

POWERFUL TOOLS FOR COMMUNICATING EFFECTIVELY

The tools of business communication evolve with every advance in digital technology. The 20 technologies highlighted on the next four pages help businesses redefine the office, collaborate and share information, connect with stakeholders, and build communities of people with shared interests and needs. For more examples of business uses of social media tools in particular, see pages 144–145 in Chapter 6.

REDEFINING THE OFFICE

Thanks to advances in mobile and distributed communication, the "office" is no longer what it used to be. Technology lets today's professionals work on the move while staying in close contact with colleagues, customers, and suppliers. These technologies are also redefining the very nature of some companies, as they replace traditional hierarchies with highly adaptable, virtual networks.

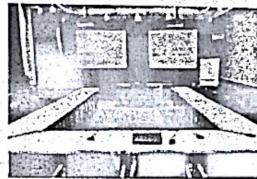
Web-Based Meetings



Audrey Papir/Shutterstock

Web-based meetings allow team members from all over the world to interact in real time. Meetings can also be recorded for later playback and review. Various systems support instant messaging, video, collaborative editing tools, and more.

Videoconferencing and Telepresence



Dashed/Sutterstock

Videoconferencing provides many of the benefits of in-person meetings at a fraction of the cost. Advanced systems feature *telepresence*, in which the video images of meeting participants are life-sized and extremely realistic.

Shared Online Workspaces



Courtesy of Conceptboard

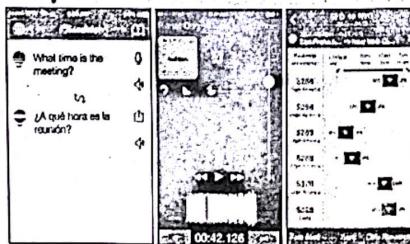
Online workspaces help teams work productively, even if they are on the move or spread out around the world. In addition to providing controlled access to shared files and other digital resources, various systems include project management functions, real-time document editing, group messaging, and other collaboration tools.

Voice Technologies

Speech recognition (converting human speech to computer commands) and *speech synthesis* (converting computer commands to human speech) can enhance communication in many ways, including simplifying mobile computing, assisting workers who are unwilling or unable to use keyboards, and allowing "one-sided" conversations with information systems. *Speech analytics software* can evaluate conversations to improve customer service and other interactions. *Mobile VoIP* lets people make voice calls on WiFi networks to save connection and roaming charges.



Fancy Collection/Shutterstock



Courtesy of Sonica GmbH; www.itranslate.com; Courtesy of bosssock studio, www.bosssock studio.com; Courtesy of Hipmunk, http://www.hipmunk.com

Mobile Business Apps

As the range of business software applications on smartphones and tablet computers continues to expand, almost anything that can be accomplished on a regular computer can be done on a mobile device (although not always as efficiently or with the same feature sets).

Workgroup Messaging



Courtesy of Slack Technologies, Inc.
[HeadsUp: Flickr Studio/723PR; Charles
Knoz/Shutterstock.com]

With workgroup messaging systems, teams can set up a variety of channels to manage communication on specific topics, and individuals can configure alerts to make sure they get the messages they need without being flooded by messages they don't. All communication is automatically archived and available to search, so vital conversational threads and other resources are easy to find.

Crowdsourcing and Collaboration Platforms



Courtesy of Innocentive, Inc.

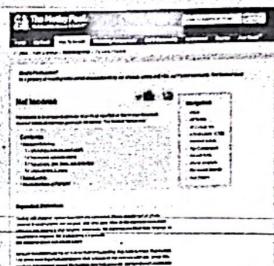
Crowdsourcing, inviting input from groups of people inside or outside the organization, can give companies access to a much wider range of ideas, solutions to problems, and insights into market trends.

COLLABORATING AND SHARING INFORMATION

The need to work with and share information quickly and easily is a constant in business. A wide variety of tools have been developed to facilitate collaboration and sharing, from general purpose systems such as instant messaging to more specialized capabilities such as data visualization.

Wikis promote collaboration by simplifying the process of creating and editing online content. Any-one with access (some wikis are private; some are public) can add and modify pages as new information becomes available.

Wikis



"The Motley Fool" from The Motley Fool website.
Courtesy of Erik Stensland, Used by Erik Stensland.

Data Visualization

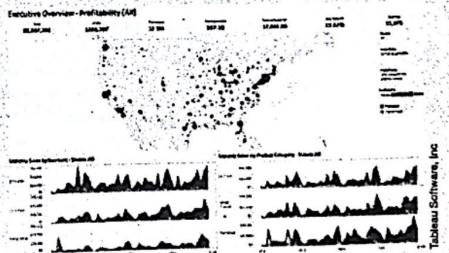
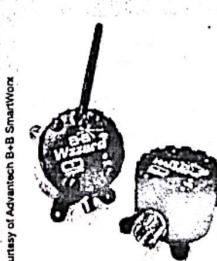


Tableau Software, Inc.

Data visualization is a powerful tool for presenting and exploring sets of data that are very large, complex, or dynamic. As more companies rely on "big data" to identify and capitalize on market opportunities, the ability to extract insights from these large data sets can be an important competitive advantage.



Courtesy of Advantech B+B Smartworx

Internet of Things

The *Internet of Things* (*IoT*) refers to the billions of smart, autonomous devices that are now connected via the Internet. These "things" are sensors, controllers, and other devices that send, receive, or process data. This machine-based communication can support or even replace conventional methods of business communication.

CONNECTING WITH STAKEHOLDERS

Electronic media and social media in particular have redefined the relationships businesses have with internal and external stakeholders. Any groups affected by a company's decisions now have tools to give voice to their opinions and needs, and companies have many more conversational threads that need to be monitored and managed.

Applicant Tracking Systems



Screenshot from Recruit by 2010 Corporation.
Copyright © by Mason Haring. Used by permission.

Applicant tracking systems now play a huge role in employment-related communications. At virtually all large companies and many medium and small companies, your resume and application information will be entered into one of these systems. Recruiters use various tools to identify promising candidates and manage the interview and selection process. After hiring, some firms use *talent management systems* to track employee development through workers' entire careers at the company.

Online Video



Courtesy of Lie Nielsen Tools

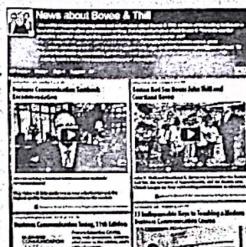
Blogging



Photo © iStockphoto.com/Florin Cîțu

Blogs let companies connect with customers and other audiences in a fast and informal way. Commenting features let readers participate in the conversation, too.

Content Curation



Bowe and Thrill LLC

Content curation, selecting videos and other items of interest to followers of a website or blog, has become one of the most popular ways to connect with stakeholders. Pinterest and Scoop.it are among the leading technologies in this area.

Podcasting

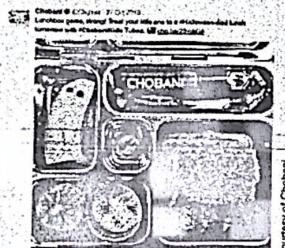


RoberReuter/Getty Images

- The combination of low-cost digital video cameras and video-sharing websites such as YouTube has spurred a revolution in business video. Product demonstrations, company overviews, promotional presentations, and training seminars are among the most popular applications of business video.
- *Branded channels* allow companies to present their videos as an integrated collection in a customized user interface.

With the portability and convenience of downloadable audio and video recordings, podcasts have become a popular means of delivering everything from college lectures to marketing messages. Podcasts are also used for internal communication, replacing conference calls, newsletters, and other media.

User-Generated Content



Courtesy of Chobani

User-generated content (UGC) is a great way to foster a sense of community among customers and enthusiasts. UGC can be hosted permanently on websites such as YouTube or Flickr, or generated as part of a one-time program, such as this Twitter campaign by the yogurt company Chobani.

Microblogging



Courtesy of farms.com

Twitter and other microblogging services are a great way to share ideas, solicit feedback, monitor market trends, and announce special deals and events.

Social Networking



Burt's Bees is a registered trademark of Burt's Bees LLC, 100% Natural. ©2010 Burt's Bees Inc.
The Burt's Bees logo is a registered trademark of Burt's Bees Inc.
Burt's Bees® Products. ©2010 The Burt's Bees Product Company, a division of Burts Bees Inc. Courtesy of Burt's Bees Inc.

Facebook and other social networks have become important business communication tools for interacting with customers and other stakeholders.

BUILDING COMMUNITIES

One of the most significant benefits of new communication technologies is the ease with which companies can foster a sense of community among customers, enthusiasts, and other groups. In some instances, the company establishes and manages the online community, while in others the community is driven by product champions or other enthusiasts.

Gaming Technologies



Monkey Business/Chobani

Adding game-playing elements to business processes (such as competitions for sales or service teams) can increase engagement from employees and customers alike.

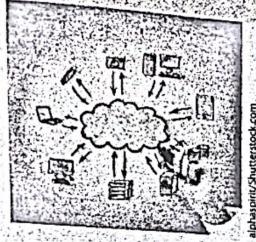
Community Q&A Sites



© 2015 Autodesk, Inc. Used with permission.

Many companies now rely heavily on communities of customers to help each other with product questions and other routine matters.

Figure 1.4 Communication and Collaborative Technologies



alphaspirit/Shutterstock.com

Communication Technologies

Communication Technologies at Work

Cloud Computing, Web 2.0, and Beyond

Increasingly, applications and data are stored in remote locations online, in the cloud. This ability to store and access data on remote servers is called *cloud computing*. Cloud computing means that businesses and individuals no longer need to maintain costly hardware and software in-house; instead, they can centralize data on their own remote servers or pay for digital storage space and software applications offered by providers online. Photo- and video-sharing sites such as Instagram, Flickr, and YouTube keep users' media in the cloud. Similarly, Dropbox, a popular file-synchronization service, and online backup provider Carbonite allow customers to edit and sync files online independent of the device used to access them. Websites and Web applications have shifted from one-way, read-only communication to multidirectional, social, read-write communication. This profound change, dubbed Web 2.0, has allowed workers to participate, collaborate, and network in unprecedented ways. More changes on the horizon include the Internet of things, the storing and making sense of big data, artificial intelligence, and self-driving cars. Continuous automation will make many current jobs obsolete.

Telephony: VoIP

Savvy businesses are switching from traditional phone service to voice over Internet protocol (VoIP). This technology allows callers to communicate using a broadband Internet connection, thus eliminating long-distance and local telephone charges. Higher-end VoIP systems now support unified voice mail, e-mail, click-to-call capabilities, and softphones (Web applications or mobile apps, such as Google Voice, for calling and messaging). Free or low-cost Internet telephony sites, such as the popular Skype and FaceTime, are also increasingly used by businesses, although their sound and image quality is often uneven.



Paul Bradbury/Gett Images

Open Offices

The widespread use of laptop computers, tablets, and other smart devices, wireless technology, and VoIP have led to more fluid, flexible, and open workspaces. Smaller computers and flat-screen monitors enable designers to save space with boomerang-shaped workstations and cockpit-style work surfaces rather than space-hogging corner work areas. Smaller breakout areas for impromptu meetings are taking over some cubicle space, and digital databases are replacing file cabinets. Mobile technology allows workers to be fully connected and productive on the go.



Eastman Stock/Alamy Stock Photo

Becoming familiar with modern communication technology can help you succeed on the job. Today's digital workplace is shaped by mobile devices, mobile apps, social media networks, superfast broadband and wireless access, and other technologies that allow workers to share information, work from remote locations, and be more productive in or away from the office. With today's tools you can exchange

ideas, solve problems, develop products, forecast performance, and complete team projects any time of the day or night anywhere in the world.



Denys Prykhodov/Shutterstock.com

Speech Recognition

Computers equipped with speech-recognition software enable users to dictate up to 160 words a minute with accurate transcription. Speech recognition is particularly helpful to disabled workers and to professionals with heavy dictation loads, such as physicians and attorneys. Users can create documents, enter data, compose and send e-mails, browse the Web, and control their notebooks, laptops, and desktops—all by voice. Smart devices can also execute tasks with voice command apps—for example, to dial a call, find a route, or transcribe voice mail.



Wearable Devices

The most recent trend in mobile computing is wearable devices. Fitbit, Google Glass, Apple Watch, and similar accessories do more than track fitness activities. They are powerful mobile devices in their own right that can sync with other smart electronics.

Cloud Computing: © vvvvectors/Shutterstock.com; Telephone: VoIP: © Magdalena Prints/Newscom; Voice Recognition: © iStockphoto.com/Denys Prykhodov; Open Offices: © magneamine/OpenOffice.org; Wearable Devices: © iStockphoto.com/Stephanie L. Johnson

Smart Mobile Devices and Digital Convergence

Lightweight, ever-smaller devices provide phone, e-mail, Web browsing, and calendar options anywhere there is a cellular or Wi-Fi network. Tablets and smartphones such as Android devices and the iPhone and iPad allow workers to tap into corporate databases and intranets from remote locations. Users can check customers' files, complete orders, collect payment, and send out receipts without returning to the office. The need for separate electronic gadgets is waning as digital smart devices are becoming multifunctional and highly capable. With streaming video on the Web, connectivity between TVs and computers, and networked mobile devices, technology is converging, consolidating into increasingly powerful devices. Many smart devices today are fully capable of replacing digital point-and-shoot still photography and video cameras. Mobile smart devices are also competing with TVs and computers for primacy.



Videoconferencing

Videoconferencing allows participants to meet in special conference rooms equipped with cameras and television screens. Individuals or groups see each other and interact in real time, although they may be far apart. Faster computers, rapid Internet connections, and better cameras now enable 2 to 200 participants to sit at their own computers or mobile devices and share applications, spreadsheets, presentations, and photos. The technology extends from the popular Internet applications Skype and FaceTime to sophisticated videoconferencing software that delivers HD-quality audio, video, and content sharing.



Source: Polycom, Inc.

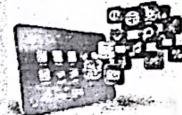


Hero Images/Getty Images

Smart Mobile Devices and Digital Convergence: © Antennas Bulb/The Image Bank/Getty Images; Video Conferencing: © Javert Lannigan/PhotoAlto/Corbis; Video Conferencing Technology: © Javier Larrazabal/PhotoAlto/Corbis; Collaboration With Blogs & Social Media: Stock Photo Collection/PhotoAlto/Corbis; Collaboration With Wikis: © Hero Images/Getty Images; Collaboration With Blogs, Podcasts, and Wikis: © Hero Images/Getty Images

Mobile Apps

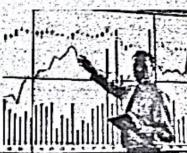
Mobile apps are the software that enables smartphones to run and accomplish amazing feats. Despite their natural size limitations, mobile apps rival the capabilities of full-fledged software applications on laptops, on desktops, and in the cloud.



Source: iStockphoto.com

Electronic Presentations and Data Visualization

Business presentations in PowerPoint, Prezi, or Keynote can be projected from a laptop or tablet, or posted online. Sophisticated presentations may include animation, sound effects, digital photos, video clips, or hyperlinks to Internet sites. In some industries, PowerPoint and other electronic slides (decks) are replacing or supplementing traditional hard-copy reports. Data visualization tools such as SAS can help businesses make sense of increasing amounts of complex data.



Source: Business Wire/Corbis

Social Media

Broadly speaking, the term *social media* describes technology that enables participants to connect and share in social networks online. For example, tech-savvy companies and individuals use Twitter to issue up-to-date news, link to their blogs and websites, and announce events and promotions. Microblogging services, such as Twitter and Tumblr, also allow businesses to track what is being said about them and their products. Similarly, businesses use social networks such as Facebook, Instagram, and others to interact with customers and build their brands. Companies may also prospect for talent using social media networks. Efforts to launch corporate social networks have seen mixed results. So far workers have been slow in embracing SharePoint, Jive, Yammer, Telligent, and similar enterprise-grade collaboration platforms, social networks, and community forums.



OmniMediaWorld/Corbis

Web Conferencing

With services such as GoToMeeting, WebEx, and Microsoft Live Meeting, all you need is a computer or a smart device and an Internet connection to hold a meeting (*webinar*) with customers or colleagues in real time. Although the functions are constantly evolving, Web conferencing currently incorporates screen sharing, chats, slide presentations, text messaging, and application sharing.

Collaboration With Blogs, Podcasts, and Wikis

Businesses use *blogs* to keep customers and employees informed and to receive feedback. Company news can be posted, updated, and categorized for easy cross-referencing. An audio or video file streamed online or downloaded to a digital music player is called a *podcast*. A *wiki* is an Internet or intranet site that allows multiple users to collaboratively create and edit digital files as well as media. Information can get lost in e-mails, but wikis provide an easy way to communicate and keep track of what has been said. Wikis for business include Confluence, eXo Platform, Socialtext, and Jive.



Westend61/Getty Images