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Internet user profile in the field of parasitology

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Abstract This study determined a profile of current Internet users in parasitology, their use patterns on the Internet for parasitologic purposes, and the Web sites they would recommend. In a European survey, 689 parasitologically engaged scientists were asked to fill out a questionnaire about Internet access, current problems, current and future use, and which Web sites they would recommend as well as about the use of e-mail. In all, 153 (22.2%) of the interviewees returned the questionnaire. Only one participant had no access to the Internet. Time expenditure was considered the main problem involved in use of the Internet. The Internet was mainly used for e-mail (96.1%); for literature research (93.5%); for reading of electronic journals (51.6%); and for gathering of information, e.g., about institutes and colleagues (58.2%) and about congresses (49.7%). In the future, 71.9% of the respondents would like to read electronic journals more often and 49.7% would like to use the web more intensively for acquisition of information about congresses, universities, and institutions. Requests for the future included an easier application of the browser software (33%) and a shorter response time (47.7%). The survey demonstrates that the Internet has assumed a definite place in the lives of researchers in the field of parasitology. Survey responses indicate a need for electronic journals. In our opinion, universities and parasitology societies should be urged to publish journals electronically on the Web. To diminish current problems involved in the finding of relevant information on the Internet, we strongly recommend careful reading of the instructions regarding the search engines used.

Web pages with clear structures, small file sizes, precise HTML (hypertext markup language) key-word editing, and page titles would facilitate more accurate discovery of specific sites. In addition, there seems to be a need for regular publication of reviewed parasitology-link collections.

Introduction

The Internet has revolutionized the computer and communications world like nothing before. It simultaneously provides a worldwide broadcasting capability, a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers without regard for geographic location (Leiner et al. 1998). The Internet represents significant advances in the retrieval and dissemination of scientific information and in the advancement of education (Barrie and Presti 1996; Lawrence and Giles 1998). It is becoming of increasing importance in the field of parasitology (Coppel 1996; Taverne 1997, 1998a–d).

The aim of the present study was to evaluate the extent to which parasitologists (with the main focus being placed on parasitologists working in the field of water-related parasitology) use this new medium and the purposes for which they take advantage of the Internet.

Methods

A European survey was conducted among researchers working in the field of parasitology. To establish a current data base of active researchers, we search the Medline (NLM), Current Contents (ISI), and Embase (Elsevier) data bases for scientists who had published articles related to parasites from the beginning of 1992 until May 1999. The corresponding author was chosen as a contact for the study. In a subsequent mailing, 689 parasitologically engaged scientists were asked to fill out a questionnaire and to return it per mail or fax.

The interviewees were asked for a self-assessment of their computer knowledge, of where (e.g., office, library, home) and how
often they had access to the Internet, and of what prevented them from using the Net. Further questions covered the frequency of use (more than once daily, daily, weekly, monthly, sometimes, never), the time spent browsing the Internet on average, and the purpose of its use (e.g., e-mail, electronic file transfer, literature research, congress information). Contributors were asked how easy it was to find information on the Internet and whether they were satisfied with the available parasitology-related contents. Participants indicated the parasitologic purpose for which they used e-mail and the numbers of e-mail messages they sent and received per week. Further questions were related to the existence of their own home page, and they were asked if they recommended any Internet address. Participants were asked what they expected from the development of the Internet in the future. Finally, researchers were asked to give personal data (sex, age, country, profession). The results were summarized descriptively in tables and graphs. For purposes of statistical determination, chi-square tests with Cramer’s V were applied.

Results

In reply to the 689 questionnaires originally sent out, 153 (22.2%) responses from 20 countries were received by November 30, 1999. Most responses came from Great Britain (n = 37, 24.2%), Germany (n = 28, 18.3%), and France (n = 22, 14.4%). The distribution of respondents by profession showed 71.2% (n = 109) to be parasitologists; 11.8% (n = 18), microbiologists; 2.0% (n = 3), students; and 17.0% (n = 26), others (e.g., physicians, molecular biologists, veterinarians, mycologists). In all, 22.2% (n = 34) of the respondents were department heads working as parasitologists and microbiologists.

The self-assessment of the level of computer knowledge showed a computer-literate group. Overall, 27.5% (n = 42) rated their computer knowledge as being either low or very low, whereas 64.7% (n = 99) indicated their level of knowledge as being high or very high and 5.2% (n = 8) found their level to be intermediate (2.6% did not specify their level of knowledge). Half of the interviewees (52.3%) accessed the Internet from two or more locations. The office was the most common access point for the Internet (92.8%), followed by home (40.5%) and the library (22.2%; Fig. 1). All persons who had Internet access at home had it in the office as well. Only one participant had no Internet access.

Time expenditure was the major problem associated with Internet use, according to 49.7% (n = 76) of the responses (Fig. 2). The long response time (n = 52, 34.0%) and the superfluity of information (n = 37, 24.2%) were mentioned as further obstacles. Costs were mentioned by 8.5% (n = 13) as a hindrance. The availability of a connected PC was cumbersome for 7.2% (n = 11). Although 1.3% (n = 2) of the respondents indicated that use of the browser software posed a difficulty, none had a problem with the use of a PC. Overall, 35 (22.9%) respondents either did not have or did not specify any problem in using the Internet.

The Internet appeared to be a constant companion in the lives of the majority of the respondents. In all, 80.4% (n = 123) of them used the Internet more than once a day or daily; 13.7% (n = 21), weekly; 1.3% (n = 2), monthly; and 1.3% (n = 2), sometimes. Since the survey did not specify whether the Internet use was related to parasitology, we can assume that some portion of the use involved activities not related to parasitology. One-third (n = 51) of interviewees browsed the Internet for less than 15 min on average, 43.8% (n = 67) spent between 15 and 30 min on the Net, 11.8% (n = 18) used it for periods of 30–45 min, and 6.5% (n = 10) browsed for periods ranging from 45 min to 1 h. Only 2.0% (n = 3) spent more than 1 h on the Net on average (Fig. 3).

The Internet was used for different parasitologic purposes. The majority of respondents used the Net for e-mail (96.1%, n = 147) and literature research (93.5%, n = 143; Fig. 4). Additionally, they used the Internet for reading of electronic journals (51.6%, n = 79), for accessing of information about institutes and colleagues (58.2%, n = 89), and for gathering of information concerning scientific congresses (49.7%, n = 76). Responses revealed that the Net was used for acquisition of infor-

![Fig 1 Location of Internet access](image-url)