KRIGER CONSULTING

Tech Dependence and Its Impact on
Anxiety, Depression, Violence & Suicide

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ACE Study - Details and slides can be found at:
- www.ACEstudy.org
- www.cdc.gov/violenceprevention/acestudy/

Early childhood adversities linked to health problems in tweens, teens
 - Washington University School of Medicine in St. Louis, Published Oct. 30 in the journal JAMA Pediatrics.

When kids had > 3 adverse experiences:
- Smaller brain volumes
- Lower emotional expression scores
- Depression
- Worse social & emotional outcomes

"The researchers found that when kids had three or more adverse experiences, they also had smaller brain volumes that, in turn, were associated with lower scores on a scale that measures how well a child expresses emotions. Poor emotional expression has been associated with depression and worse social and emotional outcomes."
https://medicalxpress.com/news/2017-10-early-childhood-adversities-linked-health.html

Tech Dependence

- Failure to fulfill major responsibilities
- Has computer use ever impacted your parenting, homework, or work?
     http://www.slate.com/articles/health_and_science/science/2013/05/multitasking_while_studying_divided_attention_and_technological_gadgets.html
- Use in physically hazardous situations
  o Inattentive while driving, walking, or at important meetings or social events
- Use despite persistent social or interpersonal problems
  o Choosing emailing over face-to-face meetings, avoiding phone calls, talking in text language, avoiding people, less social, less patient, with more interpersonal problems.
- Withdrawal & Craving
  o Anxious or irritable without electronic devices
  o Debilitating response when device is lost or forgotten
- Larger amounts or over longer period than intended
  o Lose sense of time, under estimated time of use
- Desire or unsuccessful efforts to cut down or control use
- Need to cut down, or someone ever made you feel guilty over some aspect of your computer use
- Cycles of use, and/or recover from the "use"
  - Excessive money, time spent standing in line to get the next release
     http://www.theguardian.com/technology/appsblog/2013/sep/26/children-reading-less-apps-games
     http://www.cbsnews.com/news/which-hobbies-help-an-aging-brain/
- Important social, occupational, or recreational activities given up or reduced
- Decreased physical, social and personal interactions
     http://www.theguardian.com/technology/appsblog/2013/sep/26/children-reading-less-apps-games
     http://www.cbsnews.com/news/which-hobbies-help-an-aging-brain
- Continued use despite knowledge of having a persistent or recurrent physical or psychological problem likely to have been caused or exacerbated by the "use"
  o Lack of exercise, declining social skills, eye strain, higher BP, weight gain, nutrition deficits, declining personal hygiene
  o Can lead to physical issues: "Tech Neck," back problems, muscle tone issues, wrist problems & thumb tendon damage
     http://www.ibtimes.co.uk/smartphones-cause-drooping-jowls-tech-neck-wrinkles-18-39-year-olds-1482978

Deep Web – a sector of the Internet accessed through alternative browsers where research and data is housed.
Dark Web - The sites where illicit activity takes place are often referred to as the "Dark Web."

Affected adult relationships
- Fear of attachment and love
- Borderline and narcissistic personality traits
- Selfishness
- Substance abuse/dependency
- Lack of identity and direction
- Loss of hope, faith, and joy
  https://blogs.psychcentral.com/caregivers/2016/03/7-consequences-of-having-an-emotionally-detached-parent/

Cyber Bullying

This study surveyed a nationally-representative sample of 5,700 middle and high school students between the ages of 12 and 17 in the United States. Data were collected between July and October of 2016.

https://cyberbullying.org/2016-cyberbullying-data

"Most individuals will acknowledge that this is wrong but continue to do it anyways"

https://www.canindia.com.com/is-your-cellphone-addiction-making-you-unsociable/

A-GAP Foundation,

"…those polled are aware their heavy reliance on cell phones and mobile devices is affecting their lives, but aren't generally willing to disconnect from them."

http://www.digitaljournal.com/pr/3843441#ixzz5Ka4Ycvk6

The survey of over one thousand randomly selected men and women, aged 18 – 45, from across the United States, reveals a growing concern that our dependence on tech may be unhealthy – and yet over 90% reported not wanting to give up access to their social media accounts. Despite an apparent addiction to today's mobile technology, over 60% freely admit that quitting this technology would probably give them higher quality, more meaningful relationships.

Among the survey's chief findings:
73 percent of those surveyed say technology has an adverse impact on human relationships
78 percent of those polled say technology has an adverse impact on professional performance
71 percent say they wouldn't know how to spend time if they didn't have technology
39 percent say the increased use of technology has hurt their personal relationships with family and friends
36 percent say they are distracted and lose focus because of technology
60 percent say being connected affects their personal time and spiritual well-being
33 percent report losing sleep due to their use of technology
91 percent say they don't want to disconnect from friends and family on social media
68 percent said if they quit technology they would have more time for self-reflection and spiritual growth
60 percent said no technology would mean higher quality, more genuine relationships
Read more: http://www.digitaljournal.com/pr/3843441#ixzz5LF6Ojo6A

"Among a range of technologies, interactive technological devices are most strongly associated with sleep complaints."
Us National Library of Medicine, National Institute of Health, Journal of Sleep Medicine
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3836340/

Based on factors listed in the NIDA Preventing Drug Use among Children & Adolescents: A Research -Based Guide Indicators of future drug or alcohol problems

- Social isolation
- Poor social skills
- Early antisocial behavior
- Inability to bond with positive peer groups
- Low commitment to school and community
- Positive attitude toward substance abuse
- Lacking a positive peer group
- Having an older sibling who is involved

What Can Be Done?

- Ban texting, iPod use, and phone use at meals for all
- 1 to 1.5 hours before bed discontinue all technology use
- Charge all devices in common area at night
- Parents should watch all video games before solitary plan is allowed
- When device is used as a behavior tool, opt for earning for positive behavior, combined with Parent/Child Time
- Parents retain total access to, and monitor cell and computer use of anyone under 18
- Any illicit drug use should be addressed immediately with professional help and 2x reported to authorities
- Children should be encouraged and supported, in reporting to their parents, any pornography, bullying or uninvited online interactions

Labryinth Resources

https://labyrinthsociety.org/

Brain Builders

- Offer opportunities for interpersonal interaction
- Model what you want from your children
- Introduce yourself and your children to meditation, prayer and periods of introspection

Website Safety

- Place your computer in a common area
- Monitor their computer chat
- Talk to them about computer dangers
- Check "History"
- Install, use and check to see if your filtering software is enabled

Sponge Bob Study

Immediately after the 9 minute assignment, children took mental function tests. Another test measured self-control and ability to delay gratification. The results: Those who had watched "SpongeBob" did measurably worse in both test.
American Academy of Pediatrics (9 minutes was cited)
http://abcnews.go.com/Health/Wellness/watching-spongebob-makes-preschoolers-slower-thinkers-study-finds/story?id=14482447

College Study on Focus and Attention
http://www.slate.com/articles/health_and_science/science/2013/05/multitasking_while_studying_divided_attention_and_technological_gadgets.html

"More use of technology is linked to later increases in attention, behavior and self-regulation problems for adolescents already at risk for mental health issues" - https://today.duke.edu/2017/05/more-technology-use-linked-mental-health-issues-risk-adolescents

Students can't resist multitasking, and it's impairing their memory.

http://www.slate.com/articles/health_and_science/science/2013/05/multitasking_while_studying_divided_attention_and_technological_gadgets.html

Study: In Adults Smartphone Alerts Increase Inattention – and Hyperactivity

95 % used phones during social gatherings
70% used their phones while working
10 % admitted to checking their phones during sex
  - https://www.news.virginia.edu/content/study-smartphone-alerts-increase-inattention-and-hyperactivity#sthash.Bxjr5Lva.dpuf

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https://today.duke.edu/2017/05/more-technology-use-linked-mental-health-issues-risk-adolescents

A New Kind of Social Anxiety: The constant use of technology and phone. Is it leading to:

- Social isolation
- School refusal/avoidance
- Decreased social skills
- Lack of coping skills
- Anxiety & depression
  http://www.theatlantic.com/education/archive/2015/01/the-socially-anxious-generation/384458/

Internet addiction changes brain similar to cocaine: Study

By Ryan Jaslow Topics News, Research, Strange, Addiction (CBS) Can a person be truly addicted to the Internet?

A new brain scan study shows not only can that be the case, but also that Internet addiction might cause the same brain changes that are seen in alcoholics and drug addicts.

For the study, published in the January 11 issue of PLoS One, researchers studied 17 men and women who were diagnosed with Internet addiction disorder (IAD) and compared scans of their brains to scans of 16 healthy people who weren't addicted to the web. Study participants were between the ages of 14 and 21 and lived in China.
  - http://www.cbsnews.com/news/internet-addiction-changes-brain-similar-to-cocaine-study/

Video Game-Obsessed Mom Neglects Kids, Starves Dogs
Are social networking sites turning teens into substance abusers?
The researchers found more patterns of "abnormal white matter" on brain scans of Internet addicts, compared with scans of non-addicts. White matter areas in the brain contain nerve fibers that transmit signals to other parts of the brain.

These changes showed evidence of disrupting pathways related to emotions, decision-making, and self-control.
The researchers said earlier studies have found similar white matter changes in the brain scans of people addicted to alcohol, cocaine, heroin, marijuana, meth, and ketamine (also known as "Special K").

"The results also suggest that IAD may share psychological and neural mechanisms with other types of substance addiction and impulse control disorders," the researchers wrote in the study. Professor Gunter Schumann, chair in biological psychiatry at the Institute of Psychiatry at King's College, London, told BBC News that he's come across similar findings in brain scans of video game addicts.

"For the first time two studies show changes in the neuronal connections between brain areas as well as changes in brain function in people who are frequently using the Internet or video games," he said.

Dr. Henrietta Bowden Jones, consultant psychiatrist at Imperial College in London, who runs the U.K.'s only clinic for Internet addicts, said hardcore gamers are more likely to be addicted to the Internet. "The majority of people we see with serious Internet addiction are gamers - people who spend long hours in roles in various games that cause them to disregard their obligations," Jones told The Independent. "I have seen people who stopped attending university lectures, failed their degrees or their marriages broke down because they were unable to emotionally connect with anything outside the game." According to the independent, an estimated 5 to 10 percent of Internet users are unable to control their usage and are considered addicts.

http://www.cbsnews.com/2102-504763_162-57357895.html?tag=contentMain;contentBody

Frequency of Internet Use Teens

http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/

60 Minutes How Tech Companies Hijacking the Brain

https://www.cbsnews.com/videos/brain-hacking-2/

Exposure to television and video games was associated with greater attention problems.

http://pediatrics.aappublications.org/content/126/2/214.full

One Week of Violent Video Game Play Alters Prefrontal Activity

"For the first time, we have found that a sample of randomly assigned young adults showed less activation in certain frontal brain regions following a week of playing violent video games at home," said "These brain regions are important for controlling emotion and aggressive behavior."
Presented 11/30/2011 at the 97th Scientific Assembly and Annual Meeting, McCormick Place, Chicago. Yang Wang, MD, assistant research professor in the Department of Radiology and Imaging Sciences at Indiana University School of Medicine in Indianapolis.   http://rsna2011.rsna.org/search/event_display.cfm?em_id=11004116

Gaming the system: How Creepy YouTube Channels Trick Kids Into Watching Violent Video Games

http://mashable.com/2017/10/22/youtube-kids-app-violent-videos-seo-keywords/#NMnL1d9UCaqY

Average age of suicidial indation is 12

In the present study, Dr. Klonsky utilized the IMSA to assess suicide attempt motivations of 52 adolescents ages 12-17 years (mean age 14.8 years) who were hospitalized at a psychiatric inpatient unit after a suicide attempt. Eighty-five percent of the sample were female. The average age of the initiation of suicidal ideation was 12 years old. The percentage of participants reporting only one suicide attempt was 67.

https://afsp.org/why-do-adolescents-attempt-suicide/?utm_source=All+Subscribers&utm_campaign=84dc210eaf-Research_Connection_July_COPY_01&utm_medium=email&utm_term=0_3fbf9113af-84dc210eaf-385274077

The IMSA includes 10 five-item scales plus four additional items. The scales are based around feelings of:
Hopelessness – the belief that things cannot get better, or one's situation cannot improve
Psychache – extreme emotional or psychological pain
Escape – the desire to escape from one's own thoughts, feelings, or actions
Burdensomeness – the feeling that one is a burden to those around him or her
Low Belongingness – the feeling that one is not accepted by his or her community
Fearlessness – the absence of fear which had prevented a suicide attempt at an earlier time
Problem-solving – the belief that suicide or suicide alone will solve one's problems
Impulsivity – acting in an unplanned way, often without reasoned thinking
Interpersonal Influence – direct social pressures promoting suicide
Help Seeking – the desire for help or care, from others.

Internal motivators, for teens, were more strongly associated with suicidal behaviors than external motivators. This means that at the time of the suicide attempt most people perceived that suicide was the only way to end their own emotional or psychological struggles.

When Teens Cyberbully Themselves

"According to a survey published late last year in the Journal of Adolescent Health, teens are bullying themselves online as a way to manage feelings of sadness and self-hatred and to gain attention from their friends. For the study, 5,593 middle and high school students from across the U.S., ages 12 to 17, completed a series of questionnaires that asked about their experiences with digital self-harm and cyberbullying."

https://www.npr.org/sections/health-shots/2018/04/21/604073315/when-teens-cyberbully-themselves

"Despite increased media and scholarly attention to digital forms of aggression directed toward adolescents by their peers (e.g., cyberbullying), very little research has explored digital aggression directed toward oneself. "Digital self-harm" is the anonymous online posting, sending, or otherwise sharing of hurtful content about oneself. The current study examined the extent of digital self-harm among adolescents."

"Digital self-harm is a new problem that demands additional scholarly attention. A deeper inquiry as to the motivations behind this behavior, and how it correlates to offline self-harm and suicidal ideation, can help direct mental health professionals toward informed prevention approaches."
https://www.jahonline.org/article/S1054-139X(17)30313-0/fulltext

"Massachusetts juvenile judge ruled Carter was responsible for Roy's death because she had placed him in a situation that led to his suicide."
https://www.washingtonpost.com/news/true-crime/wp/2017/08/03/michelle-carter-whose-texts-pushed-her-boyfriend-to-suicide-to-be-sentenced-in-his-death/?utm_term=.e77ed07d5b19

Suicide Website

http://www.angelfire.com/indie/whssr.project/self_euthanization.html

CDC Suicide Risk Factors

- Family history of suicide
- Family history of child maltreatment
- Previous suicide attempt(s)
- History of mental disorders, particularly clinical depression
- History of alcohol and substance abuse
- Feelings of hopelessness
- Impulsive or aggressive tendencies
- Cultural and religious beliefs (e.g., belief that suicide is noble resolution of a personal dilemma)
- Local epidemics of suicide
- Isolation, a feeling of being cut off from other people
- Barriers to accessing mental health treatment
- Loss (relational, social, work, or financial)
- Physical illness
- Easy access to lethal methods
- Unwillingness to seek help because of the stigma attached to mental health and substance abuse disorders or to suicidal thoughts
    https://www.cdc.gov/violenceprevention/suicide/riskprotectivefactors.html

For greater phone control

Have parents add their teen to their iCloud account. That way, whenever a new app is downloaded by the teen, it will automatically download to the parent's phone as well.

https://www.huffingtonpost.com/entry/the-12-apps-that-every-parent-of-a-teen-should-know-about_us_56c34e49e4b0c3c55052a6ba

Age of porn access

"Exposure now begins as young as 9 with the average age at 11"
"The largest group of pornography consumers being boys aged 12 to 17 yrs."
10% of HS students have reported physical and sexual victimization from a dating partner in the past 12 months.
http://www.abc.net.au/religion/articles/2015/05/29/4245269.htm
https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6304a1.htm?s_cid=ss6304a1_w

FBI Cyber Seduction Indicators

Your child spends large amounts of time on-line, especially at night.
Computer-sex offenders spend large amounts of time on-line, particularly in chat rooms. Children on-line are at the greatest risk during the evening hours. While offenders are on-line around the clock, most work during the day and spend their evenings on-line trying to locate and lure children or seeking pornography.

You find pornography on your child's computer.
Pornography is often used in the sexual victimization of children. Sex offenders often supply their potential victims with pornography as a means of opening sexual discussions and for seduction. Child pornography may be used to show the child victim that sex between children and adults is "normal."

Your child receives phone calls from men you don't know or is making calls, sometimes long distance, to numbers you don't recognize.
While talking to a child victim on-line is a thrill for a computer-sex offender. Most want to talk to the children on the telephone, engaging in "phone sex" with the children and often seek to set up an actual meeting for real sex.
With Caller ID, they can readily find out the child's phone number. Some computer-sex offenders have even obtained toll-free 800 numbers.

Your child receives mail, gifts, or packages from someone you don't know.
As part of the seduction process, it is common for offenders to send letters, photographs, and all manner of gifts to their potential victims.

Your child turns the computer monitor off or quickly changes the screen on the monitor when you come into the room.
A child looking at pornographic images or having sexually explicit conversations does not want you to see it on the screen.

Your child becomes withdrawn from the family.
Computer-sex offenders will work very hard at driving a wedge between a child and their family or at exploiting their relationship. They will accentuate any minor problems at home that the child might have. Children may also become withdrawn after sexual victimization.

Your child is using an on-line account belonging to someone else.
Even if you don't subscribe to an on-line service or Internet service, your child may meet an offender while on-line at a friend's house or the library. Most computers come preloaded with on-line and/or Internet software. Computer-sex offenders will sometimes provide potential victims with a computer account for communications with them.
        http://www.fbi.gov/stats-services/publications/parent-guide

Have parents add their teen to their iCloud account. That way, whenever a new app is downloaded by the teen, it will automatically download to the parent's phone as well.

    https://www.huffingtonpost.com/entry/the-12-apps-that-every-parent-of-a-teen-should-know-about_us_56c34e49e4b0c3c55052a6ba

Sextortion

http://www.missingkids.com/theissues/onlineexploitation/sextortionpsa

"Sextortion" tricking someone into sending nude or compromising pictures and then leveraging them to do more, or become involved in more photos or even into human trafficking.
        http://www.missingkids.org/Sextortion

"Sexting is the New Flirting" as teens turn to secretive apps
https://www.cbsnews.com/news/sexting-modern-day-america-photo-vault-apps/

Methods for "Grooming"

- Unconditional support
- Validation of beliefs
- Encouragement to distrust
- Encouragement to isolate
- Guidance in finding confirming data
- Covert guided manipulation - "This is what I did when that happened…"

Congressional Hearings into Backpage.com

ABC News girls 12 to 14 are often introduced Trafficking also includes forced labor, pornography and sex workers Eastern European women are often they are trying to escape a home situation or poverty Promised a job or college education in US and when they arrive in another area of Europe or the US, their passports are taken, they are gang raped, beaten, isolated and forced to submit. Their self-esteem is destroyed.
http://www.usatoday.com/story/news/nation/2015/08/19/college-women-prostitution-ring-sex-menu/31975669/

Radicalization: Social Media and the Rise of Terrorism

https://oversight.house.gov/hearing/radicalization-social-media-and-the-rise-of-terrorism/

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- Bibliography -

Brantley, M.D. Jeffrey, *Calming your anxious mind: how mindfulness and compassion can free you from anxiety, fear and panic*. New Harbinger Publications, Inc. Oakland, California, 2007

Doidge, Norman. *The Brain That Changes Itself: Stories of Personal Triumph from the Frontiers of Brain Science*. New York: Viking, 2007. Print.

Kotulak, Ronald. *Inside the Brain: Revolutionary Discoveries of How the Mind Works*. Kansas City, MO: Andrews and McMeel, 1996. Print.

Kriger, John K., *Turned On and Tuned Out: A Practical Guide to Understanding and Managing Tech Dependence*, WestBow Press, A Division of Thomas Nelson and Zondervan, Bloomington, IN 2014, Print.

Medina, John, Richard W. Stevenson, and Mark Pearson. *Brain Rules: 12 Principles for Surviving and Thriving at Work, Home, and School*. Seattle, WA: Pear, 2008. Print.

Pink, Daniel H. *A Whole New Mind: Why Right-brainers Will Rule the Future*. New York: Riverhead, 2006. Print.

Schwartz, Jeffrey, and Sharon Begley. *The Mind and the Brain: Neuroplasticity and the Power of Mental Force*. New York: Regan /HarperCollins Publ., 2002. Print.

Small, Gary W., and Gigi Vorgan. *IBrain: Surviving the Technological Alteration of the Modern Mind*. New York: Collins Living, 2008. Print.

William M. Struthers, *Wired for Intimacy: How Pornography Hijacks the Male Brain*. World Wide Web: ivpress, 2009.

Young S., Kimberly, *Internet addiction: a handbook and guide for evaluation and treatment*, John Wiley and Sons, Inc. Hoboken, New Jersey, 2011