Welcome to the V19N5 May 2021 issue of the Awareness Watch™ Newsletter. This newsletter is available as a complimentary subscription and will be issued monthly. Each newsletter will feature the following:

**Awareness Watch™ Featured Report**

**Awareness Watch™ Spotters**

**Awareness Watch™ Book/Paper/Article Review**

**Subject Tracer™ Information Blogs**

I am always open to feedback from readers so please feel free to email with all suggestions, reviews and new resources that you feel would be appropriate for inclusion in an upcoming issue of Awareness Watch™. This is an ongoing work of creativity and you will be observing constant changes, constant updates knowing that “change” is the only thing that will remain constant especially in today’s COVID-19 New Economy and New Normal world!!

**Awareness Watch™ Featured Report**

This month’s featured report covers 2021 Web Data Extractors and is a comprehensive listing of world wide web and Internet web data extractors resources and tools including sources for new economy and new normal web data extractors directories, subject guides and index resources and sites on the Internet available for the 2021 year. The below list is taken partially from my white paper titled Web Data Extractors 2021 and is constantly updated with Subject Tracer™ bots at the following URL:


These resources and sources will help you to discover the many new pathways available through the Internet to find the latest new and existing world wide web and Internet competent web data extractors resources, sources, tools and sites. As this site is constantly updated it would be to your benefit to bookmark and return to the above URL frequently. The below resources and sources including the deep web will be your pathfinder to all the new web data extractors resources, sources, tools and alerts!!
2021 Web Data Extractors:

80legs - Powerful and Economical Service Platform for Crawling and Processing Web Content
http://www.80legs.com/

Agenty – Hosted Web Scraping Tool
https://www.agenty.com/

Anthracite
http://freecode.com/projects/anthracite

Apify – Web Scraping Platform for Coders
https://www.apify.com/

Aristo - Answer Questions with a Knowledgeable Machine
http://allenai.org/aristo/

artoo.js - The Client-Side Scraping Companion
http://medialab.github.io/artoo/

AutoMate - Automate Data Extraction
https://www.networkautomation.com/

Automated RSS Scraper Scripts
http://www.djeaux.com/rss/

Automated Information Solutions
http://www.automated-info-solutions.com/

Automatic Information Extraction From Semi-Structured Web Pages By Pattern Discovery
http://portal.acm.org/citation.cfm?id=640423&dl=ACM&coll=portal

Beautiful Soup
http://freecode.com/projects/beautifulsoup

Beautiful Soup - HTML/XML Parser for Quick Turnaround Screen Scraping and Web Data Extraction
http://www.crummy.com/software/BeautifulSoup/

blia solutions Weather Predictive Analytics
http://www.bliasolutions.com/
Bot Research 2021
http://www.BotResearch.info/

BYU Data Extraction Research Group
http://www.deg.byu.edu/

Captiva Software: OpenText Captiva – Capture and Transform Content
http://www.emc.com/enterprise-content-management/captiva/captiva.htm

Client-Side Deep Web Data Extraction

CloudScrape – Extract, Enrich and Connect
http://www.cloudscrape.com/

Cogitum Co-Citer
http://www.cogitum.com/co-tracker-text/more.shtml

Common Crawl
http://www.commoncrawl.org/

Connoteate – Web Data Extraction and Monitoring
http://www.connoteate.com/

ContextMiner - Tools to Collect Data, Metadata and Contextual Information
http://www.contextminer.org/

cQuery - Content Query Engine
http://cquery.com/

CrawlMonster
http://www.crawlmonster.com/

Crawly
http://crawly.diffbot.com/

Create a Crawler - Extract Data From an Entire Website
https://www.import.io/

cURL groks URLs - Command Line Tool for Transferring Data
http://curl.haxx.se/

Data Excavator – Data Scraper for E-commerce
https://data-excavator.com/
Data Extraction Services
http://www.dataextractionservices.com/

DataHen – Advanced Web Scraping and Data Extraction Services
https://www.datahen.com/

Data Mining Resources 2021
http://www.DataMiningResources.info/

Data Miner – Extract Data From any Website in Seconds
https://data-miner.io/

Dataminr - Real-time Information Discovery
http://www.dataminr.com/

Data Scraper – East Web Scrapping with Google Chrome

DataSift - Powerful Social Data Platform
http://datasift.com/

Data Toolbar – Web Data Extraction Software Made Simple
http://datatoolbar.com/

DataWatch Monarch – Self-Service Data Preparation
http://www.datawatch.com/

DataWrangler - Data Cleaning and Transformation Tool
http://vis.stanford.edu/wrangler/

Deep Web Research 2021
http://www.DeepWebResearch.info/

DEiXTTo – Powerful Web Data Extraction Tool Based on W3C DOM
http://deixto.com/

dexi.io – Web Data Processing for Professionals – Extract, Enrich and Connect
https://dexi.io/

DiffBot AI – Web Data Extraction Using Artificial Intelligence
http://www.DiffBot.com/
Diggernaut - Data Scraping - Turn Website Content Into Datasets
https://www.diggernaut.com/

Digital Footprints - Collect Facebook Data
http://digitalfootprints.dk/

DiscoverText - Import, Sort, Distribute and Analyze Electronic Content from eMail, Document Repositories, and Social Media
http://discovertext.com/

Easy PDF Cloud
https://www.easypdfcloud.com/

Easy Web Extract – Best Tool for Web Scraping
http://webextract.net/

eGrabber - Data Capture Tools
http://www.egrabber.com/

Facepager - Fetching Public Data From Facebook
https://github.com/strohne/Facepager

Ficstar Software - Web Data Extraction
http://www.ficstar.com/

File Information Tool Set (FITS)
https://projects.iq.harvard.edu/fits

FMiner – Web Scraping Software
http://www.fminer.com/

Fresh WebSuction
http://www.freshwebmaster.com/

Get Automated Data Extraction
https://info.helpsystems.com/am-data-extraction-and-movement/

GetData.io - Get Valuable Data from the Web in 3 Steps
https://getdata.io/

Grepsr – Web Scraping Made Simple, Fast and Manageable
https://www.grepsr.com/
Harkive – Data Collection – Multiple Sources/Single Database
http://harkive.org/datcolzap/

Helium Scraper
http://www.heliumscraper.com/

How to Scrape Data from a Website Using Python
https://www.codementor.io/oluwagbengajoloko/how-to-scrape-data-from-a-website-using-python-n3fmtc63q

How To Use A Data-Scaping Tool to Extract Data From Webpages

Huginn - Your Agents Are Standing By
https://github.com/cantino/huginn

Hunter - Connect With Anyone
https://hunter.io/

HYPHE - Web Corpus Curation Tool Featuring A Research-Driven Web Crawler
http://hyphe.medialab.sciences-po.fr/

iCyte - Your Research Anywhere
http://www.icyte.com/

iMacros – Data Extraction
http://imacros.net/overview

Imagination Engines
http://www.Imagination-Engines.com/

Import.io - Turn the Web Into Data With Extractors, Crawlers and Connectors
https://import.io/

IndieData – Get a Scraped Database Instantly
https://indiedata.app/

InfoExtractor - Extracts Relevant Information from Blogs, YouTube and Twitter
http://www.infoextractor.org/

Information Retrieval (IR) and Information Extraction (IE) on the Web
http://www.webir.org/
Instaloader – Download Pictures or Videos and Metadata from Instagram
https://instaloader.github.io/

Instamancer – Scrape Instagram’s API with Puppeteer
https://adamsm.com/instamancer/

Introduction to Information Retrieval

Introduction to Web Scraping Using Python
https://github.com/qut-dmrc/web-scraping-intro-workshop

Ion – On-demand IP Rotation for Faster Web Scraping
https://www.anonymizer.com/

iRobotSoft – Visual Web Scraping and Web Automation
http://irobotsoft.com/

iWeb Scraping Services
http://www.iwebscraping.com/

Jaspersoft® ETL - The Open Source Data Integration Platform
https://community.jaspersoft.com/project/jaspersoft-etl

JetOctopus – Crawler for Big Web Sites
https://jetoctopus.com/

Junar - Discovering Data
http://www.junar.com/

Karma - Data Integration Tool
http://www.isi.edu/integration/karma/

Knowledge Discovery Resources 2021
http://www.KnowledgeDiscovery.info/

Knowlesys® - Web Data Extraction, Web Grabber and Screen Scraper
http://www.knowlesys.com/index.htm

Liberty Metrics – Web Scraping Services
http://libertymetrics.com/

LingPipe – Information Extraction and Data Mining Tools
http://alias-i.com/lingpipe/
Listly - Fully Automated Web Scraping Service
http://listly.io/

LoginWorks – On Demand Webpage Scraping Services
https://www.loginworks.com/

Luminati – Get Reliable and Structured Data From Any Website
https://www.luminati.io/

Marquee – Professional Web Scraping Services
https://marqueedata.com/

Metadata Extraction Tool
http://meta-extractor.sourceforge.net/

Minerazzi – Search and Mining Ecosystem
http://www.minerazzi.com/

Mozenda – Comprehensive Web Data Gathering
http://www.mozenda.com/

Netlytic - Making Sense of Online Conversations
https://netlytic.org/home/

Newprosoft – Web Data Extraction Software
http://newprosoft.com/

Octo – Expose Data From Any Database As Web Service
https://octoproject.github.io/octo-cli/?utm_campaign=Data_Elixir&utm_source=Data_Elixir_303

Octoparse – Automated Web Scraping Software
http://www.octoparse.com/

Open Datasets
http://www.DataPortals.org/
https://github.com/caesar0301/awesome-public-datasets
https://www.kaggle.com/datasets
https://www.data.gov/
https://aws.amazon.com/public-datasets/
https://data.world/
http://data.worldbank.org/
http://www.OpenDataSets.info/
OutWit Hub - Harvest the Web With Your Own Web Collection Engine
http://www.outwit.com/

ParseHub – Web Crawling Using Machine Learning
http://www.ParseHub.com/

Pervasive Data Management and Integration Products
http://www.pervasive.com/

Priceonomics - Crawl Data From the Web
http://priceonomics.com/

Proxycrawl - Stay Anonymous While Crawling the Web
https://proxycrawl.com/

QL2 Software - Unstructured Data Management and Web Mining Software
http://www.ql2.com/

Quick Code
https://quickcode.io/

re3data.org - 2,000 Data Repositories
https://www.re3data.org/

REBOL Technologies
http://www.rebol.com/

ReVerb - Open Information Extraction Software
http://reverb.cs.washington.edu/

ScrapeForge
http://freecode.com/projects/scrapeforge

ScrapeHero
https://www.scrapehero.com/

Scraper
http://freecode.com/projects/scraper

Scraper API
https://www.scraperapi.com/

ScrapeStorm – AI-Powered Visual Web Data Extractor
https://www.scrapestorm.com
ScrapingBot – API You Need for Efficient Scraping
https://www.scraping-bot.io/

ScrapingDog – Handles Millions of Proxies, Browsers and CAPTCHAs
https://www.scrapingdog.com/

ScrapingHub – Cloud Based Data Extraction Tool
http://www.ScrapingHub.com/

Scraping Robot – Quality Web Scraping That You Can Count On
https://scrapingrobot.com/

Scraping Solutions – When the Solution You Seek Seems Impossible

Scrapy – Open Source Web Scraping Framework for Python
http://scrapy.org/

Screen-Scraper
http://freecode.com/projects/screenscraper

Screen-Scraper – Extracts Information From Web Sites
http://www.Screen-Scraper.com/

Screenscraping the Senate by Paul Ford

Search and Replace with TextPipe Pattern Matching
http://www.datamystic.com/textpipe.html

Semantic Scholar - Free Scientific Literature Search and Discovery
http://allenai.org/semantic-scholar/

Sensible Code
http://sensiblecode.io/

Sequentum – Unlock the World’s Largest Data Source
https://sequentum.com/

Simple Scraper – Extract Data From Any Website in Seconds
https://simplescraper.io/

Social Media Data Collection Tools
http://socialmediadata.wikidot.com/
Software for Web Scraping
http://scraping.pro/software-for-web-scraping/

Spinn3r - Indexing the Blogosphere
http://docs.spinn3r.com/#overview

SPSS Modeler
http://developer.ibm.com/predictiveanalytics

Squirro - Find, Remember, Organize and Share Important Information
https://squirro.com/

STACKS - Social Media Tracker, Analyzer, & Collector Toolkit at Syracuse
https://github.com/bitslabsyr/stack

TadaWeb - Clone and Amplify Human Intelligence for Web Data Collection and Analysis
https://www.tadaweb.com/

Teracrawler – Cloud Based Web Crawling Software
https://teracrawler.io/

TextConverter 4
https://www.simx.com/simx/TC-Overview.stp?

TextRazor - Text Analysis Infrastructure
https://www.textrazor.com/

Topicgrazer - Graze On Web Pages and Documents

Trove - Privacy-Focused Bookmark Organizer
https://trovenow.com/

UiPath – Web Data Extraction
https://www.uipath.com/guides/web-data-extraction

Unit Miner - Web Data Extraction Software
http://www.unitminer.com/

VietSpider
http://binhgiang.sourceforge.net/
Visual Web Ripper – Data Extraction Software

Visual Web Task
http://www.lencom.com/VisualWTSite.html

Voogy – Anonymous Website Visitor Tracker
https://voogy.com/

W3C Publishes Data Extraction Language (DEL) as W3C Note

Web Content Extractor
http://www.newprosoft.com/

Web Data Extraction
https://www.wintask.com/web-data-extraction-feature/

Web Data Extraction – Convert Websites Into Structured, Usable Data
https://www.import.io/product/extract/

Web Data Extraction Services
https://webdataextractionservices.com/

Web Data Extraction Software Data Toolbar
https://webdataextractionsoftwaredata toolbar.en.softonic.com/

Web Data Extractor
http://www.rafasoft.com/

Web Data Extractor
http://www.webextractor.com/

Web Data Extractor
http://fivesmallq.github.io/web-data-extractor

Web Data Extractor

Web Data Extractors 2021
http://www.WebDataExtractors.com/

Web Data Guru – Web Data Extraction and Scraping Services
http://www.webdataguru.com/
Web-Harvest – Open Source Web Data Extraction Tool
http://web-harvest.sourceforge.net/index.php

Webhose.io – Web Data For Your Business
http://www.webhose.io/

Web Robots – Web Scraping and Crawling
https://webrobots.io/

Web Scraper
http://www.webscraper.io/

Web Scraper Software Market Emerging Trends and Global Demands 2019 – 2024

https://en.wikipedia.org/wiki/Web_scraping

Website Data Extractor – Time to Rethink Web Scraping
http://www.kofax.com/

Website Downloader
https://websitedownloader.io/

Website Extractor – Offline Browser

WebSunDew – Advanced Web Scraping Tool
http://www.websundew.com/

Wikimedia Public Data Dumps
http://meta.wikimedia.org/wiki/Data_dumps

WinAutomation
http://www.winautomation.com/

XRay Web Scraping Tool
http://freecode.com/projects/xrayguibasedwebscrapingtool

YaCy Web page Indexer
http://freecode.com/projects/yacy
Zenscrape – An Elegant Web API for Ethical Data Extraction at Scale
https://zenscrape.com/

**Awareness Watch™ Spotters**

**Academic and Scholar Search Engines and Sources 2021**
http://www.ScholarSearchEngines.com/
Internet Annotated Link Dataset Compilation titled “Academic and Scholar Search
Engines and Sources 2021” is now a 82 page research paper listing selected resources
both new and existing that will help anyone who is attempting to find academic and
scholarly information and knowledge available on the Internet. Each source is described
along with the URL address than can be accessed. It is freely available as a .pdf file
(972KB) at the above link from the Virtual Private Library™ and authored by Marcus P.
Zillman, M.S., A.M.H.A. [ Completely Updated with all links validated and new
URLs added: April 1, 2021]. Other white papers are available by clicking here.

**New Normal Start Up Resources 2021**
http://www.NewNormalStartUpResources.com/ [April 1, 2021]
https://www.llrx.com/2021/02/new-normal-start-up-resources-2021/
As we collectively work toward establishing a post-coronavirus future, there is a need to
go beyond identifying operational goals, objectives, products and services tied to work in
physical locations. For both existing organizations and startups, effectively pivoting to a
future that includes routine remote work and online collaboration that drives all facets of
management, development, marketing, and communications. This guide by Marcus P.
Zillman identifies a wide range of actionable resources that can help empower new
companies and established public and private sector organizations as they navigate
challenges and leverage new opportunities. The PDF is also available by clicking here.

**Deep Web Research and Discovery Resources 2021**
I have just updated my white paper link dataset compilation and now titled Deep Web
Research and Discovery Resources 2021 and it is now a 79 page 901KB PDF document
freely available directly from the above URL. This update verified all links as well as
reviewed all resources covered including adding additional links. Currently this has been
downloaded over 8,000,000+ times! April 1, 2021

**Open Educational Resources (OER) Sources 2021**
http://www.OERSources.com/
“Open Educational Resources (OER) are freely accessible, openly licensed text, media,
and other digital assets that are useful for teaching, learning, and assessing as well as for
research purposes.” [Wikipedia] Costs continue to rise for students who are pursing
college and post graduate degree programs. By leveraging best practice sites, services and
non-traditional options to expand knowledge, skills and abilities in many disciplines, students can choose from a wide range of options to complete their respective goals. This freely available guide, Open Educational Resources (OER) Sources 2021, is a comprehensive listing of useful open educational resources, sources and sites on the Internet that can assist you in optimizing your learning opportunities. This will be added to OERSearchEngine.com/. This will be added to Education and Academic Resources Subject Tracer™. This will be added to Student Research Resources Subject Tracer™. Complete Update Including All Links Validated on April 1, 2021; [53 pages, 907KB PDF]

Information Quality Resources 2021 White Paper Link Dataset Compilation
http://www.zillman.us/subject-tracers/information-quality-resources/
http://www.InformationQualityResources.info/
The above is the associated white paper link dataset compilation of the Information Quality Resources 2021 Subject Tracer™ Information Blog by Marcus P. Zillman, M.S., A.M.H.A.. It is a freely available 22 page .pdf document (728KB) listing the latest and greatest online resources and sites for quality information resources! Completed updated including all link validation and new links added on January 9, 2021. Other white papers are available by clicking here. In today’s fake news and misinformation environment this is a must needed resource to keep you on the correct path for all your information needs in the upcoming elections and the 2020 New Economy. Visit my just updated for 2021 54 Subject Tracers™ by clicking here.

2021 Directory of Directories
The above is a white paper link dataset compilation of the 2021 Directory of Directories Subject Tracer™ Information Blog by Internet Expert Marcus P. Zillman, M.S., A.M.H.A. This 2021 Directory of Directories covers all the competent and well maintained directories available from the Internet and makes for an excellent alternative search resource! It is now a 33 page .pdf document 759KB, [Updated on January 20, 2021] Other white papers are available by clicking here.

Financial Sources 2021 Subject Tracer™ Information Blog White Paper Link Dataset Compilation
https://www.zillman.us/subject-tracers/financial-sources/
http://www.FinancialSources.info/
The above is the associated white paper link dataset compilation of the Financial Sources 2021 Subject Tracer™ Information Blog by Marcus P. Zillman, M.S., A.M.H.A. It is a 37 page .pdf document 777KB, [Updated January 21, 2021] Other white papers are available by clicking here.
eCommerce Resources On the Internet 2021
https://www.zillman.us/subject-tracersecommerce-resources/
http://www.eCommerceResources.info/
The above is the associated white paper link dataset compilation of the eCommerce Resources On the Internet 2021 Subject Tracer™ Information Blog by Marcus P. Zillman, M.S., A.M.H.A. It is a 31 page .pdf document (759KB) freely available from the above URL. [Updated with all links validated and new links added on January 23, 2021]. Other white papers are available by clicking here.

New Economy Resources 2021
http://www.NewEconomyResources.com/
New Economy Resources 2021 represents the latest world wide web resources for discovering new knowledge and understanding the latest happenings with regards to the New Economy. The world is rapidly changing as transparency, big data and the ability to access data from new and now accessible databases becomes a reality! Understanding the required new economy analytics, resources and alerts will give you the necessary tools to maintain your current position, improve your position and or discover the new knowledge required to be the leader in your profession. It was Officially Released with All Links Validated and New Links added on November 1, 2020 and Updated January 22, 2021. [45 pages 922KB .pdf]

Healthcare Online Resources 2021
http://www.HealthcareResources.info/
Healthcare Online Resources 2021 is a comprehensive listing of healthcare resources currently available on the Internet. These include healthcare indexes, subject guides and search engines that supply the latest technology and information about healthcare and how it relates to you. This has been created by Marcus P. Zillman, M.S., A.M.H.A., Author, Keynote Speaker and Corporate Consultant. [Updated on January 27, 2021 PDF 36 pages 959KB] Also available directly from: http://HealthPathFinders.com/

Podcast – The Grassy Knoll #8 Interview with Marcus P. Zillman, M.S., A.M.H.A.
Marcus P. Zillman, M.S., A.M.H.A. is an Internet Pioneer. He is an internet expert, keynote speaker, and corporate consultant around the topic of Internet bots, Search Engines, and Artificial Intelligence. He brings more than thirty years of experience in operating online databases and has authored over 100 white papers, Internet MiniGuides, and eBooks about the Internet and the exciting resources that are available to both the “newbie” as well as the “seasoned” veteran. Marcus is currently the Executive Director of the Virtual Private Library the creators of over 54 Subject Tracer Information Blogs.

Tutorial Resources on the Internet 2021 White Paper Link Dataset Compilation
http://www.TutorialResources.info/
The above is the associated white paper link compilation of the Tutorial Resources on the Internet 2021 Subject Tracer™ Information Blog by Marcus P. Zillman, M.S., A.M.H.A.
May 2021 Zillman Column: 2021 Guide to Journalism Resources

http://columns.virtualprivatelibrary.net/2021_Journalism_Resources_May21_column.pdf
http://www.ZillmanColumns.com/

The May 2021 Zillman Column features **2021 Guide to Journalism Resources** by Marcus P. Zillman, M.S., A.M.H.A.; Executive Director of the Virtual Private Library. This is a comprehensive listing of journalism resources, sites and tools on the Internet and available in the new “zoom” education/learning age. These competent journalism resources and tools will be your search engine for your research. The below list of sources is taken from his Subject Tracer™ Information Blog titled Journalism Resources 2021 and is constantly updated with Subject Tracer™ bots at the following URL: http://www.JournalismResources.info/. These resources and sources will help you to discover the many pathways available to you through the Internet to find the latest journalism resources, sources and sites. This is another MUST have column to discover the latest 2021 competent online journalism resources and tools to give you the information you need in today’s ever changing and fast paced **2021 New Economy** business and academic research world and the **New Normal**.

Grid, Distributed and Cloud Computing Resources 2021

http://www.GridResources.info/

The above is my white paper link compilation of **Grid, Distributed and Cloud Computing Resources 2021** Subject Tracer™ by Marcus P. Zillman, M.S., A.M.H.A. It is now a 26 page .pdf document 722KB. [Updated including all links validated and new links added on April 20, 2021] Other white papers are available by clicking here.

Games Resources 2021 White Paper Link Dataset Compilation

http://www.GamesResources.info/

I have just updated the associated white paper link dataset compilation of the Games Resources 2021 Subject Tracer™ Information Blog by Marcus P. Zillman, M.S., A.M.H.A. It is a 20 page .pdf document 695KB. [Completely updated on December 12, 2020]. Other white papers are available by clicking here.

Grey Literature: Advocating for Diverse Voices, Increased Use, Improved Access, and Preservation


Grey literature (GL), or works that are more ephemeral in nature and not produced by traditional publishers, plays an important role in research and teaching. Some disciplines, such as economics and forestry, rely on and value GL for how it allows rapid dissemination of information. Additionally, as systematic reviews become increasingly popular in a wider variety of disciplines, the focus on GL has intensified due to...
guidelines calling for its inclusion. These factors led the authors to further explore the role of GL across disciplines of our institution. We examined the current levels of GL in databases and institutional repositories, and surveyed and interviewed faculty on their relationship with GL. This research found a lack of diverse voices in GL holdings and issues in preservation and access. Libraries are well situated to address these issues and in this article we argue that they should: increase the collection of diverse voices in GL, preserve digital born materials, and provide access to GL. Finally, we offer several ways that libraries can accomplish this goal.

eReference Library Link Dataset Toolkit 2021
http://www.eReferenceLibrary.com/
The eReference Library Link Dataset Toolkit 2021 has been completely updated, reviewed with ALL links verified and is now a 62 page freely available white paper link compilation for a selected group of reference resources that are available over the Internet. These resources are designed to be your eReference Library and to give you the latest and greatest reference resources available from the Internet. The eReference Library Link Toolkit 2021 has been created by Internet guru and expert Marcus P. Zillman who is the Executive Director of the Virtual Private Library and designed specifically for use on iPads, iPhone, Androids, Smart Phones, and netbooks/laptops. Updates to this toolkit are powered by Subject Tracer™ Information Bots (STIB). This has been added to the tools section of Research Resources Subject Tracer™ Information Blog. Additional freely available white papers by Marcus P. Zillman are available by clicking here. [Completely updated including all links validated and new links added December 17, 2020 .pdf 62 pages 898KB]

Awarenesswatch™ Paper Review

How NonProfits Use Facebook to Craft Infrastructure by Libby Hemphill, A.J. Million and Ingrid Erickson

Abstract:
We present findings from interviews with 23 individuals affiliated with non-profit organizations (NPOs) to understand how they deploy information and communication technologies (ICTs) in their civic engagement efforts. Existing research about NPO ICT use is often critical, but we did not find evidence that NPOs fail to use tools effectively. Rather, we detail how NPOs assemble various ICTs to create infrastructures that align with their values. Overall, we find that existing theories about technology choice (e.g., task-technology fit, uses and gratifications) do not explain the assemblages NPOs describe. We argue that the infrastructures they fashion can be explained through the lens of moral economies rather than utility. Together, the rhetorics of infrastructure and moral
economies capture the motivations and constraints our participants expressed and challenge how prevailing theories of ICT use describe the non-profit landscape.

**Subject Tracer™ Information Blogs**

Subject Tracer™ Information Blogs created and developed by the Virtual Private Library™ combine the best of the latest tools on the Internet. Using bots, blogs and news aggregators the Subject Tracer™ Information blogs generate RSS feeds with the latest resources to create a current information resource flow through niched subject tracers. I am proud to be the creator of the Internet’s first Subject Tracer™ Information Blogs:

**Virtual Private Library™**


**Accessibility Resources**

[http://www.AccessibilityResources.info/](http://www.AccessibilityResources.info/)

**Agriculture Resources**

[http://www.AgricultureResources.info/](http://www.AgricultureResources.info/)

**AnswerSpot**

[http://www.AnswerSpot.co/](http://www.AnswerSpot.co/)

**Artificial Intelligence Resources**

[http://www.AIResources.info/](http://www.AIResources.info/)

**Astronomy Resources**

[http://www.AstronomyResources.info/](http://www.AstronomyResources.info/)

**Auction Resources**


**Biological Informatics**


**Biotechnology Resources**


**Bot Research**

Business Intelligence Resources
http://www.BIOnlineResources.com/

ChatterBots
http://www.ChatterBots.info/

Data Mining Resources
http://www.DataMiningResources.info/

Deep Web Research
http://www.DeepWebResearch.info/

Directory Resources
http://www.DirectoryResources.info/

eCommerce Resources
http://eCommerceResources.info/

Education and Academic Resources
http://www.EducationResources.info/

Elder Resources
http://www.ElderResources.info/

Employment Resources
http://www.EmploymentResources.info/

Entrepreneurial Resources
http://www.EntrepreneurialResources.info/

Fact Checkers Directory
http://www.FactCheckers.us/

Financial Sources
http://www.FinancialSources.info/

Finding People
http://www.FindingPeople.info/

Games Resources
http://www.GamesResources.info/

Genealogy Resources
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Green Files
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Military Resources
http://www.MilitaryResources.info/
New Economy Analytics, Resources and Alerts
http://www.NewEconomyAnalytics.com/

Outsourcing/Offshoring Information and Resources
http://www.OutsourcingOffshore.us/

Privacy Resources
http://www.PrivacyResources.info/

Reference Resources
http://www.ReferenceResources.info/

Research Resources
http://www.ResearchResources.info/

RestStress™
http://www.RestStress.com/

Script Resources
http://www.ScriptResources.info/

ShoppingBots
http://www.ShoppingBots.info/

Social Informatics
http://www.SocialInformatics.info/

Statistics Resources and Big Data
http://www.StatisticsResources.info/

Student Research
http://www.StudentResearch.info/

Theology Resources
http://www.TheologyResources.info/

Tutorial Resources
http://www.TutorialResources.info/

World Wide Web Reference
http://www.WWWReference.info/
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Additional websites by Marcus P. Zillman, M.S., A.M.H.A.:

Marcus P. Zillman's Blog (26,000+ Postings)
http://www.zillman.us/

Marcus P. Zillman Abbreviated Bio
http://www.zillman.info/

White Papers by Marcus P. Zillman
http://www.WhitePapers.us/

Internet MiniGuides™
http://www.InternetMiniguide.com/

Awareness Watch™ Newsletter
http://www.AwarenessWatch.com/
Academic and Scholar Search Engines and Sources 2021
http://www.ScholarSearchEngines.com/

Bots, Blogs and News Aggregators 2021
http://www.BotsBlogs.com/

Business Intelligence Online Resources 2021
http://www.BIOnlineResources.com/

Cloud Computing Resources Primer 2021
http://www.zillman.us/white-papers/grid-distributed-and-cloud-computing-resources-primer/

Current Awareness Discovery Tools on the Internet 2021

Deep Web Research and Discovery Resources 2021 Online White Paper
http://DeepWeb.us/

eMarketing MiniGuide 2021
http://www.eMarketingMiniGuide.com/

eReference Library Link Toolkit 2021
http://www.eReferenceLibrary.com/

Finding Experts By Using the Internet 2021
http://www.FindingExperts.info/

Finding People Resources and Sites 2021
http://www.FindingPeople.info/

Healthcare Bots and Subject Directories 2021
http://www.HealthcareBots.info/

Knowledge Discovery Resources 2021
http://www.KDResources.info/

New Economy Resources 2021
http://www.NewEconomyResources.com/

Online Research Browsers and Data Visualization Tools 2021
http://www.zillman.us/white-papers/online-research-browsers/
Online Research Tools 2021
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Online Social Networking 2021
http://www.OnlineSocialNetworking.info/

Searching the Internet 2021
http://www.SearchingTheInternet.info/

Subject Tracers 2021
http://www.SubjectTracers.com/

Using the Internet As a Dynamic Resource Tool for Knowledge Discovery 2021

Web Data Extractors 2021
http://www.WebDataExtractors.com/

Web Guide for the New Economy 2021

White Papers 2021 By Marcus P. Zillman, M.S., A.M.H.A.
http://www.WhitePapers.us/

Internet Tutor by Marcus P. Zillman, M.S., A.M.H.A.
http://www.InternetTutor.info/
Visit this site to learn about the availability of Marcus P. Zillman to tutor you or your associate one on one in the privacy of your residence or office on the latest happenings of the Internet including Internet basics to advanced Internet searching using bots and creating your own personal blog.

Internet Speaking by Marcus P. Zillman, M.S., A.M.H.A.
http://www.InternetSpeaker.net
Visit this site to learn about Marcus P. Zillman’s speaking engagements for your organization meetings and events. View and listen to his previous presentations as well as his weekly television shows.

Internet Consulting by Marcus P. Zillman, M.S., A.M.H.A.
http://InternetConsultant.BlogSpot.com/
Visit this site to obtain information about obtaining the consultation services of Marcus P. Zillman for your company including eCommerce audits, utilization of bots, blogs and news aggregators or the creation of your own personal virtual private library powered by Subject Tracer™ Information bots!
Current Awareness Monitors, Alerts and Information Traps
http://www.ecurrentAwareness.com/
Marcus P. Zillman’s latest reports Current Awareness Monitors, Alerts and Information Traps and Current Awareness Tools 2020 are now available. One for purchase and one freely available online and immediate download. These reports are comprehensive listings of the latest resources, sources and sites for current awareness on the Internet. This is a must read for anyone who must stay current in their profession and/or business activity as the list of URLs will keep you at the leading edge of your career.

Market Intelligence Resources
http://www.MarketIntelligenceResources.com/
Marcus P. Zillman’s just released professional Internet MiniGuide is titled Market Intelligence Resources and is available for purchase online and immediate download. This 193 page digital mini-guide represents a comprehensive listing of the latest resources, sources and sites to discover the latest Market Intelligence sources available on the Internet with many of them freely available! Designed specifically for today’s entrepreneur, professional and/or investor.

Entrepreneurial Links 101
http://www.EntrepreneurialLinks.com/
Marcus P. Zillman’s newly released 231 page eReference digital book for the up and coming entrepreneur. Entrepreneurial Links 101 gives an alphabetical listing of the very best Internet and World Wide Web sites covering Entrepreneur Resources, Business Intelligence Resources and an extremely comprehensive list of Online Research Tools. This is considered by many to be the entrepreneur’s bible for finding relevant and competent online resources!

Internet Privacy and Security Resources
http://www.InternetPrivacySecurity.net/
Marcus P. Zillman’s latest eReference digital publication is a selected comprehensive alphabetical listing of the latest resources and sites covering all aspects of privacy and security currently available over the Internet. From the board room to the family room, these resources and sites give you the information you need to maintain your privacy and security as you use the Internet in your business and personal life.

Research Resources Online Guide
http://www.ResearchResourcesOnline.net/
Marcus P. Zillman’s latest LinkSeries Publication is a 340 page digital guide of a selected comprehensive alphabetical listing of the latest and greatest resources and sites covering all areas of research that is currently available over the Internet. The guide covers online research resources and tools for the Newbie to research as well as the Seasoned researcher. Contents include: a) Research Resources, b) Research Tools, c) Student Research Resources Toolkit, d) Knowledge Discovery/Management and Data Mining.

**The Survivor’s Manual for The New Economy.**
Marcus P. Zillman’s latest LinkSeries Publication is a 239 page digital read that gives excellent resources and annotated sources for the new economy analytics, alerts, ecommerce, financial sources, invisible and deep web resources, social and business networking sources along with new economy competitive and business intelligence resources and an extremely comprehensive listing of new economy online tools.