online forums, is a real-time, text-based system that allows group posting and response to text messages. An online forum is self-archiving, in that the sequence of text-based conversations involving dozens or even hundreds of contributors is maintained for review by others. Instant messaging is an upcoming form of groupware that allows knowledge workers working away from their desks to exchange short packets of information. However, unlike online forums, the string of messages isn't stored automatically for future reference.

Screen sharing allows a user with the appropriate access privileges to connect to and take control of a remote PC. Screen sharing is especially popular in training and troubleshooting situations, where a support person can show the trainee at a remote site how to perform an operation and then watch as the trainee attempts to do the operation.

Even higher up the evolutionary ladder of groupware is the electronic whiteboard. This technology, expressly designed for group collaboration, provides a virtual whiteboard drawing space that enables multiple collaborators to take turns authoring and modifying hand-drawn graphics, highlighting points of interest on digital images, or simply posting a slide for a presentation. Whiteboards often are used in conjunction with other products, such as videoconferencing, the real-time, multi-way broadcasting of video and audio.

Because of network bandwidth limitations, videoconferencing often is configured to use the telephone lines for audio and the Internet or other network for the video channels. However, when the bandwidth is sufficient, many companies embrace multimodal conferencing to enable real-time collaboration. Multimodal conferencing represents the pinnacle of groupware, in that the technology supports real-time group sharing of an electronic whiteboard, a text forum, audio, and multiple-channel video.

As illustrated in Exhibit 5.3, groupware differs in responsiveness and the maximum number of simultaneous users that can be accommodated.