

Making Effective Use of the Internet and Information Technology to Address Some Common Teaching Tasks

Teaching Problem or Task	Solution	Strengths	Limitations	What You Need
<ul style="list-style-type: none"> • Counsel individual students <i>occasionally</i> (e.g., answer questions from students about an assignment) 	E-Mail	<ul style="list-style-type: none"> • Students can compose their thoughts, and do not have to wait for your office hours • Instructor can respond to messages on his/her schedule 	<ul style="list-style-type: none"> • Not appropriate for all situations (e.g., distressed student) • Suitable primarily for communication <i>initiated by the student</i>; instructor can initiate using e-mail directory 	<ul style="list-style-type: none"> • An e-mail account • Willingness to publish your e-mail address • E-mail directory of students (if instructor initiated)
<ul style="list-style-type: none"> • Communicate <i>regularly</i> with individual members of a class, e.g., to arrange meetings for group projects 	E-Mail mailing list	<ul style="list-style-type: none"> • Easy to set up on your own computer (for small classes) • Can send messages to individuals, to groups of students, or to the entire class 	<ul style="list-style-type: none"> • Instructor (or TA) must collect, verify, and enter e-mail addresses of all students in the class; easy using Colleague downloadable class lists! • Works only if students check their e-mail 	<ul style="list-style-type: none"> • List of students and their e-mail addresses
<ul style="list-style-type: none"> • Communicate <i>regularly</i> with all class members in a large class, e.g., to announce changes to the lab schedule, clarify a point made during lectures 	Closed LISTSERV list ¹	<ul style="list-style-type: none"> • Direct communication (messages are sent directly to student e-mail accounts) • Easy to set up • Little work for instructor (students subscribe and unsubscribe themselves) 	<ul style="list-style-type: none"> • Only works if all students subscribe to the list <i>and</i> check their e-mail • Not suitable when instructor must communicate with individual students or groups of students on a regular basis, e.g., in a group project course 	<ul style="list-style-type: none"> • LISTSERV account (normally created on central computer) • Handout for students -- explaining how to subscribe and unsubscribe to the list
<ul style="list-style-type: none"> • Make course material available to all students, e.g., overheads, handouts 	Adobe Acrobat ²	<ul style="list-style-type: none"> • Students can download overheads from your course web site and bring printouts to class • No additional formatting is required (e.g., to convert material to HTML) • More and more documents becoming available in Acrobat format (e.g., government reports) 	<ul style="list-style-type: none"> • Need to purchase Acrobat for your computer (educational price is around \$125.00) 	<ul style="list-style-type: none"> • Adobe Acrobat software (full package) on your machine • Adobe Acrobat reader available to students (e.g., in lab, at home) • Scanner (optional)
<ul style="list-style-type: none"> • Notice board, e.g., to post essay tips, reading lists, assignment topics • Repository for instructional material, e.g., download electronic overheads 	Course web page	<ul style="list-style-type: none"> • Extremely efficient way to provide information and resources to entire class • Students can access material at any time, from anywhere • Easy to set up and maintain • Greatly reduces amount of photocopying if used to distribute handouts 	<ul style="list-style-type: none"> • Students only get the information if they go to the web page • Requires some very basic web design skills • Security measures required to prevent non-students accessing material • Requires Adobe Acrobat if you want to post overheads, handouts, etc. easily 	<ul style="list-style-type: none"> • Central account that can serve web pages (easiest), or web server on your own computer • Software to create web pages (e.g., Netscape Communicator -- which includes HTML editing capability)

Teaching Problem or Task	Solution	Strengths	Limitations	What You Need
<ul style="list-style-type: none"> On-line discussion forum 	News group ³	<ul style="list-style-type: none"> Can be accessed by students at any time Can be moderated (postings approved) or open (everything is posted without approval) Instructor can participate in discussion Permanent record of discussions Students do not have to subscribe or unsubscribe 	<ul style="list-style-type: none"> Participation rate can be low due to unfamiliarity with the medium Unmoderated groups can be derailed by "flame wars" -- but moderating discussions can become onerous 	<ul style="list-style-type: none"> Course news group (normally established on central computer) Instructions for students, explaining how to post messages, news group etiquette, etc.
	Open or moderated LISTSERV list ¹	<ul style="list-style-type: none"> All students are party to the discussion, as messages come to their e-mail in boxes Easy to set up 	<ul style="list-style-type: none"> Students must subscribe to the list <i>and</i> check their e-mail Quantity of e-mail received can become overwhelming -- especially in open lists -- leading to participation fall-off Moderating can become onerous 	<ul style="list-style-type: none"> LISTSERV account Handout explaining how to subscribe and unsubscribe to the list, and discussing <i>etiquette</i> of Listserv posting
<ul style="list-style-type: none"> Student web-based reports 	Course web page with links to student report web pages	<ul style="list-style-type: none"> Allows students to see the work of their colleagues Well suited to courses where students produce graphics that would otherwise have to be printed (e.g., maps) Allows students to showcase their work to classmates, and to the world 	<ul style="list-style-type: none"> Works best when students have dedicated lab space, support from TAs, and a <i>report template</i> into which they add their material Grading can be awkward (need to view reports on screen; cannot provide written feedback on the report itself without printing) 	<ul style="list-style-type: none"> Location to post web pages (e.g., college or lab web server) Software for students to create web pages Computing facilities -- desirable Support capability (e.g., skilled TAs who can answer technical questions) -- desirable

¹ LISTSERV is a service that allows people to subscribe to a mailing list, receive messages posted to the list, and (if permitted) post messages to the list. People subscribe and unsubscribe to the list using their e-mail accounts (by sending a message to the Listserv program). *Posting* messages to the list involves sending an e-mail message *to the Listserv program*, which then sends the message to all the people who have subscribed to the list. In a *closed list*, the list owner (e.g., the course instructor) is the only person who can post to the list. In an *open list*, any person (whether a member of the list or not) can post to the list. A list is *moderated* when the list owner allows posting to a closed list.

¹ Adobe Acrobat is software that allows you to create what are, effectively, electronic photocopies. With the Acrobat software installed on your computer, you can "print" to Acrobat from any application. The result is an Acrobat file (the format is called PDF), which can be viewed and printed using the free Adobe Acrobat Reader. The document will appear exactly as it was on your computer in the application in which it was created.

¹ News groups are discussion forums that can be accessed using a News Reader program (e.g., Netscape Communicator includes one). Students post messages using the News Reader. The messages can be read by anyone who has access to the group. The news group can be *moderated* (in which case someone -- e.g., the instructor -- decides whether or not a message should be posted to the news group), or it can be *open*, in which case any and all messages are posted. Instructions on news group *etiquette* are important, so that participants do not engage in inappropriate activities; for example, the forum can be spoiled by participants who engage in "flame wars" -- attacks on other participants that precipitate a barrage of negative postings.