## Artigo Original

# Internet-based leisure research: opportunities and constraints

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**Abstract:** Since its earliest conception as a 'galactic network' of globally connected computers, the Internet has moved beyond the realm of science fiction to become *the* primary global communication medium and an increasingly popular research tool for scholars. In fact, some believe that the Internet has the potential to revolutionize research practice. Others, however, are skeptical of the Internet and its utility. Common concerns exist about the limited guidance available when using this 'virtual research laboratory'. In the absence of enhanced understanding about the opportunities and constraints associated with Internet-based research, "it is likely that the resulting academic research will be flawed or compromised in some manner" (ROZTOCKI, 2001, p. 1). Drawing on antecedent research and the researcher's personal observations and experiences, this paper highlights some of the opportunities and constraints common to Internet-based research. It concludes with a set of recommendations for the judicial use of the Internet for leisure research.

#### Keywords: Leisure. Research. Internet.

#### Pesquisa no lazer associada à internet: oportunidades e entraves

**Resumo:** Desde a sua primeira conceituação como uma 'rede galáctica' de computadores globalmente interligados, a Internet passou de ficção científica à principal forma de comunicação global e tornou-se um portal de pesquisa acadêmica cada vez mais popular. De fato, há quem acredite que a Internet tem o potencial de revolucionar o ato de pesquisa. Todavia, outros encontram-se céticos em relação à sua utilidade neste respeito. Existem receios comuns sobre o apoio limitado enquanto à utilização deste 'laboratório virtual de pesquisa'. Dada a falta de compreensão avançada sobre as oportunidades e os entraves associados com pesquisa baseada na Internet, "é provável que a pesquisa acadêmica resultante venha a ter falhas ou seja comprometida de alguma forma" (ROZTOCKI, 2001, p. 1). Baseando-se em pesquisa anterior e nas experiências e observações da própria autora, este trabalho realça algumas das oportunidades e dos entraves comuns à pesquisa baseada na Internet. A conclusão avança várias sugestões para otimizar oportunidades e minimizar entraves relacionados especificamente com a pesquisa sobre o tema lazer.

Palavras-chave: Lazer. Pesquisa. Internet.

#### **Problem and Purpose Statement**

Despite the Internet's vast potential for communications and commerce, its global reach, its increasing penetration rate, there is relatively little published about the Internet and its suitability and potential for leisure research. For example, social science research generally, has been slow to respond to the emergence and potential of the Internet. This is demonstrated by only 494 peerreviewed English language articles with keywords "Internet research" published in the last decade (BENFIELD; SZLEMKO, 2006). And while studies that consider the leisure dynamics of the Internet are common, there are few studies that address the methodological issues associated with use of the Internet as a tool for leisure

research. Consequently, researchers are provided with limited guidance on how to utilize this 'virtual research laboratory'. In the absence of guidelines and enhanced understanding about the opportunities and constraints associated with Internet-based research, "it is likely that the resulting academic research will be flawed or compromised in some manner" (ROZTOCKI, 2001, p. 1). The literature suggests that enhanced awareness of the advantages [and how to optimize opportunities] and the disadvantages [and how to mitigate constraints] is required for methodological progress (BENFIELD; SZLEMKO, 2006; DUFFY, 2002).

The purpose of this paper is to explore the opportunities and constraints associated with

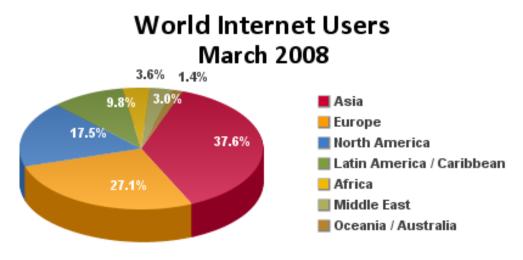
Internet-based academic research. Drawing on antecedent research – recent reviews, select studies and key methodological publications, as well as on the researcher's personal observations and experiences, this paper offers leisure researchers a primer on Internet-based research issues. It also contributes ten salient recommendations for leisure researchers who are engaged in or are considering Internet-based research methods. In doing so, the ambition is to provide a platform for methodological discussion.

#### The Internet: Magnitude and Scale

The Growth of the Internet is one of the Greatest Cultural Phenomena of our Time, Impacting Almost All Areas of Life. (WITTEL, 2000, p. 1)

The availability and adoption of Internet technology has increased phenomenally since its introduction in the 1960's. From its earliest conception as a 'galactic network' of globally connected computers, the Internet has moved beyond the realm of science fiction to become the primary global communication medium (LEINER et al., 2003). Until now, no other communication device has been so readily adopted with such widespread socio-cultural and economic implications.

In 2006, the numbers of Internet users surpassed 1.2 billion and 2 billion users are expected by 2011 (COMPUTER, 2007). While the United States has historically maintained the most users on a per country basis, growth is not limited to developed nations. In fact, the spatial reach or 'penetration rate' of the Internet continues to grow within developing countries such as Brazil, India, Mexico, and Russia, as well as into increasingly remote corners of the world. And recently, China emerged as the top Internet user with over 160 million users (CHINA, 2007, PACE, 2006). And, China has become one of the fastest growing Internet landscapes in the world as Internet infrastructure and accessibility rapidly improve.





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### Internet Technology

While a significant proportion of the world's population is using the Internet, either for work or leisure, the majority have very little experience with Internet technologies. To access the Internet and become part of the worldwide information sharing network, basic technology is required: a computer, a phone line or modem, appropriate software (web browser), and an account with an Internet service provider (ISP) (Table 1). Connecting to the Internet, in many places, has become a matter of routine for business and academia. In such cases, connections are often provided by institutions. For connections beyond institutional boundaries, an ISP allows subscribers to connect to the Internet ('log-on')

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using a phone line or modem. In Brazil, common ISP's include: Universo On Line (http:www.uol.com.br) and Terra (http://www.terra.com.br). Once a 'user' is logged-in, they can access pages of information across networks and computers. The address of a web page is its URL (Uniform Resource Locator). Users can move from one page to another by typing addresses into the web browser or by clicking on 'hotlinks'. Hotlinks are text or graphics that provide a portal or direct linkage to another page. The internet functions because it is ordained by a set of software protocols or rules that enable communications between connected computers (MANN: STEWART, 2000). These protocols make visiting websites, sharing files, sending and receiving emails possible.

The amount of information available on the Internet is phenomenal. Recent estimates have identified over 800 million active web pages (MANN; STEWART, 2000). To navigate what can be an overwhelming amount of information possibilities, search engines are used to help users navigate and filter information. These powerful computers search web pages and index their content. Commonly used search enaines include: http://www.yahoo.com; http://www.ask.com; http://www.excite.com, and http://www.google.com. Google has become a very popular engine world-over. Its' popularity is related to the fact that it can function in many different languages, it is a user friendly and simple tool, and it can be accessed anywhere an Internet connection is available. Today, 'Googling' has become a popular term used to describe searching for information on the Internet.

Beyond web page content, there are other Internet-based ways to share and access information. For example, *Email*, may be the most commonly used Internet service. Emails are letter-like documents that are sent electronically to a recipient by way of their email address (username@domain). The widespread acceptance and utility of this messaging system is related to:

1. *Time*: messages are delivered within seconds

- 2. **Access:** messages can be sent from any computer with an Internet connection (sender)
- 3. **Convenience**: messages can be opened and read at anytime and anywhere there is an Internet connection (recipient)

To use email, software investments are required. Programs such as Microsoft Outlook can be purchased and installed on a computer. Programs are also available at little to no cost. These can be accessed through email service providers such as Hotmail (http://www.hotmail.com) and Google.

Chat also provides a means for information exchange. Different from email, Chat allows users to communicate using computers and networks in 'real-time'. Users 'chat' directly with other users by exchanging messages and reading messages at the same time. Users connect via the Internet to Chat service providers. Messages can be viewed by anyone who has logged into a 'Chat' community (or chat room). There are hundreds, if not thousands, of Chat opportunities available on any number of topics. One of the most popular and contemporary chat options is the social networking website. For example Facebook (http://www.facebook.com) - popular in North America, Orkut (http://www.orkut.com) - popular in South America, QQ (http://www.im.qq.com) -Asia, **MySpace** popular in and (http://www.myspace.com) - popular in Europe, are examples. Here, users 'chat' by creating accounts, logging-in, posting messages and sharing files (photos, data, etc.). Now a global social phenomenon with its own evolving 'virtual culture', social networking is providing new communications opportunities for across networks, cultures, and borders.

Beyond web page content, email, chat rooms and social networks, there are other Internet-based technologies available for sharing knowledge and the number of opportunities increases daily. Mann and Stewart (2000) provide a comprehensive overview of these advancements. Internet basics are presented in Table 1.

Chat	An Internet-based communication medium where users post and view messages at the same time. E.g. <u>www.qq.com</u> .	
Email	Short for electronic mail; a delivery system for composing, sending and storing messages over the Internet.	
Half-life	A measure of web page stability (content consistency and accessibility over time). Web content can change rapidly.	
Hardware	Physical artifacts of technology. Computer hardware includes the computer, modem, memory, monitor, mouse, keyboard, etc.	
Hotlinks	A link (an object, text, or graphic) that when 'clicked' takes the user from one web page into another web page. See also 'portal'.	
Internet	System of linked computer networks, international in scope, that facilitates information exchange.	
Internet Service Provider (ISP)	Service that provides access to the Internet. Service requires that an account be created with the ISP. E.g. <u>www.terra.com.br</u>	
Portal	A web page that serves as the starting point to other web pages and services. E.g. <u>www.google.com.br</u>	
Social Networking Service	Service that uses software to build online social networks for communities of people who share interests, activities, histories, or other. E.g. <u>www.orkut.com</u>	
Software	A computer program or group of programs that facilitate computer based / Internet- based activities. E.g. web browser, word processor.	
Uniform Resource Locator (URL)	Used to describe the location or address of a webpage. All web pages have URLs. E.g. <u>www.site.abranet.org.br</u>	
Virtual	Technology that facilitates experiences without a physical presence. The Internet is a 'virtual' world.	
Web browser	Software program used to view content on the Internet. E.g. Microsoft Explorer.	

Table 1.	Internet	Basics:	Select	Terms	and	Concep	ots
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# The Internet as a Research Tool

In the past, researchers used the Internet primarily to access secondary information for research, including online journals and databases, e-mail, directories, and list-serves. New technology and services have emerged that allow researchers to now engage in a variety of Internet-based research. For example, many Internet-based studies are survey-based because the Internet technology now offers a rapid, simple, and inexpensive tool for creating and managing surveys, for communicating with participants, and for collecting data (DONOHOE, 2008a). And. recent advances in graphics, software, real-time interactivity, and Internet infrastructure are opening new portals and possibilities for experimental studies and qualitative research (BIRNBAUM, 2000, DUFFY, 2002). For example, focus groups and online interviews are bringing researchers and participants together where in the past, geographical boundaries, financial constraints, and social barriers were insurmountable research obstacles (DONOHOE, 2008b).

While the Internet can be the *focus of* a research project (MIAH, 2000, ROJEK, 1993), it is primarily used by researchers as a portal or a *medium for* data collection purposes. Typically, data collection can be organized into two types: (1) primary data collection and (2) secondary data collection.

# Internet-Based Research: Opportunities and Constraints

By its very nature, the Internet offers a promising and rapidly evolving medium for leisure research. When compared with the traditional 'pen and paper' approach to data collection, it offers unparalleled convenience, access to a large sample (over 1 billion users and rising), cost savings, reduced time investments, and many other appealing features. While not an exhaustive list, Table 3 represents the key opportunities associated with Internet-based research.

Primary Data Collection	<ul> <li>Data generated by researcher from Internet-based:</li> <li>Focus groups</li> <li>Surveys</li> <li>Interviews</li> <li>Experimental studies</li> </ul>
Secondary Data Collection	<ul> <li>[Existent] data collected by researcher from Internet-based:</li> <li>Data archives</li> <li>Bibliographic databases (peer-reviewed journals)</li> <li>Government databases (government documents, population census)</li> <li>Map archives</li> <li>Audio-visual archives</li> <li>International sources (e.g. UNWTO, WHO, WLO)</li> </ul>

Table 2.	Select Internet-based	Data	Collection	Types
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Table 3. Select Internet-Dased Research OFFORTONITIES	Table 3.	Select Internet-Based Research OPPORTUNITIES
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Cost	Eliminates or reduces costs for: - Research design (e.g. survey design) - Communications (e.g. postage) - Data management	
Time	Eliminates or reduces time investments for: - Communications (instantaneous) - Distribution of research materials - Collection of data	
Usability	Ease of use enhanced by: - Familiar interface - 'Anytime' or 'anywhere' research - Hard- and software advances	
Accuracy	Reduces human error during the data handing process	
Sampling Access	Eliminates or reduces: - Geographical barriers to participation Facilitates: - larger sample sizes - Greater sample diversity - Access to unique populations	

Sources: BENFIELD; SZLEMKO (2006), BERRY (2004), DONOHOE; NEEDHAM (2008), LIAMPUTTONG (2006), MANN; STEWART (2000), MUSTANSKI (2006), WRIGHT (2005).

As reminder, without full and careful consideration of this 'virtual landscape', that is *both* the opportunities and constraints of Internet-based research, the leisure researcher may encounter difficulties and the research findings may be compromised. Internet-based research is not without its problems. These problems can be considered characteristic of computers and the nature of the Internet. And, problems typically associated with traditional

research methods can be intensified by the conditions of the 'virtual landscape'. This can include perceived anonymity, respondents identity (real or perceived), and data accuracy (response selection control and transmission errors) (ROZTOCKI, 2001). Again, not an exhaustive list, Table 4 represents a selection of constraints that have the potential to compromise leisure research activities.

Access	Access to reliable Internet infrastructure and equipment limited in some areas. Individual location – gender, culture, ethnicity, language, and economics – may also limit access. This constraint presents concerns related to representativeness, transmission, and participation.
Accuracy	Content changes rapidly and/or may be moved/removed. "Half-life" presents constraints related to accuracy and reliability of results.
Bias	Electronic data may reveal alliances/information that may jeopardize professional/personal relations, thus bias presents as constraint.
Ethics	Breaching of ethical issues can occur when confidentiality is compromised during data transmission and storage. Lack of formal ethical guidelines compounds this constraint.
Control	Control of research environment difficult with remote participation (Internet connection speeds, participant distraction, perceived anonymity, false identity/data, lack of face-to-face/verbal interaction, etc.). This may compromise data quality.
Legitimacy	Technical expertise and basic familiarity with methodological issues still lean amongst researchers and on methodological/ethics/funding review boards.
Security and Technical Difficulties	Digital viruses and bugs (software) can compromise equipment for researchers and participants. Technical difficulties can result in constraints such as participant withdrawals, corrupt or lost data, time investments, and financial costs.

Table 4.	Select Internet-Based	Research	Constraints
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Sources: BENFIELD; SZLEMKO (2006), BERRY (2004), DELORME et al. (2001), DIMITROVA; BUGEJA (2007), DONOHOE; NEEDHAM (2008), DUFFY (2002), GARTON et al. (1999), HESSLER (2006), MURRAY (1995), RIVA (2001), SHARF (1999)

Table 5.	Ten Recommendations for Leis	sure Researchers
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- 1. Become informed about the structure and function of the Internet, its users, as well as the many Internet-based research issues before initiating research architecture.
- 2. Clearly define the study's data and information needs (e.g. data types, participant sample) so as to identify and mitigate potential constraints early.
- 3. Make use of free Internet-based tools (e.g. survey service providers, data storage services, email hosts).
- 4. Adopt 'netiquette' as an informal ethical framework for Internet-based communications.
- 5. Adhere to a Code of Ethics for Research (e.g. institutional or disciplinary code) and contribute to the evolution of a formal Code of Ethics for Internet-based research.
- 6. Invest in security software/hardware (and updates) to reduce ethical breaching risks and mitigate potential technological difficulties.
- 7. Keep communications simple, use common interfaces, and keep file sizes small to increase usability and to mitigate access constraints.
- 8. Address the 'half-life' of Internet content explicitly. This requires a return visit to the website and it may require secondary coding/analysis (time sensitive).
- 9. Provide alternatives/back-ups (e.g. traditional pen and paper survey) should access become a significant constraint or should technological issues present.
- 10. Consult with colleagues and institutional review boards, for guidance. Students, by way of their social position, are often great sources for Internet related information (trends, technology, etc.).

# Maximizing Internet-Based Research Opportunities

There are clear opportunities for leisure researchers, particularly because the Internet

offers practical means and benefits that are different from and/or are complimentary to traditional research methods and tools. To benefit from these opportunities, researchers must proceed with caution. That is, potential constraints must be acknowledged and mitigation measures must become active components of the research design. Although guidance in this regard is lean (but evolving), the literature, in fact, hosts many valuable and practical suggestions for Internet research. Culled from published studies in a diversity of disciplines, and complimented by personal research experience, a set of recommendations are introduced here (Table 5). They are meant to serve as informal guidance for the judicial use of the Internet for leisure research.

#### Conclusion

Although a relatively new research frontier, the Internet presents unparalleled opportunities for research. For leisure researchers, there exists great potential to harness the power of the Internet to facilitate data collection efficiently and economically. It offers access to a large and geographically diverse population, rapid communications and data collection, and reduced research design and data management costs. As technology becomes more advanced, as Internet penetration rates, connectivity, and bandwidth increase, the use of the Internet to conduct leisure research is sure to increase. It is important to remember, however, that although Internet-based research presents many opportunities, it does have its own tensions, contradictions, and constraints (DENZIN, 2004). Thus as precursor to Internetbased research (and methodological validity), leisure researchers must invest time and effort into understanding the methodological issues that are associated with this research tool. Sharing of research findings and experiences is also required of researchers so that the breadth of knowledge can be enhanced, methodological refinement can progress, and Internet-based research guidelines and codes of ethics can be developed. Clearly, leisure researchers have much to contribute to and benefit from this rapidly evolving research landscape.

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