Consumer Health Information Seeking on the Internet

A literature review

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Background

- For the first time, information tailored to the user's requirements is available instantaneously.

- In this new era of consumerism in health care, consumers are taking ownership of information about themselves and demand value

- The concept of the **information-empowered consumer** is growing rapidly, and the days in which only certain qualified medical professionals create and disseminate medical information are receding.

- It is often claimed that Internet access provides consumers with more and better quality health information, resulting in better-informed consumers who engage in more reflective and equal negotiations with their providers.

- However, does the Internet provide consumers with more and better quality health information and does it result in better-informed consumers?

Methodology

- A critical literature review conducted through searches of bibliographic databases as well as hand searching of journals, library searches of books and Internet search engines.

- Period of the search 1950 - 2007, the maximum time allowed by the database search and availability during November/December 2007.

- Keywords, 'health information', 'information-seeking', 'Internet', 'behaviour', 'consumer(s)', 'benefits', 'risks', 'quality', 'credibility', 'value' and 'e-health'.

- The current available literature provides information on the potential benefits, difficulties and shortcomings regarding consumer health information seeking behaviour on the Internet

- A closer analysis on quality of information.

What does the Internet look like?
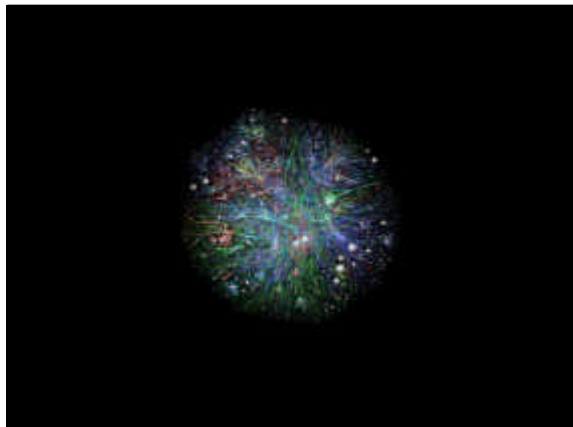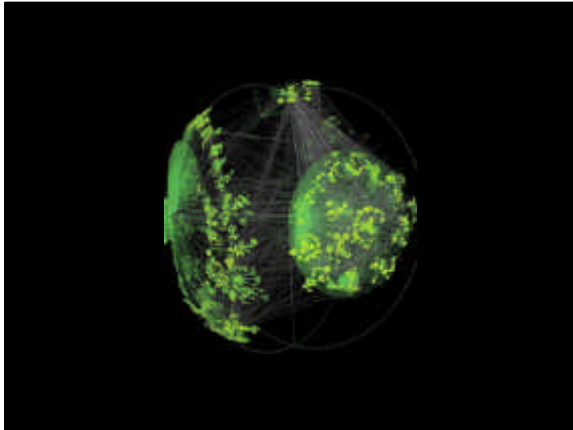
What is the Internet?

- The Internet is a global system of interconnected computer networks that interchange data

- It is a "network of networks" that consists of millions of private and public, academic, business, and government networks of local to global scope that are linked by copper wires, fiber-optic cables, wireless connections, and other technologies.

- The Internet is an information carrier

What is health information seeking?
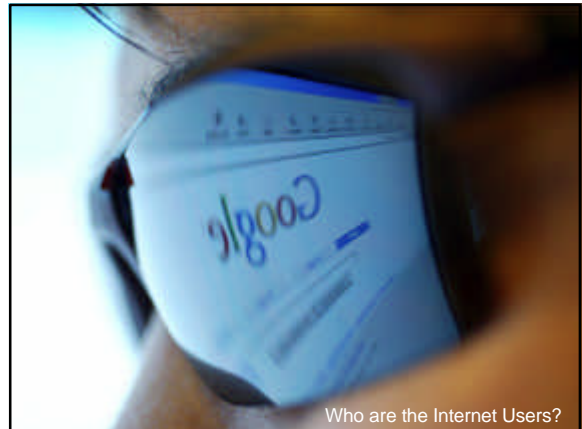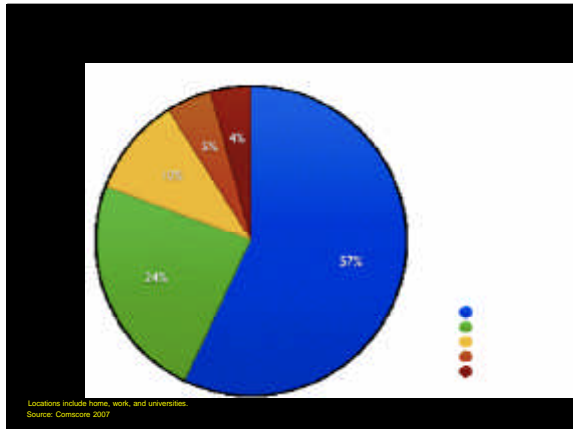

Definitions from Case (2002)

- **Information** – can be any <u>difference</u> you perceive, in your environment or within yourself. It is any aspect that you notice in the pattern of reality.

- **Information need** - is a recognition that your knowledge is inadequate to satisfy a goal that you have.

- **Information seeking** – is a conscious effort to acquire information in response to a need or a gap in your knowledge.

- **Information behavior** - encompasses information seeking as well the totality of other <u>unintentional</u> or <u>passive</u> behaviors (such as glimpsing or encountering information), as well as purposive behaviors that do not involve seeking, such as actively <u>avoiding</u> information.

How do consumers search?

Internet Search Engines

Locations include home, work, and universities.
Source: Comscore 2007

Who are the Internet Users?

Demographics of Internet Users

February-March 2007

	Use the internet
Total Adults	71%
Women	70
Men	71
Age	
18-29	87%
30-49	82
50-64	65
65+	32
Race/ethnicity	
White, Non-Hispanic	73%
Black, Non-Hispanic	62
English-speaking Hispanic	78
Geography	
Urban	73%
Suburban	73
Rural	60
Household income	
Less than $30,000/yr	55%
$30,000-$49,999	69
$50,000-$74,999	82
$75,000 +	93
Educational attainment	
Less than High School	40%
High School	61
Some College	81
College +	91

Pew Internet and American Life Project.

The benefits

- **Global access to Information** – Anywhere, anytime.

- **Online support groups and chat rooms** - support from others in the same boat, virtual community.

- **Interactivity** – reflective of choice and conversationality.

- **Tailoring of information** - a variety of formats, consumers can select freely, inexpensive mode of message delivery.

- **Potential for anonymity** - providing privacy, avoiding visual contact, confidentiality.

- **Language of search engines** - seeking in ones native tongue, will no longer be a barrier. Google translation service (**http://translate.google.com**) enables information exchange between languages and is expected to expand languages..

What Elements of a Website Represent Good Consumer Information?

- Website should be clear as to who is responsible for providing the health information; original source of information should be labeled

- Qualifications/credentials of those presenting information should be listed

- Source of funding for website should be clearly stated

- Medical facts and figures should be referenced

- Opinions and/or advice should be separated from "evidenced-based" material

NCAM, National Institutes of Health, 2008

Some credible websites

Shortcomings

- **Health messages** – Can be broadcasted everywhere, but difficult to craft one single message that will be equally effective across cultures.

- **Security of transmitting personal health data** – confidentiality a problem e.g. emails, problems with secure and password protected databases and firewalls, abuse of personal data. Security and privacy are issues overlooked by most websites.

- **Navigational difficulties** – volume of information, disorganisation, searching difficulties, technical jargon, user friendliness, lack of permanence .

- **Disparity of access** – the growing digital divide (based on education and income levels), those who shun the Internet (afraid of technology).

- **Finding, understanding and using health information** – Complete and accurate information, reliability. All levels of education may have difficulties.

The shortcomings

- **Inaccuracy and misleading information** – Bad advice, misinformation, information can undermine health objectives.

- **Potential for harm, risk and online pathologies** – Some pharmaceutical companies promote directly at low cost, over consumption of medications purchased online, increases addiction, pathologies such as relational and social problems.

- **Quality of information** – No uniform protocol for Internet health information, no governing body to monitor information, websites misleading, consumers rarely look for credible information (the Chinese whisper) Credibility and trust.

Characteristics of Unreliable Websites and Problems for Consumers

- Unreliable websites may include:
  - Disorganization; information is plentiful yet random
  - Use of technical language and/or health jargon
  - Lack of user friendliness, peer review and/or regulation
  - Risk-promoting messages
  - Inaccurate and/or misleading information
- Problems for Consumers
  - Information overload and poor evaluation skills
  - Difficulty in searching for information
  - Potential for pathologies and maladaptive behaviors

Clines and Haynes, 2001

Consumer Health Information and Best Practices

- Who runs the site?
- Who pays for the site?
- What is the purpose of the site?
- Where does the information come from?
- What is the basis of the information?
- How is the information selected?
- How current is the information?
- How does the site choose links to other sites?
- What personal information does the site collect?
- How does the site manage interactions with visitors?

Trust

- Individuals feel they can trust online health information if they:

- **Like the look and feel of a website**
- **Quality** – greater perceptible expertise
- **Personalised information** – shared identities, health problems
- **Branding** – familiar logos, reputable organisations.

Sillence et al (2004)

Results

- There has been a considerable amount of research done on consumer use of   online health information and seeking behaviour.

- Much of it consisting of large quantitative surveys.

- However, the major limitations of this amount of research are: been primarily US focused which have been merely descriptive and, with a few exceptions, conducted by marketing research companies.

Results

- Found that the Internet does not have a single driver or manager behind it to strive and overcome the shortcomings.

- It is up to the organisation promoting its use, and using it as a channel for high-quality and evidence-based information, to address these issues.

- Consumers also need a degree of sophistication and discernment in accessing good quality health information.

Conclusion

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Conclusion

- The study provided the basis for further research including the development of further research questions.
- Comprehension and health literacy are still important issues.
- Longitudinal studies are needed specifically to gain deeper insight into the impacts of health information on the Internet.
- As consumer health information seeking on the Internet is multifaceted, research is needed to further understandings of how consumers use the Internet and how information is perceived, acknowledged, delivered and executed.

Conclusion

- Especially important to identify positive or negative effects of the use of health information from the Internet on health outcomes and to understand how health consumers use and choose sources on the Internet and how this behaviour matches quality initiatives.

- Attempts are underway to set up tools to provide better quality of information on the Internet but, there is neither an internationally agreed set of criteria nor a quality assessment tool.

- Little evidence is available through research to date in order to demonstrate that such criteria are correlated with high-quality web sites proving health information and valid quality assessment tools are valid.

- Disparities in Internet access may present itself as another cause of inequalities in health (Easter, 2007).

What are the Health Communications Objectives?

- Internet access
- Increase health literacy
- Increase health communication programs coupled with research and evaluation.
- Web sites — User assessment of site quality
- Increase Centers for Excellence in Health
- Improve provider communication skills

Goal: Use Communication Strategically
to Improve Health

Health-Related Professionals   Health Information Consumers

Thank you