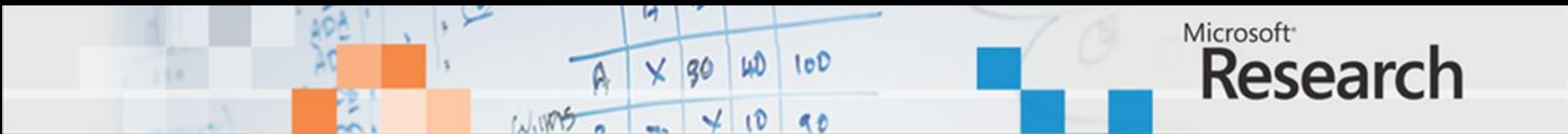


What Would Geek Squad Do?

A.J. Brush
Microsoft Research



WIPPS

A	X	90	40	100
2		X	10	90

Microsoft
Research

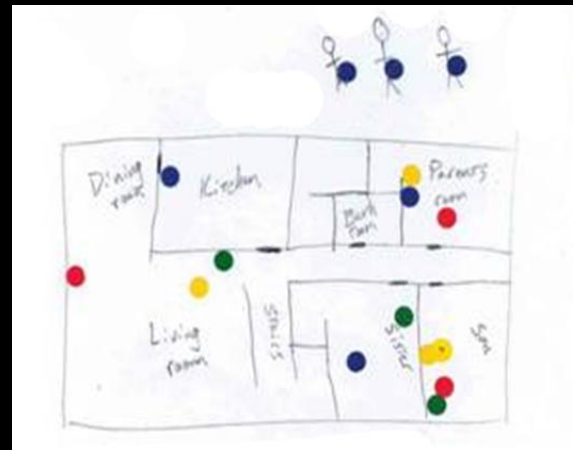
This will be a personal rant

(If you have to throw something, throw chocolate)

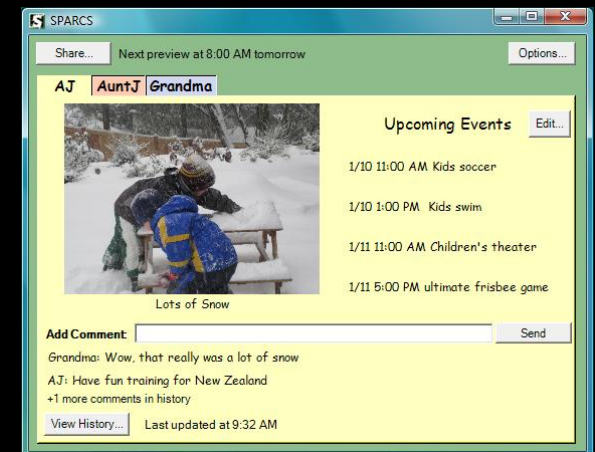
My background



LINC



Family Accounts



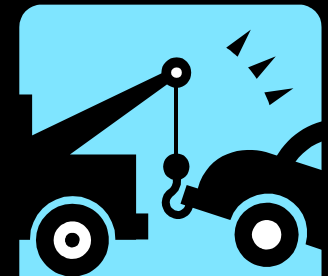
SPARCS

The “Check Engine” light goes off in your car. Do you:

a) Pull the car over, pop the hood and start futzing



b) Drive to the mechanic



c) Ignore it

Your toilet backs up – nasty stuff everywhere. Do you:

a) Grab a plunger and start clearing the sewage lines.



b) Call the plumber



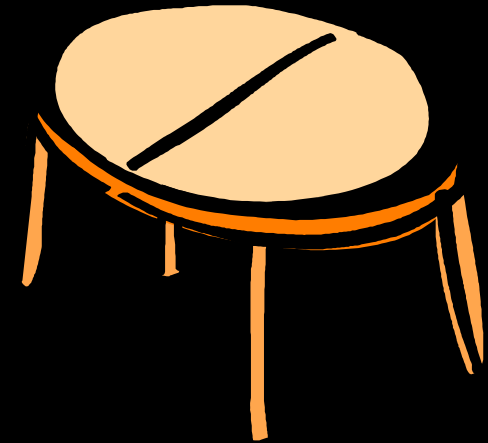
c) Try a few things and then call the plumber

Have you recently?



Installed a new refrigerator?

Assembled furniture?



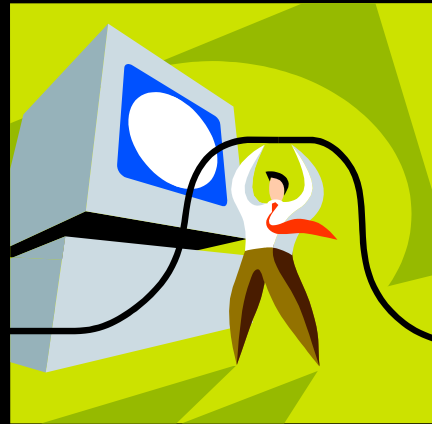
Changed your own oil?

Probably not!

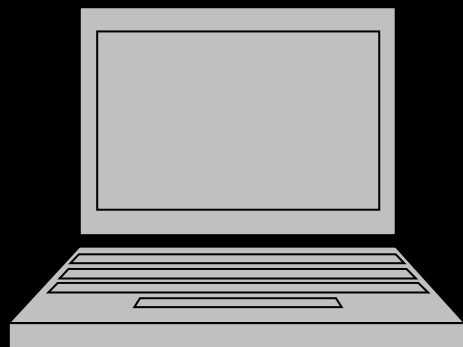
But what about



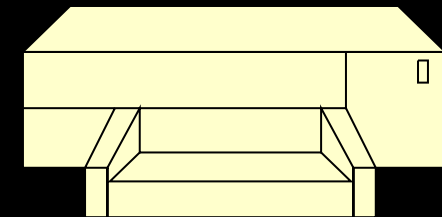
Installing a home wireless network?



Installing updates, coping with spyware, backing up your computer?



Adding a new device



Configuring a home printer



Outsource
Model

Home technology infrastructure is
best left to professionals!

(The end user doesn't care about your nifty technology)

Uninterested user != stupid user

Okay, it's not quite that simple

Geek Squad
COMPUTERS & NETWORKING

Wireless Networking

Online Price [?] : N/A

Get Computer Help Online Now
Your computer not working the way it should? Have a slow computer? Mysterious errors? Have a Virtual Agent remotely connect to your computer and fix it.

WE CAN REPAIR
GEEK SQUAD SERVICE

SELF-HELP TOOLS

- Scan for Viruses
- Test your high speed internet
- Track your repair history

BLACK TIE PROTECT

- Track Your Repair History
- Lookup your product information

Done, but with errors on page.

Careers | About Us | Contact Us

Search

CORDERS APPLIANCES

Printer Help

Online Price [?] : \$49.99 **BUY NOW!**

In-Store Price [?] : N/A

On Location Price [?] : N/A

What's Included:

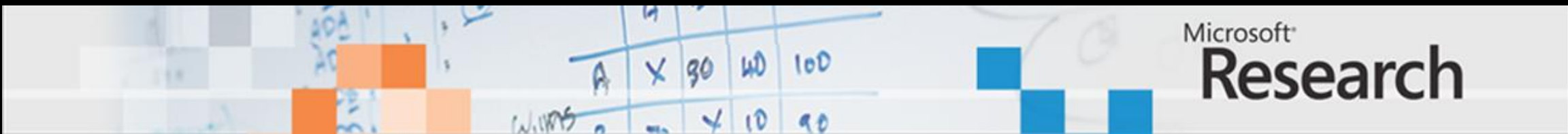
- Setup and configuration of your new printer - covers both local and network printers ✓
- Resolution of your printer issue to get it printing properly again ✓
- Answer any questions you have about printer features and functions ✓
- Help with wireless printers setup ✓

Add an additional device 49.99

Protected Mode: On

Professionals when?

- Install
- Add
- Maintain



Install: Professional

- We should not expect people to set-up a network, make it secure, configure the computers and cope with problems.

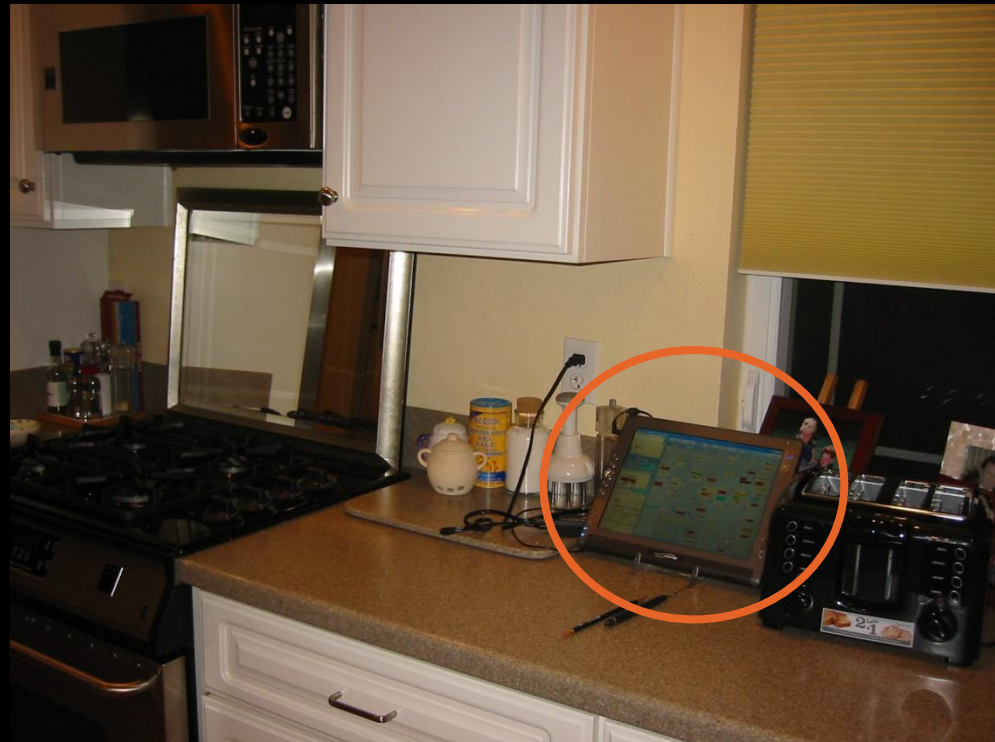


Phones were owned by company and installed by professionals initially

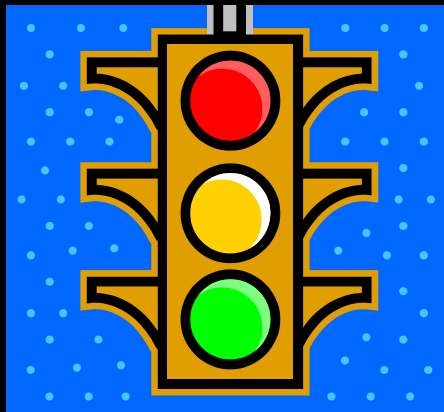
Setup for the WRT54G required some aches and pains. Granted they tell you right on the box that it is based on draft protocols, but I would have straightened a few problems myself with clearer communication or documentation from Linksys. Registration for this product **should include subscription to a technical e-mail list notifying users of firmware and driver updates as well as the latest technical articles and an 802.11g ratification update.** I don't mind that the product is based on "draft" protocols, but proactively notify me about updates! You can even use the .NET Alerts to IM me about new firmware!

Amazon.com review:
“Works well once you work out any configuration kinks”

Add: Home user



Maintain: Professional & Home

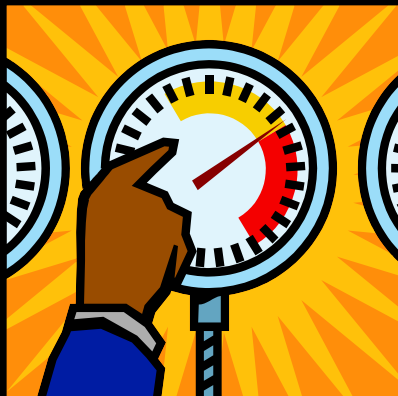


versus

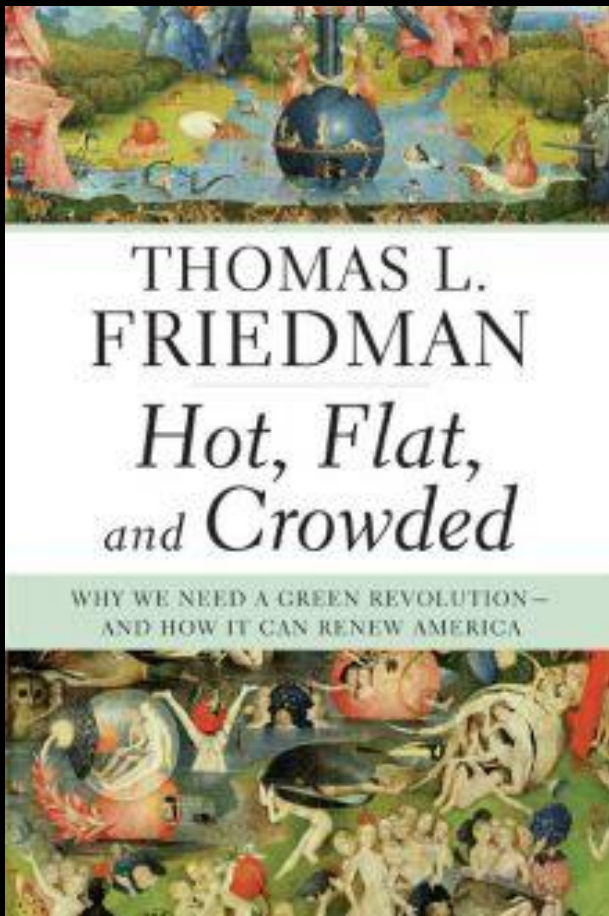


Design for the “Uninterested” End-User

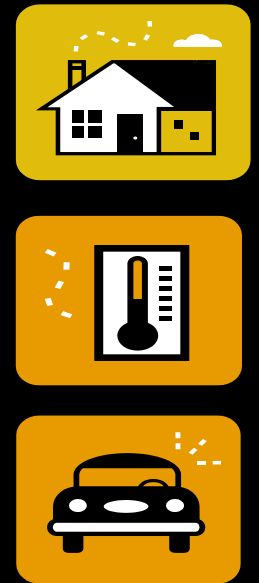
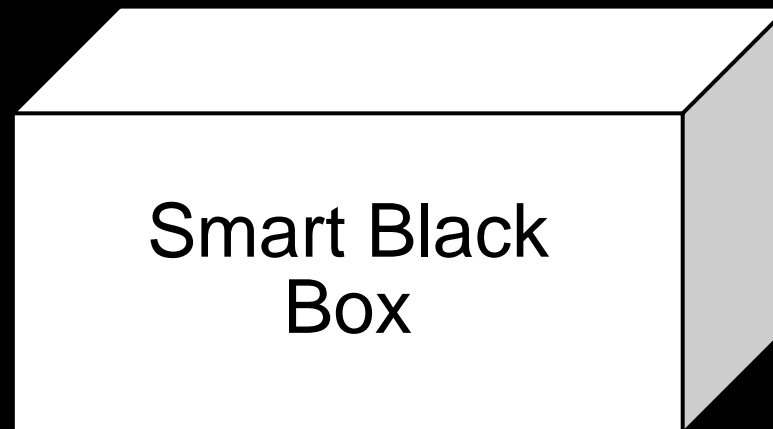
- Make the important things easy to do (e.g. add device to network, share photos with a friend)
- And for other problems, warn the user to get professional help



Sustainability demands rethinking the home infrastructure



Chapter 10: “Energy Internet”



People are similarly “uninterested”

Home Computer Power Management

- ***How*** do people currently manage ***power*** for their ***home computers***?
 - 2 week field study
 - 20 households
 - 51 sets of power settings
 - 10 interviews, 40 surveys
 - 38 personal vibe logs (17.5 days each)

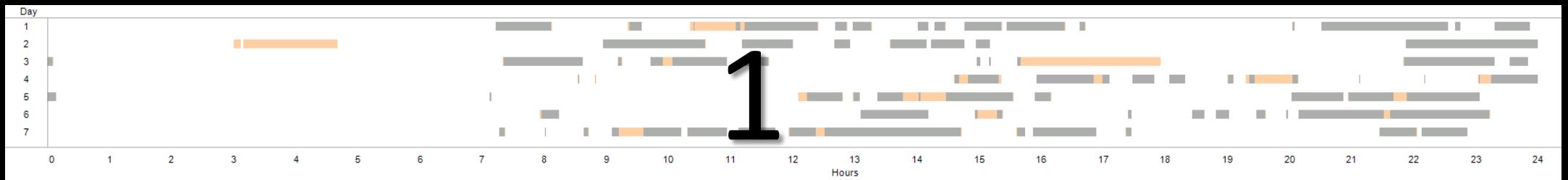


ACM CHI 2009: It's Not Easy Being Green: Home Computer Power Management Strategies

Microsoft
Research

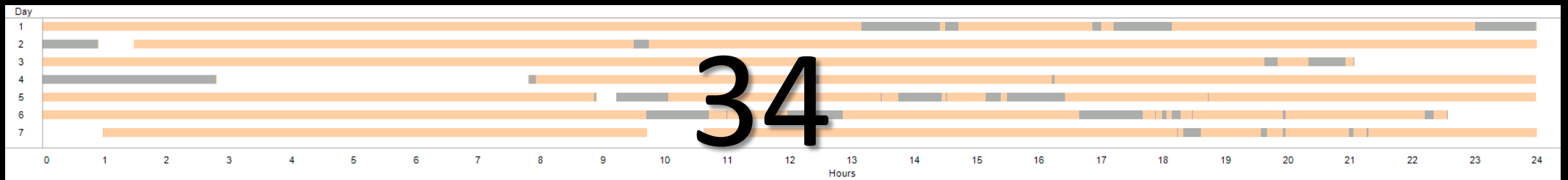
What People Did....

Power-efficient (> 75% active/on time ratio)



Active
On

Power-hungry (< 50% active/on time ratio):



Your guess – How many of the 38 were in each group?

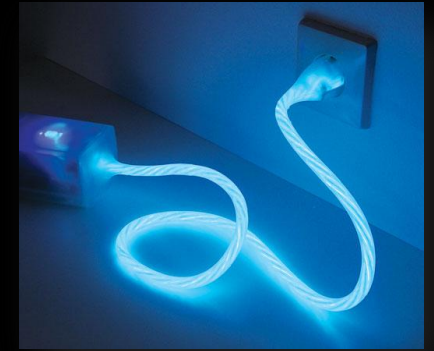
It's not easy being green

- While there are opportunities for savings
 - 5,424 hours over 664 logging days for 38 computers
 - Per day: 52 minutes per desktop and 13 per laptop
- It's not going to be easy
 - Setting changes aren't always for energy efficiency
 - Sharing and location cause challenges
 - Energy and economic savings very small per computer/household (per year: \$4.75 per desktop, \$0.24 per laptop)

Moving beyond computer power usage...

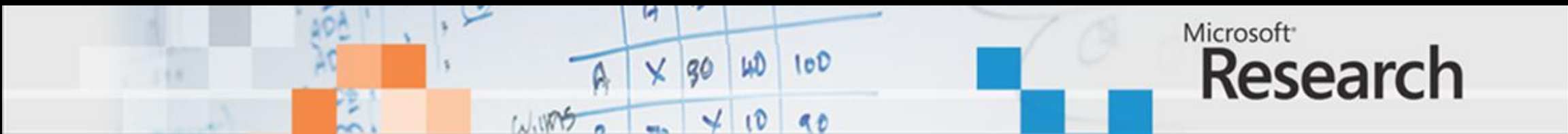
What now?

- Be realistic about what persuasive visualization can do....
- Change the technology, not the people
- We need to be changing the infrastructure at the bottom of the iceberg to enable sustainability and the “Energy Internet”



Where is the challenge?

- Is it the technology?
- Is it the interface?
- Is it the standards?
- Is it the business model?



Discuss, Rant, Call me crazy...

“Infrastructure support is best left to professionals, like we do with plumbers and electricians”

The infrastructure innovations required to save the planet only make professional intervention more critical.