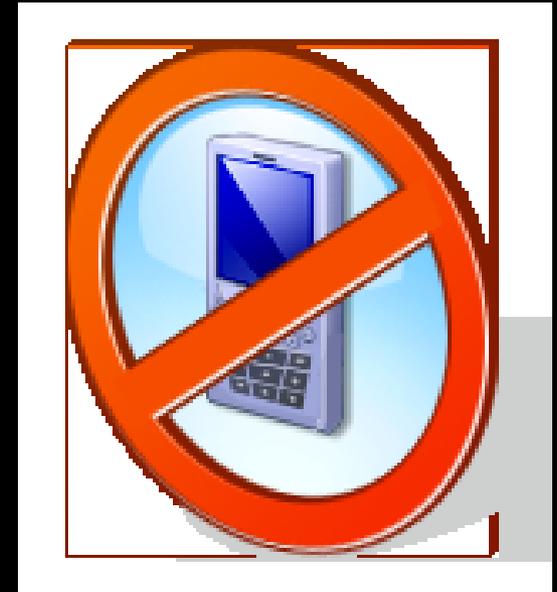


# Why This is a No Cell Phone Use Zone

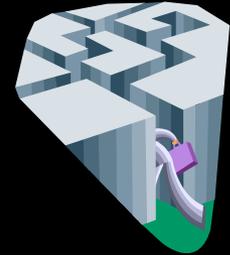


**Larry P. Taylor, Ph.D.**  
All Rights Reserved

**Everything in Life has a risk/benefit ratio**



**Risk**



**Benefit**

**Risk NEVER = 0**

**Benefit NEVER =  $\infty$  (Infinite)**

**In today's world:**

**Risks and science are often ignored**

**This slide set explores Cell Phone risks (Health & Privacy)**

# Laptops & Cell Phones

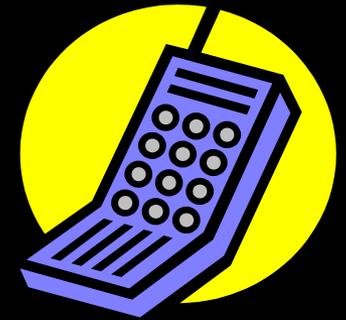


## Laptops

**Follow Lecture with Power Point  
Not for Personal Computing**

## Cells

**Turn off or set to silent mode  
No texting during class**



**Those texting in class will be asked to leave the room**

**So, classroom attendance will not interfere with texting addiction!**

# Texting Severely Compromises Situational Awareness



**Officer Comment: “Found phone in hand and head in the trunk!”**

**Brain Impairment (Inattention Blindness)**

**When texting, cognitive level ~DUI**

**US Auto Fatalities:**

**52 % Involve Cell Phones**

**> 17,000 deaths a year**

**37 % Involve Alcohol**

# Cell Phones and Driving

It's estimated that at least 23% of all car accidents each year involve cell phone use — that's 1.3 million crashes.



## US Auto Insurance:

**Ave driver pays ~ \$150 extra / year 'cause of cell phone initiated crashes**



## DRIVERS WHO

TEXT

23x

more likely to crash

TALK

4x

more likely to have an accident

## College student surveys:

**~75 % of college Students:**

**“Texting is unsafe”**

**92% of college students:**

**“I can text safely”**

# Distracted Driving Example: Pokeman

US: >110,000 auto accidents in 10 day time period



<https://www.dailymail.co.uk/sciencetech/article-3793050/Don-t-Pokemon-drive-110-000-road-accidents-caused-game-just-10-days.html>

# Some states enacting “distracted driving” laws



TEXTING WHILE  
DRIVING





# Brain Distractions

## HOW OUR REACTIONS SLOW

This chart shows the percentage increase in distracted drivers' response times. An undistracted driver typically reacts in 1 second

13%



Drink-drive limit

21%



High on cannabis

27%



Hands-free phone

37%

Texting



46%

Hand-held phone



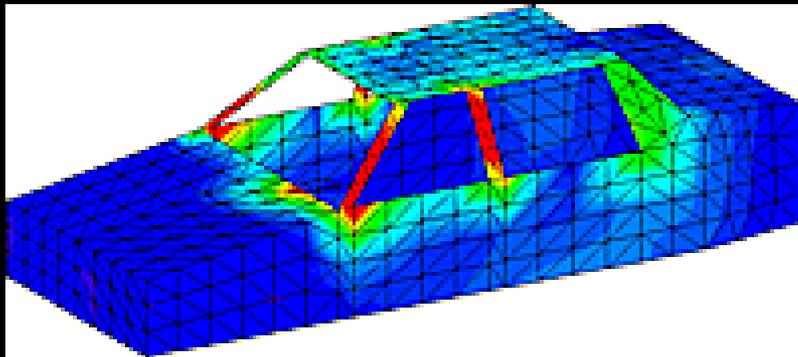
Source: Transport Research Laboratory



This "impairment" continues after WiFi use  
Affects ability to process information (learn)

Microwave radiation slows reaction time

# Car Frame (Faraday Cage) Maximizes Human Irradiation



Your car becomes a  
cage of radiation  
when you talk on  
your  
cell phone while driving.

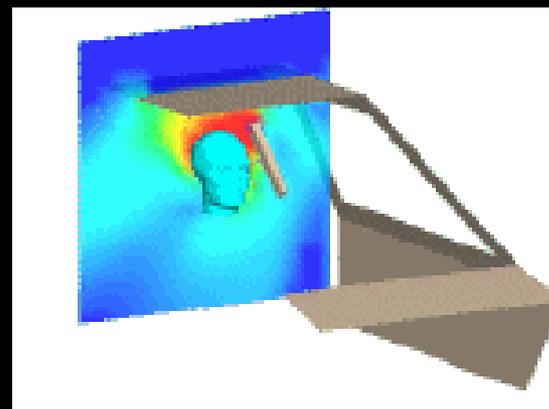
Microwave bounces around frame until all absorbed by passengers

Blue tooth constantly irradiates

Blue tooth more energetic than WiFi

WiFi in car maximizes exposure risk

(Elevators can mimic Faraday Cages)



<http://www.emfnews.org/Car-Radiation-Cell-Phones-Faraday-Cage-and-Cancer.html>

# Cell Phone Pedestrians As Traffic Accidents

**Germany:**

**Installing lights in pavement cross-walks  
For “smombies” (smart phone zombies)**

**China:**

**Separate lanes for cell phone users  
“Travel at own risk”**

**US:**

**Cities starting to fine cell phone pedestrians**

**National Safety Council data on “smombies”**

**> 6,200 fatalities a year  
~ 11,000 injuries per day**



# “Texting” = Serious impediment to learning

## Epidemic of ADD in High Schools & Colleges



### Studies on “texting” show:

**Significant contributor to development of ADD**

**Increased insomnia problems:**

**Higher risk of mental illness, cancers, and diabetes**

**Diminished job performance (RIFD Monitoring of WiFi Use)**

**Diminished ability to “process” info (solve problems)**

**Diminished social skills**

**Addiction: IAD (Internet Addiction Disorder)**

**Alters brain dopamine system**

**Similar to brain changes seen with drugs of abuse (Cocaine)**

**Possible link to development of Parkinson’s – like tremors**

**Cell phone use (based on ATT billing records):**

**Teen female: 10+ hours / day ( 15% > 200 texts /day)**

**Teen male: ~ 8 hours / day**

# Texting in Class Rooms is Rude Behavior!

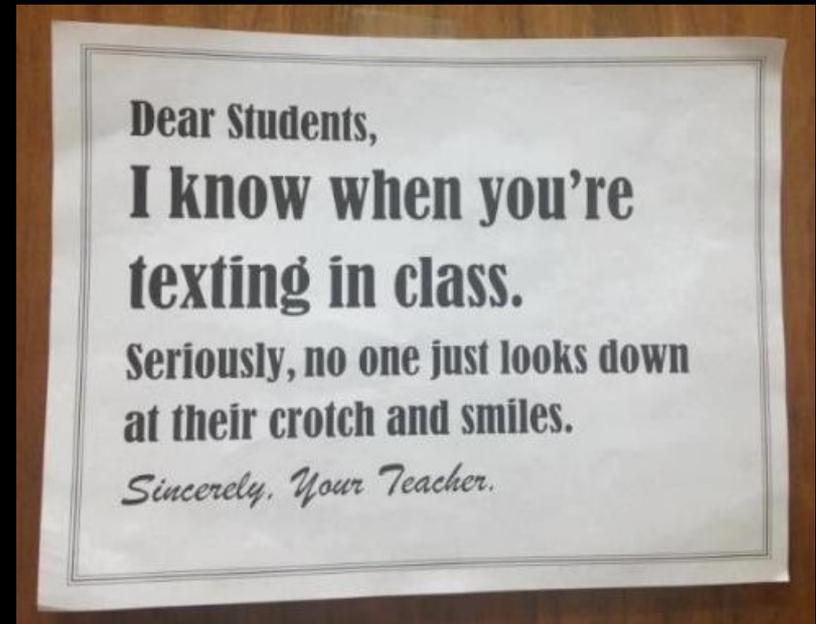
Human Eyes are drawn to bright lights:



Involves “4<sup>th</sup> Cone” in Retina ... Circadian Rhythm

Major classroom disruption ... leads to loss of concentration

Affects all who can see your screen

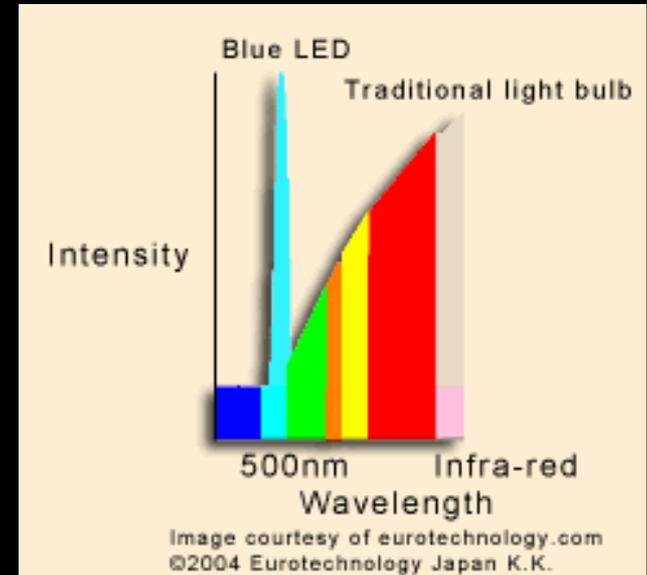
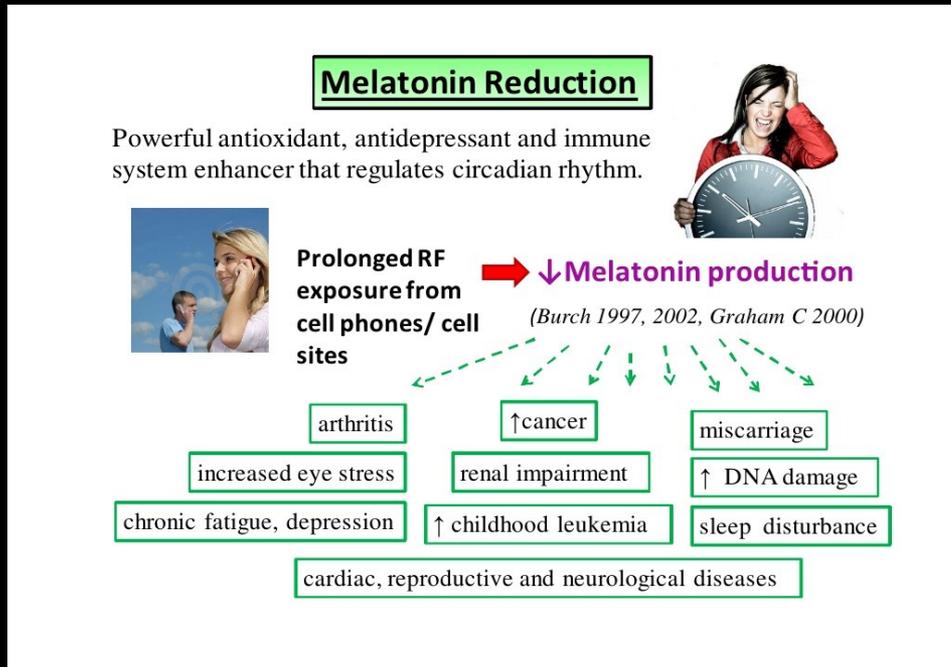


# Cell Phone Use Linked To Insomnia

Light from screens:

Activates circadian rhythm “biological clock”

Tells organism it is not time to sleep



87% of teens who text  
Sleep with phone near pillow  
PEW Institute

Trouble sleeping?

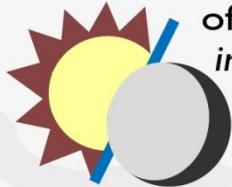
Avoid digital screen devices for ~ ½ to 1 hour before sleeping

Keep cell phone out of bedroom

# Blue Light From Devices Alters Hormone Melatonin

## Blue light from electronics harm sleep

Blue light is **beneficial during the day** because that is when we're deprived of sunlight; this in turn, makes us sleepy.



### DIGITAL DETOX

Turn off all electronics **30 to 60** minutes before going to bed.

Blue light from screens emit the same wavelength as color from the sky.



This light causes *Melanopsin* cells in our **retina** to **activate** which makes our **hypothalamus** tell our brain it's **daytime**.

Blue light leads to **disturbed** and **shortened** sleep which increases risk for numerous diseases.

Just being in a *dark room* with an electronic device can suppress your melatonin by

**20%**



# Blue Light From Devices Alters Hormone Melatonin

**Benefits of Melatonin LOST from night time blue light:**  
**suppression of tumor growth**  
**anti-oxidant effects which enhance healing**  
**immune system enhancement**  
**day time alertness**  
**suppression of appetite**

## Lack of sleep won't make the grade

College students average six hours of sleep a night, down from eight hours in 1980.

60 percent of students have disturbed sleep-wake cycles, and many use drugs and alcohol regularly to help with staying awake or going to sleep.

20 percent of students stay up all night during the weekend at least once a month, and 35 percent stay up until at least 3 a.m.

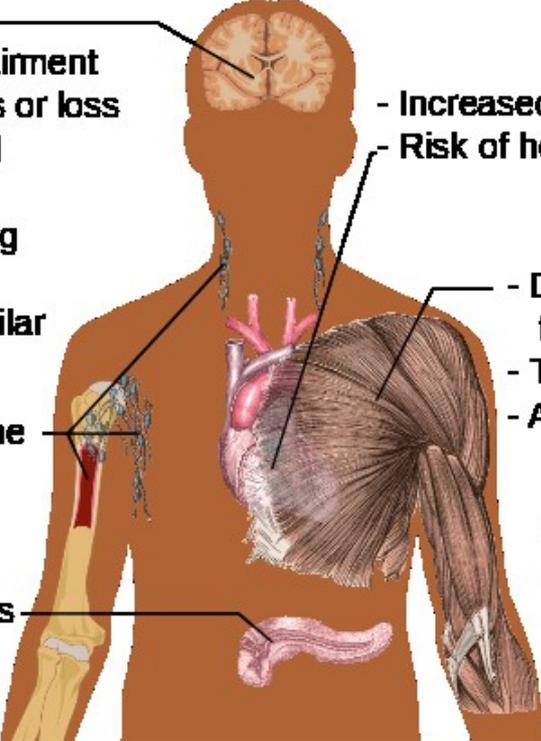
12 percent of poor sleepers miss class three or more times a month and/or fall asleep during class.



Want more A's?  
...get more *Zzzz's!*

Students who sleep at least 7-8 hours have a higher GPA than those who get 6 or fewer

## Effects of Sleep deprivation

- 
- Irritability
  - Cognitive impairment
  - Memory lapses or loss
  - Impaired moral judgement
  - Severe yawning
  - Hallucinations
  - Symptoms similar to ADHD
  - Impaired immune system
  - Risk of diabetes Type 2
  - Increased heart rate variability
  - Risk of heart disease
  - Decreased reaction time and accuracy
  - Tremors
  - Aches
- Other:*
- Growth suppression
  - Risk of obesity
  - Decreased temperature



GETTING IN BED WITH

# GADGETS

Your Technology is Keeping you Awake



# Sleep Deprivation As A Weight Gain Factor

Sleep deprived will seek energy to help stay awake  
(can easily add an additional 500 kcal per day)

Given that ~ 3500 kcals = 1 pound of fat

The extra 500 kcal /day can translate to:

$$\frac{3500 \text{ kcals}}{\text{pound}} \times \frac{1 \text{ day}}{500 \text{ kcals}} = 7 \text{ days per pound of fat}$$



# Cell Phones and Academic Behavior

“Overall, those with high cell phone use tended to have a lower GPA, higher anxiety, and lower satisfaction with life or happiness compared to their peers who reportedly used their cell phones less.

These results add to the argument that students’ cell phone use may negatively impact academic performance, mental health, and subjective well-being or happiness.”

Barkley JE, Gates P, Lepp A et al. *International Journal of Behavioral Nutrition and Physical Activity*. 2013.

## The Zombie Apocalypse

WHAT WE THINK IT LOOKS LIKE:



WHAT IT REALLY LOOKS LIKE:



# Cell Phones and Academic Behavior

A study of 517 California high school students:

Grades were lower in those who used Instant Messaging in class

Those having MySpace accounts had significantly lower grades

If cell phones were used during homework, the grades were even lower than for students who used these technologies outside of homework.

Those texting during class time had grades lower than the students who only texted outside of class.

Pierce, et. Al. 2007. Distracted: academic performance differences between teen users of MySpace and other communication technologies. Proceedings EISTA. Orlando, FL. July



# Cell Phones and Academic Behavior

“By surveying schools in four English cities regarding their mobile phone policies and combining it with Administrative data, we find that student performance in high stakes exams significantly increases post ban.

Our results indicate that these increases in performance are driven by the lowest- achieving students. This suggests that restricting mobile phone use can be a low-cost policy to reduce educational inequalities. ”

**Centre for Economic Performance, 2015**  
**London School of Economics and Political Science**

# Cell Phones and Academic Behavior

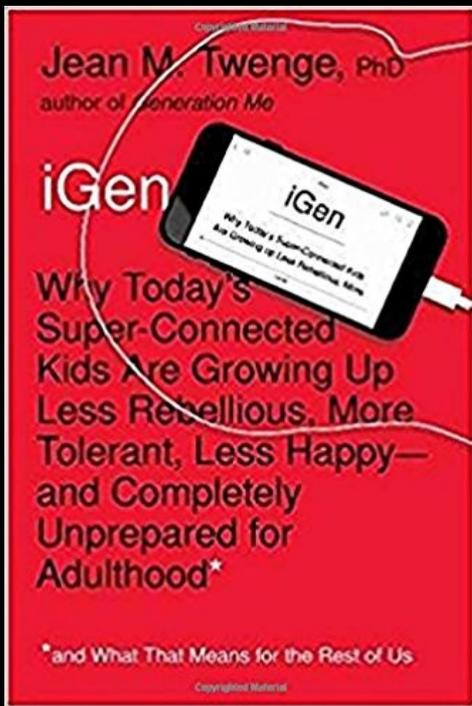


**The nation of France:  
banned cell phones in K – 12 schools  
2018**

**Belief this will improve student scores  
On national and international exams**



**And  
France recalled ~ 90,000 cell phones  
For exceeding radiation safety limits  
Called “Phonegate”**



# Cell Phones and Behavior

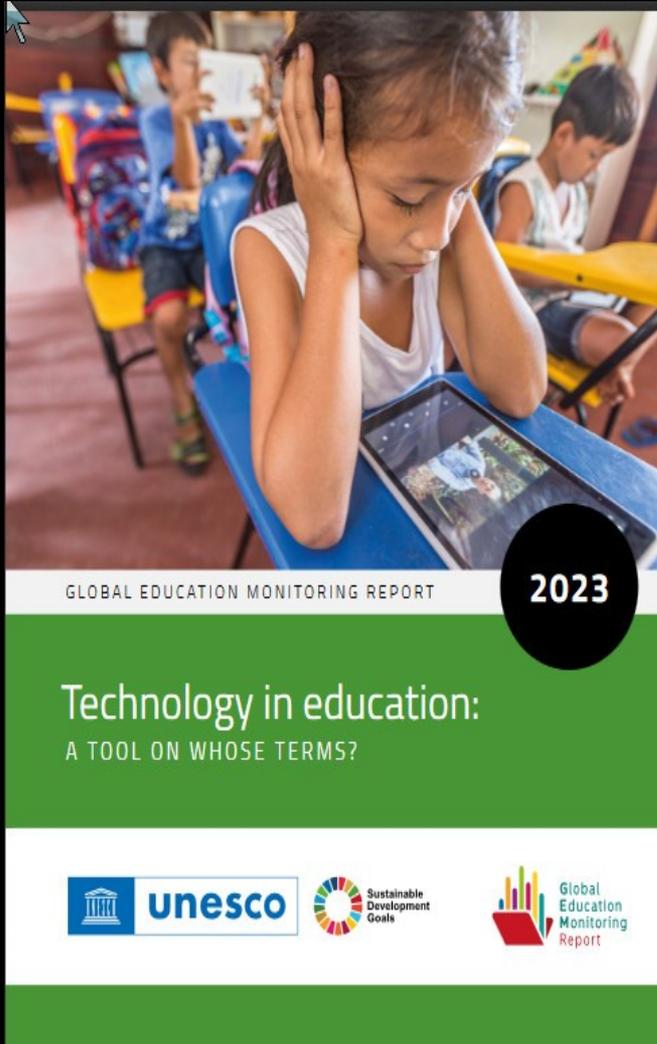
**Summary of behavioral changes in the iGen generation from an investigator that has studied teen behavior for more than 3 decades**

**Strong correlation between negative behaviors / affects and cell phone / social media use.**

**Many Fortune 500 CEO's consider igen's to be "the un-hirables"**

**"We've all been desperate to learn what heavy use of social media does to adolescents. Now, thanks to Twenge's careful analysis, we know: It is making them lonely, anxious, and fragile - especially our girls." (Jonathan Haidt, NYU-Stern School of Business)**

# UNESCO Calls For Smartphone Ban in Classrooms



**From Studyiq summary of UNESCO Report: “Little Impact:**

**The report highlighted that there is little robust evidence on digital technology’s added value in education.**

**At the same time, there was ample evidence of a negative link between excessive screen time and a child’s educational performance and emotional stability.”**

**<https://www.studyiq.com/articles/unesco-global-education-monitoring-report-2023/>**

# Nomophobia

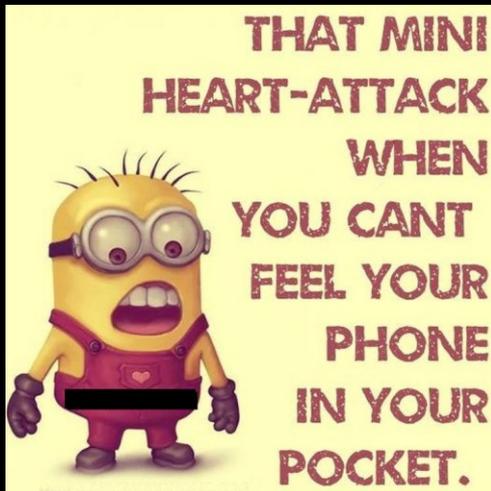
Anxiety due to the fear of not having access to a mobile phone



“Cell phones are possibly the biggest non-drug addiction of the 21st century”  
and

“college students may spend up to nine hours every day on their phones, which can lead to dependence on such technologies as a driver of modern life and an example of “a paradox of technology” that is both freeing and enslaving”

Shambare, Rugimbana & Zhoua (2012)



# ARE YOU A NOMOPHOBE? TAKE OUR MOBILE PHONE ADDICTION TEST

## 1. You first check your phone?

- a) As soon as you wake up (8 points)
- b) During breakfast (6 pts)**
- c) On the way to work (4 pts)
- d) When you get a message (2 pts)

## 2. How often do you check it?

- a) Every 5 minutes (8 pts)
- b) Every 30 minutes (6 pts)**
- c) Every hour (4 pts)
- d) Couple of times a day (2 pts)

## 3. Where do you keep your mobile phone while you sleep?

- a) Under the pillow (8 pts)
- b) Beside the bed (6 pts)**
- c) Other side of the room (4 pts)
- d) In another room (2 pts)

## 4. Do you take your phone with you to the bathroom?

- a) Usually (8 pts)
- b) Sometimes (6 pts)**
- c) You've considered it (4 pts)
- d) Never (2 pts)

## 5. What do you use it mostly for?

- a) Social media (8 pts)
- b) Emails (6 pts)**
- c) Music and games (4 pts)
- d) Texts and calls (2 pts)

### HOW DID YOU SCORE?

**10-15:** No evidence of "nomophobia"

**16-28:** On the slippery slope

**29-40:** You have an addiction

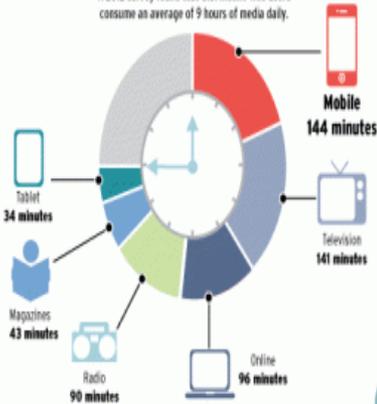
PAKWHEELS.COM

# Nomophobia, do you have it?

A Pew Internet survey on cellphone activities found that about 91 percent of American adults own a cellphone. A Pew Project study found that 56 percent of American adults own a smartphone, a percentage that Orange County hit back in 2011. As of September, Apple has sold an estimated 387.4 million iPhones. We take them where no phone has gone before and use them for their abilities beyond that of a phone.

## Cellphones trump television for media consumption

A 2012 survey found that U.S. mobile Web users consume an average of 9 hours of media daily.



## NOMOPHOBIA:

the fear of being out of mobile phone contact

The term, an abbreviation for "no-mobile-phone phobia," was coined by the U.K. Post Office from a research study it commissioned to look at anxieties suffered by mobile phone users when they "lose their mobile phone, run out of battery or credit, or have no network coverage."



Nearly **53%** of mobile phone users in Britain tend to be anxious.

**58%** of men and **48%** of women suffer from the phobia.

**9%** feel stressed when their mobile phones are off.

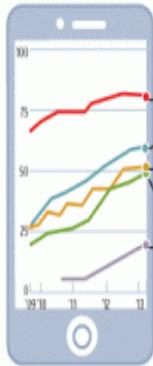
## Is it making us sick

How do you feel when you misplace your phone?



## Phones have other smarts

The percentage of smartphone owners who use their phone to...



## Where we take it

A Juniper study released in July asked 1,002 smartphone users where they use their devices.

- While driving - **55%**
- In a movie theater - **35%**
- During a dinner date - **33%**
- At a child's or school function - **32%**
- In church or a place of worship - **19%**
- In the shower - **12%**
- During sex - **9%**

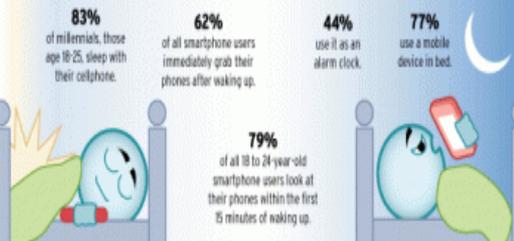
## Keep us connected

In an IDC study sponsored by Facebook, the strongest sentiment smartphone users felt was connectedness.

Top five activities that generated the highest level of connectedness:

- 49%** text message
- 43%** Talk on phone
- 40%** Message on Facebook
- 39%** Check Facebook news feed
- 37%** Check Twitter feed
- 70%** of smartphone users frequently visit Facebook - more than half of them check it every day.

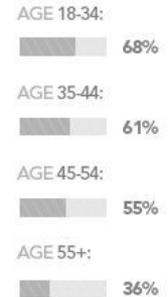
## From dawn to dusk



# WE'RE ADDICTED TO CHECKING OUR PHONES

**58%**  
OF SMARTPHONE USERS

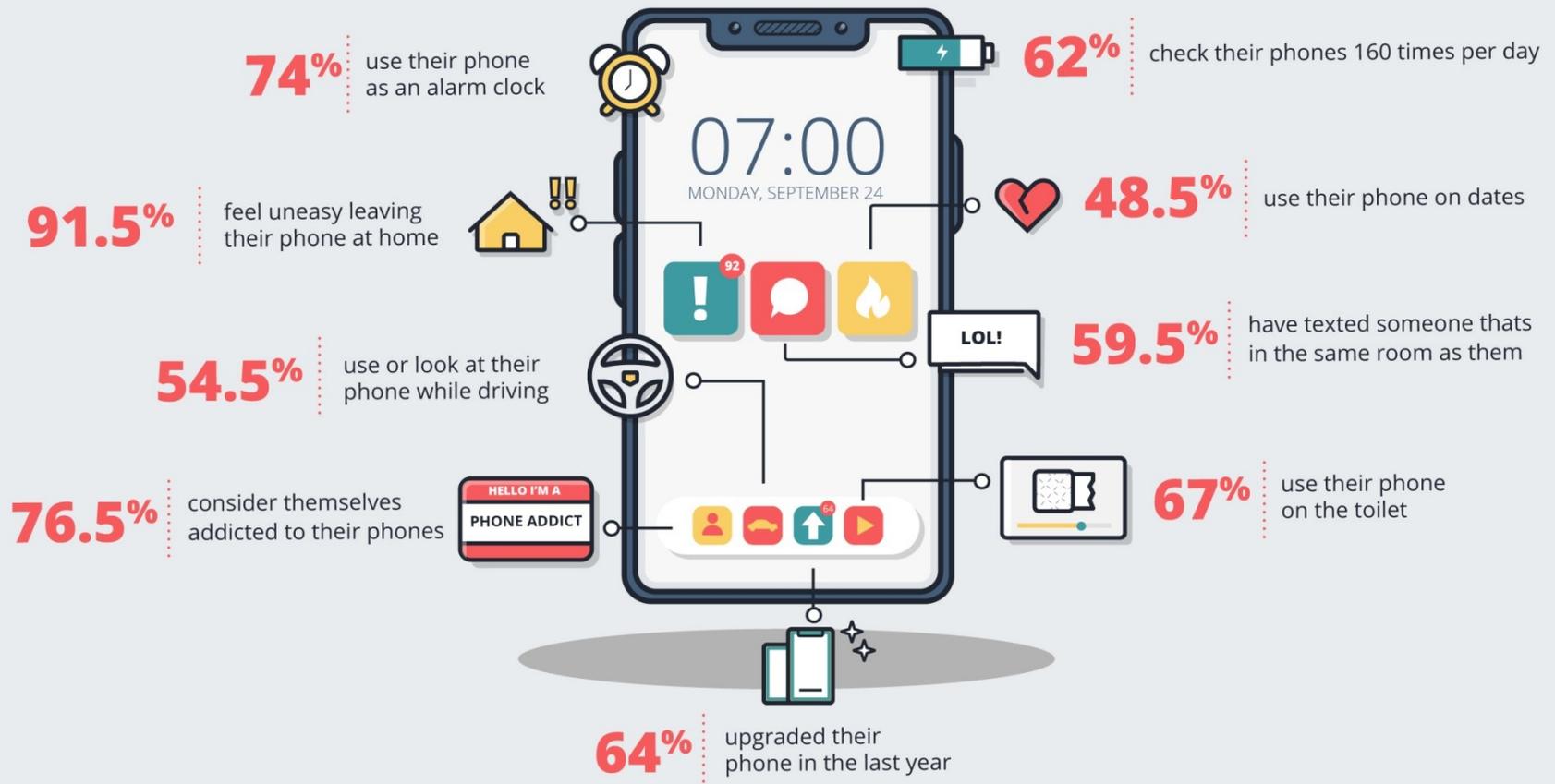
**DON'T GO 1 HOUR WITHOUT CHECKING THEIR PHONES**



**SMARTPHONE ADDICTION IS REAL ... AND IT'S GETTING WORSE**

Sources: Pew Research Center's Internet & American Life Project Poll, April 2012; Pew Research Social and Demographic trends; "Always Connected: How Smartphones and Social Keep Us Engaged," an IDC study sponsored by Facebook.

# 9 SURPRISING STATISTICS ON CELL PHONE USAGE



# Cellular Towers

Many Indian cities (and India Supreme court):  
Cell towers prohibited within 100 meters of

Schools

Colleges

Orphanages

Child rehabilitation centers

Old age homes

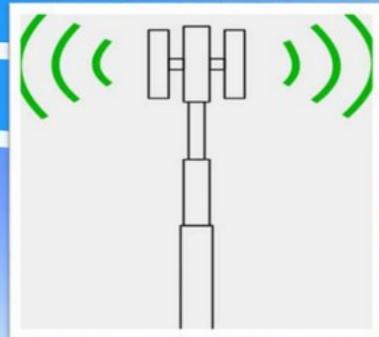


# Cellular Towers

## University of Michigan Roof Warning



**CELL TOWER SHOWING  
NOT ACTUAL**



**ACTUAL STYLE**

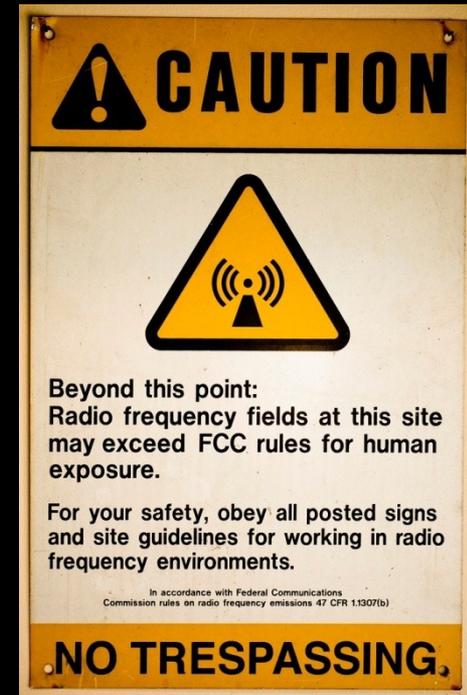
**CELLULAR OR RADIO ANTENNA SHOWN ON ROOF SAFETY FLOORPLANS AS “RED” WITH NOTE READING: CELLULAR OR RADIO ANTENNA, IS AN ELECTROMAGNETIC RADIO FREQUENCY HAZARD.**

**A SHUTDOWN IS REQUIRED IF WORKER CANNOT REMAIN 6 FEET AWAY FROM THE FACE OF THE ANTENNA OR MUST WORK WITHIN BARRICADED AREA.**

# Cellular Towers

## US Telecommunications Act of 1996:

**“No State or local government or instrumentality may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emission.”**



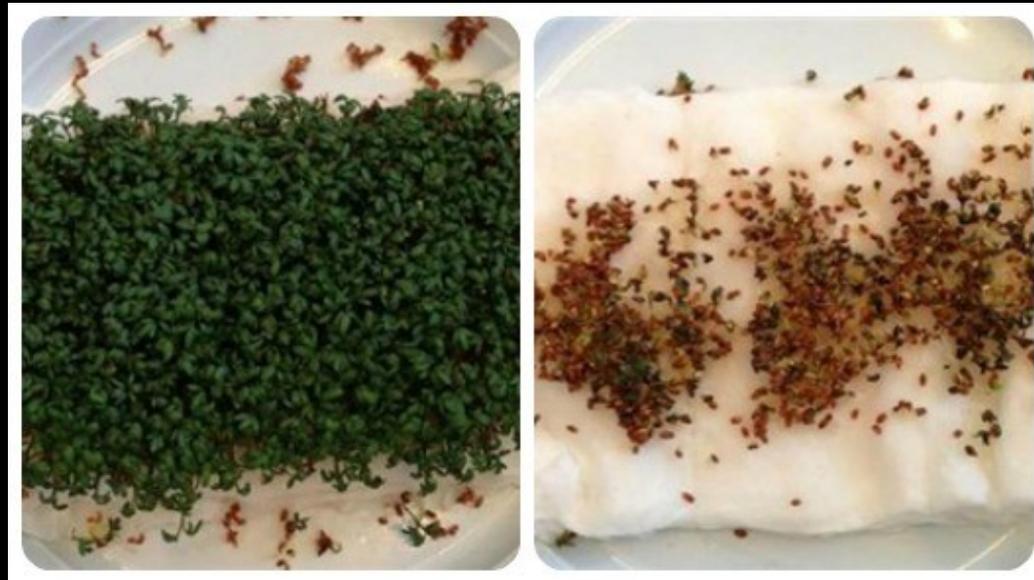
# WiFi Radiation Linked to Tree Death



<http://wakeup-world.com/2015/11/18/is-wi-fi-killing-trees/>

# Danish School Kids Find WiFi Router Radiation Kills Cross Seeds

12 Day Exposure; Same:  
Number of Seeds  
Temperature  
Water  
Sunlight



No WiFi

Next to 2 WiFi Routers

# Comparison of Radio Frequency Exposure Standards

## RF Radiation - Regulations



**USA - FCC Guidelines**  
 Allow 10,000,000 uWatts/m<sup>2</sup>  
 Short Term 30 min, based on heat



**Bioinitiative Report 2012**  
 Lowest Observed Effect Level: 3 uWatts/m<sup>2</sup>  
 Recommended Level for Children: 0.3 uWatts/m<sup>2</sup>  
 30,000,000 x less than FCC



**Austrian Medical Association**  
**Building Biology SBM 2008**  
 Severe Concern: 10 uWatts/m<sup>2</sup>  
 No Concern: 0.1 uWatts/m<sup>2</sup>  
 100,000,000 x less than FCC

**US tolerates  
 more radiation  
 than most nations**

**Cell phones / WiFi Devices  
 NOT tested  
 For Safety  
 Before Marketing**

	Effects at:	Less Than Guidelines
Psychological changes	.03 W/kg	50x Less
Immune System Effects	.015 W/kg	100x Less
Increase Calcium Efflux	.005 W/kg	300x Less
DNA Damages	.0024W/kg	600x Less
Induces Stress Response	.0110 W/kg	1,600x Less
Affects BBB	.0004 W/kg	4,000x Less
Affects Cardia Ca	.00015 W/kg	10,600x Less
Enhances Cell Proliferation	.00002 W/kg	76,000x Less

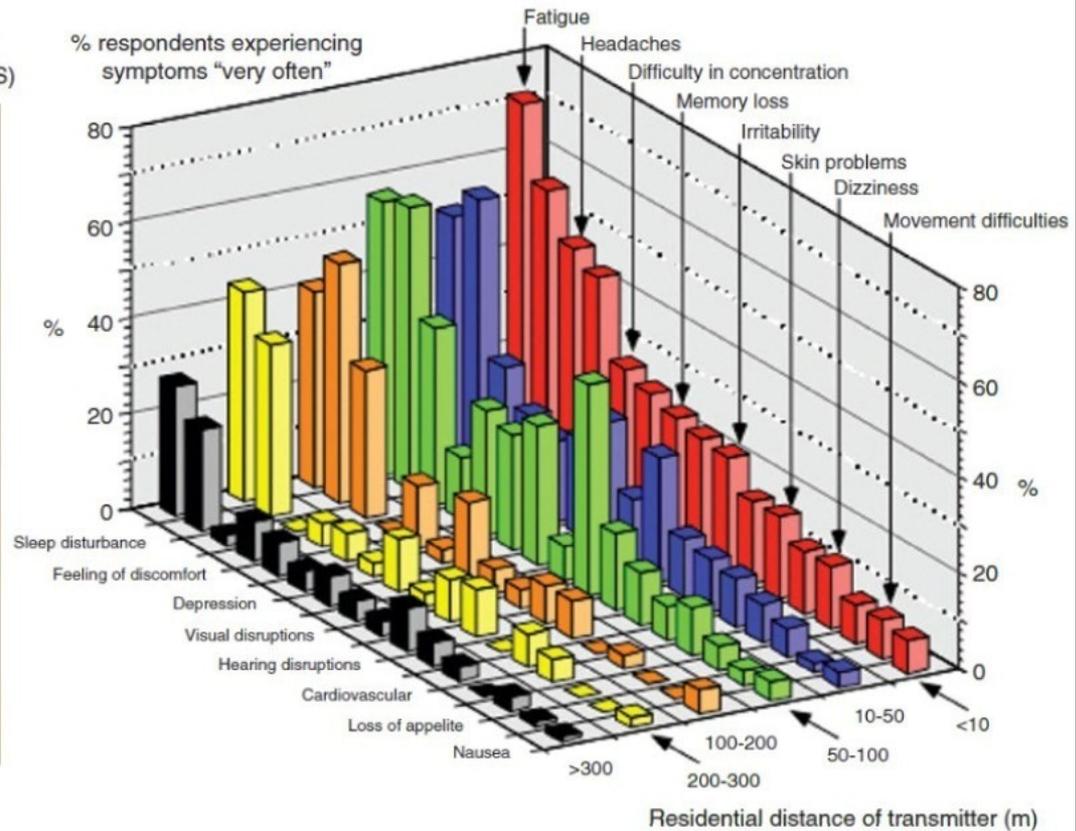
**No cell phone/WiFi device  
 Has ever passed consumer  
 safety**

Source: Carlos Sosa, MD

# Neurobehavioral Symptoms near Cell Towers

Rapid aging syndrome (RAS)  
Electro-Hyper-Sensitivity (EHS)

1. Fatigue
2. Sleep disturbance
3. Headaches
4. Feeling of discomfort
5. Difficulty concentrating
6. Depression
7. Memory loss
8. Visual disruptions
9. Irritability
10. Hearing disruptions
11. Skin problems
12. Cardiovascular
13. Dizziness
14. Loss of appetite
15. Movement difficulties
16. Nausea



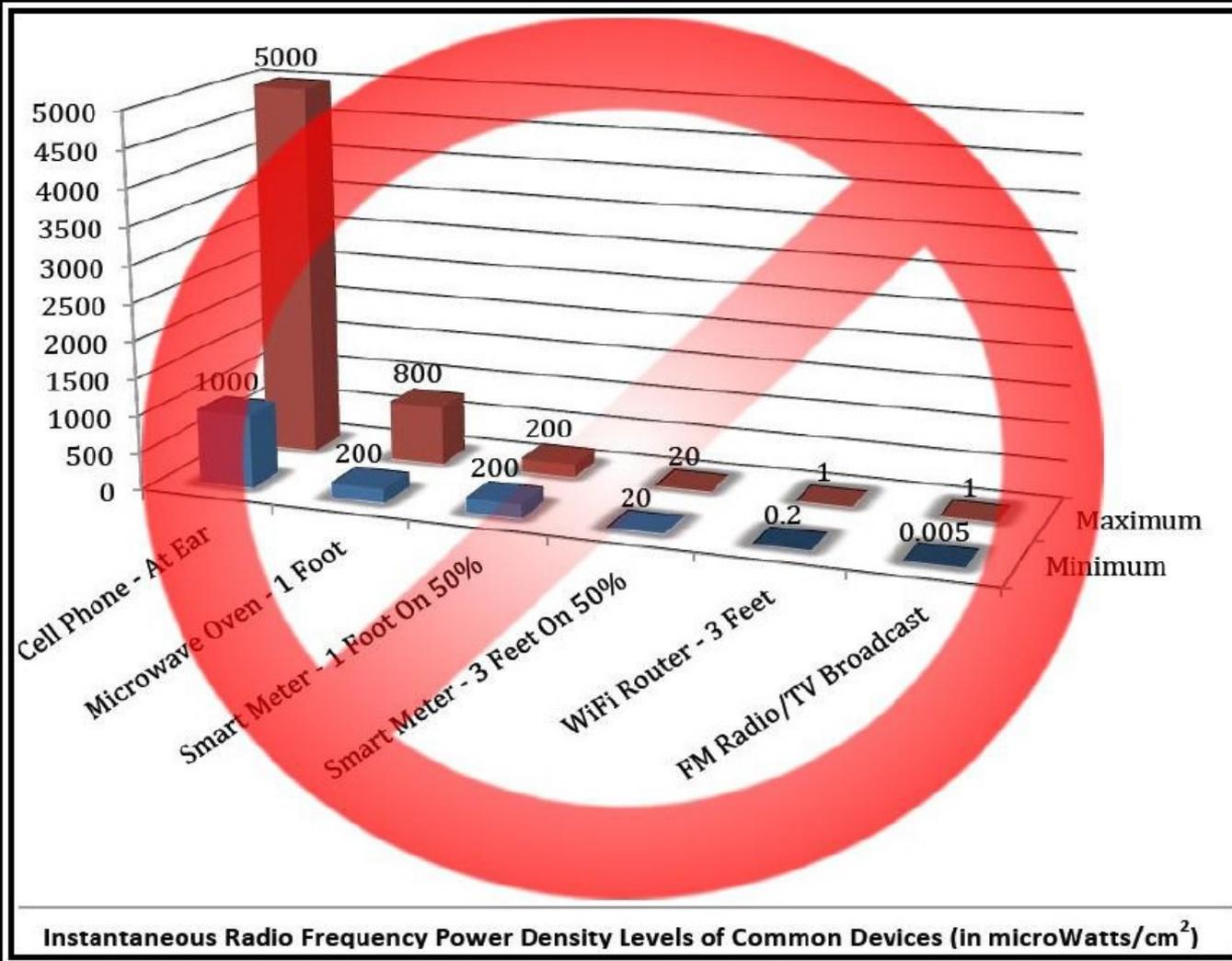
Work of Santini et al (France): Pathol Biol. 2002;50:S369-73.

**Stronger the signal, the greater the neurological effect (Risk)**

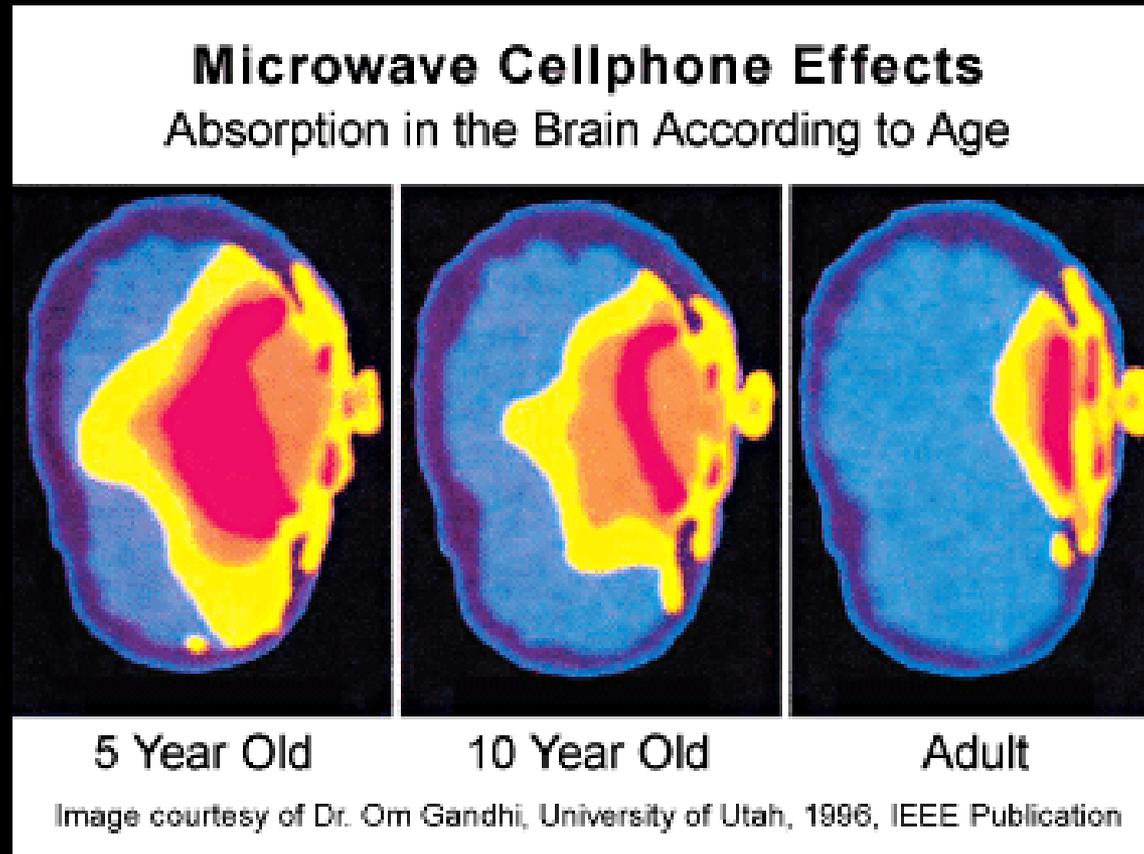
**Most such studies conclude:**

**Rare cancers & neurological effects correlated to distance from tower**

# Cell Phones Expose Brain To More Energy Than Microwave Ovens

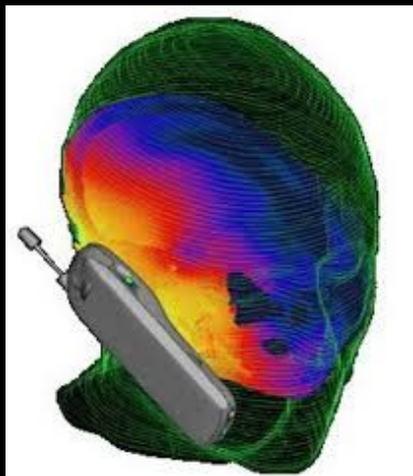


# Children at Greater Risk (Thinner Craniums)



**Younger the Person / Greater the Cell Phone Power:  
Greater the Brain Penetration & (Presumed) Higher the Risk**

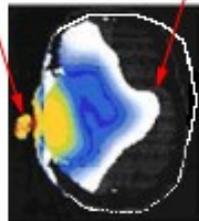
# Cell Phone Radiation Warning



**Warning: "iPhone's SAR measurement may exceed the FCC exposure guidelines for body-worn operation if positioned less than 15 mm (5/8 inch) from the body (e.g, when carrying iPhone in your pocket)."**



Cell Phone  
Radiation Area



Brain of 5-year-old

## WARNING

This device emits electromagnetic radiation, exposure to which may cause brain cancer. Users, especially children and pregnant women, should keep this device away from the head and body.

**Reminiscent of early tobacco warnings on cigarettes**

**Most cell phone manufacturers have similar label  
(In fine print, in hard-to-see location)**



## Non-Ionizing Radiation: Identical Health Effects to Radioactive Radiation



### WiFi Health Effects Presentations to Portland Public Schools Board of Education

September 16, 2013    Video Excerpt (4:23 min.)

Merry Callaghan:

"...the American trial lawyers now stand behind that wireless radiation health effects are equatable to the same disease and latency as that from nuclear radiation exposure..."

<http://www.stayonthetruth.com/non-ionizing-radiation-identical-health-effects.php>

# Cell Phones and Insurance (2015)



## Lloyd's of London Cell Phone Exclusion:

**“The Electromagnetic Fields Exclusion is a General Insurance Exclusion and is applied across the market as standard. The purpose of the exclusion is to exclude cover for illnesses caused by continuous long-term non-ionizing radiation exposure i.e. through mobile phone usage.”**

## Swiss Re (World's Largest reinsurance company):

**“Electromagnetic radiation will be the leading health risk a decade from now.”**

<http://it-takes-time.com/2015/11/03/6-surprising-facts-about-cell-phones/>

# Radiation From Cell Phone Alters Sleeping Brain Chemistry

## THE CYCLE OF SLEEP

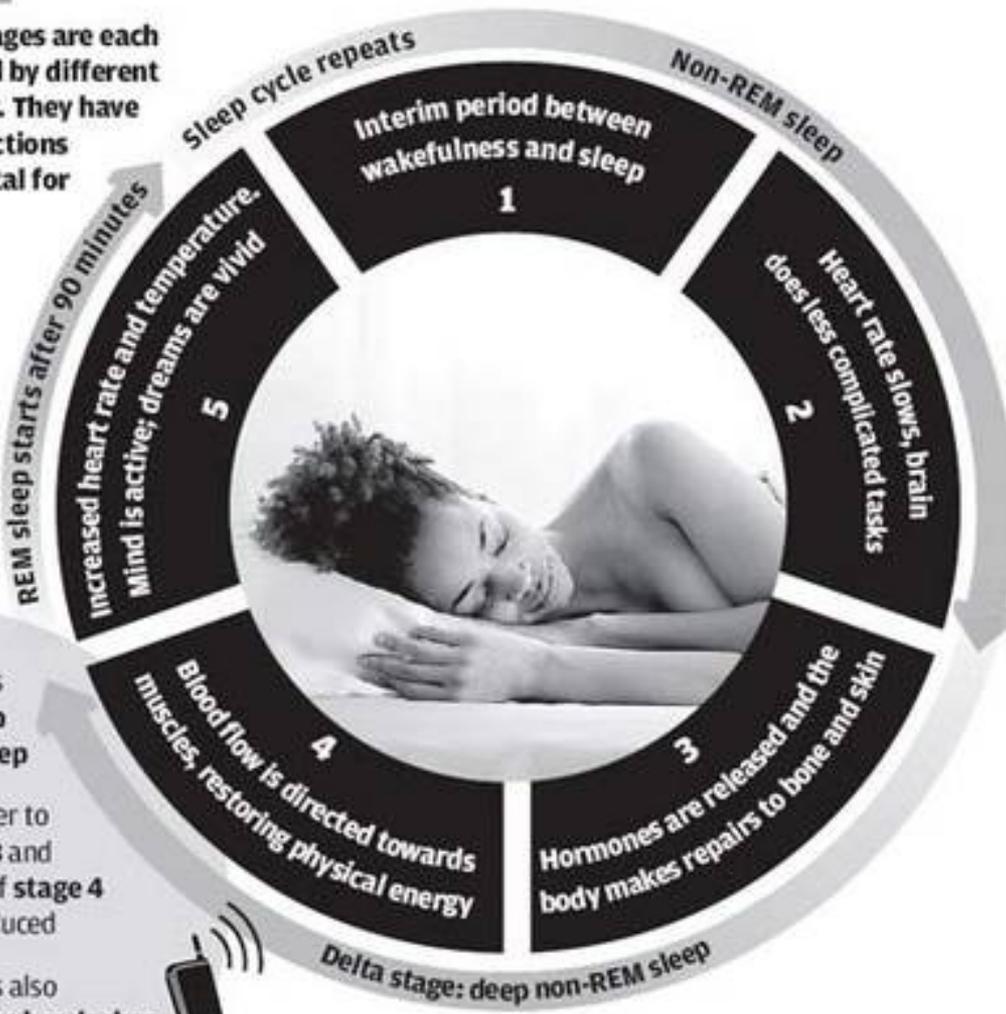
» The five stages are each characterised by different brain activity. They have different functions and are all vital for good health

### » Research findings

» The mobile phone signals affected **deep non-REM sleep**

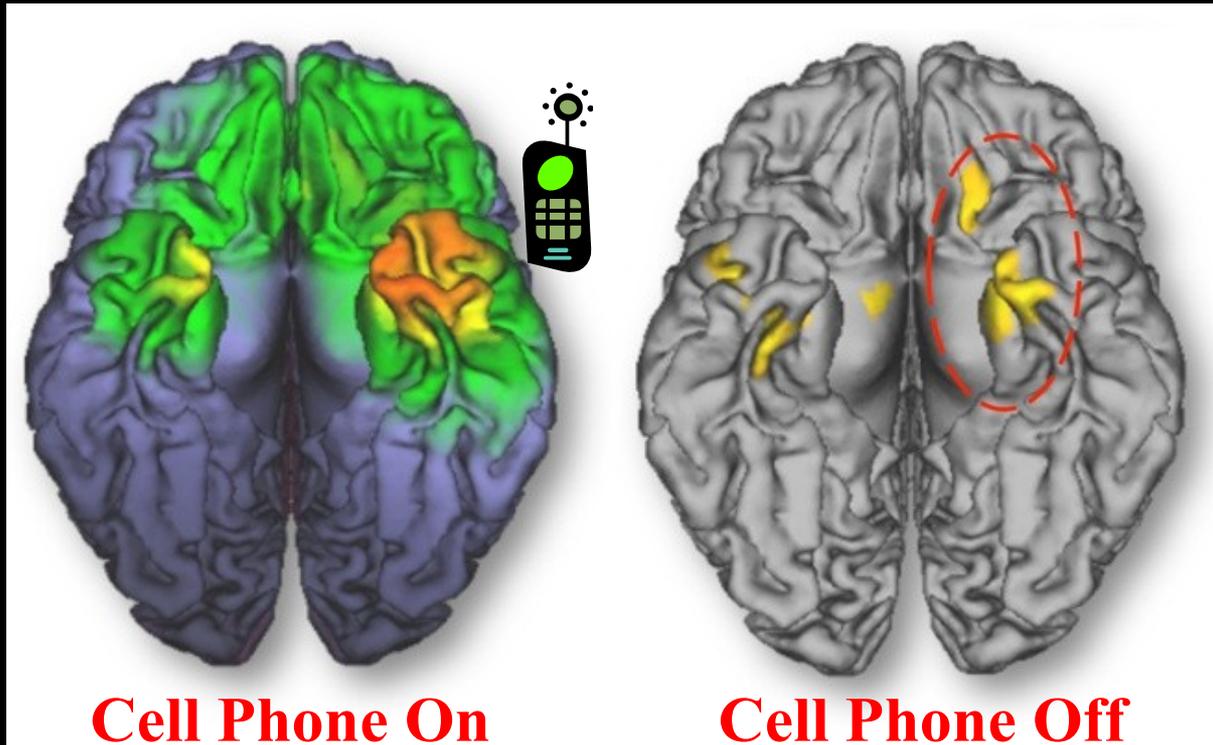
» It took longer to reach **stage 3** and the amount of **stage 4** sleep was reduced

» Participants also reported **more headaches**



# Cell Phone Use Changes Brain Chemistry

## Brain Scan Showing Glucose Metabolism



**Green & Orange:  
Increased  
Glucose Metabolism**

**Highlighted Area:  
Fine Motor Control  
Learning  
Memory**

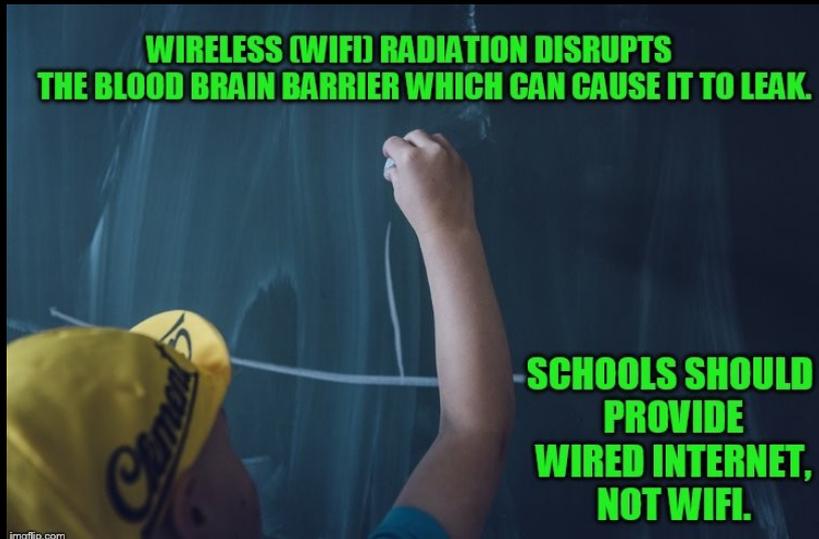
**It is clear that cell phone use alters brain chemistry  
It is NOT CLEAR what long-term effect (if any) results**

# Brain Specific Effects

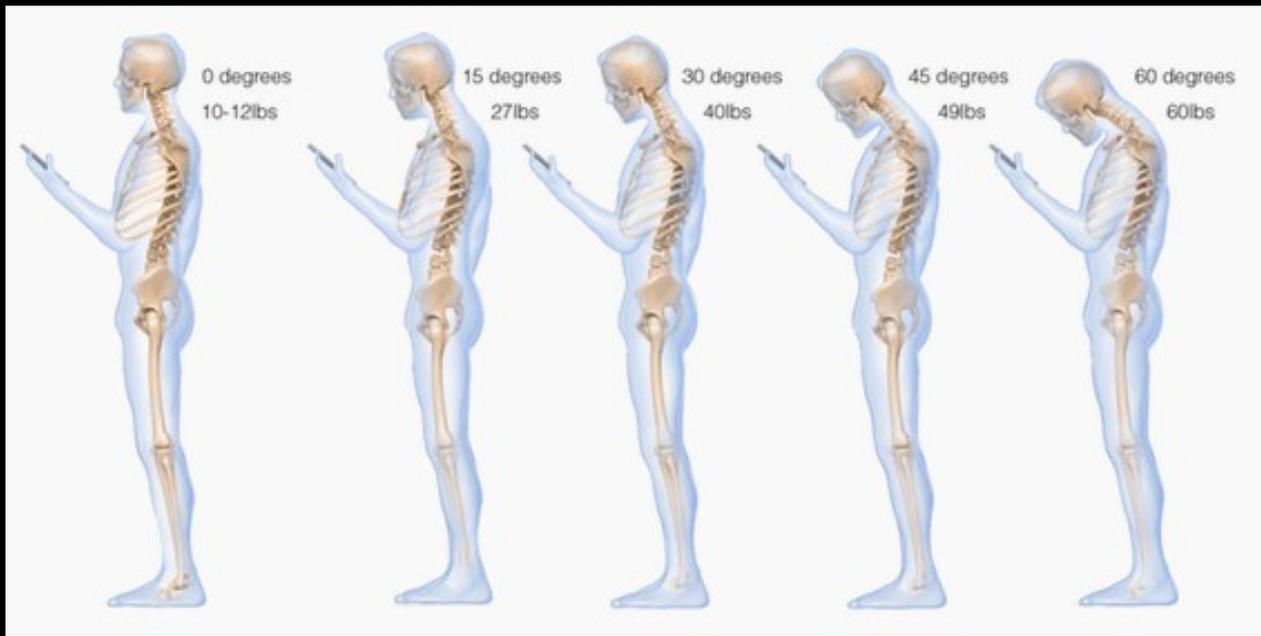
Leakage of the blood-brain barrier is detectable within 2 min of exposure and probably begins within seconds.

The blood-brain barrier keeps bacteria, virus, and toxic chemicals out of your brain and maintains the brain at constant pressure. Too much intracranial pressure can lead to a stroke.

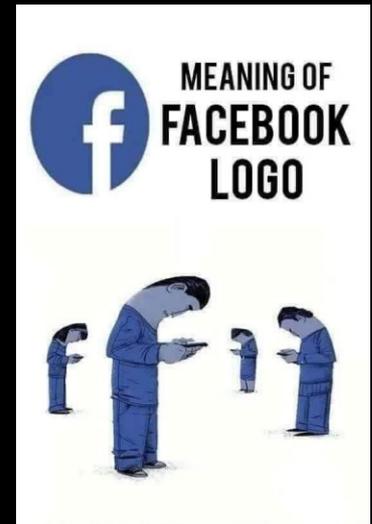
Danish study (2016) examined strokes in people aged 15 to 30. Number of strokes rose 50 percent between 1994 and 2012  
Number of transient ischemic attacks (mini-strokes) tripled



# Texting Implicated In Long Term Spinal Damage



**New Term:  
“Text Neck”**



**Expressed Weight is force on upper spine**

**“these stresses lead to early wear, tear, degeneration, and possibly surgeries.” Kenneth Hansraj (New York Back Surgeon)**

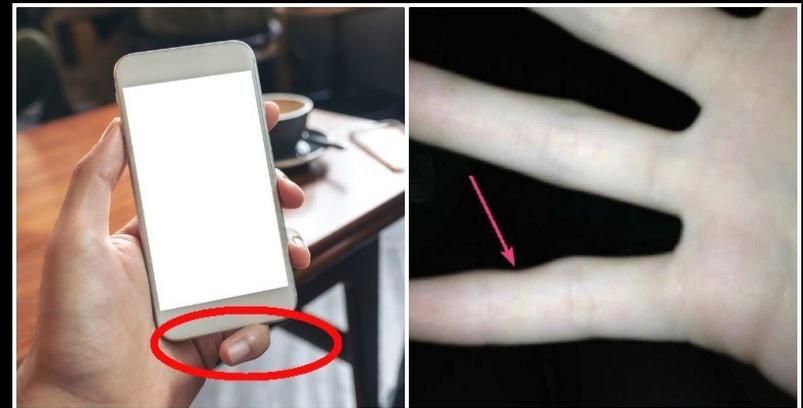
<http://qz.com/299079/what-texting-does-to-the-spine/>

# Smartphone Pinky Syndrome

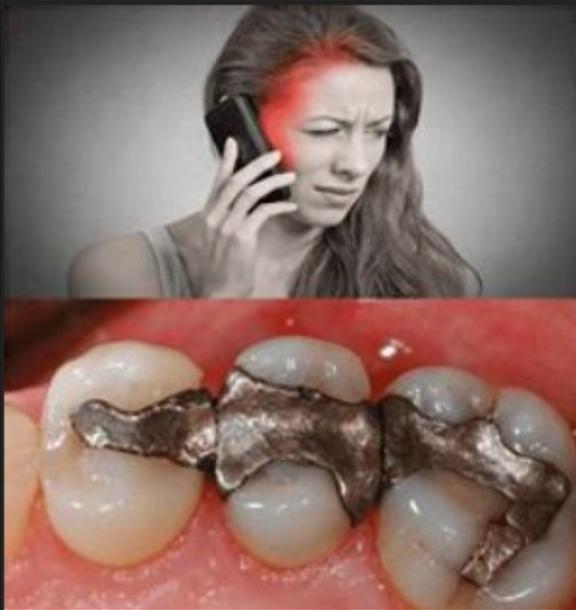
According to Dr Sachin Bhonsle, Sr. Consultant, Orthopedic Surgeon, Fortis Hospital Mulund:

“the regular use of phones, especially the one with a bigger and wider screen to type messages or emails causes the thumb and the other fingers to be over-used, through repetitive movements.”

“Short term, this causes hypermobility of the smaller joints around the fingers; the ligaments of the thumb gradually become slightly stressed. Looking at this long term, over-use of the fingers causes stress in a repetitive manner and can further lead to Osteoarthritis, as the cartilage between the joints begins to degenerate,”



<https://www.mensxp.com/health/wellness/74745-coronavirus-smartphone-pinky-syndrome-has-doctors-worried-due-to-excessive-phone-usage-in-lockdown.html>



**MOBILE PHONES  
ACCELERATE  
RELEASE  
OF MERCURY  
FROM DENTAL FILLINGS!**

[HealthRangerReport.com](http://HealthRangerReport.com)



**Microwave radiation from cell phones:**

**Expands dental amalgams (physical damage)**

**Releases toxic mercury vapor into respiratory system**

**WHO considers this a significant health risk**

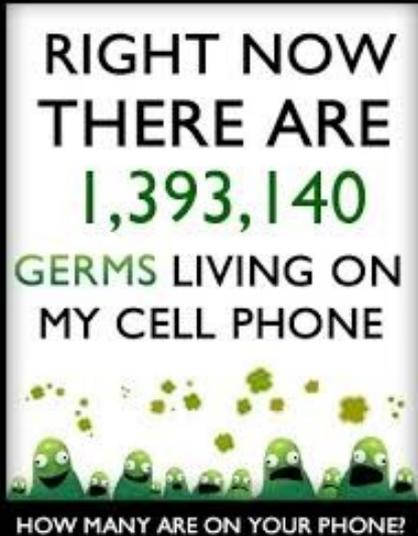
# Many People Allergic to Nickel In Metal Casing

Can be prevented with commercial coatings



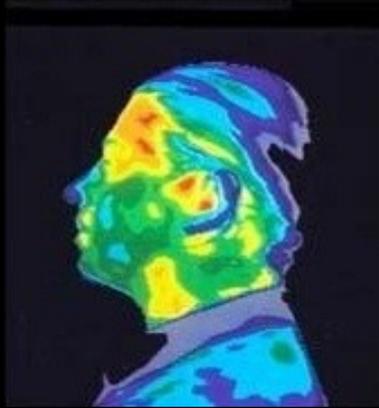
<https://nonickel.com/pages/cell-phone-dermatitis-nickel-allergy-caused-by-nickel-in-cell-phones>

# WiFi Devices Wonderful Sources of Germs

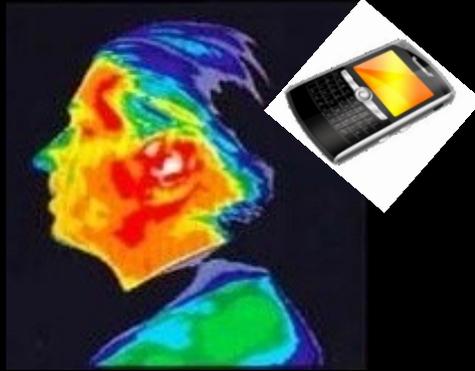


~ 20 % of personal devices tested  
> 80 % of public devices tested  
Show large quantities of intestinal bacteria  
~ 18x levels on typical toilet handle

# Thermographic Images of Cell-Phone User



**Resting**



**Using Cell Phone**



**Using Cell Phone**

**Radio / RADAR (Microwave) frequencies heat biological tissue**

**We have no biological defenses for EMF exposures**

**“Clustering “ data in humans**

**The more the exposure, the higher the cancer risk**

**Those living/working with EMF tend to show higher cancer rate**

**(Actual risk varies and is not currently understood)**

# Concerned?

Microwave ovens cook food  
from the inside out at  
2.4 Gigahertz



Everyday wireless devices  
emit microwaves at  
2.4 Gigahertz



# Concerns That Microwaves Disturb Physiology

First documented US Concerns: US Navy, 1931

Since the 1950's:

Many have researched microwave beam anti-personal devices

US Navy “cooked” animals from a distance (1955)

Frey: pulsed microwaves upset variety of brain functions (60's)

CIA has been funding microwave “warfare” since early 1960's

Ex-Soviet “confusion ray” was beamed at US Moscow Embassy

Embassy staff (1962-1978) reported:

high white cell blood count

elevated chromosomal breaks

eye-strain and blurred vision

intense headaches and mental confusion

some developed unusual and rare tumors and blood disorders

1971- Soviet Russia formerly defined “microwave sickness”



# Concerns That Microwaves Disturb Physiology



**“Mystery Illness”**

**Embassy Staff in Cuba, Russia & China**

**US government Officials in DC**

**> 100 Government Officials affected**

**“Mystery Illness”**

**Auditory disturbances**

**Clicks, buzzing, phantom voices**

**Headaches (long-lasting)**

**Memory Loss**

**Sleep Disturbances**

**Hypotheses: Result of pulsed microwaves (Frey Effect)**

**(Frey noted brain disruptive behavior in the '60's)**

<https://www.sciencedaily.com/releases/2018/08/180829115456.htm>

# Concerns That Microwaves Disturb Physiology

**5G (95 GHz) frequency:**

**“Active Denial System”**

**also called the “heat ray”**

**heats skin temperature to intolerable levels**

**used as crowd control measure**

**weaponized (via hacking) by increasing power**

**Used in electroporation gene manipulation:**

**opens cell membranes for viral penetration**



**Firefighters put out cell phone tower fire:  
Suffer brain damage**

# Concerns That Microwaves Disturb Physiology

## **5G** *KNOWN SIDE EFFECTS*

- DNA single and double strand breaks
- Oxidative damage
- Disruption of cell metabolism
- Increased blood brain barrier permeability
- Melatonin reduction
- Disruption to brain glucose metabolism
- Generation of stress proteins

# **Noted Biochemist's Comment on 5G**

**“Putting in tens of millions of 5G antennae without a single biological test of safety has got to be about the stupidest idea anyone has had in the history of the world.”**

**Martin L. Pall, PhD**

**“Wireless radiation has biological effects. Period. This is no longer a subject for debate when you look at PubMed and the peer-review literature. These effects are seen in all life forms; plants, animals, insects, microbes. In humans, we have clear evidence of cancer now: there is no question We have evidence of DNA damage, cardiomyopathy, which is the precursor of congestive heart failure, neuropsychiatric effects...5G is an untested application of a technology that we know is harmful; we know it from the science. In academics, this is called human subjects research.”**

**Dr. Sharon Goldberg**

<https://www.naturalblaze.com/2019/02/prominent-biochemistry-professor-warns-5g-is-the-stupidest-idea-in-the-history-of-the-world.html>

**PubMed is National Library of Medicine Medical Literature Search Engine**

# Noted EMF Researcher's 5G Concerns

## From an Open Letter to Californians Opposing 5G (2017)

**This sounds like hyperbole. It is not. My research group at UC San Diego alone has received hundreds of communications from people who have developed serious health problems from electromagnetic radiation, following introduction of new technologies. Others with whom I am in communication, have independently received hundreds of similar reports. Most likely these are a tip of an iceberg of tens or perhaps hundreds of thousands of affected person. As each new technology leading to further exposure to electromagnetic radiation is introduced – and particularly introduced in a fashion that prevents vulnerable individuals from avoiding it – a new group become sensitized to health effects. This is particularly true for pulsed signals in the radiowave and microwave portion of the spectrum**

**Beatrice Golomb, MD, Ph.D.**

<https://www.electrosmogprevention.org/public-health-alert/health-alerts-5g-small-wireless-cells/dr-beatrice-golomb-ucsd-researcher-speaks-out-about-5g-dangers/>

# Aircraft Manufacturer's 5 G Concerns

**Boeing and Airbus America suggest:  
5G cell towers interfere with  
aircraft ground radar altimeters &  
scramble aircraft cockpit displays**

**Could be major problem for landing  
especially in low visibility**

**Could affect 345,000 daily flights in US**



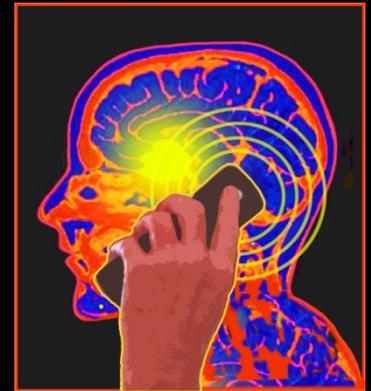
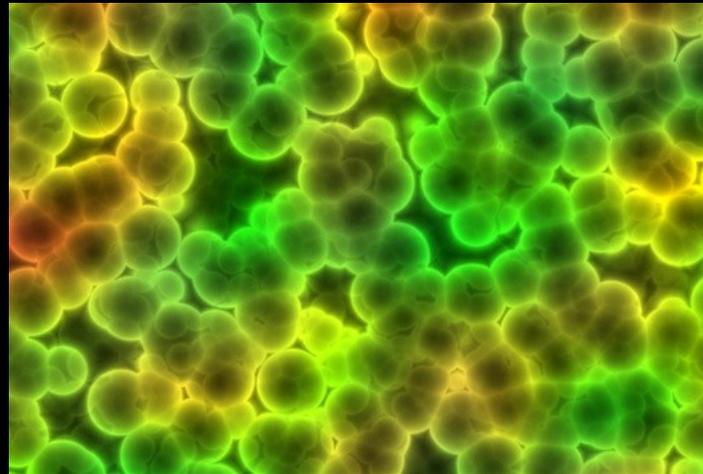
# Concerns That Microwaves Disturb Physiology

Possible long-term issue:

**Microwaves lower human immune response**

**Microwaves increase viability of microbes**

**(Bacteria mutate (adapt) ~ 790,000 x faster than humans)**



# Concerns That Microwaves Disturb Physiology

Cupertino,  
We Have a  
Problem.

Wifi  
& Kids



**Cupertino (California) school grounds:  
Cellular Tower alleged to cause cancers  
in staff and students**

**Those living near cell phone towers:  
3x general population cancer rate**



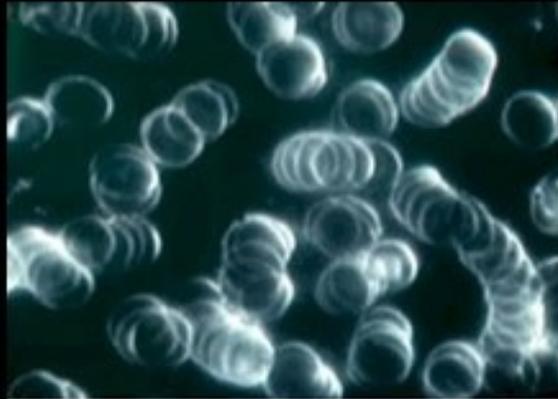
**Several police agencies have alleged  
radar devices increase cancer rate**

**Based on cluster analysis of  
testicular cancer of state troopers**

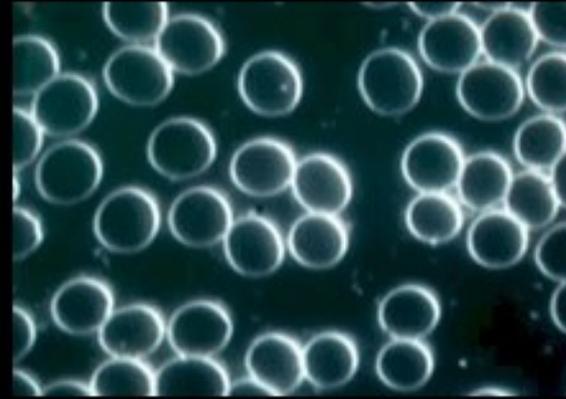
**(between uses, gun was held between legs)**

# Concerns That Microwaves Disturb Physiology

## Cell Phone Blood Effect



WITHOUT EMF Shield



WITH EMF Shield

**Microwave radiation alters red blood cell organization:**  
**lowers blood oxygen levels**  
**promotes microbial growth**

<http://www.inspiredliving.com/aulterra-emf-neutralizers.htm>

# Concerns That Microwaves Disturb Physiology

Headaches

Impaired Immune system

Tumors of hearing nerve

Break in blood brain barrier

Reduced melatonin

Genetic damage

Interference with pacemakers

Melanoma of the eye



Pressure or tingling in the head

Memory loss

Brain tumors

DNA alteration or damage

Changed brain electrical activity

Cardiovascular stress

Eye problems

Fatigue

## 2013: WHO reported cell phone/WiFi use correlated to 9 cancers:

Brain	Acoustic Nerves	Meninges
Salivary Glands	Eyes	Testes
White Blood Cells	Thyroid	Breast



**WHO Cancer Risk Rating: 2B (possible risk)**

**(DDT, pesticides, Pb, automobile exhaust, dry cleaning fluids)**

**Brain cancer now major cancer in children & adults < 40 yrs old**

**Cancers form on the side of head where phone is held**



**Currently, most emf/cancer studies controversial  
They may suggest trends, but are not yet definitive**

# Laptop Exposure Depends On Antenna Location

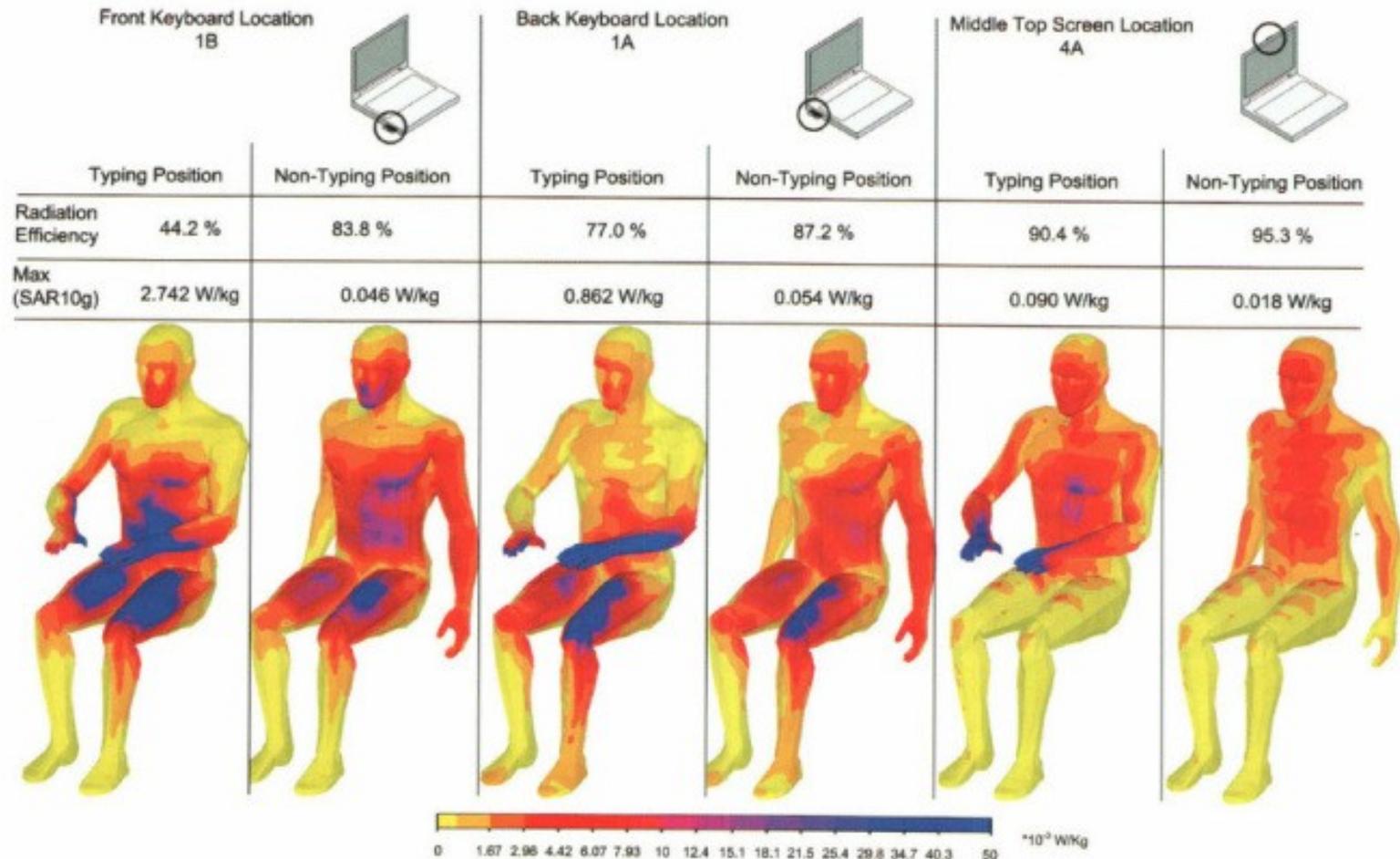
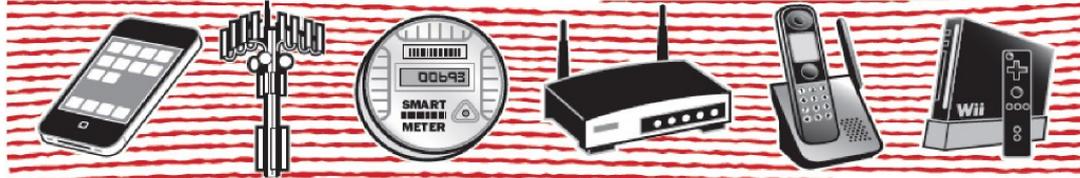


Figure 22. The absorption of electromagnetic energy in human tissue: the resulting antenna radiation efficiencies and SARs in the operator's body at 2.44 GHz for different inverted-F antenna (IFA) element locations.

# Warning Posters Are Becoming More Prevalent

## **PUBLIC HEALTH WARNING**

**ALL WIRELESS DEVICES EMIT MICROWAVE RADIATION—a known biological hazard**



**EVERY TIME YOU USE A WIRELESS DEVICE, YOU ARE EXPOSED TO MICROWAVE RADIATION.**

The World Health Organization (WHO) labels this radiation a Class 2B possible cancer-causing agent in the same category as lead, DDT, and chloroform. Cell phones, cordless phones, tablets, laptops, 'smart' meters—the more you are around these devices, the more radiation you get.

**MICROWAVE RADIATION IS HARMFUL TO YOU.** Scientists link this radiation to diseases, both long-term and short-term: cancer, infertility, DNA damage, damage to fetuses, sleep problems, memory and behavior problems, heart problems and many others.

**MANY PEOPLE HAVE BECOME "ELECTRO-HYPER-SENSITIVE" (EHS)** and cannot tolerate even low exposures, seriously impacting their health, job, housing, and social lives.

**GOVERNMENT REGULATIONS DO NOT PROTECT YOU.** FCC guidelines were written decades ago and ignore current science linking microwaves to human disease. Cities like San Francisco have tried to introduce mandatory health warnings on cell phones but the wireless industry has suppressed these efforts with lawsuits and economic boycotts.

### **CAUTION**

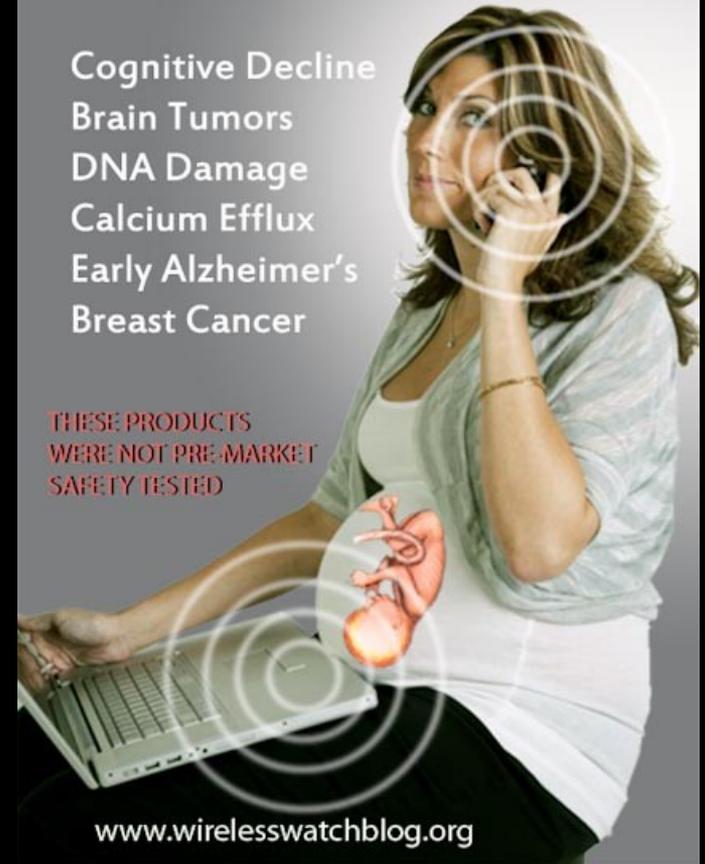


### **BIOHAZARD**

## **THE FUTURE ?**

Cognitive Decline  
Brain Tumors  
DNA Damage  
Calcium Efflux  
Early Alzheimer's  
Breast Cancer

THESE PRODUCTS  
WERE NOT PRE-MARKET  
SAFETY TESTED



[www.wirelesswatchblog.org](http://www.wirelesswatchblog.org)

# Concerns About School Use Increasing

## Wi-Fi In Classrooms Deadly Or Not?

**Wi-Fi networks are a way of connecting wirelessly to the internet**

- ▶ Could it cause brain-damage to children?
- ▶ Could it cause cancer and leukemia?
- ▶ Could it cause reproductive problems in later life?
- ▶ Could it cause headaches, lack of concentration, depression, insomnia & allergy?
- ▶ Could it cause memory impairment?
- ▶ Could it prove to be the asbestos of the 21st century?

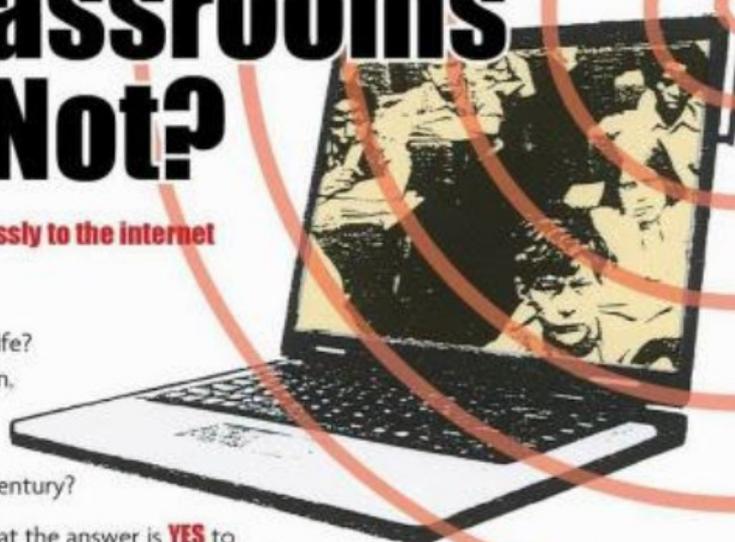
A growing amount of scientific research suggests that the answer is **YES** to all these questions. There are certainly no long term studies to suggest it is safe.

**So what do we do?**

Expose our children to it for ten or twenty years to see how many die or suffer brain damage?  
Or do we put all the pressure we can on school principals, P.T.A. committees, education boards and our Minister of Education to stop endangering our children for the sake of saving the cost of wiring our classrooms for internet connections?

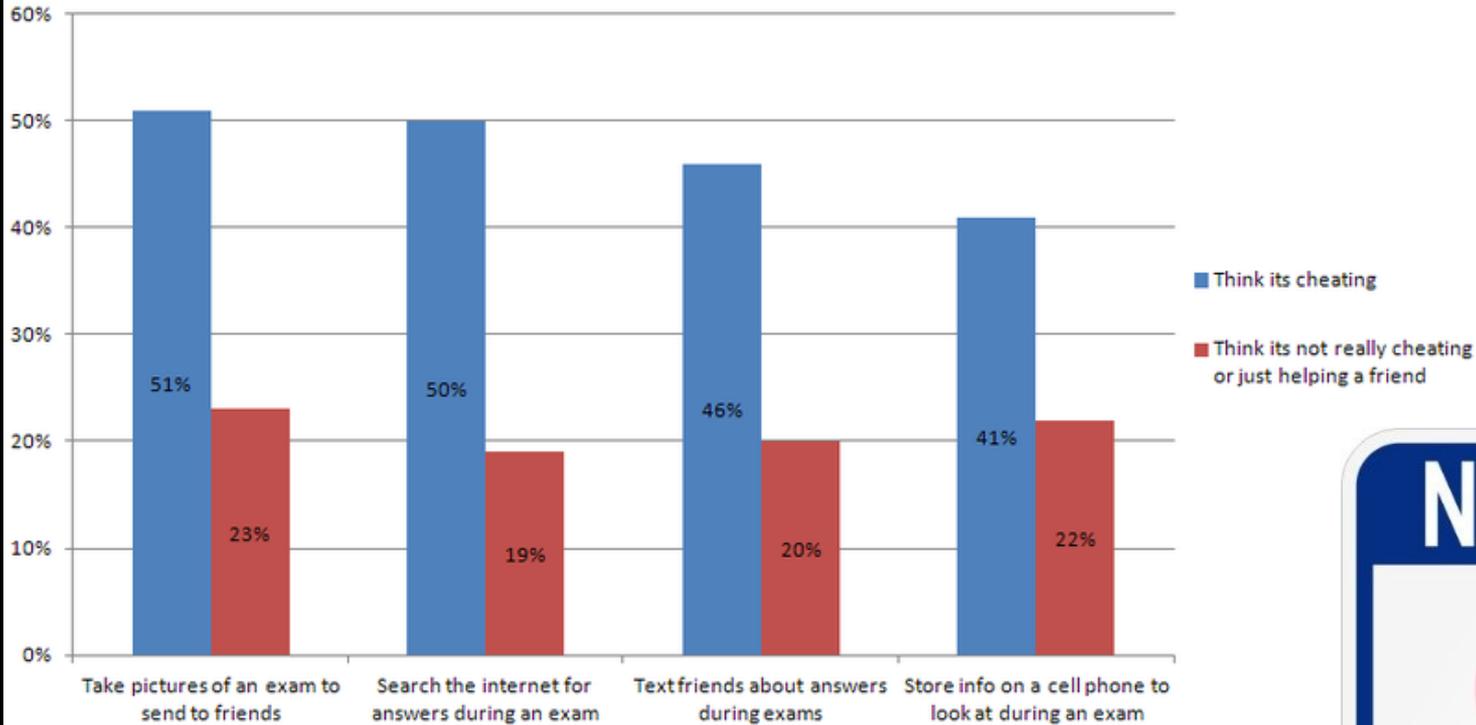
**For more information go to [www.ministryofhealth.org.uk/wificampaign](http://www.ministryofhealth.org.uk/wificampaign)**

**Registered office : 78 York street, London, W1H 1DP**



**UK: Medical community movement to ban WiFi in K-12 schools  
Based on increases in cancer rates of children**

## Cell phone cheating: Student perception

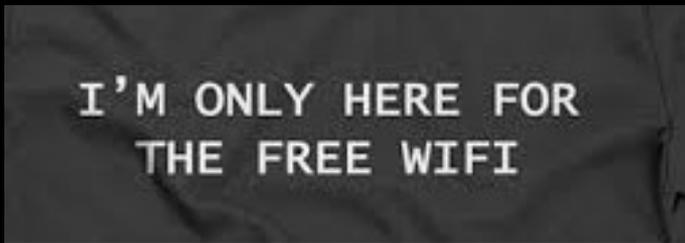


Source: Common Sense Media's Hi-Tech Cheating: Cell Phones and Cheating in Schools: A National Poll



**Google Glass Is Banned  
On These Premises**

stopthecyborgs.org @@@@



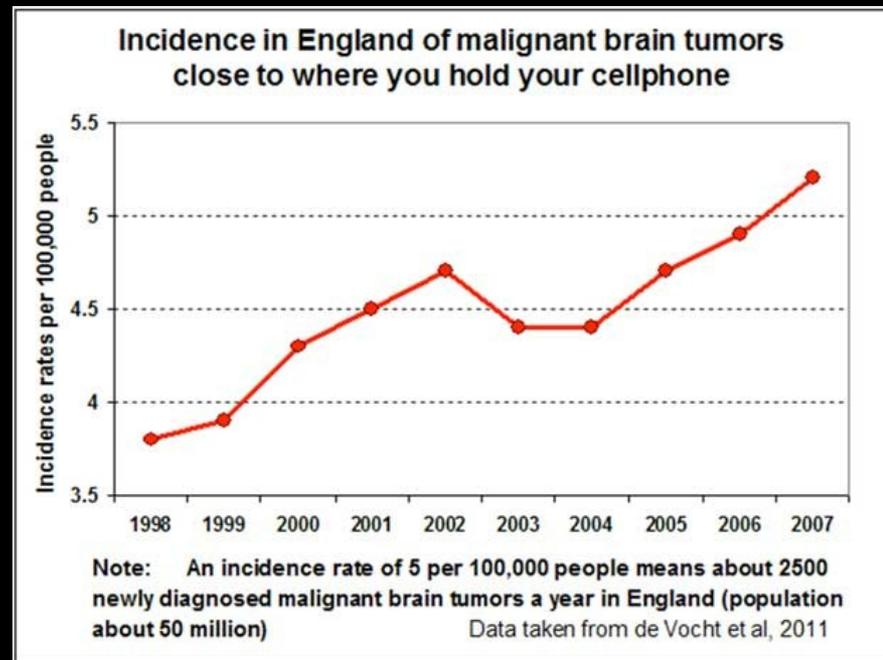


# Exposure to EMF is carcinogenic (but risk remains unclear/undefined)

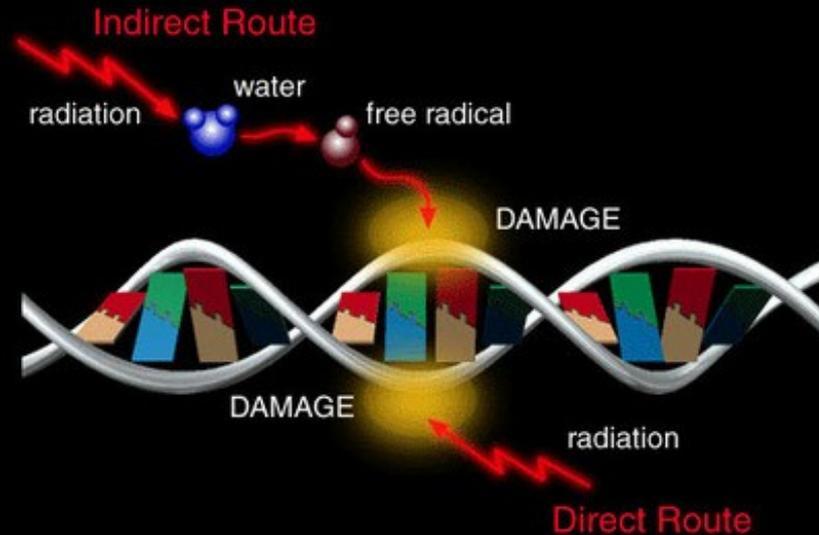


Closer to source, higher the exposure → greater the risk  
But how much? / how long? / at what strength? is still unclear

Typically: 20 year lag time between exposure and disease  
No “hard data” on chronic exposures ... we are  $\alpha$  test group



# EMF Radiation Alters DNA Structure



4 year study (7 European nations) of 101 scientific papers :  
> 50 % demonstrate DNA damage (genotoxic effects)

**Martin Blank**

**Microwave radiation from cell phone**

**Raises overall brain temp ~ 1°C**

**Raises DNA molecule temp ~ 100 °C**

**DNA strands typically separate at ~ 70 °C**

**Separated strands more susceptible to damage (mutation)**

# Evidence Linking Cell Phones-Cancer Increases

## Fertility problems of mobile phone users and in-the-pocket-keepers



Problems with motility, bad sperm quality, DNA-damage

De Iuliis *et al.* (2009), Baste *et al.* (2008), Agarwal *et al.* (2009),  
Fejes *et al.* (2005), Salama *et al.* (2010) etc

“ The evidence for a connection between phone use and cancer is clear and convincing. The more you use [mobile or cordless] phones and the greater the number of years you have them, the greater the risk of brain tumours.”  
Professor Kjell Mild,  
biophysicist, Orebro University,  
Sweden.

**Swedish data on age of first cell phone use suggest:**  
**< 20 years old: 5 x increase in neurological cancers**  
**> 20 years old: 2.4 x increase in neurological cancers**

# Evidence Linking Cell Phones-Cancer Increases

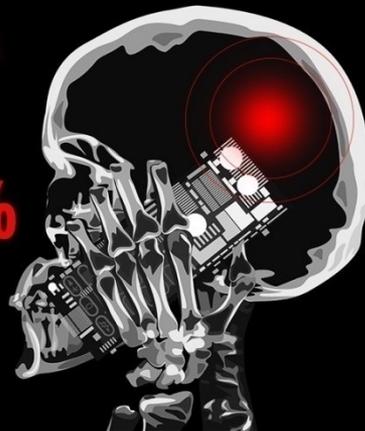
Wi-Fi –  
A Thalidomide in  
the Making.  
Who Cares?



This is Barrie Trower. Scientist, Expert Witness and trained by the UK Government in Microwave Warfare. He has just released a research paper explaining how 57% of girls in the next generation (our kids) will be sterile due to Wi Fi technology.

Knowledge gives you choice, ignorance doesn't

USING YOUR CELL PHONE A  
HALF HOUR PER DAY  
**INCREASES**  
YOUR RISK OF  
BRAIN TUMOR BY **40%**



The TRUTH About  
**CANCER**  
educate • expose • eradicate



## Save the girls

Doctors warn that unusual breast cancers are occurring in women who stored cell phones in their bras.

#SaveTheGirls

ENVIRONMENTAL HEALTH TRUST  
[www.ehtrust.org](http://www.ehtrust.org)



## RF SAFE™

The Only Way to Trust Wireless

No Phone ZONE

[www.rfsafe.com](http://www.rfsafe.com)

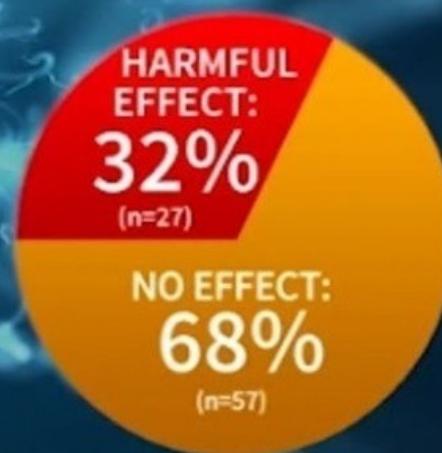
# As with Tobacco, Conclusions May Be Related To Funding

## Radiofrequency Research: Does Funding Matter?

Non-industry studies



Industry studies



Data Compiled by Dr. Henry Lai, University of Washington

# National Radio-Free Zone



**Dish diameter: 100 m**

**Radio Telescope at Green Bank, West Virginia**

**To limit potential interference:**

**No radio (microwave ovens, wi-fi, cell phones):**

**13,000 square mile area**

**most severe restrictions: 20-mile radius of telescope**

# Energy Emissions Detected in Janskys\*



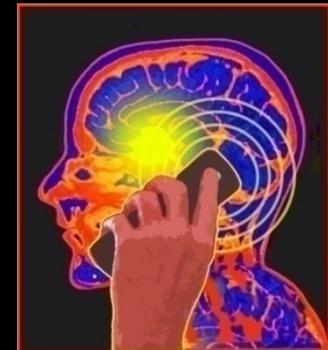
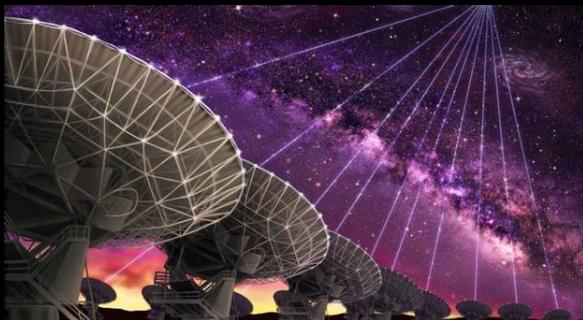
**Typical Star: 10-100**

**Our Sun: 500,000**

**Cell Phone: 100,000,000,000,000,000**

**\*Radio Astronomy Unit of Radio Energy**

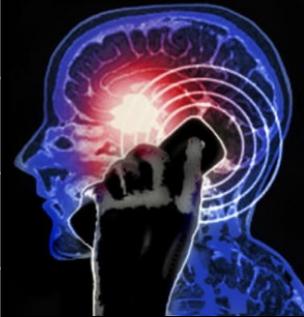
**\* $10^{-26}$  watts per square meter per hertz**



# Some Class Microwave Energy Measures (will vary with number / type of devices in use)



Location	$\mu\text{watts} / \text{cm}^2 *$
South Parking Lot	43 - 60
Third Floor Hallway	76 - 9296
Ceiling "Hot Spot"	1680 - 1820
Laptops	830 - 1582
Cell Phone	480 - 820
Ear Buds	720- 840
Car Key Fob	1280 - 1420
Smart Electrical Meter	1490 -1986



\* ~ 100: potential biological issue

~ 600: Suggested detrimental long term exposure limit



# “Numbers” Relevant to this class: Banning Cell Phones Improves Grades



For all my CEM 101 classes taught prior to the ban:

**Class ave: 82**

**% A's: 38**

**% B's: 33 > 71**

For my CEM 101 classes with the cell phone ban:



**Class ave: 89**

**% A's: 51**

**% B's: 40 > 91**



# Additional Reading On EMF Concerns



**G. Carlo, Cell Phones: Invisible Hazards In the Wireless Age, Basic Books, 2002, 320 pages**

**A.L. Gittleman, Zapped, Harper One, 2011, 262 pages**

**R.O. Becker & G. Selden, Body Electric, Harper Collins, 1985, 365 pages**

**S. Magee, Toxic Electricity, Self-Published, 2013, 512 pages**

**S. Magee, Electrical Forensics, Self-Published, 2013, 303 pages**

**C. Rees & M. Havas, Public Health SOS: The Shadow Side of the Wireless Revolution, Wide Angle Health, 2009, 116 pages**

[bioinitiative.org/conclusion](http://bioinitiative.org/conclusion)

[globalresearch.ca/44-reasons-to-believe-cell-phones-can-cause-cancer/5420118](http://globalresearch.ca/44-reasons-to-believe-cell-phones-can-cause-cancer/5420118)

[emfwise.com/](http://emfwise.com/)

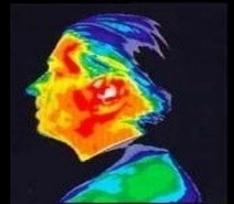
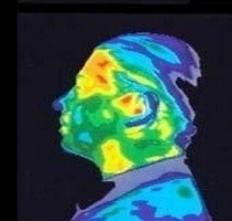
[microwavenews.com](http://microwavenews.com)

[consumers4safephones.com/](http://consumers4safephones.com/)

[electromagnetichealth.org/](http://electromagnetichealth.org/)

[www.psrast.org/mobileng/mobilstarteng.htm](http://www.psrast.org/mobileng/mobilstarteng.htm)

<http://www.wakingtimes.com/2014/01/31/WiFi-invisible-killing-fields/>





# Additional Reading On Cell Phone Use

## Cell Phones, Children, ADHD, and Development



[plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0059742](http://plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0059742)

[articles.mercola.com/sites/articles/archive/2012/07/04/cellphone-radiation-may-cause-adhd.aspx](http://articles.mercola.com/sites/articles/archive/2012/07/04/cellphone-radiation-may-cause-adhd.aspx)

[realtruth.org/news/140610-010.html](http://realtruth.org/news/140610-010.html)

[realtruth.org/news/090303-008-society.html](http://realtruth.org/news/090303-008-society.html)

[www.tomsguide.com/us/Attention-Deficit-Disorder-Technology-Internet,news-5122.html](http://www.tomsguide.com/us/Attention-Deficit-Disorder-Technology-Internet,news-5122.html)

[abcnews.go.com/blogs/technology/2013/05/can-WiFi-signals-stunt-plant-growth](http://abcnews.go.com/blogs/technology/2013/05/can-WiFi-signals-stunt-plant-growth)

[www.huffingtonpost.com/2013/08/23/sleep-texting-trend-health\\_n\\_3806641.html](http://www.huffingtonpost.com/2013/08/23/sleep-texting-trend-health_n_3806641.html)

[www.scientificamerican.com/article/major-cell-phone-radiation-study-reignites-cancer-questions/](http://www.scientificamerican.com/article/major-cell-phone-radiation-study-reignites-cancer-questions/)

## Cell Phones, Addiction, and Academics



[www.baylor.edu/mediacommunications/news.php?action=story&story=145864](http://www.baylor.edu/mediacommunications/news.php?action=story&story=145864)

[www.psychologytoday.com/blog/brain-wise/201209/why-were-all-addicted-texts-twitter-and-google](http://www.psychologytoday.com/blog/brain-wise/201209/why-were-all-addicted-texts-twitter-and-google)

[www.slate.com/articles/health\\_and\\_science/science/2009/08/seeking.html](http://www.slate.com/articles/health_and_science/science/2009/08/seeking.html)

[articles.mercola.com/sites/articles/archive/2008/02/16/can-cell-phones-give-you-insomnia.aspx](http://articles.mercola.com/sites/articles/archive/2008/02/16/can-cell-phones-give-you-insomnia.aspx)

[www.slate.com/articles/health\\_and\\_science/science/2013/05/multitasking\\_while\\_studying\\_divided\\_attention\\_and\\_technological\\_gadgets.html](http://www.slate.com/articles/health_and_science/science/2013/05/multitasking_while_studying_divided_attention_and_technological_gadgets.html)

**A Student Stated that  
I was too old to know anything about “Modern WiFi”  
And  
That anything I said about lack of security was a “Conspiracy Theory”**

**So, before the humor section, I have added some slides on security**



# Cybercrime References



<https://financesonline.com/cybercrime-statistics/>

<https://legaljobs.io/blog/cyber-crime-statistics/>

<https://www.comparitech.com/vpn/cybersecurity-cyber-crime-statistics-facts-trends/>

<https://www.fbi.gov/news/stories/2019-internet-crime-report-released-021120>

<https://www.vpngEEKS.com/cyber-crime-statistics/>

<https://www.iii.org/fact-statistic/facts-statistics-identity-theft-and-cybercrime>



# The Risks Behind the Apps

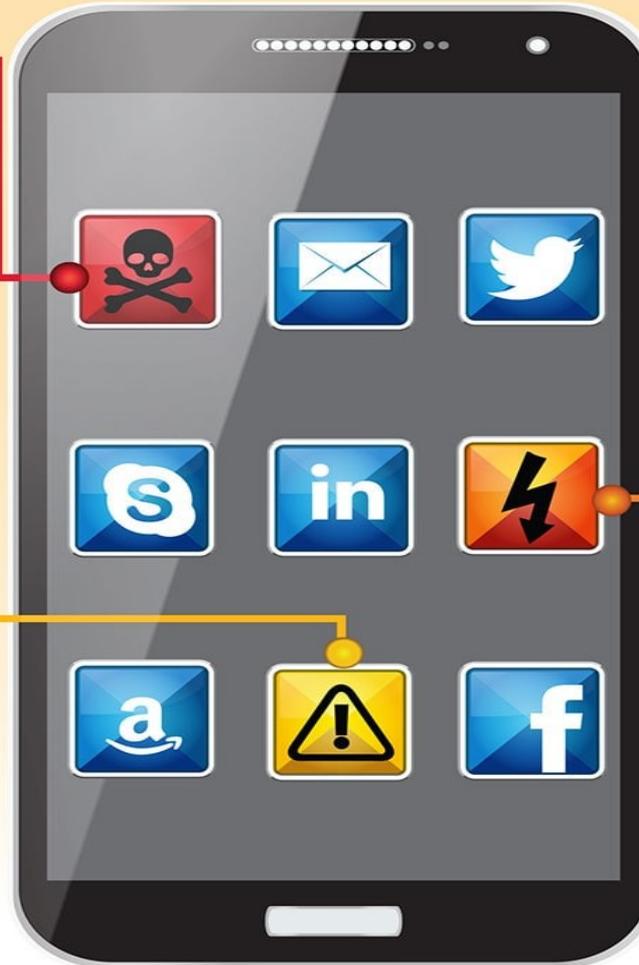
## Malicious Behaviors

- Accesses device management and restricted security APIs unnecessarily
- Accesses or requests Super User permissions
- Exploits operating system or zero-day vulnerabilities
- Roots or jailbreaks device
- Steals login credentials
- Communicates with known malicious IP addresses and domains

## Moderate Risk Behaviors

*May be a risk if performed by apps from unknown or untrusted sources*

- Reads and Sends emails
- Reads and Sends SMS messages
- Reads and sends GPS information



## Dangerous Behaviors

- Uploads user information without permission or without notifying user
  - Upload address book without notifying user
  - Reads SMS messages and sends them off the device
  - Reads emails and sends them off the device
  - Reads browser history and sends it off the device
- Includes SSL vulnerabilities that enable communications to be intercepted
- No privacy policy or refers to an invalid privacy policy
- Installs boot-time startup item

# **Not Related to Health, but be aware that:**

**Everything on your WiFi device resides on someone else's HD**

**They own everything; can use as they wish (resides on their machine)**

**All your email is parsed, collated and archived**

**Who you email, how many times, and keywords**

**Tweets are stored permanently at US Library of Congress**

**Everything that goes thru Social Media, Google, PayPal:**

**parsed and data stored in your personal profile**

**these data are made available to advertisers and governments**

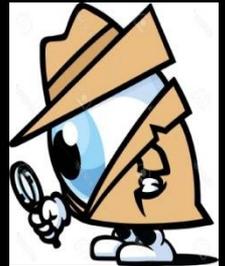
**Thanks to Social Media (primarily Google and Facebook):**

**more than 1 million Americans labeled as potential terrorists**

**(If this does not concern you, look up US Senator Joe McCarthy)**

**CNN & law enforcement report ~98% (in first hour) of tweets false**

**responses to these false reports can cost lives and property**



**Not Related to Health, but be aware that:**  
**All WiFi communication is monitored and archived**

**There is no privacy or security in the cloud**

**“There is no privacy on the internet, Get Over It!” (Steve Jobs)**



**Look in the sky ... see the pretty cloud.**

**Who else sees the cloud?**

**Everybody**



# Google's Wi-Fi snoop nabbed passwords and emails

## French inspection

By Cade Metz 18 Jun 2010 at 22:42

74  SHARE ▼

The Wi-Fi traffic collected by Google's world-roving Street View cars included passwords and email, according to a report citing a preliminary study from the French data protection authority.

*IDG* reports that the French National Commission on Computing and Liberty (CNIL) has examined part of the data, after it was turned over by Google. "It's still too early to say what will happen as a result of this investigation," CNIL told *IDG*.



© Corbis via Getty Images

**Google Street View Data Capture:**  
**Intercepted and recorded**  
**All WiFi / cell phone signals**  
**Fined 7 million dollars**

**Facebook fined > 800 million dollars**  
**For distributing personal information**

# “War Driving / Flying”

Recording WiFi /cell phone signals for malicious intent



Any WiFi / cell phone signal can be (most likely is) intercepted  
Inexpensive tools available to facilitate this activity  
Signals easily intercepted from >1500 feet  
Cross city / state intercepts have been documented



# Security Robots for Home, Government, and Industry

## Record Video, Car Licenses, and WiFi Communications



# Products Available to Intercept Any Cell Phone



## INTERCEPTOR SPYPHONE SOFTWARE

Receive both incoming and outgoing text messages  
 Dial in and listen to surrounding vicinity  
 Text notification when the target phone is switched on  
 Time and date stamping  
 Text notification when the target phone receives call  
 Text notification shows number calling in  
 Text notifications when the target phone dials  
 Text notification shows number being called

INTERCEPTOR SPYPHONE SOFTWARE

## The World's Most Powerful Monitoring Software for Computers, Mobile Phones and Tablets

Watch the video 

My Dad's not here. Meet me at 10.

- ✔ Monitor all Android and iPhone digital and audio communications
- ✔ Monitor everything that happens on a PC or Mac
- ✔ More monitoring features than any other product
- ✔ No Hassle Remote Installation Service
- ✔ FREE Mobile Viewer App for Android and iPhone
- ✔ Used for Parental Control and Employee Monitoring



FlexiSPY

(unknown) 5th March

Dashboard

What's New

48	61	7	104	32
New SMS	Email	Recordings	Facebook	Locations

21 Calls, 3 Skype, 0 Contacts, 57 What's App, 102 IM, 0 SMS, 15 Photos, 8 Videos, 2 Audio, 7 W.Pager, 7 Notes, 26 Websites, 31 Apps, 5

Recent Photos

Most Recent Location

11 Mampoun's, W Houston St, Bowery

Contacts, Applications, Websites, Notes



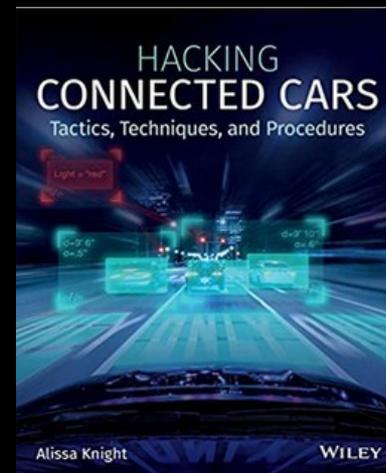
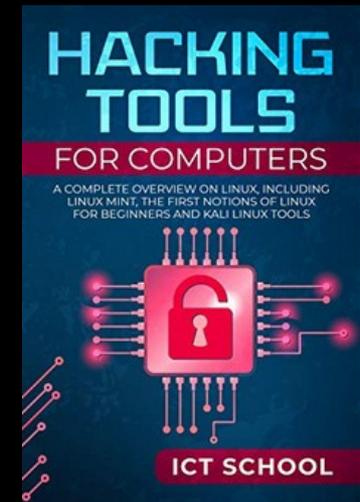
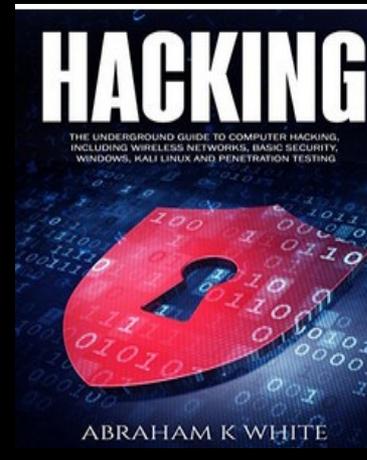
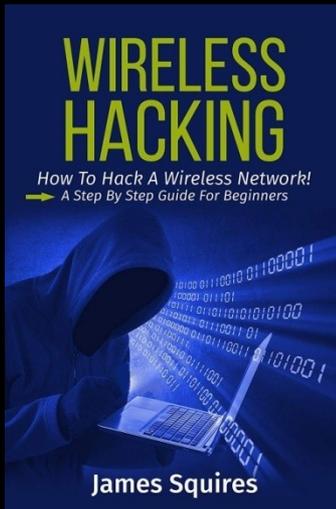
# Phone Spy Phone

# Apps Available to Obtain Passwords

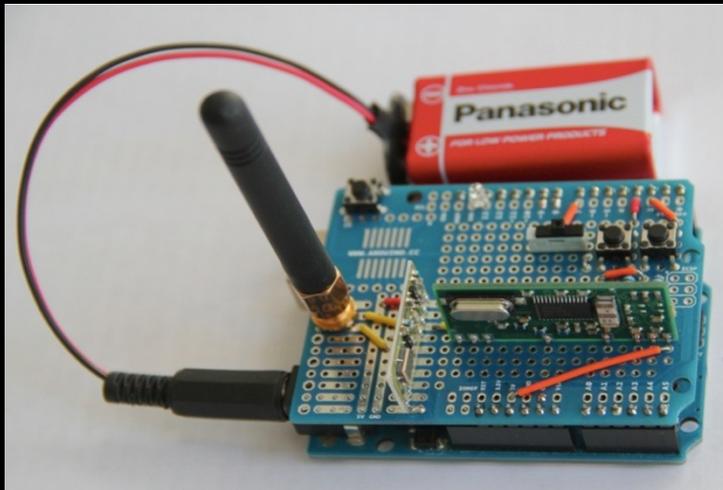
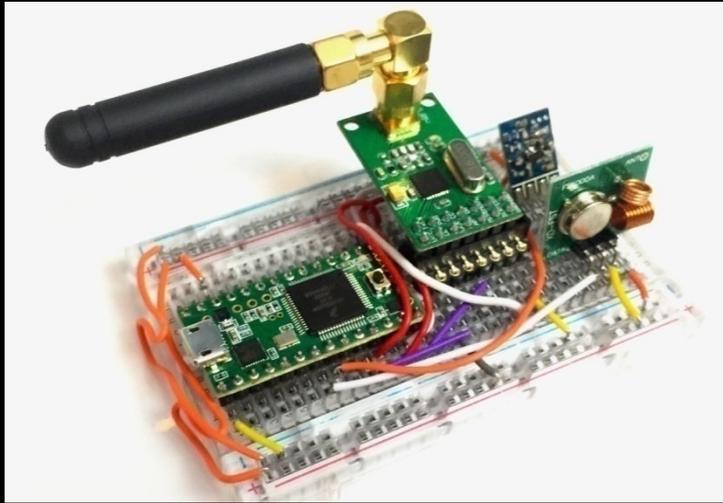


# Techniques on Hacking Readily Available

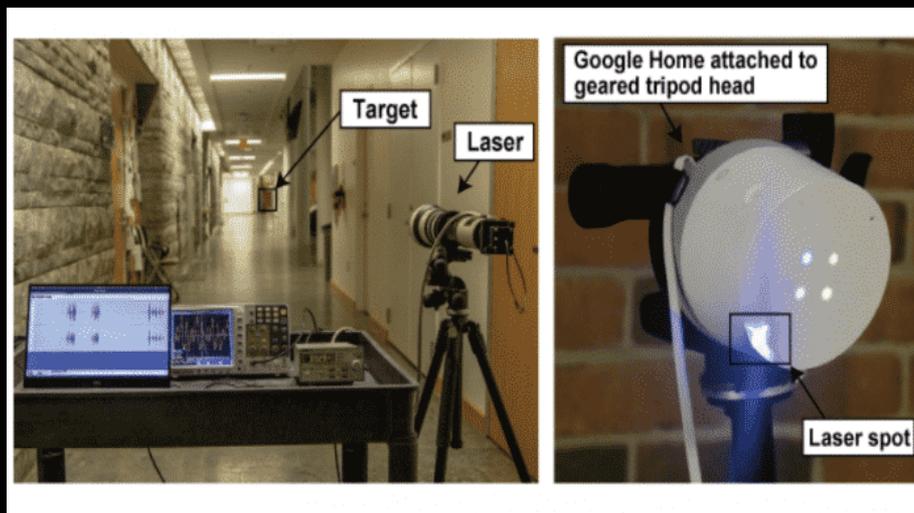
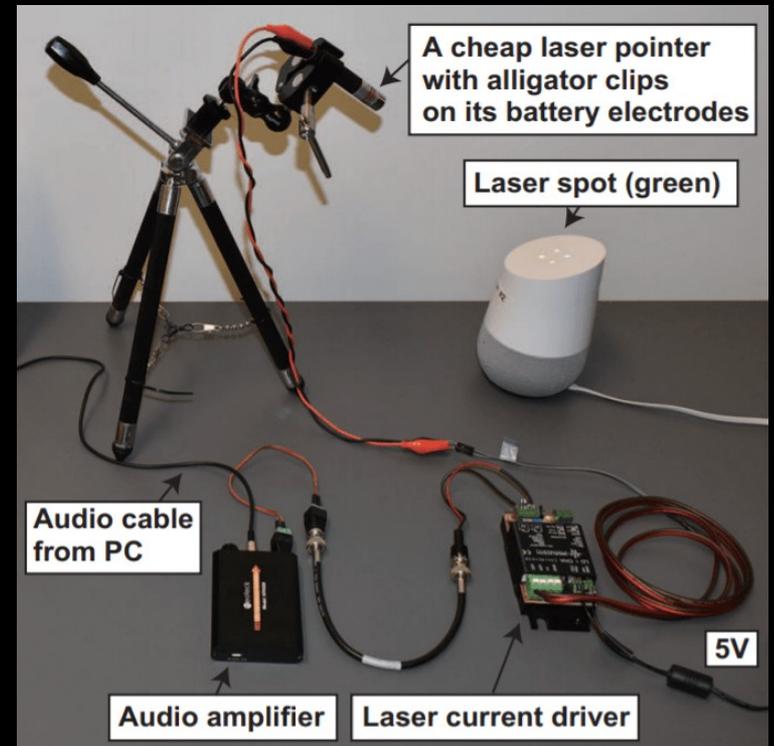
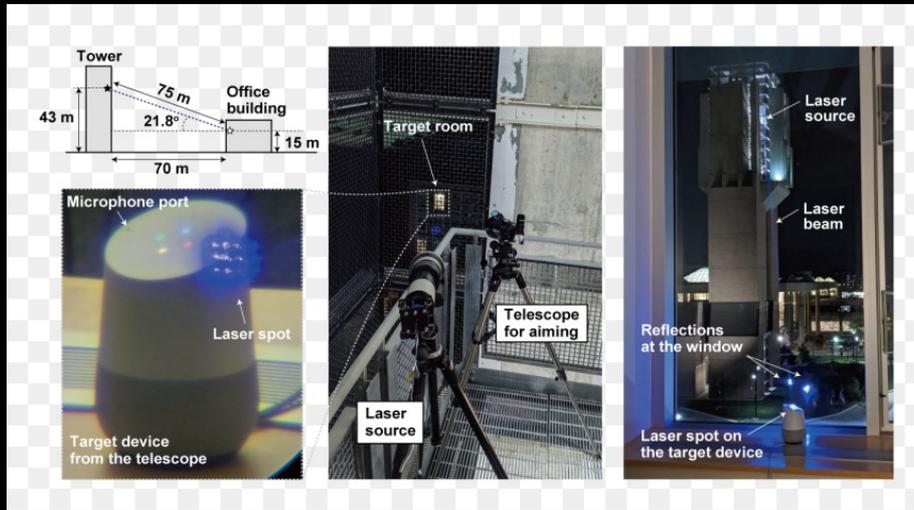
Bottom line: Anything wireless is easily and cheaply hacked



# Tools to Intercept / Copy Key Fobs & Credit Cards



# Sound-Activated Devices Record 24/7 Any Voice Activated Device Can be Controlled via Laser



# Public USB Charging Stations Hack Devices



Free charging stations may:  
Install Malware  
Copy everything on your device  
Drain financial accounts

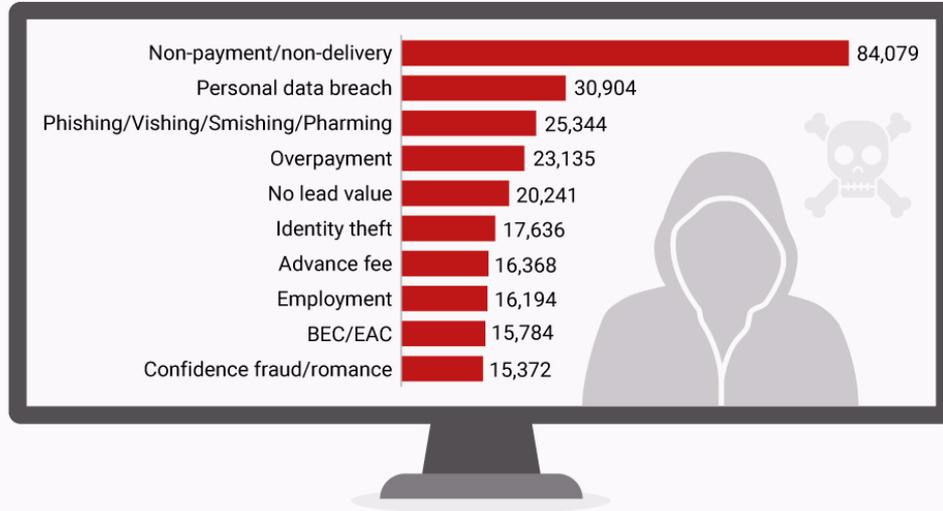


Best to:  
Avoid Public chargers  
Use a data blocker  
Allows charging with no data movement



## Top Cybercrimes in the US

Types of cybercrime most frequently reported to the IC3 in 2017, by victim count



@StatistaCharts Sources: Internet Crime Complaint Center Annual Report; FBI



statista

www.sokodirectory.com

The following sectors were at a greater risk of being subjected to cybercrime:



Soko Directory Investments



@SokoDirectory



@SokoDirectory

Hackers attack every **39 SECONDS**, on average 2,244 times a day.



University of Maryland

VARONIS

## CYBER EXTORTION STATISTICS



Average costs:  
**\$3.92 million** for data breach  
**\$133,000** for ransomware



Cyber attacks occur **2,244 times per day**, once every **39 seconds**



Ransomware costs experienced a **33%** increase vs 2019

The **United States** ranks **highest** with 18.2% of attacks



**43%** of cyber attacks target small businesses

coverwallet  
an Acxiom company

LPT

## Today's Threats

It Has Most Likely Happened to You or Someone You Know

**+25%** of Americans have been the victims of a data breach in the past 12 months.



Social Security Security?

**94M** records containing personally identifiable information have been unintentionally exposed by the federal government in the last three years.



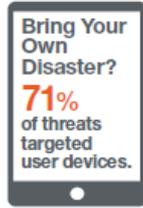
It's (Almost) All About the Money

**75%** of threats are driven by financial motives.



Bring Your Own Disaster?

**71%** of threats targeted user devices.



Hacking for Dummies

**78%** of initial intrusions are rated as low difficulty.



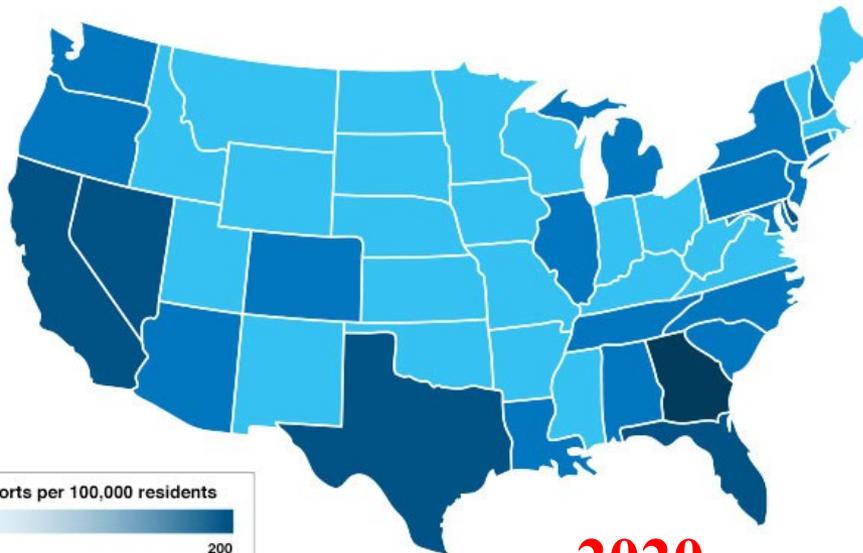
The Last One to Know

**69%** of breaches are discovered by external parties.



SOURCE: DAM BREACH INVESTIGATIONS REPORT, 2013

PUBLIC ID SPECIAL REPORT 3



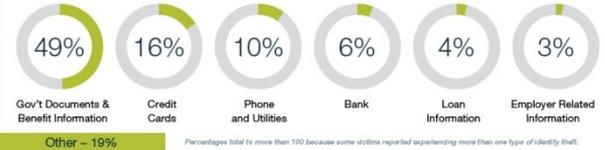
## IDENTITY THEFT

Identity theft and identity fraud are terms used to refer to all types of crime in which someone wrongfully obtains and uses another person's personal data in some way that involves fraud or deception, typically for economic gain.



TYPES OF ID FRAUD THAT CAN IMPACT YOU AND NEEDS PROTECTION:  
Financial, Criminal, Government/Social Security, Child/Minor, Medical, Synthetic ID Fraud, Friendly Fraud\*

WHAT IS BEING STOLEN\*



WHAT THIEVES ARE DOING WITH THIS INFORMATION\*



ID THEFT AFFECTS MILLIONS OF AMERICANS A YEAR\*



WHERE TO TURN

Pro-Active Monitoring and Restoration Services are the two qualities an ID vendor needs to have. Not only the power to work with limited power of attorney to restore any ID damage, but also to pro-actively monitor any existing personal accounts along with national databases and credit unions.

Who Are the Key Players in This Space  
LifeLock, InfoArmor, ID Watchdog, ID Guard

KEY TARGETS

From Fortune 500 companies and familiar brand names, to small organizations that you won't hear about in the news.  
» Learn more at [www.OswaldCompanies.com/CyberRisk](http://www.OswaldCompanies.com/CyberRisk)

ID Theft Trained Experts Offer:  
resource center, risk management specialist, consultative, remediation, security protocols

\*[www.grad.com/articles/types-of-identity-theft/](http://www.grad.com/articles/types-of-identity-theft/)  
[www.aughr.com/articles/identity-theft-and-cybercrime](http://www.aughr.com/articles/identity-theft-and-cybercrime)  
[www.pacer.org/publications/possible-ways-to-protect-your-identity/56-what-do-identity-thieves-do.html](http://www.pacer.org/publications/possible-ways-to-protect-your-identity/56-what-do-identity-thieves-do.html)

oswald

## Wired networks

- ✓ Can't intercept signals down the wire; high-security
- ✓ Immensely high speeds (depending on cable and hardware)
- ✓ Incredibly long cables are still really cheap
- ✓ Plug and play; usually no faffing around with settings, instant-on
- ✗ Cable can be damaged

## Wireless networks

- ✓ Convenient, allows freedom of working anywhere
- ✓ Less/no cables; more people connecting to one access point
- ✗ Limited signal range; speed decreases the further away you go
- ✗ Signals can be intercepted; low security
- ✗ Signals affected by other signals and radio waves
- ✗ Speed not as fast as wired networks



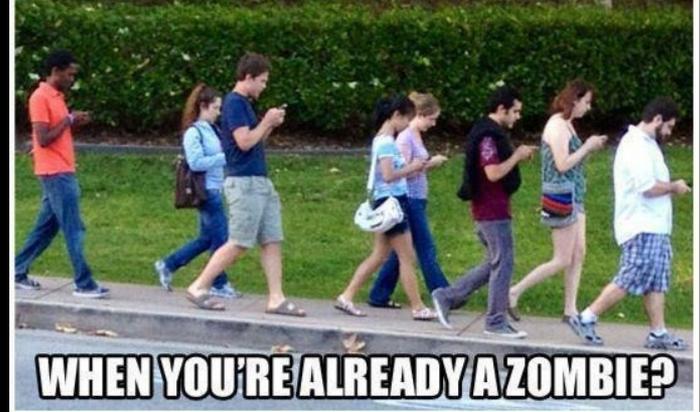
Wireless Networks	Fixed Networks
1) No physical configuration is required.	1) Physical configuration is required.
2) Data loss rate is high.	2) Since a perfect link is established, data loss rate is very low.
3) Low data transmission rate which results in less speed.	3) High rate of data transmission and hence high speed.
4) More delays.	4) Less delays.
5) Low on security.	5) Highly secured.

# Truth in Humor?

**TEXTING IN CLASS YOU ARE?**



**WHAT'S THE POINT OF BEING AFRAID  
OF THE ZOMBIE APOCALYPSE**



# study

*(verb)*

The act of texting, eating and watching TV with an open textbook nearby.



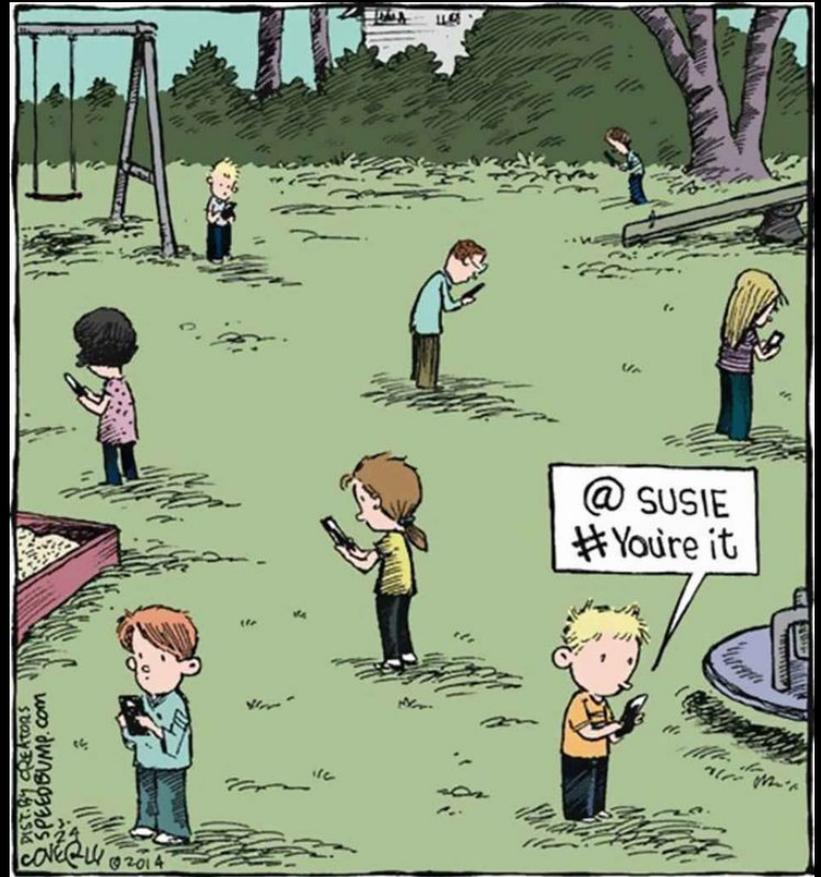
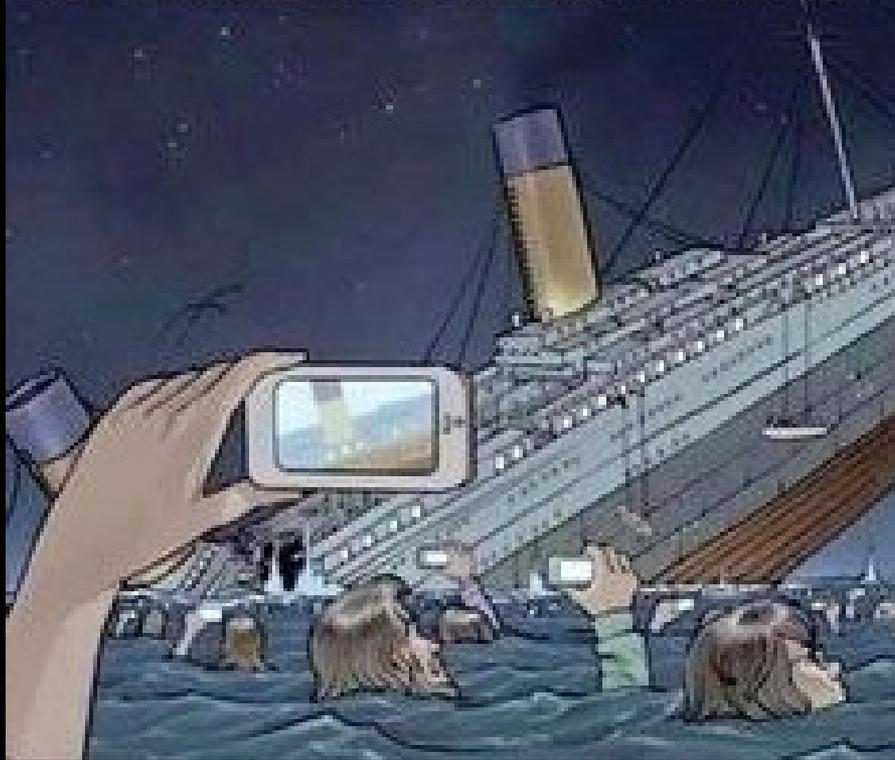
# TEXTING

Killing genuine human interaction two thumbs at a time.

**PEOPLE NOWADAYS**



# IF TITANIC SANK IN 2015



# CELL CITATION

## EVERYBODY CAN HEAR YOU NOW

By bothering those around you with your inconsiderate cell-phone usage, you are contributing to incivility, noise pollution, and dangerous distraction.

### INFRACTION

GENERAL	RING
<input type="checkbox"/> Shouting/loudness <input type="checkbox"/> Lack of consideration <input type="checkbox"/> Disturbing the peace <input type="checkbox"/> Poor multi-tasking	<input type="checkbox"/> Annoying novelty ring <input type="checkbox"/> Overly loud ring <input type="checkbox"/> Bad ringing judgment <input type="checkbox"/> Incessant ringing
CONVERSATION	ENVIRONMENT
<input type="checkbox"/> Forced bystander listening <input type="checkbox"/> Talking too long <input type="checkbox"/> Airing dirty laundry <input type="checkbox"/> Painfully banal subject(s)	<input type="checkbox"/> Disregard for surroundings <input type="checkbox"/> Invasion of personal space <input type="checkbox"/> Inappropriate location <input type="checkbox"/> Violating "NO CELL" rule

### REMEDY

- |                                          |                                          |                                        |
|------------------------------------------|------------------------------------------|----------------------------------------|
| <input type="checkbox"/> Hang up         | <input type="checkbox"/> Consider others | <input type="checkbox"/> Impound phone |
| <input type="checkbox"/> Turn off ringer | <input type="checkbox"/> Apologize       | <input type="checkbox"/> Seek therapy  |

WWW.KNOCKKNOCK.BIZ • © 2006 WHO'S THERE INC.



**WELCOME TO FACEBOOK**

facebook



**WHERE LIKES CURE CANCER  
AND INTELLIGENCE IS FROWNED UPON**

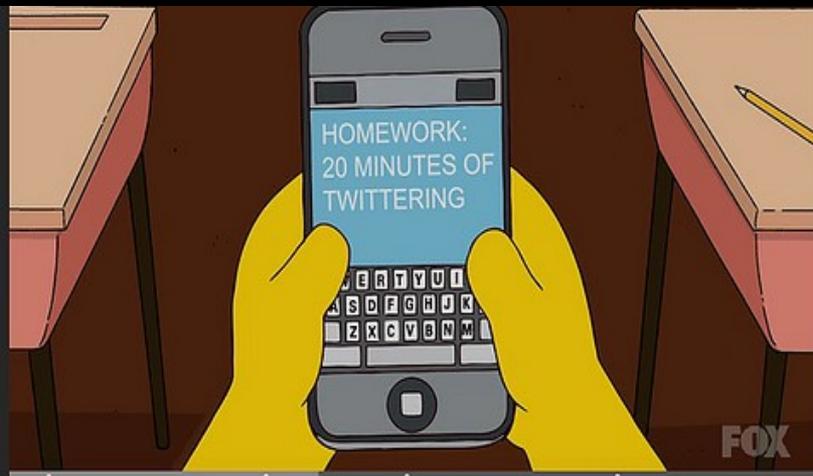
**WHAT IF I TOLD YOU**

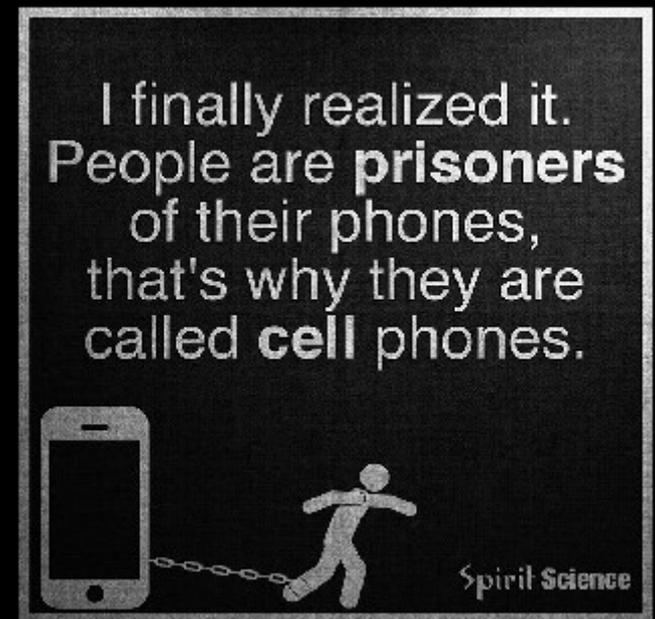
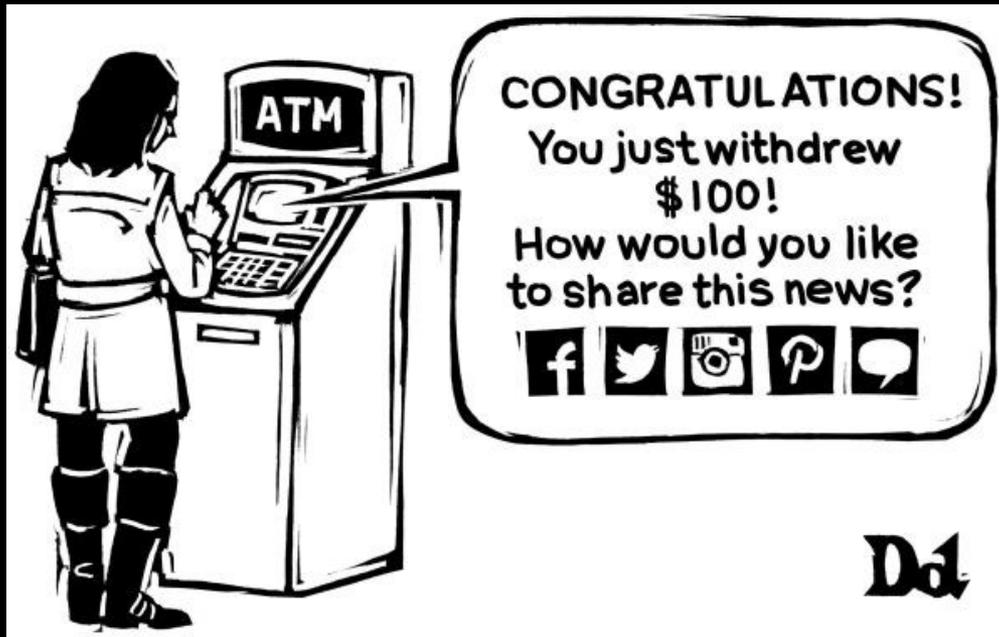
**YOU CAN EAT WITHOUT POSTING  
IT ON INSTAGRAM**

So grateful for Facebook...  
otherwise I would have to phone  
428 people every night to  
let them know  
I was ready for  
bed.



your e cards  
someecards.com



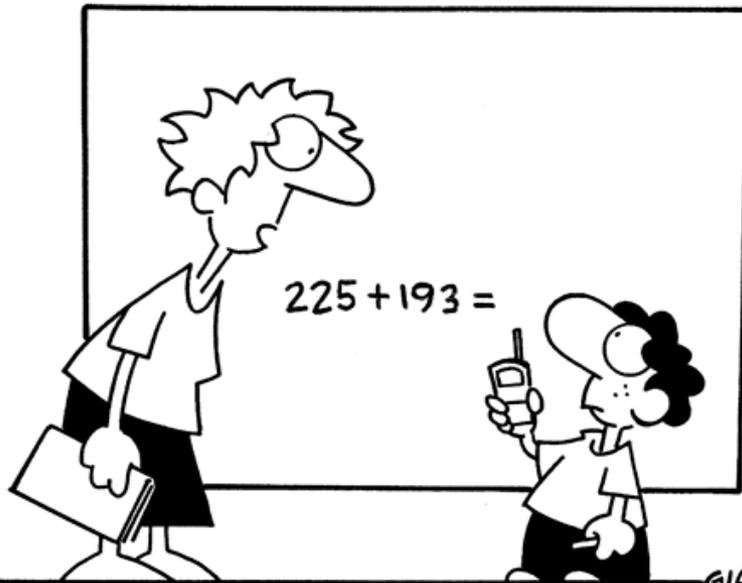


# Cell phone

*(noun)*

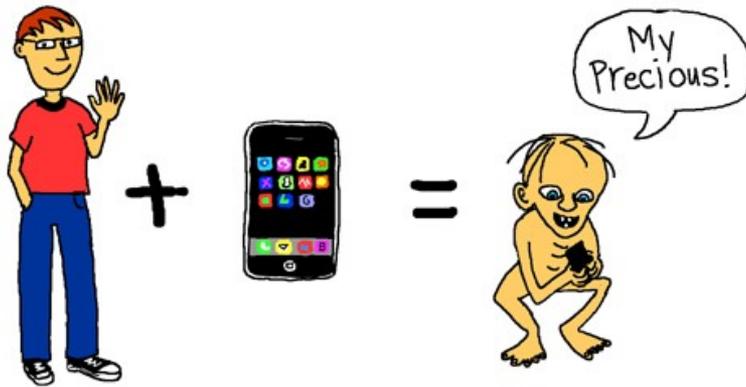
A device used for looking  
less alone while in public  
places by yourself.



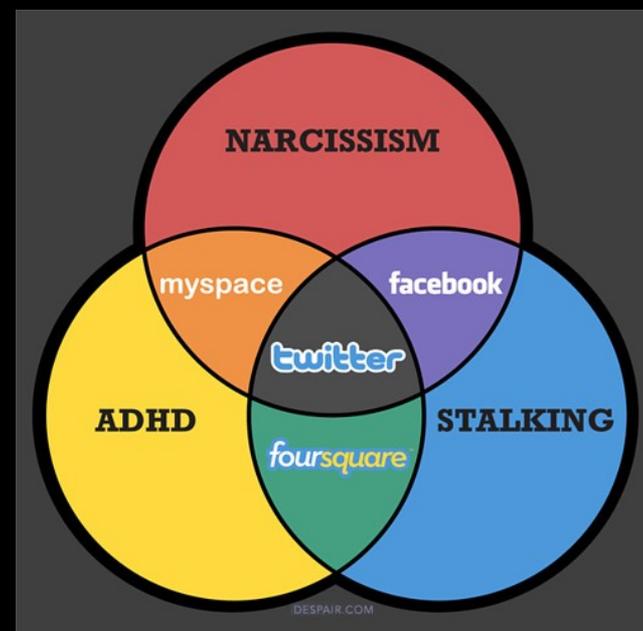
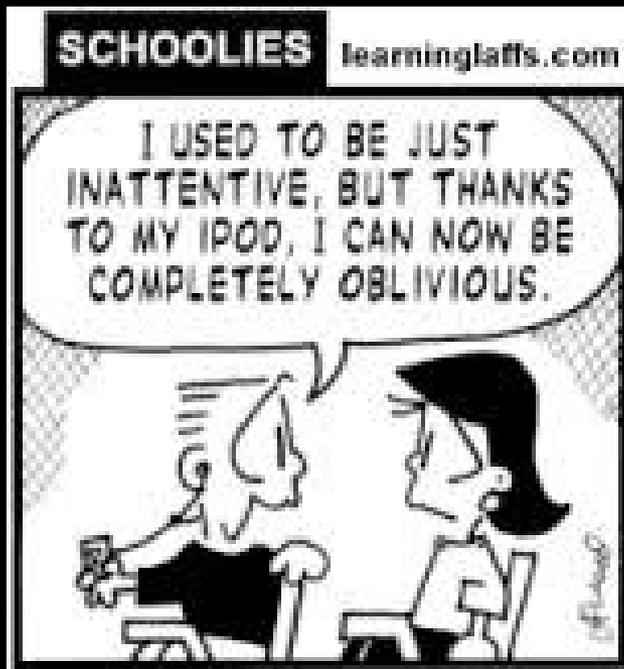


"You have to solve this problem by yourself. You can't call tech support."

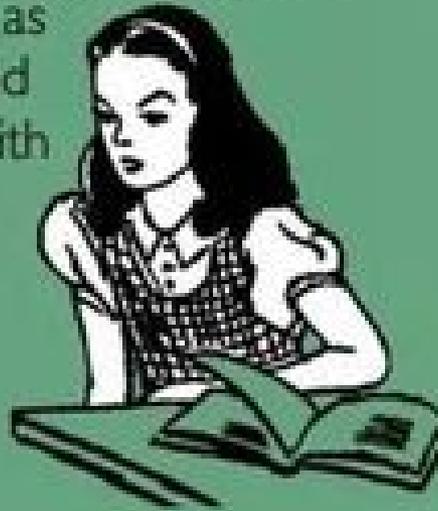
**WE LIVE  
IN THE ERA OF  
SMART PHONES  
AND  
STUPID PEOPLE.**



3 things I've learned in school: Texting without looking, sleeping without getting caught, and team work on tests!



No, thank you for letting me watch you constantly text as we hang out. I would hate to bore you with my company.



2 Sam Adams drafts = \$8  
2 Appetizers = \$15  
2 Steak dinners = \$40  
0 conversation = pathetic



I wonder how many couples would still be together if they traded phones for the weekend.

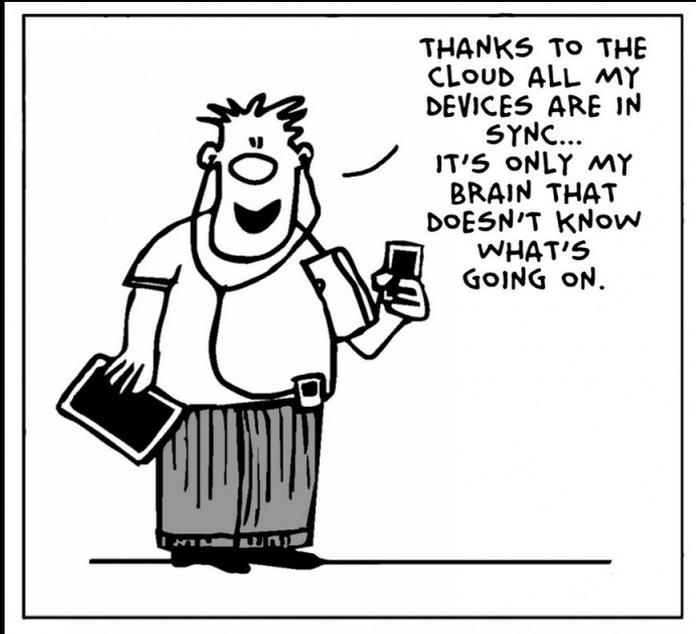




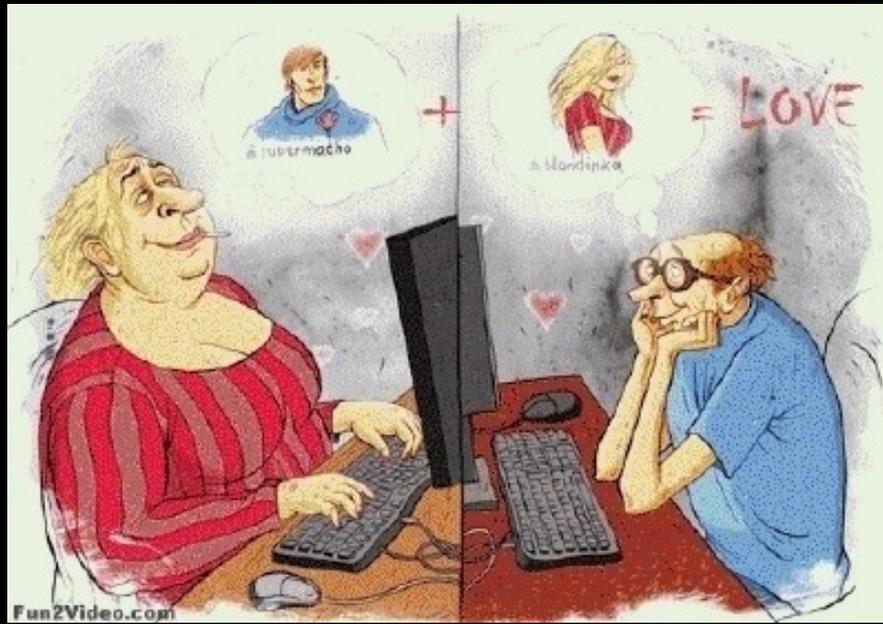
## AND PEOPLE GET A LITTLE ADDICTED...

1 in 3 smartphone owners would rather give up sex than their phones.





Do you want to make money from Facebook?  
It's easy.  
Just go to your Account Setting,  
Deactivate your account,  
and Go To Work!





# INTERNET DATING

"HOW MANY TIMES ARE YOU GONNA ASK TO SEE MY WEBCAM. I TOLD YOU ABOUT UMPTEEN TIMES ITS NOT WORKING. BRB."



**I WANT TO BE THE  
REASON YOU LOOK  
DOWN AT YOUR  
PHONE AND SMILE.  
THEN WALK INTO A  
POLE.**

The biggest lie ever:

"I have read and agree to the terms of use."

thisplacelookshetter

**STUDY FOR TEN  
MINUTES**



**REWARD SELF WITH TWO HOURS OF  
POINTLESS INTERNET USE**

**I HAVE TO STUDY FOR FINALS**

**BUT I CAN'T GET OFF THE INTERNET**

**About to study for exams  
tomorrow**

**WAIT**

**Let's check what's on the internet  
first**

**S. T. U. D. Y**  
SLEEPING TALKING UNLIMITED DREAMING YAWNING  
TEXTING



But if it looks just like  
*last year's iPhone...*



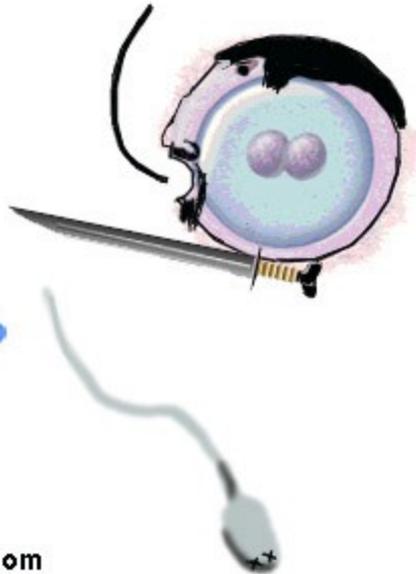
*...how will people know  
that I'm better than they are?*

I don't have a  
short attention span, I just...

Oh, look a Kitty!



I am El Zygote and you kill my father  
Prepare to die



[www.depeltedcranium.com](http://www.depeltedcranium.com)

Awesome Idea For Parties



Be with the  
friends  
who are here!

#252

CHECK YOUR PHONE TO SEE WHAT TIME IT IS.

CHECK AGAIN BECAUSE YOU WEREN'T PAYING ATTENTION THE FIRST TIME.



WHITE PEOPLE PROBLEMS.COM

<sup>1</sup>  
<sup>2</sup> **YOUR**  
<sup>3</sup>  
**CELL PHONE**  
**MAKES**  
**YOU TWICE AS**  
**ANNOYING**

**Who didn't turn off their cell phone?**



Turn OFF Your PHONE!



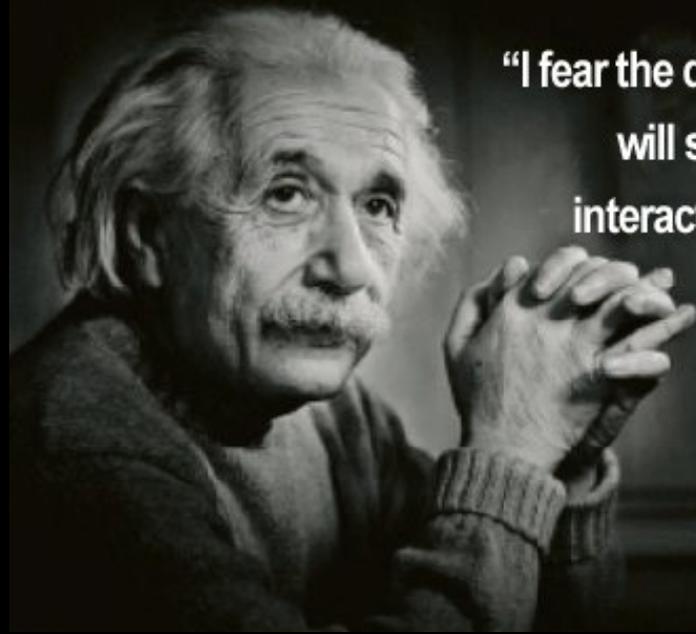
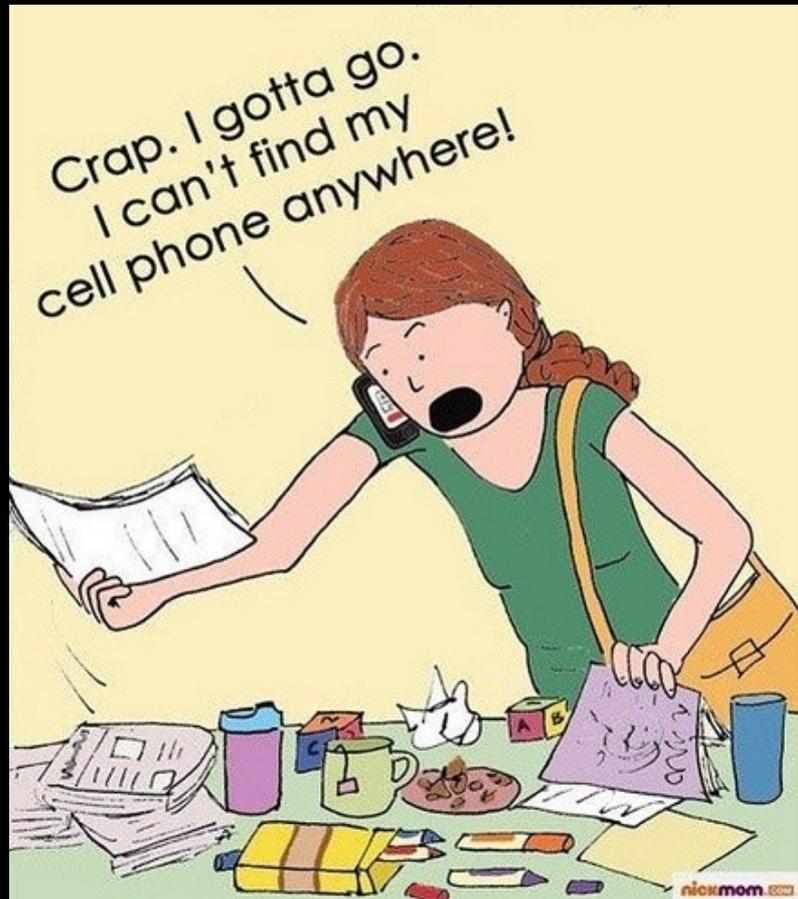
You're four times  
It's hard to  
more likely to have  
concentrate on  
a road accident  
two things  
when you're on  
at the same time.  
a mobile phone.

**THINK**

Switch it off when you drive.

**Cell phones  
brings you  
closer to  
person far from  
you.  
But it takes you  
away from the  
ones sitting  
next to you!**

PLEASE DO NOT FEED THE  
PARK ANIMALS  
THEY BECOME DEPENDANT  
AND WILL SOON WANT  
CELL PHONES



"I fear the day that technology will surpass our human interaction. The world will have a generation of idiots."

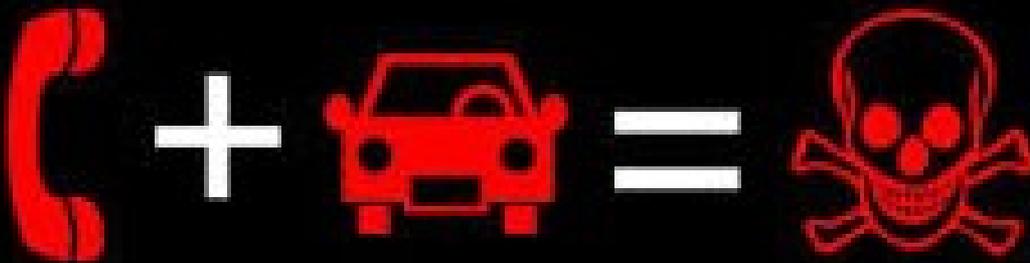
*Albert Einstein*



Guns Don't Kill People  
Drivers With Cellphones Do

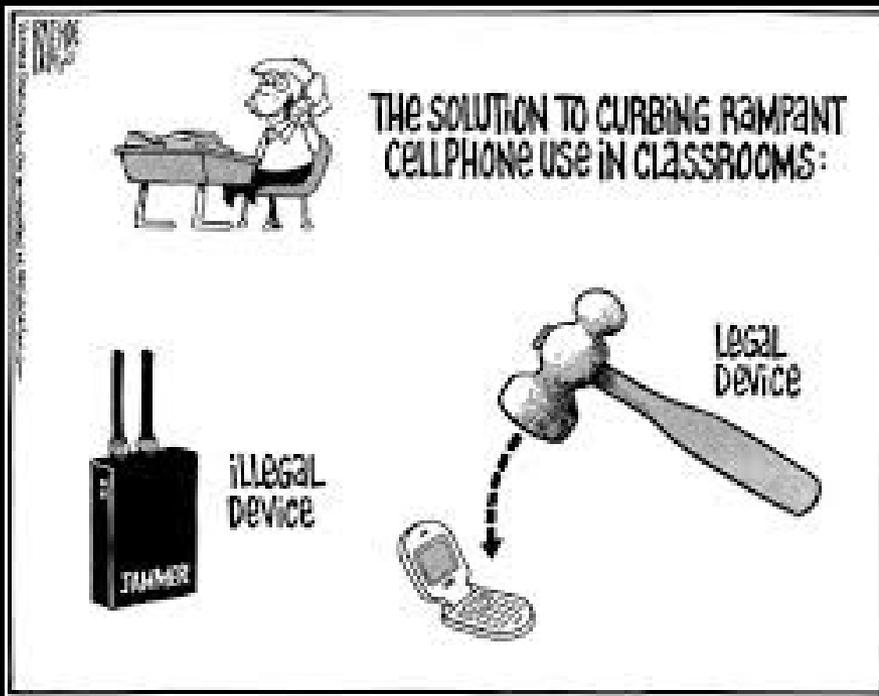
IF I DIDN'T HAVE  
A LAPTOP OR A  
CELLPHONE, I'D  
ACTUALLY GET  
SOME SLEEP AT  
NIGHT.

**Some people don't  
sleep because they  
have insomnia.  
I can't sleep because  
I have internet  
connection**

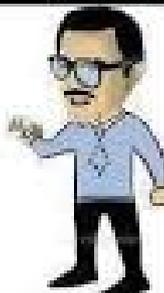




Watch out for  
**TEXTING DRIVERS**  
The *IDIOTS* are *EVERYWHERE!*



Teacher: "What's something that you need, that you can't see or feel?"



Student in 2000: "Air"



Students 2013: "Wi-fi"




Incorporate exercise into your daily routine the EASY way!

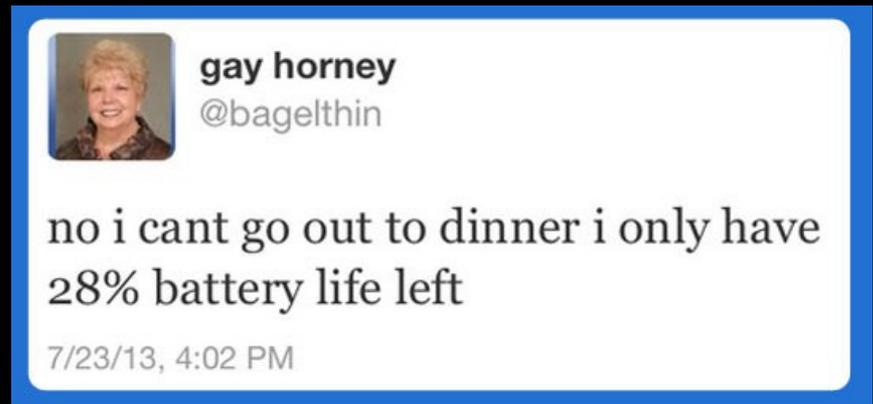
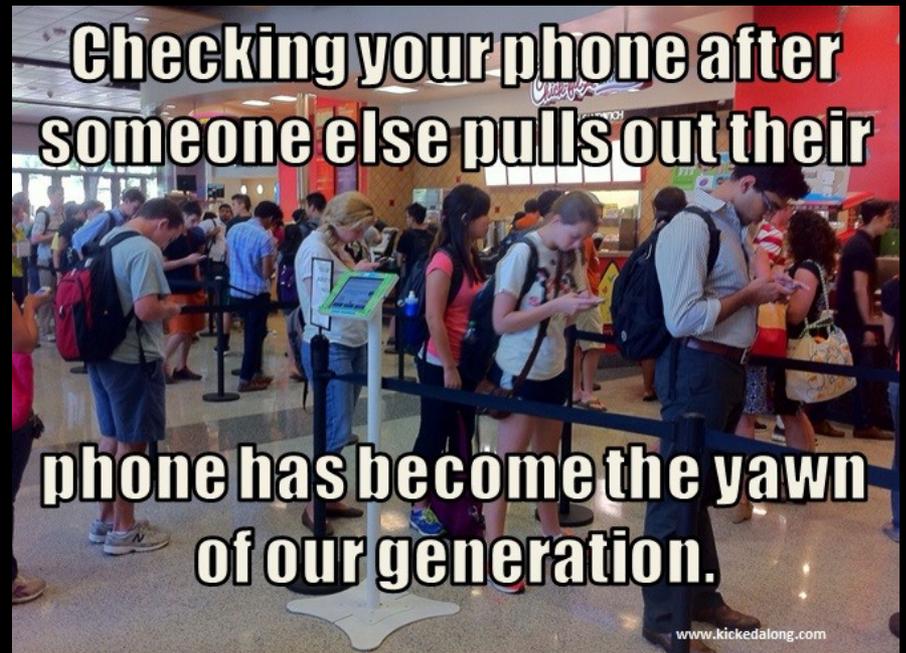
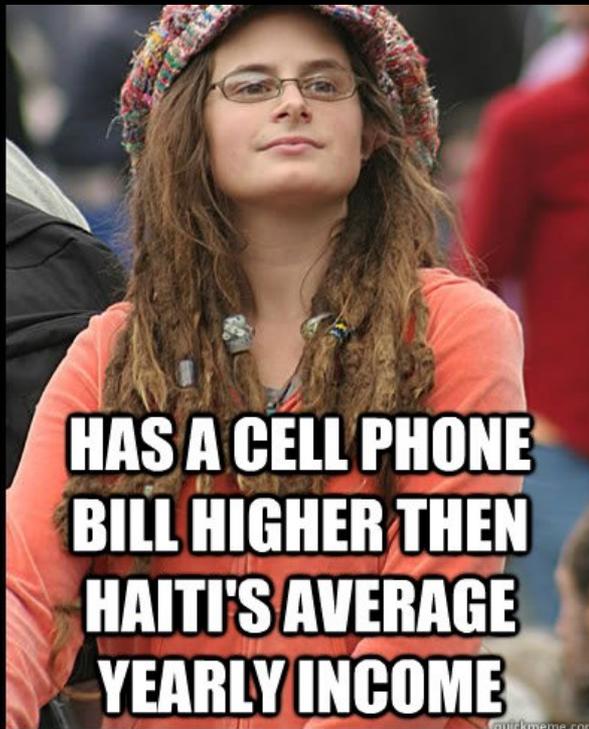


**Cell Phone Dumbbell**

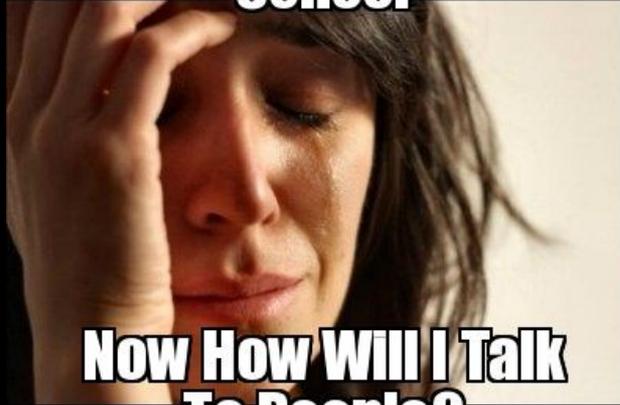
Only \$19.95! (+\$19.95 shipping)

BIZARROCOMICS.COM Facebook.com/BizarroComics Dist. by King Features

*POREN  
11/3/12  
6-7-12*



**There's No WiFi In School**



**Now How Will I Talk To People?**

MemeBucket.com

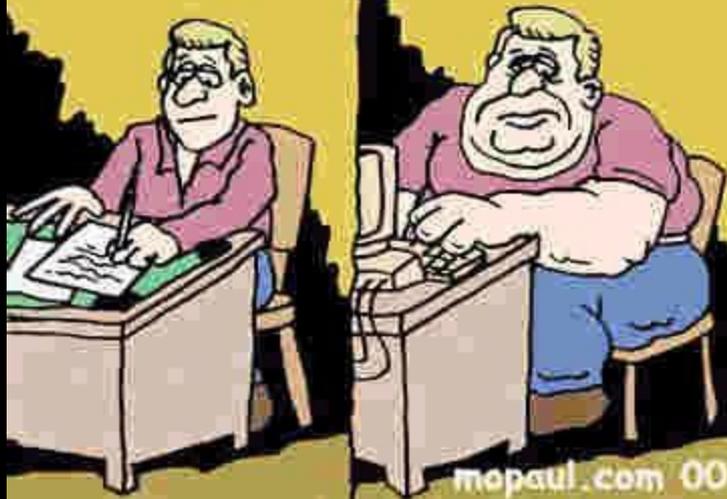
When you fall down and your iPhone6 is in your pocket and you hear a crack



you'll just be thinking "Lord please let that be my leg"



# HOW THE INTERNET CHANGED MY LIFE



## intendork.com - LogOff Warning



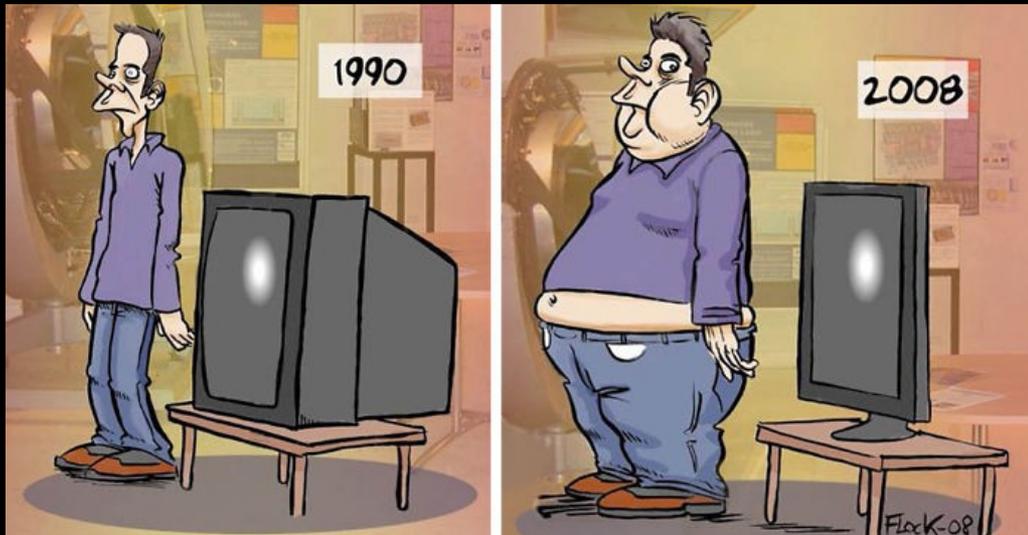
You have been on-line for 1 year.

Do you wish to Log Off and get a Life?

Yes

NO

Remind me next year



```
success: function(data) {  
  renderResults(data);  
}};  
} else  
chrome.  
chrome.  
}   
-script >>  
{{pages}}  
-div class=  
-class <div>  
-relat  
{{pages}}  
{{pages}}  
-div <div>
```

**MY FRIEND TOLD ME  
THERE WAS LIFE  
OUTSIDE THE INTERNET  
AND THAT I SHOULD  
CHECK IT OUT.**

**I ASKED HIM TO SEND  
ME A LINK.**



# They Didn't Abolish SLAVERY



**1800's**

Chained Hands

**1900's**

Chained Time

**2000's**

Chained Minds

www.rushfm.co.nz

© Secret Formula

INTERNET ADDICTION IS BECOMING A REAL



# PROBLEM



Height of addiction:

In a college form,  
when asked about  
"PERMANENT ADDRESS",  
a student wrote  
"www.facebook.com"

**facebook** is like a jail.  
You sit around, waste time,  
have a profile picture, write  
on walls and get poked  
by guys you don't really know.

I heard internet addiction is now an official mental disorder and you can go to rehab for it. I'm only going if there's Wi-Fi.

ticking brain bomb?



WHERE DID ALL THE FUN PEOPLE GO?



DANCE LIKE NO ONE IS WATCHING...



...BECAUSE EVERYONE IS ON THEIR PHONE, SO NO ONE IS WATCHING.

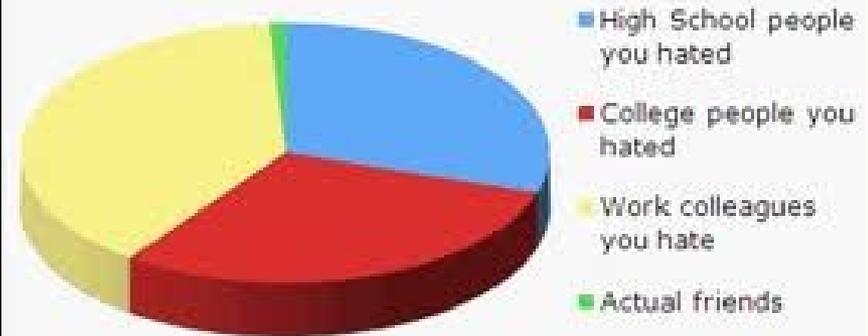


NATIONAL PARK WI-FI?

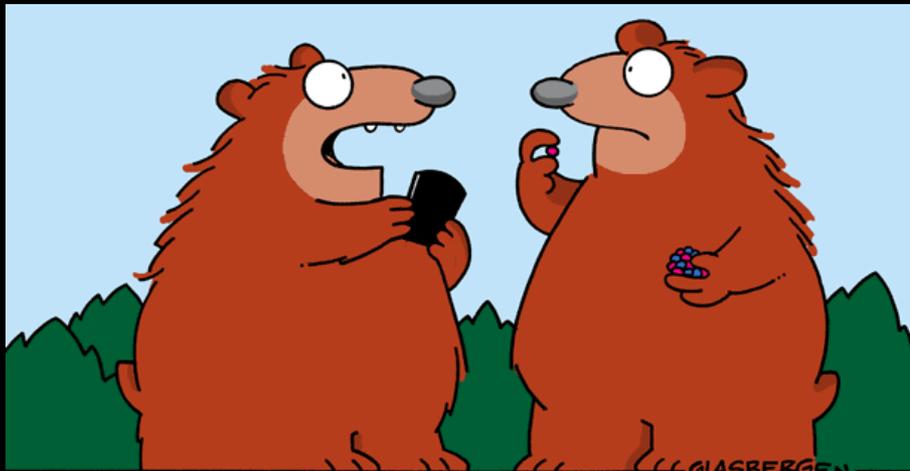


*Jeffrey Mattingly  
LPT.com*

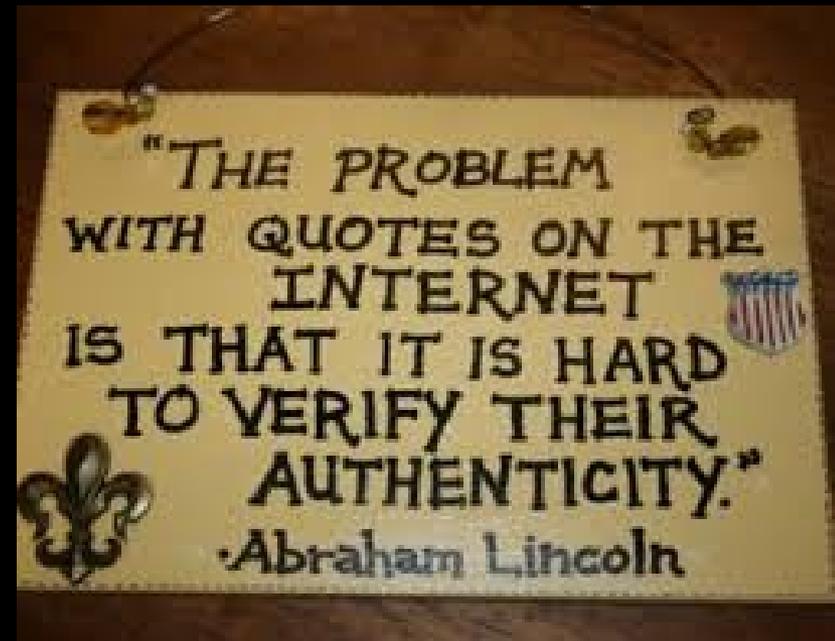
## People who find you on Facebook

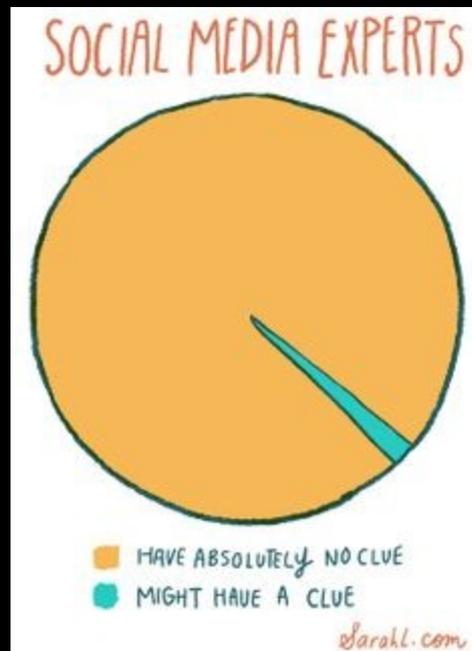
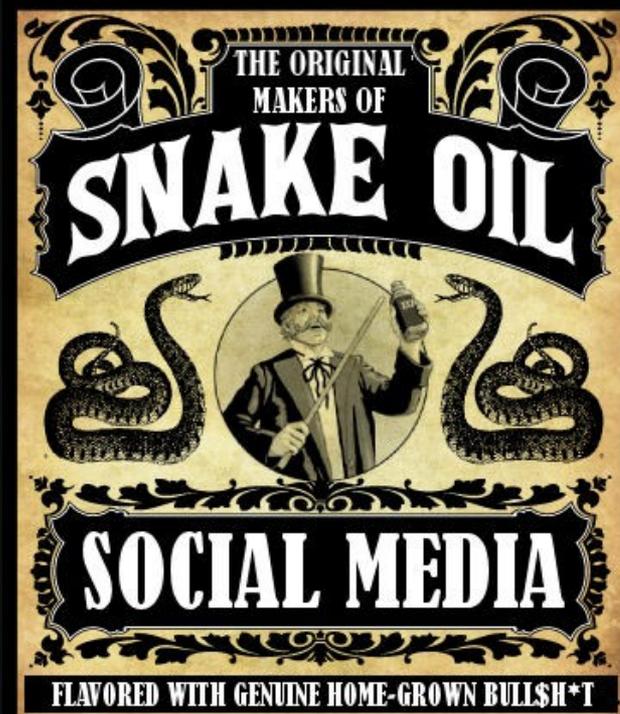


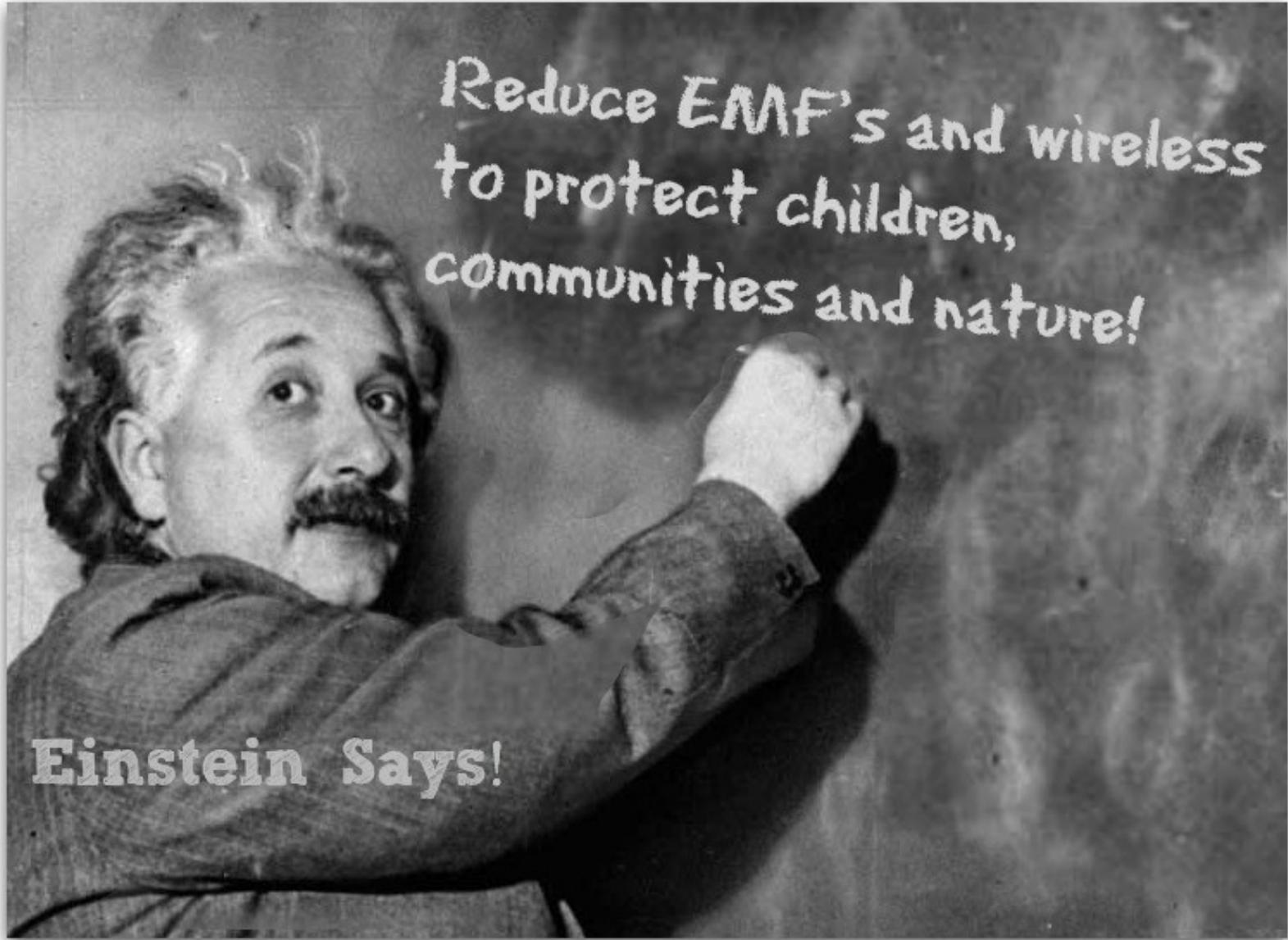
GraphJam



"Raspberries are sweet, Blueberries are filling,  
but Blackberries are addictive!"







Reduce EMF's and wireless  
to protect children,  
communities and nature!

**Einstein Says!**

Being popular on  
**FACEBOOK**

is like sitting at the  
cool table in a cafeteria  
at a **MENTAL HOSPITAL**

Do you pay  
more attention  
to your phone  
than your  
**DATE?**



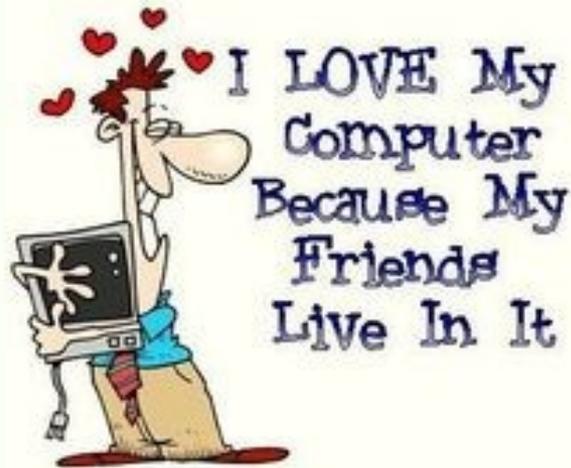
**YOU NEED SOCIAL REHAB.**

 Check in with Facebook

 Check in with Twitter

 Like 268

 Follow @\_socialrehab



**Add Friend**

**Become addicted.**

Before you...



**THINK!**

**T** - Is it true?

**H** - Is it hurtful?

**I** - Is it illegal?

**N** - Is it necessary?

**K** - Is it kind?

People need to learn that their actions do affect other people. So be careful what you say and do, Its not always just about you.



Wi-Fi went down for five minutes, so i had to talk to my family. They seem like nice people.



Never Ask Google For medical advice I have gone from mild headache to clinically dead in Three Clicks...



I Think My Iphone Is Broken. I Pressed The Home Button And I'm Still At Work.



**I USED TO LIKE MY NEIGHBORS...**

**...UNTIL THEY PUT A PASSWORD ON THEIR WI-FI.**



I am so glad i was  
young and  
stupid  
long  
before  
there were  
camera phones.



**IF YOU WANT TO CALL A  
FAMILY MEETING JUST TURN  
OFF THE WIFI ROUTER AND  
WAIT IN THE ROOM IN WHICH  
IT'S LOCATED.**



**WHAT IF  
THERE  
WAS NO  
GOOGLE?**



DESPICABLEMEMINIIONS.ORG

**GOOD  
QUESTION.  
GOOGLE IT.**



fb.com/MinionQuote

**ONE THING THAT  
INTERNET  
TAUGHT  
ME IS  
THAT  
STUPIDITY IS  
INTERNATIONAL.**



**HOME**

Is where  
your wifi  
connects  
automatically.



My internet went down  
Yesterday. I think  
my neighbor  
forgot to  
pay the  
bill. How  
irresponsible.



Fb.com/MinionQuote

DespicableMeMinions.org

True friendship is  
when you walk  
into their  
house and  
your  
wifi  
connects  
automatically.



**EVERY NIGHT, IT'S AN  
ENDLESS BATTLE  
BETWEEN  
SLEEP AND  
THE  
INTERNET...**



If Facebook has taught us  
anything, it's that a lot of you,  
are not quite ready for a  
spelling bee.



When you're at  
someone's house.  
Normal people:  
"what a lovely  
house." Me:  
"What's your  
wifi password?"



**THE ONLY WARNING  
I TAKE SERIOUSLY  
IS WHEN MY CELL PHONE**



**BATTERY IS LOW**

**I need a phone  
with 500% battery.**



Never argue  
with a liar. You can't win  
because they believe  
their own lies.



Yesterday i changed  
the name of my WIFI to  
" hack if you can " .

Today i found it named  
"challenge accepted "



@programming Geeks



**FREE WIFI  
STARTING AT  
\$59.99**

LPT



**MAYBE IF WE TELL PEOPLE  
THE BRAIN IS AN APP**

**THEY'LL START USING IT**



# WiFried

