

# 2023 Astronomy MiniGuide

By

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<http://www.2023AstronomyMiniGuide.com/>

The **2023 Astronomy MiniGuide** is a comprehensive list of competent astronomy resources that are currently available on the Internet. The below list of sources is partially taken from my Subject Tracer™ and white paper titled Astronomy Resources 2022 and is constantly updated with Subject Tracer™ bots at the following URL:

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

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

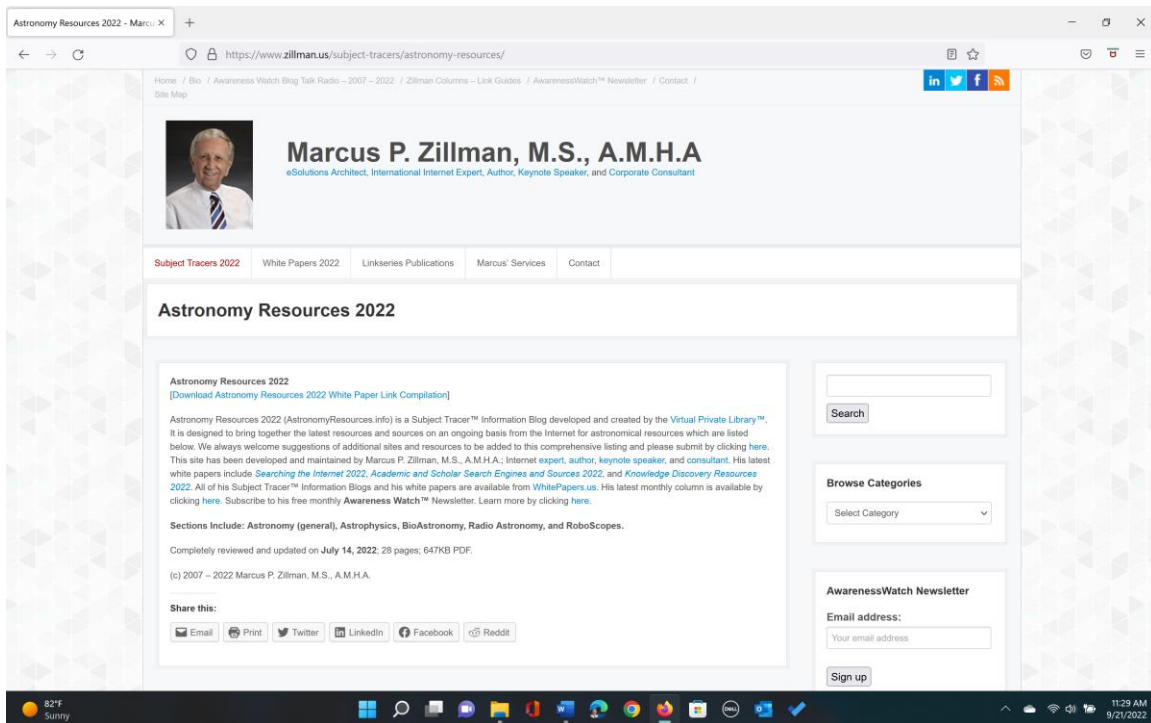


Figure 1: Astronomy Resources 2022



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## **2023 Astronomy MiniGuide::**

### **2022 Directory of Directories**

<http://www.2022DirectoryOfDirectories.com/>

### **2022 Guide to Finding Experts by Using the Internet**

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

### **2022 Guide to Finding People Resources and Sites**

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

### **2022 Guide to Internet Privacy Resources and Tools**

<http://www.2022InternetPrivacy.com/>

### **2022 Guide to Searching the Internet**

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

### **2022 New Economy Resources**

<http://www.2022NewEconomy.com/>

### **7 New Earth-Like Exoplanets Discovered, NASA Announces**

<https://www.nasa.gov/press-release/nasa-telescope-reveals-largest-batch-of-earth-size-habitable-zone-planets-around>

### **Abrams Planetarium - Skywatcher's Diary**

<http://www.pa.msu.edu/abrams/>

### **Adrift: the Secret World of Space Junk**

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

### **ADS Astronomy Custom Query Form – Astrophysics Data System**

[http://adsabs.harvard.edu/abstract\\_service.html](http://adsabs.harvard.edu/abstract_service.html)

### **American Association of Variable Star Observers - AAVSO**

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

### **American Astronautical Society**

<http://astronautical.org/>



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**American Astronomical Society**

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

**Ancient Observatories**

<http://www.exploratorium.edu/ancientobs/>

**Asteroid Zoo - Hunt for Resource-Rich Asteroids**

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

**AstroGrid - Open Source Project Designed to Create a Working Virtual Observatory**

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

**Astronomical & Nightscape Photography by Chris Cook**

<http://www.abmedia.com/astro/>

**Astronomical League**

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

**Astronomical Resources on the Web**

<http://www.istl.org/02-spring/internet2.html>

**Astronomical Society of the Pacific**

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

**Astronomy.com**

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

**Astronomy and Astrophysics Review**

<http://www.springer.com/astronomy/journal/159>

**AstronomyCenter.org**

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

**Astronomy Education and Outreach**

<http://casswww.ucsd.edu/index.php/resources:Outreach>

**Astronomy Education Review**

<http://aer.aas.org/>



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**Astronomy Letters**

<http://link.springer.com/journal/11443>

**astronomylinks.com - Astronomy and Space Links**

<http://astronomylinks.com/index.htm>

**Astronomy Notes**

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

**Astronomy Online**

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

**Astronomy Picture of the Day**

<http://apod.nasa.gov/apod/>

**Astronomy Picture of the Day's Educational Links**

<http://apod.nasa.gov/apod/lib/edlinks.html>

**Astronomy Resources 2022**

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

**Astronomy Resource Guides**

<https://www.astrosociety.org/education/astronomy-resource-guides/>

**Astronomy Resources – Institute for Astronomy**

<http://www.ifa.hawaii.edu/friends/resources.shtml>

**Astronomy Technology Today Magazine - Guide To Astronomical Equipment**

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

**Astrostatistics and Astroinformatics Portal (ASAIP)**

<http://asaip.psu.edu/>

**AstroTurtle's Amateur Astronomy Page**

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

**Aurorasaurus - Reporting Auroras From the Ground Up**

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



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**Australian Centre for Astrobiology**

<http://aca.unsw.edu.au/>

**Bad Astronomy Archive blog by Phil Plait**

[http://www.slate.com/blogs/bad\\_astronomy.html](http://www.slate.com/blogs/bad_astronomy.html)

**Brian's Space Hot List**

<http://spacelist.org/>

**Chandra X-Ray Observatory - Photo Album - Chandra Images by Date**

<http://chandra.harvard.edu/photo/chronological.html>

**Clear Sky Chart**

<https://www.cleardarksky.com/csk>

**Communicating Astronomy with the Public Journal (CAPJ)**

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

**Cornell University: Curious About Astronomy? Ask An Astronomer**

<http://curious.astro.cornell.edu/index.php>

**Cosmic Distance Scales**

<http://heasarc.gsfc.nasa.gov/docs/cosmic/>

**Cosmic Journey - A History of Scientific Cosmology**

<http://www.aip.org/history/cosmology/>

**Current Space Weather**

<http://sohowww.nascom.nasa.gov/spaceweather/>

**Daylight Hours Explorer**

<http://astro.unl.edu/classaction/animations/coordsmotion/daylighthoursexplorer.html>

**Deep Sky Database: Deep Sky Objects: Galaxies: Globular Clusters: Open Clusters: Nebulae: Double Stars**

<http://www.virtualcolony.com/sac/>

**Dictionary of Nomenclature of Celestial Objects**

<http://vizier.cfa.harvard.edu/viz-bin/Dic>



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**Earth & Sky**

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

**Earth View**

<http://www.fourmilab.ch/cgi-bin/uncgi/Earth/action?op=-s>

**Encyclopedia Astronautica**

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

**ESO - The European Southern Observatory**

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

**Extreme Life, Biospeology & Astrobiology**

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

**Famous Astronomers and Astrophysicists**

<http://cnr2.kent.edu/~manley/astronomers.html>

**Galaxies**

<http://zillman.blogspot.com/2005/04/galaxies.html>

**Galaxy Evolution Explorer (GALEX)**

<http://www.galex.caltech.edu/>

**Galaxy Zoo**

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

**GISS: Goddard Institute for Space Studies at Columbia University in New York**

<http://www.giss.nasa.gov/>

**Google Moon**

<http://www.google.com/moon/>

**Google Sky**

<http://www.google.com/sky/>

**Heavens-Above**

<http://www.heavens-above.com/>



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## **Helpful Online Resources for Astronomers**

<http://www.skyandtelescope.com/online-resources/>

## **How to Photograph the Stars, Moon, and Milky Way**

<http://sympathink.com/night-photography-tips-stars-moon-milky-way-astrophotography-guide/>

## **HubbleSite**

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

## **Institute of Meteoritics**

<http://meteorite.unm.edu/>

## **International Association of Astronomical Artists**

<http://www.iaaa.org>

## **International Space University – Space Education for a Changing World**

<http://www.isunet.edu/>

## **Lunar and Planetary Information Bulletin**

<http://www.lpi.usra.edu/publications/newsletters/>

## **Lunar and Planetary Science at the NSSDC**

<http://nssdc.gsfc.nasa.gov/planetary/>

## **Lunar Orbiter Photographic Atlas of the Moon**

[http://www.lpi.usra.edu/resources/lunar\\_orbiter/](http://www.lpi.usra.edu/resources/lunar_orbiter/)

## **Mars Exploration Rover Mission - Spirit and Opportunity**

<http://marsrovers.jpl.nasa.gov/home/index.html>

## **Mars Global Surveyor Mars Orbiter Camera Image Gallery**

[http://www.msss.com/all\\_projects/mgs-mars-orbiter-camera.php](http://www.msss.com/all_projects/mgs-mars-orbiter-camera.php)

## **MARSOWEB - Mars Exploration Program Landing Sites**

<http://marsoweb.nas.nasa.gov/landingsites/index.html>

## **Meteor Showers**

<http://zillman.blogspot.com/2005/05/meteor-showers.html>



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**Milkyway@Home - Help Discover the Structures in the Milky Way Galaxy**  
<http://milkyway.cs.rpi.edu/milkyway/>

**Moon, Mars and Beyond**  
<http://www.nasa.gov/exploration/home/index.html>

**Multimission Archive at Space Telescope (STScI)**  
<http://archive.stsci.edu/>

**NASA Images**  
<http://nasaimages.lunaimaging.com/>

**NASA - JPL Solar System Simulator**  
<http://space.jpl.nasa.gov/>

**NASA Space Shuttle Missions, International Space Station News, Astronauts News and Moon & Mars, Aeronautics, Science & Technology**  
<http://nasa-image.blogspot.com/>

**NASA-Sponsored Classroom of the Future**  
<http://www.cet.edu/?cat=cotf>

**National Space Society**  
<https://space.nss.org/>

**NOVA: Sputnik Declassified**  
<http://www.pbs.org/wgbh/nova/military/sputnik-declassified.html>

**PBS: Crash Course Astronomy Videos**  
<http://www.pbs.org/show/crash-course-astronomy/episodes>

**Planet Four - Help from Stargazers to Explore the Surface of Mars**  
<http://planetfour.org/>

**Planetary Photojournal: NASA's Image Access**  
<http://photojournal.jpl.nasa.gov/>

**Planet Hunters TESS**  
<http://www.planethunters.org/>



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**Publications of the Astronomical Society of Australia [No longer published]**

<http://www.publish.csiro.au/?nid=138>

**QuickCam and Unconventional Imaging Astronomy Group**

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

**Research School of Astronomy and Astrophysics - RSAA**

<http://rsaa.anu.edu.au/>

**Resources for Teaching Astronomy**

<http://www.csun.edu/science/geoscience/astronomy/>

**Satellite and Space Shuttle Tracking in Real Time**

<http://www.n2yo.com/>

**SEDS Messier Database**

<http://messier.seds.org/>

**Silicon Valley Astronomy Lectures**

<https://www.astrosociety.org/education/silicon-valley-astronomy-lectures>

**SIMBAD Astronomical Database**

<http://simbad.cfa.harvard.edu/simbad/>

**Sky and Telescope News**

<http://skyandtelescope.com/news/>

**SkyCal - Sky Events Calendar**

<http://eclipse.gsfc.nasa.gov/SKYCAL/SKYCAL.html>

**SkyMap Software**

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

**Sloan Digital Sky Survey (SDSS) Mapping the Universe**

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

**Solar System Views**

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



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**Solar Terrestrial Dispatch – Space Weather Specialists**

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

**Space Calendar (JPL)**

<http://www2.jpl.nasa.gov/calendar/calendar.html>

**Space Exploration – NASA Goddard Space Flight Center**

<http://www.nasa.gov/centers/goddard/home/index.html>

**Space Frontier Foundation**

<http://spacefrontier.org/>

**Spaceflight Now**

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

**Space Science and Astronomy News**

<http://www.space.com/science-astronomy/>

**Space Station/Shuttle Blog**

<http://spacestation-shuttle.blogspot.com/>

**Space Telescope Science Institute (STScI) – Expanding the Frontiers of Space Astronomy**

<http://www.stsci.edu/>

**SpaceWeather**

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

**Space Weather Prediction Center**

<https://www.swpc.noaa.gov/communities/space-weather-enthusiasts>

**Spitzer Space Telescope**

<http://www.spitzer.caltech.edu/>

**Stellarium - Open Source Planetarium for Your Computer**

<http://stellarium.org/>

**The Astronomer Magazine**

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



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**The Astronomy Center**

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

**The Center for the Advancement of Science in Space**

<http://www.iss-casis.org/>

**The ESA/ESO/NASA Photoshop FITS Liberator**

[http://www.spacetelescope.org/projects/fits\\_liberator/](http://www.spacetelescope.org/projects/fits_liberator/)

**The Evening Sky Map**

<http://skymaps.com/downloads.html>

**The Meteoritical Society**

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

**The New World Atlas of Artificial Sky Brightness**

<http://cires.colorado.edu/artificial-sky>

**The Nine Planets - A Multimedia Tour of the Solar System**

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

**The Planetary Society**

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

**The Solar and Heliospheric Observatory**

<http://soho.nascom.nasa.gov/>

**The Virtual Amateur Astronomer**

<http://www.jupiterscientific.org/virtualastronomer/>

**Thirty Meter Telescope**

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

**UFO Sightings Taken Seriously By the U.S. Government – Interactive Map**

<https://www.history.com/ufo-sightings-location-map>

**Unistellar eVscope 2**

<https://unistellar.com/>



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**Views of the Solar System**

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

**WEBB Space Telescope**

<https://www.jwst.nasa.gov/>

**WebStars: Astrophysics in Cyberspace - HEASARC**

<http://heasarc.gsfc.nasa.gov/docs/outreach/webstars.html>

**WIKISKY - Consolidating Astronomical, Astrophysical and Other Space Objects**

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

**WISE: Wide-field Infrared Survey Explorer**

<http://wise.ssl.berkeley.edu/>

**World Sunlight Map**

<http://www.die.net/earth/>

**WorldWide Telescope**

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

**Your Sky**

<http://www.fourmilab.ch/yoursky/>

**Zooniverse**

<https://www.zooniverse.org>

**ASTROPHYSICS:**

**Astronomy Research at Rutgers**

<http://libguides.rutgers.edu/physics>

**Astrophysical Bulletin**

<http://www.springer.com/astronomy/journal/11755>

**Astrophysics – MIT OpenCourseWare**

<https://ocw.mit.edu/courses/physics/8-901-astrophysics-i-spring-2006/>



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**Astrophysics News – ScienceDaily**

[https://www.sciencedaily.com/news/space\\_time/astrophysics/](https://www.sciencedaily.com/news/space_time/astrophysics/)

**Astrophysics – Wikipedia**

<https://en.wikipedia.org/wiki/Astrophysics>

**AstroWeb: Astronomy/Astrophysics on the Internet**

[http://www.cv.nrao.edu/fits/www/astroweb/head\\_astronomy.html](http://www.cv.nrao.edu/fits/www/astroweb/head_astronomy.html)

**Inside Einstein's Universe**

<http://www.cfa.harvard.edu/seuforum/einstein/>

**Harvard-Smithsonian Center for Astrophysics**

<http://www.cfa.harvard.edu/>

**NASA Astrophysics**

<https://science.nasa.gov/astrophysics>

**Ned Wright's Cosmology Tutorial**

<http://www.astro.ucla.edu/~wright/cosmolog.htm>

**Ohio State University-Astrophysics and Cosmology**

<http://ccapp.osu.edu/>

**Physics and Astronomy - PhysLink.com**

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

**SAO/NASA AstroPhysics Data System (ADS)**

<http://adswww.harvard.edu/>

**STARBASE - Topics in AstroPhysics and Cosmology**

<http://www.ph.surrey.ac.uk/astrophysics/files/home.html>

**StarDate Online**

<http://stardate.org/>

**STSCI Office of Public Outreach - Astrophysics**

<http://outreachoffice.stsci.edu/>



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### **The SuperString Theory**

<http://www.superstringtheory.fanspace.com/>

### **WebStars: Astrophysics in Cyberspace HEASARC**

[http://heasarc.gsfc.nasa.gov/docs/www\\_info/webstars.html](http://heasarc.gsfc.nasa.gov/docs/www_info/webstars.html)

### **UCSB Experimental Cosmology Group**

<http://www.deepspace.ucsb.edu/>

## **BIOASTRONOMY:**

### **Astrobiology Journal**

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

### **AstroBiology at NASA**

<http://astrobiology.nasa.gov/>

### **AstroBiology Web**

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

### **Astromaterials Curation**

<http://curator.jsc.nasa.gov/index.html>

### **Bioastronomy - The Net Advance of Physics**

<http://web.mit.edu/afs/athena.mit.edu/user/r/e/redingtn/www/netadv/bioast.html>

### **IAU COMMISSION 51 - Bioastronomy: Search for Extraterrestrial Life**

<http://www.ifa.hawaii.edu/~meech/iau/>

### **SETI - The Planetary Society**

<http://www.planetary.org/explore/projects/seti/>

## **RADIO ASTRONOMY:**

### **AIPS (Astronomical Information Processing System)**

[http://freecode.com/projects/aips?branch\\_id=168&release\\_id=179046](http://freecode.com/projects/aips?branch_id=168&release_id=179046)



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**Atacama Large Millimeter Array (ALMA)**

<http://www.eso.org/sci/facilities/alma.html>

**Basics of Radio Astronomy**

<http://www2.jpl.nasa.gov/radioastronomy/>

**Committee on Radio Astronomy Frequencies (CRAF)**

<http://www.craf.eu/>

**Duel of the Winds**

[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=103182](http://www.nsf.gov/news/news_summ.jsp?cntn_id=103182)

**European Radio Astronomy Club**

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

**European VLBI Network**

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

**GAVRT - Lewis Center for Educational Research**

<http://www.lewiscenter.org/Global-Programs/GAVRT/index.php>

**LOFAR – Low Frequency Array**

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

**National Radio Astronomy Observatory**

<http://www.nrao.edu/>

**Radio Astronomy for Scientists Teachers and Students**

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

**Radio Astronomy Supplies**

<http://www.nitehawk.com/rasmit/ras.html>

**Radio Astronomy – Wikipedia**

[https://en.wikipedia.org/wiki/Radio\\_astronomy](https://en.wikipedia.org/wiki/Radio_astronomy)

**RadioNet3**

<http://www.radionet-eu.org/>



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**Radiophysics and Quantum Electronics**

<http://link.springer.com/journal/11141>

**SARA: Society of Amateur Radio Astronomers**

<http://radio-astronomy.org/>

**Seti@home**

<https://setiathome.berkeley.edu/>

**ROBOSCOPES:**

**Bradford Robotic Telescope**

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

**Iowa Robotic Telescope Facilities**

<http://astro.physics.uiowa.edu/rigel/>

**iTelescope.net – Premier Network of Internet Connected Telescopes**

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

**Liverpool Telescope**

<http://telescope.livjm.ac.uk/>

**Lowell Observatory**

<http://www.lowell.edu/>

**Remote Access Telescope Projects (Open to Public)**

<http://webhome.phy.duke.edu/~kolena/imagepro.html#telescopes>

**ROBOSCOPE Project of NASA SpaceApps Challenge**

<https://2014.spaceappschallenge.org/project/roboscope/>

**ROTSE - Robotic Optical Transient Search Experiment**

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



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**SLOOH Space Camera - Astronomy, Remote Control Telescopes, Observatories,  
View the Universe**

<http://events.slooh.com/>

**The Faulkes Telescope Project**

<http://www.faulkes-telescope.com/>

**The National Academies Space Studies Board**

<http://sites.nationalacademies.org/SSB/index.htm>

## **DATA MINING RESOURCES FOR ASTROPHOTOGRAPHY:**

**Digitized Sky Survey**

[http://archive.stsci.edu/cgi-bin/dss\\_form](http://archive.stsci.edu/cgi-bin/dss_form)

**Image Processing Resources for Astronomy Teaching**

<http://webhome.phy.duke.edu/~kolena/imagepro.html>

**NASA/IPAC Extragalactic Database**

<http://ned.ipac.caltech.edu/>



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## **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™

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

Accessibility Resources

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

Agriculture Resources

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AnswerSpot

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

Artificial Intelligence Resources

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Astronomy Resources

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Information Futures Markets

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

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Knowledge Discovery

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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/>

Predictions Markets

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

Privacy Resources

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

Reference Resources

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

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World Wide Web Reference  
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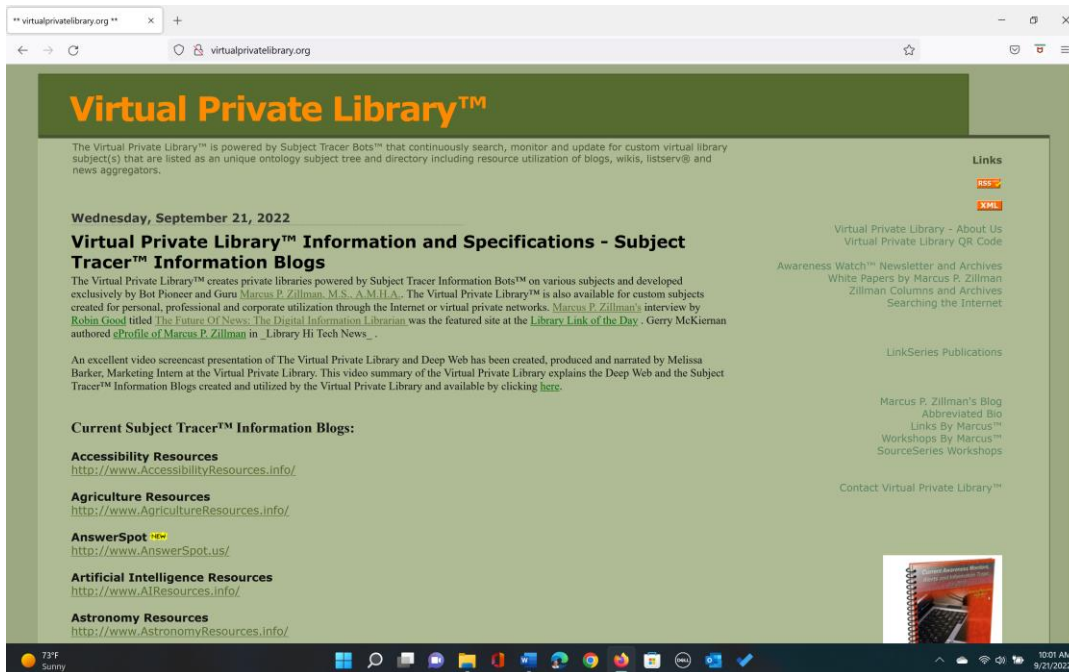


Figure 2: Virtual Private Library™

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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 (26,000+ Postings)**

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