Association of Internet Research Specialists

5th Edition

CIRS™ | Certified Internet Research Specialist

Recommended Learning Program

TRAINING GUIDE

For PROFESSIONAL ONLINE RESEARCH

Covers CIRS Exam Modules

1. Internet, Web Browsers & Search Engines
2. Research Methods & Online Research Techniques
3. Research in Business & Business of Research
4. Internet Law & Ethical Issues of the Internet

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PREFACE

Challenges of Learning Web Search Skills

I often see online researchers' impetuous acclaimed and overrated web search skills and respectfully includes many of my technology-savvy colleagues. Having written more than a few books on Online Research, I must confess that by far, search engines are one of the most challenging technologies to put a rope around. Perhaps the reason is the secretive nature of their algorithms and the extent to which artificial intelligence has played a significant role in its evolution during the past few years.

Researchers Need Web Search Skills

So, why is it essential for the worldwide population to worry about how the search response works when typing a few words into a search box delivers an enormous volume of satisfactory results? The answer to this depends on the nature and objective of the search. One can find quick answers with ease and sufficient accuracy. Still, research work and reaching out to relevant and reliable information amongst trillions of indexed pages becomes a real challenge when searching becomes more profound. Researchers must learn to retrofit traditional research methods in performing online search, adopt new ones for data sourcing and information collections.

Social Media Data Collection Opportunities of the Internet

With the widespread use of the Internet and its technology, social media data consumption and cloud computing bring information collection opportunities for researchers. For some, the Internet tracks digital footprints spread across information trails left by online activities, thus addressing the interest of anyone in its pursuit.

User's Search Intent translation by Search Engines

It is common knowledge when so much information flows through the Internet, the search engines index grows immeasurably. Much of the existing information pages remain undiscovered or get buried in their heap. Even with the best algorithms and artificial intelligence applied, the search engines cannot precisely interpret the contextual intent of a user's search. Therefore, to talk to the search engine in a common language, it understands and interprets "Consensus Ad Idem," a user must acquire specialized communication skills.

About the book

This book covers the recommended curriculum of the *Web Search Methods and Techniques* training program from the *Association of Internet Research Specialists* (AOFIRS). The AOFIRS also recommends the book as a self-study guide for professional researchers and those who use the Internet as their primary tool for information collection.

Readers will find a refreshing change from conventional books on web search, primarily due to a hands-on learning approach, supported by several detailed diagrams (includes more than 450 query examples

and 200 plus illustrations, images, and charts). Secondly, the course structure gives it a shape of a "*Technical Manual*" on web search, thus making it a reference resource for professional research work.

The author points to his unique approach in familiarizing readers with how the search engine collects, reads, and indexes web pages - a piece of knowledge generally ignored by authors on the subject. Topics move further toward the user's query interpretation by search engine algorithms and their built-in textual semantics. Here the author believes that understanding search operators are inadequate for web search unless anticipated search response behavior is predictable to a certain extent. A well-planned search perceives search engines' algorithmic limitations, predictive nature, implied bias, and textual semantics.

More about the structure of this book

The first few pages start with a short introduction to *Internet Research Work* and define *Internet Research Specialist*. Books content layout suggest separated main topics into six (6) sections or six (6) knowledge areas, 1) *Webpages, HTML Tags & Query Foundations*, 2) *Search with Keywords and Search Phrases*, 3) *Search with Proximity Operators*, 4) *Basic Search with Booleans, Notations and Symbols*, 5) *Advanced Search Queries with Google Operators*, and 6) *Complex Search Queries with Google Operators*.

Note that the readers must maintain a sequential reading through sections and numbered chapters to understand concepts better.

Section 1, "*Webpages, HTML Tags & Query Foundations*," gives readers insight into the components of web pages and how the search engines read and index HTML pages. A query foundation covers query context and intent translation in machine learning algorithms and applied textual semantics.

Section 2, "*Search with Keywords and Search Phrases*," addresses keywords selection and phrase construction methods. Learning topics explains primary and secondary keywords and broad search vs. precision or narrowed search queries. A granular dissection of search phrases into head words, modifiers, and tail words are discussed in detail.

Section 3, "*Search with Proximity Operators*," differentiates the "*Proximity Search*" concepts from "*Precision Search,*" the two approaches applied in building search query strings are explained in detail. Several practical examples of running search queries explain rules, conventions, and restraints needed to execute proximity searches with proximity operators in Google search.

Section 4, "*Basic Search with Booleans, Notations, and Symbols*," introduces the Boolean logic used in Google search. Readers will discover concepts that are missing pieces or generally ignored by most authors and instructors. The author has used simplified algebraic expressions validating query accuracy whenever Boolean, notation, and symbol are used in a search string. Several complex and varied query expressions are applied as examples to ensure readers' conceptual clarity and understanding.

Section 5, "*Advanced Search Queries with Google Operators*," starts with introducing advanced Google search operators, their structure, formats, and application in advanced query building. This section highlights how the author manages to simplify the most challenging aspects of advanced operators. The topics in this area of knowledge take a unique approach. It explains the web page content areas by opening under-the-hood HTML codes that specific advanced operators read. Emphasis is on sufficient

knowledge when selecting correct operators that read content type on individual indexed pages. Keeping in view the practical approach, readers find over a hundred executable search queries from several situational examples.

Section 6, "*Complex Search Queries with Google Operators*," - by now, the author feels that the readers have acquired sufficient knowledge to build advanced search queries independently. This section covers situational search queries depending on the search objective. Readers learn about complexities in building search queries. Readers are taught with query examples that are real-world executable and give plenty of practice opportunities to test-drive.

Finally, the author congratulates you in advance for becoming an expert Internet researcher.

Naveed Manzoor

Book Author, CEO, Executive Director

The Association of Internet Research Specialists | AOFIRS
Toronto – Ontario, Canada

A practical guide for mastering Google Web Search Queries

Technical Reference for Online Research Specialist

"The only book you need for building complex Google search queries"

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The AOFIRS Education Board

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