinct and complementary facets, not interchangeable indicators of one trait for which α is not a valid standard of validity (Aguirre-Urreta et al., 2024). While, the lower reliability resulted in higher levels of measurement error which can increase the likelihood that smaller true effects were not detected in gender comparisons, especially for Information Reliability (the gender comparison failed the Bonferroni correction), exploratory use of the constructs is supported by supplementary checks, such as item-total correlations ranging from 0.18 to 0.64, and bootstrap resampling (1,000 iterations), which yielded stable mean differences per group.

Finally, the gender and age comparisons were made as univariate comparisons not as a factorial or regression analysis with terms for interaction. This sets up the case that each variable is correlated with adoption, independently of the others, but does not provide an examination of how the different correlations of the factors would vary among age groups, thus limiting the statements concerning an interaction of the factors to that of description rather than statistical support. This degree of testing of these questions of moderation could be done directly by means of factorial ANOVA, interaction terms, or structural equation modelling in future research. These together make it possible to limit the present results to a precise cohort and seriously doubt conclusions based on the nation or the world's faculty.

Conclusion

Social media has come a long way from informal socializing to a legitimate educational tool, though its adoption in higher education instruction remains uneven. This study, also

organized around UTAUT, revealed a more consistent, and (although for some dimensions relatively small) demographic correlate in the areas of faculty perception for all four themes examined – age being the more consistent dimension and substantively larger in older faculty perception of educational effectiveness. There was no significant gender difference, but where differences existed, they were small, specific to the theme and one of these was statistically fragile and thus it is very likely that it is generational, rather than gender, differences that explain this variation within the sample. Rather than asserting that facilitating access to ICTs for certain groups, or excluding others, was a specific risk, it demonstrated instead that providing these promoting elements (typically more likely to be available to extending access to

ICTs beyond age or gender, but including training, support and resource access) rather than qualifications tracked the nature of qualifications and jobs stability. Because the findings were generated through convenience sampling, they should be interpreted with the caveats detailed in the Limitations section above. They provide a platform for confirmatory study using probability sampling, valid reflective scales, and formal interaction testing, and, in the interim, they offer a pathway to help depart from a one-size-fits-all approach to professional development for all faculty groups to one that is more differentiated, ultimately suited to the barriers faculty members actually face when adopting technology: unfamiliarity, time and visibility, and scepticism about reliability.

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