The Edupunks' Guide

To a DIY Credential

By Anya Kamenetz

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How To Use The Edupunks' Guide to a DIY Credential

College takes time. College is expensive. College is exclusive. College is no longer the only way to get a great education.

The Edupunks' Guide is a followup to my 2010 book DIY U, and specifically the Resource Guide—Chapter 7. In that book I say more about why higher education needs to change. This guide focuses on how education IS changing, and how you can be a part of it.

An edupunk is someone who doesn't want to play by the old college rules. Maybe you have interests that don't fit the academic mold. Maybe you're in a remote location. Maybe you have a family, a job, or other responsibilities and you can't take on life as a full-time student. Maybe you love new technology and new ways of learning. Or maybe you're just a rebel!

If so, you're in luck. There's been a revolution in the way people spread knowledge. Sharing information openly over the Internet is way cheaper than purchasing it commercially in dead-tree format, and often the learning that happens this way is faster, more up-to-date, and more relevant to our immediate needs. A simple example is learning to make pizza. A few years ago, you may have had to take a class or at least buy a cookbook. Today you can put "how to make a pizza" into YouTube and within minutes, you're watching a video that shows you how to fling the dough!

More and more people around the world are building on this knowledge revolution to explore new modes of learning and to transform what we mean by "education."

What DO we mean by education, exactly? There are three big buckets of benefit that an educational institution, like a college, historically provides.

● Content—the skills and knowledge. The subjects, the majors. You could think of this as the "what" of education.

● Socialization—learning about yourself, developing your potential, forming relationships with peers and mentors. The "how".

● Accreditation—earning that diploma or other proof that will allow you to signal your achievement to the world, and with luck get a better job. The "why."

Each of these buckets, the What, the How, and the Why, has been profoundly affected by the information revolution. But most people are still being pushed down the assembly line of kindergarten through college without access to alternatives that might be not just cheaper or faster but smarter and better. That's what the Edupunks' Guide to a DIY Credential is all about.

DIY, or Do-It-Yourself, is a movement about self-reliance and empowerment. DIY

communities help each other get the knowledge and tools they need to solve problems and accomplish goals on their own without being told how to act or being forced to spend a lot of money. That can mean growing your own food, fiing your own car, publishing your own writing or putting on your own rock show. In the case of DIY education, it means getting the knowledge you need at the time you need it, with enough guidance so you don't get lost, but without unnecessary restrictions. DIY doesn't mean that you do it all alone. It means that the resources are in your hands and you're driving the process.

This guide is full of people, programs, and ideas from around the country that are part of the future of learning. I've spoken to over 100 learners from programs and sites around the country and around the world that offer new methods of content delivery, new platforms for socialization, and new forms of accreditation. Most of them take advantage of the technology now at our disposal—they're either all-online programs that complement the experiences you're already having, or hybrid programs, combining in-person and online experiences. Nearly all of them are cheaper than your average state university. Many are even free! And I've given you the tools to go out and find even more options, and to create them for yourself.

I want everyone who reads this book to get excited about taking charge of his or her own learning. Being an edupunk is not for the faint of heart. Without exception, the students I talked to said that being self-motivated and having good time management skills are absolutely essential for success along a DIY educational path. I would add that you need to be the type of person who's willing to try something new, even if it's a little unproven and untested.

I also think this guide will be a good read for educators and administrators who want to incorporate the latest technology, social media, and collaboration strategies to create excellent learning experiences while controlling costs; and organizations, developers, and social entrepreneurs interested in building the future of higher education.

In order to figure out which parts of the guide to read and in what order, take this quick quiz.

1. What's your current level of education?

A. High school diploma/GED or less.
B. Some college credits, military training, or on-the-job training, but no degree.
C. I already have a college degree or more.

2. What's your primary educational goal right now?

A. I'm not really sure yet.
B. I want to get a credential that will enable me to get a good job.
C. I'm interested in exploring my interests, developing my potential, and lifelong learning.

3. How comfortable are you with learning independently?

A. I don't know.
B. I prefer a good amount of guidance, from peers or authorities, at least at first.
C. Bring it on!

4. Do you ever "geek out"? Use online forums? Follow blogs related to a hobby, music, or politics? Read random topics on Wikipedia for fun?

A. No, not really.
B. Sometimes.
C. I'm the original geek!

Results:

If you answered mostly "A"s, read all 6 HowTos in the DIY Education Manual. Then read Section A, "Get Ready,". It has information on programs and sites that will help you explore the educational landscape and get your feet wet with online learning. Then read section C, "Open World," for more on free resources to make your learning better.

If you answered mostly Bs, read HowTos 2-6. Then read Section B, "Finish That Degree." It's all about alternative college programs that will help you get to a degree faster. You should also read section A.3, about certificates, licenses, and other alternative credentials. Then read section C, "Open World," to figure out how to keep learning outside your program and demonstrate your learning to the world.

If you answered mostly Cs, read HowTos 2-6. Then skip directly to Section C, "Open World." It's about open and free sources of content, learning taking place on peer-to-peer networks, formally or informally, and new, experimental forms of open accreditation through professional networks. If your plan includes a degree, you might want to check out Section B after that.

DIY Education Manual
This section contains step by step instructions on the basic skills you will need in order to embark on a DIY educational path. There are 6 howtos in the manual that will help you access the content, socialization, and accreditation that are part of any successful learning experience.

You can find more details in the text, but this section will help you get started right away.

HowTo 1: Do Research Online
HowTo 2: Write a Personal Learning Plan
HowTo 3: Teach Yourself Online
HowTo 4: Build Your Personal Learning Network
HowTo 5: Find a Mentor
HowTo 6: Get a Credential

HowTo 1: Do Research Online

1. Start with Google, the most-used search engine on the web.

2. Put your phrase in quotes to return pages with the exact words, like this: "African-American history"

3. Search on Wikipedia (Wikipedia.org) to get an overview of the topic. Follow the links to an article's sources at the bottom of the page.

4. Google Scholar (http://scholar.google.com/) will give you scholarly journal articles and other verified sources of information.

5. YouTube (Youtube.com) is good for videos—a quick entry into a topic. Or just Google your phrase and the word "video."

6. For news stories, try http://news.google.com/

7. For links on news, trends, and up-to-the-minute happenings, you can search Twitter.com with a hashtag, like this: #americanidol.

8. Try posting your question to a site like http://openstudy.com/ or http://wiki.answers.com/.

9. Put in your search terms plus the word "forum" or "blog" to see what ideas other people have discussed on message boards or on blogs.

10. A successful online research session will leave you with 20 open tabs or windows at the top of your screen. Follow your curiosity, but keep track of the links you're following in an email draft, Word document, or an application like Evernote or Diigo so you can consult them later.

More tips on searching from students in the alternative, experimental Trade School (see section C.5):

Catherine Grau: "I use Google books, Google video, and "looking inside" books on Amazon.com."

Osvaldo Gonzalez: "I use Vimeo for photography tutorials. Sometimes, I'll search Twitter to see if anybody is discussing a term."

Sam Barnes: "Sometimes, I'll do an image search of words or phrases I find beautiful. For instance, a while back I searched "event horizon," and discovered a fascinating blog called Fractal Ontology through one of the images that appeared as a result."

Lauren Cucinotta: "I Google something I'm interested in, and "follow the path" and save the important information I like to Evernote."

Howto 2: Write a Personal Learning Plan

Who do you want to be? What do you want to do? Why do you want to study? The answer is in YOUR hands. If your educational career is not limited to the stereotypical four-years-of-full-time-college + one-internship + job, or even if it is, edupunks can use a personal learning plan to guide their explorations. You can write yours in a notebook, with markers on construction paper, or a document on your computer. Here's what it should contain.

1. Goal. Pick your path. Set a deadline. "I want steady professional employment in the field of sustainability." "I want to start a business that feeds my love of jewelry." "I want to combine teaching English with travel." ("I want a college degree" is not a goal, because it's not an end in itself.) Set a deadline.

2. Current Status. Interests and accomplishments, both academic and extracurricular. College courses taken, creative pursuits, volunteer work, personality test results.

3. Learning Steps: the type of credential you want to initially pursue (certificate, license, exam, associate's, bachelor's, master's, professional degree or PhD); the specific content and skills you'll need to master; institutions that may become a part of your quest; prior learning credits, or credits-by-exam, if any, that you'd like to include. Even specific books, videos, websites that you're planning to read, watch, or use.

Tip: You can read online syllabi like the ones at http://www.saylor.org/ or a departmental website of a college of your choice, to get a sense of what courses go toward what degrees.

Tip: learning steps should include building your personal learning network, which we'll talk about in Howto #3.

Tip: Don't forget to list skills that are not included in the traditional liberal arts curricula, but that might be key to your personal goal, like financial management skills, or web development, or getting fluent in a second language.

4. Experiential Steps: the social experiences you want to pursue as part of your learning, including internships, volunteering, travel, leadership of an organization, or experience working with a mentor.

5. Who Can Help: Parent, sibling, friend, academic advisor at a college of your choice—someone needs to read this learning plan and help hold you accountable for it.

6. Next Steps: What are you going to do in the next day, week, month, and year to make your plan a reality? It's a good idea to review weekly, monthly, or every semester with your guide from step 5.

Tip: I like the website Workflowy (www.workflowy.com) for creating to-do lists. You might also want to try sketching out your plan on a piece of paper.

Weezie Yancey-Siegel is a 19-year-old edupunk you'll meet in Part C. She decided to design her own alternative college semester to concentrate on DIY learning. Here's the learning plan she wrote for herself, in the form of a syllabus.

Weezie's Syllabus for Spring 2011

"Learning is not a product of schooling but the lifelong attempt to acquire it." – Albert Einstein

Expectations

1. Create a Blog on my alternative, self-designed semester.
2. Watch 1 TED talk daily.
3. Read 1 book from the library every week.
4. Read Good.is every day. Blog about certain articles.
5. Subscribe to Fast Company magazine, read articles
6. Watch the news every other night
7. Meditate 3 times per week
8. Create art once a week
9. Go on a hike with Zhuzha (my dog) once a week
10. Take the local community college Astronomy course to meet my science requirement
11. Watch 1 documentary per week
12. Watch one fictional film per week
13. Listen to NPR for an hour each day
14. Read blogs of people I admire daily
15. Listen to 2 iTunes U lectures each week

Books to read (Amazon book suggestions was useful for making this list!):

● Zen and the Art of Motorcycle Maintenance (Pirsig)
● The White Tiger (Adiga)
● DIY U (Kamenetz)
● Blink: The Power of Thinking Without Thinking (Gladwell)
● The Tipping Point (Gladwell)
● Outliers (Gladwell)
● Working World: Careers in International Education, Exchange, and Development (Mueller)
● The Girl With the Dragon Tattoo (Larsson)
● The Mesh (Lisa Gansky)
● Whats Mine is Yours (Botsman and Rogers)
● A New Culture of Learning (Thomas and Brown)
● The ABC of XYZ (McCrindle)
● Cognitive Surplus (Shirky)
● Change By Design (Brown)
● The Design of Business (Martin)
● Small is Beautiful (Schumacher)
● Citizen You (Tisch)

- The Ten Faces of Innovation (Kelley)
- The Art of Innovation (Kelley)
- Half the Sky (Wudunn and Kristoff)
- Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives (Christakis)
- 21st Century Skills: Learning for Life in our Times (Fadel)
- College without High School (Boles)
- The Shock of the Old: Technology and Global History since 1900
- Rework (Fried and Hansson)
- 360 Degrees Longitude (Higham)
- Presence (Scharmer and others)
- The Omnivore's Dilemma (Pollan)
- Linchpin (Godin)
- What Technology Wants (Kelly)
- Others suggested to me by Facebook friends (see pic!)

TED Talks (taken from this GOOD Magazine article)

- Mark Roth, biochemist and cell biologist, on suspended animation
- Sam Harris, neuroscientist and philosopher, on fact-based morality
- Dan Barber, chef, on food
- Christopher Poole, founder of 4Chan, on anonymity and censorship
- Jane McGonigal, game designer, on how reality ought to be more like video games
- Seth Berkeley, vaccine researcher, on HIV vaccination
- Nathan Myhrvold, polymath, on shooting mosquitoes out of the sky with lasers
- William Li, cancer researcher, on how what we eat can save us from cancer
- Nicholas Christakis, physician and sociologist, on how social networks affect our health and happiness
- Cheryl Hayashi, spider silk scientist, on the tremendous strength of spider silk
- Others I find on my own

Films and Documentaries

- Helectiva
- Happy
- Wisdom (http://www.wisdombook.org/)
- Netflix Docs
- Waiting for Superman
- I Am
- Websites to check for local screenings:

  ○ http://roxie.com/index.cfm
  ○ http://www.cafilm.org/rfc/
  ○ http://www.cafilm.org/rfc/www.redvicmoviehouse.com]

HowTo 3: Teach Yourself Online
There are plenty of open resources on the Internet to allow for college-level

learning on almost any topic. But figuring out how to dive in can be daunting. If you want to read a textbook, answer the questions at the end of each chapter, and take a sample test, you can certainly simulate that kind of traditional classroom-based learning online, but there are many, many other possibilities.

Here's a method, distilled from the stories of many different edupunks I talked to. You'll find links, resources, and many more examples in section C.

1. Start with a question. "What does the Federal Reserve do, anyway?" "How does a wind turbine work?" You may turn first to video sites like YouTube or TED for an overview.

2. Zero in on unfamiliar words, phrases, symbols or expressions. "Bayesian analysis", "Fourier transform"—Wikipedia, Scholarpedia (www.scholarpedia.org), or Wikiuniversity might be good places to start, but you'll want to follow the links from there to source materials, papers, textbooks, book excerpts on Google, and others.

3. Do some serious reading. You may have several tabs open at this point. This phase can last hours or days.

4. Ask a question. Depending on what you're studying, you may want to locate some experts on the topic (see Dan Diebolt's interview for more). Or you can search forums or other online learning communities for help.

5. Test and demonstrate your knowledge. MIT Open Courseware, Khan Academy, and other sites may have sample problems. Or you can go onto a forum and answer someone else's question. Or blog about your discoveries!

"Most frequently I will start with a Google search," says Phillip Gulley, a Trade School student (see section C.5). "This usually produces a series of writings that are on the topic but don't necessarily inform me in the way that I would hope to be informed. For example, I wanted to know how FM transmitters were built. Google led me to a series of technical schematics and descriptions. I then turned to YouTube where I found the same information coupled with an individual showing me the materials and interacting with the subject matter. Watching a person build a simple transmitter was far more informative than reading about the process. Once I had watched a couple YouTube videos I felt much more comfortable with the vernacular being used. I then returned to Google where I then read over some of the more complicated pages to try to further build on my preliminary knowledge." Of course, the process wouldn't be complete until he tried to do it himself

HowTo 4: Build Your Personal Learning Network
Learning online can be a solitary activity at times. But in the long run, no one learns alone. You need people to bounce ideas off, answer questions, and help you when you get stuck, and to give you ideas about where to go next in your learning. Your "Personal Learning Network" or PLN is the group of people who feed your learning head. In a true PLN, you're a contributor, not just a consumer.

Meaningful participation in a PLN should be part of your Personal Learning Plan (see above). Over the course of your learning plan, your PLN will begin to overlap with the professional network of practitioners in your field, where you'll need to demonstrate value in order to connect with opportunities (see howto 6: Demonstrate Value to a Community).

To visualize your PLN, draw a diagram that looks like a dandelion head. You, the learner, are at the center. The seeds around you are the people in your life who contribute to your learning. Here's some places to find them.

+Family and friends

+Real-life classmates, past and present

+Real-life teachers, past and present

+Twitter

+Google Reader, http://www.google.com/reader/view/, Delicious, http://www.delicious.com/, Digg, http://digg.com/, Diigo diigo.com, or Reddit,http://www.reddit.com/ or another "social bookmarking" service. You can "follow" people on these sites as they share links of interest from their daily reading on the web. Because the whole site is designed around sharing links, a free flow of ideas generally follows. I follow about 50 people in Google Reader with expertise and interest in journalism/media, open education, green tech, and more. They alert me to interesting and relevant news in those areas. We leave comments on each others' shares, sometimes starting serious discussions.

+Facebook. Most of your Facebook friends probably don't belong in your personal learning network, but you may have a few who consistently post links that connect with your interests, or start interesting intellectual debates. That's who we're talking about here.

+Blogs & YouTube channels. Some blogs have active communities of people in the comments.

+Conferences, meetups, bookstore events, or talks.

+Special interest online forums like StackOverflow (http://www.stackoverflow.com), for programmers, Vimeo for filmmakers, and many more.

+Professors or other experts whose classes you watch on open courseware sites, whose books you read, or whose ideas you connect with in another way.

+Participants in study groups or book groups, online or offline.

Once you get going you might be able to list hundreds of people who belong in your personal learning network. Some may be close friends, and others you'll never meet. If you're following a personal learning plan and living the life of an

edupunk, it's a good idea to create a dedicated online place where your personal learning network can live. I use both Google Reader and Twitter. In both places, I share and comment on links daily, and I follow people who share my interests in the future of education, green technology, and other topics.

Amanda Agnello, a student in an online master's in teaching program, used a combination of school, Twitter and conferences to build her PLN. @psuklinkie is her Twitter handle.

Basics on Twitter: : It's free to start a Twitter account. People use Twitter to share links to interesting news or blog posts, ask questions, have arguments, and make observations—it's far more than a place to say what you had for breakfast. Twitter becomes valuable because of the people you follow and those who follow you. Most people on Twitter are not celebrities and have only a few dozen to a few hundred followers, which makes using it more like a conversation. You can start with "suggested followers" and build up your list over time. You can use the @ symbol to tag someone in a tweet so they see that you're asking them a question. People use a # (hashtag) to designate the topic of what they're talking about. You can search hashtags like #edu (for education) or #physics to follow conversations on those topics.

Check http://www.wikihow.com/Use-Twitter for a Twitter tutorial.

 "I got active on Twitter and that changed my whole experience," says Amanda. "I started following the hashtag #ntchat (New Teacher Chat). In my [online] program I felt isolated and a little bit up a tree, but my Twitter PLN [Personal Learning Network] really gave me a lot of support. I was able to bounce ideas off them and get a lot of intellectual recognition—'That's such a great idea! wow!' I kept telling my classmates: get on Twitter and it will change your life!"

To get started on Twitter, she said, "I just started following educators. I did #followfriday and "noteworthy Tuesday." (#ff is a tag people post on Fridays, when they suggest other people to follow with shared interests.

Then I went to an edcamp [an informal conference for educators modeled on Barcamp, which is the same thing for computer programmers]. That got me much more involved with Twitter."

A lot of people, like Amanda, click with Twitter when they start using it during a conference or similar gathering. For me, it was South By Southwest, the big technology conference in Austin, in 2009. Most such events these days have a hashtag (like #educonf2011) where you can follow updates. Tracking the hashtag is a way to keep track of which sessions or parties are most fun. You can follow people whose updates or presentations you like or who you actually meet at the conference. It's a way to continue the experience of a real-life community.

"Meeting the people I was following gave a personal connection to it—I'm working with people that I met in person," says Amanda. "Twitter's a door opener." PLNs in general are door openers. They will pull you into the world of

lifelong learning.

Catherine Grau, the Trade School student, says: "I have a good experience with mailing lists! I use hashtags in Twitter to follow topics. I like to RT these people, to read articles, and to follow other people on Twitter to get information. If I find someone I am interested in, I look at their blogroll, and begin to follow them on their social media sites - - blogs, Twitter.

And I see a shift in Facebook – my community there is really making it the medium to share, exchange and self-organize education."

Phillip Gulley, the Trade School student, agrees: "Facebook specifically has served as a sort of bridge for me, often shifting educational relationships into professional relationships, or to personal relationships."

Michael McCarthy, a student at College Unbound, has built his personal learning network in part through Peer 2 Peer University, a nonprofit learning experiment described in section C.TK. P2PU has a website that allows people to form different kinds of study groups. Mike joined an online book group that is reading Ivan Illich's classic of alternative education, Deschooling Society.

"All of the active participants are older, wiser, and involved professionally in education. Rather than having a broken-down, structured reading that would have turned me away, the participants threw out some amazing observations rather early, and that had me wanting to read through the text in a more deliberate and thoughtful way. However, some learning groups might develop a tendency to become 'dead threads,' as in online forums. I'll see how this one follows through (or doesn't.)"

HowTo 5: Find a Mentor

Every edupunk needs a mentor. A mentor takes a personal interest in your success at learning and achieving your goals, and they're in a position to help you do it by encouraging you and connecting you with ideas, resources, people, and opportunities. Here's how to find one.

1. Look for real chemistry. Prominent people get lots of attempts to contact them, but you may not actually have that much in common with Oprah. You'd be better off finding someone who does what you want to be doing, whether worm compost or natural hairstyles. Use research tools like Slideshare (slideshare.net) YouTube, and blog searches to find the perfect person.

2. Reach out respectfully. The Internet age makes it easy to connect with people but that also means that people get many, many attempts to connect with them. I've found that the best way to connect with someone online is to ask a genuine question about his or her work.

3. Don't be afraid to ask. Once you've exchanged a few emails or a phone call and established a real conversation with someone, you can ask them for a favor: to take a look at your portfolio, to let you know about summer internships in that

field, or even more broadly, to stay in touch and answer your questions. People like to feel helpful.

4. Mentoring is a two-way street. Don't forget that as a younger person with enthusiasm and energy, you have something to offer your mentor as well. Maybe it's research help, or help with a project. Maybe it's just a younger person's insight into a situation. Offering to help will let your mentor know that you appreciate them.

5. Go long and short. Classic mentorships will last for years, but you should also be alert to the opportunity to gain wisdom, good advice, and valuable connections in just one conversation.

Michael McCarthy is one of the people I mentor. The first time I visited his college, he happened to be giving a midterm presentation on do-it-yourself education. He had created an incredible video, partly inspired by my book, DIY U. He didn't know I was going to be there—it was a wonderful coincidence. After that, we kept in touch. He came to New York to see me speak. On my recommendation, we worked together on a series of videos for FastCompany.com, which allowed him to get paid for his video work for the first time. I introduced him to a community of people working on open-source video, and he helped me coordinate the focus group for the Edupunks' Guide with his fellow students at College Unbound. Mike emails me sometimes with questions, and I help him out however I can.

HowTo 6: How to Earn a Credential
There's lots of different flavors of credentials out there. Here's a mini-guide to what you need to earn each one.

1) High School Diploma or Equivalent

Different states have different requirements for earning a high school diploma. If you're over 18, or if you're just impatient, you can earn the equivalent: a General Educational Development test or GED. The tests cover reading, writing, math, science, and social studies. GED tests are administered at 3400 testing centers in all 50 states, for free or for a small fee. It's important to note that you CANNOT take the real GED online, although there are misleading websites that suggest otherwise. The best resource for information on where and how to take the test is the American Council on Education (ACE) website:

http://www.acenet.edu/AM/Template.cfm?
Section=GED_TS&CFID=419715&CFTOKEN=18992423&jsessionid=16308ccc3
f02$0D$01j$

The website includes links to online practice tests and other sources of information to help you prepare.

2) Certificate

Certifications are privately organized by nonprofit industry administrations to qualify people for specific jobs. The website http://www.certificationguide.com/v2/ lists

2,852 national certifications in 21 categories from health to sales: "Certified Travel Associate" or "Certified Substance Abuse Counselor" for example, and provides guidelines on quality. Some certifications require advanced degrees or lots of on-the-job experience. But you can earn others with just a short course and exam; Microsoft and LEED certifications are two examples (see section A.3 for more). Some one-year courses at community colleges also are designed to prepare you for certificates.

3) License

Licensing exams are administered and regulated by the state. Licensed occupations include things like practical nurses, massage therapists, or even bartenders. Some require other degrees, while others just require you to pass an exam. Go to http://www.careerinfonet.org/licensedoccupations/lois_keyword.asp?nodeid=16&by=keyword for a comprehensive state-by-state guide to licensed occupations, with the requirements for each.

4) Associate's Degree

An associate's is typically a two-year degree offered by a community college. In California, the country's largest community college system, associate's degrees require 60 units, or around 20 courses; 18 must be in your major. Associate's of Arts or Associate's of Science degrees are designed for transfer to a four-year college, while an Associate's in business, "Occupational Studies" "Industrial Technology" or "Applied Science" is designed to lead directly to a job (perhaps with the addition of a license or certification, as above). In general, the more liberal arts courses you take, like Literature, History, math and science, the easier it will be to transfer your credits to a four-year college. After liberal arts, nursing is the most popular associate's degree.

You don't have to earn your associate's all in one place; you can transfer credits from one college to another or apply freestanding credits (see Boxes: 7 Ways to Earn College Credit Without Taking A College Class

5) Bachelor's Degree

A Bachelor's degree is the most common undergraduate degree in the US. It's typically a four-year degree offered by a public or private college or university. To apply for a bachelor's program, you typically need to take a standardized test, either the SAThttp://sat.collegeboard.org/home or ACT. http://www.act.org/

To get a bachelor's, you usually have to satisfy liberal arts requirements in a range of disciplines including the humanities (writing, literature, history) and the sciences (math, physics, biology). At the same time, you need to choose a major,

or concentration, and take a specific number of courses around one particular discipline. The most popular undergraduate major in the US is business, and the highest-paying are in engineering and computer science. The State University of New York requires 120-130 credits to graduate, of which 30 must be general ed credits in 7 of 10 different subject areas (the liberal arts requirement) while 30 must be in your major.

You don't have to earn your associate's all in one place; you can transfer credits from one college to another, transfer an associate's degree, or apply freestanding credits (see Boxes: 7 Ways to Earn College Credit Without Taking A College Class

6) Master's Degree

A Master's Degree is typically a 1 or 2-year graduate degree offered after the bachelor's degree. To apply for a master's degree, you need to take a test called the Graduate Record Exam or GRE http://www.ets.org/gre/ or for MBA programs, the GMAT: http://www.mba.com/ Master's degrees can mean higher earnings for teachers, businesspeople, mental health counselors, or other professionals. Master's candidates are the most likely to pay out of pocket for their degrees, using loans instead of grants. For this reason, it makes sense to look at the expected salary from your degree, which you can find on sites like http://www.careerbuilder.com/Article/CB-1152-Salaries-Promotions-Bachelors-vs-Masters-How-Does-Your-Salary-Stack-Up/.

7) Professional Degree

Professional degrees include law school (3 years), medical school (7 years, including the training period called residency), dental school (4 years) and divinity school (3 years or more). Professional schools require a bachelor's degree to enter. They also have their own entrance exams: The LSAT for law school http://www.lsac.org/ and the MCAT for medical school. https://www.aamc.org/students/applying/mcat/

And they have their own exit exams for state licensing (the bar exam for lawyers is the most famous example). People with professional degrees, except for divinity graduates, earn more than any other educational category, but they also have the highest debt: upwards of $100,000 on average.

8) PhD

Doctorates typically take at least 7 years to earn. They are awarded in the humanities, the sciences, and in education (the Ed.D). To complete a doctorate you must publish some original research in the form of a dissertation; for English PhDs that means writing 100 pages of literary criticism, for biology, it means a lab experiment. Doctoral programs are open to people with BAs or MAs. They usually offer students a small stipend, which may increase if you agree to work as a teaching or research assistant; but many PhD students take on loans as well for their living expenses. PhD candidates usually look for jobs in the

academic world after graduation; in many disciplines, these jobs are very hard to find, so do your research carefully before picking a program.

HowTo 7: Demonstrate Value to a Network

A diploma is the final step in a traditional education. In the DIY world, credit comes from the reputation you build by doing good work and demonstrating it to others in a community. The rules of this world are informal and evolving, but demonstrating value to a network is not optional for success in the 21st century.

1) Pick your path. The community you want to be a part of should reflect your passion. If you don't see it among the ones listed in section C.tk, search until you find it, or form your own by expanding out from your personal learning network.

2) Show up. Your profile on a network must include samples of your work, whether it's writing, photographs, video, audio, or code, or at least written descriptions with photos of projects you've done. The more time you spend in presenting yourself and sharing stuff, the more you'll show up.

3) Help others. Good citizenship in a reputation-based network means being helpful in any way you can: pitching in on another's project, offering feedback, publicity, support, or just answering questions from newcomers. The golden rule rules.

4) Meet up. Whether it's a local mixer at a bar, panel discussion, workshop, or a big national or international conference, shared-interest communities like to meet up in person. This is the way to solidify your connections and find new opportunities. Go.

5) Keep an ear out for opportunities. Some networks have job boards, others just have informal connections.

Dale J. Stephens is a 19 year old entrepreneur and a brilliant networker. After being homeschooled, he was dissatisfied with his college experience. He started a website called Uncollege to express his ideas and plans for creating an alternative approach to education. Then he started Tweeting and reaching out to philanthropists, bloggers, entrepreneurs, and others in the educational innovation field. He talked on the phone, went for coffee, dinner, and meetings, flew to the South by Southwest technology conference in Austin to go to parties and meet with more people who could help him. In the spring of 2011, he was awarded a $100,000 fellowship by entrepreneur Peter Thiel.

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A: Get Ready

You're looking at further education for the first time. You're not sure what you want to study or what type of degree you want to go for. You want to explore your educational options, both what to study and how to study.

Rather than a four-year bachelor's degree right now, you may want a faster route to a job: a certificate, license, apprenticeship or associate's degree. Or maybe you're in high school and you're considering an unusual educational path.

The first step in your process is to figure out a little bit about what you might want to do. Then you'll want to search the educational landscape for a place to study.

A.1 What Do You Like? What Do You Want to Be? Where Do You Want to Go?

Scanning the horizon for an educational direction? You might want to start by looking within. The more you know about yourself, the more likely you are to find a path where you'll be successful.

*Do what successful CEOs do: a "360 degree review." Talk to friends, family, teachers, and other mentors whose opinions you respect. Ask them: What do you think are my strengths? My weaknesses? What types of fields do you think would interest me? When you hear the same thing from your lab partner, your soccer coach, and the neighbor you babysit for, it has more resonance than when you hear it just once.

*Start a notebook, collage journal, or Tumblr blog where you write or put up pictures of ideas that interest you. Do this for a few months and some themes might start to emerge.

Personality Tests and Quizzes

Use these tests to learn a little more about yourself and how your interests and traits might match up with careers.

Career Key
http://www.careerkey.org/

Psychologist Lawrence Jones has developed the Career Key Test, a personality test that correlates your traits with suitable careers, college majors, and training programs. The test costs $9.95 and takes about fifteen minutes. You can find a similar free personality test at http://www.careertest.net/.

What Do You Like?
http://www.bls.gov/k12/

The Bureau of Labor Statistics (BLS) has a Web site geared for high school students that asks the simple question of "What Do You Like?" (reading, helping

people, music and art, sports) to point users in the direction of information on careers that might be interesting.

ASVAB Career Exploration Program
http://www.asvabprogram.com/

Thinking about a career in the military? The Department of Defense sponsors this site to encourage students to take the Armed Services Vocational Aptitude Battery (ASVAB), a test you must pay to take, that correlates skills in various academic areas to specific careers. (Be aware that getting in touch with them may lead military recruiters to take an interest in you.)

Career Search Sites

Occupational Outlook Handbook
http://www.bls.gov/oco/

The Occupational Outlook Handbook, published by the BLS, is the Wikipedia of careers. They track job trends and publish statistics on every career under the sun: average salaries, required education. Some professions currently at the top of the list for both projected growth and salary are registered nurses ($62,000 average salary) network systems analysts ($71,100), financial examiners ($70,930), physicians' assistants ($81,230), and accountants ($59,430).

CareerOneStop
http://careeronestop.org/

The US Department of Labor maintains Career One Stop to give people information on good jobs and connect them with training. You can browse fast-growing jobs, look specifically at green careers, or take their Skills Profiler test to match your skills with jobs you'd like to have and vice versa.

US News & World Report – 50 Best Careers
http://money.usnews.com/money/careers

The magazine yearly profiles the 50 "best" careers based on how fast opportunities are growing, salary, benefits, and job satisfaction (all of their information comes from the Bureau of Labor Statistics, but they present it in an easier-to-read format). They list the best jobs in various categories, so you can consider your options—not just health care, business, and technology, but arts and social services as well.

Now that you have some idea of what you might like to do, it's time to explore your learning options. The rest of this section contains information on professional licenses, certificate programs and apprenticeship programs as well as finding a college, and profiles of some unique programs that offer DIY-style learning for students at a pre-college or vocational training level.

A.2 How to Find a College

Search Sites

These are the traditional online databases—not too different from going to a bookstore and browsing the college guides, which you should also do.

NCES College Navigator
http://nces.ed.gov/collegenavigator/

This is a free, unbiased, comprehensive source of information from the government. It allows you to search for schools by tuition, how hard they are to get into, location, and whether they offer distance learning, among many other options.

Peterson's
http://www.petersons.com/

This is one of the best-known commercial sources for college information. They have a separate guide for distance learning programs.
http://www.petersons.com/college-search/distance-education.aspx

Unigo
http://www.unigo.com/

Unigo is a way to find out about colleges from students themselves. You can read reviews and ratings from real students: "The students at UC Davis are active and getting ready to take the world head on," writes one senior. You can log into the site using Facebook to build a profile and take quizzes that will help you match with colleges based on your price range and how well you did in high school. It's all free.

Social Sites

These sites are a bit more interactive. Not only can you find colleges, but they can find you if you build a profile.

Connect!
http://www.connectedu.net/

Craig Powell grew up in a lower-middle-class family in Missouri. Sports landed him on scholarship at a private high school, and, he says, "my jaw dropped" at the resources and guidance available to the students there to help them connect with colleges—everything from planning accelerated courses to finding targeted scholarships. He ended up at Brown University, "a college I'd never heard of, and an absolute gamechanger for me." Eventually, he got to work trying to level the playing field for students like him using technology.

Connect! is a Facebook-like platform that works like a virtual guidance counselor. It suggests high school courses and prep courses for standardized tests based on your interests and past performance. It stores your information so you can

streamline the college application process. And based on the information in your profile, colleges can come to you. "I put my accomplishments—computer programming awards I've won—my goals, my GPA, my grades, the classes and AP courses that I've taken," says Adely Calixte, a 17-year-old junior at Edison High School in Miami, FL. "Colleges can actually see what you're all about, and you can connect to the colleges and see what they offer and see what scholarships you're eligible for."

Adely's school district, the Miami-Dade Public School District, is using Connect! in all 89 high schools to try to improve college enrollment while saving time and money. Besides Florida, Connect! is currently available to students in Texas, Detroit, and Massachusetts, and a consumer version—available to every student, everywhere—will be out in July.

Schools App

Another option for connecting with certain colleges online is the Schools App for Facebook. (This is different from individual colleges' Facebook pages.) A range of colleges are using it, from Maricopa Community Colleges, a huge public district in Arizona, to Columbia College, a private school in Chicago. The idea is to help you connect with other students, faculty and alumni over common interests.

Zinch
http://www.zinch.com/

"You are more than your test scores," says Zinch CEO Anne Dwayne. On Zinch you can make a nice-looking professional profile with all your accomplishments, whether sports team videos or band concerts. Indicate your interests and colleges will contact you, with your permission. You can exchange messages with college admissions officers, who also have profiles on the site, and be matched with scholarships. There are about 850 colleges using the site, many of which are very prestigious.

BOX: Online vs. For-Profit Colleges

Finding a quality online college program can be tricky. Many, though not all, online colleges are operated by for-profit companies. If you're searching on Google for online college programs, most of the results will be from for-profit companies because they spend so much money on marketing. Some of the largest and most well known are the University of Phoenix, Kaplan University, Capella University, and DeVry University.

There are many satisfied graduates of these colleges. And two of the colleges profiled in this book, Straighterline and Ivy Bridge, are for-profit as well. But the Edupunks' Guide can't recommend you attend any of the large for-profits without doing extensive background research on your own. Too many for-profit colleges, especially the big players named above, have gotten in trouble repeatedly over the years for misleading recruitment practices, financial fraud, and other

problems. Besides, for-profits cost an average of over $14,000 a year, far more expensive than either the public community colleges that offer a similar quality of programs, or any of the programs profiled in this book.

Individual for-profit career colleges focused on vocational and technical fields may be a better bet than large chains, but you have to take them on a case-by-case basis. Read the tips for finding a good certification or licensing program in the next section. If the program you're looking at does not lead to any kind of official license or certification, it may be lower quality.

College Choices for Adults http://www.collegechoicesforadults.org/ has the best information for online education programs. It's easy to compare colleges by measures of student engagement, student demographics, and results of alumni surveys.

http://www.distance-education.org is another site that lists a large number of online programs, including those operated by public universities. In general, as a rule of thumb, the word "State" does not appear in the name of a for-profit university.

Being nonprofit, of course, is not a guarantee of quality. But it's a good place to start. If you're confused about whether a college is for-profit or non-profit, just ask the recruiter or admissions office.

A.3 Professional Licenses and Certification Programs

Shelly Alcorn doesn't have a BA. It took her nine years to get her associate's degree while working and raising children, one class at a time. But as the graduate of a vocational high school program that prepared her to be a certified dental assistant, she started her working life at a higher hourly wage than anyone she had gone to school with.

Today Shelly develops curricula herself for the world of nonprofit associations, whose professional license and certification programs offer an important alternative for those who may not fit the standard college mold. "Many of us working in associations are attempting to develop really innovative paths for people," she says.

Almost six hundred nonprofit industry associations in the US offer a whopping 1663 licenses and certifications that can qualify you for specific careers, from state-licensed massage therapists to LEED-certified green building specialists. You can browse them at http://careeronestop.org/ and http://www.certificationguide.com/v2/. You can also find apprenticeships through the US Office of Apprenticeship at http://www.doleta.gov/oa/.

Licenses are state-regulated, while certifications are privately organized by industry. That means licensed professions are generally more likely to require an associate's or even a bachelor's degree as well as the test.

The country desperately needs people with specialized alternative postsecondary

training.

Even in the worst of this most recent recession, the New York Times reported, employers had unfilled openings for welders, critical care nurses, electrical linemen, and respiratory therapists. In fact, according to a 2011 report by the Georgetown Center for Education and the Workforce, the economy needs to add far more people with postsecondary certification (4.7 million) than those with only an associate's, bachelor's, or graduate degree (3 million). Moreover, 43% of people who earn professional licenses or certifications out-earn those with associate's degrees only, and 27% out-earn those with bachelor's degrees. Not too shabby!

But before you sign up for that license or certification course, read on.

- This kind of training is generally narrower than what you'll find in a regular college program. It should help you get a better job, but it may not expand your personal horizons. Think of the certification as one stop on your personal learning path. (See section C.2 for more tips on being a lifelong learner.)

- You don't necessarily have to go to school to get certified! Some credentials do require an associate's degree. But others are awarded based solely on standardized tests. You have the option of studying for these on your own, using manuals and the self-learning techniques explored in Section C. Or you can go through a training course or apprenticeship administered by a community college, a union, a nonprofit association, or a for-profit career college.

- Since the training is really specific, you need to be sure about the field you're entering. Speak to people employed in it, or get a related job (working at the front desk in a gym is a good idea if you're thinking about becoming a personal trainer, for example). Don't enter into a certification course based only on the ads or what an enrollment counselor at a career college tells you—that can set you up for disappointment. Check out http://careeronestop.org/ to get the true story on employment trends and demand for particular careers. (See section C-6 for more tips on networking your way into a future career.

How do you pick a quality license or certification?

"Many of the medical and health care certification programs are very high quality," says Mickie Rops, who advises industry associations on credentialing. "It may be because they've been around the longest." She also tells certification shoppers to look for certifications that are accredited by the American National Standards Institute or the National Commission for Certifying Agencies.

ANSI accredited programs generally relate to medicine, construction, or computers. They are listed here and identified by a four-digit code. https://www.ansica.org/wwwversion2/outside/ALLdirectoryListing.asp?menuID=2&prgID=201&status=4

NCCA accredits mainly health-related professions, which include midwifery and

personal training. A full list is found here.

http://www.credentialingexcellence.org/NCCAAccreditation/AccreditedCertificationPrograms/tabid/120/Default.

- If you're going for a newer license/certification, or one in an area outside these fields, you have to do some detective work to find a worthwhile badge to shoot for. Good professional certifications work backwards from the workplace itself. "Every five years we do a national study to find out what pharmacy technicians are working on," says Melissa Corrigan, CEO of the Pharmacy Technician Certification Board and president of the Institute for Credentialing Excellence. "You're taking a snapshot of the practice or profession. We ask people what functions they perform and how often and how critical they are to the protection of the public. And even though we build a very comprehensive list of what we think is going on, we also have a trending list of what's happening in the future—things like the effect of health care reform and medications that have been pulled from the market." The organization that issues your license should be able to talk about the process by which they develop the test, so you can find out if it's a test worth taking.

Community colleges like Foothill are a good place to train for a state licensed or certified profession.

Foothill College
http://www.foothill.edu/index.phpHybrid
California

Being a dental hygienist requires an associate's degree as well as a state license. Dental hygenists assist dentists by doing basic cleaning and patient education. This is the 14th-fastest-growing occupation in the US and also one of the highest-paying positions requiring just an associate's degree, earning $67,400 a year on average.

At the dental hygienist program at Foothill Community College in Los Altos, California, close to the Silicon Valley headquarters of companies like Apple and Google, there's a big room lined with over 20 dentist's chairs. Students are kept busy during the week treating patients from the community, meaning plenty of hands-on experience—a big plus for any vocational program.

"I found it in a career book and I'm like, I think this sounds good, so I went to a vocational college for eight months and I got a certificate there," says Dawn Breaux, 25, who started as a dental assistant before coming to Foothill. "It's a new adventure with every patient! You have 50 year-old people with baby teeth still in their mouth, and sometimes teeth grow in weird places: on the roof of your mouth, the side of your neck, your nasal cavity…" Dawn never loved school, but being in a program that's so closely tied to her future work helping people makes it easier to hit the books. "At first it's very overwhelming. It's a lot of information and you think you can't learn it all, but everyone is very encouraging. Because

you're hands-on using it, you start to realize why you need to know things like how microbiology works, how the body functions with infections, how inflammation can cause different organs to do different things and why it's so important to have a healthy mouth. It's great when you can pass your knowledge on to your patients and they get it and start brushing their teeth."

Besides classes, state exam prep, clinic hours seeing patients and Friday rotations with a local dentist's office, there's a technological component to the dental hygienist program at Foothill. The students fill out websites with information and evidence on their backgrounds, their interests, their research projects, community service, and patient education activities. These sites, called "e-portfolios," are growing in popularity as a new style in assessment, one that's more authentic, more well-rounded than a test, and that allows students to take an active role in understanding what they've learned. "Basically it helps us reflect on what we've learned, review and put it in writing," says Dawn. Kanistha Shah, another student, adds, "It's a great tool for us to show our employers. I know people who've made it public to their potential employers so they can see their fields of expertise."

Check your local community college for degree programs leading to state license and accreditation.

A.4 Alternative Programs for Pre-College Learners

Do you need to get your GED? Are you a veteran? Are you still in high school? There are special programs that offer alternative paths to a degree.

Adult Basic Education:

LearnerWeb
http://www.learnerweb.org/

A website that provides structure and resources to users with specific educational goals, such as getting their GED, going to college, or preparing for a better job. Users are given plans that include use of community and online resources.

Stephen Reder, a linguistics professor at Portland State University, is one of the creators of this program, which is modeling how technology and self-learning can be used to help the learners who need it the most. "I was involved in a nearly 10-year-long study of 1000 high school dropouts," he explains. "One of the things that really astounded me was that, contrary to many stereotypes people have about high school dropouts, they often have goals, but what they do lack are realistic plans to follow to get from where they are to where they want to go."

That's where LearnerWeb aims to help. Starting from a goal such as "learn English," "get a GED" or "get a better job," the site provides clear, detailed, multi-step learning plans to connect them to the resources and information they need.

While LearnerWeb provides an experience of self-accessed, self-directed,

digitally enhanced learning, Reder is careful to point out that it's not intended to be a standalone website. It's a platform that's meant to work in conjunction with an organization on the ground, like a community center, welfare agency, or even a public library, that has support staff to help people.

When you start an account on the site, you designate a person to be your tutor or teacher. They have access to your portfolio and can track your progress. "This is an attempt to blend human and online resources to help people become digitally literate and maybe eventually get to college," says Reder. LearnerWeb is currently being used by community nonprofits and public agencies in Boston, New York, Washington, DC, St. Paul, MN, and Providence, RI, as well as Oregon where it started. You can look on the site under Current Partners http://www.learnerweb.org/infosite/currentPartners.html to find places where it's available.

Melvin Doran, aged 64, is using Learner Web at the Hubbs Center, an adult basic education center run by the St. Paul Public School District in St. Paul, MN. He's catching up on math classes, in hopes of returning to community college for a degree in repairing robotic manufacturing machinery. While Melvin prefers being in the classroom, where he can ask a question if he doesn't understand something, he is getting used to learning math on the computer: "You have to really be awful patient. It's hard to back up, so if you don't catch it you have to start from the beginning." And he says spending so much time online is having other benefits.

 "I had a computer at home, but I'm finding out more about the Internet than what I knew," he says. "I didn't know how to type, but I'm getting better. And my curiosity is getting more and more. What they call Powerpoint, Word—anything that comes up I have to do it. Right now I have an assignment for an essay and I intend to go on the Internet and find more information."

Amanda Phillips, aged 19, is at the Hubbs Center preparing for her licensing test as a certified nursing assistant, combining a face-to-face prep class with Learner Web to help her study. She works up to 34 hours a week at a Wendy's, so being able to do some of her work online really helps. "I probably spend 30 minutes or an hour on it every day. You can study the vocab, watch videos, take pre-quizzes." She calls herself a "computer whiz," is acing her class, and says she likes coordinating her work with her teacher. "With Learnerweb and Quia [a self-quiz site, listed in section C] she can look at both and see what we've done. She can see how many times we took the pre-quiz, see how we're doing. If we need to study more she'll let us know."

Veterans: Purple Heart Services
Online
http://www.purpleheartservices.com/

Purple Heart Services is an online education program designed to help disabled veterans reenter the civilian world. It offers online vocational training in customer

service and computer technology. After the program, PHS provides job placement services.

Joe Williams, 48, retired from the Army in 2009. He lives in Northern Texas. "Doors close on a lot of vets because they don't have the experience," he says. "What PHS does is they take the disabled veterans, and they send you a computer, and they train you to work at home, with pay, for 17 weeks of training. They give you the basics about computers, computer technicians, customer service/help desk training. It's very high tech and once you finish they help a lot. I only had 2-3 weeks lag time between when they called me back and offered me a job. It wasn't what I dreamed for, but it was a foot in the door. Sooner or later I was offered a work contract, and now I'm working with a large management development company based out of OH. I'm contracted to work for them as a help desk analyst."

Williams says there's a strong connection amongst the students in the class because of their shared background as vets. "I keep in touch via email, messaging, chat. One of the guys, Mike, lives in Texas, and I met him when I went on vacation." He also says:

"The skills you learn in the army, they may not relate directly, but they do as far as your interpersonal skills. You learn to be well disciplined, that's what the military's about, and you have that can-do attitude, you're flexible to change. So when things change all of a sudden you can adapt very easily and overcome."

Other vocational training, apprenticeship, and networking programs for vets:

Helmets to Hardhats
http://info.helmetstohardhats.org/content/index.jsp

Designed to help returning veterans make the transition into construction careers.

In part a web-based program that offers job postings, in part a network of directors and volunteers that arrange training and apprenticeship programs and connect service members to different fields within the construction industry according to their abilities.

Veterans Inc Employment and Training
http://www.veteransinc.org/services/employment-training/#training

Offers career counseling, onsite and offsite training for jobs in computers, construction, and healthcare. Includes an innovative Mobile Education Center—a classroom on wheels with computer workstations and Internet access—that brings computer literacy classes and training to veterans in rural areas and those who cannot travel to training sites.

TCNI (Turnkey Construction Management Institute)
http://www.veterantraining.com/

Offers certified online OSHA courses and approved Turnkey Institute distance education courses in construction estimation, project management, and for construction superintendents. A division of Turnkey Institute geared specifically towards military veterans. Correspondence courses are also offered for on-duty vets stationed in other countries.

iVet
http://ivet.us/

Offers computer packages and training to help veterans re-enter the job market in a technology field. Five different career paths can be chosen (Accounting, Web Design, Graphic Design, Liberal Studies, and Engineering) that come with customized computer packages and extended training. For example, Accounting Level 1 training comes with a customized computer and 8 hours of training in QuickBooks and Excel.

VICE (Veterans in Construction Electrical)
http://www.viceforvets.org/Veterans_In_Construction_Electrical/VICE_Home.html

A 14-week training program for veterans with aptitude in the electrical industry. (Washington state only, but an example of the programs funded and recommended by Helmets to Hardhats.) Sandler Veterans Training http://www.veteransatwork.com/sandler.html Offers free sales training and business introductions to vets discharged from any branch of military service from 2002-2010.

North East Veterans Resource Center
http://www.nevbrc.org/about-us/mission/

Not a vocational program, but a training and mentorship program for veterans looking to start or operate small businesses. Business Center offers licensed business courses as well as workshops and seminars. Also provides a one-on-one coaching program with counselors who are themselves former veterans.

High School—Early College

Foothill College Middle College Program
http://www.foothill.edu/programs/middle.php

Hanna Lauterbach, 16, was more miserable in high school than the kids on Glee. "I thought I was wasting a lot of time in class," she says. "I didn't do badly, but I was really bored and really angry." Luckily, her high school offered a different option: Take college classes while still in high school at her local community college.

Today she's taking a challenging schedule of calculus, computer programming, American history and literature. "It was tough at first, but I've come to enjoy it because it's quite a bit faster than a high school class. I'm a pretty fast learner so I'm able to progress more, and I like learning at that pace and being more self-

directed. Your college classes get paid for, and college goes a lot faster." When Hanna goes off to college she'll have a full portfolio of transfer credits under her belt; some of her fellow students have the option of transferring to a four-year college as juniors by the time they reach 18, and they also have more time to work while they're in high school.

"In college, you have to want to learn," Hanna says about the advantages of her new program. "In high school I got beaten down to where I really didn't want to be coming there. But when I go to my calculus class now I think, oh wow, I'm going to learn something new today. So it's valuable that way."

Community colleges all across the country enroll a select number of high school students. This can be a great option for younger edupunks. To do it, you'll need your high school's and your parents' cooperation. To learn more about early college programs near you, go to http://www.earlycolleges.org/overview.html

Online High Schools

Florida http://www.flvs.net/Pages/default.aspx and Utah http://www.openhighschool.org/ have online public charter high schools. While Utah's uses open course materials, only Utah students can enroll. The Florida Virtual School is free to Florida residents and open to students all over the world for tuition fees. You can enroll full time or take individual courses to pursue an interest, get an extra AP credit, make up for lost time, or save your schedule for other interests.

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B: Finish Line

You've taken some college classes, but they currently fall short of a degree. You're far from alone—only 15% of those who start at a community college complete their degree within three years, and less than 60% of those who start at a four-year college have finished within six years. You may have a few years in the workforce under your belt and a family at home, and you've wondered if it's possible now to go back and finish your credential without having to start all over. Well, it IS possible—in fact, it's easier than it's ever been before.

The colleges and programs profiled in this chapter are all built around two truths: most students don't start and finish at the same place, and lots of important learning takes place outside school. These programs are focused on assigning credit for prior learning, and portability of credits from place to place. At traditional colleges, transferring credits from another college or "testing out" of credits can be done, but it is often difficult. This section also contains a guide on how to get the most for your credits at a traditional college program.

Coming into college with some prior learning or transfer credits has lots of advantages. First, obviously, it means you can finish faster because you're not starting at the beginning. One study found that students who earned some credit for prior learning finished anywhere from 2.5 to 10 months faster. Second, the people who run these programs tell me that the process of reviewing credits for prior learning, especially when you put together a portfolio, is valuable in itself. You take the time to reflect on what you've learned and to think about how it fits in to what you want to learn in the future. Research has shown that students who earn credit for prior learning get through their remaining credits faster and are more likely to graduate. Third, you can save money. According to the Council on Adult and Experiential Learning, you can save between $1600 and $6000 for 15 credits, depending on the kind of college and the pricing of prior learning.

But colleges are not obliged to accept your transfer credits or prior learning credits, no matter where they come from. Historically, whether out of a sincere belief in the superiority of their own offerings, or the desire to maintain a competitive edge, colleges have put limits on the amount of transfer credit they accept. They also reserve the right to use transfer credits only for electives, rather than letting them satisfy core requirements. Another tricky point is that you won't get your college's final word on how many credits are accepted until you've already made the decision to attend and gone through the trouble of assembling a portfolio.

The institutions profiled in this chapter all specialize in awarding credit for prior learning, so you'll find an easier road here than elsewhere. If you'd like to try to get transfer credit at another institution, read on. You'll be striking a blow for independent learners everywhere.

Box: Tips on Getting College Credit for Prior Learning

1) Documentation, documentation, documentation. Even if you have an American Council for Education (ACE) credit recommendation, it doesn't hurt to put together a portfolio. Basic components of a prior learning portfolio include a written narrative about your learning, how it satisfies the requirements of a particular course, and evidence such as photographs, audio, video, and letters of support.

2) Seek support from a sympathetic professor or administrator who can speak to how your volunteer experience in India will inform your studies in the anthropology department.

3) You can appeal college credit decisions. An organization like ACE or CAEL, the Council on Adult and Experiential Learning, may be able to help you. In fact, that's one of the reasons CAEL started Learning Counts (for more on LearningCounts, read below).

B.1 College Credit Services
These are standalone paths to college credit based on learning done elsewhere.

For High School Students Only:

Advanced Placement (AP)Tests
http://www.collegeboard.com/student/testing/ap/exgrd_get.html
Cost: $87

Administered by the College Board. Usually taken in high school after corresponding AP course, but can be taken without it. Individual colleges determine scores needed to receive course credit (usually at least a 3 out of 5). Most colleges will count AP credits towards graduation, but some (mostly upper-tier) universities allow students to use AP credits only to bypass introductory level courses. Currently, 32 exams are offered; among the most popular are US History, World History, English Literature, and Calculus. Many states will subsidize the cost for all or certain populations of students independent of the College Board (which does not subsidize).

International Baccalaureate
www.ibo.org
Cost: $92

There are 50 different IB exams. Students can only sit for exams in courses that they have taken at their IB-authorized high school, as part of the exam grade is based on classroom work. Exams are graded on a scale of 1-7, and, similar to AP tests, can be used to fulfill credits depending on the grade received. Grades of 5, 6, and 7 are usually accepted for. A $135 fee is charged to a student taking one or more exams in a semester, and there is an additional $92 fee for each exam. Some schools and districts will cover costs of IB exams.

For Everyone:

ACE College Credit Recommendation Service (CREDIT)
http://www.acenet.edu/AM/Template.cfm?Section=CCRS

The American Council on Education is a trade association representing all accredited US colleges. Their Credit Recommendation Service translates approved forms of military and workplace training—like that offered by the professional associations in section A.3—into recommendations for college credit. Eighteen hundred institutions around the country accept ACE credit; the list includes a lot of community colleges as well as some state universities.

Earning ACE credit is a three-step process.

1) Find the training program or exam you've taken on this site: http://www2.acenet.edu/credit/?fuseaction=browse.main

Each course has an ACE code number.

2) Request an official transcript (ACE will contact the organization on your behalf) https://www2.acenet.edu/credit/?fuseaction=transcripts.main It's $40 to open the record and $15 for each additional transcript.

3) Once you have an updated ACE transcript with all of the approved courses or exams that you've taken, you can use it to request college credit or advanced placement credit. Note that colleges are not obliged to accept your ACE credits and their policies vary widely. ACE can help you appeal the college decision— contact them at credit@ace.nche.edu, or by calling (202) 939-9434.

CLEP Examinations
http://clep.collegeboard.org/?affiliateId=rdr&bannerId=clep

The College Board runs the College Level Examination Program. They give 33 separate tests, covering entry-level college subjects in English, business, history, math, science, and foreign languages. The 90 minute exams are administered at testing centers on computers, so you can see your score immediately after you finish. CLEP credits are accepted at 2900 colleges nationwide. The website has study guides you can download for a fee and lots of information on how to prepare for the tests, when and where you can take them, and how to get college credit for them.

UExcel
http://www.uexceltest.com/
Cost: - $85

A new program, UExcel offers seven different examinations covering the content of typical low-level college courses—calculus, psychology, political science, college writing, physics, and statistics. Administered at Pearson VUE testing centers (exam locator here: http://www.pearsonvue.com/vtclocator/)

DSST
http://www.getcollegecredit.com/learners.html
cost:- $80

Exams are targeted specifically at military personnel (though are now commonly administered to civilians as well) and can be administered at military installations as well as local college campuses via the Internet or on paper. DANTES (Defense Activity for Non-Traditional Education Support) funds Internet-based exams for military personnel and qualifying civilians. DDST offers 38 exams in diverse subject areas, usually less general than CLEP subjects. Examples include: substance abuse, health, public speaking, Vietnam war history, and intro to world religions. Designed to allow students to get college credit (usually, per ACE recommendations, up to 3 baccalaureate or upper-baccalaureate credits) for previous learning experience outside traditional classroom settings, including on-the-job learning experience.

Defense Language Institute Proficiency Test
http://www.uscg.mil/hq/capemay/education/dlpt.asp

Designed to assess the foreign language skills of military and civilian personnel, but accepted by many institutions for credit and accredited by ACE. Tests measure ability to function in real-life situations in a foreign language. There is no fee.

LearningCounts
LearningCounts.org

Learningcounts.org is an exciting new initiative for DIY learners by the nonprofit Council for Adult and Experiential Learning (CAEL). It's a national service for Prior Learning Assessment (PLA). You can call the organization and talk to someone who will walk you through all the possibilities for earning college credit for what you already know. You can also submit a portfolio that shows your prior learning in order to earn credit directly. CAEL plans to use Learning Counts to work directly with colleges to increase their likelihood of accepting credit for prior learning.

"Lots of institutions have a PLA policy on the books but don't do much of it in fact," says Pamela Tate, CAEL's CEO. "An amazingly small number of people actually get credit for prior learning." CAEL as an organization has pioneered a lot of the research on the value of prior learning assessment and portfolio-based assessment, so they decided to create this site so that more people could take advantage of the opportunity to earn credit through prior learning.

"Anyone who thinks they might have something they've learned at the college level--they could have learned it through courseware on the Internet, military, jobs, volunteer work--they can come forward and say to one of our trained advisors on the phone, 'I'd like to consider getting my learning assessed,'" says Tate.

First, the advisor will ask some screening questions to figure out whether you're a candidate for prior learning. If they determine you are, you have some options. You can earn the credit through an ACE recommendation or a CLEP exam. Or you can earn it directly through LearningCounts' online portfolio class.

The 6-week course costs $500 plus $50 for each credit you want to have evaluated.

The class teaches you how to create a portfolio, with a narrative describing what you've learned and how it satisfies specific requirements and objectives, as well as evidence such as performance awards earned at work or from volunteer organizations, news articles, audio or video. LearningCounts has 500 people with specific expertise from around the county who have agreed to serve as portfolio reviewers, and they're adding more to cover every possible area of academic expertise from gardening to drama to nuclear physics.

"Let's say you were a banker for 20 years but you never got a college degree. You think maybe you could request 15 credits in business and finance. You would go through a faculty evaluator in each area of expertise that you're putting forward," Tate says. Once a faculty member reviews the portfolio, the credit will be added to an ACE transcript and submitted to the college of your choice for review.

Briana Taravella, 54, works as an administrative assistant at Thomas Nelson Community College in Virginia, one of LearningCounts' pilot institutions. When the news came across her desk that Thomas Nelson would be selecting five students to take the portfolio course, she decided that she had to be one of them. "I took a secretarial course at ITT Business Institute back in the 70s. Back then it was not an associate's degree. I've been a secretary for 30 plus years now, so there should be a way for me to prove I can write a business letter so I don't have to start all over again." Briana ended up assembling portfolios for a total of 18 credits. She calls it "a grueling process." For each 2 or 3 credits, she had to write at least a 15-page narrative full of examples and footnotes and submit extensive supporting documentation like old transcripts and professional evaluations. She also got her supervisor to write a testimonial letter.

Briana shared one of her learning narratives with the Edupunks' Guide. In order to get credit for Business Letter Writing and Editing/Proofreading Skills, she wrote, in part:

"I am requesting prior learning assessment for my experience in business letter writing and editing and proofreading. After being employed in the administrative world for over 30 years, my knowledge, understanding and application abilities have grown over the years to the point that many co-workers and superiors consider me an expert. My coworkers share their documents with me, and I edit and proofread their correspondence, flyers, brochures and manuals. In this learning narrative, I will explain my learning related to communication fundamentals, technology,various documents and editing and proofreading."*

(Full narrative available appendix x)

The narrative is extensively footnoted and covers almost her whole career. It includes her experience with generations of communications technology. "I worked at the Watergate Hotel in the 70s when we had a Xerox machine that took up an entire room!" she says. She says going through this process has been very validating, as it's helped her realize exactly how much she does know and allowed her to reflect on her life and career. "You really have to tap into the recesses of your mind. It's given me a lot more confidence because I realize what I have done in my life." Although the $500 fee for the workshop seems steep to her (the cost will be $750 if she ends up with every credit that she's trying to get) and the software has, at times, been cumbersome to use, she is very glad to have this opportunity to "speed up the process" of her education and get credit for what she already knows. And, she will be saving money compared to earning the credits at Thomas Nelson.

Briana points out that, in order to get college credit for prior learning through a portfolio, you need very strong writing skills. We're talking about a 15-page paper for each class that you want to get credit for. You also need some tenacity to get through the process, although they are streamlining it in some ways as it gets out of the pilot phase.

LearningCounts is currently building partnerships. About 100 colleges have agreed to send students their way. In addition, they're doing a pilot program with Starbucks baristas. Starbucks is providing tuition assistance, and CAEL is providing career and education advising, plus assessments that can allow baristas to earn course credit for their training in restaurant hospitality, basic health, and even the intricacies of coffee roasting.

For those interested in the future of open learning (for more, read section C) LearningCounts offers a tantalizing possibility for earning bona fide college credit for learning done in free and open networks—for example, by watching videos and completing exercises from websites like Khan Academy (www.khanacademy.org), the Open Learning Initiative (oli.web.cmu.edu/openlearning), or MIT Open Courseware (ocw.mit.edu/), or working with peers on a course at Peer 2 Peer University. "We think we'll see a lot of people taking courses for free and coming to us for credit," says Tate. This could be an amazing way to do learning at your own pace, at an extremely affordable cost of $50 per credit.

BOX: 7 Ways to EARN College Credit Without Taking A College Class

1) ACE CREDIT recommendation
2) CLEP Exam
3) LearningCounts.org Portfolio
4) Excelsior College Examination
5) DANTES exam http://www.getcollegecredit.com/
6) WGU Assessment

7) UExcel Test

BOX: 7 Ways to LEARN College Material for College Credit Without Taking a College Class

1) Professional certification (eg. Microsoft certification)
2) On-the-job training
3) Military training
4) Volunteer work
5) Travel (especially in a foreign language)
6) Life experience
7) Use of open courseware/participating in open learning

Professional Education Credits

In addition to the standalone licenses and professional certifications detailed in section A.3, there are other types of continuing education credits offered by technology companies and professional associations. These may prepare you in themselves for a job, or they can be transferrable to college credit. Some examples:

*the TESOL test (Teachers of English to Speakers of Other Languages) can qualify you to teach English overseas. http://tesol.org/s_tesol/index.asp

*Asis International (http://www.asisonline.org/) certifies security professionals.

*The insurance, accounting, finance, and aviation industries have a wide array of professional certifications.

*IT industry certifications are administered by companies themselves. Microsoft has one of the best-known certification programs. They offer exams to certify you at the level of a "specialist," "expert," or "master" to use its various products, ranging from Microsoft Office to security to Windows technologies. A Microsoft certification is required for certain jobs and can help you be considered for other jobs in the technology industry.

http://www.microsoft.com/learning/en/us/certification/cert-overview.aspx

Most other large technology companies, such as Cisco, Oracle, IBM, Apple, and Dell all run their own certification programs. To find them, search for the name of your favorite software company and the word "education."

Instead of a certification program, Mozilla, the nonprofit that builds the web browser Firefox, is starting a "badging" program to better reflect the way people learn and participate in open-source software communities. http://www.cisco.com/web/learning/le3/learning_career_certifications_and_learning_paths_home.html

http://www.oracle.com/us/education/selectcountry-new-079003.html

There are lots of independently published textbooks to help you study for all of these exams, and you can also find courses at technical colleges, community colleges and online.

Genevieve L'Esperance is a true edupunk. She grew up in Montreal as the daughter of two computer programmers and the tomboy younger sister of two older brothers who helped her get addicted to video games.

"The love of my life is Diablo—the second version," she says. "It's a fantasy game where you're all these different characters—a warrior, a sorceress, a necromancer, a barbarian."

At 14 Genevieve attended the Microsoft Worldwide Partner conference, a chance for people who develop programs on and service Microsoft software to network, with her parents. She met a woman who was running a technology school in India and got excited about the idea of sharing her knowledge of technology with other girls around the world. "I wanted to be part of it instantaneously." But first she had to get certified in Microsoft technologies so she'd have a solid background to teach.

A Microsoft certification is required for certain jobs and can help you be considered for other jobs in the technology industry. There are lots of independently published textbooks to help you study for the exam, and you can also find courses at technical colleges, community colleges and online.

Gen started studying on her own with "these huge thick textbooks." "I didn't mind learning by myself. I didn't want to do the courses where you have to pay somebody to teach you—I wanted to do it on my own." She passed her first Windows certification at age 15, her 2nd at age 16 and is currently working on her third for Windows 7. Her mother, who was studying for a new certification of her own, helped her study, and her brothers offered advice too.

She also worked with a tutor over Skype who focused on the other part of what Gen wanted to do—be a teacher herself.

Gen founded GenInc, http://geninc.tv, a web channel, at age 18, in order to educate girls and young women about technology, as well as Teaching Kids Programming (TKP) to hold events and classes for girls in Microsoft Small Basic programming. She has traveled around North America teaching groups of mostly girls programming in a variety of different settings—at high schools, conferences and events set up to do just that.

The classes are very participatory. "There are 2 girls to a computer. I can teach but they have to learn it with their partners. It's instantaneous—at that moment, they're learning to be programmers."

"You're doing the stuff as it's being taught to you. So it gets reinforced in your head—you're just focused. A lot of times every single girl will have called me over to see what they've created.

I find that really exciting because in my experience girls were supposed to behave in a certain way—not supposed to be playing with the trucks and the Legos, playing with the Barbies and the hair colors. Here they're using their math skills, really showing off their intellectual side."

With all of her experience as a teacher at a young age, as well as her prowess as an independent learner, Gen takes a pause when asked why she is headed off to college at all (at McGill, one of the most prestigious universities in Canada).

"Sometimes I wonder why I'm even going to Uni," she says. "But my mom puts a high value on PHDs and dissertations and degrees." Besides, she says, "There's nothing wrong with having the degree. I have my summers, weekends, and evenings to explore my own interests. The education system has some stuff to offer, and I know life experience does too, so I'm trying to balance both. I want the best of both worlds I suppose!"

B.2 On-ramps to College

Colleges like IvyBridge and Straighterline focus on cheaper and easier access to college courses that you can then transfer elsewhere.

Ivy Bridge
http://ivybridge.tiffin.edu/
Online

Ivy Bridge is an affordable for-profit college that allows students to complete up to two years of their general education requirements, earning an online associate's degree, and transfer to bachelor's degree programs through articulation agreements with more than 65 four-year colleges.

Sandra Smith is 28 and lives in West Salem, OH with two children aged 6 and 4. Her husband is a truck driver and she has worked mostly at waitressing or bakery jobs since graduating from public high school. The downturn in the economy spurred her to try go back to school for the first time, for nursing. "I like to help other people, so I made up my mind that this is what I'm going to do." Smith went online to look for different options and saw that Ivy Bridge was located in Ohio. After filling out the online form she was contacted right away by a recruiter named Adam who walked her through the application process, including applying for financial aid. She used student loans to buy her first at-home computer and get internet access.

Smith is a big fan of the Ivy Bridge program, and she likes learning online. "You can still learn with everybody else and have discussions even if you're not in person. You can write back and forth. It's a great experience, and I love it!" She communicates with fellow students on Facebook, exchanging words of encouragement and advice, and sends emails to professors. In addition, she has a relationship with a "success coach" who calls her every Monday just to see how she's doing. "She guides me, she helps me, she answers any questions I have—she's pretty much like one of my best friends now, even though I never met her."

The only drawback to Sandra's experience is that at the rate she's going, it'll take quite a while for her to finish her associate's degree, let alone transfer and complete a nursing degree. So far she's been eligible for only one or two classes a semester, basic English and technology courses. But at the moment she's feeling very motivated to continue and intensify her studies until she reaches her goal.

Similar to Ivy Bridge is Straighterline.

Straighterline
www.straighterline.com
Online

Straighterline is a for-profit online college that offers courses that cost $39 a month plus $99 a course, or $999 for a full freshman year (10 credits). Personal advisors help students monitor transfer credits smoothly. Straighterline also works with dozens of partner colleges, offering a money back guarantee that ensures you'll be able to transfer credits to partner institutions in order to cut both your time and cost for a degree.

Elizabeth Smith has been doing techno-learning since 1992, when it consisted of community college courses delivered over the local cable station. She's worked in retail, in catering, and as a doula—providing support to pregnant women—for which she was privately certified. When her husband returned from service in Iraq in 2008, she became involved in running support groups for families suffering from post-traumatic stress disorder. As the work became a calling, she decided to finish her bachelor's and earn a master's degree in counseling.

First she enrolled in Charter Oak State College (see below), taking online classes in upper-level writing, feminist history, and other topics "that I found fascinating." In addition to the school's online platform, which included classroom blogs, the class discussions continued on Facebook. She turned to Straighterline to earn some math credits that had proved elusive. "I'd taken a CLEP [a College Board exam] and a Dantes [another alternative credit exam] and they weren't working for me, and I didn't have time to take a whole other class just to get into my master's program. So my advisor told me about Straighterline."

Elizabeth got down to business with the Straighterline college algebra course the first week of summer vacation. Every day she took the kids to the pool and sat next to it with her laptop. "The first week of summer vacation was a 40 hour math week. It was great—I had a private tutor, I had videos, and it was all self paced." At the end of the week she passed college algebra. Today she's in her second semester of a master's program in social work at the University of Maryland, where she plans to continue taking at least one online class per semester. She sees it as a way of keeping her technological skills sharp, from blogging to online collaboration, which she'll need when she's a professional doing continuing education credits, which are usually offered online.

"I've had three friends who have seen me doing this, fitting it in with the kids and a full-time job, like someone else would do knitting or going to the gym, and they've wanted to try it themselves. This is the way learning is going."

B.3 For Returning Champions

This group of colleges specializes in degree completion. You'll find it easier to transfer your credits here, build a personalized degree program, do portfolio-based assessment, and get credit for prior learning.

Charter Oak
http://www.charteroak.edu/
Online
Connecticut

Charter Oak is a public online college in Connecticut. It has been around since 1973 and is more affordable than most other online colleges, due to its public status. It specializes in allowing students to complete their degrees, which means they'll accept up to 87 transfer credits for a bachelor's degree of 120 credits. Like the other colleges mentioned here, they accept credit through standardized testing, military or employment training, licensures and certifications, and portfolio-based assessment. You can earn up to 3 credits at a time for lifelong learning by enrolling in a course in which you build a document consisting of the course description, a narrative of your learning, and documentation to support your learning.

You can enroll in this portfolio course without enrolling as a student at Charter Oak, so in theory, you could get these prior learning credits and then take them to another institution.

"From Charter Oak's Website:

 How can I tell if my learning from experience qualifies for college credit?

To qualify for portfolio assessment, your knowledge must be:

● Content normally taught in a college.
● Applicable across multiple contexts - not relevant only to the specific context or single incident in which you learned it.
●The result of a significant amount of experience: it must have been deep enough and have lasted long enough to provide a real opportunity for you to have learned what you claim to know.
● Able to be described and documented.
● Must contain a mix of theory and application appropriate to the course you are challenging.
● Must be something that is able to be assessed by experts."

Empire State College
http://www.esc.edu/esconline/online2.nsf/ESChome.html
Hybrid

New York

Empire State College is part of the public college system of New York, but it's unique in many ways. They offer both online and on-campus programs, and the in-person classes take place in several locations around the state. They were innovators in prior learning assessment, transfer credit, and personal learning plans. They also have a large population of veterans who receive credit for their military training.

"Students come in and work with a guide we call a mentor to plan an individualized degree program based on their educational goals and their needs," says Joyce McKnight, a faculty mentor and academic coordinator of the college's Community and Human Services division.

"Let's say I was your mentor. I would call you up and I would have a list of all the courses you passed at previous colleges. We could both see them on our online Course Planner. And I would talk to you about your hopes and dreams. We'd be on the phone for one and a half or two hours." Your mentor helps with the task of matching your goals and interests to the framework of academic programs offered by Empire State, to create a personal degree plan. You can design a degree around a problem in society, for example, such as suicide or local food supplies. Your mentor also helps you decide which of the courses you've already taken can fit into your new degree plan, according to Empire's "liberal transfer policy."

Another unusual part of the program is the opportunity to get college credit for experiences such as running a business, military training, professional licenses and certifications, or even a hobby or interest like doll collecting, dance, or theater. In order to earn college credit for these experiences you have to take an online workshop where you reflect on your learning and create a "portrait" of your experiences, which may be a written essay or multimedia documenting what you've learned and how it satisfies college requirements. Empire State has relationships with many subject matter experts, both on faculty and not, who have the ability to evaluate these learning portraits and determine whether they deserve college credit. "We don't give credit for life experience, but learning from life experience," McKnight says.

Through their prior learning assessment program, Empire State is among the first colleges in the country to be open to offering edupunks the opportunity to earn college credit towards a degree via open learning—learning done using the free resources and communities in section C. "You could certainly use open educational resources and package that in a request for prior learning assessment," says McKnight. "What's assessed is not whether you've 'taken' an OER class, but what you've actually learned."

McKnight is part of an international effort known as the OER University (Open Educational Resources University), which is a bunch of professors trying to figure out the best ways that open learners can get assessment and accreditation for

the learning they're doing out there in the wild. (See section C for more.)

Excelsior College
http://www.excelsior.edu/
Online
New York

Excelsior is another innovator in methods of evaluation, assessment, and accreditation for nontraditional learning experiences. They have a long history of military-friendly policies, accepting course credit for military training. They offer a liberal transfer credit policy, with experience evaluating and accepting local and international transfer credits. Like Empire State and Thomas Edison, they have a portfolio-based assessment program where students can write a résumé, document, and package their life experiences, whether in work, volunteering, or travel, for college-level course credit. Unique to Excelsior, the college has developed fifty-one of its own examinations to award course credit in a variety of subjects from "Juvenile Delinquency" to "Global Population." These ECEs (Excelsior College Examinations) are accepted in turn for college credit at hundreds of other universities, though they're far more expensive and less widely accepted than CLEP or Dantes exams.

Thomas Edison State College
http://www.tesc.edu/
Online
New Jersey

Thomas Edison, like Empire State and Excelsior, accepts many transfer credits and is an innovator in credit for prior learning, whether through job or military training, by testing, or through individualized prior learning assessments done with the oversight of a mentor. They do it a little differently than Empire State—at Thomas Edison, you pick a particular course from the course catalog, and "challenge" it by demonstrating that you have the knowledge to pass and get credit for that course or its equivalent. "A common one is public speaking," says David Hoftiezer, admissions director at the college. "You would submit a 6 to 15 page narrative about your knowledge and how you learned it, along with documentation—say, a certificate from a Dale Carnegie speaking course, and videotape of yourself giving a presentation."

Jim Hooper, a 2009 Thomas Edison graduate, could be a national poster boy for prior learning credits. The father of five lives in Lyndhurst, New Jersey and works for an insurance company. After high school he attended state college and community college for a few years, but, "I wasn't ready for college at that point," he says. He earned a paralegal certificate, worked in a law firm for a couple of years, and then shifted into programming, getting training through the Chubb Institute (a for-profit technical college chain in the northeast now called Anthem Institute). Through his work in information technology he got the job at his current company 15 years ago. The insurance industry has an extensive program of licensing, certifications, and professional designations awarded through state-

administered exams, and Jim was really good at taking them. "In 15 years I passed 20 insurance exams," he says. "I study mainly on the train, and my job is nice enough to give us a study day, for cramming on the end."

Despite his wide array of professional training, and a solid job, Jim still felt a need to earn his bachelor's degree. "I want my kids to know it's important to have a degree. I'm also on the school board of my town so I figured it would be good to have my degree. And, who knows where the future will lead?"

He began the process with Thomas Edison in 1999. The first step was to convert his professional training into ACE credits. ACE has an easy-to-navigate online system for submitting evidence and having them convert into credits. Based on his transcripts, exam results and other evidence, they eventually awarded him 70 credits from his traditional college classes, and 76 ACE credits from his insurance, IT, and paralegal training.

120 credits are all that's required for a bachelor's degree, but the 146 credits Jim had taken didn't all line up perfectly with general education requirements. Starting in 2004, Jim began to take the remaining classes he needed at Thomas Edison, all online. "I took a while to really get going, but once I finally started getting serious it didn't take too long." He took a newswriting course, American Lit I and II, and took a test to get credit for a Marriage and Family Life course—figuring that his life experience as a husband and father ought to be worth something.

Lots of Jim's friends are jealous of his accomplishment. At many colleges, old credits expire, which leaves former students "in purgatory," unable to complete their degree. "I don't understand why they won't take old credits—they don't take away your degree," says Jim. "I think they just want more money. That's the beautiful thing about Thomas Edison—they're so flexible. If it weren't for them and ACE I wouldn't have my degree." Today, Jim is considering going back for a master's degree. "I'm proud of what I did and how I finally accomplished it," he says. "And I want to keep learning."

UMass Amherst University Without Walls
http://www.umass.edu/uww/about/index.html
Hybrid
Massachusetts

The "University Without Walls" at U Mass Amherst, a public university in Massachusetts, is aimed especially at adult learners. It offers them the ability to bring in prior learning from CLEP exams, previous college courses, job training, and life or community experiences and combine it with UMASS courses to complete a bachelor's or master's degree. They have special advising services to help students come up with their plans.

Western Governor's University
http://www.wgu.edu/

Online
Utah

At WGU, you can earn your whole college degree by passing tests. They formed as a private nonprofit in the 1990s, when the governors of nineteen Western states decided to take advantage of the Internet to expand educational access to rural students across the region. Today they have 12,000 online students in all fifty states. (The state of Indiana launched its own separate chapter of WGU in the spring of 2011. http://indiana.wgu.edu/)

WGU charged just $2,890 in 2010-2011 for each six-month term—a rate that has been flat for a few years. Why they charge by time, not by credit, gets to the heart of what makes WGU different. "We said, let's create a university that actually measures learning," president Bob Mendenhall has said. "We do not have credit hours, we do not have grades. We simply have a series of assessments that measure competencies, and then on that basis award the degree."

WGU offers fully accredited bachelor's and master's degrees in teaching, IT, business, and nursing. To develop their assessments, they convened councils of employers like Google, Oracle, and Tenet Healthcare, along with academic experts. Before taking each online course, you take a pre-assessment, and if you do well enough, you can skip to the real assessment and pass out of the course altogether. The assessments are not easy: typically these are four-hour timed exams combining multiple-choice and written work. Mendenhall recalled one student who had been self-employed in IT for fifteen years; he passed all the required pre-assessments and took home his BA in six months.

For those who choose to study, not just take the tests, WGU's online course modules are self-paced combinations of audio or video lectures, readings, projects, and quizzes. You work closely with a mentor who checks in with you every week or two; this is a PhD faculty member, certified in the area you're studying. "Our faculty are there to guide, direct, counsel, coach, encourage, motivate, keep on track, and that's their whole job," Mendenhall says. "Our faculty are judged based on the retention rate, graduation rate, and success of the students they're responsible for, and that's how I'm judged too."

B.4 Design Your Own Learning

The completion-focused colleges above are great for working adults with some job experience, family obligations, and maybe some professional training under their belt. But what if your learning plan has nothing to do with what you've studied already? Or what if you don't have much life experience yet? Your edupunk interests may be less about getting credit for what you've already learned, and more about charting your own educational path. The following colleges specialize in designing individualized degree programs. There are more options for open and self-designed learning in section C, but these colleges, unlike those, are all accredited. (The first two, Antioch and CIIS, are also more expensive than the options elsewhere in this guide.)

Antioch University Seattle
http://www.antiochseattle.edu/
Hybrid
Washington State

Antioch in Seattle is a small private college focused entirely on adult learners. They offer students the ability to design their own curriculum with the help of a "degree committee" including a faculty adviser and two more advisers in the field you're interested in. Some examples include:

● Psychology with an emphasis on community health
● Labor relations/organizational and social change
● credits for life experience (also known as prior learning credits).

California Institute of Integral Studies
http://www.ciis.edu/
Traditional
San Francisco, CA

While not as affordable as some of the other institutions mentioned here, CIIS offers an unusual in-person BA completion program for adults who have already had the equivalent of two years of college. It's an interdisciplinary degree that happens in small groups for a valuable liberal arts experience.

College Unbound
http://collegeunbound.org/
Rhode Island

College Unbound is designed as a three-year experiential learning community centered on an internship, job placement or business idea. Each student develops a learning plan tailored as much as possible to a personal passion and designed to dovetail with a job. In three years, the students, who are primarily in their mid-20s and the first in their families to go to college, will earn a bachelor's degree accredited by nearby Roger Williams College. Dennis Littky, the 40-year educational innovator who designed the program, is in the process of expanding it to 1000 students at 10 locations nationwide. The price will remain equivalent to a public university, at about $10,000 per year per student.

Check out the first expansion, the College Unbound program at Southern New Hampshire State University: http://www.snhu.edu/10379.asp (More on SNHU below).

The Ashe Cultural Arts Center in the Central City neighborhood of New Orleans is another organization that will begin offering a College Unbound educational program for local activists: http://www.ashecac.org/

For more on College Unbound, see section C.1. College Unbound students in Providence completed a day-long focus group on open learning sites and technologies to give the Edupunks' Guide first-hand reporting on which ones are

the best to use.

Goddard College
http://www.goddard.edu/
Hybrid
Vermont

Goddard, a nonprofit private college in northern Vermont, specializes in low-residency degree programs for adults. They were the first low-residency adult program in the country. Their program offers a single week of residency per semester followed by independent study with advisers in which students develop their own curriculum rather than taking courses. BA, MAs, and MFAs are offered in a limited list of majors: Individualized Studies, Sustainability, Education, Health Arts & Sciences, Psychology & Counseling, Sustainable Business & Communities, Creative Writing, and Interdisciplinary Arts.

"It's the Oxford model offered to low and middle-income students," explains Associate Dean Josh Castle. "We offer no courses. Every student designs their own curriculum every semester and completes it one on one with a faculty advisor."

Rather than offering tuition discounting, the college chooses to keep its tuition low—around $6400 a semester. They do this by functioning almost entirely as a distance program. Students come to campus twice a year for a week, in January and June, to meet with faculty and others in their major. They design a completely personalized, interdisciplinary program for the semester. Then they go home and correspond with faculty mentors by email or even sometimes regular old mail as they complete their assignments.

95% of students arrive with some form of transfer credit, often from multiple sources; Goddard was also among the first colleges to offer credit for prior learning from life experience.

Maggie Cleveland, 35, is a standout Goddard student. She was on her own by the end of high school and took part-time classes at community colleges while working a string of jobs, from waitress to artist's model. She put school on the back burner when she had a child at the age of 24, and went back when her daughter was two, finally completing an associate's degree in 2004. From there she transferred to U Mass-Amherst's night program in hopes of completing her bachelor's degree, while working full time and raising her daughter and a stepson with Asperger's syndrome.

"I took classes at U Mass for one and a half years. I had 81 credits in English. Then when I went in one day to sign up for the next semester, they told me my program had been canceled for night students. I could change my major— they gave me 5 to choose from—or transfer to the day program, which wasn't an option for me."

So Maggie started looking around for a different option, and found Goddard. "I

was able to finish up my undergrad degree there—it actually cost me less money than U Mass, even being a Massachusetts resident, and I was able to finish it a year sooner." Goddard took 75 transfer credits from courses Maggie had taken elsewhere. The college requires learners who want to get transfer credit to write a statement addressing what they've learned and how it fulfills Goddard's requirements. As a student at Goddard, Maggie researched and wrote a research guide for other adult learners in her community, which you can see here.

After graduating in 2008, Maggie decided to return for an MFA in creative writing, which allows her to pursue a passion as well as a teaching career herself. Her teacher is in Canada. They met at the beginning of the semester and agreed on a reading list for her, and every three weeks she mails him a packet of 40 pages of critical and creative writing, which he comments on and returns to her. "There's a constant dialogue and relationship. My advisor and I are separated by a lot of distance, but you really do develop a relationship with somebody and you get to know them."

Johnston Center
http://johnstoncenter.org/California

The Johnston Center for Integrative Studies is a program within the private University of the Redland's College of Arts and Sciences. It requires students to take responsibility for their own education by designing their own degree requirements - negotiating a contract with a student-faculty committee - and modifying classroom syllabi to fit their personal needs.

Brian Pines is a 21-year-old senior from Illinois studying European philosophy and psychoanalysis.

"I chose Johnston because I really wanted to explore," he says. "I wanted to find several directions that I could take my interests in and then narrow it down; I didn't want to be restricted. I hate when people tell me what to do, especially when it's so personal; the most worthwhile thing I 'm doing with my life is my education." Johnston has no required classes, but instead emphasizes student finding their passions. "By putting all the responsibility on you by saying 'you have to create this,' it makes you think about your future, in a broader sense, more so than you would necessarily have when given a predisposed path. You have to create your own options. " Brian relishes teaching himself, whether with "a fat book" or "a smart professor." He says, "When I'm reading academic stuff and I read a passage I don't understand, I'll go back to the top and reread and reread and reread. Even if I don't understand every word, then I can discuss it with people who are interested in a similar subject. Even if I don't understand precisely, I'll get something out of a passage. That'll be extrapolated into different questions and ideas."

Southern New Hampshire University
http://www.snhu.edu/

Hybrid
New Hampshire.

This small private nonprofit has many innovative programs. The Advantage Program (http://www.snhu.edu/7212.asp) allows students to complete their first two years of core general education requirements at six different satellite locations around the state. Classes are held from 8:30 a.m. to 12:30 p.m. five days a week with the same faculty and curricula as on the main campus. You can earn an associate's degree, and transfer to SNHU or another college to complete the bachelor's degree. "My inspirational analogy was low-cost airlines," president Paul LeBlanc says. "At the end of the day, Southwest delivers exactly the same core experience as a full-price airline: getting you from point A to point B with your bags intact." The Advantage Program costs nearly 60 percent less than regular tuition: $10,000 a year (a figure which has remained flat since 2009).

In addition, SNHU offers 50 different online degree programs, and a College Unbound program (for more on that, see p. TK above).

If the idea of designing your own curriculum within the context of a single institution appeals to you, you can find some more options by Googling "individualized degree programs" or "self-designed majors." Will Shortz, who creates the crossword puzzles for the New York Times and many other places, graduated from the Individualized Major Program at Indiana University in 1973 with the world's only degree in "enigmatology"—the study of puzzles.

http://www.indiana.edu/~imp/

Here are two more individualized major programs to check out:

University of Toledo
http://www.utoledo.edu/call/pdfs/Individualized_Program_Career_.pdf
Hybrid
Ohio

The Individualized Degree Program at the public University of Toledo allows students with at least 20 semester hours of college work under their belts to complete an interdisciplinary, nontraditional degree on a topic that complements their professional interests. Students have earned degrees in Wellness and Health Promotion, for example, or Community Development. You do have to complete some core requirements at Toledo, but you can also include independent study, field experience, internships, portfolios and credit by examination towards your degree.

Trinity College: Individualized Degree Program for Adults at Trinity College
https://www.trincoll.edu/Academics/IDP/
Hybrid
Connecticut

IDP students at Trinity must be at least 23, but you can be either a first-time

college student or a transfer student. They receive up to a 35% reduction in tuition and may design their own majors.

● ● ●

C: Open World

Welcome to the open world!

The resources and organizations profiled in this section belong to the world of open education. That means for the most part that they are free to use, that they are Creative Commons licensed (which means they come with permission to share and remix them more easily without worrying about copyright), and that they are designed for use by equals, or peers. Anyone you find who's acting in a teaching capacity in an open education environment will probably be a volunteer.

Just as the three main "buckets" of traditional education are Content, Socialization, and Accreditation, or the "what," the "how," and the "why," the world of open learning can be divided roughly into the parallel buckets of open content, social learning, and reputation-based networks.

Open content is the "what." Content means textbooks, video and audio lectures, lessons, problem sets, and sample tests and quizzes. The most common form of open content that you have probably turned to for a quick definition or overview of a topic is Wikipedia. Open content, or open educational resources, are found on websites like MIT's Open Courseware, The Open Courseware Consortium, the Open Learning Initiative, Khan Academy, Open Yale Courses, ITunes U, Academic Earth, Saylor.org, Scribd, Slideshare, Textbookrevolution, Wikiversity, and many more (these sites are listed separately and profiled below). In a bricks-and-mortar university, Open Content is the equivalent of the lecture hall and the library.

Open social learning happens on sites like P2PU, OpenLearn, OpenStudy, Wikianswers, Quora, Urch, and even Twitter. These are places where you can ask or answer a complex technical question, form or join a book group, or get help studying for the SATs. These sites can be the equivalent of the pizza and study group, the tutoring center, or the seminar.

Reputation-based networks are places like Behance, Github, StackOverflow, Flickr, Vimeo, and maybe even LinkedIn and again, Twitter. These are places where you can post your work, get recognized for a project or for your knowledge. Think of these networks as your career services office.

While you're taking part in open learning communities you'll quickly find that it pays to be a good citizen who shares, answers questions, and helps others out—it will come back to you.

Open education also means that use of these resources is at your own risk. None of these "colleges" or "universities" is accredited yet, which means you can't earn a bona fide degree here. But participation in open learning communities and networks is an incredible way to improve your learning experience, and to demonstrate value to a professional community, which will

eventually help you find a job. In some special cases, it may even supplant the need for a degree.

C.1 Open Content

To give you an idea of what's possible today in the open world, meet Joseph Frantz.

When I met Joseph he was a 20-year-old junior at CSU San Bernadino, a public university in the windy foothills of the Sierras east of Los Angeles. He left high school at 16 and, in his words, "f***ked around" in community college for a couple of years. He worked as a personal trainer and in a guitar store, jobs he "hated," which sent him back to college. His budget allowed only for a public university, which he found pretty disappointing. "This is what you do?" he says he thought when he got to CSUSB. "This is it? The whole thing? It's a joke, it's a racket."

In the past a bright, rebellious student like Joseph might have gotten bored and quit college for good. But Joseph had glimpsed another way. "I lived in Boston for a year with some guys who went to MIT. They just loved learning things. They would watch the TED Talks and Open Courseware videos in our little dining room. When I came back here to school I realized, the lectures I'm attending are the same topics they give at MIT, and if I watch them online I can watch them whenever I want. Then one day, I was searching Youtube to clarify some math concepts and I found Khan Academy. I thought, this is so much easier! And I stopped going to class."

Today Joseph is earning straight A's as an economics major at CSUSB. In his free time he writes fiction and reads authors like Michael Chabon and Jonathan Lethem. He tutors other students in economics, but rarely goes to class himself, preferring to teach himself with free videos, reading, and problem sets online. The main sites he likes to use are MIT's Open Courseware, which is organized in full courses with 50-minute videos, problem sets, and sample exams, and Khan Academy, which features much shorter, 5 to 10 minute tutorials. "That guy Sal Khan, he's like my hero. He's so funny. He has this comedic timing even when he's talking about math."

When studying using open resources, Frantz follows the methodology summarized in HowTo #3: Teach Yourself Online.

"I go from the MIT to the Khan. Khan reinforces MIT. MIT presupposes that you have all this knowledge, and Khan doesn't. Sometimes I go back to the textbook and if it's really something I can't understand I go to the tutoring center or professors' office hours. Between all that it makes it really easy to learn things. I tutor Math and Econ at the learning center and I tell students to go watch the Khan videos when they don't have a solid background in something." He also checks definitions on Wikipedia, searches and posts questions and answers on Urch.com, a forums site that has a message board for PhD students in economics, and finds free textbooks to download on TextbookRevolution.org.

Joseph developed his self-teaching methods over time, through trial and error. He finds them a lot more efficient and even fun than waiting to learn at the pace of a course.

"At least for me, learning has to be question-based," he writes. "I found that the biggest challenge to learning online is knowing the questions to ask. For me, finding the right question often meant working backwards. When you're teaching yourself, you have to work off basic assumptions, against which you can relate back pieces of information. These assumptions function as a path towards the questions that necessary to facilitate understanding. Two common ones that I use are:

● Every significant piece of information is part of one or more theories and every theory can be broken into smaller modular components.
● Every theory uses a set of symbols, not all of which are language-based.

When first presented with a concept now, my initial reaction is to find where it fits into established systems of thought or understanding. In my major, economics, theories often fit into political and mathematical frameworks. Placing theories into larger frameworks facilitates the remove necessary to achieve objectivity. Once the concept is placed, I ask myself what its components are, and learn them on the fly as I try to make applications in the real world. I often have the aid of textbooks giving me example problems as a way for me to test the knowledge I've acquired.

The next question is the symbols, which I find to be problematic if they aren't words in the English language. Math, for example, uses Greek letters, and an entire set of operators generated by mathematicians over hundreds of years. Economics uses graphs, mathematical operators, and spoken English. In a chemistry lab, we use models; these symbols in the physical world reinforce theories that are explained by English and math on paper."

An easy way to begin an online learning journey, he tells me, is to simply listen for words you don't understand. "In class a word is usually linked to a concept— say Eigen vector, or Bayesian analysis. Google it and it might lead to a Wikipedia entry, and then you get the basic framework of what this is. Then go over to Khan Academy and have him illuminate it more clearly until you get it."

Matheus is another edupunk who uses open educational resources to supplement his learning in a conventional college setting. He's 20 years old and came to America from Brazil when he was 10. While he had always earned top grades, his immigration status makes him ineligible for federal financial aid like Pell Grants and student loans. He's fallen into a bit of a gray area. "I couldn't enroll as an international student because I didn't have a student visa, and I couldn't enroll as a permanent student because I didn't have a green card. It's frustrating!" He's enrolled at Bristol Community College near his home in Massachusetts, taking nondegree courses and paying out of pocket while he tries to straighten things out. Open courseware has helped this bright student

stave off frustration. "I have a calculus class at BCC that I attend only to mark attendance, but I can't understand anything the professor is saying [because English is not the teacher's first language]. So I go home and open the MIT calculus course, do homework and go back to class just so I'm not withdrawn for absence."

In his study of computer science, Matheus takes a novel approach. "Harvard has a professor named David Malan who runs their introductory computer science course. Harvard is not a member of the Open Courseware Consortium, but Malan puts all of his courses online himself."

[You can find Malan's courses at http://www.minervaplus.com/instructor.php?i=1 and http://freevideolectures.com/Course/2516/Introduction-to-Computer-Science-I and elsewhere on the web.]

Matheus has watched all of Malan's online courses. Then he even started taking Malan's class in person at Harvard Extension School, which offers noncredit evening courses for adults. Often he'll watch one of Malan's lectures on the train on the way to Malan's course, as a way to review before class. He says doing a computer science course online is "pretty handy." "The professors write their code a lot faster than you can, but they still want you to go along with them, so it's good to be able to pause it, finish writing it and then keep going."

Now that you have an idea of how open content can improve your learning life, it's time to get to know some of these sites better. The Edupunks' Guide did a User Test day at College Unbound in Rhode Island to get reviews from the students there.

Courseware—full courses from universities, including lectures, problem sets, tests, reading lists, etc.

MIT Open Courseware http://ocw.mit.edu/index.htm—the oldest and still the most popular site, with 1900 courses on everything from history to physics. A favorite for science and math. "Very easy to use," writes Alex Villagomez. "Search bar is easy to find, titles are very clear in the sidebar, and the homepage even has a featured course to instantly engage the user in a course to better understand all that is available." MIT Open Courseware uses OpenStudy (openstudy.com) as a social learning partner, so you can form or join a study group to study an MIT course with others, or ask a targeted question based on the material you find in their archives.

Open Courseware Consortium http://ocwconsortium.org/ This site has even more courses, from 200 institutions, including MIT. College Unbound students founds this the "most powerful" and "most robust" open courseware website, but it has some quirks. There's no search bar on the main page–in order to search the courses you have to go to the "Courses" tab, at http://ocwconsortium.org/en/courses. And beyond that, you have to go to "advanced search" to discover that there's two options for searching–"look for

variations of what I type" or "look for exactly what I type." Mike McCarthy looked for courses in "epistemology" (his interest is philosophy) and the search engine returned courses in "epidemiology." Also, the courses are hosted on the colleges' own websites, instead of directly on this site. "A user must navigate many pop-up windows and other websites to find what is useful," writes Alex.

Khan Academy http://www.khanacademy.org/ The Khan Academy has over 2000 videos covering basic math through calculus and trigonometry, physics, biology, chemistry, banking, finance, and statistics. The videos are short--5 to 15 minutes long—simple, and entertaining. They're all made by Sal Khan, a 33-year-old former hedge fund analyst who started making them to help tutor his young cousins. "I just wanted to give my cousins as much math experience as I can in a way that they'll find it engaging," he says. The videos are also accompanied by a set of self-paced exercises that are structured almost like a game—get 10 of one kind of problem in a row and you can move on to the next.

Academic Earth http://academicearth.org/ is like an academic Hulu. It collects and rates videos of lectures from colleges like Yale, MIT, Harvard, Stanford, UC Berkeley, and Princeton. Andrea tk says, "I'm a very visual learner and they have all these different videos that people have done. I was researching educational policy, theory & philosophy. I ended up finding tons of videos."

Saylor Foundation http://www.saylor.org/ There are 241 original courses listed on the site, for which the material comes from around the web. "Saylor I felt really had everything kind of right there in front of you," says Elicia Welch. "I was looking up business management. I found that it gives you all the readings, lectures, final exam, breakdown what the purpose of the course was and whether it was 100% complete on the website or not."

Open Yale Courses http://oyc.yale.edu/ Open Yale Courses has a few dozen courses from Yale University, with audio, video, problem sets, exercises, and tests.

Open Learning Initiative oli.web.cmu.edu/openlearning The Open Learning Initiative at Carnegie Mellon has 13 free complete courses in topics ranging from Physics to Logic to French. The courses are highly interactive, using video, animations, and lots of embedded quizzes and assessments so you know how you're doing. The site requires a signup and sometimes you may have to download some software.

Wikiversity
http://en.wikiversity.org/wiki/Wikiversity:Main_Page

Wikiversity has a wide variety of multimedia course materials. Courses are run on the site, meaning students at universities create and publish course modules for other students' use. Like Wikipedia, you can participate in the community by editing course material (a great way to test and expand your own knowledge) or by joining discussions in the "Colloqium" section.

Textbooks

Flat World Knowledge
http://www.flatworldknowledge.com/

Flat World publishes open textbooks. They're free to read on the site.

Open Textbooks
http://www.studentpirgs.org/open-textbooks/catalog

This is a catalog of open textbooks that are free to read online.

Textbook Revolution
http://textbookrevolution.org/index.php/Main_Page

This is a student run site with links and reviews to textbooks and other educational resources. Many are available free as PDFs, viewable online as ebooks, or websites containing course materials. You can also use the site to find descriptions of books that aren't free, and find where they may be cheaper.

Video, Audio, and Miscellaneous

Youtube and YouTube EDU
http://www.youtube.com/education?b=400

Don't forget to search Youtube for lectures and presentations on any topic you find interesting. YouTube EDU contains content that's been tagged "education," which may include quirky things like Tina Fey's 2011 book talk at Google.

iTunes U features audio and video lectures from dozens of institutions. Because it's iTunes, they're easy to search and download.

OpenCulture
http://www.openculture.com/

A well-edited blog and site chronicling "the best" cultural and educational media on the web. They have lists of free online courses from top universities http://www.openculture.com/freeonlinecourses and free language lessons http://www.openculture.com/freelanguagelessons

Quia
http://www.quia.com/web

On Quia you can create your own games and quizzes to test yourself, or take thousands of quizzes—flashcards, matching games, word searches—that other students and teachers have created for the ultimate study guide.

Slideshare
http://www.slideshare.net/

Slideshare is a collection of free PowerPoint-style presentations, sometimes with

audio. It's a good way to learn about up-to-date topics like design, technology, and music.

Scribd
http://www.scribd.com/

Scribd is a place to find free books and presentations on almost any topic, uploaded and shared by the authors.

TED
http://www.ted.com/

TED (for Technology, Entertainment, Design) has an excellent collection of 300+ short video lectures by scientists, authors, artists, political figures, and more. Browsing the site is sure to be enlightening and can give you clues about fields you might want to study, like behavioral economics or biophysics.

The Internet Archive http://www.archive.org/ is a vast nonprofit digital library of Internet sites and other cultural artifacts—video, audio, texts, and live music.

Europeana http://www.europeana.eu/portal/ is a digital library with 4.6 million items from libraries, archives, museums and other institutions across Europe. Read Charles Darwin's letters or listen to Pavarotti singing Verdi.

Yale University's Digital Commons
http://discover.odai.yale.edu/ydc/Search/Results?lookfor=&type=allfields&filter[]=resource_facet%3A%22Resource%20available%20online%22 has 260,000 visual artifacts – ancient Greek art, dinosaur fossils, photos of Duchamp sculptures—available for free.

Video Tutorials and Live Sessions

There's lots of sites to take live classes online. These sites are usually a mix of free and fee-based content.

www.wiziq.com—Live classes, video tutorials, and practice tests on all kinds of topics (banking exams, English language learning, quadratic equations).

www.edufire.com - Live classes, videos, forums, quizzes and other resources on topics including language learning, business classes, tech, test prep, and more.

www.sclipo.com - Video tutorials and live sessions. Arts and hobbies are covered well.

Special Interest/Single Topic

History:

Smarthistory http://smarthistory.org/ is a "free and open, not-for-profit, art history textbook" that's fully multimedia: audio, video, animated timelines, and tons of images.

http://www.gilderlehrman.org/

http://www.craftingfreedom.org/. A multimedia resources site for teachers on 19th century black history

Web development

http://interact.webstandards.org/curriculum/ The company that produces the open-source web browser Opera has produced a full set of courses to teach Web development. They are multimedia and up-to-date.

http://devcentral.iftech.com/ Software programming tutorials and articles.

www.freshmeat.net - a site with free software and forums for developers.

www.sf.net - SourceForge, a site similar to github, with open source software and forums for developers.

Miscellaneous

www.learnfree.org -- 750 free lessons on basic computer skills, reading and math.

www.urch.com - A blog with forums for graduate students in various disciplines. A good place to hang out and learn the kind of vocabulary and concepts that PHD Economists, MBAs or political scientists use.

http://fsi-language-courses.org/ --language courses from the US Foreign Service featuring both text and audio. A bit outdated, but they cover 43 languages. The site also has a forum.

C.2 Open Social Learning
Joseph and Matheus do most of their explorations with open learning on their own, or related to a class they're taking. But that's not the only way to use open learning. There are sites that can bring the social element back into learning online.

Study groups are really important for learning. They can provide motivation and a means of self-testing. Lots of research shows the importance of collaborative study for motivation, encouragement, and diving deeper into learning.

You can also search these forums to see if anyone before you has asked and answered a similar question, which is a great way to get started learning something.

OpenStudy (www.openstudy.com) – This was the College Unbound students' favorite site for asking and answering questions. There's a large robust community on it and helpful answers were almost instant. The answers and groups are organized around topics, which can be hard to find or hard to understand sometimes. It might be a good idea to form your own group if you

have a topic of interest that's not represented here.

Quora (www.quora.com/) – a good place for long philosophical discussions, but a bit harder to search.

Ask Metafilter (ask.metafilter.com/)- This online community charges $5 for joining plus a week-long waiting period. However, some students still enjoyed searching through the existing questions and answers. "On Metafilter I read 'What is the moral obligation that the wealthy have toward the less well off?'" reported Talia Lundy. "There were good points on both sides. I really enjoyed seeing different people's perspectives."

Twitter – Twitter is one of the best places to build a learning community online. But it takes time to build. I had the students ask a question to my Twitter followers, and we got some good answers back. We also coached them through searching hashtags to find relevant information, and @-replying someone to make sure they see your question. Despite the lack of instant gratification, half the students took the initiative to open Twitter accounts for the first time, and they seemed to get the hang of following people who matched their interests. Twitter's suggestions help.

Wikianswers, Yahoo! Answers — these two are more superficial, though helpful for some practical queries.

Google –When all else fails, you can always Google your question.

C.3 Open Learning Institutions
The open learning resources out there are multiplying all the time. They're great ways for everyone to supplement and improve their learning, and to gain knowledge on topics that you may not be studying formally. Maintaining and improving your personal learning network on sites like Twitter should be something you do for a lifetime.

A handful of organizations out there are taking the next step in creating the world of open learning. They are combining open resources and volunteer participation into something that offers more of the experience of a traditional university: classes, evaluations, peers, and teachers. All of these are works in progress, and if you choose to become a part of them you will also be creating the future of open learning.

What none of these Open World organizations can offer—yet—is an accredited degree. But as we covered earlier, open learning, besides being valuable in itself for the skills and knowledge you acquire, is already translatable into college credit through processes like CLEP exams and LearningCounts.org portfolios. In the future, some of these projects may seek forms of accreditation. And when you read the last part of this guide, about demonstrating value to networks, you may get some ideas for becoming successful without a degree at all.

OpenLearn

http://www.open.ac.uk/openlearn/
http://openlearn.open.ac.uk/
Open University UK
Free

 The Open University in the United Kingdom, founded in 1970, is one of the world's largest and oldest distance-learning institutions. It's an accredited public university serving mainly students from the UK and Europe. In 2006, the OU started an open educational resource site called OpenLearn that has hundreds of hours of freely available courseware. This is paired with discussion forums called Learning Space, so you can connect with other students who are making their way through the same material. You can form or join "learning clubs" based on topics such as literature or French language.

Some of the College Unbound user testers were interested in the course descriptions, but found the site confusing to navigate, particularly between the regular Open University site, and the "Learning Space" chat room areas.

Kasia Kozinska is a PhD student in the Open University who's been researching people who use OpenLearn and Learning Space. She focuses on people's motivations for learning with open educational resources. "Everybody I have spoken to is a really, really keen learner," she says. "They are very strongly motivated, because there is no assessment. And they're not necessarily interested in formal feedback—they don't want to do tests, they just want to talk with others in discussion forums." While some learners are more independent, captivated by the sheer intellectual pleasure of learning, others are much more social, and interested in belonging to a group, supporting and helping each other learn. A lot of students, of course, are using OpenLearn to get more information before deciding to study formally at the Open University, which is a great way to use open educational resources.

P2PU
http://p2pu.org/
Free

Founded in 2007, P2PU is one of the most advanced attempts to create a truly open university. Volunteers can create their own courses or choose from lists of courses using open content, on any topic imaginable. Courses run anywhere from 6 to 15 weeks. Peers in courses assess themselves, and no traditional accreditation is provided, although P2PU is developing a badging system with Mozilla Foundation, the nonprofit makers of the Firefox web browser, where learners and teachers would be able to offer recognition for learning in courses that cover web development skills, known as the School of Webcraft. In addition, courses in the School of Webcraft attempt to cover topics in web development that have immediate relevance to jobs.

The model is new and still has bugs, but it's a fascinating experiment so far.

Sean Suggs is a 36 year old single dad to two boys. He's a self-taught web developer who has been working in the field for 10 years. He dropped out of the for-profit Art Institute, where he was seeking an associate's degree in applied science, and took part in a class action suit against the college, alleging deceptive marketing and recruitment practices.

Undaunted by this setback in the world of education and trying to improve his skills and marketability for jobs, Suggs did research online on current job trends in his area of web development. A site called Indeed.com, for example, tracks keywords in job listings, showing that tech recruiters are currently most excited about finding developers with HTML5 skills.

While surfing on an industry blog called Mashable.com, Suggs heard about the P2PU/ Mozilla School of Webcraft. "For a while now I have been actively looking for web development accreditation that was backed by a significant web development field-related organization. So when I had heard that the Mozilla foundation was promoting P2PU "Web Craft" Courses I immediately attended," he said. "Of course free is appealing—to be honest, should anyone really be paying for strong legitimate peer-based accreditation? In a twisted way, paying for it kinda cheapens it."

Suggs has a point. In the world of reputation-based networks, a freely given opinion can be worth more than a diploma that costs big bucks.

It's worth noting that Suggs is taking a gamble by participating in these Webcraft courses. He's betting that Mozilla, and other employers will accept and promote the "badges" he can receive for participating in P2PU courses. "Web Developers are in great need of anything to separate ourselves with standardized accreditation," he says. "We need a standard body to represent continuing education like any other profession has (CME for doctors or CLE for lawyers)." At the same time, he's not relying only on the accreditation aspect of the classes. "I hope that close connections made with peers and the community already in my profession will increase the likelihood of successful future job searches."

Overall, Suggs enjoys being a part of P2PU: "One of the best parts is learning from learners," he says, "i.e. peer teachers who experience the material as I do. A place where everyone is working together for the greater good. Another best part: the content is freely available and open to anyone. Years and years of others' experience is available to everyone for free!"

But there are drawbacks to being a pioneer. Suggs and other participants report a lot of clunkiness with the various technologies that P2PU is piecing together to use for classes. Without a lot of money to invest in developing its own learning management system, P2PU classes use different combinations of a Drupal social learning platform, Skype, Google Groups, email, and other tools that don't always work so well together.

One of the biggest problems with this or any open learning organization is the

level of commitment among the participants. As a highly enthusiastic, hard-core P2PU participant, Suggs is a little bit in the minority. "For some reason free courses have much higher dropout rates. I suppose drop-off is due to the lack of personal commitment that tuition imposes otherwise. Dropout also feels greater from students who have taken on a course that they thought would be at different skill levels."

Dan Diebolt, Suggs's instructor, is highly committed to P2PU. But there's also a lot he would change about the program. Diebolt holds two master's degrees, but he's also a seasoned independent learner. "I have a lot of formal education but I've outpaced that a dozen times on my own, so I'm always looking for online resources."

BOX : Dan Diebolt's independent learning methods.

"I'm a library freak, I've got like 16 library cards. But I do most of this on the Internet these days. I'm kind of a gonzo learner. I'll do very directed searches. I kind of believe in the immersion theory. It's like learning a language—you just have to go to a foreign country and sink or swim. Let's say I want to learn some new technology. I pick up a lot of stuff on Digg and Reddit. I might do very targeted Google searches with advanced keywords. I find out who the leading experts are and follow them on Twitter."

In order to identify experts on an unfamiliar topic, Diebolt has to do a little research, similar to what a reporter would do if she were trying to find an expert to quote.

"Usually somebody puts a tutorial or a blog post and, once you get a link you search on that person to see what else they've done, it's not too had to find out who's got the material in an area. Search for PowerPoint presentations on the topic—go to Slideshare. Look for videos. Do a targeted search for .EDU websites [which belong to educational institutions]. If I see a guy's phone number on a website I might Google that to see where else it pops up.

Or for example, JQuery [a Javascript library which makes it easier to write HTML] which is the course I'm teaching.

John Rezick is the creator, which you can find out from Wikipedia.

If you search for "John Rezick Jquery" You can find out he's at a conference. You look at the other presentations and say, OK, I've seen this guy's name before, what does he do? It's like 6 degrees of separation. It's so easy really if you're determined to find the mother lode."

With all of his background as an independent learner, and experience using the Internet since the early 90s, Diebolt was excited to participate as a course facilitator as soon as he heard about P2PU. But he does have complaints with the free online learning system as it currently works. The software platforms currently in use are clunky. Coordinating over several timezones is difficult. There

are too many barriers to entry, and the participation rate faces a steep dropoff.

Still, Diebolt believes this is a model that simply has to get better. "I think in the long term it's going to have to succeed. What's driving it is the economics of learning."

He's already taught two School of Webcraft courses and is planning to teach the same one again, discovering economies of scale by reusing the sample code generated by the first group of students.

University of the People
http://www.uopeople.org/
Founded in 2009
Free

University of the People is a nonprofit, nonaccredited university that offers bachelor's degree-level programs in computer science and business administration to students from around the world. It's much more structured than University of the People, and more like a traditional online program. Faculty are volunteers, the course material is open-source, and students keep in touch via Facebook as well as the school's website. There is no tuition, but there are fees for registration and soon, for examinations; these are on a sliding scale depending on your country of origin.

Anton Kazakov is a 23 year old from Moscow studying business. Like many of University of the People's students, he already holds a bachelor's degree, in engineering from a technical university in Moscow. "It's awesome! I'm very excited because it's opened a new world to me," he says. "It's like a hobby. I'm not going to sports because it's winter now, and I'm just going to the University by Internet and searching for information, or talking to my classmates through Facebook or Internet chat." He says that the experience has changed him in a way that his home university did not. "I'm trying to change my job and some skills I gained from my education help me to put myself forward to people. Now I'm more confident."

Billy Sichone, 40, is a program manager for a nonprofit in Mpika, Zambia. He holds degrees in accounting both from African and UK universities, but he wanted to continue to study business. "Somebody sent me a link and said, you might be interested in online education. At first I was a bit skeptical that maybe it's just spam. But when I followed up the link I and communicated with them I found out it was real." Sichone, like Kazakov, is a very satisfied student. "I think it's by far more than I ever expected or imagined. You have colleagues from across the world. You learn together, and you also learn the different views people have about things." Along with the cross-cultural communication, Sichone also likes the open learning experience. "That's the other bit which is unique about University of the People: it's the flexibility. You're not forced—it's you who plans."

Billy's advice for those who want to learn in an open setting:"Come with a open mind. Be focused—think long term. Always know that in a virtual environment you must be flexible and understanding. And make time also. Be intentional about your studies---read widely in class and out of class." And above all: "The secret is effective time management." Billy takes advantage of the seven-hour time difference as an extension to assignment deadlines, and also accesses his classes and assignments from his Nokia phone so he can keep up with his studies while on the road for his development job.

Maricemaria Sitangong, 30, studying business, also attended college in Jakarta, Indonesia, where she lives. "Online learning is quite exciting because they give us freedom—when to study how we want to finish as long as we can catch up with the schedule." And also, she says, "It helps me with my English."

"The textbook is really different from the textbook we have in Indonesia," she says, and not just because she can read it online or in a downloadable PDF. "A lot of information is practical, not just boring and conceptual, so that we can apply to the real life." And like Anton and Billy, she likes discussing with other students on the course software, Moodle www.moodle.com) or on Facebook.

"We have a very rich discussion forum. People have their own backgrounds and experience from different countries, different jobs, different ages. Like a student who is an accountant has a different point of view to the student who works in a hotel."

MyEJ.org
http://www.myej.org
Fee

My Entrepreneurial Journey is an affordable alternative to an MBA program connected to the Acton School for Entrepreneurship, a nonprofit MBA program. It's designed for adults who have already established businesses or business ideas. It is composed of five 12 to 14 week "modules" on subjects ranging from personal goals to customer relations and economic practices. A key component of the program is the relationship with both a "guide" and a "running partner"—a mentor and a peer—whom you designate. You share your writing and thoughts with them on a weekly basis and they provide feedback. The cost is $99 a month.

Evan Loomis, 31, is founding a green home improvement chain called Treehouse, with the first store opening in Austin. "[MyEj.org] has changed my life. I've asked primary questions I've never asked myself before, like what's my calling. My marriage is better—I can have more meaningful conversations with my wife.

"There are three types of learning: Learning to know, which is skills, raw intelligence. Learning to do, where the program forces you to do some experiments in your life, like calling up friends and saying what am I good at/not good at, or going around town haggling about prices, and finally, character—

learning to be, forming virtuous habits of behavior over time.

"The learning to know is all online—there are games, readings, presentations. The learning to do/be are offline for the most part—then you check in with your guide for accountability.

"I think this is something everyone should do on a regular basis. I am going to get my employees on a modified version of it."

The Public SchoolHybridhttp://la.thepublicschool.org/The Public School is an ongoing open school founded in Los Angeles in 2008 by an arts collective called the Telic Arts Exchange. Anyone can propose a class, and once they reach a critical mass of interest, the class gets scheduled; the school's committee may also help find a teacher. Topics range widely, from fine arts, to technology, to radical politics, critical theory and philosophy, to urban foraging; many classes are free and others charge fees. The quality ranges as well. The Public School currently operates in 8 cities and 5 countries. There's also an active online forum.

Trade School
Tradeschool.ourgoods.org

Trade School is more like an art project than a traditional school, but it's a great model of open, community-based education. It's been run for the past two years in New York City by the founders of Ourgoods, a barter site for artists. "It all started because three of the five co-founders of OurGoods (Louise Ma, Rich Watts and I) were given an opportunity to work with GrandOpening (a retail store and exhibition company). We decided that "barter for instruction" had a lot of potential as a storefront event," says co-founder Caroline Woolard."

So, from February 25th to March 1st, 2010, we ran Trade School at GrandOpening in the Lower East Side. Over the course of 35 days, more than 800 people participated in 76 single session classes. Classes ran for 1, 2, or 3 hours and ranged from scrabble strategy to composting, from grant writing to ghost hunting. In exchange for instruction, teachers received everything from running shoes to mixed CDs, from letters to a stranger to cheddar cheese. We ran out of time slots for teachers to teach and classes filled up so quickly that we had to turn people away. This made us think, 'we should keep doing this!'

We raised money on Kickstarter because most venues will not barter for storefront use for longer than a month. We were approached by an old school in Nolita, so we used our Kickstarter money to secure that space from February 1st through April 17th, with an option to stay open longer."

Much like the free schools of the 1960s, volunteers from the community teach one-session, in-person classes at Trade School on any topic they find interesting. In the 2011 session, these ranged from the very practical (Grant Writing for Artists) to the avocational (19th Century Handsewing) to the political and theoretical (Who Owns Natural Resources?) to the wacky (Balloon Animals!). The teachers ask for various items in barter for their time, ranging from a piece of

artwork to homebaked goodies to office supplies.

Besides The Public School and Trade School, Woolard suggests you also check out the following alternative education experiments, which all combine some aspects of the art world, critical theory, community organizing and openness:

Anhoek School, http://www.anhoekschool.org/readathon.html ,
Mildred's Lane, http://www.mildredslane.com/ ,
School of the Future http://schoolofthefuture.org/,
Secret School. http://www.huongngo.com/?q=node/196
The Bruce High Quality Foundation University. http://bhqfu.org/Site/home.html

C.4 Open Ed Startups

The DIYU world is evolving quickly. Here are some organizations that are just getting off the ground. You have an opportunity to join these communities and shape their futures. Or if you get really excited about it, you could even take the inspiration here and start your own!

OERU
http://wikieducator.org/OER_university/Home

Wayne Mackintosh is deeply committed to the open education movement. He's the founder of WikiEducator, an online resource for educators, and directs the International Center for Open Education at Otago Polytechnic in New Zealand. In February 2011 he convened an online, virtual planning to talk about founding an Open Educational Resources University—OERU.

"It's a simple concept aimed to provide free learning for all students worldwide," Mackintosh explains, "and start tackling the obstacles. Given the technology we have combined with free content licensing, it's certainly possible to provide learning materials for degree programs for free. We're working with institutions in the formal education sector who would be willing to provide formal academic credit for this sort of learning. What's important for us is the whole notion of credible qualifications. We want OER learning to be equivalent to a traditional university." So far, Mackintosh's home university in New Zealand, as well as the University of Southern Queensland in Australia and Athabasca, an online university in Canada, have agreed to partner with the OERU to begin planning how to develop tests and award credits for learning accomplished through use of open educational resources. The OERU will coordinate their efforts as well as free and open teaching support by academic volunteers, similar to the way teaching is provided by the University of the People.

While the OERU doesn't yet have a US partner, people from Empire State College have been involved in the planning. For US edupunks who want to get credit for their study in OER environments, it's best to approach an institution like the ones named in section B that already specialize in assessment for prior learning.

Uncollege

http://uncollege.org/
Fee

Uncollege is a social movement for self-directed learning. Its main goals are to develop experiential learning programs at established colleges and to validate self-directed learning by allowing students to demonstrate already-acquired skills in an online portfolio. A curriculum is currently in the works that consists of self-directed learning projects like mentoring, travel, volunteering, and online portfolio creation, all guided by self and peer evaluation.

Dale Stephens, the 19-year-old founder of Uncollege, was homeschooled. He was bitten by the entrepreneurial bug while working for startups in the Bay Area, but he decided to attend a traditional small liberal arts college just to see what it was like. He was quickly disillusioned by the experience. "College has been much easier than I expected," he says. "There's a big gap between the theoretical and practical implications. I see so much acceptance by students of the status quo, a lack of creativity and innovation, and an emphasis on grades, not on learning for learning's sake." He envisions UnCollege as a community of self-motivated learners engaged in project based, entrepreneurial learning. "We want to design the community to support your self-directed journeys of learning and introspection."

Saxifrage School
http://saxifrageschool.org/
Fee

The Saxifrage School, currently in its development phase, plans to open in Pittsburgh in 2014. Its 26-year-old founder, Timothy Cook, was homeschooled, like Stephens. "Our model rethinks higher education," he says, "getting back to the heart of the university and what really matters." He envisions a group of students who live and teach each other in a particular urban neighborhood, holding classes in underutilized spaces like churches and community centers, while working and giving back to the community. He wants each student to pursue both a vocational and an academic major. He hopes to use open content to help develop a broader curriculum while keeping costs low—an average $5000 tuition per student to cover all costs.

Eduventurist
http://eduventurist.org/

Eduventurist isn't structured like a learning community, but it's a great resource for edupunks nonetheless. Weezie Yancey-Siegel, 20, took off her third semester from college to pursue a self-learning path (see her learning plan in section A).

Weezie has a pretty inspiring background herself. At the age of 11 she, along with her parents, helped found a nonprofit called Youthgive, to educate young people about the world of philanthropy and social entrepreneurship. "We wanted to educate kids about work in the nonprofit sector. I would interview people who

worked in these jobs, and lot of them had really inspirational stories of how they got this way. I would ask people, tell me about your life, and they hardly ever mentioned college. I started going to conferences and being on panels and people were like, wow that's really great! I thought, I'm the youngest one at this conference and I'm learning so much, and my friends are back home dissecting frogs." She became frustrated by the inflexible policies at her college, running into problems when she wanted to study Hindi or design her own major. So with her parents' full support, she's forging her own way now.

Interviewing people who have jobs or lives you admire is a wonderful way to learn how to design your own personal learning plan, connect to networks, and maybe even find a mentor.

C.5 Reputation Networks

In the introduction, we talked about the what, the how, and the why of education. This section is about another, crucial dimension of the "why." For a long time, the college diploma has been considered the ultimate symbol that you've completed your education, gained valuable skills and knowledge, and are ready to go out into the world and, with luck, find a job.

But times have changed, and the diploma is no longer enough. You can think of yourself with just a diploma as being like a desktop computer, fully loaded with software, sitting in a home without Internet access. It's a valuable piece of equipment, it has lots of capabilities, plenty of speed...but its ability to accomplish most work and to share that work with others is severely limited. You need to be connected to the world in order to do what you do, and show what you can do.

A computer gets connected to the Internet via a wire or a wireless signal. You get connected to the world by joining a network. We're not talking here about the kind of social networking you may be familiar with. Sites like Facebook are best for connecting casually with family, friends, and people you already know. Commenting on photos or planning a costume party probably isn't going to get you a job.

No, the networks in this section are places where people immerse themselves in knowledge, exhibit and demonstrate their skills: writing, photography, web design, international development. The connections you build will be because of shared interests, not shared backgrounds. That's why they have the power to connect you to jobs.

Programmers

Github
https://github.com/

Chris Wanstrath and his cofounders didn't start Github in 2008 with the idea of creating a professional community for software developers. They simply needed a code repository—a place to publicly place open-source software code so teams could work together more easily. They created the largest software code-hosting

site in the world, with 750,000 members hosting 2 million git repositories. "Git" is a method of version control that makes it easier for people to collaborate on a piece of software.

Open source software allows for a special kind of teamwork. The code is visible to anyone. Anyone can submit a "bug" (a change they would like to see made) or make a change. People participate on others' projects to build their skills or just for the fun of it. It's a meritocracy in the sense that good projects tend to attract more sustained help and attention, and good people get more of their changes accepted and attract more people to work on their own projects.

"A Github profile shows off what a person has done, what projects they have contributed to,how active are they at a high level," says Chris. "Or you can dive in and see the individual changes they've made to those projects." Companies such as Twitter are actively recruiting developers off Github. Instead of just looking at a resume or transcript, they can get far more detailed information about a person's skills and interests. And Github has added a job board, as well as features that allow people to choose whether to be contacted by recruiters for specific kinds of work. "On Github you're not saying how great you are, you're showing it. I think that's really important," says Wanstrath.

Adolfo Builes is a 21-year-old programmer from Colombia. He started programming in college but got into Ruby, a newer programming language, through projects on Github. "A good friend I have learned lots from, one of my mentors, talked to me about it and I opened an account over there, and I started to get familiar with git," he explains.

 Many of the languages people use on Github, including Ruby, Python, and PHP, are less commonly taught in computer science classes, but they're very much in demand by tech companies.

"I have lots of friends who have already finished university and haven't been able to get a job," says Builes. "For me it's easy to get freelance jobs, and pretty much all the jobs I've gotten are because of my open source experience. I think nowadays if you have stuff online, you're contributing to open source, it's easier to make a career."

Stack Overflow
http://stackoverflow.com/

Stack Overflow is another site for programmers. It's based on asking and answering questions, meaning it's a great resource for learning how to program, but it can also be a way of building a reputation. Math Overflow http://mathoverflow.net/ is a similar site for mathematicians.

Artists, Graphic Designers, Illustrators, Photographers

Behance
http://www.behance.net/

Behance allows all kinds of creative workers such as photographers, graphic designers, and illustrators to upload multimedia portfolios. These can be seen, commented on, and voted up or down by the creative community—portfolios that get more recognition get promoted on the site and become easier to find. Top companies like Saatchi & Saatchi, JWT, R/GA, Crispin, Ogilvy Nike, Apple, Facebook, Zappos, Target, and Netflix have all actively recruited from the site. Interestingly, the site has a family connection to the history of higher education. Scott Belsky, who founded the site in 2007 at age twenty-eight, graduated from Harvard Business School and worked at investment banking giant Goldman Sachs; he also happens to be the grandson of test-prep king Stanley Kaplan. "My grandfather started the test-prep industry out of a desire to make college admissions more of a meritocracy—because, back in the day, the SAT was the only way the underprivileged could gain admission to top colleges," Belsky says. "I admire my grandfather's intention, and I see a parallel need in the creative community."

Also check out: http://www.callsforart.com/ Lists of juried art exhibitions.

http://www.diyphotography.net/ and http://strobist.blogspot.com/ are educational blogs for photographers.

Photographers

Flickr
http://www.flickr.com/

Share photos, create galleries of photographs you admire, join one of 10 million groups and meet other photographers.

Filmmakers

Vimeo

http://vimeo.com/
Vimeo is a community for people who make videos. You can share videos, "like" others' videos, collaborate on projects, join groups with shared interests, and watch lots of tutorials.

Musicians

Soundcloud
http://soundcloud.com/

Soundcloud is a place to easily upload and share your music all over the web. Others can post comments. You can post a "bandpage" and join groups of musicians in similar styles.

Myspace
http://www.myspace.com/

Myspace is still very popular for bands who want to post music, collect fans, and share information on upcoming concerts.

Crafty Types

Etsy
http://www.etsy.com/

Etsy is primarily a marketplace for people who sell handmade things, but it has many community features, including an online forum, "teams" who sell similar things and band together to co-promote, chat rooms, online workshops, as well as meetups and events in some cities.

Writers, Editors, Journalists

Mediabistro
http://www.mediabistro.com/

Mediabistro is a community I was part of when I first became a freelance writer. They offer profiles where you can show off your writing, workshops, classes and other events, job listings, and more. Many of the benefits require paying a $55 annual fee.

Romenesko
http://www.poynter.org/category/latest-news/romenesko/

On the website of the Poynter Institute, a nonprofit dedicated to journalism education, you can post your resume; find jobs and follow industry news, and take part in self-directed and group online courses, podcasts and video tutorials.

Event Planners, Artists, Activists, Product Designers

Kickstarter
http://www.kickstarter.com/

Kickstarter is a slightly different kind of community. It's a place to post and solicit donations from friends, family, and the community at large to fund your creative projects. This could be a watch design you want to market, a benefit concert, a book you want to publish, or even that cross-country trip you and your buds have been dreaming about. There's some stakes built in: you post a target amount and a deadline, and if you miss the target, you don't get any money. Browsing the site will bring you lots of inspiration that you can go out and make your dreams happen.

Activists, Nonprofit Types

Idealist
http://www.idealist.org/

You can post a profile on Idealist, which has information on nonprofit

organizations; job, internship and volunteer opportunities all over the world; and job fairs for graduate students who want to work in the nonprofit sector.

Miscellaneous

You may have an interest that's not covered above, or you may need a little more time to narrow down what your interest is. The following networks are good for a wide range of careers and interests.

LinkedIn
http://www.linkedin.com/

LinkedIn is known as the professional social network, but they've added features in the past few years that go far beyond posting a profile. There are shared interest, alumni, and networking groups on topics from sustainability to accounting. There's also a "Conversations" feature where you can ask or answer a question on a topic of interest—a good low-key way to associate yourself with people in fields you'd like to be in.

Quora
http://www.quora.com/

Quora is a site for conversations. You can ask or answer a question, which usually turns into in-depth discussions. While not explicitly designed as a reputation based network—there are no job listings on the site, yet---the medium of conversations is a great way to build expertise on particular topics and become known to a community you're interested in. There's currently lots of membership on the site from the worlds of startup, entrepreneurship, and journalism.

Blogs&Twitter

http://wordpress.com/
http://www.blogger.com/home?pli=1
http://twitter.com/

Start a blog on almost any topic. Follow blogs of your interest, whether law, sustainable construction, or engineering. Build a community through Twitter.

Your college, if you attend one, may be able to help you get started joining a reputation network. LaGuardia Community College, in Queens, NY, is one college that is working on helping students do this through their e-portfolio program.

LaGuardia Community College
http://www.lagcc.cuny.edu/home/
http://www.eportfolio.lagcc.cuny.edu/history.html
Hybrid

All LaGuardia students take a pre-internship course called "Fundamentals of

Professional Development," where they begin to develop and work on their e-portfolios using a program called Digication. Over 4000 LaGuardia students have created online portfolios, one of the largest such programs in the country. "The art/photo students have a lot more visual artifacts. Our nursing, teaching, and physical therapy students actually use state accreditation standards as a guideline to document their work," explains Susan Sanchirico, a professor of cooperative education and a coordinator of the program. "The business department works on demonstrating their business competencies." E-portfolios are good for more than assessment. They help students reflect on their educational journeys and integrate what they've learned. And of course, they're good for sharing with family, friends, and potential employers.

Cindy Bescome is a 20-year-old art student at LaGuardia with an impressive-looking portfolio. It shows off her work in graphic design, illustration, and photography—lots of hot pink, hearts, and punk. "I didn't think I was going to keep it, I thought it was just a school requirement," she says, "but I really like it. Let's say if I was trying to get a job, or maybe I wanted to collaborate with someone. It's a fast way of letting them know some of the work that I've done, so I think it's really cool."

Conclusion

After reading through the resources in this guide, I hope you'll agree that it's never been a better time to be a learner. From following a new interest, to finding and collaborating with peers and mentors, to getting recognition for your work, there are new opportunities blossoming all the time. I hope you'll also get the message that there is no one recommended path within DIY learning. If there's any single change that I'd personally like to make in the education world, it's the realization that you, the learner, are in charge. You should be able to decide what you need, and you should be given the resources to accomplish it, as long as you're willing to work hard and be a self-starter.

If you liked this guide, I need your help! Leave a comment with a learning resource you've found, or a story about how you got your college to agree to adopt open courseware in a class, or give you credit for prior learning through an e-portfolio, or let you design your own major, or saved money and time by taking some core credits by examination. In order for more students to be offered these opportunities, we're going to have to stand up and demand them. That's what edupunk is all about.

Websites Mentioned in this Guide:

Personality tests:

http://www.careertest.net/
http://www.careerkey.org/
http://www.bls.gov/k12/
http://www.asvabprogram.com/

Career search sites:
http://www.bls.gov/oco/
http://careeronestop.org/
http://money.usnews.com/money/careers

College Finders:

www.connectedu.net/
http://www.unigo.com/
http://nces.ed.gov/collegenavigator/
http://www.petersons.com/
http://www.collegechoicesforadults.org/
http://www.distance-education.org

Licenses and Certification:

http://careeronestop.org/ and http://www.certificationguide.com/v2/

http://www.doleta.gov/oa/
http://careeronestop.org/
https://www.ansica.org/wwwversion2/outside/ALLdirectoryListing.asp?menuID=2&prgID=201&status=4
http://www.credentialingexcellence.org/NCCAAccreditation/AccreditedCertificationPrograms/tabid/120/Default.

A.4 Alternative Programs for Pre-College Learners

http://www.learnerweb.org/
http://www.saylor.org/

Vets:

http://www.purpleheartservices.com/
http://www.veteransinc.org/services/employment-training/#training
http://info.helmetstohardhats.org/content/index.jsp
http://www.veterantraining.com/
http://ivet.us/
http://www.viceforvets.org/Veterans_In_Construction_Electrical/VICE_Home.html
http://www.nevbrc.org/about-us/mission/

High School – Early College

http://www.foothill.edu/programs/middle.php
http://www.earlycolleges.org/overview.html

To-do lists

http://www.earlycolleges.org/overview.html

College Credit Services:

http://www.collegeboard.com/student/testing/ap/exgrd_get.html
www.ibo.org
http://www.acenet.edu/AM/Template.cfm?Section=CCRS
http://clep.collegeboard.org/?affiliateId=rdr&bannerId=clep
http://www.uexceltest.com/
http://www.getcollegecredit.com/learners.html
LearningCounts.org

Professional Education Credits
http://tesol.org/s_tesol/index.asp
http://www.microsoft.com/learning/en/us/certification/cert-overview.aspx
http://www.cisco.com/web/learning/le3/learning_career_certifications_and_learning_paths_home.html
http://www.oracle.com/us/education/selectcountry-new-079003.html

http://geninc.tv

On-ramps to college

http://ivybridge.tiffin.edu/
www.straighterline.com

Returning colleges

http://www.charteroak.edu/
http://www.esc.edu/esconline/online2.nsf/ESChome.html
http://www.excelsior.edu/
http://www.tesc.edu/
http://www.umass.edu/uww/about/index.html
http://www.wgu.edu/

Individualized degree programs

http://www.antiochseattle.edu/
http://www.ciis.edu/
http://collegeunbound.org/
http://www.snhu.edu/10379.asp
http://www.ashecac.org/
http://www.goddard.edu/
http://johnstoncenter.org/
http://www.snhu.edu/
http://www.utoledo.edu/call/pdfs/Individualized_Program_Career_.pdf
https://www.trincoll.edu/Academics/IDP/

Personal Learning Network

http://www.google.com/reader/view/
http://www.delicious.com/
http://github.com
http://www.stackoverflow.com

Open Learning Courses

www.khanacademy.org
oli.web.cmu.edu/openlearning
ocw.mit.edu
http://www.minervaplus.com/instructor.php?i=1
http://freevideolectures.com/Course/2516/Introduction-to-Computer-Science-I
http://ocwconsortium.org/
http://academicearth.org/
http://www.saylor.org/
http://oyc.yale.edu/
http://en.wikiversity.org/wiki/Wikiversity:Main_Page

oli.web.cmu.edu/openlearning

OL Textbooks:

http://www.flatworldknowledge.com/
http://www.studentpirgs.org/open-text:
http://textbookrevolution.org/index.php/Main_Pagebooks/catalog

OL Misc:

http://www.youtube.com/education?b=400
http://www.openculture.com/
http://www.quia.com/web
http://www.slideshare.net/
http://www.scribd.com/
http://www.ted.com/
http://smarthistory.org/

Open Social Learning:

www.quora.com/
ask.metafilter.com/
www.scholarpedia.org

Open Learning Institutions

http://www.open.ac.uk/openlearn/
http://openlearn.open.ac.uk/
http://p2pu.org/
http://www.uopeople.org/
http://www.myej.org

OpenEd Startups

http://wikieducator.org/OER_university/Home
Tradeschool.ourgoods.org
http://www.anhoekschool.org/readathon.html
http://www.mildredslane.com/
http://schoolofthefuture.org/, http://all.thepublicschool.org/
http://www.huongngo.com/?q=node/196
http://uncollege.org/
http://saxifrageschool.org/
http://eduventurist.org/

Networks

https://github.com/
http://stackoverflow.com/
http://mathoverflow.net/
http://www.behance.net/
http://www.flickr.com/

http://vimeo.com/
http://soundcloud.com/
http://www.myspace.com/
http://www.etsy.com/
http://www.mediabistro.com/
http://www.poynter.org/category/latest-news/romenesko/
http://www.kickstarter.com/
http://www.idealist.org/
http://www.linkedin.com/
http://www.quora.com/
http://wordpress.com/
http://www.blogger.com/home?pli=1
http://twitter.com/
http://www.lagcc.cuny.edu/home/

Misc

www.moodle.com
http://www.callsforart.com/
http://www.diyphotography.net/
http://strobist.blogspot.com/

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