Cumulative Journals

by Jonathan Kenney — Future of Work

Journal #1: Embracing Ambiguity

In the world of engineering, it is difficult to make it through an interview without the cliché "creative problem solving" emerging in the conversation. It quickly becomes clear, however, that that is a small-text "creative" with a 72-point, boldface "problem solving". The former tends to indicate a desire more for efficiency and cost-savings than imaginative ideation. That said, I have always felt a certain comfort with ambiguity. I am not sure if this would stem from a natural inclination for it or against the alternative: rigidity. Regardless, while the class may be far from the norm I am used to, the change is welcome.

The greatest challenge that I see stems from the point I made above—often while teams talk up the value of embracing ambiguity and free ideation, the reality of goals and deadlines set in and results become the driver of the decision-making process. One hope I have is to achieve a sense of how to overcome this default position, and furthermore how to persuade a team in results tunnel-vision to keep the ambiguous big picture in mind.

Interestingly enough, I have dealt a lot with ambiguity in my current job, a remote-first tech startup that requires constant autonomous decision-making from every member. It is the first time I have worked in an organization that I feel "gets it" with regards to this concept, but I am still interested to see how I may be able to help the team embrace ambiguity in a more focused way, as paradoxical as that sounds.

Journal #2: Logical Fallacies + Unconscious Bias

Often when I consider the future of work, my mind goes directly to two items: automation/AI (read: shifting workforce) and the philosophies and ethics of work-life balance or, better stated, the work-life *relationship*.

The former is born from a surface perspective of mine: the computer engineer and technologist. However, it also grips my sociopolitical brain that wonders about the human impact. The daily parallel debates between these spheres mirror my own curiosity and fear; curiosity for the expanse of innovation opened to humanity, fear for how the slow, reactive population will suffer by being unable to update archaic utilitarian systems to the necessary humanistic paradigm required in a post-industrial age.

It seems I have spilled a few beans regarding my second cognitive bias, which is essentially the resultant philosophical dilemma that arises from the impetus of this AI revolution: where does the work-life relationship go from here? How do we begin to reconcile that a **lot** of people are about to be out of work and that disciplines thought secure now could be non-existent in a decade? How do we realize a "new zeitgeist"? That is, not just attempting to slap a bandage on rifting wages and a ravaged working class, but striving for a truly *satisfied* society.

To actually answer the prompt, my own mental gap appears mostly in an exaggeration of the former and a bias for anxiety on the second. I am hoping not that I will completely scrap all of these wonderings, but to temper the mainstream narratives in the aforementioned spheres with fresh, open-minded perspective.

Hans Rosling, a Swedish public health expert who has done incredible work in evangelizing a data based worldview, put it very well in his book *Factfulness*—an address of ten of our most harmful instincts in the modern world. Regarding what he calls the "urgency instinct" he sates, "**Be wary of drastic action.** Ask what the side effects will be. Ask how the idea has been tested. Step-by-step practical improvements, and evaluation of their impact, are less dramatic but usually more effective." My tanslation: *fall in love with the problem.*

Hans is not snuffing out the futurist's big dreams; he is instead saying: go *intelligently* make it a reality. I hope to learn throughout this semester to look at these big problems with a bias for sense-making instead of simply subscribing to what many of the tech and political fortune tellers would have us believe about the situation.

Journal #3: Who Owns Innovation?

I have discussed in previous journals about how, while "creative problem-solving" is a cliché within the engineering world, it is not always meant in the purest of terms. Engineers tend to walk this tightrope of not wanting to seem too traditional or technologically behind, but certainly not inefficient with time by being to head-in-the-clouds either. "Creativity" here often becomes: "how can I have the appearance of innovation by recycling the same solutions to get an efficient result?"

Not that this approach is all bad, often the simple solution *is* the best solution. But in an effort to avoid what is called in the field "over-engineering a problem", people get complacent and in a rut of playing it safe. Oddly enough, dissatisfaction among engineers and developers almost always comes from a place of feeling stagnant or locked in by managers who only care about the bottom-line.

Therefore, engineers who tend to go into the discipline optimistic and ready to solve the world become disillusioned and a part of a system. For me, engineering is not just about being an idea enabler. Engineers are oracles of the future, speaking the very language of creation. However, their business utility (or at least perceived utility) lies in their ability to implement, not dream.

Working at an agile startup that has developers and leaders from myriad backgrounds (I am the first engineering hire at a data engineering startup of 7 employees!) has taught me a great deal about putting more faith in my ability to truly articulate creative design and decision making on top of just the usual implementation detail I had been accustomed to in previous work. I believe this is due in part to the context of the job itself, but also to how I have learned from my teammates and the unique perspectives they bring.

Journal #4: Reframing Questions

When it comes to finding the best solution to a problem, it is often necessary to take a step back and get space. Research suggests that our most creative state comes in the shower, on a walk in nature, and in the half-roused moments of the morning—among other similar contexts. This is because in these times our brain is separated from the tunnel vision of a particular task.

In the situation with Cisco, reframing the question a layer up expands the inquiry into a bigger question and allows space from the tunnel vision of the perceived problem at hand. I believe this helps an organization in Cisco's position as it forces thought around what really needs solved—this is closely related to the discussion of designing for people. Ultimately, not only does this generate a more interesting product, but also provides longevity. In today's rapidly changing technology ecosystem, stagnation and complacency make the quickest path to irrelevancy.

Throughout the process of reframing our topics, we have certainly taken some leaps. However, I think we could achieve better by limiting our cynicism and better appreciate the process. The progression out of the tunnel vision has been most stymied by this reluctance to get a bit silly with it. In the vein of how *Creative Confidence* discusses having the approach of child, we have found most difficulty in resisting our rewired

adult instincts. The outcome has been reframed questions that are negligibly different from the original at best and flat out uninteresting at worst. I believe achieving a better "question zero" would have required more open-mindedness and willingness to play along.

Journal #5: Presentation Reflection

From the perspective of building the presentation, I think our group really suffered from a lack of communication. We decided to pursue a divide-and-conquer strategy for our research, and in turn each completed the associated presentation material. This manifested in a fragmented and non-sequitur flow.

One area our team did very well was finding some strong research that held interesting insights. Unfortunately due to the above fragmentation and some misunderstanding on our part about the requirements, many of these neat insights did not come through very well. This was also not helped by our visual layout, which was often too cluttered with distracting text that in one case even contradicted our verbal explanation.

Going forward, I believe the question around requirements can be smoothed over by better up-front discussion and planning; ensuring everybody is on the same page and making an outline that strongly correlates to the matter at hand. The fragmentation issue can be remedied through more constant communication and perhaps avoiding the divide-and-conquer strategy as much as possible. Additionally, just as a good essay always refers back to its core thesis, I will advocate for sticking to those key insights and ensuring the core narrative is not lost due to a lack of organization or pedantic explanations.

Journal #6: Transferable Inspiration

Considering parallels of the parameters of this class to the future of work of humans at large, I first am struck by its open-ended nature. Partially I consider how this intuitively feels like a necessary trend to achieve a sustainable future, but mostly I am disheartened by the stark contrast to the rest of education. This is not just regarding college, but spanning back to learning elementary math in the first grade. It is clear that we must revert back to a classical way of education to tackle the complexities of the post-industrial era, however we are limited by the industrial era educational infrastructure.

This behaviorally exhibits itself in that reluctance to get outside the thinking apparatus we are comfortable with. Creativity becomes a burden, because it places an added layer of discomfort—fears of failure or incompetence, strain on a mental muscle not often stretched, and often a belief that time could be better spent elsewhere. While this is the default currently, I remain hopeful that the system can and will change to adapt to the growing needs of creativity and nuanced thinking this class being a prime example.

My first thought was mostly surrounding education, which definitely has large ties to the future of work. However more specifically considering work itself, the parallel that inspires me is our classes ability to incorporate more than just the brass tacks. People discuss, without shame, their emotions, thoughts, and opinions—often leaving large swaths of class time spent on "unrelated" material. This is important as it pertains to the future of work for two main reasons.

First, I believe that this mindset can actually lead to more productive and interesting results. On the one hand, better rapport can ease tension in a group and improve co-productivity. Additionally, by allowing the process to be "intentionally partially unfocused", there is more space for creative thinking and big picture dot connecting. As an analogy, I consider the research that shows how doodling in class or staring out a window and disengaging can actually be beneficial to a student's absorption of material.

Perhaps more importantly—in an increasingly digital and independent culture, it is essential that we not lose our ability to be intentional and connected (meaningfully) with one another. This excites me with regards to the future of work as, as I see it, "work" is just people coming together to accomplish goals. Historically this has been in the form of survival and enterprise, but maybe the next phase is that work becomes more about this desire to be together and genuinely pursue big ideas and challenges. In a world where it is so

easy to disconnect, work actually becomes a catalyst to preserve human relationships. This is not only heart-warming on the surface, but speaks to mindset shift around what work even means and the potential structural changes that could come to accommodate it—and that are perhaps even necessitated by these mindset shifts alongside drastic changes in the workforce.

This is all speculative and "out there", but as a final reflective exercise, I like to consider the constructs of causation or coincidence. Do these changes I consider here in education and work come about due to mindset shifts? Or maybe by necessity of rapidly changing technology? Or maybe the changes in work and education are the predicate themselves to these other factors? Perhaps it is all just coincidence! Regardless, when I see how motivated curiosity, interdisciplinary creativity, and empathetic connection instigate excitement in this class, I cannot help but anticipate how they will unfold in society writ large.

Journal #7: Creative Confidence Wrap Up

Throughout this semester, I have seen myself really grow in understanding what creativity even means. This growth has been from the traditional understanding of a "creative gene" to recognizing that creativity is more like a muscle. I have talked extensively in past journals about how in the engineering world the word itself often masks for less creative designations like efficiency and breadth of knowledge. This has had the unfortunate effect of fostering a jaded feeling towards creativity, which I now feel has been expanded into a more optimistic outlook.

Spring-boarding off the muscle concept, a big takeaway for me has been learning and experimenting with numerous tools. For a class I initially viewed as in the "soft skills" department, it has surprised me with a plethora of practical exercises to go with the more heady learning. Often when I am exploring a new idea or diving into a complex problem, I struggle up-front since there are so many thoughts buzzing around with no order to them. Now, I feel empowered with means to take these ideas to the next phase with confidence.

In conclusion, it is fun to point out the irony here. The classical definition of creativity would not lead someone to ideas of order and confidence; quite the opposite, it is normally associated with divergence and ambiguity. The latter parts are still a part of the process of course, but what creative confidence has done is supplied the necessary follow through to embrace the abstract and ambiguous and then do something. This is the ultimate legacy of *Creative Confidence* for me: that true creativity ends in bold action instead of a stymied fog of incomplete ideas.

Journal #8: Re-framing Research

My initial reaction to these "softer" research methods was not one of distrust or condescension—it was much more a feeling of frustration. In STEM-land, we are taught that the strongest things to trust are facts and numbers. This is certainly justified, if a company wants to release a product there needs to be certainty that said product functions as expected. If not, the results could range from disappointing to deadly.

However, I think too often this mindset comes on too early. When studying requirements and design, we learn that the greatest opportunity to save money in the long run is by spending more time on refining the design (as opposed to during development or, even worse, after release). The problem with this though is it means the craft incentivizes skipping the creative design part and moving straight to what I call verification design. This story tends to go something like this: get problem, take **one** tried-and-true solution, spend majority of design time justifying why that **one** solution will work. This works well at mitigating risk, but not developing an interesting or innovative outcome.

This is where the empathy aspect of these "softer" methods has great value. They may add some more time to the design process, but they ultimately lead to a more effective solution. This is clearly shown in many of the examples laid out in *Creative Confidence*. While engineers do need to be time conscious, this truth actually adds to the above axiom around mitigating long term risk, as a better solution is inherently less

risky. In my job, we go through many ideas every week, and to be fair we are lucky to work in software where it is slightly easier to iterate and test new ideas. However, there is still a great amount of technical and customer debt that this can cause. I hope to bring some of these tools into my position as a way to make sense of the ideas we generate and hopefully add some empathetically creative direction.

Journal #9: Looking Back and Ahead — Final Reflections

Throughout the course of this class, the most challenging thing was getting past many of my own personal blockers. This took many forms: discomfort around relying on groups, difficulty tapping into the "creative" brain, cluelessness on presentation design, and low confidence on dealing with non-deterministic problems. With every new exercise, I found myself just thinking: how can this possibly lead to anything productive? What I have found in retrospect is not only was there great reward in optimistically sticking with it and achieving some cool outcomes despite my own reservations, but also there is immense growth in my own perspective as it pertains to design and problem-solving.

Specifically, I have a strong memory of going over our final presentation the morning before we would be showing it off to BHDP, and a part of me could not believe the research, insights, and predictions before me were something I ___ had contributed to. This is not meant to be self-deprecating, merely an acknowledgement that such a product is not something I have ever had a chance to even get my hands dirty with. Looking at it now, and comparing it to the first presentation, it is unreal the kind of growth that can be seen, and that is definitely the most rewarding.

If I could go back and do it all again, the first thing I would change is to go further with the primary research methods. It is hard in the moment as time always seems short and there are many things going on all at once, but there could have been a lot off room for more creative research/ethnography ideas. One point of growth is that there is no way I would have had the confidence to engage in such activities at the start, but now the idea is energizing.

Ultimately, this class does build better global citizen scholars. The world is only going to continue to become more complex, and the design ethic and methodologies learned throughout the semester are excellent primers for facing the ambiguity of the world head on. Not only in the practical senses of problem solving alongside multidisciplinary teams, but also in learning how to fall in love with a problem, empathize with people's needs, and find innovative solutions and ideas for complicated scenarios.

Journal #10: Plus / Delta Feedback

To start feedback on the class, let's just say it definitely subverted my expectations. I start here because most of both my pluses and deltas stem from this. On the one hand, I do wish the class had more time for futurism. Part of what drives creativity and connection is the chance to simply discuss the future both from a reflective (i.e. personal perspective) point of view as well as collectively dreaming of where the world might lead. The glimpses of this that came from various articles we read and discussed were some of my favorite moments.

That said, there were many pluses. I think my expectation going in was essentially that this would be a research and discussion based class about forecasting the future of work and what problems might arise. I had no idea the amount of hands on work we would get to engage in and the growth I would experience from it. So this was a major plus; everything from the exercises to the presentations were a huge A+ for me. I would definitely recommend sticking with the sprint schedule as is, as it laid the milestones for reflection and then progress.

I think my last bit of delta would be that with such a small class, it would be really cool to do more to foster community among the students. Partly this is just a personal desire I have with all interactions—I have never been one to be a all-business mindset. But if a business justification must be made, it would be

about the team storming. These are big projects and questions that require a non-trivial amount of depth in conversation and work on the teams. Often, it felt like the biggest blocker to completion was just discomfort on the teams. It would be nice to have time set aside to building empathy between the members, much like the NYT article suggested.

Overall, this class was one I will certainly remember. I am glad to see that it is only going to continue iterating and offering students a chance to step outside of their comfort zone and grow in a way traditional classes do not typically allow.