INTERNET RESOURCES IN PROSTHODONTICS: A REVIEW

Abstract

Objective: Access to information on anything, including the science and art of practicing prosthodontics, has become essential thanks to the internet. This is due to the World Wide Web's (www) limitless informational resources. The prosthodontic resources need to be updated due to the ebb and flow of online content.

Data Source: Using the keywords like computer aided learning (CAL), prosthodontic resources, internet, patient education, prosthodontic portals, and information technology, a thorough search was conducted on Pubmed and Google Scholar. A review of the available articles and a compilation of the literature were completed.

Conclusion: This article evaluates several online resources for prosthodontics, converting them into a helpful knowledge base for instructors and students.

Keywords: Computer aided learning(CAL), prosthodontic resources, internet, patient education, prosthodontic portals, information technology

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I. INTRODUCTION

Radical changes in the way information is delivered are guaranteed by health education institutions. The development of a computerized network system that enables the storing and broadcast of information in a range of multimedia formats is one of the significant technological changes. The most important of these systems is without a doubt the internet. In the ensuing decades, how health educators absorb and deliver information will be greatly impacted by this potent, all-encompassing system.[1-2] Even though the WWW is a significant informational resource, accessing information is still a disorganized, frequently difficult, and time-consuming procedure. Finding reliable information is sometimes a stressful, time-consuming, and haphazard affair, unless you are a specialist at navigating the complexity of the Internet and search engines. Therefore, a thorough assessment of the literature was required for a better understanding of the flow of prosthodontic information online.

II. METHOD

The terms computer aided learning (CAL), prosthodontic resources, internet, patient education, prosthodontic portals, and information technology were used in a thorough search on Pubmed and Google scholar. The available articles between years 1993 to 2013 were reviewed and a literature compilation was done.

III. SOFTWARES FOR NAVIGATING THE INTERNET

1. **Telnet:** To communicate with other computers connected to the Internet, Telnet enables teletype-style communications as an alternative to phone contact through modems.3,4 Telnet is a user command and a TCP/IP protocol used to establish connections to other computers. Telnet offers remote computer access for administrators and other users. Genuine video-display-terminal connectivity is made possible by Telnet. You log in using Telnet as a regular user with whatever access rights you may have been given to the particular software and data on that machine.

2. **Client-server software:** The term "client-server" describes the interaction between two computer programs in which the client asks the server for a service, which the server subsequently renders. The client server notion can be used by applications on a single computer, but a network is where it is most important. The client-server architecture in a network offers a practical solution to connect applications that are effectively dispersed across several locations. Because server software cannot directly react to queries from terminals, it differs from conventional online retrieval tools. Only requests that arrive over the network correctly bundled receive a response from servers. To make the correct requests, users must execute the necessary client software on their own computers.3,4,5

3. **File transfer protocol and Archie:** File Transfer Protocol (FTP) is a popular Internet protocol used to move data between machines on a network. Like the Hypertext Transfer Protocol (HTTP), which transfers displayable Web pages and related files, and the Simple Mail Transfer Protocol (SMTP), which sends email, FTP is an application protocol that makes use of the TCP/IP protocols of the Internet. FTP is widely used to transfer Web page files from the computer where they were developed to the machine where users of the Internet are served them. Files on FTP (File Transfer Protocol) servers can be located

using a program named Archie. Archie is no longer widely used since using it correctly requires knowing the particular file name you're looking for. Now the web with a web browser like internet explorer or netscape is mostly used for file searching..[4,5]

4. **World Wide Web:** A group of Internet servers for supporting papers with unique formats. The pages are formatted in HTML (HyperText Markup Language), a markup language that allows for the linking of graphics, audio, and video files, as well as links to other documents. This implies that you can navigate between documents by clicking on hot areas. The World Wide Web does not exist on every Internet server. The two most popular web browsers are Microsoft's Internet Explorer and Firefox which make it simple to access the World Wide Web..[5,6]

IV. PROSTHODONTICS PORTALS

The google search engines gives more than a million websites related to the search word "prosthodontics" in under a second. Despite the enormous amount of information that is available online, searching is frequently a difficult, disorganized, and time-consuming process. Because portals are collections of webpages chosen or updated by people for their quality, they are more trustworthy gateways to smaller selections of prosthodontic information. Table 1 provides a list of various prosthodontic websites, making it a useful resource and knowledge base for instructors and students.. [7]

Table 1:

Site Name	URL	Site Description
The American College of Prosthodontists	www.prosthodontics.org	The American College of Prosthodontists is a professional association of dentists with in-depth specialization training who offer dental implants, dentures, veneers, crowns, and teeth whitening for optimal oral health that is both functional and aesthetically pleasing.
Dentistry internet resources, university of Hong Kong	www.hku.hk/lib/DenLib/den.html	Offering links to organizations, online libraries, and journals for dentistry education, it is a great resource. The dental resources cover a variety of topics, such as orthodontics, pediatric dentistry, periodontics, prosthodontics, temporomandibular joint disease, dental implants, dental materials, endodontics, forensic dentistry, HIV and dental care, oral and maxillofacial radiology, oral and maxillofacial surgery, and oral cancer.

MedWeb at Emory University, Educational Resources: Dentistry.	www.gen.emory.edulMEDWEB/keyword/educationaLresources/dentistry	With only 17 websites dedicated to dentists, this website is not particularly comprehensive. The connections to sites that deal with biology, chemistry, and genetics as well as general scientific and health science sites may be more helpful.
Dentistry Resources at the University of Alberta.	www.ualberta.ca/cbidwelllhsmslhsresdnt.htm	Links to businesses, organizations, educational, research, and social websites are available on this website.
Dental Related Internet Resources .	www.dental-resources.com	This website has a commercial bent and offers links to dental suppliers, laboratories, and associations in addition to dental education and continuing education resources. It has a search engine in it.
The Clinical Dentistry Page, Harvard School of Dental Medicine.	www.hsdm.med.harvard.edulpages/clindent.htm	There are links on this website to educational websites that provide lectures on a range of topics, including periodontology, systemic antibiotic therapy in oral surgery, odontogenic tumors, oral anatomy, the temperomandibular joint, face and mandibular fractures, and oral health. It also provides links to websites with case studies, such as those in oral and maxillofacial surgery, periodontology, oral and maxillofacial radiography, and diagnostic and treatment planning.
Internet Resource, Dentistry, University of Pittsburgh	www.hsIs.pitt.edulintreslhealthldental.html	This website offers a ton of links to associations, dental education sites, dental schools, and general information.
MedNets Dental Database.	www.internets.comlmednets/sdental.htm#chid	This database can be searched, meaning it has a search engine that lets users find content within its repository. Abstracts of books, booklets, brochures, information sheets, and journal articles are all included in the enormous database, many of which were produced by top experts in their disciplines. Additionally, there are links to other dental databases that can be searched.
Dental Study Club Online Archives.	www.tambed.eduIDentaICE/dsc/ARCHIVES/ search.html	This searchable database provides structured abstracts of journal articles. The goals, results, and conclusions of the research are all summarized in the structured abstracts. Additionally, reading lists and tests for self-evaluation are offered.
Biomaterials Properties Database,	www.lib.umich.edu/libhome/	Data on the physical characteristics of biomaterials are available on this website. Due

University of Michigan.	Dentistry.lib/DentaUables.ltoc.htm	to the fact that it solely offers physical data, the researcher may find it more beneficial than the student or teacher.
Dental Materials School of Dentistry, University of North Carolina at Chapel Hill.	www.dent.unc.edu/bayneldentmtls/dm-lectures.htm	On this website, you can find lecture notes on dental supplies. The subjects covered include dental cements, resin modified glass ionomers, filling materials, gold casting alloys, and the mercury controversy.
Anatomy Modules: TMJ tutorials, University of Washington Department of Radiology.	www.rad.washington.edu/Anatomy/TMJ/TMJ.html	The tempromandibular joint (TMJ) is covered in the excellent resources on this website. Some of the topics covered are TMJ anatomy, TMJ artrography, TMJ computed tomography, and TMJ magnetic resonance imaging. The graphics and QuickTime movie samples are fantastic, and the remarks are brief and engaging.
Dental Education Resources on the Web (DERWeb), University of Sheffield .	www.derweb.ac.uklindex.html	The authors may safely say that this is the best resource they have found for dentistry education. It offers online conferencing, a virtual bookshop, linkages to professional groups, and a sizable image database. DERWeb also includes patient education pages, a history of occlusal concepts, details on the dental articulator, a quiz on root canals (with hints, if necessary) and a history of occlusal concepts, in addition to case studies, a CAL program on dental caries, revision notes on periodontology, immediate dentures, and removing foreign objects from root canals.

V. DATA BASE AND JOURNALS

An structured collection of data, usually in digital form, is called a database. Google returns more than 20 databases relevant to prosthodontics with just one click. PubMed and the Cochrane library's databases are the two that are used the most frequently.

A journal is a recurring publication meant to further science, typically by presenting fresh findings. Although some of the oldest publications, like Nature, publish articles and research papers in a variety of scientific subjects, most journals are extremely specialized. The majority of online journals are copies of their print equivalents.

Unfortunately, prosthodontic has not yet adopted the concept of free online journals, and full text access is typically only available through expensive subscriptions.

PubMed
PubMed contains references to more than 20 million pieces of biomedical literature from MEDLINE, life science journals, and online publications. The citations and abstracts in

PubMed cover a wide range of topics, including preclinical sciences, nursing, dentistry, veterinary medicine, and medicine.

Additionally, PubMed provides access to the other NCBI molecular biology tools as well as links to additional related websites. The free online database PubMed was developed and is maintained by the National Center for Biotechnology Information (NCBI), which is housed in the National Library of Medicine (NLM), which is part of the National Institutes of Health (NIH). Journal publishers can submit their citations to NCBI and then use LinkOut to make the full text of publications available on journal websites. [8,9]

The Cochrane Library is made up of seven databases, including one that provides information on the Cochrane Collaboration's groups and six that provide various sorts of high-quality, unbiased evidence to inform healthcare decisions.9 The Cochrane Library is a paid-for database that was initially made available by Update Software and is now a part of the Wiley Online ecosystem. It has been made freely available to all citizens through "national provision" in a number of countries, including Canada, the United Kingdom, Ireland, the Scandinavian nations, New Zealand, Australia, India, South Africa, and Poland. There are further arrangements for free access, generally through HINARI, in many "low-income countries" and regions of Latin America. All Cochrane Reviews' two-page abstracts as well as brief, plain-language summaries of a few articles are available to everyone without charge.

The Cochrane Library consists of the following databases:

1. The Cochrane Database of Systematic Reviews
2. The Cochrane Central Register of Controlled Trials.
3. The Cochrane Methodology Register.
4. Health Technology Assessment Database.
5. NHS Economic Evaluation Database

VI. PATIENT EDUCATION

Utilizing computer-aided learning (CAL) systems with interactive videodiscs, digital CD-ROMs, and floppy discs for patient education. CAL is equally effective as standard oral and written communication methods.

As opposed to traditional teaching approaches, CAL systems allow patients to use them in the privacy of their own homes at a time that is convenient for them. Multimedia also engages students with different learning preferences.

Web browser interfaces just require the patient to click a mouse button to interact, and numerous programs have the same identifiable screen layout. The content on the Web page can be tailored for each unique patient using data from their electronic patient record.

In the coming ten years, videocassette recorders and satellite television receivers will be replaced with televisions with built-in Web browsers that can be navigated using a pointing device. On-demand digital video delivered via a fiber-optic cable network has recently been shown to be useful at home, but it is currently not economically practical due to the high supercomputing power needed. [0-18]

VII. CONCLUSION

There is no need to be intimidated by the wealth of prosthodontics-related material available online. A tiny number of portals offer huge amounts of high quality content. Leaner only needs to accept the idea of receiving updates via email and keeping an eye on various information sources to stay current with prosthodontic advancements.

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