A Case for Working with your Hands

By MIKE COLLINS, author of Saving American Manufacturing

Over the last 30 years, the public mantra has been everybody goes to college. The premise was if you just get a college degree you would get a job working with your brain rather then your hands. At the same time working with your hands had become uncool, and beneath smart young college kids. In the early 90s, high schools and grade schools decided to get rid of shop classes. Instead they installed computer labs to prepare the students for work in the new post industrial “service economy”

But alas, the post industrial service economy is not providing the family wage jobs much less the security that was expected. What the futurists didn’t see coming was the fact that any kind of work that can be digitized into data can be transferred to the internet and done by bright young Asian students for 1/5 the cost. In this new digital age, large companies now have the power to resource work from any where in the world and to relentlessly drive labor costs down. So in the last 10 years middle class wages have been driven down and living standards are going back wards. It appears that the “post industrial” service economy may not be the answer for most people who want to start a family, have a satisfying job, and carve out their small piece of the American Dream

So what is the Answer?

As distasteful as it may seem to some students and parents, working with your hands may be a good alternative in this changing economy. When you look around people still are needed to fix your car, rewire your house, fix your broken power lines, paint your house, teach you to play the piano, and bypass your clogged arteries. All of these people work with their hands and have skills that can’t be duplicated by foreign countries. The real difference in the new service economy will be jobs that have the potential to be off shored vs. jobs that must be done face to face with the customer This article makes the case that working with ones hands is not only a worthy career it can give some people more job satisfaction and security

then many other careers.

Let me begin by introducing the learning styles suggested by Neil Fleming is his VARK system which delineates 4 basic kinds of learning: auditory, reading/writing, visual, and kinesthetic.

Auditory — This is a learning style where people learn by listening. The auditory learner depends on hearing and speaking as in a classroom with a teacher lecturing. The student may struggle to understand when reading a textbook but can get the full understanding of the topic when the instructor explains the chapter.

Visual — Visual learners prefer to have information presented in graphs, pictures, maps, drawings etc. A good example are technical people like machinists. When I first began consulting with small; manufacturers I found that writing a report to owners and managers simply couldn't get the points across to them. I learned to always have a white board close by so that I could draw symbols and illustrations of concepts like machine setup, future sales, cash flow and other important factors.

Kinesthetic learning — This is a learning style where learning does not take place until the student does a physical activity. In my career in robots and automation we were always struggling to improve our training and instructions for plant operations people to be able to do good preventative maintenance on our production line machines. We would ask them to read the manuals and then take a class where the techniques of preventative maintenance were explained over and over with slides and drawings. But when the student went out on the floor and actually lubed all of the lubrication points on the machine he learned the lesson immediately.

Reading and writing — This type of learner is very good at gaining their information through reading and writing. This style along with auditory skills might be the perfect college student.

But what about the kinesthetic and visual learners? They may struggle with the "book learning" atmosphere of college, yet they might excel at jobs where using your hands is required. These types of people usually do not like to be cooped up in a classroom, and they would rather do something rather then take notes. They might go to college from family or peer pressure, but may find that they are much better off pursuing a skill that uses their hands and their special way of thinking.

Higher skills mean higher pay

Tool and die, mould making, advanced machining are becoming lost arts in the U.S. In fact, any of the careers requiring advanced skills and some kind of journeyman status are going to become more and more in demand. A good example is the person who learns to do maintenance and trouble shooting on automated production lines. When a line stops there are a lot of variables to consider. Many of the large manufacturers think that they can teach these workers complex trouble shooting by simply making them read complex operation manuals with a lot of step-by-step instructions and photos. But this is fallacious reasoning or perhaps wishful thinking.

First of all the worker may be a kinesthetic or visual learner who does not learn by reading or training lectures. Secondly, the symptoms may have many causes and these causes may interact. In my experience on these automated lines the problem is seldom as simple as a Faulty photocell. It is more like a piece of metal gets inside the conveyor drive chains and jams the system, causing the over load on the electric motor to go out and then sending a signal to the programmable controller which shuts down the machine. Finding the problem takes experience a lot of training and some real advanced thinking.

Mathew Crawford who wrote “Shop Class as Soulcraft” says that in trouble shooting a problem, “In deciding how to proceed there often comes a point where you have to step back and get a larger Gestalt. The gap between theory and practice stretches out in front of you, and this is where it gets interesting. What you need now is the judgment that arises only from experience; hunches rather then rules.”

Yes you are working with your hands but this is about advanced reasoning. If you can attain these skills you will be in demand for a long time and receive engineering type wages for what you know, and down the road be able to start your own business.

Another reason to consider working with your hands is to avoid the problem of being a corporate drone, locked in a small cubicle, with a computer and a phone, and low pay. Many giant corporations no longer have a compact with their employees and their primary focus is on share holder value and continued efforts to reduce costs — no matter what. Crawford says many people trapped in this corporate world “learn the art of provisional thinking and feeling, expressed in corporate doublespeak, and cultivate a lack of commitment to their own actions. Nothing is concrete the way it is when you, for example, are pouring concrete.” These kinds of jobs lead to disillusionment and seldom give the employee a feeling of job satisfaction.

The Satisfaction

The author believes there is honor and satisfaction in creating things with ones hands. This feeling is true for artists and artisans and used to be true in manufacturing.

In 1953 I took my first shop class in the 7th grade at public school in Portland Oregon. In 1956 as a sophomore in high school I built a birch plywood coffee table with 2 drawers, for my mother. The joy of building things with my hands led me to pursue auto mechanics, scratchboard art, drawing, and eventually building my own woodshop — which has spawned hundreds of projects.

Learning how to create things with my hands both enriched my life and my thinking. In my spare time over the years I have designed and built furniture, buildings, decks, fences, and hundreds of other home projects. As I gained confidence, I learned to lay roofs, make cabinets, thread pipe, and install gas lines, tile floors and a myriad of other skills. I reached a point where I didn’t believe there

was anything I could not build given time and study. I began to see working with my hands as an art form and recognized the true value of the people in manufacturing who were very good at it.

Being able to make things and work with your hands is a set of skills, which should be honored and supported by more people. These skills should be exploited and supported because they are absolutely essential to manufacturing in America. In addition, these skills should not be allowed to fade out of the economy. It is up to everyone to recognize and honor the importance of manufacturing and making things.

I admit that making things with your hands will not in and of itself make the U.S. competitive in the global climate. But when you connect this set of skills with the new requirements of mathematics, computers, software, reading, writing and the need to get ahead, you have created the 21st century manufacturing workers that we need to save American Manufacturing.

Working with your hands (particularly working for yourself) is an opportunity to combine all of your skills and interests into a job, and to live with the decisions you make. An opportunity to be your own boss and gain experience everyday which adds more skills and brings more work. Crawford says, “There is an ethic of paying attention that develops in the trades through hard experience. It inflects your perception of the world and your habitual response to it. This is due to the immediate feedback you get from material objects and to the fact that the work is typically situated in face to face interactions between tradesman and customer”1

My hope is that this article might inspire some people to take a fresh look at the trades, and convince college students that it is a better career move to find a job working with your hands, rather than getting a general degree and being sentenced to the cubicle. But the biggest advantage is that your advanced skills, hands-on knowledge, and local customers are not going to be replaced by foreign competitors.

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