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PREPARING FOR THE FUTURE: AN INITIAL EXAMINATION OF GENERATIVE AI'S INTEGRATION INTO UNIFIED COMMUNICATIONS THROUGH THE LENS OF MICROSOFT COPILOT IN TEAMS

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ABSTRACT

Aim/Purpose	This study explores how generative AI is being integrated into unified communications (UC) platforms, focusing specifically on Microsoft Copilot as implemented in Microsoft Teams. It explores how generative AI enhances UC functionalities, identifies key adoption challenges, and provides insights into implementation strategies. Unlike traditional technologies that followed a gradual adoption curve, Copilot's integration into Teams has the potential to accelerate its adoption, necessitating organizations to be proactive in their planning for its use.
Background	UC platforms have transformed enterprise communication by integrating multiple tools into a single interface. The integration of generative AI into UC introduces automation of complex routine and time-intensive tasks, enhanced decision support, and workflow optimization. However, adoption dynamics, user experiences, and long-term organizational impacts remain underexplored.
Methodology	This study employs a meta-analytic approach, synthesizing findings from peer-reviewed articles, conference proceedings, and industry reports. The analysis categorizes user perceptions of AI usefulness, key adoption barriers, and best practices for integration.

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Contribution	This study evaluates the emerging literature on generative AI in UC platforms, focusing on initial user impressions and adoption challenges. Given the technology's early stage, the findings provide preliminary insights to help organizations plan for effective AI integration in UC environments.
Findings	The findings indicate that generative AI in UC platforms enhances productivity, streamlines workflows, and improves decision support through features such as meeting summarization, transcription, and AI-driven content generation. However, adoption challenges, including resistance to change, data privacy concerns, and integration complexities, remain key barriers.
Recommendations for Practitioners	Preliminary findings indicate that users recognize the value of UC platforms integrated with generative AI and anticipate increasing benefits over time. However, successful adoption requires strategic planning to address implementation challenges and ensure effective deployment.
Recommendations for Researchers	As AI technologies evolve, further research is needed to assess the long-term impact of generative AI in UC platforms on workplace efficiency, productivity gains, user adaptation, and organizational transformation. Comparative research across industries can provide domain-specific best practices, while investigations into human-AI collaboration should examine the balance between automation and human oversight to optimize AI's role in workplace communication.
Impact on Society	The integration of generative AI in UC platforms has far-reaching implications for enterprise communication, workforce collaboration, and digital transformation. AI-driven automation is poised to enhance workplace efficiency, but responsible governance and deployment are crucial for ensuring fair and transparent adoption.
Future Research	Future research is needed to explore the evolving role of agentic AI and its impact on enterprise workflows and strategic decision-making. Studies should assess its role in reducing cognitive load and enhancing team coordination while also addressing adoption challenges such as ethics, automation reliability, and user trust in autonomous AI systems.

Keywords	generative AI, unified communications, Microsoft Copilot, AI adoption

INTRODUCTION

Over the past decade, Unified Communications (UC) platforms have fundamentally redefined the paradigm of business communication. UC transcends traditional siloed approaches by seamlessly integrating diverse communication and information-sharing tools into a unified ecosystem, offering organizations unprecedented opportunities to transform workplace interactions. Rather than merely a checklist of features, UC represents a holistic and dynamic approach to organizational communication strategies, encompassing people, processes, and technology (Fluker & Murray, 2017). Its primary objectives are to enhance productivity and optimize the way business is conducted.

Recently, generative artificial intelligence (AI) technologies, such as ChatGPT and Microsoft Copilot, have begun to reshape business operations, including the landscape of UC. These AI systems extend beyond conventional automation, offering sophisticated capabilities in natural language processing, context-aware assistance, and intelligent workflow optimization. Initial analysis suggests that generative AI integration in UC platforms can reduce time spent on routine communication tasks while improving message clarity and effectiveness (Coyle & Jeske, 2023). By automating routine tasks, providing real-time insights, and enhancing collaboration, generative AI promises to further amplify the

productivity gains achieved through UC. This convergence of generative AI and UC represents a pivotal step toward creating more intelligent, adaptive, and seamless communication environments.

Microsoft Teams, one of the leading UC platforms, exemplifies this trend with the integration of Copilot, an AI-driven assistant designed to augment communication and collaboration workflows. As generative AI technologies, such as Copilot, continue to evolve rapidly, their potential to transform business communication strategies is undeniable. Initial investigations suggest a paradigm shift in how organizations approach information sharing, decision-making, and cross-functional collaboration (Coyle & Jeske, 2023).

This paper examines the integration of Microsoft Copilot within the Microsoft Teams platform, focusing on its functionality, user adoption, and initial impressions. It explores how generative AI affects UC, particularly in enhancing productivity and collaboration. The objective is to provide organizations with insight regarding the effective deployment of Copilot within Teams. Unlike traditional technologies that followed a gradual adoption curve, Copilot's integration into Teams has the potential to accelerate its adoption, necessitating organizations to be proactive in their planning for its use.

UNIFIED COMMUNICATIONS (UC) AND GENERATIVE AI

THE EVOLUTION OF UNIFIED COMMUNICATIONS

UC refers to the integration of various communication tools and technologies into a single platform that facilitates seamless interaction across organizational processes. At its core, UC encompasses real-time communication services such as instant messaging, presence information, voice, video conferencing, and file sharing, alongside non-real-time communication services including email, voicemail, and integrated messaging. The platform's architecture is designed to provide a consistent user interface that facilitates seamless communication and a cohesive experience across multiple devices and platforms (Lane et al., 2024).

UC platforms have been widely recognized for their transformative potential (Bolton et al., 2022). By integrating multiple communication channels, they reduce inefficiencies and improve workflow management. They also foster collaboration by enabling seamless real-time and asynchronous communication, a capability crucial for global teams and remote work (Fluker & Murray, 2017; Ilag, 2021). Additionally, UC platforms increase productivity by streamlining communication processes and minimizing downtime caused by fragmented tools, allowing employees to focus on core business functions (Bolton et al., 2022).

Another critical advantage of UC platforms is they provide an enhanced overall user experience (De Oliveira et al., 2024). Consolidating communication tools into a unified system reduces cognitive load, enabling employees to access resources more efficiently. This improvement has been a major driver of widespread UC adoption (Abrantes et al., 2021). However, successful implementation requires careful alignment with organizational goals and culture, as poor integration or inadequate user training can lead to underutilization and diminished potential benefits (De Oliveira et al., 2024; Silic & Back, 2016).

Leading UC platforms, including Microsoft Teams, Zoom, Cisco Webex, and Slack, have transformed workplace communication. The sector continues to experience substantial growth, with market research projecting that the global unified communications and collaboration (UC&C) market will have reached $69.1 billion in revenue in 2024 (IDC, 2024). Furthermore, the market is expected to grow at a compound annual growth rate (CAGR) of 5.7%, reaching $85 billion by 2028 (IDC, 2024). These platforms increasingly incorporate advanced technologies, such as machine learning and artificial intelligence, to enable smarter, context-aware communication experiences. The incorporation of generative AI represents the next stage in the evolution of UC, with the potential to once again fundamentally reshape workplace communication.

The Emergence of Generative AI

Artificial Intelligence (AI), broadly defined as the ability of machines to perform tasks that typically require human intelligence, has a longstanding history in business applications, evolving through several waves of technological advancement. As noted by Fanti et al. (2022), early implementations in the 1950s and 1960s focused on symbolic reasoning and expert systems that aimed to replicate decision-making processes through rule-based logic. By the 1980s, these expert systems were being used in domains such as finance, manufacturing, and logistics to support diagnostic and planning tasks. The advent of machine learning in the 1990s and early 2000s marked a significant shift, enabling systems to learn patterns from data rather than relying solely on predefined rules. This era saw the proliferation of AI in areas such as fraud detection, customer segmentation, and supply chain optimization.

The rise of deep learning in the 2010s, driven by increased computing power and large-scale datasets, significantly accelerated AI adoption in business (Fanti et al., 2022). Neural networks enabled advanced applications such as image and speech recognition, natural language processing, and predictive analytics. These developments laid the groundwork for generative AI, a new class of systems capable of not only interpreting data but also generating original content.

The foundation of generative AI systems lies in large language models (LLMs)—deep neural networks trained on vast textual datasets—which move beyond traditional pattern recognition to generate coherent, contextually relevant, human-like responses. Unlike earlier AI systems that relied on predefined rules or scripted outputs, LLMs generate responses dynamically by modeling statistical relationships between words and sequences in a language. These models leverage the transformer architecture (Vaswani et al., 2017), which uses self-attention mechanisms to evaluate the relationships between words in context. This enables the model to generate text by predicting the most likely next word in a sequence. This also allows the model to interpret user input based on surrounding context, such as prior dialogue or encoded knowledge learned during training.

In the area of business communication, generative AI offers several distinct advantages. One of its most significant capabilities is the automation of routine and time-intensive tasks. Generative AI systems can draft emails, summarize meetings, generate action items, produce detailed reports, and respond to frequently asked questions. These functionalities not only save time but also reduce cognitive load for employees. Additionally, generative AI enhances collaboration by providing contextual suggestions during meetings, proposing next steps based on real-time conversation analysis, and offering live language translation to support multilingual teams. It also contributes to decision-making by analyzing large datasets, identifying patterns, and delivering actionable insights that help teams make more informed and timely decisions (Henke, 2024).

Widely adopted platforms, such as OpenAI's ChatGPT, Microsoft's Copilot, Google's Gemini, Anthropic's Claude, and Meta's LLaMA, have demonstrated the ability of generative AI to automate complex tasks, provide nuanced insights, and facilitate creative problem-solving. As a sophisticated tool for processing and generating human-like language, generative AI has the potential to significantly enhance UC platforms by streamlining workflows, improving information flow, and facilitating collaboration. Its influence is expected to extend across all types of organizations, supporting both communication efficiency and overall productivity.

Convergence of UC and Generative AI

The integration of generative AI within UC platforms represents a significant advancement in enterprise communication, creating what industry analysts refer to as "intelligent unified communications" – a paradigm in which AI-enhanced features augment traditional UC functionality (Lundy, 2024). Early reports from organizations adopting AI-enhanced UC solutions indicate measurable improvements in operational efficiency, including reductions in time spent retrieving information and notable enhancements in meeting productivity.

The convergence of UC and generative AI is in its early stages but is already impacting multiple dimensions of organizational communication. AI-driven meeting enhancements now include real-time transcription and translation, ensuring accessibility across linguistic barriers. Intelligent communication management systems leverage AI for message prioritization and routing, optimizing the flow of information and reducing communication overload (Van Quaquebeke & Gerpott, 2024). Additionally, workflow optimization has been improved through predictive task management and automated documentation generation, streamlining operations and increasing overall efficiency (Arnold, 2024).

Further, generative AI's analytical capabilities provide strategic advantages through its ability to process vast amounts of organizational data to generate actionable insights, enabling teams to make informed decisions and proactively manage communication flows. The integration of generative AI within UC platforms represents a fundamental shift in enterprise collaboration, with the potential to transform these systems from connectivity tools into dynamic ecosystems that enhance productivity, decision-making, and creativity across the organization.

Unlike traditional technology adoption patterns, generative AI benefits from direct embedding into existing enterprise systems, accelerating deployment and minimizing adoption barriers. As organizations navigate this evolving landscape, there is a growing urgency to assess how these technologies align with strategic objectives and to develop structured implementation strategies that ensure effective integration and optimal use.

AI-driven Tools in UC: Focus on Microsoft's Copilot

There are several initiatives to integrate generative AI into UC platforms and other organizational communication tools. Zoom, Webex, and Slack have incorporated AI assistants to enhance meeting productivity, automate routine tasks, and improve collaboration workflows. Google Duet AI, designed for Google Workspace, integrates with applications such as Google Docs, Sheets, and Meet, providing AI-driven assistance for content creation, real-time transcription, and workflow automation.

Among these advancements, the most prominent example of generative AI adoption in UC is the integration of Microsoft 365 Copilot (Copilot) within Microsoft Teams, one of the most widely used UC platforms. Copilot functions as an intelligent assistant within the broader Microsoft 365 ecosystem, employing LLMs to provide context-aware support across a range of communication and productivity applications. For instance, Copilot automates routine tasks such as scheduling meetings, summarizing conversations, and organizing message threads. During live discussions or video calls, it can provide real-time access to relevant data and contextual information. Copilot further facilitates collaboration by assisting in creating, editing, and sharing documents from disparate systems, centralizing information for easy access. Additionally, Copilot enhances task management by systematically tracking action items identified during meetings, syncing with participants' calendars, and generating timely reminders to promote the on-schedule completion of assigned responsibilities.

The integration of Copilot within the Teams UC platform is a highly structured AI-enhanced system. Copilot's architecture builds upon several technological foundations, including natural language processing, business intelligence, and workflow automation. This section examines the key architectural components and technological mechanisms underpinning Microsoft 365 Copilot, identifies the function and features integrated into Teams, and presents an illustrative use case.

The Copilot architecture

At the foundation of Copilot is an AI-powered core that employs advanced machine learning techniques to process user interactions and generate contextually relevant outputs (Microsoft Corporation, 2025). Unlike conventional AI systems, this core is optimized to understand user behavior, anticipate user needs, and adapt to workflows. It achieves this through continuous learning from user

interactions, enabling it to refine its assistance over time. Further, by integrating natural language processing (NLP) capabilities with task-specific insights, the AI core ensures that responses are tailored to individual and organizational contexts.

The architecture of Copilot is a complex system designed to support secure, efficient, and context-aware interactions. Figure 1 illustrates the architecture of Copilot. The process starts with the user prompt, which is securely transmitted to the Copilot system to maintain data integrity and confidentiality. Once received, the prompt undergoes pre-processing and grounding. During this phase, the system retrieves relevant contextual data from the Microsoft Graph. This framework connects various organizational data sources, including emails, files, meetings, chats, calendars, and contacts, to enrich the prompt with relevant information. Additionally, Copilot may utilize web and other services for grounding, enhancing the relevance and accuracy of the information it compiles.

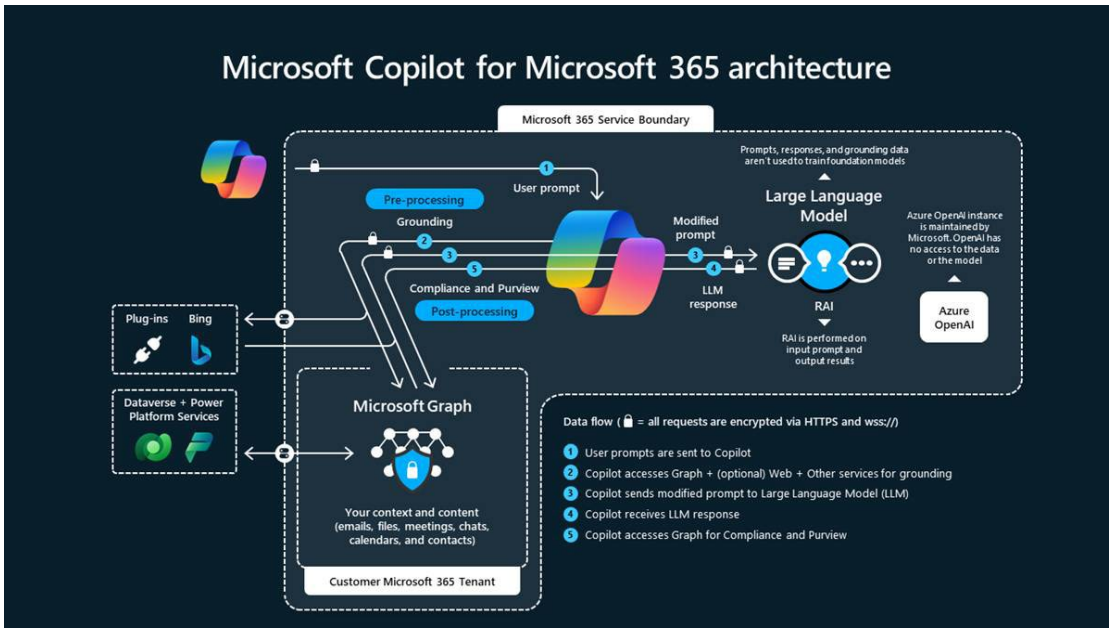

Figure 1. Copilot architecture (image supplied by Microsoft)

Following this contextual grounding, a refined prompt is sent to the LLM that processes the prompt and generates a response based on patterns learned from training on diverse datasets. This enables Copilot to produce accurate and contextually relevant outputs. To safeguard user privacy, Copilot is designed so that external entities do not have access to the model or user data.

Before the LLM response is finalized, it undergoes Responsible AI (RAI) checks. These checks ensure that the generated response meets ethical standards and complies with defined policies. The RAI process validates both input prompts and the generated responses for accuracy and adherence to predefined guidelines. Following RAI checks, the response further undergoes compliance and purview post-processing via Microsoft Graph to verify regulatory and policy compliance, safeguarding sensitive information and reinforcing system trustworthiness.

Implementing robust governance and control measures, such as those identified, is essential when integrating generative AI solutions into UC platforms. While this principle applies to any AI-enabled environment, Microsoft provides particularly granular configuration capabilities – administrators can manage data access and retention policies, define permissible usage scenarios, and enforce compliance standards through built-in tools and advanced identity management features. These configurations enable organizations to customize Copilot's behavior to safeguard sensitive information and uphold regulatory compliance. Effective implementation requires close coordination with legal, compliance, and IT stakeholders to allow businesses to balance the advantages of AI-driven workflows

with appropriate oversight and security, a best practice for any implementation of AI in a UC platform.

Finally, Copilot is deeply integrated within the Microsoft ecosystem, enabling seamless interoperability across tools and services such as Teams, Outlook, SharePoint, Word, PowerPoint, and Excel. This integration allows Copilot to access and process data for task automation, meeting summaries, and report generation, enhancing workflow across applications and its utility in diverse organizational contexts.

Features and functions of Copilot

Copilot in Teams offers a range of features designed to enhance UC platforms and organizational communication. Table 1 presents example functionalities that illustrate how Copilot supports users in streamlining collaboration, automating routine tasks, and providing intelligent assistance (Microsoft Corporation, n.d.). Integrated seamlessly with Microsoft 365 applications, Copilot enables users to synthesize and retrieve information from documents, emails, calendars, and chat histories, improving accessibility and efficiency in communication. During meetings, Copilot can transcribe discussions, summarize key points, suggest action items, and provide real-time insights. It also assists in drafting messages, generating meeting agendas, and summarizing unread messages or recent activities. The meeting recap feature compiles recordings, transcripts, shared files, notes, agendas, and follow-up tasks into a centralized summary. Additionally, real-time language translation promotes inclusivity for multilingual teams, while Copilot's integration with Microsoft Places facilitates team coordination by optimizing resource planning and collaboration.

Table 1. Example features of Copilot in teams

Category	Feature	Description
Meeting Management	Meeting Summaries	Automatically generates concise summaries of Teams meetings with key points, decisions, and action items.
	Real-time Transcription	Provides live transcription during meetings with speaker attribution.
	Catch-up Digests	Creates quick summaries of missed meetings and conversations.
	Meeting Follow-ups	Generates draft follow-up emails and action item lists.
Chat & Messaging	Chat Summary	Condenses long chat threads into key points and decisions.
	Message Composition	Helps draft professional responses and messages based on context.
	Smart Replies	Suggests contextual responses to messages.
Language Translation	Language Translation	Translates spoken and written content in real-time for multilingual teams.
Document Collaboration	Content Generation	Creates initial drafts of documents, presentations, and emails.
	Document Analysis	Summarizes and extracts key information from shared documents.
	Smart Formatting	Assists in formatting documents and presentations consistently.
	Content Suggestions	Recommends relevant content and references based on context.
Task Management	Action Item Extraction	Automatically identifies and lists action items from conversations.
	Task Prioritization	Helps organize and prioritize tasks based on context and deadlines.
	Project Planning	Assists in creating project timelines and resource allocation.
	Progress Tracking	Monitors and reports on task completion status.
Information Access	Knowledge Mining	Searches across organizational content to find relevant information.
	Q&A Capabilities	Answers questions about organizational policies and procedures.
	Resource Location	Helps find specific documents, conversations, or meetings.
	Context Awareness	Provides relevant information based on current discussion topics.
Productivity Tools	Calendar Management	Assists in scheduling meetings and managing conflicts.

Category	Feature	Description
	Email Management	Helps with email organization, including summarizing email threads, replying to emails, and providing coaching tips.
	Note Taking	Creates structured notes during meetings and conversations.
	Process Automation	Automates routine tasks and workflows.
	Time Management	Suggests time management strategies and meeting optimization.

Illustrative use case

Copilot offers a transformative approach to managing complex workflows, particularly in research-intensive environments. This section presents a use case of a senior medical researcher at a large university-based hospital, demonstrating Copilot's use in daily research activities through automating administrative tasks, streamlining information retrieval, and facilitating collaboration across multidisciplinary teams.

Scenario: A Day in the Life of a Medical Researcher Using Copilot in Teams

Proactive Meeting Preparation

- **Morning Alert**: At the start of the day, Copilot in Teams sends out a briefing summarizing the day's upcoming meetings, pulling highlights from key discussion points, and flagging action items from prior sessions. It compiles updates from shared communication channels, such as newly uploaded lab data, ethics committee feedback, or regulatory announcements.
- **Agenda Generation**: Copilot then automatically drafts preliminary meeting agendas for each meeting that can be quickly reviewed and modified before being distributed.

In-Meeting Support and Real-Time Assistance

- **Live Transcription and Auto-Tagging**: During a project status call with cross-functional team members, Copilot provides real-time transcription, tagging each participant's key discussion points under relevant themes such as "Data Analysis," "Ethical Review," and "Regulatory Requirements."
- **Contextual Information Retrieval**: When a lead statistician references last week's trial data mid-meeting, Copilot is simply asked to "summarize the latest control group efficacy rates." Copilot quickly displays a concise summary with relevant charts from an Excel workbook stored in Teams.
- **Action Items & Task Creation**: As soon as the team concludes the discussion on the next steps, Copilot automatically generates action items, assigning tasks to team members via Microsoft Planner or Microsoft to Do**.**

AI-Assisted Documentation and Literature Review

- **Meeting Summaries**: Following the meeting, Copilot produces a structured summary capturing key decisions, task lists, and follow-up questions. This summary is automatically shared in Teams and emailed to absent stakeholders.
- **Literature and Data Analysis**: Later, while preparing a short report for a grant proposal, Copilot's integrated search capabilities are utilized to request a compilation of the most recent immunotherapy dosage guidelines from the university's internal library and PubMed integrations. Copilot returns a list of references, extracting relevant summaries.
- **Drafting and Editing Reports**: Initial report details are dictated in Teams, and Copilot is prompted to "Draft a one-page summary of the recent immunotherapy trial results emphasizing our proposed methodology improvements." Copilot instantly produces a well-structured draft with references ready for minor edits.

Proactive Reminders and Task Management

- **Timely Notifications**: Later that afternoon, Copilot detects an approaching deadline for a regulatory document and proactively notifies the researcher, providing a quick link to a draft of the document for final review.
- **Collaboration Threads**: When a colleague requests feedback on a new protocol in a Teams chat, Copilot summarizes the request, suggests responses, and retrieves applicable guidelines, allowing the researcher to expedite an informed reply.

Cross-Project Coordination

- **Project Overview Dashboards**: To manage multiple ongoing trials, Copilot synthesizes a project dashboard, aggregating data from various Teams channels and other resources such as SharePoint files and Planner tasks.
- **On-the-Fly Insights**: The researcher notices a spike in discussion around adverse events and asks Copilot to "Analyze the last 10 meeting transcripts related to trial #2. Are there any recurring concerns raised about patient side effects?" Copilot scans the transcripts, identifies patterns, and generates a concise report highlighting key discussion points and flagging concerns.

THE STUDY

The convergence of UC and generative AI marks a significant advancement in organizational communication capabilities. However, successful integration requires thoughtful implementation and careful consideration of key factors to ensure alignment with organizational objectives. Research on the value of generative AI in UC is still in its early stages; however, existing studies provide valuable insights for organizations exploring its implementation and use. This study synthesizes and analyzes the available literature on specific implementation cases, highlighting best practices, insights from early adopters, and key challenges associated with integrating generative AI within UC platforms, focusing on Microsoft Copilot.

As generative AI adoption grows, it is reshaping traditional approaches to communication, decision-making, and collaboration, presenting both opportunities and challenges. The following section examines the limited available research on specific implementation cases, highlighting best practices, insights from early adopters, and key challenges associated with integrating generative AI within UC platforms, focusing on Microsoft Copilot.

METHODOLOGY

This preliminary study employed a qualitative meta-synthesis approach to identify patterns in existing literature on UC and generative AI tools in business contexts. A systematic search was conducted across academic databases (e.g., Scopus, Google Scholar, IEEE Xplore) and industry sources (e.g., Forrester, Microsoft, UC Today) to identify relevant studies.

The selection criteria focused on peer-reviewed articles, conference proceedings, and industry reports discussing UC platforms and generative AI tools (e.g., ChatGPT, Microsoft Copilot). Given the exploratory nature of this study, emphasis was placed on surveys, case studies, and qualitative research rather than quantitative analyses. Studies examining user experiences and adoption challenges were considered. The search resulted in the inclusion of 12 studies, seven academic journals or preprints, two academic conference proceedings, and three industry reports. A listing of sources is included in Table 2.

Table 2. Listing of sources

Source	Title	Type	Methodology	Copilot Focus
Almeida (2025)	Implementation of a Chatbot in a unified communication channel	Journal	Experiment	No
	Geographical study area: Portugal			
Bano et al. (2024)	Survey insights on M365 copilot adoption	Preprint	Survey (177 participants)	Yes
	Geographical study area: Australia			
Cao (2024)	Predicting the behavior intention of intelligent office software	Conference Proceeding	Case study	Yes
	Geographical study area: NA – study focused on examination of Copilot software			
Davenport and Bean (2024)	How GenAI helps USAA innovate	Journal	Case study	Yes
	Geographical study area: USA			
Gupta (2024)	An empirical evaluation of a generative artificial intelligence technology adoption model from entrepreneurs' perspectives	Journal	Survey (482 participants)	No
	Geographical study area: Asia, America, Africa, Australia and Europe			
Henke (2024)	Navigating the AI era: University communication strategies and perspectives on Generative AI tools	Journal	Survey (101 participants)	No
	Geographical study area: Germany			
Marquis et al. (2024)	Proliferation of AI tools: A multifaceted evaluation of user perceptions and emerging trends	Journal	Survey (1632 participants)	Referenced
	Geographical study area: Not specified			
Vasilescu and Gheorghe (2024)	Improving the performance of corporate employees through the use of artificial intelligence: The case of Copilot application	Conference Proceeding	Survey (30 participants)	Yes
	Geographical study area: Romania			
Zhang et al. (2025)	Unraveling generative AI adoption in enterprise digital platforms: The effect of institutional pressures and the moderating role of internal and external environments	Journal	Survey (329 participants)	Referenced
	Geographical study area: China			
Durrer (2025)	AI in unified communications: Insights, challenges, and future directions	Industry Report	Survey (237 participants)	Yes
	Geographical study area: Primarily USA and UK			
Forrester Consulting (2024)	New technology: The projected Total Economic Impact™ of Microsoft Copilot for Microsoft 365	Industry Report	Survey (351 participants)	Yes
	Geographical study area: North America and Europe			
Microsoft Corporation (2023)	What can copilot's earliest users teach us about AI at work?	Industry Report	Survey (297 participants) & 8 interviews	Yes
	Geographical study area: South Africa, Asia, United Arab Emirates, Central America, Europe, North America, Australia and Latin America.			

Data were extracted from the sources using a coding framework capturing study details, technology focus, outcomes, and contextual factors. A thematic analysis was performed to identify recurring patterns and insights across studies. The coding framework employed a multi-level classification approach, systematically organizing findings into primary themes and related components. Each source

was analyzed using an iterative coding process that identified key terminology, implementation factors, and reported outcomes. The framework grouped findings into distinct thematic clusters, with special attention paid to the frequency and context of recurring concepts. This systematic approach enabled the identification of both broad categorical patterns and specific relationships within the literature.

FINDINGS

Two overarching themes emerged from the analysis: User Experience and Technology Adoption. The User Experience theme examines perceived usefulness, and features users found most effective, while the Technology Adoption theme focuses on adoption challenges and implementation considerations.

User experience

The reviewed studies primarily assessed user perceptions of UC platforms integrated with generative AI. Four studies addressed AI integration in UC platforms broadly, while the rest specifically referenced or focused on Microsoft Copilot. Several patterns emerged, revealing distinct areas where users perceived AI-driven UC tools as valuable.

User perceptions of technology usefulness were categorized into four key areas:

1. **Productivity** – AI-enhanced efficiency, task automation, workflow integration, and reduced workload.
2. **Communication** – Improved clarity in messaging, collaboration, and information sharing.
3. **Decision Support** – AI-driven insights, automated recommendations, and contextual analysis.
4. **Organizational Impact** – Improved quality of work and faster onboarding of employees.

These categories were further analyzed into specific contributing factors. Table 3 provides a breakdown of factors influencing user perceptions of usefulness. Additionally, responses were examined based on the functions and features of generative AI in UC platforms, particularly Copilot. The most frequently cited features included automated meeting summarization, automated transcription, enhanced search capabilities, and AI-supported content editing.

Technology adoption

Several studies explored user perceptions of adopting generative AI in UC platforms, examining factors such as acceptance, resistance, and key enablers of adoption. Other studies focused on strategies for facilitating adoption and identifying best practices for successful implementation in organizational settings.

Three key categories emerged from the review of adoption-related findings:

1. **User Acceptance and Concerns** – Resistance to change, training deficiencies, and cognitive overload.
2. **Organizational Considerations** – Integration challenges, leadership support, and workplace adaptation.
3. **Implementation Strategies and Barriers** – Phased rollouts, industry trends, cost considerations, and external factors.

Each of these categories was further analyzed to identify key factors influencing adoption. Table 4 presents a summary of adoption challenges and implementation considerations based on the reviewed studies.

Table 3. Perceived usefulness of generative AI integration with UC

Category	Subcategory/Contributing Factor
Productivity	Efficiency Improvements • Better task completion speed • Improved task completion rate • Reduced time spent searching for information • Streamlined workflow • Improved work efficiency • Reduced effort to complete tasks Task Automation • Administrative task handling • Meeting summarization • Scheduling automation • Transcription services • Mundane task management Workflow Integration • Email management • Meeting management • Planning and scheduling • Documentation handling
Communication	Content Enhancement • Enhanced text clarity • Improved writing quality • Message personalization • Revision and editing support • Automated translation services Collaboration Improvement • Enhanced team collaboration • Reduced communication difficulties • Meeting participation equity • Improved onboarding processes • Automated language translation
Decision support	Decision-Making Process • Positive influence on decision processes • Enhanced confidence in decisions • Improved planning capabilities • Increased creativity
Organizational impact	• Positive impact on productivity • Improved quality of work • Faster employee onboarding

Table 4. Technology adoption challenges and implementation considerations

Category	Subcategory/contributing factor
User acceptance and concerns	Training and User Support • Lack of adequate training programs • Cognitive overload due to a steep learning curve • Concerns over reduced comprehension Data Accuracy and Privacy Concerns • Issues with accuracy, especially syntactic accuracy • Concerns over data privacy and data protection • Ethical concerns over AI-generated output Resistance • Resistance to change • Fear of job displacement or employee replacement • Influences of social networks on perceptions of usefulness
Organizational considerations	Technology Integration • Compatibility with existing workplace systems and tools • Adaptability of AI tools to established work practices Workplace Culture • Strong leadership support for AI adoption • Organizational readiness and workplace adaptation • Concerns about reduced personal interaction in AI-mediated communication • Higher comfort level for adoption when coworkers and networks hold positive perceptions about AI Institutional Factors: • Significant relationship between institutional pressures and AI adoption • Increased adoption likelihood when AI demonstrates high-quality performance, accuracy, maintainability, and accessibility • Organizations with strong innovation cultures are more likely to integrate AI effectively Governance: • Organizational readiness to establish and enforce data privacy and data protection measures • Organizational focus on AI-driven cybersecurity measures and risk mitigation strategies
Implementation strategies and barriers	Strategies: • Develop structured and effective training programs • Implement phased rollouts with an iterative, insight-driven approach • Prioritize AI solutions that exhibit human-like characteristics • Focus on user-friendly interfaces and seamless user interaction • Leverage a collaborative approach that integrates AI with human expertise Cost and Other Factors: • High initial implementation costs • External regulatory compliance requirements and constraints • Fast-paced evolution of AI driving adoption trends and industry response

DISCUSSION

Given the rapid evolution of generative AI, the available literature was limited, presenting challenges in capturing its full impact. However, this study provides a structured evaluation of emerging trends in UC and generative AI adoption within organizations.

Findings suggest that user perceptions of generative AI in UC platforms are primarily shaped by practical utility and perceived benefits. Users consistently reported productivity improvements, citing enhanced task efficiency, faster task completion, and workflow automation as key advantages. AI-driven functionalities such as automated transcription, live language translation, meeting summarization, and content refinement were frequently recognized as valuable tools for improving communication quality and reducing cognitive load. Additionally, users emphasized the role of decision support features, noting that AI-assisted insights and contextual recommendations contributed to more confident and informed decision-making.

Beyond efficiency, many respondents expressed satisfaction with AI's ability to streamline workflows and integrate seamlessly into existing UC platforms. The classifications of findings reinforce these themes, focusing on perceived usefulness across productivity, quality enhancements, decision support, and workflow optimization. Ultimately, users perceive generative AI as a tool that enhances workplace functionality, reduces effort in routine tasks, and improves overall communication and collaboration.

While specific use cases were not explicitly detailed in all studies, their role in AI adoption remains critical. To maximize the benefits of AI tools like Copilot, organizations must establish well-defined use cases tailored to their operational needs. For instance, automating administrative tasks, such as scheduling, document management, and report generation, can significantly reduce workload and increase efficiency. Quantifying and analyzing time savings and productivity gains from these automations can help organizations evaluate AI's impact on operational effectiveness.

The adoption of generative AI in UC platforms is shaped by three key themes: human-centered factors, organizational infrastructure, and implementation challenges. These elements collectively influence how AI-driven tools enhance workplace communication. Human-centered factors, such as training deficiencies, resistance to change, and fear of job displacement, pose barriers to adoption, while concerns regarding data privacy and workplace relationships also shape perceptions of AI's usefulness. However, organizational culture plays a pivotal role in adoption success. Organizations that foster innovation and maintain a collaborative environment are more likely to integrate AI effectively.

As with previous technological advancements, structured and well-developed training programs are crucial for user acceptance and adoption. Training initiatives should be implemented strategically, particularly for employees in key roles, to ensure they are able to leverage AI tools effectively. A gradual, iterative approach – emphasizing continuous learning and phased implementation – can mitigate adoption challenges and regulatory constraints. These factors are interconnected, as organizational culture influences individual acceptance, while strategic implementation impacts user experience and operational efficiency.

With the expansion of AI capabilities, it is increasingly important for organizations to establish governance structures optimized for data privacy and protection to manage the data shared and generated by these tools. Users should receive training on data labeling and protection mechanisms, ensuring that AI search and retrieval functions align with privacy and security requirements. Organizations must also provide robust tools for document classification and encryption, ensuring that sensitive information remains protected. By fostering a culture of information security and responsible AI use, organizations can mitigate risks and ensure compliance with regulatory standards.

Despite adoption challenges, Forrester Consulting (2024) found that 82.8% of respondents believed AI would become a central or supporting element in communication technologies. However, variability in user satisfaction highlights the need for improvements in AI accuracy, functionality, and user adaptation. Overall, findings suggest a growing expectation that AI will drive significant advancements in UC, reinforcing the need for thoughtful implementation strategies to maximize its potential.

Limitations of the Study

While this study provides a structured evaluation of generative AI within UC platforms, several limitations should be acknowledged. First, the study relies primarily on existing literature and secondary sources, which are largely based on user surveys and perceptions rather than empirical studies examining real-world user experiences. As generative AI is rapidly evolving, the findings may not fully reflect the latest advancements or the long-term implications of AI-driven UC integration. Additionally, the availability and scope of research on generative AI in UC remains limited, as many capabilities are still in early development or pilot stages. Consequently, the discussions in this study are largely informed by theoretical projections and early adoption reports rather than extensive empirical evidence.

Future research

As generative AI becomes more embedded in UC platforms, further research is needed to assess its long-term impact and refine implementation strategies. Longitudinal studies should examine how AI adoption evolves over time, focusing on productivity gains, user adaptation, and organizational transformation. Additionally, research should quantify efficiency improvements and decision-making enhancements, identifying best practices across industries to optimize AI-driven UC integration. Another critical area for exploration is user experience and human-AI collaboration, particularly regarding the cognitive load, trust in AI-generated outputs, and the balance between automation and human oversight. Given that UC operates in diverse cultural and regulatory environments, research should examine regional differences in AI adoption, ethical concerns, and adaptation challenges. Additionally, comparative studies across industries could highlight sector-specific applications and barriers to AI-driven UC.

Beyond generative AI, the emergence of agentic AI represents a significant advancement in UC platforms. Unlike traditional AI systems that respond only to direct user prompts, agentic AI proactively identifies opportunities, coordinates tasks, and autonomously initiates actions, enhancing both communication and workflow efficiency. In Microsoft Teams, for example, Copilot's planned agentic AI capabilities aim to streamline cross-functional workflows by synthesizing data from Microsoft 365 applications and proactively suggesting next steps during meetings. Other emerging applications include real-time translation (Copilot Interpreter Agent), automated HR and IT support (Copilot Employee Self-Service Agent), intelligent meeting management (Copilot Facilitator Agent), and AI-driven project coordination (Project Manager Agent).

As agentic AI continues to develop, research on its role in UC platforms must shift toward examining its impact on enterprise workflows and decision-making processes. This transition moves AI from a reactive tool to an intelligent coordinator, fundamentally transforming how organizations manage information, automate decision-making, and enhance collaboration. Studies should explore how these systems improve workplace efficiency, reduce cognitive load, and enhance strategic coordination across teams. Additionally, further research is needed to assess adoption challenges, including ethical considerations, automation reliability, and user trust in autonomous AI-driven actions.

Conclusion

This study provides a preliminary examination of the integration of generative AI within UC platforms, with a specific focus on Microsoft Copilot in Teams. Findings indicate that generative AI en-

hances productivity, facilitates workflow automation, and improves decision support within UC environments. Users reported that AI-driven features, such as automated meeting summarization, real-time transcription, and AI-assisted content generation, streamline communication and reduce cognitive load. However, successful implementation requires thoughtful integration strategies, robust training programs, and a strong organizational culture that supports AI adoption.

While this study highlights the benefits of generative AI in UC, it also underscores key adoption challenges, including privacy concerns, resistance to change, and the need for regulatory compliance. Organizations must establish governance structures to ensure responsible AI use, particularly in managing data privacy, cybersecurity risks, and ethical considerations. Additionally, iterative implementation approaches, continuous training, and proactive adaptation to AI-driven tools are essential for maximizing the potential of Microsoft Copilot and similar AI-enhanced UC platforms.

As AI technologies continue to evolve, particularly with the emergence of agentic AI, organizations must remain adaptable and informed. Future research should further explore longitudinal adoption trends, sector-specific applications, and the long-term impact of AI integration in UC environments. By addressing these areas, organizations can proactively harness the benefits of AI while mitigating potential risks, ensuring that generative AI and agentic AI tools become valuable assets in optimizing communication, collaboration, and decision-making processes.

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