# The Dark Side of Technology:
# *Be Careful Out There!*

## Rod Scher

Author, *Leveling the Playing Field* – Former Editor, *Smart Computing Magazine*
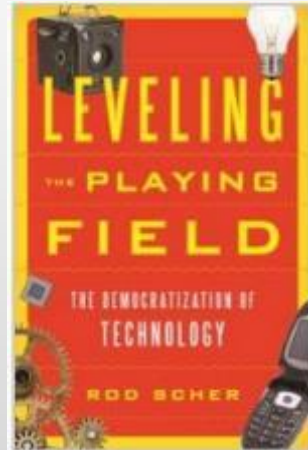
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**And why <u>wouldn't</u> we love it? Look at all of the great things it's brought us:**

- Drones
- GPS
- 3D Printing
- Internet-based publishing
- Connected (eventually autonomous) cars
- IoT: smart lights, connected fire alarms, smart thermostats

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## Drones:



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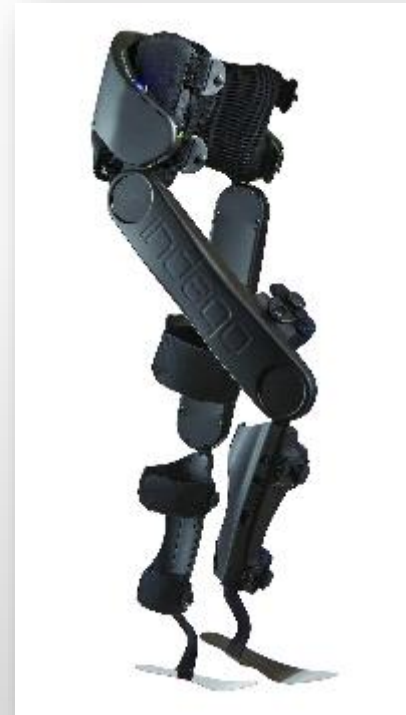
## Other cool stuff:



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## 3D Printing:



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**And then there's just plain old hate, misogyny, threats, etc., abetted by the Internet.**



Zoe Quinn

Rod Scher

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**And then there's just plain old hate, misogyny, threats, etc., abetted by the Internet.**



Rebecca

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**And then there's just plain old hate, misogyny, threats, etc., abetted by the Internet.**



Rob Enderle

Rod Scher

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**And then there's just plain old hate, misogyny, threats, etc., abetted by the Internet.**

Rob's approach is VERY tempting. We would really like there to be controls in place. But it ignores two things:

- The NEED for anonymity
- The 'black market' effect

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## Security Issues:

Nothing is *really* free. Not even the "free stuff.

- Anyone can create a hotspot that *looks* like it belongs; it's just a name, after all. If you log into a fake hotspot, you *will* get Internet access, but it'll be compromised.
- Best advice: Don't use public Wi-Fi. If you must, ask for the name of the legit hotspot and don't engage in any sensitive transactions while using that hotspot!
- In the end, though, there's no guarantee that your data is either safe or private.

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## Security Issues:

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From: Help Desk <online2793774@telkomsa.net>
Date: June 20, 2014 at 7:57:55 AM PDT
To: info@cs.stanford.edu
Subject: update

It had been detected that your cs-stanford-edu email account.
Mail delivery system had been affected with virus. Your email
account had been sending virus included with your mail to
recipient's account and as such a threat to our database. You'll
need to update the settings on your cs-stanford-edu email
account by clicking on this link:
http://forms.logiforms.com/formdata/user_forms/66949_9366478
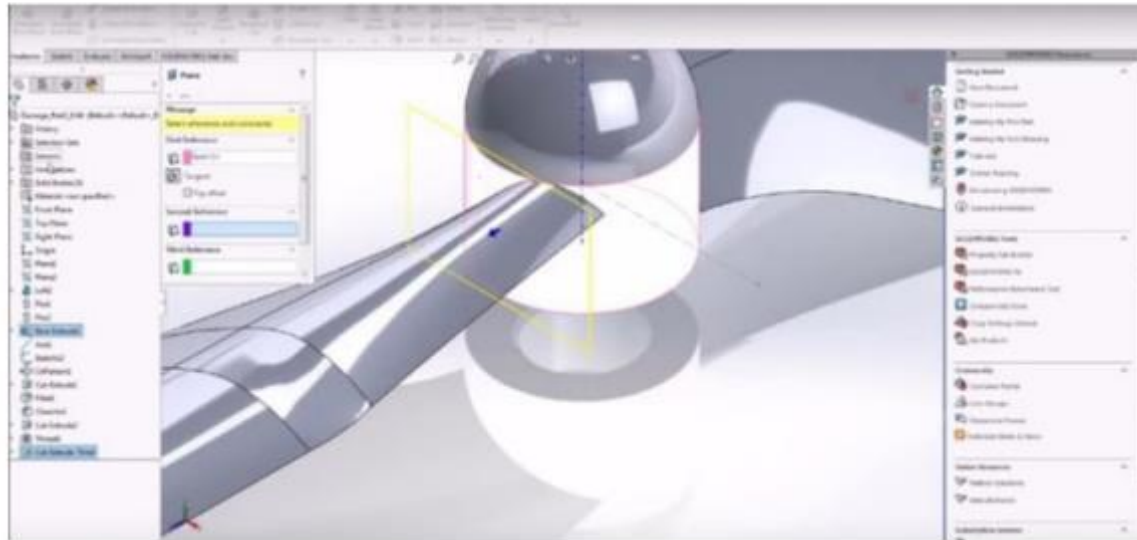/321793

From
CS. Standford
ITS Helpdesk

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From: Help Desk <online2793774@telkomsa.net>
Date: June 20, 2014 at 7:57:55 AM PDT
To: info@cs.stanford.edu
Subject: update

It had been detected that your cs-stanford-edu email account. Mail delivery system had been affected with virus. Your email account had been sending virus included with your mail to recipient's account and as such a threat to our database. You'll need to update the settings on your cs-stanford-edu email account by clicking on this link:
http://forms.logiforms.com/formdata/user_forms/66949_9366478/321793

From
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3D printing hackers down drone with self-destructing propellers

The researchers downloaded a CAM file, redesigned the propeller, and uploaded it (Credit: Ben-Gurion University)

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An exploded (?) iPhone 7



An exploded Samsung Galaxy Note phone

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- Drones for spying; short leap to armed drones or simply encroaching on airspace
- 3D printed weapons? Laser sintering printers are expensive (for now), but cartels and gangs have plenty of money. They could turn out hundreds of completely untraceable  weapons in a month and what's to stop them?
- Smart cars - the more connected, the broader the attack surface, the more potential security issues; and a hacked car is a dangerous thing (white hats have been showing how)
- IoT: Still more security vulnerabilities – WAY more

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John Pescatore: Former Gartner analyst and now with SANS (SysAdmin, Audit, Network and Security):

"The medical machinery/devices and industrial control systems have had over a decade to self-regulate and have failed. And those are industries selling to business. The current and future wave of "things" in the IoT is consumer-driven and built and sold by thousands of companies that can't even spell cybersecurity. "

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CERT vulnerability report: a hackable insulin pump.

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There are enough of these that there are multiple database devoted to nothing but cataloging and ranking them.

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Soon, almost EVERYTHING will be connected: your home, your wallet, your car, your lights, your smoke alarm, and your air conditioning. And very little of it will be secure.



Unless we manage to do something about it NOW, you can almost certainly count on serious problems later.

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The 10/21/16 DDoS attack was via an IoT-based botnet.

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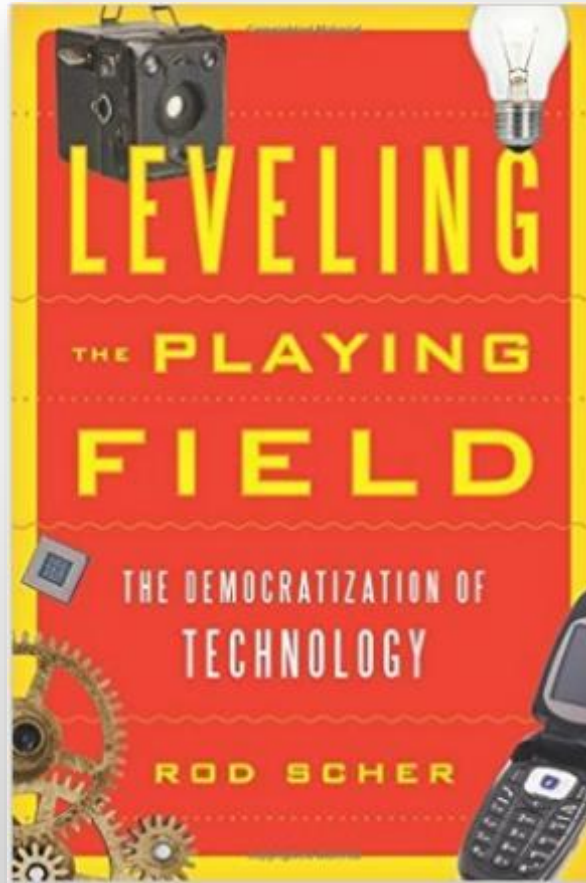
**Then again, think of what we've gained.**



In any case, we can't DE-technologize, so we're stuck with it, for better or worse. And it's mostly better, I think! I hope.

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Be sure to visit the *Geekly Weekly* blog at www.rodscher.com.

Email Rod at rod3041@gmail.com.

**LEVELING THE PLAYING FIELD**

THE DEMOCRATIZATION OF TECHNOLOGY

**ROD SCHER**

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