ITForum is an electronic listserv that discusses theories, research, new paradigms, and practices in the field of instructional technology. ITForum is a unique and thriving electronic community of instructional technology scholars and professionals. By offering a schedule of papers and the opportunity to discuss them with the author, ITForum makes a valuable contribution to the professional community. Students, faculty members, and IT professionals alike have an equal opportunity to ask questions and make observations. The authors of papers receive immediate feedback from a large pool of interested and knowledgeable professionals from around the world. Consequently, listservs like ITForum offer the opportunity for scholarly work to become a much more interactive process between authors and readers than is currently the case in traditional publications. ITForum and other listservs like it bring the professional community into a global perspective. Colleagues from different countries can share ideas and experiences as if they worked on the same floor. This paper addresses the issues of: dealing with an iterative mission and purpose; publishing as a process rather than a product; access to people with different backgrounds, perspectives, and cultures; developing a research community; potential pitfalls of computer mediated communication (CMC); "netiquette" and standards of use; achieving critical mass; conflicting viewpoints; providing access to past discussions; and copyright and intellectual property. (Author/SWC)
The ITForum Perspective on the Internet and Publishing: Changing the Way Researchers Communicate

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The Internet is changing the way researchers and practitioners develop and share information. Electronic publishing via the World Wide Web is generally considered a more rapid, inexpensive, and widely available alternative to traditional academic publishing. There are many challenges to Web-based publications, such as questions of copyright and quality control. Other issues go well beyond the Internet as a mere publishing medium such as how the Internet can be used to create a virtual community of professionals, interacting and creating information electronically.

Some of these efforts have been on a relatively small scale with clearly defined goals. For example, during the development of the March/April, 1997 issue of Educational Technology (which focuses on Web-based learning) drafts of the articles were collected and posted on a Web site for review and comment by the other authors in order to enable cross-referencing, prevent overlap, and foster collaboration. On a much larger scale is H-NET: Humanities and Social Sciences On-line (http://h-net2.msu.edu), a group of listservs that tie together more than 51,000 scholars in 70 countries (Guernsey, 1997). Through H-NET, subscribers share ideas, solve problems, and work together on collaborative projects.

A listserv is one of the most common discussion formats on the Internet. A listserv is a computer-mediated discussion venue whereby users can contribute information and opinions ("posts") on a variety of topics at their leisure to be read by the other participants either immediately upon receipt or at a time convenient for them. Replies can be sent either to the list (for replies of general interest) or privately to individuals. Listservs differ from bulletin board services (BBSs) and newsgroups (such as those on Usenet) in that each post to a listserv is sent as an e-mail message to each subscriber (Ferrara, Brunner, & Whittenmore, 1991).

A large number of listservs have been developed that are dedicated to various aspects of instructional technology. LM_NET is focused on school library media at the K-12 level. EDTECH is aimed at students, faculty, and others interested in educational technology. EDNET explores the potential of using the Internet in education. Other listservs focus on such topics as educational gaming, distance education, artificial intelligence, etc. The development of these electronic communities is changing ways in which academics develop and share information and raises a number of issues which need to be addressed by the academic community. This paper will discuss and illustrate these issues in the context of our experiences with the listserv ITForum.

Overview of ITForum

ITForum is an electronic listserv that discusses theories, research, new paradigms, and practices in the field of Instructional Technology. ITForum is affiliated by AECT's Division of Learning and Performance Environments (DLPE) and the Department of Instructional Technology at The University of Georgia (UGA). The list is open to anyone interested in instructional technology (a special invitation is extended to graduate students in IT programs). The first ITForum discussion featured a paper by David Jonassen in which 84 subscribers participated. As of February 1, 1997, ITForum consists of a total of 722 subscribers representing 24 countries. ITForum will have hosted a total of 20 discussions by the end of May, 1997.

ITForum began in May, 1994 with little worry about success or failure, largely as an experiment in creating a virtual community where educational technology professionals could get together to discuss important issues raised by leading scholars in the field. ITForum was the brainchild of Cindy Leshin, then President of the Association for the Development of Computer-based Instructional Systems (ADCIS). ITForum was designed to be a professional service to ADCIS members. Lloyd Rieber, a faculty member in the Department of Instructional Technology at The University of Georgia (UGA), established the list at UGA and has remained the person largely responsible for maintaining both the technical and professional aspects of the list. Lisa Bennett and Saada Al-Ghafry, two doctoral students at UGA, have worked with Lloyd as moderators and managers for the list. Recently, Gene Wilkinson, another UGA faculty member, has joined the collaboration, especially to help with current efforts to make past discussions accessible to the professional community using the World Wide Web.

After the dissolution of ADCIS in 1994, active members petitioned AECT to form DLPE. The professional affiliation of ITForum was then shared by DLPE and the Department of Instructional Technology at
UGA. It is important to note that ITForum has never received any external funding to operate and charges no fee for participation. Instead, it relies completely on the volunteer efforts of the moderators, authors, and subscribers. (It is important to note that technical support is provided by the University of Georgia Computing and Networking Services. Though costs to maintain a listserv are real, these are absorbed by UGA.)

As previously mentioned, several other listservs dedicated to instructional technology issues were already operating at that time, however ITForum took on a mission and operating plan unique in at least two ways. First, ITForum is more structured than other listservs in that specific discussions are organized throughout the year. From September to May several leaders in the instructional technology field are invited to submit short papers or essays that are posted on the list. Second, and most important, subscribers then have the opportunity to discuss the paper and its ideas directly with the author. Subscribers post any comments or questions they wish directly to the list. The author then responds to these each day for one week, either addressing specific comments and questions or general themes.

**Dealing with an Iterative Mission and Purpose**

There has been no attempt to establish formal policies and procedures for ITForum beyond the goal of soliciting papers or essays from leaders in the field and offering a discussion forum with subscribers. Papers are solicited solely at the discretion of Lloyd Rieber, the official owner and chief moderator of the list. Of course, he tries to carefully consider the recommendations of the subscribers. In a sense, ITForum has been shaped by its subscribers. We have likened ITForum discussions to the informal conversations that occur among colleagues after a particularly good keynote presentation at a conference. We have tried to make ITForum a place where people feel free to make casual comments about issues confronting the field. Again, one important distinction between ITForum and these "hallway chats" is that everyone has the chance to discuss the talk with the speaker as well as with colleagues from around the world.

A variety of *implicit* operating procedures have developed over time. As already noted, the authors are selected on an invitation-only basis and they are free to choose their own topic. ITForum does not accept unsolicited papers nor has plans to do so. There has also been a deliberate effort to identify authors from different countries. So far, seven different countries have been represented by the authors of the 20 discussions held or scheduled to date. There has also been an effort recently to solicit participation from established scholars who are already subscribers to ITForum. At least half of the authors, however, were not aware of ITForum before they were invited to participate.

The issue of formalizing ITForum's operating policies and procedures has been raised. So far, Lloyd Rieber has decided to keep the procedures loosely organized, so as not to fall into an established routine prematurely or unnecessarily. Part of the attraction of ITForum is its ability to improve continually its operating methods. We expect the purpose and mission of ITForum to change and grow as warranted by the membership.

**Publishing as a Process Rather than a Product**

The interactive nature of ITForum provides some unique benefits for both subscribers and authors. Unlike traditional journals or books, ITForum provides subscribers with direct access to authors. They can pose questions and make comments for the author to respond to during the discussion week. How many times have you read an article and wished to be able to talk with the author? Perhaps you've even tried to actually contact some authors through phone or e-mail. ITForum provides subscribers with the opportunity to engage not only in a scholar's work, but with the scholar directly in a way that few other media are able.

The number of ITForum subscribers has been increasing at a steady pace since it began, although the number of new subscribers closely matches the number signing off. (Like all listservs, there is a high rate of attrition among subscribers — people come and go frequently.) Why do people subscribe to ITForum? Although it may be a required activity for some graduate students, the greatest appeal simply remains the opportunity to read and discuss the scheduled papers. Many other reasons exist as well. For example, many subscribers report that there are few other educational professionals besides themselves at their workplaces. Hence, they often feel isolated from the profession and struggle to remain current with the latest ideas. ITForum provides many subscribers with a daily link to the profession.

ITForum also offers authors with unique opportunities. The reason why authors write, of course, is to be read. A strong motivation for engaging in scholarly work in written form is the possibility that people will find one's work interesting and relevant. Most authors are grateful to hear from readers and enjoy the opportunity to engage in a dialogue of their work. Most authors would find much satisfaction in knowing that over 700 professionals around the world are setting aside time in any one week to read and discuss one of their papers or essays. Participation in ITForum means just that.
Another opportunity for authors goes well beyond motivation or the personal satisfaction of knowing that there are people reading their finished works. Although riskier than submitting a finished paper, ITForum provides authors with the chance to engage readers during the writing process and before a work is completed. Unlike traditional print media, such as professional journals and books, authors can use ITForum to solicit reactions and feedback from readers. This has particular advantages if the author is trying to develop new ideas. While it is common for an author to get feedback from colleagues or students, ITForum gives authors a chance to informally discuss their ideas with people with a wide range of experiences, backgrounds, and even cultures. Of course, not all authors have been willing to use ITForum in this way and not all subscribers are equally open to reacting to works in progress. But the potential to provide a free exchange between scholars and readers while a project is in its formative stages is one of the most exciting prospects for the future of ITForum.

**Access to People with Different Backgrounds, Perspectives, and Cultures**

Professional papers go through an expert review process before being published. In the past, the expert reviewers were mainly from the country where the books or journals were published. International reviews, if any, were not the norm, probably because of the time it takes for postal mail to travel between countries, problems involved with international coordination, and possibly the costs involved too. With the advent of the Internet it is possible to get international expert review. On ITForum, authors get instantaneous feedback from professionals of varied cultural backgrounds. Though few of the articles have dealt specifically with cultural matters, many argue that cognition itself is largely a cultural process. An author writes from his/her own perspective, mostly oblivious of how readers from other cultures will perceive the article. For example certain acronyms that are assumed to be understood by authors or participants from the USA might mean different things in other parts of the world. The advantage on ITForum is that the author gets feedback from people with a myriad of international perspectives. Some authors accept the input and rethink their ideas whereas others are less willing to accept viewpoints different from their own. Whatever the result, in one week of discussion the author and subscribers are "forced" to see alternative viewpoints and confront their own biases, prejudices, and ethnocentrism.

Promoting this kind of reflection is difficult without the global connectivity afforded by the Internet. ITForum encourages authors and subscribers to think in truly "global village" terms. The ITForum schedule is no longer described in terms of "fall, winter, and spring," for example, since climatic seasons are not identical around the world (as subscribers in Australia quickly reminded the moderators early on!). The process of thinking beyond one's own cultural borders might be difficult but the result can be a significant step towards developing intercultural understanding, empathy, and tolerance to views that differ from one's own.

**Developing a Research Community**

Through ITForum, subscribers become members of a larger academic community that is spread over the world. It doesn't matter whether they are active participants in the discussions or passive "lurkers" who silently follow the thread of the conversation. Even without meeting face-to-face, friendships and active collaborations often develop between subscribers through the listserv. The informal exchange of opinions, experiences, and arguments during the discussions provides a much more personal element to academic discussions than can be derived from more formal forms of publishing. The spontaneous give-and-take of electronic communications exposes the character, the strengths, and the weaknesses of the participants and their arguments and allows the development of mental and emotional ties without the need for physical proximity.

The existence of an electronic community can be demonstrated through the establishment of accepted rules of behavior (i.e. "netiquette") and through the development of shared values and experiences (Rheingold, 1995). Many examples of collaborative research and development projects or jointly authored scholarly publications that grew out of initial contacts over ITForum can be cited. The development of a community is probably best illustrated, however, by a few personal examples. Lloyd Rieber commented that when he visited Edith Cowan University and Curtin University of Technology in Perth, Australia he felt as though he was renewing friendships that had already been established through ITForum even though he had never actually met many of the people beforehand. The recent death of longtime ITForum participant Jeff Oliver of the United Kingdom was felt as a personal loss by many of us who had never met him face-to-face but felt that we "knew" him through his insightful posting to the list.

**Potentials and Pitfalls of Computer Mediated Communication (CMC)**

Although the various forms of CMC differ, the asynchronous types of CMC (personal e-mail, listservs, bulletin boards, newsgroups) have some important characteristics in common. Each message is rendered in visual
text only without the usual conversational cues of body language, changes in vocal tone or pitch, or other paralinguistic clues. This lack of cues can lead quite easily to misunderstandings between users. For example, sarcasm is not conveyed well via e-mail (Newby, 1993). Users of CMC, however, have developed some norms unique to CMC in order minimize misunderstandings. These include "emoticons" (emotion icons) such as the standard "smiley" typed as :-) that resembles a smile if you tilt your head to the left. The smiley is usually added after a line to indicate "I'm only kidding, don't take what I'm saying too seriously" (Murray, 1988).

Besides removing the barrier of time, CMC also removes the barrier of distance, allowing conversations between people separated physically and/or temporally. On ITForum, this has allowed scholars and IT professionals from all over the world to participate in discussions without consideration of geography or time zones.

Netiquette: Reliance on Self-Moderation

Since the inception of e-mail, users have been struggling to develop a set of standards of use, known as "netiquette." Some of the "rules" are to post only replies of general interest to the list (items of personal interest should be sent off-list) and to avoid sending any e-mail when angry or upset. Some list owners have had trouble getting their members to abide by these rules and have therefore begun "moderating" the list discussions. In a formally moderated list all posts must first be sent to the moderator who clears the ones deemed appropriate and posts them to the list. Personal, off-topic, or inflammatory posts are rejected. Since ITForum allows subscribers to post notes directly to the list without first getting them "cleared" by a moderator, it relies heavily on subscribers carefully considering what they decide to send. One of the most remarkable things of ITForum is the natural tendency of the list to moderate itself. With few exceptions, ITForum has largely been able to avoid problems of other lists, such as flaming and junk mail.

Achieving Critical Mass: Avoiding the Negative Side of Growth

ITForum exists by the very fact that people are willing to participate by sending their comments to the list. Participation defines the very nature of ITForum. On one hand, the number of subscribers (and the rate of increase/decrease in subscriptions) can be perceived as a measure of the value of ITForum to the profession. On the other hand, growth also holds several potential problems for the future of a listserv like ITForum. The first simply relates to the volume of mail that would be generated if even a small percentage of the subscribers were to post something to the list every day. Our subscribers are busy professionals who do not have the time to sort through a large number of messages. The second problem concerns the ratio of "fluff to stuff" in the daily ITForum postings. As the subscriber pool increases, there is a greater tendency for people to post notes or questions that have little relevancy to majority of the subscribers.

In addressing the second problem, we have asked subscribers to keep all postings during scheduled discussion weeks directed toward the topic and to hold off sending other postings until the discussion has ended. Problems still arise when too many notes are received, even if they all are relevant to the topic. As already noted, we have tried to invite casual comments from subscribers, yet if more subscribers accepted our invitation the number of messages would be overwhelming. This dilemma does not have an easy resolution. Again, we rely on the membership to self-moderate itself. So far, we have been fortunate that membership interests and discussion topics vary widely, hence just a small proportion of the subscribers contribute to the discussion on any given topic.

When Viewpoints Conflict: Dancing on the Lip of the Volcano

ITForum offers subscribers an uncensored exchange of ideas and perspectives. Not surprisingly, viewpoints among subscribers often conflict. Fortunately, this usually results in our best discussions. ITForum subscribers have shown their willingness to listen and respect all viewpoints. Occasionally, however, emotions begin to take control of a discussion. It is interesting to watch how a discussion can quickly grow more intense within a short period of time. The immediacy of e-mail permits people to post and respond at will. The ease of pressing the "send" button sometimes leads to remarks that would probably not have been made in another medium. Although we feel that subscribers have rarely, if ever, crossed the proverbial "line in the sand" into unprofessional behavior, such dangers remain a constant presence in a medium such as this.

Providing Access to Past Discussions: Can You Catch the Wind?

The papers presented over ITForum are a rich resource of ideas related to many of the major issues of concern to students, practitioners, researchers, and scholars in the field of instructional technology. Questions related to developmental strategies and processes, research methodology, questions, and ethics, theories of knowledge development and techniques of enhancing student learning have all been explored in recent discussions. Many of the papers presented have made their way into more traditional forms of publishing and efforts have been made to provide access to the papers on the Internet by means of the DLPE homepage (http://dlpe.base.org) and InTRO (Instructional Technology Research Online) (http://intro.base.org). In many cases, however, the paper has been primarily a point
of departure and the value of the forum has been in the discussion that grew out of the paper. Capturing and presenting the ebb and flow of an ongoing discussion is like trying to take a snapshot of the wind.

Like almost all listservs, past ITForum discussions are preserved for a limited time and can be accessed through the listserv archives. The process of locating and downloading the appropriate files, however, is confusing and cumbersome. Once the file has been located, the individual postings which develop the thread of the argument are often lost in a tapestry of competing threads. In order to provide easier access to past discussions, an ITForum World-Wide Web site is being established at the University of Georgia. The site is still under development, but you are invited to visit and provide us with comments or suggestions (http://itech1.coe.uga.edu/ITForum/home.html).

The discussions are presented virtually verbatim as they occurred, although minor editing has been done for stylistic and grammatical consistency and to improve the flow of the discussion. Messages which consisted primarily of "cheering" (voting for or against postings by other contributors) have been eliminated as have messages which are clearly off the thread of the discussion. Only those messages which contributed to the development of issues raised in the papers have been kept. In addition, some minor rewording of some posts was done to clarify the intent of messages but efforts have been made to preserve the feel of a give-and-take discussion.

**Copyright: Who Owns the Discussion?**

Making the ITForum discussions easily and widely available through the Internet raises a number of questions regarding such issues as rights of privacy, intellectual property rights, ethical treatment of participants, and copyright protection (Schrum, 1995). Some of these problem areas are relatively easy to handle. For example, messages are often sent in an e-mail discussion that contain grammatical or spelling errors that would not normally be committed by the author in a more formal communication. In such circumstances, we view our function much like that of an editor or proofreader in a traditional publishing house, making those corrections which should be made, while preserving the intent of the author.

On questions of copyright and intellectual property rights, however, we take a fairly restricted view. Following the lead of H-NET (Lawrence, 1995), we feel that although posting a message to ITForum gives ITForum the right to publish the message over the Internet, the ideas and words of the message remain the intellectual property of the subscriber and that publication on ITForum does not place the material in the public domain. Use or publication of such material by other writers requires citation of the source and, in the case of publication in any other arena than ITForum, permission of the writer. When messages in the discussions quote previous postings, common practice within the ITForum community has been for the source of the quote to be cited. On the web site, we take this a step further -- the wording of all quoted messages is verified and the date and author of the original message are cited. The only exceptions to this are those few cases where questions of privacy rights come into conflict with intellectual property rights. At times personal revelations are made in the heat of a listserve discussion that advance the discussion but that, given time to reflect, the author might feel reveal more than they might wish to keep available in a more permanent and public form. In such cases, the author is consulted and the name deleted from the message, unless the editor is otherwise instructed.

**Summary**

ITForum is a unique and thriving community of instructional technology scholars and professionals. By offering a schedule of papers and the opportunity to discuss them with the author, ITForum makes a valuable contribution to the professional community. Students, faculty members, and IT professionals alike have an equal opportunity to ask questions and make observations. The authors of the papers receive immediate feedback from a large pool of interested and knowledgeable professionals from around the world. Consequently, listservs like ITForum offer the opportunity for scholarly work to become a much more interactive process between authors and readers than is currently the case in traditional publications. Furthermore, listservs like ITForum truly bring the professional community into a global perspective. Colleagues from different countries can share ideas and experiences as if they worked on the same floor. Unanswered questions remain, such as those surrounding copyright. These will take time to resolve as the medium matures.

**References**


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