The Internet’s Impact on Our Thinking
An exploration of the consequential implications on our cognitive thought process

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Research Question: As the internet becomes increasingly intertwined within our daily lifestyles as a society, what are the consequential insinuations of this increased dependence and the effects to our intelligence as a whole?
We habitually turn to the internet to assist us with the informational demands of our current modernized lifestyle. The internet essentially provides us with an outlet for research, an opportunity to delve deeper into topics for further information, and to essentially infinitely expand the information available to us. As the internet becomes increasingly intertwined within our daily lifestyles, we must ask, what are the consequences of our increased dependence? Is the internet affecting our intelligence as a collective society? Although access to the internet has allowed society to augment knowledge and increase productivity, it is hindering our ability to analyze topics, deliberate, and as a whole, critically think. As the internet continues to become further intertwined within our daily lifestyles, it is negatively shaping the way we are processing and interpreting information. Essentially, the way we are currently using the internet is reducing our desire to be inquisitive, think, comprehend, and ultimately retain information.

There is no doubt that the internet has considerable benefits to our society. It predominantly supplies us with a vast spectrum of information imperative to our innovative lifestyles, giving us the freedom of quickly looking up information and having answers for solutions. We commonly use the internet to improve our own productivity, explore our interests, and ultimately increase our potential to explore and innovate. In an academic setting, the internet “increases access for all students to information not known to teachers, and therefore, increases the opportunities for teachers to learn from students” (Green, O’Brien). In the workforce, it assists us with the development and substantiation of products and services. This internet definitely plays a major role in our society and impacts over “1.8 billion users worldwide” according to statistics published by the Wall Street Journal (Shirky). Despite these benefits, proven trends indicate that with our customary reliance on the internet every day, our originality and higher order thinking is diminishing.
As a society, our critical thinking as a generation is declining in comparison to that of past generations. With the internet readily available to almost everyone, we can easily find solutions to questions online and take information that the internet supplies rather than analyzing topics and critically thinking on our own. Nicholas Carr, a prominent evaluator of the internet and its impact, believes our reliance on researching others’ opinions and ideas on the internet is jeopardizing our originality and higher order thinking. “We are evolving from cultivators of personal knowledge into hunters and gathers in the electronic forest…dazzled by the Net’s treasures, we are blind to the damage we may be doing to our intellectual lives and even our culture” (Carr). Carr illustrates that the internet is giving rise to a systematic trend of fact finding and reporting. We are becoming too apt to share what others think rather than personally developing and formulating our own unique ideas. This has negatively impacted our academic and educational institutions worldwide. Ingram Neil, a critic of the internet’s impact on society, fittingly observes that “We have become more insular, unadventurous, and less curious because of technology [(the internet)]” (Neil). Surely this inclination of shallow thinking and its promotion through conventional internet usage cannot be advantageous to our cognitive thinking.

With extensive recurrent internet usage, studies indicate the development of systemic implications such as short term attention spans and scattered thinking. When we work online, our brains are constantly pressured to take in vast amounts of information. Many links on one page connect to others, sidebar advertisements flash and divert attention, web pages contain tantalizing pictures, and other factors all contribute to distractions while looking up information. With the regular exposure to these distractions and the overbearing amount of information, the result is attributed to a reduction of attention spans which instigates other significant cognitive problems. “When we’re constantly distracted and interrupted, as we tend to be online, our
brains are unable to forge the strong and expansive neural connections that give depth and
distinctiveness to our thinking. We are becoming mere signal-processing units, quickly
shepherding disjointed bits of information into and then out of short term memory” (Carr). Carr
fittingly illustrates how the complexity and extensiveness of the internet is considerably reducing
our ability to concentrate which is subsequently developing scattered thinking. Continual
exposure is correspondingly negatively affecting the way we are processing and interpreting the
information we are obtaining through the internet.

The human brain is malleable. It is able to change to form new synaptic and neural
connections in order to gradually restructure itself in a way to effectively incorporate
information. Studies indicate that daily internet users have brains that are gradually being
restructured with these distinctive neural connections due to frequent exposure (Olsen). When
facing the many distractions, complexity, and vastness of the internet every day, the brain
fittingly needs to shift focus in order to grasp information. This necessitates shorter attention
spans in order to retain the vast array of information it is exposed to and trying to absorb.
Customary exposure progresses this short attention span condition which potentially develops
further complications and problems.

“When facts and experiences enter our long-term memory, we are able to weave
them into the complex ideas that give richness to our thought... Whereas long-term
memory has an almost unlimited capacity, working memory can hold only a relatively
small amount of information at a time...and that short-term storage is fragile: A break
in our attention can sweep its contents from our mind” (Carr).
Carr’s argument is significant in the fact that this quotation emphasizes how distractions posed by the internet are able to diminish our ability to retain, conceptualize, and comprehend information. Learning through the internet, therefore, is often less advantageous and efficient.

Contrary to what one might expect, the internet is paradoxically beneficial within our society when considering the internet’s effect to intelligence. It is actually proven to increase our own intelligence as a society. In Steve Johnson’s national bestseller *Everything Bad Is Good For You*, Johnson argues that the internet and our popular culture today is making us more intelligent due our means of obtaining, interpreting, and processing information. The fast paced and complicated nature of our lifestyle with the internet is making our brains evolve to become more intelligent (Johnson 17-31). Michael Johnson, a reporter for *On the Left Victoria*, has documented how intelligence has been evolving among generations over the last decades. “Over the past 20 years or so... the standard measure of intelligence (cognitive ability) has risen significantly, well more than 10 points...it is a well documented fact” (Johnson). Accordingly, it is significant to note how considerable the internet’s universal impact is on our brains and how much influence its use has on the way we think and perform.

If the internet is making us more intelligent, why are all of these negative insinuations developing as a result of its use? As noted earlier, we are becoming less original, inattentive, unable to comprehend and retain information, and essentially, more insular with our customary dependence on the internet. Even though, as Johnson claims, the internet increases our intelligence, many critics believe the internet is not making us smarter. Although society tends to use the two words smart and intelligent interchangeably, there is a significant difference between the two. We attribute smart to essentially learned inferences and applications. This is predominantly an earned status. When we study and learn, we become smarter in the subject
matter. In Mark Lowenthal’s article *Smart vs. Intelligent*, he argues that the major difference is that being smart is dependent on “learned inferences and applications… [the difference is that] we need to put effort into becoming smarter” (Lowenthal). Being smart is attained through critical thinking, studying, and through learned material and inference making, developed from birth to death. Intelligence on the other hand is innate, inherent, and is unchanging once a person is born. It essentially refers to a person’s capacity and ability to learn. The internet is making us more intelligent over generations due to its complexity, but our learned applications in comparison to past generations are diminishing.

Steve Ciarcia, a respected writer for *The Magazine of Computer Applications*, readily sees the web as making our society “less smart” within his observations of day to day lifestyle. “These days, when any tough subject comes up in conversation, it’s only about 5 seconds before some guy whips out his smart phone and Googles it. It certainly doesn’t give me an inferiority complex, but short of installing a cell phone jammer, it’s hard to know how much knowledge these people have or simply how good they have become at finding someone who does” (Ciarcia). This is a case analogous to situations in schools and businesses where people turn to the internet for answers rather than thinking and making connections on their own. In such a case, we would seem superficially smarter when in actuality, we aren’t. Accordingly, our practical applications as a society are diminishing and what we are claiming we know is actually what the internet knows. Ciarcia ultimately argues that the internet is making society lose the ability to retain and truly comprehend information. Although the internet could relay more information than anyone could possibly know on a topic at a given time, if we solely turn to the internet for our answers and decision making, we inhibit our ability to critically think by not preparing our brains to fulfill higher order thinking and we stop filling our memory banks.
The internet is a huge part of our society and will continue to be integrated in our lifestyles now and in the future. As a result, it is essential to understand how to use the internet in an effective and advantageous way which will enhance both our smartness and intelligence. The best solution would be moderation of our internet usage. We should turn to the internet as a resource and tool when it is absolutely needed in order to give us the information necessary to formulate an answer or explanation. We should not turn to the internet for other’s ideas and answers without trying to generate our own ideas, solutions, and work first. The internet can help us substantiate our ideas and support them with data and statistics and should be used primarily for this reason. Our current customary utilization of the internet prior to creating our own ideas and thoughts is ruining originality and critical thinking. A reduction in our internet usage will reduce our chances of developing short attention spans as well and many of the negative insinuations the internet is posing on our society.

“We can and must do things to stay proactively "smart." We must exercise our brains as the learning machines that they are, and we must do this continuously through life. We must work hard to maintain our skills and abilities as accurate receivers and users of information from aural language, vision, body senses, movement control, etc.” (Olsen). Olsen identifies the necessity of maintaining our critical thinking and originality as a society. The best way to do this is through moderation of our internet usage.

Through moderation of our internet usage, we can augment our knowledge, increase our productivity, explore our interests, and innovate. If we are smart in the way we use the internet, we could actually increase our desire to be inquisitive and think, as it can serve as an avenue to open up research possibilities and truly contribute to our society’s goal of productivity and
efficiency. The internet makes things faster, but, faster is not always necessarily better. We don’t want to sacrifice our critical thinking and uniqueness for the attainment of a modest amount of additional productivity. Our cognitive thinking is one of our greatest possessions and we should take this extra time to preserve it.
Annotated Bibliography (Sources Used)


Carlson, Benjamin F. "Nicholas Carr on the 'Superficial' Webby Mind." The Atlantic Wire. The Atlantic Wire National, 05 June 2010. Web. 19 Jan. 2012. Provides a detailed question answer session article with Nicholas Carr who is a researcher on technology’s affect to mental thinking capacity. Includes primary source materials that provide firsthand accounts of events and observations by Carr on technology affecting intellectual retention of information. Comprehensive analysis on how our current lifestyle as a society and interactions with technology is affecting our cognitive thought process and discusses the impact of rapid, fast paced lifestyle on our brains. Useful statistics and ideas to include from source.

cognitive processes and analyses the consequential effects. Practical perspectives and logic to include in thesis.


Ciarcia, Steve. "Is the Internet Making Us Smarter or Dumber?" Magazine by Engineers, for Engineers. Circuit Cellar, Aug. 2010. Web. 19 Jan. 2012. Provides a comprehensive analysis on how human thought processes are changing with our increased dependence on technology for answers. Includes and analyses multiple situations and provides evidence of how this topic is applicable to our current lifestyle. Addresses both the negative and positive aspects of the internet and technology usage on society. Useful perspectives and opinions from multiple sources.

Douglas, Torin. "Popular Culture May Be Grubby, but at Least It Keeps Us Thinking." Marketing Week. 02 Jun. 2005: 27. eLibrary. Web. 26 Jan. 2012. Demonstrates how our popular culture favoring technological innovation and our dependence on it is increasing our intelligence as a society. References multiple well know writers on the topic and includes evidence to substantiate ideas from multiple sources similarly debating on the topic. Useful examination of popular culture’s benefits to include in thesis.


eLibrary. Web. 01 Feb. 2012. Provides an academic journal formatted source which includes information from multiple conducted studies on technology’s impact on higher order thinking. Uncovers the trend of technology reducing our ability to retain, interact, and comprehend information. References many sources, includes a variety of examples, and maintains a clear and coherent point of view and perspective. Useful for the provision of many resources, examples, and data to help substantiate claims in my thesis.

Gladwell, Malcom. "Brain Candy; Books." *New Yorker, The.* 16 May. 2005: 088. eLibrary. Web. 26 Jan. 2012. Provides statistics, research, opposing viewpoints, and analysis on what our technological trends are doing to our thinking as a society. Illustrates how the complexity of information, games, and lifestyle in our society is increasing our intelligence quotient. Examines the affect popular culture is having on our society and addresses the positive insinuations. Interesting perspectives to include in report.


eLibrary. Web. 01 Feb. 2012. Provides an effective analysis of how technology and learning in classrooms are coevolving. Examines the implications of this evolution and what is means for student’s higher ordered thinking and cognitive thought processes. Includes research, reports, statistics, and evidence for both points of views. Helpful source for it’s coherent argument, evidence and analysis, statistics, and effective closure at the end of the academic journal.


Ingram, Mathew. "Is the Internet Making Us Smarter or Dumber? Yes." *GigaOM*. GigaOM News, 06 June 2010. Web. 18 Jan. 2012. Reports various viewpoints and perspectives to provide information in support of technological use in society and against it. Evaluates the potential of technology’s increased freedom for users and its ability to relate them to
more applicable topics. Acknowledges the opposing point of view how passiveness and inattentive cognitive processes are a trend in behavior as a result of overdependence on technology. Practical examples to use in my report.

Ingham, Neil. "Is Technology Making Us Smarter or Dumber?" Dragonanswers.com. Dragon Answers Lifestyle, Mar. 2011. Web. 18 Jan. 2012. Argues that technology’s innovation in our society is making us less adventurous, curious, and adept in critical thinking. Evaluates the effects on society as a result of our technological dependence and accordingly what the implications are. Effective examples referencing society’s decline of reading literature and the parallel to the decline of human thinking which will be an asset to my side of the argument through referencing them.

Johnson, Mike. "Are We Getting Smarter or Dumber?" On the Left in Victoria. Google Blogger, 15 Dec. 2011. Web. 26 Jan. 2012. Debates on the issues of technology making us both smarter and dumber simultaneously with our overreliance on technology for information and answers. Analyzes the difference between the classifications of “intelligence” and “smart.” Evaluates the potential trends in human cognitive thought processes and how they are evolving with our technological innovation and information increase. Useful perspective to consider including in report.

Johnson, Steven. Everything Bad Is Good for You: How Today's Popular Culture Is Actually Making Us Smarter. New York: Riverhead, 2005. Print. Provides a comprehensive analysis on popular culture, media, internet, and technology in our society today and how it alters our cognitive processes. Addresses both positive and negative aspects through relating to neuroscience and implications on a specific scientific level. Provides through provoking arguments how our sophistication using technology poses new cognitive
processes, arguing that these challenges actually increase our critical thinking. Contains substantial evidence to include in report.

Lowenthal, Mark M. "Difference Between Smart and Intelligent." *Difference Between Similar Terms and Objects*. Syndication, 10 Dec. 2011. Web. 01 Feb. 2012. Evaluates the difference between the two interchangeable terms “smart” and “intelligence.” Provides multiple examples and clarifies between the two terms and the difference. Discusses history, evolution, and practical uses of these terms. Useful clarification between the two terms and examples given for me to address and clarify when writing my thesis.


Morrison, Donald. "Turn On, Log In, Wise Up." *Smithsonian*. 01 Apr. 2011: 100. eLibrary. Web. 26 Jan. 2012. Provides an opposing point of view in relation to a few authors such as Nicholas Carr, arguing that technology is allowing us to become smarter as a society with the influx of facts and available information. Addresses common misconceptions about ideas on technological implications to human knowledge. Evaluates neurological changes which occur based on our new methods of obtaining information through technology. Useful examples and ideas to voice in the thesis project.

Olsen, Stefanie. "Are We Getting Smarter or Dumber?" *Brain Fitness & Brain Training*. Posit


evaluates multiple positive and negative aspects, while acknowledging the trend in shallower thinking through using technology. Useful thoughts and perspectives to incorporate with my other research.

Tham, Chee Meng, and Jon M. Werner. "Designing and Evaluating E-Learning in Higher Education: A Review and Recommendations." *Journal of Leadership & Organizational Studies*. 01 Jan. 2005: 15. eLibrary. Web. 01 Feb. 2012. Source evaluates the parallel between learning in a traditional setting and in an electronic, online setting. Details the difference in which computerized and technological learning has on our society. Includes a variety of examples, references, and statistics to substantiate the difference in learning while transitioning towards more technological based learning. Useful for the sources provision of applicable statistics and evidence and its basis on my research topic regarding learning changes through the integration of technology in lifestyle.

VanHemert, Kyle. "Is the Internet Making Us Smarter or Stupider?" *Gizmodo*. The Gadget Guide, 05 June 2010. Web. 19 Jan. 2012. Provides a “They say, I say” formatted article which synthesizes multiple perspectives and viewpoints on the subject of technology hindering our ability to critically think. Discusses and evaluates the implications on our intellectual range and critical thinking while analyzing these trends in our society. Addresses benefits and issues of our dependence on technology and the consequential trends on our society. Useful analysis and commentary to involve in research paper.

*Pictures on title page citations (left to right, top to bottom)*

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