

## GENERAL

# "CYBER - DERMATOLOGY" - AN INTRODUCTION TO THE INTERNET

D Parsad

There is an information explosion and geometric growth of knowledge in dermatology. The individual dermatologist finds himself having great difficulty coping with this ever increasing knowledge base. The recognition of a gap in such knowledge; while frustrating, may also have a direct impact upon patient care. Computer technology, information retrieval modalities, and teleprocessing between remote locations has been viewed as a partial solution to this issue.

### The potential of this Internet are :

Consult a colleague anywhere in the world and transfer information regarding difficult cases, even transmit photos for discussion for the cost of a local phone call.

Hold live discussion with researchers from all over the world.

Obtain references, articles and abstract at the click of a mouse for a presentation, research work etc.

Receive meeting announcements and request for various meetings and conferences instantaneously and even submit abstract for presentation online.

Read Journals, grand rounds discussion of important hospitals, CME articles without paying a single

subscription charge.

Easily obtain information regarding various research facility, fellowship and opportunities.

Doctors can have their own home pages and let patients and colleagues have access to their expertise in various fields.

Internet is about to become the most important source of information in virtually any academic profession.<sup>1</sup> Dermatology has a growing presence in many areas of the Internet. A number of sites offer dermatologic data in the form of text and images.<sup>2</sup> Discussion groups and continuing education programs invite regular participation. A dermatologic image data has been created, which is aiming to provide clinical and histopathological images for most dermatological diseases.

The Internet is an already preferred medium for publication in certain fields and may soon be so in medicine.<sup>3</sup> This Internet is increasingly serving as an essential tool for medical research, and is increasingly important resource for 'Continuing Medical Education', teaching,<sup>4</sup> and clinical practice.<sup>5</sup>

### Advantageous aspects of information presentation via the Internet<sup>6</sup>

Image enrichment

Immediacy

Text enrichment

Interactive features

From the Department of Dermatology, Himalayan Institute of Medical Sciences, Jolly Grant, Dehradun, U.P., India - 248140.

#### Address correspondence to :

Dr. Davinder Parsad,  
Dept. of Dermatology,  
Himalayan Institute of Medical Sciences, Jolly Grant, Dehradun, U.P., -  
248140, India

### Image enrichment

Image enrichment is a major advantages for educational material, especially in a visually oriented speciality such as dermatology. With the Internet, the cost of publishing images has plunged.

### Immediacy

Immediacy in publishing is a new concept which has occurred with the development of the Internet. A free flow of information is now occurring between physicians and scientists world- wide. The impact of immediacy on publishing is not only a shortened time-span between the completion and publication of an article, but also the enhancement of reader involvement in the Journal.

### Text enrichment

Text enrichment is a major advantage of the medium. Parallel text is one form of enrichment. If one considers an article to exist as a string of words from start to end, it is possible to have more than one string of text which goes through the same material. One example would be the translation of the work into another language. Appended information is another example of text enrichment. Continuing with the analogy of an article being a string of text, the author may want to provide optional intercalation loops which would allow the reader to explore the material in greater depth.

Expanded references are another special feature. References are essentially appendages which are attached to the appropriate location on the string of text. In electronic format, those references can be linked to the appropriate site, and it is possible to quote a full citation.

### Interactive features

Interactive features are a major plus of computers. The reader can interact with the author and interaction is also used for quizzes in association with case presentations.

The potential impact of information revolution on dermatologist is dramatic.<sup>7</sup> We have traditionally learnt most of our dermatology knowledge from colleagues within one country and have then gone on to practice within even smaller geographical areas. International conferences are a valuable means of widening horizons, but only a minority of dermatologists can attend. New communication technologies mean that it is now possible to

Table I. Some useful Dermatology Resources

Sr. No.	Name	Address
1.	internet Dermatology Society	W.W.W.telemedicine.org/
2.	British Dermatologists Internet site	//derm.medlan.cam.ac.uk/
3.	Electronic textbook of Dermatology	//telemedicine.org/stamford.htm
4.	MedWeb: Dermatology	//www.cc.emory.edu/WHSC medweb.html
5.	DermlS-Dermatology Internet Services	www.derma.med.unierlangen.de/ index_e.htm
6.	Skin Web	http://biomed.nus.sg/nsc nsc.html
7.	Derm Articles	Webmedlit.com/topics/DermLit.html
8.	Dermatopathology Slide review	//xoom.com/mak4/
9.	NewZealand Derm site	dcrmnet.org.nz/
10.	Online Atlas of Dermatology	l.protec.it/atlas/menu.htm
11.	AAD-Search for all Dermatologist	aad.org/DermSearch/index.html
12.	Dermatology in the World	gen.emroyedu/medweb/medweb dermatology.html

transmit very detailed information across the world in seconds. By conventional mail this would have taken days or even weeks.<sup>8</sup> These developments create new opportunities, but will also inevitably have a major impact on traditional practices, as option for patient referral become even greater.<sup>9</sup>

### How to connect ?

To connect to the Internet you need access to a computer to visualise and store the incoming and outgoing data, a

modem-the instrument which is used to dial up and connect via your phone line to your local server-an agency which act as middleman for the transfer of information. In our country, access to the Internet is operated through VSNL (Videsh Sanchar Nigam Ltd.) through GIAS (Gateway Internet Access Service). VSNL gives two type of membership for any user.

**Shell account :** The information is available only in text-mode and no graphic or picture are available.

explore the World Wide Web, its developer adopted the hypertext system as the basis for its navigation environment. It is a process that allows special connections or hot-links to be embedded in the text displayed on the browser's screen. Clicking on one of these links tells the browser to lead the document the link point to. With these links, you can very easily move from document to document without ever needing to know the physical name of document or even its location. The two most common

browsers are Microsoft Internet Explorer and Netscape Navigator.

Table II. Important Dermatology Discussion Groups

Sr.No	Discussion Group	Address
1.	ACADERM-L (discussions of General interest to academic dermatologists)	listproc@ucdavis. edu
2.	CTCL- MF ( Cutaneous T- Cell Lymphoma/ Mycosis Fungoides	listserv@home.ease. Isoft.com
3.	EXP-CONT-DERMATITIS (Experimental and Clinical contact Dermatitis)	majordomo@dou.dk
4.	PEMPHIGUS_SUPPORT LIST	majordomo@list.cyberwar.com
5.	KERA-RES (discussion list for anyone interested in lup fundamental keratinocyte research)	LISTSERV@NIC.SURFNET.NL
6.	LUPUS and LUPUS -A	www.hamline. edu/us/listproc.html
7.	PXE (Pseudoxanthoma elasticum mail list)	majordomo@listserv.bc.edu
8.	RxDERM-L (circulates discussions of dermatologic therapy to practicing dermatologists)	listproc@ucdavis.edu
9.	TMS-L (email discussion list of the Mastocytosis Society, Inc)	listserv@nic,surfnet,nl
10.	VITILIGO	LISTSERV@ sSJVVM.STJOHNS.EDU
11.	MEL-L (melanoma discussion list)	MELSUB@mwt.net

Another way to access information is to use one of the "search engines". Among these Yahoo, Infoseek, Lycos and Web crawler are important. The seeker types in one or more topics, as wide as dermatology or more specific such as a role of a new drug in some rare disorder. Once the search is initiated, the search engine come up with a list of related sites each with its own links to many more sources of information on the subject. It is true that until now this new medium has been dominated by computer technophiles, but with simple and effective browsers that are currently available it is increasingly easier to join and participate.<sup>10</sup>

**TCP/IP account:** It provides access to graphics, movies and other multimedia products.

The tool used to access the World Wide Web, or more correctly, the Internet is called a browser. The name stems from the way you can easily browse through many documents, files, and services provided by many different type of servers all over the Internet. To assist you as you

**References**

1. Diepgen TL, Bittorf A, Schuler G, et al. Hautarzt. Dermatology and the Internet-uses for the clinic and research 1997;48:373-378.
2. Bittorf A, Krejci-Papa NC, Diepgen TL. Development of a dermatological image atlas with worldwide access for the continuing education of physicians. J Telemed Telecare 1995;1:45-53.

3. LaPorte RE, Marler E, Akazawa S, et al. The death of biomedical journals. *Br Med J* 1995;310:1387-1389.
4. Letterie GS, Morgenstern LL, Johnson L. The role of an electronic mail system in the educational strategies of a residency in obstetrics and gynaecology. *Obstet Gynecol* 1994;84:137-139.
5. McKinney WP, Bunton G. Exploring the medical application of the Internet: a guide for beginning users. *Am J Med Sci* 1993;306:141-144.
6. Huntley AC. Introducing dermatology online journal. *Derm Online J* 1995;1:1-5.
7. Krejci-Papa NC, Bittorf A, Diepgen T. Dermatology on the Internet. A source of clinical and scientific information. *J Dermatol Sci* 1996;13:1-4.
8. Faughnan JG, Doukas DJ, Eball MH. Cruising the information highway: online services and electronic mail for physician and families. *J Fam Pract* 1994;39:365-371.
9. Sellu D. Clinical encounters in cyberspace. *Br Med J* 1996;312:345.
10. Prasad S, McCormack P. Accessing it (the internet) is easy. *Br Med J* 1996;312:978.