## /dev/random Web of Darkness

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ehavior outside the acceptable social norm is part and parcel of human nature. We live, work, play, and interact on a bell curve. We also compute there, as has become increasingly evident in recent years.

I won't claim to have been present at the birth of the Internet—I was only 12 years old in 1969 when the ball really got rolling—but I spent a fair amount of time in the early to mid-1980s playing with the first incarnations of TCP/IP and hanging around on USENET. As with most of my colleagues at the time, I could see the potential for NSFNET to connect, eventually, all the world's academic institutions and libraries and thus be a really useful thing to have around. I don't remember predicting the monster it would actually become, but I did once tell a skeptical boss in the early '90s that having a web presence and email would be essential to doing business within a few years.

By the time Mosaic was released, enabling pictures as well as text to dangle in the sticky participles of the World Wide Web, the Internet had been public for a couple of years, and the highways, byways, and alleys were beginning to take shape. Some of those Information Alleyways were better lit than others. It didn't take long for commerce to insinuate itself into the barrage of packets getting flung to and fro across this nascent behemoth. The object of commerce is profit, and profit can further be divided into legitimate and illicit—although that demarcation line can get a little smeary on occasion.

In the age of our innocence, Americans as a nation tended to believe that the default setting for the human conscience was "beneficent." That might even have been true at some point. I can assure you, that is no longer the case. Our government and the Internet are prime examples. I leave the rationale for my first case in point to your own research, but for the Internet exemplar, allow me to break it down for you.

The Internet was built, largely, on a platform of hacking. The original architects were working without blueprints or manuals, innovating as they went and solving technical challenges by the seat of their pants: that, dear friends, is the purest incarnation of the hacker's art. As I have insisted on several occasions in this column, hacking has no innate connection whatever with criminality. That does not mean, however, that some of the less savory individuals who have taken up the hacker's mantle haven't applied those skills toward less than fully transparent pursuits.

While we've subsequently built a huge framework of what is somewhat ironically referred to as "legitimate" commerce on top of this hacker-originated underpinning, it should come as no surprise to anyone sentient that amoral entrepreneurship still thrives down in the Internet's moldy sub-basement. What I'm not sure most people realize is that without those nefarious roots permeating its foundation, the commercial aspects of the Internet would probably collapse.

Let's do a little deconstruction. What drives most technological advances? Is it pure research? The creative spirit? Impressing that girl in AP calculus? Or is it the military-industrial juggernaut that sucks up most of our tax dollars as it rolls past and spits them

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out again as contractor funding? If you answered (D), you're making forward progress toward the distant, craggy shoreline of enlightenment.

Now, where does all that money go, really? Into "research and development," as firms with their fingers shoved far into the national budgetary pie will invariably claim? No. It goes to the Internet. It goes to two-day shipping, streaming media services, online gaming, day trading, and cryptocurrency transactions. It also goes to porn and drugs, both licit and illicit—commodities in which the "Dark Web" specializes. Without these last two line items the infrastructure of the Internet, and therefore of our national prosperity, would fold in upon itself like a house of cards caught in a sudden gale.

If that sounds needlessly cynical, consider this: there are more programmers in the world than jobs to support them, due at least in part to the uneven clumping of money available to pay said coders. If you want to make a decent living as a programmer in the conventional arena you need to live and work in a place where salaries are commensurate with the value you can add to your employer's products. The virtual nature of modern labor pools has ameliorated this market imbalance to a certain extent, but some considerable inequity remains.

The Dark Web makes no such distinctions. The amount of money one can earn there is not at all related to where one calls home physically. In fact, the less likely a nation is to grease the wheels of traditional commerce, the easier it is to set those of the Dark Web spinning. Those people who make money on the Dark Web

return at least some of it to the conventional commercial sectors of their nations of residence. They also go on in many cases to apply the talents they've honed in the underworld to more conventional projects—to which they would not have been able to contribute without the succor of their ill-gotten gains.

There is a growing industry related to combatting the efforts of those who populate the Dark Web. The cat-and-mouse games played with pirates, for example, have led to many advances in peer-to-peer networking, cryptography, protections against DDOS and other large-scale attacks, and even file integrity algorithms. Without the economic pressures presented by actual and potential losses to criminal activity, these developments would have been far slower in coming.

The "dox the government" movement, which has revealed for the first time the depths to which intelligence agencies have penetrated the lives of ordinary citizens, makes considerable use of the Dark Web as well. One might argue that these releases have done more damage than good, but no matter your stance on the issue, you can't realistically question their impact. The spiders spinning the Dark Web shine their light in unexpected places.

Welcome, valued customer. Your call is very important to us. Please have your stolen ID and someone else's credit card number handy. Remember to stay on the line until you have verified the color, size, model number, and/or dosage of your selected items, and thank you for choosing the Dark Web. We know you don't really have a choice for most of this stuff.

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