The foundations lecture that I got the most out of this semester was the lecture on Real vs Digital, specifically in reference to Moore’s Law. My particular interest in this topic is in the evolution of hardware throughout the history of the internet, and how hardware continues to shrink to adapt to the smartphone era that we live in today. We have indeed reached a point where it is hard for technology to get smaller, however the reasons for making smaller and smaller tech are fascinating and concerning.

For this project I read an article from Sonoran Integrations, a technology solutions company, about the shrinking and increasing efficiency of technology. The article has three main points for the shrinking of tech, the first of which is efficiency because “large, bulky pieces of hardware can now be reduced down to a slim card and housed in one box, or chassis with many other slim, card-like piece of technology.” (Cantu) The second point is agility, and that “everything is temporary” and having IT experts to update technology is important. Lastly, the shrinking of technology leads to decreased costs due to less things to maintain.

Now the article I read mainly focuses on looking at the shrinking of technology used throughout a business, however its points are widely applicable outside of business and into everyday technology. The shrinking of technology is a universal thing in the world we live in today, as smaller and smaller tech means more convenience for the user. Because of Moore’s
Law, as we discussed in class, the computing power we can use doubles roughly every two years, leading to more and more possibilities with smaller devices.

I took a particular interest in this topic because of how prevalent it is in current technological advancements. Now that so many people have easy access to technology, the industry standard is to make anything computerized and in smaller and more convenient form factors year after year. Now while making everything a person uses in their daily life computerized may help efficiency, agility, and cost as my article states, it raises a question of whether everything need to be smaller or even need to be computerized at all.

I do believe that in the case of devices used every day such as phones and general use computers can justify being in smaller form factors, however some devices such as ones that automate parts of your home are worrying for the industry. I reference these specifically because as technology advances more and more features can be packed into these small devices, many of which users do not even need and that can be accessed for purposes of data collection. We see this more and more with devices with small, high quality cameras as well as microphones. While not every device of this kind has some sort of sinister purpose behind it, it can be argued that the features these devices provide are hardly necessary when an analog option would work just fine.

The final thing I want to discuss about the shrinking of technology is in reference to Smart Home devices, which aim to automate parts of your house that arguably do not need automating. Again, having technology that controls important parts of your house such as temperature, locks, and cameras can provide safety issues rather than helping out a home. By
having stronger smart home devices with more control, it is frightening to think of what could happen if one of these devices with too many features is accessed and used to the detriment if the consumer.

Now most of what I have mentioned here is concerns for the shrinking of technology, but as a whole I find smaller tech to be convenient and helpful for everyday life. There is definitely a point where smaller and efficient tech can go too far, and prove a danger, but as of now I do not believe we have hit such a point and it is currently convenient to have small and handy devices with easy access to the Internet. In the future though, I would hope that increased power in smaller form factors would be used to improve efficiency rather than add potential dangers to devices.
Citation


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