Community Comment
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The Internet and lessons from the environment

If you study any of the natural sciences, basic or applied, you learn about the value of diversity. Biologist and foresters know this and the strength it gives an ecosystem to survive. Most of know this by the way we live our lives. We keep the idea of options up front in our work and our careers. If we invest, we say things like don't put your eggs in one basket. When we study for an exam, we think about on the one hand and on the other hand.

In most things we do in our modern lives, we think about risk in terms of benefits and consequences. We live our lives trying to strike a balance. But, apparently, this is not the case when it comes to the electrical grid and the internet and how we manage them. Last week I watched a news story on the electrical grid system in this country. The central question was is the grid secure from hacker attack and is it set up to be resilient if attacked. The answer was unsettling to say the least.

The report indicated that the grid was so interconnected that an attack in one location would likely disrupt a large region. But it's not just the grid. In Humboldt County we have two lines of broadband coming in from more populated areas. How many times have we seen our internet connection go down due to a construction accident or vandalism? And what happens when this occurs? Suddenly, chaos happens. Think about what is disrupted. Credit and debit cards can't be processed, some cash registers won't operate. Some won't even open to make change the old fashioned way.

Services we take for granted like bank deposits or transfers, ATM machines, health care services and scheduling, police investigations, government agency services, ordering parts or emergency services, and the list goes on.

We think we are smart with this new tool. But like any tool, the electrical grid and internet have to be handled properly. In this modern world where everything is interconnected because it is easy, we have left ourselves open to system failures, to natural disasters, to human error, and to terrorist attack. I am the last one to suggest I know how to fix this problem. But I think I know what needs to be done.

First, we need to stop depending on the grid and internet for everything. Sometimes local and traditional methods are the best. We need back up systems that allow smaller regions to operate independently. We need to build in diverse systems that make it harder for one attack or failure to take down the whole system. I'm sure these things can be done. We must shape these tools to our needs; not simply use them with no thought to benefits and consequences. We need to strike a balance with the internet and grid just like we do with the other tools we use. We need to this now because the consequences can be devastating.

SP This has been Sam Pennisi for community comment