



SWCP Portal

October 2019

Let the web empower your curiosity and creative genius

Just Do It Yourself – Online

The various threats and disturbing trends often covered here in *The Portal* come about not because the internet is bad or weak but because it is so useful, universal, and valuable. *Everybody* wants a piece of it.

Yet in the face of hackers trying to steal our data, giant corporations treating that vital personal information as mere commodities, and governments failing to look out for the average user, it is all too easy to forget what is just so wonderful about the net.

Though the internet now connects most businesses, it's not just a **planetary yellow pages**. Despite the cornucopia of products and services offered across the board, the net is not just a **global bazaar** either.

The internet can also be a tool for **personal empowerment and self-realization**. Users can connect not only to experts and groups that can do almost anything imaginable *for* them, but there are a growing number of websites where users can do it *themselves*.

Do you have a dream – some new product or service you would like to share with others? Or do you have a passionate interest in some field of study or subject? It's quite likely that you can realize those dreams online, and often for somewhat lower expenses, too.

Education and research opportunities

Let's start with self-improvement. Students from fourth through twelfth grade can attend **New Mexico Connections Academy** and APS' **eAcademy**, both online, free, and designed mainly for children who have trouble fitting into traditional schools. For homeschoolers, **The Homeschool Mom** has plenty of basic resources for educating kids right at home.

YouTube has a surprisingly broad range of instructional materials, but there searchers must always use their best judgment. Plus, hidden among all the cat videos and UFO sightings, are a fantastic number of hands-on step-by-step do-it-yourself building and repair guides to fix or restore just about anything.

YouTube also hosts the **Khan Academy**, an online non-profit with a vast range of free math and science courses, as tutorials for kids and help for teachers,

allowing them to work at their own pace. It also provides specialized tutoring for tests like the SAT and some college courses, too. Khan Academy's 10-year-old **YouTube channel** boasts of almost 8,000 educational videos and over 5 million subscribers.

Many **established colleges** also now have accredited degree programs online. Though MIT has put its entire curriculum of 2,400 courses online for free with their **OpenCourseWare** site, no traditionally accredited school offers free degrees. Such programs all require personal commitment and self-discipline.

UNM offers online degrees in everything from Business Administration to Space Engineering and more – some delivered in an 8-week intense format. Other schools, such as the **University of Phoenix**, were designed specifically for already working adults.

Udemy claims 100,000 video courses for as low as \$11 each, mostly for business and professional development, while **Coursera**, an online collaboration of a dozen or so top universities offers specialization and certification and even degrees in a number of fields.

Non-traditional fields have schools that are even more open. For instance, **w3Schools** is a free web developer training site, claiming to be the biggest on the web, offering certification in the basic web tools of HTML, CSS, and Javascript, along with courses in PHP and a dozen other computer languages. Best of all, the site uses simple, hands-on coding exercises which vividly illustrate how they work. And its **web code reference** section is second to none.

Other serious efforts to bring knowledge to the masses include **Wikiuniversity**, Wikimedia's collection of learning resources, and **DIYLabs**, which is a European-based project to study and implement self-motivated "digital competence" to empower learners. Then there's sites like **Eliademy** for creating online classes, and **Universal Class** which allow students to take courses in a variety of fields for fees.

There are all kinds of learning and even research opportunities available for people who are not intent on acquiring diplomas. One particularly cool site is **Zooniverse** where volunteers can participate in over 100 people-powered projects. For instance, **Galaxy Zoo** helps identify and describe galaxies, while

Continued on back

Continued from front

Shakespeare's World transcribes the scribbles and letters of the bard's contemporaries. There are various animal surveys, plus Martian mapping, moon counting and a wide range of other programs.

While sites like the American Astronomical Society's **WorldWide Telescope** have lots of resources for learning and teaching astronomy, there are a surprising number of working telescopes that can be rented and used across the net. **SLOOH** is more educational, but there are sites like **Telescope.org** and Harvard's **Observing with NASA**, **iTelescope.net** (with some scopes located right here in NM), and **Skynet University** all offer remote use of high-powered robotic observatories for astrophotography and research.

Nor are online investigations limited to academic pursuits. While **Atlas Obscura** explores the world's hidden wonders, weird encounters, urban legends and ghost stories can be plotted at **Liminal Earth**. **Weird Google Earth** and **Google Earth Anomalies** list discoveries made by keen-eyed users of Google's extensive maps of the Earth, Moon, Mars and space. One Google Earth user found a **submerged car** with the body of a missing person recently, so these great time-killers can also produce real world results.

People pursuing scholarly research on their own have a dizzying galaxy of libraries, museums, and media repositories online. One helpful site is **WorldCat**. It isn't about global antics of kitties, but a website to locate materials in over 10,000 libraries worldwide.

Perhaps the biggest and best known is the **Internet Archive**, home of millions of books from thousands of American and Canadian libraries, plus countless movies, TV and audio recordings – even software. Their **Wayback Machine** is a catalog of 380 billion pages, historical artifacts of the World Wide Web.

Designing and publishing online

With learning comes doing. The **Maker movement** allows people to combine both, exploring new skills and technologies with great online project-building educational resources in a unique welcoming subculture of artists, tinkerers, and craftspeople.

While there are workshop "makerspaces" like Albuquerque's own **Quelab**, and events like "maker faires", there are plenty of online resources, too, with places like **Make** magazine (which started it all), **wiki-How** and **Instructables**, all loaded with tons of how-to videos made by enthusiasts, as is YouTube. Teachers interested in pursuing project-based learning can find helpful tips and teaching resources at **Maker Ed**.

Countless options exist for those wanting to create visual art. There are hundreds of art courses for beginners, of course, but there are a myriad of paint-

erly tools and communities, too, like **Sketch**, a free online paint kit and marketplace, or **Sumo paint**, **Pixilart**, **Queezy**, **Krita**, and so forth.

As with two-dimensional art, so too with three. **Zbrush**, **Vectary**, **Blender**, and many similar 3D design sites are not just for rendering art in perspective; most such tools can create three-dimensional designs for 3D printing and prototyping. Some, like **FreeCAD**, are meant just for designing real things.

While home 3D printing is becoming better and cheaper, there are a number of sites that are happy to render physical prototypes or limited production runs. **Shapeways** offers 3D printing on demand, however, it and most such printers are aimed at professional engineers. For home hobbyists – especially those with their own printers – **Thingiverse** provides a big library of volunteered free 3D designs.

Those wishing to design homes and build floorplans can use **Room Sketcher**, **Homestyler**, **Planner 5D**, etc. Many of these offer interior design programs, but other sites promote pro experts. There are even a number of **landscape and garden design tools**, too, plus libraries of actual building plans and layouts available, but often for a small fee.

Want to tell the world about it? **Grammarly** can help you improve your writing, including punctuation and usage. There is a premium version, but the basic program can be used online for free, and it's only one of **many online writing tools** available on the internet.

There are plenty of ways to promote materials on your own. For instance, SWCP proudly supports **WordPress**, a free blogging and content management system, the most popular one on the planet.

For publishing, Amazon's **Kindle Direct Publishing** is a one-stop shop for self-publishing ebooks and paperbacks and marketing them on Amazon, but there are a huge number of other print on demand and ebook publishers for you out there, too.

This brief survey can only point out a scant few of the thousands of options online. Let your dreams guide your quest. You have nothing to lose but boredom.



Southwest Cyberport

New Mexico's Expert Internet Service Provider since 1994

505-243-SWCP (7927) • SWCP.com • Help@swcp.com

5021 Indian School NE, Suite 600, Albuquerque, NM 87110

Portal editor/chief writer, Jay Nelson jnelson@swcp.com
Click on blue terms in PDF file to open links.