Triple Your Value, Capability, and Productivity...Now

Or Lose Your Job

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Just Give Me the Answer…Now

Trinity College Library – Wikipedia

Imagine that you are sitting at a table in the Long Room of the Trinity College Dublin Library cramming for an appearance on the TV show Jeopardy against the IBM Watson super computer.

Sitting beside you are several other super smart Jeopardy contestants who have also already passed the preliminary Jeopardy contestant exams and who are also cramming for facts to beat you on the show.

The single goal of all of the contestants is to instantaneously know the answer to any and every possible question about anything asked, and to instantaneously press the clicker to be allowed to give the correct answer.

But how can a human, even Ken Jennings, possibly know everything about anything and instantly correctly respond to any and every possible question, even questions about recent events that are not yet stored in the hundreds of thousands of books in the Library, or in the thousands of books the contestant has not read and memorized?

Sitting next to the prospective Jeopardy contestants is a person of average intelligence who is holding a smartphone and connected to the IBM Watson computer, or to Google or other search engines, who types or speaks any question and instantly receives the most probable correct answer to any question.

Who always (to date) wins the Jeopardy match, the human contestants or the computer (which can process 800 million stored information pages per second from any university library), and why?

Is the financial and occupational value of a human being who is able to memorize, store and potentially understand huge amounts of information rapidly decreasing, like a doctor, teacher or a computer programmer, when virtually any person can use a computer to always beat that person to current information?

Ditto for Grand Chess masters, and an ever expanding number of jobs like stock trading, where computers (including robots) and technology like the Internet and GPS have replaced humans and provided instantaneous, focused, and **free** correct information and action to a single real-time event where humans simply cannot.

Is the economic value of a mentally gifted person with decades of education and graduate degrees being greatly diminished and replaced by virtually any person utilizing the power of computer analytics, artificial intelligence, machine learning, and robotics?

The answer is definitely and resoundingly yes, as the computer instantly provides virtually anyone with the productivity tools, knowledge, and capability previously available to and attainable by only a few lucky genetically gifted and ambitious people.

Just Give Me the Answer…Now

Viewers of the TV show “The First 48” realize how difficult it is for homicide detectives to solve a murder without having a security camera video of the murder. All of the speculation, possible suspects, possible motives and wasted time are immediately solved with a security camera recording of the murder which gives the homicide detectives the correct answer and often a confession, now, irrefutably, and permanently.

Security and TV camera real-time recording and live worldwide streaming video provides crucial universally used new capability in areas including facial recognition in casinos and remote security available to virtually every home or business and provide the information for real-time analytics, or autonomic (self-healing) computing to automatically correct problems and prevent potential problems.

Thesis - How to Triple Your Value, Capability, and Productivity …Now

Thesis -The clear and immediately available way to triple your value, capability, and productivity in any occupation or endeavor is to realistically evaluate the endeavor, including effort, time, costs, output, economic value, and value added, and recognize that virtually all of the difficult and costly aspects can be accomplished far better, and with less cost and more accuracy by a computer.

Then, actively search for productivity tools that will simplify and speed the job by eliminating all parts of the job where productivity tools can best be used, and focus on the unique parts of the job, such as ingenuity, creativity, and business knowledge that can only be accomplished by a human.

Then, take action to secure and implement these productivity tools and triple (or more) your value, capability and productivity now, before your job disappears.

Do not wait for corporate management to take action for you, as the priorities of corporate management may not align with yours, and corporate management very well may not be aware of the best productivity tools you (and they) need.

Productivity background

Physical productivity tools like the hoe, axe, and fire, were developed over thousands of years, and more recently refined as technology like the steam engine, cotton gin, and the internal combustion engine (ICE) were invented and are now used to dramatically increase productivity, mostly physical activity rather than intellectual activity.

Mental, or intellectual, productivity tools like the map, languages, and books, were developed over thousands of years, and more recently refined as technology like the printing press, calculators and computers were invented and used to dramatically increase and make generally available knowledge, capability and productivity to everyone who uses them.

The fundamental problem or issue is that until the invention of the computer, the Internet, and mobile communications, humans hung onto virtually all the elements of virtually all jobs, primarily due to resistance to change and for job retention.

Many jobs including computer programming attempted to require things like understanding and remembering entire libraries or applications of computer information (the big picture) for which the human brain is not best suited (compared to the computer), while not enabling the programmer to see only what was actually happening inside the computer, not what could possibly happen.

Globalization, the Internet, wireless communication, a host of recent invention, and relentless price and economic competition has forced virtually all jobs in all industries worldwide to be optimized for increased productivity and reduced cost, or the job to be completely eliminated.

As the computer is now the basis of most intellectual productivity advances, this article uses the corporate computing environment to illustrate exactly how corporate programmers can and must triple their value, capability, and productivity now by utilizing productivity tools, or lose their jobs.

Computer programming (development) is a prime illustration of how millions of corporate programmers are wasting billions of dollars annually in grossly unproductive, costly and primitive activities, like manually debugging programs a statement at a time using techniques that were established at the dawn of computing in the 1950s, and attempting to understand and support entire libraries of complex application software, and guessing what is actually happening inside the computer.

For perspective, there are perhaps five million corporate programmers worldwide, each costing about $100,000 US annually, including benefits, **totaling an annual cost of $500 Billion US dollars annually to corporations.**

The thesis and illustrations of this article, "Triple Your Value, Capability, and Productivity… Now" is that perhaps two thirds of this $500 Billion dollar annual cost to corporations is wasted, as the corporate programmers could be and would be at least three times more capable and productive now by utilizing known and available productivity tools, like the Real-Time Program Audit (RTPA) software.

Those grossly unproductively, costly and primitive computer programming activities are the direct result of the computer programming trying to understand and manage the entire (program) library, an impossible task, instead of focusing only on understanding and addressing the immediate task at hand (**Just Give Me the Answer…Now).**

Thesis- No matter how smart you are, if you are a corporate computer programmer using traditional development techniques, including interactive debug and trying to understand from memory the entire corporate application software, and guess what is happening inside the computer, you are grossly unproductive and your job will soon be eliminated.

Corporate programmer use of interactive program debugging illustrates how today corporate programmers routinely use wasteful, primitive and grossly unproductive methods developed at the dawn of computing, when these methods could be totally eliminated.

Program Interactive Debugging

Since the dawn of commercial computing using stored programs in computers in the 1950s, no one has been able to see what was happening inside the computer (what source statements and data were being processed).

In the (my) early days in programming at IBM, the computers processed only one program at a time in the ENTIRE computer, and the computers, like the IBM 1401 computer and IBM System/360 computer, had consoles with many blinking lights that indicated what was being processed at that moment (7 or 8 lights or bits for a character).

The programmer used to stop the computer and single cycle (step) through the program instructions one at a time, and could display the contents of the variables (the data being processed) by flipping switches on the computer console. In the meantime NOTHING else as being processed in the expensive computer.

Computer programming languages also had the ability to stop or HALT the processing of an executing program, like the RPG programming language operation codes H1 through H9) so the computer operator could investigate a problem (like cards being processed out-of-sequence).

Over time, multiple programs could run simultaneously on a computer (MVS Multiple Virtual Systems), and the hardware vendors created software interactive debugging programs so that a programmer could single cycle through a stopped program on a computer screen just like he did flipping switches on the computer console.

However, the interactive debugging still required the programmer to first recreate the problem, and then spend great amounts of time and effort single cycling through parts of the executing program the programmer might consider to be of interest.

The difference now is that in the early days, programs were perhaps 2,000 statements (10,000 positions of core memory), and now programs can be hundreds of thousands of lines of source statements and millions of positions of computer memory (an IMPOSSIBLE job for programmers, but the ONLY way they know about today to see what is happening and is possibly wrong inside the computer).

Today companies like IBM have more sophisticated interactive debuggers with GUI, BUT the process is still exactly the same as it was in the 1950s, with a programmer recreating and then stopping the computer job, and single stepping through the program inside the computer memory in EXACTLY the same unproductive manual process as in 1950, and scribbling notes along the way.

Nobody ever seemed to ask the question "Why can't I see and record what is happening inside the computer, and eliminate most of my problems, and not have recreate the issue and not have to be present and guess what is happening"?

```
302     torder = 1500;
          1500
303       iorder = 78.543;
          78.543
304    // value of iorder has now been computed
305         xorder = torder + 13.45  +
          1618.19     1500
306     // this is a continuation free form statement preceded with +
307                     26.2 + iorder;
                              78.543
308      sorder = torder +  xorder +  iorder + rorder + morder + norder;
      93330.496     1500
                           1618.19    78.543
                                            32109.876
                                                     34567.098
                                                              23456.789

(partial Client Stock Account Summary forensic accounting audit output)
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Illustration of Real-Time Program Audit of an executing IBM RPGLE computer program (security camera recording)
Source: On-Demand Forensic Accounting and Analytics" Paul H. Harkins

The Real-Time Program (RTPA) patented software provides a real-time permanent recording of exactly what is happening inside the computer including the data contents of each variable processed and the moment-in-time every statement is executed, **without** the programmer being present.

The Real-Time Program Audit (RTPA) software RTPA totally does away with the interactive debuggers stepping through the stopped program in program memory, AND WITH THE PROGRAMMER manually stepping through the HUGE program and trying to understand what he is seeing and doing, and guessing where to stop the computer to look.

Programmers stopping the computer and single cycling through a huge program in memory guessing what to look for and where to look, and forgetting what they see, is a huge and wasted effort and cost and huge and costly problem in IT.

Computer Programmer understanding the Big Picture

Since the dawn of commercial computing using stored programs in computers in the 1950s, no one has been able to see what was happening inside the computer (what source statements and data were being processed), without stopping the program execution and having the programmer using a stepper debugger.

Instead, the corporate programmer was and is expected to essentially understand and hopefully memorize the entire corporate library of applications, sometimes being ten million program source statements, and also hopefully understand all of the perhaps hundreds or corporate data bases, and how all the programs and files related and interacted.

It turns out that this attempt that virtually every corporate programmer understand the big picture of the entire corporate applications software is as hopeless as a person sitting in the Trinity Library understanding all of the contents and meaning in the thousands of books there.

Thesis –Utilize the computer to record and illustrate exactly what is happening and of interest for the current task at hand, and have the computer document the source programs so that all may easily understand them for later tasks.

This means that years of accumulated programmer knowledge of applications, including "ownership" of applications by a programmer, are now not only not necessarily desirable or needed, but are unnecessary. A new programmer to the applications software can easily and quickly see and understand exactly what the application source code is actually doing (executing), and not be concerned with years of prior changes to the program that may be no longer valid.

Your Great IT Gig is Going, Going…Gone

The quantum and relentless leap in computer power/cost and disruptive software machine learning has put in peril the future of all corporate in-house developers/programmers who utilize traditional development techniques and who refuse to embrace this disruptive change.

The very principles and foundations of what has made corporate developers/programmers valuable, capable, productive and successful have been turned upside down with real-time disruptive machine learning, and productivity tools. Developer prized assets such as knowledge of the programs, and guessing what might happen or what did happen, have been turned into liabilities, allowing a single remote developer/programmer using machine learning productivity tools to do the work, or more work, of two, three, or even five in-house developer/programmers using traditional development and support techniques.

The Computer Machine Learning Revolution is now multiplying human productivity and capability and creating vast wealth by replacing complex and costly human skilled mental labor such as corporate computing developer/programmer traditional skills with real-time machine learning. Human mental capability and productivity are multiplied with computer assisted productivity tools such as a real-time security camera like audit recording and analytics of all program execution, to simplify and deskill the traditional programmer job

This computer machine learning revolution will soon allow the computer itself to create and maintain corporate applications using voice English commands, and will put millions of traditional corporate programmers using traditional techniques out of a job.

Computer programs will be created and supported by voice commands in English, virtually identical to the way IBM Watson, Google, Amazon and Microsoft home devices provide a direct real-time interface to the consumer today in the consumer home.

Thesis – Simplify corporate programmer language programs and interfaces towards English language documents that non-programmers can understand, and remove all technical constructs, such as bound programs, that have been developed for programmer or computer performance considerations.

Focus on understanding the business and making it competitive and successful

Keep it simple and understandable by others.

- **Your CEO must greatly increase your productivity or eliminate your job**
- Henry Ford revolutionized the automobile manufacturing industry by producing 15 million model T automobiles while continually reducing prices using the new productivity tool he invented, the assembly line, while his perhaps one thousand competitors used traditional less productive and more costly manufacturing techniques. He also amassed an incredible net worth of 118.1 billion dollars (Wikipedia) by providing more value, capability and productivity at relentless less price (and cost) than his competitors, and he put most of his competitors out of business.

- Henry Ford fundamentally increased the productivity of automobile manufacturing from teams needing the knowledge of all the manufacturing tasks of building an entire car in a stationary stand, to bringing the car to a team on a moving assembly line and having a team do only one job.

- The CEO of your company faces a similar urgent need to wring more value, capability, and productivity out of each employee to reduce cost and increase profitability in the purchase decisions of potential customers in the real-time Internet worldwide marketplace of instant comparisons and decisions.

- Your company CEO must similarly transform and increase the value, capability, and productivity of the sixty year old unproductive, primitive and costly techniques of IT developers and programmers, or your CEO must entirely eliminate them (and you) to effectively compete in the marketplace.

- And now, your CEO has an incredible disruptive and powerful productivity capability to enhance the value, capability and productivity of the current IT corporate environment rather than to completely replace it, and you, but only if the CEO takes action to utilize it.

What to do when your dream job disappears?

The Answer: Utilize Value, Capability, and Productivity multiplying technology to multiply your value, capability and productivity by three, five, ten or one hundred times over your human capabilities, and adjust, adopt, and adapt to the changing world, **and do it now.**

When you dream job disappears, as it inevitably will, you will be then be prepared and be much more valuable, capable and productive, and employable then all those who at those refused to prepare for the inevitable change.

And, you will be a confident and capable expert with universally needed skills, who can consult with corporations who have successfully also changed to be successful and prosper together.