Design for This Century

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10.26.17

Response

On September 9, 1945, a Harvard technical team looked at Panel F and found something unusual between points in Relay 70. It was a moth, which they promptly removed and taped in the log book. Grace Hopper added the caption "First actual case of bug being found," and that's the first time anyone used the word bug to describe a computer glitch. Naturally, the term debugging followed. Word nerds trace the word bug to an old term for a monster -- it's a word that has survived in obscure terms like bugaboo and bugbear and in a mangled form in the word boogeyman. Like gremlins in machinery, system bugs are malicious. Anyone who spends time trying to get all the faults out of a system knows how it feels: After a few hours of debugging, any problems that remain are hellspawn, mocking attempts to get rid of them with a devilish glee. But how are bugs good for us?

Feedback is one key to developing better products. It's one of the primary tenets of agile development. Unit testing and iterative development are both techniques to provide feedback faster. With unit testing you get feedback on whether the code works, and with each delivered release you can hear what the customer thinks of the new features. A bug report is another form of feedback on your code.

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11.2.17

Response

I was really intrigued by the idea of mutation and randomness of creativity.
It resembles our creative process, as often times artists and designers don't
necessarily have a linear process in their work production. A spark of idea, a
queer twist of solution can stimulate far-reaching effects in our world. I'd
like to consider the creativity of computational intelligence as a similar
process, where it offers a brand new perspective for us to learn from and be
inspired by the un-human solutions. As Go master Fan Hui said about move 37:
"It's not a human move. I've never seen a human play this move. So beautiful."

On the other side, the issues that worry us a lot is always about how we use
data and where to store them. Binary bytes are neutral while their
representations are not. It is already alerting to upload our traces of
activities to any data storage systems, not to mention our exact facial
features. Again, it is more important to ponder about the implication of data
analyzing and categorizing than the applications in this case, since in this
world, it seems like we have nowhere to hide. This sense of insecurity comes
both from our instinct of animal natures and also the uneven hierarchy of
powers in our technological world. In this world, powers are centralized in
certain companies, and while the world seems ever flattest than anytime in the
human history, the gap of humans within is everest wider.

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11.9.17

Response

The whole Internet business model is built on the selling of either information or time. For all major technology companies, a free product is never more compelling to customers. However, after all corporations have to monetize in certain ways to either maintain their services or even generate profit surplus. The easiest and fastest way is to exploit the vast amount of data users generate daily and somehow sell them in a different way to advertisers. Every economy is generally driven by three modes of economic growth: investment, exportation and national consumption - or known as the troika of economic growth. This kind of revolving door, where technology companies accumulates our data, process and offer consumer insights, is almost the norm of Internet business. As long as we see capitalism as the foundation of our economy, this tendency to use data as competitive advantages will always exist.

In face of such surveillance capitalism era, what can consumers do to counter or at least protect themselves? This remains a tough question for me. Should we just trust tech companies and their founders to "not be evil" or do we actually have the power to protest and select which service can fit in our values and economy. In a more centralized era in the technological world, this the second choice seems almost impossible while the first one is simply naive. We are the very beneficiary of the economy at scale and the open competitive

market. The devil fruit of this wilderness is probably around the corner as well for us to taste it.

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11.16.17

Response
The whole weather analysis reminds me of the Butterfly Effects, where a small incident could lead to dramatic consequences in other areas or perspectives. Weather as a branch of science, depends hugely on the data analysis and supercomputing. The physical, chemical calculations required in the global scales lead to extreme difficulties when we try to study this field of science, empirical science to be precise. It took almost a whole generation for physicists to establish the fundamentals of quantum physics, since classic physics didn't work when we are dealing problems in the microscopic scale. I'm optimistic about the fact that this generation of scientists will provide something valuable in the fluid physics and large scale weather prediction models. As for now, as Mckenzie Wark pointed out in his essay, we have to truly understand the system before we construct any solutions. I do think the scale of technology is the factor in understanding the weather/climate problems. The cellphone we have right now in our pocket has more computing power than the chunky computers NASA used to land on the moon. Therefore, for the next decades, the use of supercomputers and cloud computing will drastically increase our ability to understand complex problems such as weather. The growth of technology is in exponential form in our world and there is no hints to slow down as far as now, so the arsenal of the next generation of scientists will be much powerful than what we have now!

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11.30.17

Response
So for this week's readings, what intrigues me the most are two shocking
theories of our existing understandings of anthropocene and science. The first
one is about global catastrophic risks. In the book of Nick Bostrom and Milan
M.Ćirkovic, they mentioned that the "at least 99.9% of all species that have
ever walked, crawled, flown, swum, or otherwise abided on Earth are extinct".
It proves their proposition that global catastrophic risks have been posed on
Earth since long time ago and are still existing nowadays. In fact,
intelligent species such as *H.neanderthalensis,* and *Homo floresiensis* have
already been through extinction thousands of years ago. Existential risks of
humans are much greater than they seem to our society's consciousness. Any
theory that is trying to justify our longstanding dominance on Earth is just
pure anthropic bias.

The other shocking model proposed by Karl Schroeder on Thalience describes the
possibility that "multiple equally valid physical models of the universe are
possible". The established scientific theories such as Newtonian physics and
Einstein's relativity are actually *accidental*. The axioms that are
widely-accepted in our society are mainly "by-products of the subjective side
of objective research". Science could be absolutely subjective interpretation,
instead of a universal path to the truth.

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12.7.17

Response

For this week, the idea of *extratstatecraft* and the free zones are what
interested me the most. Take Shenzhen, China as an example. Shenzhen was a
small fishing village adjacent to Hong Kong decades ago. Through thirty years
of development after being appointed as the first Free Economic Zone of China,
Shenzhen went through dramatic changes both economically and culturally. It
was no accident that such examples of free zones can be found in other parts
of the world as well, Dubai for instance. The reason I think this kind of
"extra state" or city outside of state is that countries do need the buffer,
or grey area, for experimentation. It can be argued that all existing systems
or institutions have flaws, therefore the philosophy behind such free zones is
to create a experimenting land with relatively small area and small in impact
in order to test out ideas or new forms of systems that would otherwise be too
risky for the majority of the state. There is no difference between crafting a
state and the research in science and technology. For long time, people have
been separating the science of social issues as social science, different from
the natural science, such as chemistry and physics. The success of free zones
has proven that rigorous scientific approach and scientific thinking can be
applied to any forms of design.