



Students' Perceptions of Professional Short-Messaging Education in Undergraduate Courses

Seth S. Frei , Allison M. Alford , and Ashly B. Smith 

Keywords: short messaging, text message, chat, business communication, higher education

Abstract: The popularity of short-messaging formats, like text and chat, is on the rise in the workplace with many employees preferring this style over long-form options like email. While many businesses expect employees to communicate using short messages, students may be ill-equipped to effectively use these methods due to a lack of formal training. This study sets out to understand students' experience, confidence, and education related to professional short messaging. Results indicate a correlation between confidence and experience levels in writing text and chat messages. Further, the participants who indicated they had training in writing short messages indicated they learned it in a business communication class. Thus, this study highlights a need for education on short messaging in the business communication classroom to increase student experience, and thus, their confidence in writing these messages.

Introduction

As employees communicate at work, there is an increased adoption of short-form messaging with over 79% of professionals using short messages (Kemp, 2020). These are often contained within team collaboration software (such as Microsoft Teams, Slack, Asana, etc.), which allow team members to post announcements and connect their digital tools in one space. These workspaces help “manage productivity and improve team efficiency” (Johnson, 2018, p. 148). To keep everything organized and all team members on the same page, these workflow spaces rely on frequent, short messages between

Seth S. Frei, Texas State University, San Marcos, TX

Allison M. Alford, Baylor University, Waco, TX

Ashly B. Smith, Sam Houston State University, Huntsville, TX

CONTACT: sethfrei@txstate.edu

team members. This shift in communication styles is designed to meet the up-to-the-moment needs of today's professionals. The use of collaboration software, where short and frequent messages are preferred over those that are long and wordy, creates faster progress and more satisfying results for professionals (Mehandru, 2019). Tools like these can even foster connectivity among colleagues in the workplace and thus increase employee well-being when used effectively (Montrief et al., 2020; Papapicco, 2019). Conversely, the short-format tools that allow for rapid connectivity in organizations can also create perceptions of overload and decrease productivity if used ineffectively or without training (Stephens, 2009).

While many businesses expect employees to utilize virtual teamwork platforms, the skill of short-message communication is not often learned in undergraduate courses. Business communication courses traditionally include business writing, but this curriculum commonly focuses on formal letters, memos, and reports. This study seeks to understand current educational experiences and how students perceive their ability to formulate short messages professionally.

Literature Review

Team Communication and Collaboration Software

Communication has a great impact on the success of a virtual team. Clear communication expectations and norms are especially important in well-functioning virtual teams (Ford et al., 2017). The tools that a team chooses to utilize for communication and collaboration might vary as sometimes they are dictated by availability within the organization, and other times they are the most affordable or accessible option. Regardless of the tools offered, teams must navigate the collaborative technologies that work best for their team communication.

There are many collaborative information technology (CIT) platforms available to connect teams in the workplace, such as Microsoft Teams, Google's G Suite, Slack, Asana, Adobe Connect, and Trello. Users interact with these platforms from both remote and collocated places, applying both synchronous and asynchronous timing to their interactions (Bullinger-Hoffmann et al., 2021). The use of these tools has rapidly gained favor over the past several years, with many workplaces reliant on technology to collaborate and create work products. Sometimes called "Groupware" in the interdisciplinary research field of CSCW (Computer-Supported Cooperative Work), these social collaboration applications have been studied from a variety of perspectives.

First, these platforms are sites of information-sharing and allow functional workflows and task management. According to Marion and Fixson (2021), "From the perspective of a knowledge-based view (KBV) of the firm, these tools can foster the creation of knowledge via faster problem-solving through the rapid dissemination of ideas, comments, and revisions to design" (p. 193). While the platform is a vehicle, the individuals who use it are the true asset of an organization, but their use of the platform determines its effectiveness. Students preparing for the workforce must understand their role in knowledge creation and information-sharing and the professional way to share it with others.

Second, work management platforms have been studied from a technological perspective within the information technology field. In this research area, technologies are designed and evaluated in terms of how they help users achieve their organizational goals (i.e., Jost et al., 2021). The design and implementation of computer networks for data processing and communication are foundational to the

use of task management systems that help businesses get things done. Future business professionals must be adept at using the available digital tools in their workplace but should also consider the social implications of interacting with collaboration software.

The third and final area of study is the social perspective, or the ways in which work is constituted in the relationship between the organization and its group members (Bullinger-Hoffmann et al., 2021). Whether called the “work system,” as in the workplace psychology literature, or the “sociotechnical system,” as in the CSCW field, the social processes that undergird technology are the basis for determining its usage (Bullinger-Hoffmann et al., 2021). While technology enables communication, it is the context of the moment and culture of the workplace which determines its effectiveness at connecting individuals. Whether teams are fully virtual or using a virtual space to connect in addition to face-to-face communication, the software acts as a bridging communication tool to bring teams together. The importance of wielding these tools effectively and in a professional manner cannot be overstated.

Short Messaging

Within team collaboration software, communication functions play a prominent role in the features utilized by many corporations. There are many ways scholars classify and label these tools and messaging platforms, including enterprise social networking (Cardon, 2016), text messaging, collaborative software platforms, and instant messaging (Parra et al., 2022). For this study's purpose, we define short messaging as the sending and receiving of messages typically up to a few sentences in length and used primarily in the workplace. On a typical day, organizational members using these tools will often see several messaging threads from various small groups open and in progress, accessible on multiple devices. For example, Microsoft Teams allows users to communicate within multiple groups, or “teams,” in a desktop application, within an internet browser, and on mobile device applications (Microsoft, 2023). A user could switch between these devices throughout the day and the messages would be current each time the user checked in, as long as they were connected to the internet. While there are many platforms that offer short messaging, we focus primarily on the communication via the messages rather than the overall platform.

With exploding popularity, workplace connectivity software is not only becoming an essential part of modern organizational culture, important for completing everyday tasks, but it is also seeping into the vernacular with phrases like “I'll Slack You” signifying a worker's preferred mode of communication (Ivanova, 2019). One way that short messaging influences teams at work is through community-building and the fulfillment of needs (Uysal, 2016). When employees exchange and observe others providing support using short messaging, they have an increased sense of community at work. Short messages provide opportunities to enhance virtual teamwork that can go beyond traditional email and text messages (Montrief et al., 2020). Short messaging continues to surge in popularity with 79% of professionals using messaging services for communication at work (Kemp, 2020). While this popularity is highest with the youngest employees (>87% of employees 16–24 years old report using messaging services at least once per week), it is also very popular with those in the 55–64 age bracket (>47% report using messaging services at least once per week) (Kemp, 2020). The popularity of short messaging is higher than all other forms of communication besides email. Moreover, professionals must be well-versed in short messaging to avoid potential risks associated with poorly executed use of these tools. Whether aiming to avoid legal issues (Greene, 2018), after-hours policies related to messaging (Cheng et al., 2021), or overload from nonstop connectivity (Stephens, 2009), organizations are increasingly seeing the need for professionalism and use of smart judgment in contexts related to short-form messaging.

Short Messaging Education

It is clear that professionals are using short messaging in the workplace to achieve their goals (Kemp, 2020). Some research suggests that employees' professional short-messaging skills meet or exceed employers' expectations (Jones, 2011). Nevertheless, many scholars argue that students should be provided with learning opportunities on the form and etiquette of short-message communication given its prevalence in the workplace (Darics, 2020; Jones, 2011; Towner et al., 2019). There is less guidance, though, on what should be included in such instruction and how to effectively teach these skills.

Over the past 2 decades, some pedagogical scholarship has focused on drawing students' attention to various communication mediums' affordances, advantages, and disadvantages. These activities often ask students to use one or more digital communication tools for a task and then reflect on how the tool or medium affected their communication behaviors and expectations (Barrett & Murphy, 2019; Turman, 2005; Wallace & Mundell, 2003). While these projects are valuable, they tend to emphasize students' *reflection on* and *awareness of* the influence of the medium on their practices rather than specifically teaching professional short-messaging skills.

When considering what should be included in short-message instruction, some researchers who study professional digital communication in the workplace critique the common guidance that advises writers to follow formal writing rules and avoid slang, abbreviations, emojis, and other similar features in their digital messages (Darics, 2020; Skovholt et al., 2014). Instead, their work shows that professionals often embrace informal tools, like emojis and other nonverbal communication representations, to increase the perceived richness of text-based digital communication and reduce ambiguity (Darics, 2020; Skovholt et al., 2014). Along these lines, some educators provide pedagogical activities to help students consider the value and effective use of emojis and emoticons (for example, Brody & Caldwell, 2019), but not necessarily for professional short-messaging contexts. Consider, however, the differences in form and function that occur in emails and in short messaging formats, as illustrated in the following hypothetical example in which two team members are discussing an upcoming pitch presentation. The email version of this message uses communication that is asynchronous, slightly formal, and compiles multiple topics into one message:

Good morning Jordan,

This email is your reminder that we are due in the conference room at 3 p.m. for a meeting with the executives from Big Time. Please remember to bring enough printed agendas for everyone who will attend. Also, bring some extra pens just in case anyone needs one. We might not end up needing these, but I prefer to have something to give them when they arrive because it shows that we are prepared for the meeting. I have attached the agenda here for you to see the most updated version.

As you know, this is an important account for us and we are hoping to do well on today's pitch. Thanks for all the hard work you've put in so far. When we get in there, let's project confidence, our collaborative spirit, and show that we can handle any question they throw at us.

If you have any questions for me before the meeting, you can email me or stop by my office. I will be working on prep for this meeting all day.

Best,

Phan

In contrast, the short message version of this message uses communication that is synchronous between the sender and receiver, conversational in nature with brief pauses that do not follow traditional grammar rules, includes emojis for emotions, yet accomplishes the same functions as the email message:

Phan (08:42 a.m.): Meeting at 3 p.m. today!

Jordan (08:42 a.m.): Yeah! It's gonna be great. Big Time will be impressed with this, I'm sure.

Phan (08:43 a.m.): Got the agendas ready?

Jordan (08:43 a.m.): Printed and sitting on my desk. 😊

Phan (08:43 a.m.): 🙌

Jordan (08:44 a.m.): Don't worry boss, we've got this. We're ready.

Phan (08:44 a.m.): Just gotta show up with confidence, answer all their questions, and they will be so impressed they can't pass this up.

Phan (08:44 a.m.): Couldn't ask for a better team. 🙌🙌🙌

The research that more directly addresses professional short-message education tends to acknowledge its importance but offers mostly broad recommendations. In most cases, this scholarship highlights the connection between CIT platforms, short-messaging skills, and professionalism. In their report on one university's use of Microsoft Teams for online education, Hewson and Chung (2019) argue that the use of such tools is more effective when norms and communication guidelines are established and communicated to users during implementation. More narrowly, some scholars recommend that etiquette for mobile phone use (Towner et al., 2019) and text message etiquette (Black et al., 2021) should be incorporated into business courses to strengthen students' overall professionalism as they enter workplaces, but the research generally does not elaborate on what specific guidance should be imparted to students.

The limited research on short-messaging education reinforces the idea that this topic should be covered as part of developing students' overall professionalism and professional communication skills. Yet, more research investigating what should be taught about short-messaging communication skills and how to effectively teach them to students would help instructors better prepare students for the workplace.

Research Goals

To effectively communicate in digital media spaces, students must understand the features of distinct types of digital messages, including short messaging. Thus, since short-messaging skills are important in the workplace, this study aims to further understand the current need to learn these skills. To this end, the following research questions are posed:

RQ1: What experience do students have with short messaging for professional communication?

RQ2: How do student confidence levels compare to experience levels for creating effective short messages on virtual teamwork platforms?

RQ3: What educational training on short messaging have students participated in?

Methodology

For this study, permission was obtained through two institutions' internal review boards to gather data on short messaging. Data was collected via an anonymous online survey hosted on Qualtrics which solicited both demographic and study data.

Research participants ($n = 406$) were recruited from business communication courses at two large universities in the Southwestern United States. Participants were offered extra credit in their course for participation in the study, gathered via a secondary survey with identifying information. Participation was not required and was not tied to a graded activity in the course. Participant ages ranged from 19–45 years old with an average age of 22 years old. Participants were 40% male ($n = 167$), 58% female ($n = 238$), and 2% declined to answer ($n = 3$). Study participants self-identified their race as White (69%, $n = 287$), Black or African American (8%, $n = 31$), American Indian or Alaska Native (>1%, $n = 3$), Asian (7%, $n = 31$), Native Hawaiian or Pacific Islander (>1%, $n = 1$), two or more races (7%, $n = 28$), and 8% declined to answer ($n = 32$). Regarding their education and work life, most survey participants (96%, $n = 397$) are full-time students taking 12+ weekly course credits.

After completing the demographic data, participants were asked questions related to short-form messaging. Because this was an exploratory study on short messaging, new survey questions were created to address the research questions. These questions were divided into sections related to employment situations, educational settings, and professionalism.

First, participants were asked to report on short messaging related to their employment experiences (RQ1). This included questions like, "*What, in your opinion, is the most common form of written messages used to communicate between colleagues in a professional workplace?*" with multiple-choice options including email, online message boards, memos, chats, text messages, or other. To answer RQ2, participants were asked to report on their confidence level *and* experience levels in writing text and chat messages in the workplace using a 0–10 scale (0 = "Not at all Confident" and 10 = "Very Confident"). Participants were also asked to describe a time when they used short-form messaging in the workplace via an open-ended question.

Next, to address RQ3, participants answered questions about short-form messaging and educational experiences. This section included questions like, "*Have you been trained in any undergraduate course to write short messages (such as texts and chats) effectively?*" with a Yes or No option. Participants were asked to report in which classes they were taught to write short messages effectively via an open-ended text box.

Results

For RQ1, the survey asked students currently or previously working in their prospective career field ($n = 100$) about the most prevalent form of written messages used to communicate between colleagues.

Respondents indicated email (71%, $n = 71$), chats (12%, $n = 12$), and text messages (12%, $n = 12$) are the most common form of written messages used. When asked if they believe short messages (texts or chats) are often used in business settings, 82% ($n = 82$) said yes, 9% ($n = 9$) said no, and 8% ($n = 8$) were unsure. Students also rated their level of experience using a semantic differential scale to indicate level of experience writing text and chat messages for business communication purposes. Results indicated moderate levels of experience for text ($M = 6.63$, $SD = 2.36$) and chat ($M = 6.20$, $SD = 2.43$) messages on a scale of 1–10.

For RQ2, a Pearson correlation was calculated examining the relationship between confidence level and experience level in writing effective text messages. A strong positive correlation was found ($r(403) = .685$, $p < .001$), indicating a significant linear relationship between the two variables. Greater confidence levels are associated with greater experience levels for writing text messages. Descriptive statistics indicate higher average confidence levels ($M = 7.19$, $SD = 2.18$) than experience levels ($M = 6.32$, $SD = 2.63$). A Pearson correlation was also calculated examining the relationship between confidence level and experience level in writing effective chat messages (using online platforms like Zoom or virtual communities like Microsoft Teams). A strong positive correlation was found ($r(401) = .789$, $p < .001$), indicating a significant linear relationship between the two variables. Greater confidence levels are associated with greater experience levels for writing chat messages. Descriptive statistics indicate higher average confidence levels ($M = 6.69$, $SD = 2.35$) than experience levels ($M = 6.03$, $SD = 2.67$).

To answer RQ3, 24% ($n = 95$) of respondents indicated they had training in an undergraduate course on writing short messages. Of those that responded yes, the most frequent courses listed where they learned how to write short messages were Business Communication ($n = 60$), English ($n = 11$), Intro to Journalism ($n = 9$), and Communication ($n = 7$).

Discussion

The purpose of this study was to better understand students' perspectives on short messaging, a communication format they will be expected to perform effectively once employed. Results for RQ1 indicate that students are aware that short-messaging formats are used for business purposes but have only moderate experience with texting and chatting in professional circumstances. Respondents' moderate level of experience may be related to the relatively young average age of respondents, 22 years old. Still, it is clear there is a need for communication competence in the workplace. In a recent survey of U.S. degree- and credential-seeking students and professional recruiters, Ellucian (2019) found that while students understand that communication skills are essential to professional success, recruiters find new graduates lacking in these competencies. Incorporating more classroom instruction about short-messaging etiquette may improve new graduates related skills as they begin their careers.

Despite limited experience communicating professionally with short messages, students in this study indicate confidence that they can successfully deploy these messages in the workplace, as shown in the results for RQ2. This finding indicates that students have a greater belief in their abilities than they have proof of these abilities. This result echoes the findings presented by the National Association of Colleges and Employers (NACE), which found that students overestimate their proficiency in communication when compared to a recruiter's evaluation, causing a lower chance of employment because communication is one of the top three competencies desired by employers (Collins, 2022). According to Collins, this discrepancy may occur because students do not understand how college experiences relate to real-world

employment scenarios. A potential solution to this problem of overconfidence bias is a greater application of experiential learning opportunities.

Although there is a need for educational experiences tailored to today's modern workplace communication, the results for RQ3 show that most students (76%) in our study indicated that they had no formal education or training on the use of short messaging for professional purposes. Though digital communication and the need for tailored solutions have long been heralded as necessary and important (Cardon, 2016), education for business undergraduates struggles to keep pace with modern communication needs, which require modern pedagogical solutions. Embedding digital communication platforms into classroom education, according to Proszek (2019), can improve students' abilities to communicate with *digital* audiences as compared to *material* audiences. Thus, Proszek (2019) suggests, "Instructors, therefore, must make a conscious effort to demonstrate how audiences access, convene, listen, and respond through digitally mediated networks and technologies" (p. 130).

Taken together, findings related to a lack of classroom education on short messaging, coupled with the experience and confidence data above, reveal that students are likely *informally* learning the process of communicating with short messages or naively believing that personal experience with a tool equates to professional success. What is certainly true is that digital communication is a key feature of the modern workplace. The latest data on Gen Z professionals, the youngest generation in today's workforce, shows that they are redefining the use of technology and seeking employers willing to match their needs with resources (Fernandez et al., 2023). Not only is it our responsibility to train and educate much of the workforce, but also to keep pace with them as they innovate and redefine what it means to communicate effectively in the workplace.

Practical Applications

Short-message communication can be tricky for students and early-career professionals. Even though they may be familiar with the personal use of short messages, they are often less experienced with how to use the common yet informal short-message communication conventions (e.g., emojis, incomplete sentences, etc.) on professional platforms while maintaining professionalism. While new graduates give themselves high ratings on their professionalism skills, employers surveyed by the National Association of Colleges and Employers rated new graduates' professionalism as the sixth of eight career readiness competencies (Gray & Collins, 2022). There are many factors in professionalism, but the kind of professional yet informal communication needed in short-message formats is one important aspect that students should learn about (Black et al., 2021; Jones, 2011). While the research on short messages in professional settings is ripe for further investigation, the following steps would be useful starting points for instructors who are adding this training to their courses.

One starting step is to inform students about the increasing use of CIT platforms and short-message communication in the workplace (Black et al., 2021; Bullinger-Hoffmann et al., 2021; Cardon, 2016; Jones, 2011). When students see that they will be expected to use these skills in the workplace, they are more likely to engage in lessons that will strengthen their relevant skills. Further, instruction related to short-message communication should recognize that these messages occur in spaces that are part of an organization's professional oversight, and as such, are governed by norms and expectations just as physical workspaces are (Bullinger-Hoffmann et al., 2021; Hewson & Chung, 2019; Jost et al., 2021). Although short-message communication may have some informal features, an organization's expectations for professionalism and business etiquette still apply in many ways to these messages.

Second, students should be able to determine when a short message would be an appropriate format for a message. Concerning the differences between sending an email and a short message, the challenge may be to consider not only the content of the message but also the context. In their ethical training materials, for example, 3M (2020) shows an instant-message exchange that occurs between colleagues who are discussing one colleague not being invited to an after-hours team dinner. The message is written in complete sentences like an email, but it has a conversational and confiding tone that is more likely to be used in a short messaging format when colleagues communicate back and forth rapidly. 3M's use of a short message to teach ethical policy demonstrates that not only is this form of messaging common but there is much more to short messages than their form; function and context must also be considered. An instructor could develop prompts like the 3M sample to help students understand the nuances of format selection and when a short message would be appropriate.

Students should also be trained to use the less formal language that is common in short messages while maintaining reasonably professional communication. Prior research shows that professionals' short messages in the workplace are more likely to include emoticons or emojis and nonstandard capitalization, punctuation, and spelling to better signal their tone (Darics, 2020; Skovholt et al., 2014). For example, a coworker might send a short message like "great meeting!!! thx for your help :-)" to show appreciation to a team member after a meeting. Instruction on using informal language in professional contexts could address, as starting points, the connotations of certain emojis/emoticons and tactics students could use to identify how acceptable nonstandard language is when using short messages within an organization that hires them.

While there is more to learn about the use of short messaging in the workplace, teaching short-message communication skills would help prepare our students to be more effective, professional communicators.

Limitations and Future Research

Like all studies, this one has limitations that are important to note in order to contextualize the findings. First, due to the exploratory nature of the study design, results should not be seen as diagnostic but rather as descriptive of an area ripe for further inquiry. Furthermore, the findings from this study are not generalizable to the larger population but represent a snapshot of the students' experiences at one point in time. We acknowledge that sampling a pool of business communication students may have poised the population to respond to the study questions with greater intentionality than a more diverse data set may have achieved.

This study helps unlock several future avenues to study short-messaging education as this communication format seems to only be increasing in the workplace. For example, future research could include business professionals or business educators to compare confidence and experience levels reported by students to those who observe them externally. Future investigation should include employers' perceptions of the nature, amount, and necessity of short messaging in the workplace. A second area of research could focus on intercultural aspects affecting short-messaging education. Since communication norms vary around the world, the frequency and purpose of short messaging might be different depending on your culture of origin. When a university with a large mix of students from various cultures teaches short messaging, each student might have a different background and perspective. Future research would be beneficial in providing direction to instructors of courses with vastly different experiences in short-messaging habits.

Conclusion

The days of email being the only form of digital written communication in the workplace are over and short messages are commonplace. We set out to explore the topic of students' perspectives on professional short messaging and the education they receive in this area. As communication instructors, we must stay abreast of current industry needs and equip our students to communicate effectively in fast-paced, rapidly changing environments. This study demonstrated that students need more short-messaging communication training to keep pace with current organizational communication trends, and we must create educational interventions to meet this demand.

References

- 3M Ethics and Compliance. (2020). *Global code of conduct*. <https://multimedia.3m.com/mws/media/12375160/codeofconducthandbook-en.pdf>
- Barrett, A. K., & Murphy, M. (2019). Was that logical? Demonstrating decision-making constraints in the contemporary workplace environment. *Communication Teacher*, 33(4), 309–314. <https://doi.org/10.1080/17404622.2019.1575426>
- Black, H. G., Dingus, R., & Milovic, A. (2021). From student to professional: Teaching professionalism in the marketing classroom. *Marketing Education Review*, 31(1), 41–52. <https://doi.org/10.1080/10528008.2020.1836974>
- Brody, N., & Caldwell, L. (2019). Cues filters in, cues filtered out, cues cute, and cues grotesque: Teaching mediated communication with emoji Pictionary. *Communication Teacher*, 33(2), 127–131. <https://doi.org/10.1080/17404622.2017.1401730>
- Bullinger-Hoffmann, A., Koch, M., Möslein, K., & Richter, A. (2021). Computer-supported cooperative work – revisited. *i-com*, 20(3), 215–228. <https://doi.org/10.1515/icom-2021-0028>
- Cardon, P. (2016). Community, culture, and affordances in social collaboration and communication. *International Journal of Business Communication*, 53(2), 141–147. <https://doi.org/10.1177/2329488416635892>
- Cheng, H.-L., Lin, T.-C., Tan, W.-K., & Chiu, C.-M. (2021). Understanding employees' response to work-related after-hours use of instant messaging apps: A stress and coping perspective. *Online Information Review*, 45(7), 1247–1267. <https://doi.org/10.1108/OIR-06-2020-0214>
- Collins, M. (2022, March 4). Recruiters and students have differing perceptions of new grad proficiency in competencies. NACE. Retrieved March 13, 2023, from <https://www.nacweb.org/career-readiness/competencies/recruiters-and-students-have-differing-perceptions-of-new-grad-proficiency-in-competencies/>
- Darics, E. (2020). E-leadership or “How to be boss in instant messaging?”: The role of nonverbal communication. *International Journal of Business Communication*, 57(1), 3–29. <https://doi.org/10.1177/2329488416685068>
- Ellucian. (2019). *Credential clout: How higher ed can prepare for an evolving job market: A survey of U.S. students and recruiters*. <https://www.ellucian.com/assets/en/white-paper/credential-clout-survey.pdf>
- Fernandez, J., Lee, J., & Landis, K. (2023, January 18). Helping Gen Z employees find their place at work. *Harvard Business Review*. <https://hbr.org/2023/01/helping-gen-z-employees-find-their-place-at-work>
- Ford, R. C., Piccolo, R. F., & Ford, L. R. (2017). Strategies for building effective virtual teams: Trust is key. *Business Horizons*, 60, 25–34. <https://doi.org/10.1016/j.bushor.2016.08.009>
- Gray, K., & Collins, M. (2022, October 18). *New college graduates and employers agree on key competencies, but at odds about new grad proficiency*. <https://www.nacweb.org/about-us/press/new-college-graduates-and-employers-agree-on-key-competencies-but-at-odds-about-new-grad-proficiency/>

- Greene, M. (2018, October 9). Non-profit sanctioned for botched litigation hold. *Bloomberg Law*. <https://news.bloomberglaw.com/e-discovery-and-legal-tech/non-profit-sanctioned-for-botched-litigation-hold>
- Hewson, E., & Chung, G. W. (2019). Beyond the VLE: Transforming online discussion and collaboration through Microsoft Teams. In G. Ubachs & F. Joosten-Adriannse (Eds.), *Blended and online education within European university networks*, the online, open and flexible higher education conference proceedings (pp. 36–47). https://pure.coventry.ac.uk/ws/portalfiles/portal/27637722/Proceedings_OOFHEC2019.pdf#page=48
- Ivanova, I. (2019, June 19). Shares in workplace software phenom Slack soar 50% in first day of trading. *Money Watch*. <https://www.cbsnews.com/news/slack-ipo-work-stock-price-up-50-percent-in-first-day-of-trading-on-new-york-stock-exchange/>
- Johnson, H. A. (2018). Slack. *Journal of the Medical Library Association*, 106(1), 148–151. <https://doi.org/10.5195/jmla.2018.315>
- Jones, C. G. (2011). Written and computer-mediated accounting communication skills: An employer perspective. *Business Communication Quarterly*, 74(3), 247–271. <https://doi.org/10.1177/1080569911413808>
- Jost, F., Newell, R., & Dale, A. (2021). CoLabS: A collaborative space for transdisciplinary work in sustainable community development. *Heliyon*, 7(2), e05997. <https://doi.org/10.1016/j.heliyon.2021.e05997>
- Kemp, S. (2020, October 20). Digital 2020: October global snapshot. *Datareportal*. <https://datareportal.com/reports/digital-2020-october-global-statshot>
- Marion, T. J., & Fixson, S. K. (2021). The transformation of the innovation process: How digital tools are changing work, collaboration, and organizations in new product development. *Journal of Product Innovation Management*, 38(1), 192–215. <https://doi.org/10.1111/jpim.12547>
- Mehandru, K. (2019, October 22). Slack and Zoom have proven that the future of work is agile. *Forbes*. <https://www.forbes.com/sites/karanmehandru/2019/10/22/slack-and-zoom-prove-the-future-of-work-is-agile/#67722e1c5c46>
- Microsoft. (2023). *Instant Messaging*. <https://www.microsoft.com/en-us/microsoft-teams/instant-messaging>
- Montrief, T., Haas, M. R. C., Alvarez, A., Gottlieb, M., Siegal, D., & Chan, T. (2020). Thinking outside the inbox: Use of Slack in clinical groups as a collaborative team communication platform. *AEM Education and Training*, 5(1), 121–129. <https://doi.org/10.1002/aet2.10497>
- Papapicco, C. (2019). Whats...App at work? Instant messaging improves professional well-being. *SSRG International Journal of Communication and Media Science*, 6(1), 17–23. <https://doi.org/10.14445/2349641X/IJCMS-V6I1P103>
- Parra, E., Alahmadi, M., Ellis, A., & Haiduc, S. (2022). A comparative study and analysis of developer communications on Slack and Gitter. *Empirical Software Engineering*, 27(40). <https://doi.org/10.1007/s10664-021-10095-1>
- Proszek, J. M. (2019). Developing a digital voice: Embedding digital communication networks, platforms, and technologies in the 21st-century classroom. *Journal of Communication Pedagogy*, 2, 127–133. <https://doi.org/10.31446/JCP.2019.22>
- Skovholt, K., Grønning, A., & Kankaanranta, A. (2014). The communicative functions of emoticons in workplace e-mails :-). *Journal of Computer-Mediated Communication*, 19(4), 780–797. <https://doi.org/10.1111/jcc4.12063>
- Stephens, K. K. (2009). Optimizing costs in workplace instant messaging use. *IEEE Transactions on Professional Communication*, 51(4), 369–380. <https://doi.org/10.1109/TPC.2008.2007864>

- Towner, E. B., Everett, H. L., & Klemz, B. R. (2019). Not so different? Student and professional perceptions of mobile phone etiquette in meetings. *Business and Professional Communication Quarterly*, 82(3), 317–336. <https://doi.org/10.1177/2329490619836452>
- Turman, P. D. (2005). Norm development, decision making, and structuration in CMC group interaction. *Communication Teacher*, 19(4), 121–125. <https://doi.org/10.1080/14704620500289082>
- Uysal, N. (2016). Social collaboration in intranets: The impact of social exchange and group norms on internal communication. *International Journal of Business Communication*, 53(2), 181–199. <https://doi.org/10.1177/2329488415627270>
- Wallace, C., & Mundell, D. (2003). Crafting a cyber assignment: The first cut. *Business Communication Quarterly*, 66(4), 102–106. <https://doi.org/10.1177/108056990306600411>
-