

Awareness Watch™ Newsletter

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<http://www.AwarenessWatch.com/>

V23N6

June 2025

Welcome to the V23N6 June 2025 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 post COVID-19 New Economy, New Normal 2025 and Generative Artificial Intelligence 2025 world!!

Awareness Watch™ Featured Report

This month’s featured report covers a truly exciting world of the **2025 Biological Informatics**. It is a landing spot and comprehensive listing of competent biological informatics sources for 2025 including pathfinders, subject tracers directory resources and tools including the new 2025 economy generative AI and new normal internet directories, subject guides and index resources and sites for 2025. The below information is taken from my 2025 Biological Informatics white paper and is constantly updated with my Subject Tracer™ bots at the following [URL:http://www.BiologicalInformatics.info/](http://www.BiologicalInformatics.info/). These resources and sources will help you to discover the many new and existing pathways available through the Internet to find the latest new as well existing world wide web and Internet competent pathfinders and directory reference sources, tools and sites to discover the world of biological informatics search tools, and resources. 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 will be your new and existing pathfinders to all the new and existing current biological informatics resources and sources!

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Awareness Watch V23N6 June 2025 Newsletter

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2025 Biological Informatics Resources

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The **2025 Biological Informatics Resources** is a comprehensive list of biological informatics resources and sources that are currently available on the Internet. The below list of sources is partially taken from my Subject Tracer™ and white paper titled 2025 Biological Informatics and is constantly updated with Subject Tracer™ bots at the following URL:

<http://www.BiologicalInformatics.info/>

These resources and sources will help you to discover the many pathways available to you through the Internet to find the latest competent biological informatics resources and sites.

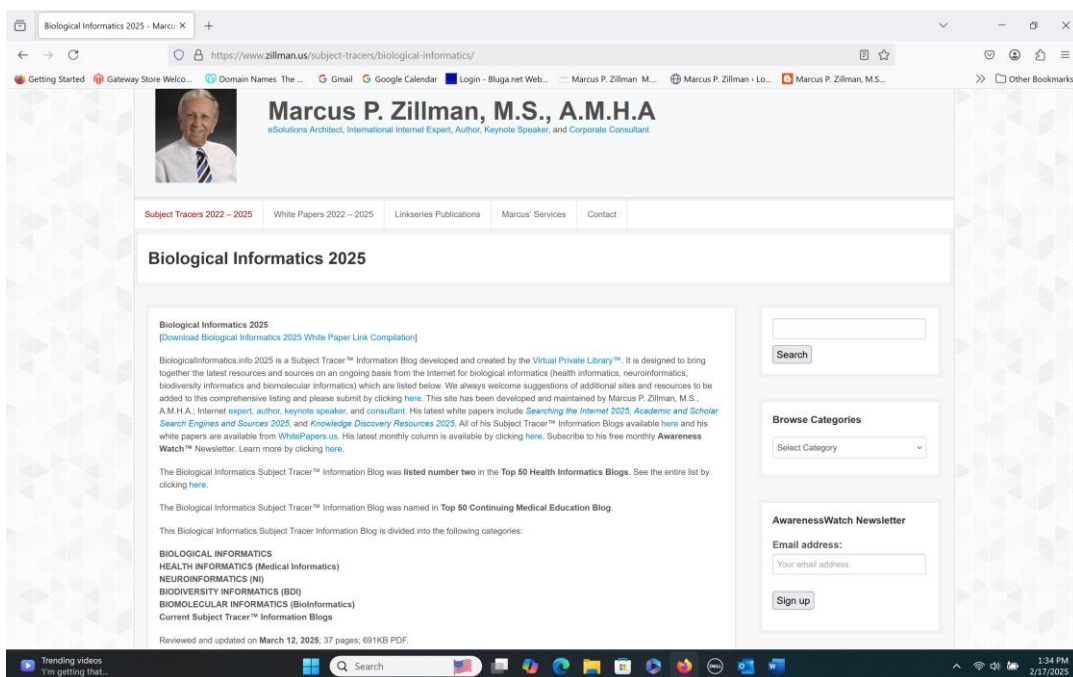


Figure 1: Biological Informatics 2025

2025 Biological Informatics Resources:

BIOLOGICAL INFORMATICS

HEALTH INFORMATICS (Medical Informatics)

NEUROINFORMATICS (NI)

BIODIVERSITY INFORMATICS (BDI)

BIOMOLECULAR INFORMATICS (BioInformatics)

Current Subject Tracer™ Information Blogs

Biological Informatics:

1000 Genomes Project

<http://www.1000genomes.org/>

About Bioscience

<http://www.aboutbioscience.org/>

Academic and Scholar Search Engines and Sources 2025

<http://www.ScholarSearchEngines.com/>

A Genetic Atlas of Human Admixture History

<http://admixturemap.paintmychromosomes.com/>

Agriculture and Biology Journal of North America (ABJNA)

<http://scihub.org/ABJNA/index.html>

AlphaFold: A Solution to a 50 Year Old Grand Challenge in Biology

<https://deepmind.com/blog/article/alphafold-a-solution-to-a-50-year-old-grand-challenge-in-biology>

Antibody Registry

<http://antibodyregistry.org/>

Artificial Intelligence (AI) Resources 2025

<http://www.AIResources.info/>

arXiv.org - Open Access e-Prints

<https://arxiv.org/>

Bento Lab – The Whole DNA Analysis Lab in Your Hands

<https://www.bento.bio/>

bioCURIOUS – World’s Largest Community Lab Space for Biology

<http://biocurious.org/>

BioEd Online - Biology Teacher Resources from Baylor College of Medicine

<http://www.bioedonline.org/>

Biohealthmatics.com - Career Portal for Biotechnology and Healthcare IT

<http://www.biohealthmatics.com/>

Bioinformatics Journal

<http://bioinformatics.oxfordjournals.org/>

Bioinformatics Organization

<http://bioinformatics.org/>

Bioinformation

<http://www.bioinformation.net/>

BioLINCC

<https://biolincc.nhlbi.nih.gov/>

Biological and Chemical Terrorism Information for Healthcare Professionals

<http://www.istl.org/04-winter/internet.html>

Biological and Environmental Research (BER)

<https://science.osti.gov/ber/>

Biology and Medicine

<http://www.biolmedonline.com/>

Biology News Net

<http://www.biologynews.net/>

Biomat.net - The Biomaterials Network

<http://www.biomat.net/>

Biomechanics and Modeling in Mechanobiology

<http://www.springer.com/materials/mechanics/journal/10237>

BioMedCentral (BMC) Research in Progress

<https://www.biomedcentral.com/>

Biomedical Informatics

<http://www.biomedical-informatics.net/>

BioNews

<http://www.bionews.org.uk>

Biopharmaceutical Glossaries & Taxonomies

<http://www.genomicglossaries.com/>

bioRxiv - The Preprint Server for Biology

<http://biorxiv.org/>

BioText Search Engine

<http://biosearch.berkeley.edu/>

Biowebspin - Academia-Industry Partnering Network in Life Sciences – Part if Inospin

<https://www.inospin.com/>

BIOZ - Best Way To Find Scientific Data – AI Search Engine for Scientific Experimentation

<https://www.bioz.com/>

Briefings in Bioinformatics

<http://bib.oxfordjournals.org/>

Centre for Agricultural Bioscience International (CABI)

<http://www.cabi.org/>

ChemSpider

<http://www.chemspider.com/>

Cytoscape - Open Source Bioinformatics Platform for Network Analysis and Visualization

<http://cytoscape.org/>

DAO Resources 2025 Including Generative AI and ChatGPT Resources

<http://www.DAOResources.com/>

**DIRECT2Experts – Distributed Interoperable Biomedical Research Experts
Collaboration Tool**
<http://direct2experts.org/>

DNA Barcoding 101
<http://www.dnabarcoding101.org/>

DNA From the Beginning
<http://dnaftb.org/>

eBiostatistics.com - Comprehensive, Open Access, Web Based Biostatistical Package
<http://www.draptis.com/ebiostat/>

EdX: The Extremes of Life: Microbes and their Diversity
<https://www.edx.org/course/extremes-life-microbes-diversity-kyotoux-003x-0>

eHealthcareBot 2025 Search Engine
<http://www.eHealthcareBot.com/>

**Electronioc Laboratory Notebook (ELN) and Laboratory Information Management
System (LIMS)**
<http://www.labii.com/>

eLabFTW – Free and Open Source Electronic Lab Notebook
<https://www.elabftw.net/>

**eLIFE - Open-access Journal That Publishes Promising Research in the Life and
Biomedical Sciences**
<https://elifesciences.org/>

ePosters.net: The Online Journal of Scientific Posters
<http://www.eposters.net/>

European Bioinformatics Institute (EBI)
<http://www.ebi.ac.uk/about>

**FAIRsharing – Curated, Informative and Educational Resource On Data and
Metadata Standards, Interrelated To Databases and Data Policies**
<https://fairsharing.org/>

Forward Thinking on the Bio Revolution with Jason Kelly and Dr. Michelle McMurry-Heath

<https://www.mckinsey.com/industries/life-sciences/our-insights/forward-thinking-on-the-bio-revolution-with-jason-kelly-and-dr-michelle-mcmurry-heath>

Frontiers in BioScience- Discover A World of Collaboration

<http://www.bioscience.org/>

Generative AI Resources 2025

<http://www.GenerativeAIResources.com/>

GigaScience Journal

<https://academic.oup.com/gigascience>

GenBank ®

<https://www.ncbi.nlm.nih.gov/genbank/>

Gene Ontology™ (GO) Consortium

<http://www.geneontology.org/>

Genes – Open Access Journal

<http://www.mdpi.com/journal/genes>

Genetics and Genomics From the U.S. Library of Medicine

<https://vsearch.nlm.nih.gov/vivisimo/cgi-bin/query-meta?query=Genetics+and+Genomics+&v%3Aproject.nlm-main-website>

Genomics Glossaries & Taxonomies

<http://www.genomicglossaries.com/>

Grant Forward - Start Moving Your Research Forward

<https://www.grantforward.com/>

International Cancer Genome Consortium (ICGC)

<http://www.icgc.org/>

International Journal of Agricultural and Biological Engineering (IJABE)

<http://www.ijabe.org/index.php/ijabe>

International Journal of Bioinformatics Research and Applications (IJBRA)

<http://www.inderscience.com/jhome.php?jcode=ijbra>

International Journal of Biological Sciences and Technology (IJBLST)

<http://www.ijblst.org/>

International Journal of Biomedical Science (IJBS)

<http://www.ijbs.org/HomePage.aspx>

International Journal of Healthcare Information Systems and Informatics (IJHISI)

<http://www.igi-global.com/journal/international-journal-healthcare-information-systems/1094>

isainfrastructure - Investigation/Study/Assay – Open Source ISA Framework

<http://isa-tools.org/>

Journal of Biomedical Sciences and Research (JBSR) [Archives available till 2011 issue]

<http://www.jbsr.pharmainfo.in/>

Journal of Biomedical Semantics

<http://www.jbiomedsem.com/>

Journal of Biomedicine and Biotechnology [now called BioMed Research International]

<http://www.hindawi.com/journals/bmri/>

Journal of Visualized Experiments (JoVE) - Biological Research in a Video Format

<http://www.jove.com/>

LabGuru - Research Management Resource – Your All-In-One Electronic Lab Notebook (ELN)

<http://www.labguru.com/>

Labroots - Scientific Social Networking Website

<https://www.labroots.com/>

LabWorm - Aggregator of Scientific Online Tools

<https://labworm.com/>

LeadDiscovery - Dedicated to Drug Discovery

<http://www.leaddiscovery.co.uk/>

LIMSwiki - Laboratory, Health, and Science Informatics Encyclopedia

https://www.limswiki.org/index.php/Main_Page

Mastodon Resources 2025

<http://www.MastodonResources.com/>

mBio – Open Access Journal

<http://mbio.asm.org/>

nanoHUB - Simulation, Education and Community for Nanotechnology

<https://www.nanohub.org/>

NLM Medical Text Indexer (MTI)

<http://ii.nlm.nih.gov/MTI/index.shtml>

NuGO Bioethics Guidelines Tool

<http://nugo.dife.de/bot/index.php>

Open Biological and Biomedical Ontologies (OBO)

<http://www.obofoundry.org/>

Open-i Project - An Open Access Biomedical Image Search Engine

<http://openi.nlm.nih.gov/>

Open MetaVerse Resources 2025

<http://www.OpenMetaVerse.us/>

OReFiL: Online Resource Finder for Lifesciences

<http://orefil.dbcls.jp/en/search/top>

PeerJ - Award Winning Biological, Medical, and Environmental Sciences Journal

<https://peerj.com/>

Peptides Guide

<http://www.peptidesguide.com/>

Personal Genome Project (PGP)

<http://www.personalgenomes.org/>

PhysioNet - Research Resource for Complex Physiologic Signals

<http://www.physionet.org/>

Plant Products Research Journal

<http://www.ajol.info/index.php/pprj>

Protocol Exchange

<https://protocolexchange.researchsquare.com/>

Protocol Online - Your Lab's Reference Book

<http://www.protocol-online.org/>

Public Data Sets on AWS

<http://aws.amazon.com/publicdatasets/>

PubMed - 30 million citations for biomedical literature from MEDLINE, life science journals, and online books

<https://pubmed.ncbi.nlm.nih.gov/>

R&D Chemicals - Chemical Compounds Database

<http://www.rdchemicals.com/>

Reflect: Automated Annotation of Scientific Terms of Proteins and Small Molecules

<http://reflect.ws/>

ResearchGATE - Professional Network for Scientists

<https://www.researchgate.net/>

Resource Identification Initiative

<https://www.force11.org/group/resource-identification-initiative>

Resource Informagen™ - Biotech Company Directories

<http://informagen.com/Directories/Biotech.php>

Resources for Bioinformatics

<http://guides.lib.udel.edu/content.php?pid=163662>

RNAMiner - A Bioinformatics Protocol for Mining Large RNA-Seq Transcriptomics Data

<http://calla.rnet.missouri.edu/rnaminer/>

Scientific Protocols

<https://protocols.scienceexchange.com>

Scitable - A Collaborative Learning Space for Life Sciences

<http://www.nature.com/scitable>

SHIRAZ Project – Acquine – Aesthetic Quality Inference Engine
<http://shiraz.ist.psu.edu/>

South African National Bioinformatics Institute
<http://www.sanbi.ac.za/>

The Biology Project
<http://www.biology.arizona.edu/>

The Cell Image Library™
<http://www.cellimagelibrary.org/>

The International Genome Sample Resource
<https://www.internationalgenome.org/>

The Kepler Project
<https://kepler-project.org/>

The National Human Genome Research Institute: Fact Sheets About Genomics
<http://www.genome.gov/10000202>

The TAMBIS Project
<http://www.cs.man.ac.uk/~stevensr/tambis/>

The Winnower - Open Access Online Scholarly Publishing Platform
<https://thewinnower.com/>

Transcriptic – Powering On-DEMAND Discovery Biology - Strateos
<https://www.transcriptic.com/>
<https://strateos.com/>

uBio - Indexing and Organizing 11,106,374 Biological Names
<http://www.ubio.org/>

UK Biobank - Improving the Health of Future Generations
<http://www.ukbiobank.ac.uk/>

VADLO - BioMedical and Life Sciences Search Engine
<http://vadlo.com/>

Visual Medical Dictionary

<http://www.curehunter.com/public/dictionary.do>

HEALTH INFORMATICS: (Medical Informatics)

American Medical Informatics Association (AMIA)

<http://www.amia.org/>

Artificial Intelligence (AI) Resources 2025

<http://www.AIResources.info/>

Authoratory - Database of Leading PubMed Scientists

<http://www.authoratory.com/>

CureHunter - Medical Search and Discovery

<http://www.CureHunter.com/>

**DIRECT2Experts - Distributed Interoperable Biomedical Research Experts
Collaboration Tool**

<http://direct2experts.org/>

EAGLE-I - Search Top Categories From 100,800 Biomedical Resources

<https://www.eagle-i.net/>

Encyclopedia of Biomaterials and Biomedical Engineering

<http://www.tandfonline.com/doi/book/10.1081/E-EBBE>

Framingham SNP Health Association Resource (SHARe)

http://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000007.v20.p8

**Health Informatics Forum - Discussion Forum for Health Informatics
Professionals and Students**

<http://www.healthinformaticsforum.com/>

International Journal of Biomedical Sciences (IJBS)

<http://www.ijbs.org/>

International Journal of Medical Microbiology

<http://www.sciencedirect.com/science/journal/14384221>

JMIR : Journal of Medical Internet Research

<http://www.jmir.org/>

OpenClinica – Largest Open Source Community Powering Better Clinical Research

<https://community.openclinica.com/>

openEHR – Open Industry Specifications, Models, and Software for e-health

<http://www.openehr.org/>

NEUROINFORMATICS: (NI)

International Neuroinformatics Coordinating Facility (INCF)

<http://www.incf.org/>

National Ecological Observatory Network (NEON)

<http://www.neoninc.org/>

NIH Guide: The Human Brain Project (Neuroinformatics): Phase I - Feasibility; Phase II - Refinements, Maintenance and Integration [Archives]

<http://grants1.nih.gov/grants/guide/pa-files/PAR-03-035.html>

SenseLab – National Databases – Olfactory Databases – Disease Database

<http://senselab.med.yale.edu/>

BIODIVERSITY INFORMATICS: (BDI)

Biodiversity Informatics Peer Reviewed Open Access Journal

<https://journals.ku.edu/index.php/jbi>

Chemistry & Biodiversity

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291612-1880>

Global Biodiversity Information Facility

<http://www.gbif.org/>

GRAIN - Agricultural Biodiversity

<http://www.grain.org/>

Overview of Biodiversity Informatics

<http://research.calacademy.org/>

BIOMOLECULAR INFORMATICS: (BioInformatics)

AddGene - Better Way to Share Plasmids

<http://www.addgene.org/>

Algorithms for Molecular Biology

<http://www.almob.org/>

AlphaFold Protein Structure Database

<https://alphafold.ebi.ac.uk/>

American Journal of Medical Genetics Part B: Neuropsychiatric Genetics

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291552-485X>

A New CRISPR Tool Flips Genes On and Off Like a Light Switch

<https://singularityhub.com/2021/04/27/a-new-crispr-tool-flips-genes-on-and-off-like-a-light-switch/>

Ares Lab Yeast Intron Database

http://compbio.soe.ucsc.edu/yeast_introns.html

Artificial Intelligence (AI) Resources 2025

<http://www.AIResources.info/>

arXiv.org – Open Access e-Prints

<https://arxiv.org/>

ASC: Active Sequence Collection

<http://bioinformatica.isa.cnr.it/ASC/>

BELIT - Bioethics Literature Database

http://www.drze.de/belit-1/search-2/quick-search/recherche.html?set_language=en

Bento Lab – The Whole DNA Analysis Lab In Your Hands

<https://www.bento.bio/>

Biocompare - Buyer's Guide for Life Scientists

<http://www.biocompare.com/>

BioForge - Community for Biological Innovation

<http://www.cambia.org/daisy/cambia/4272>

BioGRID

<http://www.thebiogrid.org/>

Bioinformatics

<http://informagen.com/Bioinformatics.php>

Bioinformatics.Net

<http://www.technologynetworks.com/Informatics/>

BioInformatics.org

<http://www.BioInformatics.org/>

BioInformatics Links

<http://www.ii.uib.no/~inge/list.html>

BioInformatics Tools

http://web.ornl.gov/sci/techresources/Human_Genome/index.shtml

<http://www.ncbi.nlm.nih.gov/guide/all/#tools>

Bioinformatic Workflow Builder Interface

<https://www.ibm.com/developerworks/community/groups/service/html/communityview>

Bioinformation

<http://www.bioinformation.net/>

BioLINCC – Biologic Specimen and Data Repository Coordinating Center

<https://biolincc.nhlbi.nih.gov/>

Biology Direct

<http://www.biologydirect.com/>

Biomacromolecules

<http://pubs.acs.org/journal/bomaf6>

Bio Mapping / Emotion Mapping

<http://biomapping.net/>

BioMed Central

<http://www.biomedcentral.com/>

Biometric Technology Today

<http://www.sciencedirect.com/science/journal/09694765>

BioMolecular Engineering Research Institute (BMERC)

<http://www.bu.edu/bmerc/>

BIONLP.ORG - Natural Language Processing of Biology Text

<http://www.ccs.neu.edu/home/futrelle/bionlp/>

BioRuby [Open source bioinformatics library for Ruby]

<http://bioruby.org/>

bioRxiv – The Preprint Server for Biology

<http://biorxiv.org/>

Biotechnology Journal (BTJ)

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291860-7314>

Biotechnology Resources 2025

<http://www.BiotechnologyResources.info/>

BIOZ – Best Way To Find Scientific Data

<https://www.bioz.com/>

BLAST UTR db: Untranslated Regions Database

<http://www.ba.itb.cnr.it/BIG/Blast/BlastUTR.html>

Briefings in Functional Genomics and Proteomics

<http://bfg.oxfordjournals.org/>

BSML - Bioinformatics Sequence Markup Language

<http://xml.coverpages.org/bsml.html>

Cambridge Crystallographic Data Centre

<http://www.ccdc.cam.ac.uk/>

Cancer Genome Atlas

<http://cancergenome.nih.gov/>

Cell Biochemistry and Biophysics (CBB)

<http://www.springer.com/life+sciences/biochemistry+%26+biophysics/journal/12013>

Cell Division

<http://www.celldiv.com/>

Certara – Advancing Modern, Efficient Drug Development

<https://www.certara.com/>

Chemical Biology & Drug Design

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291747-0285>

Clarivate – Changing the Way the World’s Risk-Takers and Trailblazers Create Life-Changing Innovations

<https://clarivate.com/>

Computational Biology and Chemistry

<http://www.sciencedirect.com/science/journal/14769271>

Connectivity Map - Connecting Diseases, Genes and Drugs (CMAP)

http://www.broadinstitute.org/genome_bio/connectivitymap.html

CorePsych - Brain and Body Connections

<http://www.corepsych.com/>

CRISPR – Clustered Regularly Interspaced Short Palindromic Repeats

<https://www.cbinsights.com/research/what-is-crispr>

CRISPRoff – Programmable Epigenetic Memory Writer

[https://www.cell.com/cell/fulltext/S0092-8674\(21\)00353-6?returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS0092867421003536%3Fshowall%3Dtrue](https://www.cell.com/cell/fulltext/S0092-8674(21)00353-6?returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS0092867421003536%3Fshowall%3Dtrue)

CRISPR On-Off Switch Will Help Unlock the Secrets of Our Immune System

<https://singularityhub.com/2022/03/08/crispr-on-off-switch-will-help-uncover-mysteries-of-our-immune-system/>

CRISPR Therapy Cure First Genetic Disorder Inside the Body

<https://bigthink.com/health/crispr-therapy-cures-genetic-disorder/>

CSH Protocols

<http://cshprotocols.cshlp.org/>

CUTG : Codon Usage Tabulated from GenBank

<http://www.kazusa.or.jp/codon>

Data Mining Resources 2025

<http://www.DataMiningResources.info/>

dbGaP - Database of Genotype and Phenotype

<http://www.ncbi.nlm.nih.gov/gap>

DNA Research

<http://dnaresearch.oxfordjournals.org/>

DrugBank Database

<http://www.drugbank.ca/>

EBI and Ghent University Launch PRIDE: An Open Source Database Of Protein Identifications

http://www.innovations-report.com/html/reports/life_sciences/report-48290.html

EdX: The Extremes of Life: Microbes and their Diversity

<https://www.edx.org/course/extremes-life-microbes-diversity-kyotoux-003x-0>

eLabFTW - Free and Open Source Electronic Lab Notebook

<https://www.elabftw.net/>

Electronioc Laboratory Notebook (ELN) and Laboratory Information Management System (LIMS)

<http://www.labii.com/>

eLife – Open Science and Open Technology Innovation

<https://elifesciences.org/>

EMBL SMART : Simple Modular Architecture Research Tool (for Proteins)

<http://smart.embl.de/>

Encyclopedia of DNA Elements (ENCODE)

<http://www.encodeproject.org/ENCODE/>

Ensembl Genome Browser

<http://www.ensembl.org/>

Environmental Bioindicators

<http://www.tandfonline.com/toc/uebi20/current>

European Bioinformatics Institute – The Home for Big Data in Biology – EMBL-EBI

<http://www.ebi.ac.uk/>

European Bioinformatics Institute: Research Groups

<http://www.ebi.ac.uk/research>

Evolutionary Intelligence – Create Intelligent Algorithms

<http://www.neuroblast.net/>

ExploreProtocols.io - Share and Discover Life Science Methods

<https://www.protocols.io/>

Functional Glycomics Gateway

<http://www.functionalglycomics.org/>

Genamics SoftwareSeek

<http://genamics.com/software/>

Genome Bioinformatics – Genome Browser - UCSC

<http://genome.ucsc.edu/>

Genome Biology and Evolution

<http://gbe.oxfordjournals.org/>

Genome-Tools

http://freecode.com/projects/genome-tools?branch_id=46085&release_id=183048

Genomics, Proteomics & Bioinformatics

<http://www.sciencedirect.com/science/journal/16720229>

GenScript - Your One Stop Wet Lab for Biology

<http://www.genscript.com/>

Guide to Selected Bioinformatics Internet Resources

<http://www.istl.org/02-winter/internet.html>

GUS - The Genomics Unified Schema [Site Last Updated 2005]

<http://www.gusdb.org/>

How the Bio Revolution Could Transform the Competitive Landscape

<https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/how-the-bio-revolution-could-transform-the-competitive-landscape>

HS3D - Homo Sapiens Splice Sites Dataset

<http://www.sci.unisannio.it/docenti/rampone>

International Journal of Data Mining and Bioinformatics (IJDMB)

<http://www.inderscience.com/jhome.php?jcode=ijdmb>

Internet Resources for Bioinformatics

<http://guides.lib.udel.edu/content.php?pid=163662>

Invertebrate Biology

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291744-7410>

Journal of Biological Chemistry

<http://www.jbc.org/>

Journal of Biomaterials Science, Polymer Edition

<http://www.ingentaconnect.com/content/tandf/bsp>

Journal of Genetics

<http://www.ias.ac.in/jgenet/>

Journal of Molecular Histology

<http://link.springer.com/journal/10735>

Journal of Molecular Signaling

<http://www.jmolecularsignaling.com/>

Journal of Proteome Research

<http://pubs.acs.org/journal/jprobs>

Kaggle - Data Mining, Forecasting and BioInformatics Competitions

<http://kaggle.com/>

KEGG: Kyoto Encyclopedia of Genes and Genomes

<http://www.genome.jp/kegg/>

Lawrence Berkeley National Laboratory: VISTA – Tools for Comparative Genomics

<http://genome.lbl.gov/vista/index.shtml>

MethDB : DNA Methylation Database

<http://www.methdb.de/>

Microbiology [Particular coverage for Russian microbiology-related developments]
<http://link.springer.com/journal/11021>

MIX 2.0 - Meta-analysis with Interactive eXplanations in Excel
<http://www.meta-analysis-made-easy.com/>

Molecular and Cellular Proteomics (MCP)
<http://www.mcponline.org/>

Molecular BioSystems
<http://pubs.rsc.org/en/journals/journalissues/mb#!recentarticles&all>

Molecular Cytogenetics
<http://www.molecularcytogenetics.org/>

Molecular Genetics, Microbiology and Virology
<http://link.springer.com/journal/11965>

Molecular Plant-Microbe Interactions (MPMI)
<http://www.apsnet.org/publications/mpmi/Pages/default.aspx>

Multi-Purpose Mini-CRISPR Is Like a Tiny Swiss Army Knife
<https://www.futurity.org/crispr-genetic-engineering-2622802-2/>

National Center for BioTechnology Information (NCBI)
<http://www.ncbi.nlm.nih.gov/>

National Information Center on Health Services Research and Health Care Technology (NICHSR)
https://hsric.nlm.nih.gov/hsric_public/

Nature Methods
<http://www.nature.com/nmeth/index.html>

Nature Nanotechnology
<http://www.nature.com/nnano/index.html>

Neurochemical Journal
<http://link.springer.com/journal/11710>

Neuroblast – Artificial Minds
<http://www.neuroblast.net/>

Neuron Glia Biology

<http://journals.cambridge.org/action/displayJournal?jid=NGB>

Neurotransmitter - Biomedical Information in Neuroscience, Pharmacology and Psychology

<http://www.neurotransmitter.net/>

New CRISPR Tool Protects Against Viruses Without Making Any DNA Cuts

<https://singularityhub.com/2022/06/06/new-crispr-tool-protects-against-viruses-without-making-any-dna-cuts/>

New Database of 660,000 Assembled Bacterial Genomes Sheds Light on the Evolution of Bacteria

<https://phys.org/news/2021-11-database-bacterial-genomes-evolution-bacteria.html>

New Mini-CRISPR Systems Could Dramatically Expand the Scope of Gene Therapy

<https://singularityhub.com/2021/09/05/new-mini-crispr-systems-could-dramatically-expand-the-scope-of-gene-therapy/>

New Open-Source Software Automates RNA Analysis to Speed Up Research and Drug Development

<https://phys.org/news/2022-05-open-source-software-automates-rna-analysis.html>

New Virus-Like Particles Can Deliver CRISPR to Any Cell in the Body

<https://singularityhub.com/2022/01/18/new-ultra-efficient-engineered-carriers-could-overhaul-genetic-therapies/>

NHGRI Statute and Legislation Database

<http://www.genome.gov/PolicyEthics/LegDatabase/pubsearch.cfm>

Oligonucleotides – now known as Nucleic Acid Therapeutics

<http://online.liebertpub.com/loi/oli>

OMIM - Online Mendelian Inheritance in Man

<http://www.ncbi.nlm.nih.gov/omim>

PeerJ – Award Winning Biological, Medical, and Environmental Sciences Journal

<https://peerj.com/>

PharmGKB: The Pharmacogenetics and Pharmacogenomics Knowledge Base

<http://www.pharmgkb.org/>

PhenX Toolkit

<https://www.phenxtoolkit.org/>

PLOS: Pathogens

<http://journals.plos.org/plospathogens/>

PPAR Research

<http://www.hindawi.com/journals/ppar/>

Programming Life: An Interview with Jennifer Doudna – Co-Discoverer of CRISPR-Cas9

<https://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/programming-life-an-interview-with-jennifer-doudna>

Project Ensembl

<http://asia.ensembl.org>

Protein Journal

<http://link.springer.com/journal/10930>

Protocol Exchange

<https://www.nature.com/protocolexchange>

Protocol Online - Your Lab's Reference Book

<http://www.protocol-online.org/>

Proteomics

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291615-9861>

PSI-Nature Structural Biology Knowledgebase (PSI SBKB)

<http://sbkb.org/>

RECAP – Informing Key Biopharmaceutical Decisions - Clarivate

<http://www.recap.com/>

Registry of Standard Biological Parts

http://parts.igem.org/Main_Page

Russian Journal of Genetics

<http://link.springer.com/journal/11177>

Scalable Molecular Dynamics (NAMD)

<http://www.ks.uiuc.edu/Research/namd/>

Scientific Protocols - Free and Easy Way To Share Scientific Protocols

<https://protocols.scienceexchange.com/>

Search NCBI

<https://www.ncbi.nlm.nih.gov/search/>

S/MARt DB

<http://smartdb.bioinf.med.uni-goettingen.de/>

SmidgION - Nanopore Sensing for Use With Mobile Devices

<https://nanoporetech.com/products/smidgion>

Source Code for Biology and Medicine

<http://www.scfbm.org/>

STRBase : Short Tandem Repeat DNA Internet Database

<http://www.cstl.nist.gov/div831/strbase>

StructuralBiology KnowledgeBase

<http://sbkb.org/>

Super-Precise CRISPR Gene Editing Tool Is Set to Tackle Tough Genetic Diseases

<https://singularityhub.com/2021/10/19/super-precise-crispr-tool-set-to-tackle-tough-genetic-disorders/>

Synapse

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291098-2396>

Talking Glossary of Genetic Terms

<http://www.genome.gov/glossary/>

Textpresso – Knowledge Discovery Through Full Text Mining, Classification and Searching

<http://www.textpresso.org/>

The Bio Revolution: Innovations Transforming Economies, Societies, and Our Lives

<https://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/the-bio-revolution-innovations-transforming-economies-societies-and-our-lives>

The CIPRES Science Gateway V. 3.3

<https://www.phylo.org/>

The CRISPR Family Tree Holds a Multitude of Untapped Gene Editing Tools

<https://singularityhub.com/2021/09/14/the-crispr-family-tree-holds-a-multitude-of-untapped-gene-editing-tools/>

The Genetic Codes

<http://www.ncbi.nlm.nih.gov/Taxonomy/Utils/wprintgc.cgi?mode=c>

The Kepler Project

<https://kepler-project.org/>

The PubChem Project – Explore Chemistry

<http://pubchem.ncbi.nlm.nih.gov/>

The TAMBIS Project

<http://www.cs.man.ac.uk/~stevensr/tambis/>

The Wellcome Trust Sanger Institute

<http://www.sanger.ac.uk/>

The Winnower – Open Access Online Scholarly Publishing Platform

<https://thewinnower.com/>

ToPNet (Protein Topology Calculation Software)

<http://networks.gersteinlab.org/>

Transcriptic - Discovery Biology On Demand - Strateos

<https://www.transcriptic.com/>

Transinsight - Intelligent Search Technologies for the Life Sciences

<http://transinsight.com/>

Transmembrane Structure Prediction Servers

<http://split.pmfst.hr/split/4/others.html>

Tree of Life Web Project (ToL)

<http://tolweb.org/tree/>

UCLA Bioinformatics Program

<http://www.bioinformatics.ucla.edu/>

UK Biobank – Improving the Health of Future Generations

<http://www.ukbiobank.ac.uk/>

VADLO - Life Sciences Search Engine

<http://www.vadlo.com/>

Visual Complexity

<http://www.visualcomplexity.com/>

World's Knowledge at Your Fingertips

<https://mindzilla.com/>

ZBIT Bioinformatics Toolbox: A Web-Platform for Systems Biology and Expression Data Analysis

<http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0149263>

Awarenesswatch™ Spotters

Academic and Scholar Search Engines and Sources 2025 – May 2025 Edition

<http://www.ScholarSearchEngines.com/>

[Click to access Scholar.pdf](#)

Internet Annotated Link Dataset Compilation titled “Academic and Scholar Search Engines and Sources 2025” is now an 91-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 (915KB) at the above link from the [Virtual Private Library™](#) and authored by [Marcus P. Zillman, M.S., A.M.H.A.](#) [Completely recreated with all links validated and new URLs added: May 1, 2025. Other white papers are available by clicking [here](#).

Deep Web Research and Discovery Resources 2025 – May 2025 Edition

<http://www.DeepWeb.us/>

I have just updated my white paper link dataset compilation and now titled Deep Web Research and Discovery Resources 2025 and it is now a 114-page PDF document (1.47MB) 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 12,000,000+ times! [Updated on May 2, 2025]

Open Educational Resources (OER) Sources 2025 – May 2025 Edition

<http://www.OERSources.com/>
[Click to access OERSources.pdf](#)

“Open Educational Resources (OER) Sources 2025 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 pursuing 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 2025, 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™. Completely updated including all links validated on May 3, 2025. [80 pages; 1.08 MB PDF]

Elder Resources 2025

<http://www.ElderResources.info/>

The above is the white paper link dataset compilation of [Elder Resources 2025](#) by [Marcus P. Zillman, M.S., A.M.H.A.](#) It is a 21-page PDF document (654KB). [Completely updated with all links validated and new URLs added on **May 5, 2025**] Other white papers are available by clicking [here](#).

New Normal Startup Resources 2025 – May 2025 Edition

http://whitepapers.VirtualPrivateLibrary.net/New_Normal_Startup_Resources.pdf

The white paper link dataset compilation of the **New Normal Startup Resources 2025** Subject Tracer™ Information Resource by [Marcus P. Zillman, M.S., A.M.H.A.](#) has just been updated on **May 6, 2025** and is now a freely available 56-page PDF document (862KB) listing the latest and greatest online resources and sites for new normal startup resources! Other white papers are available by clicking [here](#). This is a MUST publication for every business in today's post COVID-19 world and more!

Internet-of-Things (IoT) Resources 2025

<http://www.Internet-of-Things.ws/>

A resources listing of the Internet-of-Things (IoT) 2025. It is estimated within the next years that almost everything will be connected to the Internet (trillion upon trillion) and these are the resources and sites that will make this all possible. Visit this resource to see the real future of the Internet and the Internet-of-Things!! [16 pages; 532KB PDF] Recreated **May 7, 2025**. Visit all of Zillman's freely available 2024 publications by clicking [here](#).

Updated> Augmented Data Discovery 2025

http://whitepapers.virtualprivatelibrary.net/Augmented_Data_Discovery.pdf
<http://www.AugmentedDataDiscovery.com/>

Augmented Data Discovery 2025 is an updated white paper dataset by [Marcus P. Zillman, M.S., A.M.H.A.](#) releasing resources and sites covering augmented data discovery available from the Internet. This is a very “hyped” area and these resources will help you to understand by giving you the basic knowledge needed 17-page PDF file (374KB). Updated on **May 8, 2025**. Visit all my 54 Subject Tracers™ by clicking [here](#). Visit all my freely available 2025 publications by clicking [here](#). Power this with my [Generative AI](#) and the future begins!! Apple’s announcement reinforces this!!

Grid, Distributed and Cloud Computing Resources Primer 2025

http://WhitePapers.VirtualPrivateLibrary.net/Cloud_Computing_Primer.pdf

I am very pleased to announce that I have just updated my Grid, Distributed and Cloud Computing Resources Primer 2025. This primer is now a 28-page PDF document (511KB) and is freely available from the above URL. This primer gives an excellent overview of Cloud Computing along with a comprehensive listing of cloud, grid, and distributed computing resources! It will be permanently archived in my [White Papers](#) site and is also available from my main [site](#). [Updated with new links added on May 9, 2025]

Updated> Financial Sources 2025

<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 2025 Subject Tracer™ Information Blog by [Marcus P. Zillman, M.S., A.M.H.A.](#) It is a 37-page PDF document (625KB). Updated on **May 10, 2025**. Other white papers are available by clicking [here](#). Other Subject Tracers available [here](#).

ShoppingBots and Online Shopping 2025

[[Download Freely Available ShoppingBots and Online Shopping 2025 White Paper Link Dataset Compilation](#)]

ShoppingBots ([ShoppingBots](#)) is a Subject Tracer™ Information Blog developed and created by the [Virtual Private Library™](#). It is designed to monitor shoppingbots and online coupon resources on the World Wide Web and listed below. We always welcome suggestions of additional sites and resources to be added to this comprehensive listing and please submit by clicking [here](#). This site has been developed and maintained by Marcus P. Zillman, M.S., A.M.H.A.; Internet [expert](#), [author](#), [keynote speaker](#), and [consultant](#). His latest white papers include [2025 Guide to Searching the Internet](#), [Academic and Scholar Search Engines and Sources 2025](#), and [Knowledge Discovery Resources 2025](#). All of his Subject Tracer™ Information Blogs and his white papers are available from [WhitePapers.us](#). His latest monthly column is available by clicking [here](#). This is the 28th edition starting back in 1996! Visit all his 2024/2025 publications by

clicking [here](#). Updated on **May 12, 2025**; 28 pages; 528KB PDF. This is the 29th annual edition starting back in 1996! © 1996 – 2025 Marcus P. Zillman, M.S., A.M.H.A.

Updated> eMarketing MiniGuide 2025

http://whitepapers.virtualprivatelibrary.net/eMarketing_MiniGuide_2025.pdf

<http://www.eMarketingMiniGuide.com/>

Freely available **eMarketing MiniGuide 2025** by [Marcus P. Zillman, M.S., A.M.H.A.](#)

The 17-page (600KB) PDF miniguide updated on **May 13, 2025** covers the following areas:

B2b Marketing

Book Self-Publishing

Content Marketing

Conversion Rate Optimization

Landing Page Optimization

Lead Generation, Lead Nurturing, Lead Scoring and Lead Management

Lead/Agile Software Development

Marketing Automation

Public Relations/Press Releases

Social Media Marketing

Web Marketing. Internet Marketing

Web User Experience

Miscellaneous

Subject Tracer™ Information Blogs

Visit this freely available **eMarket MiniGuide 2025** today and use all these excellent resources. Please spread the word about this freely available MiniGuide to all your friends, associates and social media networks!! All my 2025 publications are available from <https://www.zillman.us/bio/>

Astronomy Resources 2025

<https://www.zillman.us/subject-tracers/astronomy-resources/>

<http://www.AstronomyResources.info/>

The above is the associated white paper link dataset compilation of the Astronomy Resources 2025 Subject Tracer™ Information Blog by [Marcus P. Zillman, M.S., A.M.H.A.](#) It is now a 28-page PDF document (544KB). [Completely updated with all links validate

Updated> Student Research Resources 2025

[[Download Student Research Resources 2025 White Paper Link Dataset Compilation](#)]

Student Research Resources 2025 ([StudentResearch.info](#)) is a Subject Tracer™ Information Blog developed and created by the [Virtual Private Library™](#). It is designed to monitor student research resources on the World Wide Web and listed below. We always welcome suggestions of additional sites and resources to be added to this comprehensive listing and please submit by clicking [here](#). This site has been developed

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Awareness Watch V23N6 June 2025 Newsletter

<http://www.AwarenessWatch.com/>

zillman@VirtualPrivateLibrary.com

eVoice: 239-206-3450

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and maintained by Marcus P. Zillman, M.S., A.M.H.A.; Internet [expert](#), [author](#), [keynote speaker](#), and [consultant](#). His latest white papers include [2025 Guide to Searching the Internet](#), [Academic and Scholar Search Engines and Sources 2025](#), and [Knowledge Discovery Resources 2025](#). All of his Subject Tracer™ Information Blogs and his white papers are available from [WhitePapers.us](#). His latest monthly column is available by clicking [here](#). Subscribe to his free monthly **Awareness Watch™** Newsletter. Learn more by clicking [here](#). Completely recreated and updated on **May 15, 2025** ; 42 pages; 674KB PDF. (c) 2007 – 2025 Marcus P. Zillman, M.S., A.M.H.A.

Current Awareness Tools 2025

http://whitepapers.virtualprivatelibrary.net/current_awareness_tools_2025.pdf

Research white paper titled “**Current Awareness Tools 2025**” is a 19-page research paper listing many resources both new and existing that will help anyone who is attempting to find information and knowledge research about current awareness tools available on the Internet. It is freely available as a PDF file (275KB) at the above link from the Virtual Private Library™ and authored by [Marcus P. Zillman, M.S., A.M.H.A.](#). It was recreated on **May 16, 2025**. Other white papers are available by clicking [here](#). Direct URL Bookmark: <http://www.CurrentAwarenessTools.com/>

June 2025 Zillman Column: 2025 Link Guide to Research Resources for Students

http://columns.virtualprivatelibrary.net/2025_Link_Guide_Student_Research_June25_column.pdf

<http://www.ZillmanColumns.com/>

The June 2025 Zillman Column featuring **2025 Link Guide to Research Resources for Students** by Marcus P. Zillman, M.S., A.M.H.A.; Executive Director of the Virtual Private Library. This is a comprehensive listing of niched internet web student research resources, sites, and tools on the Internet and available in the new “zoom” education/learning/business/social age. These competent Internet student research resources as well as ChatGPT and Generative AI resources and tools will be your search engine for your Internet student research sources and tools. The below list of sources is partially taken from my **2025 Student Research Resources 2025** and is constantly updated with Subject Tracer™ bots at the following URL:

<http://www.StudentResearch.info/>. These tools, resources, and sources will help you to discover the many pathways available to you through the Internet to find the latest Internet student research resources including ChatGPT and Generative AI research resources, sources, and sites for the new student research normal. This is another MUST have column to discover the latest 2025 competent and niched online new and existing student research resources and tools to give you the information students’ need in today’s ever-changing and fast-paced [2025 New Economy](#) business and academic research world and the [New Normal 2025](#)

Prediction Markets 2025

[[Download Prediction Markets 2025 White Paper Link Dataset Compilation](#)]

Prediction Markets 2025 ([PredictionMarkets.com](#)) and Information Futures Markets ([InformationFuturesMarkets.com](#)) are Subject Tracer™ Information Blogs developed and created by the [Virtual Private Library™](#). They are designed to monitor prediction and information futures markets on the World Wide Web and listed below. We always welcome suggestions of additional sites and resources to be added to this comprehensive listing and please submit by clicking [here](#). This site has been developed and maintained by Marcus P. Zillman, M.S., A.M.H.A.; Internet [expert](#), [author](#), [keynote speaker](#), and [consultant](#). His latest white papers include [2025 Guide to Searching the Internet](#), [Academic and Scholar Search Engines and Sources 2025](#), and [Knowledge Discovery Resources 2025](#). All of his Subject Tracer™ Information Blogs and his white papers are available from [WhitePapers.us](#). His latest monthly column is available by clicking [here](#). Subscribe to his free monthly **Awareness Watch™** Newsletter. Learn more by clicking [here](#). Updated on **May 19, 2025**; 23 pages; 484KB PDF. © 2007 – 2025 Marcus P. Zillman, M.S., A.M.H.A.

Updated> Employment Resources 2025

<http://www.EmploymentResources.info/>

I have just updated my white paper link dataset compilation titled **Employment Resources 2025** and is now a 30 page PDF document (595KB) freely available from the above URL. Other Subject Tracers available [here](#). Other white papers are available by clicking [here](#). [Completely updated including all links validated and new links added on **May 17, 2025**]

2025 Directory of Directories

http://whitepapers.VirtualPrivateLibrary.net/2025_Directory_of_Directories.pdf

<http://www.2025DirectoryOfDirectories.com/>

The above is a white paper link dataset compilation of the [2025 Directory of Directories](#) Subject Tracer™ Information Blog by Internet Expert [Marcus P. Zillman, M.S., A.M.H.A.](#). This **2025 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 34-page PDF document (498KB). Updated on **May 21, 2025** and other white papers are available by clicking [here](#). All of Zillman's 2025 Publications are freely available by clicking [here](#).

Updated> Finding People Resources and Sites 2025

<http://whitepapers.virtualprivatelibrary.net/2025FindingPeople.pdf>

Finding People Resources and Sites 2025 has just been updated and is now a 24-page freely available link compilation for a selected group of competent finding people resources that are available over the Internet. These resources are designed to be your Finding People Library and to give you the latest and greatest finding people resources available on the Internet. This has been created by Internet guru and expert [Marcus P.](#)

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Awareness Watch V23N6 June 2025 Newsletter

<http://www.AwarenessWatch.com/>

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[Zillman](#) who is the Executive Director of the [Virtual Private Library](#) and **designed specifically for use on iPads, iPhone, Androids, Smart Phones, and Netbooks/Chromebooks/Laptops**. Your complete finding people library on the go and great for remote education and business needs! Updates to this are powered by [Subject Tracer™](#) Information Bots (STIB). This has been added to the tools section of [Research Resources](#) Subject Tracer™ Information Blog. Visit all my [Subject Tracers](#). [Updated on **May 22, 2025**; 24 pages; 473KB PDF]

Open MetaVerse Resources 2025

http://whitepapers.virtualprivatelibrary.net/OpenMetaVerse_Resources.pdf

<http://www.OpenMetaVerse.us/>

Open MetaVerse is a term that will keep popping up with more frequency during the AI boom. Open MetaVerse can drastically change business operations across any vertical or industry!. A must read to survive the future! Updated constantly... Updated: **May 23, 2025**; 22 pages; 616KB PDF.

Fact Check Resources Miniguide 2025

http://WhitePapers.VirtualPrivateLibrary.net/Fact_Check_MiniGuide_2025.pdf

<http://www.FactCheckMiniguide.com/>

<http://www.FactFinderMiniguide.com/>

The above is an updated publication **Fact Check Resources Miniguide 2025** by [Marcus P. Zillman, M.S., A.M.H.A.](#). It is a freely available 24-page PDF document (492KB) listing the latest and competent online resources and sites for fact-checking resources! Other white papers are available by clicking [here](#). In today's fake news, disinformation, and misinformation environment, this is a must-needed resource to keep you on the correct path for all your information needs. Also visit my **2025 54 Subject Tracers™** by clicking [here](#). Also visit my freely available **2025 Zillman Publications** by clicking [here](#). Updated: **May 26, 2025**; 24 Pages 619KB.

Updated> 2025 Biological Informatics Resources

http://whitepapers.virtualprivatelibrary.net/2025_Biological_Informatics.pdf

<http://www.BiologicalInformatics.info/>

2025 Biological Informatics Resources has just been updated and is now a 38-page freely available link compilation for a selected group of competent internet biological informatics resources that are available over the Internet. These resources are designed to be your Internet Biological Informatics Library and to give you the latest and greatest internet biological informatics resources available on the Internet. This 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/Chromebooks/Laptops**. Your complete internet biological informatics library on the go and great for remote education and business needs! Updates to this are powered by [Subject Tracer™](#) Information Bots (STIB). This has been added to the tools section of [Research Resources](#) Subject Tracer™ Information

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Awareness Watch V23N6 June 2025 Newsletter

<http://www.AwarenessWatch.com/>

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eVoice: 239-206-3450

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Blog. Visit all my [2025 Subject Tracers](#). [Updated on **May 27, 2025**; 38 pages; 652KB PDF]

Mastodon Resources 2025

http://whitepapers.virtualprivatelibrary.net/Mastodon_Resources.pdf
<http://www.MastodonResources.com/>

Mastodon is a term that will keep popping up with more frequency during the AI boom. Mastodon can help your Internet communications across any vertical or industry!. A must read to survive the future! Updated constantly ... Updated: **May 28, 2025**; 15 pages; 490KB PDF.

Green Files 2025

<http://www.GreenFiles.info/>

The above white paper link dataset compilation of the [Green Files 2025](#) Subject Tracer™ Information Blog by [Marcus P. Zillman, M.S., A.M.H.A.](#) is a freely available 20-page PDF document (444KB) listing the latest and greatest online resources and sites for the environment and all things green! Updated on **May 30, 2025**. Other white papers are available by clicking [here](#). All of my freely available 2025 publications are available by clicking [here](#).

Awarenesswatch™ Paper Review

Detection of LLM-powered Bots Using Image Classification by *Edoardo Di Paolo, Marinella Petrocchi, and Angelo Spognard*

<https://firstmonday.org/ojs/index.php/fm/article/view/13651>

Abstract

In the rapidly changing landscape of online social interactions, the presence of automated accounts, or bots, has always posed a significant challenge to maintaining platforms where the information posted is authentic and reliable. The emergence of large language models (LLMs) may exacerbate this problem, as researchers have recently found families of automated accounts that use generative artificial intelligence to produce their posts. This paper focuses on this new type of bot, particularly on detecting them. Using a new detection technique that relies on image classification to distinguish between human and automated accounts, we demonstrate remarkable efficiency in identifying bots whose posts are generated by large language models. Our research improves the results of previous work on the detection of bot accounts powered by generative artificial intelligence.

2025 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:

Accessibility Resources

<http://www.AccessibilityResources.info/>

Agriculture Resources

<http://www.AgricultureResources.info/>

AnswerSpot

<http://www.AnswerSpot.co/>

Artificial Intelligence Resources

<http://www.AIResources.info/>

Astronomy Resources

<http://www.AstronomyResources.info/>

Auction Resources

<http://www.AuctionResources.info/>

Biological Informatics

<http://www.BiologicalInformatics.info/>

Biotechnology Resources

<http://www.BiotechnologyResources.info/>

Bot Research

<http://www.BotResearch.info/>

Business Intelligence Resources

<http://www.BIResources.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 Resources

<http://www.FactCheckers.us/>

Financial Sources

<http://www.FinancialSources.info/>

Finding People

<http://www.FindingPeople.info/>

Games Resources

<http://www.GamesResources.info/>

Genealogy Resources

<http://www.GenealogyResources.info/>

Grant Resources

<http://www.GrantResources.info/>

Green Files

<http://www.GreenFiles.info/>

Grid, Distributed and Cloud Computing Resources

<http://www.GridResources.info/>

Healthcare Resources

<http://www.HealthcareResources.info/>

Information Futures Markets

<http://www.InformationFuturesMarkets.com/>

Information Quality Resources

<http://www.InformationQualityResources.info/>

International Trade Resources

<http://www.InternationalTradeResources.info/>

Internet Alerts

<http://www.InternetAlerts.info/>

Internet Demographics

<http://www.InternetDemographics.info/>

Internet Experts

<http://www.InternetExperts.info/>

Internet Hoaxes

<http://www.InternetHoaxes.info/>

Intrapreneurial Resources

<http://www.IntrapreneurialResources.info/>

Journalism Resources

<http://www.JournalismResources.info/>

Knowledge Discovery

<http://www.KnowledgeDiscovery.info/>

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/>

Predictions Markets

<http://www.PredictionMarkets.com/>

Privacy Resources

<http://www.PrivacyResources.info/>

Reference Resources

<http://www.ReferenceResources.info/>

Research Resources

<http://www.ResearchResources.info/>

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 Resources

<http://www.StudentResearch.info/>

Theology Resources

<http://www.TheologyResources.info/>

Tutorial Resources

<http://www.TutorialResources.info/>

World Wide Web Reference

<http://www.WWWReference.info/>

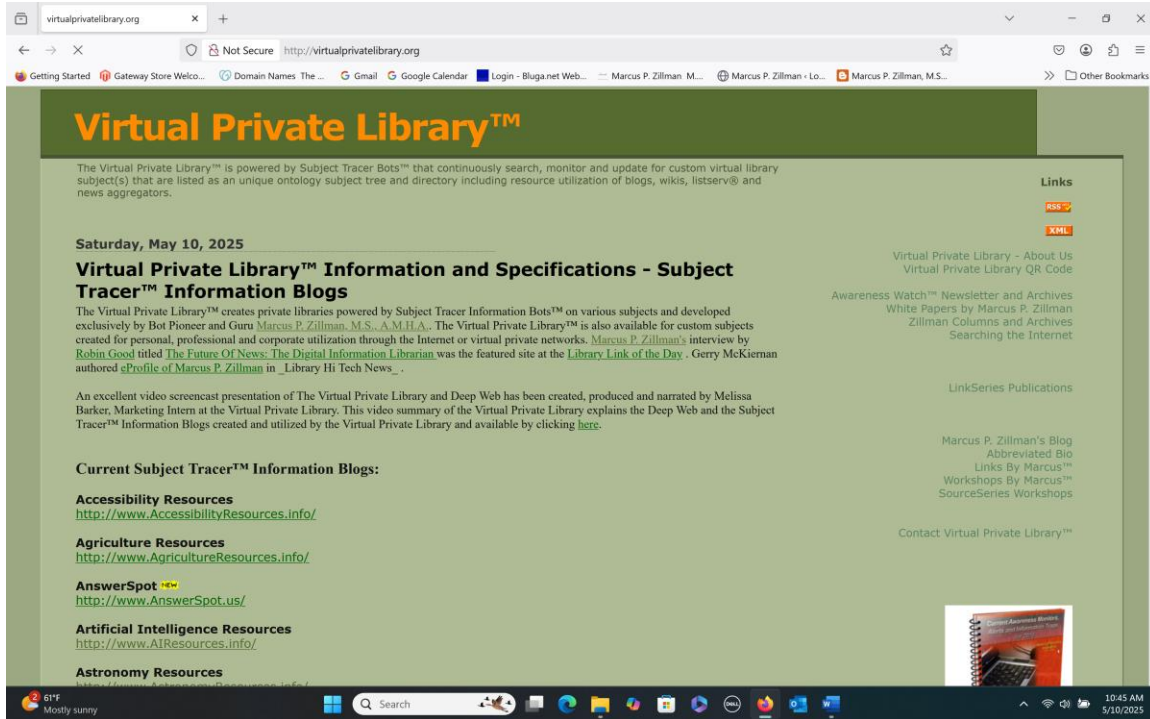


Figure 2: Virtual Private Library™

Author Information: Marcus P. Zillman, M.S., A.M.H.A. Executive Director of the Virtual Private Library is an international Internet expert, author, keynote speaker and corporate consultant in the area of information retrieval, knowledge discovery, knowledge harvesting, artificial intelligence and bots/intelligent agents. He has created numerous world wide web sites including 54 Subject Tracer™ Information Portals and Blogs; written a number of internet miniguides, white papers, manuals and books; hosted over 160 weekly Internet television shows, writes a weekly and monthly column on Current Awareness on the Internet; writes a monthly newsletter Awareness Watch and delivers keynote presentations throughout the international marketplace. He also actively delivers one and two day workshops for key industry sectors displaying how the Internet can be used as a tool to maintain current awareness and professional competencies. Additional websites by Marcus P. Zillman, M.S., A.M.H.A.:

Marcus P. Zillman's Blog (30,000+ Postings)

<http://www.zillman.us/>

Marcus P. Zillman Abbreviated Bio

<http://www.zillman.info/>

Awareness Watch™ Newsletter

<http://www.AwarenessWatch.com/>



Marcus P. Zillman's Columns
<http://www.ZillmanColumns.com>

LinkSeries Publications
<http://www.LinkSeries.com/>

Links By Marcus™
<http://www.LinksByMarcus.com/>

Workshops By Marcus™
<http://www.WorkshopsByMarcus.com/>

SourceSeries Internet Research Workshops
<http://www.SourceSeries.com/>

Watch Marcus™
<http://www.WatchMarcus.com/>

listen to marcus™
<http://www.ListenToMarcus.com>

Research White Papers, Articles, Lectures and Speeches by Marcus P. Zillman, M.S., A.M.H.A.:

2025 Directory of Directories
<http://www.2025DirectoryOfDirectories.com/>

2025 Green Files
<http://www.GreenFiles.info/>

2025 Guide to Finding Experts by Using the Internet
<http://www.FindingExperts.info/>

2025 Guide to Finding People Resources and Sites
<http://www.FindingPeople.info/>

2025 Guide to Internet Privacy Resources and Tools
<http://www.StealthMode.info/>

2025 Guide to Searching the Internet
<http://www.SearchingTheInternet.info/>
<http://www.2025SearchingTheInternet.com/>

2025 New Economy Resources

<http://www.2025NewEconomy.com/>

2025 Publications by Marcus P. Zillman, M.S., A.M.H.A.

<https://www.Zillman.us/bio/>

2025 Reference Resources

<http://www.2025ReferenceResources.com/>

Academic and Scholar Search Engines and Sources 2025

<http://www.ScholarSearchEngines.com/>

Artificial Intelligence (AI) Agent Spot 2025

<http://www.AgentAISpot.com/>

Artificial Intelligence (AI) Discovery and Detection Tools 2025

<http://www.AIDiscoveryTools.net>

Artificial Intelligence (AI) Resources 2025

<http://www.AIResources.info/>

Bots, Blogs and News Aggregators 2025

<http://www.BotsBlogs.com/>

Business Intelligence Online Resources 2025

<http://www.BIOOnlineResources.com/>

Cloud Computing Resources Primer 2025

<http://www.zillman.us/white-papers/grid-distributed-and-cloud-computing-resources-primer/>

Current Awareness Tools 2025

<http://www.CurrentAwarenessTools.com/>

Deep Web Research and Discovery Resources 2025 Online White Paper

<http://DeepWeb.us/>

eMarketing MiniGuide 2025

<http://www.eMarketingMiniGuide.com/>

eReference Library Link Toolkit 2025

<http://www.eReferenceLibrary.com/>

Fact Check Resources Miniguide 2025

<http://www.FactCheckMiniguide.com/>

Finding Experts By Using the Internet 2025

<http://www.FindingExperts.info/>

Finding People Resources and Sites 2025

<http://www.FindingPeople.info/>

Generative AI Resources 2025

<http://www.GenerativeAIResources.com/>

Healthcare Online Resources 2025

<http://www.HealthPathfinders.com/>

<http://www.healthcareresources.info/>

Knowledge Discovery Resources 2025

<http://www.KDResources.info/>

New Economy Resources 2025

<http://www.NewEconomyResources.com/>

New Normal StartUp Resources 2025

<http://www.NewNormalStartUpResources.com/>

Online Research Browsers and Data Visualization Tools 2025

<http://www.zillman.us/white-papers/online-research-browsers/>

Online Research Tools 2025

<http://www.OnlineResearchTools.info/>

Online Social Networking 2025

<http://www.OnlineSocialNetworking.info/>

Open DataSets 2025

<http://www.OpenDataSets.info>

Open Educational Resources (OER) Sources 2025

<http://www.OERSources.com/>

Open MetaVerse Resources 2025

<http://www.OpenMetaVerse.us/>

Open Source Artificial Intelligence Agents (OSAIA) MiniGuide 2025

<http://www.OSAIAminiguide.com/>

Open Source Intelligence (OSINT) Miniguide 2025

<http://www.OSINTminiguide.com>

Prompt Catalog 2025 for Artificial Intelligence (AI)

<http://www.PromptCatalog.ai/>

Searching the Internet 2025

<http://www.SearchingTheInternet.info/>

Social Informatics 2025

<http://www.SocialInformatics.net/>

Subject Tracers 2025

<http://www.SubjectTracers.com/>

Using the Internet As a Dynamic Resource Tool for Knowledge Discovery 2025

<http://www.zillman.us/white-papers/using-the-internet-as-a-dynamic-resource-tool-for-knowledge-discovery/>

Web Data Extractors 2025

<http://www.WebDataExtractors.com/>

Web Guide for the New Economy 2025

<http://www.WebGuideNewEconomy.com/>

White Papers 2025 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 report Current Awareness Monitors, Alerts and Information Traps for is available for purchase online and for immediate download. This report is a comprehensive listing 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 miniguide 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 Resources, e) Knowledge Discovery/Retrieval and the World Wide Web Resources, f) Business Intelligence Resources, g) Reference Resources, and h) Subject Tracer™ Information Blogs.

The Survivor's Manual for The New Economy.

<http://www.NewEconomyManual.com/>

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.

