

Managing Oneself in the Age of Big Data

As a historian, it is obvious that the responsibility of today's worker to reinvent and manage their own career is at an unprecedented level. As a futurist, it is equally obvious that we have an equal level of opportunity to do so.

~~Yet, even with all of these tools available~~ As our society develops, it is the human side of development and technology that appears to be the most ~~taxing~~ delaying of our potential. For instance, *New Horizons*, a spacecraft designed to visit the near-regions of Pluto, just accomplished the feat of travelling over 3 billion miles away, to take detailed photographs of a dwarf planet that was a mere 86,000 miles away from its lens. The capabilities of technology and management that were able to execute such a feat are truly astounding.

While this accomplishment is breathtaking, our work environments find the use of technology to ~~achieve~~ achieve similar personal feats ~~of similar level~~ increasingly elusive as we find ourselves responsible for managing our own contributions. Elsewhere, writers and thinkers have commented on the virtues and vices of technology. ~~addressed the challenges of distraction, and being overwhelmed with the amount of data in which we live—both of which make it difficult to make the best decisions. The search term “data driven organization” brings up over 20 million hits on Google, and sets one of the standards—~~ As these ~~pressures~~ opinions mount, it is easy to fall into the trap that our technology should mimic our own abilities, or that we should mimic the gains brought about from technology (like becoming more efficient). However, ~~W~~hen a person begins to catalog information and focus on their role as aggregator and processor, then they have begun to place themselves where they will ultimately become obsolete to technology.

The reward of this obsolescence is that it moves the person back to the central role that they alone can achieve. They are responsible for the creative leaps, the difficult choices amidst ambiguity, and building the character of the future. They can use technology for certain kinds of work like running a microwave remotely or gaining insights from machine learning to be sure, but there are other types of tasks that technology cannot achieve. These tasks require specific competencies, and they are never cultivated by accident.

~~Technologies like the Internet of the Things or Big Data can certainly augment and inform the societies that individuals create, but they alone can bear the responsibility and pleasures of choice that make:~~

In even the last few years, the ability of an individual to use technology to accomplish more than the most basic tasks of storage or communicating has significantly accelerated to help develop information or execute tasks with precision, and with that, we have reached a new plateau for the knowledge worker.

~~In my own experience, I have found that knowing things, even obscure things that are built on domain insights to become an almost useless task. The expert of today and tomorrow has little to do with knowing the way things were, but more to do with knowing how they operate and can be.~~

This new plateau requires new skills, which develop the ~~keep in mind the~~ unique role of the person. This new knowledge worker must master their own development, using both old and new technologies in order to thrive tomorrow.

Values and the Development of Expertise

The first task that they alone can achieve is that they must decide the direction of their lives. In the past, a person could make their career choices based on the limited possibilities available to them. Now, with the virtualization of knowledge and communities, it means that ~~they~~ they can begin building any career they choose.

To accomplish this task, they need to focus on their ir values ~~they personally hold dear~~, the way they work, and the feedback they get from their peers on where their individual blind spots are.

One of the most relevant perspectives for Millennials in understanding their own values is to place it in the context of culture. Early in my own career, I ~~had the opportunity for~~ began what many perceived to be a choice role. It was prestigious, well paying and with clients that were household names. I failed tremendously in it. I resigned myself to the belief that staying out of larger organizations or any organization was my best chance for development.

A few years later, after several false entrepreneurial starts, I found myself again in a Fortune 50 company, out of necessity this time, this time except with a very different culture. In this organization, I thrived. It turns out that the culture shaped my performance far more than I gave it credit for. Even high performing organizations can be a place of low performance for a person who does not have a similar temperament. (Though~~The culture of the organization,~~ the concepts of learning and the self-management skills I had developed in the preceding years were significant~~also a factor in my newfound success~~~~in succeeding in the new role.-)~~

Finding the best way that I could work was a different task than I anticipated ~~as well~~. I often had the ~~opportunities~~opportunity to take personality ~~tests~~, or aptitude tests, Not a single test~~none of which~~ told me the way that I produced results most effectively, or told me about where I would enjoy my workbe proud of the work I accomplished. ~~It did not tell me the extent that the physical or social environment would have such a tremendous impact on my work.~~ In the minds of many of these diagnostics, the difference between writing software at Microsoft or at Google is unintelligible, but if you were to ask an engineer there, they will tell you that it makes a substantial difference in the pleasure and quality of their work. The difference between writing as a novelist and writing as a blogger turning out six blogs a day is substantial, and a very different career in substance, ~~though not in title. The Millennials, and anyone, is best suited to recognize~~The the nuance of a careers goes far beyond the broad brush we have been given. _

After many years, now that I am aware of the environmental factors for my success, I need to focus all the more heavily on the factors that require intention and discipline. While doing so, new difficulties are cropping up. The first is that the career of tomorrow, and the role of tomorrow, have not yet been formed. This is different than saying a career is twenty years in the future. No longer are we aiming for a role that is one rung up the ladder in order to make our greatest contribution (like managing a role we performed previously). Or that we would develop an expertise like an electrician might - starting as a novice and moving to a master within that domain. In the current environment of our work, I believe that the nature of expertise has shifted. The mastery of yesterday is only a small comfort to the challenges of today.

My only choice is to achieve as much mastery as possible in a role, and look at what and where that mastery has suited me for when it is time.

Mastery in this sense means that I should become what David Kelley describes as a "T" person. A "T" person is someone with a wide breadth of knowledge about a few things, but deeply knowledgeable about one thing. In my youth, I believed that the expert was someone who had spent a lifetime learning everything about one thing, and was a novice getting slightly better along the way. In today's environment, there is no trade off between novice and expert. You must be an expert in your first role, and build a wider frame of expertise with each successive role. It is not "T" shaped, but that of a triangle, where you become more of the same thing, even as you leave old competencies behind.

As an entrepreneur, I must be an expert in managing a product, and then an expert in managing a marketer. I do not have the luxury of getting good at something, because the harshness of the environment requires extreme competence, even from the start. An expertise that started in managing information technology evolves to an expertise in managing technically, and then any task that comes along.

Constructing expertise in our era has its own challenges. ~~Now that I am in a position where I can make informed decisions about direction, new challenges seem to be cropping up. The first is that technology has become a chief distraction—overwhelming my senses not only because of the wealth of information, but my own lack of ability to interpret and prioritize it.~~

For many of my own generation, if you said they you were self-taught, it would mean reading certain books, or developing an interest in a task topic on your their own time. If you were university taught, you have a record of coursework that shows your work. This would be followed up by a very authoritative recitation of facts, and sure opinions, often based on the opinions and interpretations of others.

This creates a novice expert, one who holds a strong opinion, even well articulated, but without the practice that informs why certain things are true. The difference between the novice expert and the one with deep knowledge is harder to distinguish initially, but more important than ever. I know because I have played the role often, but never intentionally. This is the very basic premise of what this must mean for my generation. The self-learners are those

who can develop their own structures of knowledge - the relationships, factors and applications of these facts-. The structures of knowledge are the difference between a true expert and one who is pretending to be. Again, the nuance seems to be something that Drucker ~~pointed~~ pointed at years ago, ~~that~~ yet it is now only now becoming clear. _

Concentration

Building this expertise for oneself, with the aid of technology, requires a new mastery. That skill, as fundamental as math or writing, is that of concentration. In his autobiography, Drucker stated that, "The monomaniac is unlikely to succeed. Most leave only their bleached bones in the roadless desert. But the rest of us, with multiple interests, instead of one single mission, are certain to fail and have no impact at all." The skill of concentration in our age has certain demands. Namely, a singular focus, articulating the actual task and persevering through unknown challenges.

The first task of having a singular focus is obvious at first glance. Yet, it does not appear that there can be a second focus, even by appropriately organizing resources. This demands a single priority of learning, work, communities and goals in order to make even the most minute dent in the outcome. Environments and knowledge are developing too quickly to mean that anything but a singular focus can achieve impact. This requires not only leaving out perfectly reasonable things that peers may be able to commit to, but even becoming unreasonable about the focus that these things require. Effectively, the person with the singular focus must have blinders on that eliminate the interesting, so that they can focus on the important.

~~First~~ The second task is about the management of their own enthusiasm. With any new endeavor, is there is a tendency ~~ability~~ to get ~~distracted~~ ~~discouraged~~ by the great ~~difficulty~~ ~~difficulties~~ that ~~is~~ are encountered after the initial rush ~~of tackling a task~~ of beginning. While this may be because of my own entrepreneurial inclinations, I have experienced this to be true in almost every new endeavor. One of the primary reasons for this, in my experience, is not

merely a lack of competence, but a fundamental misunderstanding of the task. In fact, I cannot think of a single instance where work was what it appeared to be from the outside. As an adjunct professor, it was not teaching the many, but the few. As a consultant, it was not the role of ~~advisor~~ expert, but as a supporting actor helping to justify decisions (many of which were already made.)~~either~~ As an entrepreneur, the real work was not coming up with a product, but understanding human nature and how it affected staff and customers. This can lead to a deep disappointment as you progress that keeps your commitment to the work pressed on all sides. This becomes even harder where the ability to quit and quickly dive into something “new” is so easy.

This leads to our third task, perseverance. A temptation exists to make decisions based on consensus, but this may not always lead you in the right direction. Particularly within “startup” communities, it is uncommon to find outright critics. In the earliest stages, the fastest way to get evicted from the entrepreneurial ecosystem is to be a critic. The fastest way to belong is to proclaim that every idea is “brilliant” and every step of progress is “awesome.” (This isn’t completely true, the fastest way is to have means.) This inevitably means that you have to pick the right audience, and be deeply focused on your customer, so that the rousing chants of the community do not steer you away. Sometimes, this perseverance means going counter to the advice you are given, or changing audiences entirely. On occasion, it means pushing through, but more often it means diving in deeper. Ultimately, perseverance is the practice of clinging to goal of a specific value until it finds itself obsolete, unimportant, or satisfied in some other way.

Communities

One of the greatest advantages and challenges of career development for the worker today is that of new communities. Historically, communities were formed by geographies or by companies. Now, they are based on affinities, interests and objectives. The association of one person to the other has taken an embodied form, and a “community” can quickly become constructed from the smallest strands.

On one hand, this makes the world an amazing place today. A person learning a new task, like machine learning, as I am attempting, can quickly immerse themselves in the relevant community. The experts have created resources,

forums and videos. Massively open online courses promise to deliver new vistas of accomplishment and ability. However, while the struggles of structuring the knowledge are there, they pale in comparison to difficulties of just a few years ago when that knowledge was contained within cloistered communities. We are in an age where the monks have left the monastery, and invited everyone who was willing to begin the long journey of growth in their own area of expertise.

But knowledge communities that are virtual or purely professional are not strong. They can connect and transmit knowledge, but they are not a replacement for the physical communities and the personal relationships that come from them. Even as career driven Millennials, we have seen that friends become rarer still, and there is a deeper divide between professional acquaintances and those we can trust (even in a professional capacity.) Because the ties are weak, and the permission to create mistakes (social or professional) is virtually non-existent, it hampers growth. Because who has grown without mistakes, and the honest feedback of others? The errors of the novice (or beginning expert) then result in isolation, and help to exacerbate the problem of knowing without context.

The antidote is one of the hardest tasks of any mentioned so far - to develop a strong, personal community where feedback can be received honestly, skill can be nurtured and where the future can be created with kind criticism.

Whether virtual or physical, it is the strong and thriving community that seems to have the most power to unlock human potential. The directed team, the inspired leader and the noble task are all necessary ingredients to accomplish great things. With the technology of today, we are able to drive collaboration from many corners of the world, with more information and data than ever, to accomplish visions of grandeur that surpasses even our best technological achievements.

Tomorrow

The challenges that technology faces today - faster processors, more powerful batteries, design and our use of it - pale in comparison to the demands of young workers to develop themselves. Left to their own devices, the ability to get lost is easier than ever. The vortex of binge watching Netflix, or spending

too much time on Twitter or Instagram is a siren call, calling each one of us away from a contribution in the world. We long to believe that our contribution can be made while simultaneously consuming these distractions, and occasionally protesting the injustices we encounter.

Yet, when you look at those we rally around for support, we do not find that they woke up on a Monday to change the world on a Tuesday. They were single minded, ruthless with themselves and kind with others. They were able to find a culture they thrived in (or create it), and continue to build their own depths of knowledge. They managed the emotional side of their careers, battling distraction, disappointment and tragic error. They did it with a community - all looking in the same direction and contributing in each other's lives. As the role of technology grows, and as its capabilities exponentially increase, the knowledge worker of tomorrow is well positioned to take on a position of moral and practical leadership to create the future. This seems to be the only "successful" path, and one that each of us can continue to aspire to.

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~~The second task is that they must develop the blinders that come with deep focus.~~ ~~Aside from the overwhelming level of data that comes at them from within an organization, only the individuals that find a way to discipline themselves against interruption, distraction and discouragement will have any chance of success.~~

~~Deep Focus and Concentration~~

~~Capabilities~~

~~Communities~~