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Joanna Horton

Ouachita Baptist University

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Joanna Horton

Ouachita Baptist University

Hyperconnectivity, Transhumanism, and Chesterton's "Want of Wonder"

A century or so ago, a portly English gentleman named Gilbert Keith Chesterton wrote a collection of essays which he entitled *Tremendous Trifles*. In his opening essay, he told a parable—a fairy story, he said—about two boys who are each granted a wish by a passing milkman. The first boy asks to be made a giant, that he might stroll across the earth's surface and see its wonders before teatime. However, as he investigates Niagara Falls, he finds it seems horribly insignificant—like a bathroom faucet—in comparison with his new, gargantuan stature. Other wonders have been rendered similarly unimpressive, so Chesterton said, "he wandered round the world for several minutes trying to find something really large and finding everything small, till in sheer boredom he lay down on four or five prairies" (4). That boy comes to a bad end, but the real tragedy, it's clear, is that the whole world is suddenly boring under his new perspective. The other boy asks instead to become very small—about half an inch high—and discovers that his front yard, once small and insufficient, has become something of infinite interest:

When the transformation was over he found himself in the midst of an immense plain, covered with a tall green jungle and above which, at intervals, rose strange trees each with a head like the sun in symbolic pictures, with gigantic rays of silver and a huge heart of gold. Toward the middle of this prairie stood up a mountain of such romantic and impossible shape, yet of such stony height and dominance, that it looked like some incident of the end of the world. And far away on the faint horizon he could see the line of another forest, taller and yet more mystical, of a terrible crimson colour, like a forest on fire for ever. He set out on his adventures across that coloured plain; and he has not come to the end of it yet. (4)

One can imagine the adventures a boy, suddenly half an inch tall, might have upon encountering an army of ants, or a leviathan garter snake—things for which he might not have had much respect previously. It's the adventure of seeing things with new eyes.

Chesterton admitted happily that he was the pygmy—the boy who would rather see mole hills as mountains than lose all interest in the glory of Mt. Everest. The literature of the time proclaimed all the "extraordinary things a man may see if he is active and strides from continent to continent like the giant" in the fairy story. But the aim of *Tremendous Trifles* was wholly different: "to show how many extraordinary things even a lazy and ordinary man may see if he can spur himself to the single activity of seeing" (5). Look closely enough at anything, in other words, and you're liable to find something fascinating. Consider that all your great knowledge and stature and frantic activity might not be helping you to take in the wonders of the world, after all. The final paragraph of this initial essay contains the highly-retweetable quotation which everyone likes to reference: "I will sit still and let the marvels and the adventures settle on me like flies. There are plenty of them, I assure you. The world will never starve for want of wonders; but only for want of wonder" (5). I hear increasingly that our latest technologies are somehow making the world smaller—a good thing, it seems, when in reference to bridging cultures and countries—but a troubling concept for a "pygmy," or anyone who gets concerned when people find virtual reality more engrossing than real life.

Here's what I think is at stake—in having such instant access to the internet, promising to let us know everything about the world in a glance, what if we're getting bored with it? If we no longer have to work for knowledge, will we value it as much? And if we are being freed up, as proponents of more and more technology say, to think about higher issues, are we really doing that—or are we becoming more concerned with the trivial?

I think my thesis may be that our technology has the power to change how we think—not an original idea by any means. In 1985, Neil Postman wrote a book called *Amusing Ourselves to Death: Public Discourse in the Age of Show Business*, in which he attempted to show “how forms of public discourse regulate and even dictate what kind of content can issue from such forms” (6). He describes his book as being “an inquiry into and a lamentation about the most significant American cultural fact of the second half of the twentieth century: the decline of the Age of Typography and the ascendancy of the Age of Television” (8). Perhaps I am attempting a similar thing, writing instead about the Age of Social Media. If Postman was concerned about the effect of television on political discourse—making it a “conversation in images” rather than a weighed consideration of ideas—then I am similarly concerned about the current medium of Twitter, with its 140-character limit. If, as Postman says, “the clearest way to see through a culture is to attend to its tools for conversation,” then I would like to learn what I can about how social media and hyperconnectivity affect my own culture and shape which ideas get talked about (and *how* they get talked about) (8). I am most interested in what we may have lost (or may be in danger of losing) with our increasing reliance on technology. Perhaps it is something intangible, but I feel that the next generation, having grown up using smart phones, may be more accustomed to virtual realities than to what I think of as real life. I think that communicating face-to-face cannot be replaced by liking someone’s post on Facebook, nor can one glean the same knowledge of a subject by Googling it as by asking an expert or reading a book. It’s admittedly an old-fashioned perspective, one that might be criticized by posthumanists or transhumanists or anyone who sees anything new as necessarily evidence of progress. Writing in 2014, Nicholas Carr treats increasing automation in a similar vein to Postman’s treatment of television, tracing its effects in various industries and illustrating how automation may be

changing how we think. He acknowledges that, often, anyone who questions the newest, latest, most popular thing is dismissed as a Luddite, an “emblem of backwardness”:

We assume that anyone who rejects a new tool in favor of an older one is guilty of nostalgia, of making choices sentimentally rather than rationally. But the real sentimental fallacy is the assumption that the new thing is always better suited to our purposes and intentions than the old thing. That’s the view of a child, naive and pliable. What makes one tool superior to another has nothing to do with how new it is. What matters is how it enlarges or diminishes us, how it shapes our experiences of nature and culture and one another. To cede choices about the texture of our daily lives to a grand abstraction called progress is folly. (231)

Elsewhere, Carr clarifies that his aim is not to strike out blindly against innovation in itself; rather to urge people to consider how the tools they use may shape how they think or act.

Postman says something similar, asserting that few people who consume entertainment or absorb information consider “how [their minds are] organized and controlled by these events, still less in what idea of the world is suggested” by the means they choose (11). However, he says, “there are men and women who have noticed these things,” and proceeds to describe these “great noticers” (11). So that’s my aim—not to dismiss everything new as being necessarily bad, like some self-righteous, twenty-something grandma before her time—but to be a “noticer.”

In reference to communication systems, “hyperconnectivity” means “the use of multiple systems and devices to remain constantly connected to social networks and streams of information.”ⁱ Day-to-day, this likely looks normal to most Americans, who expect wireless internet everywhere they go. Cellular networks vie for who offers the most coverage. Updates in smart phones appeal to customers in several spheres, whether to business professionals who want

to be more accessible or to teenagers who want to keep up with the latest trend. These appeals to peoples' desire to stay connected and in the loop reflect a deeper desire *not to miss anything*. When, as a matter of custom, I check my phone for notifications immediately upon leaving class, perhaps I express my fear of missing out on something. Or, to put it more plaintively, I'm anxious to answer the question, "What if someone needs me?" Often I don't think twice about how having a smart phone almost constantly nearby affects my behavior or thinking. I rarely consider the benefits of having such tools as a calculator, a watch, a bi-lingual dictionary, a GPS, a personal assistant, and a cameraⁱⁱ all rolled into one device, nor do I stop to consider how distracted I am by a smart phone's toys: Facebook, Twitter, Instagram, or Snapchat.ⁱⁱⁱ I just use the tools, or I just get distracted—I don't evaluate what's happening in my brain. It is remarkable that we have all these things in the weird, slab-like^{iv} object we stare at while waiting for the next class to start. Given the possibilities for usefulness and innovation, however, I want to look at some ways in which our reliance (some might call it addiction)^v on smart phones, and perhaps on recent technologies in general, has had a negative effect on us.

Several years after we moved to our new home in Arkadelphia, my mom and I were out on some errand or another around town, and she turned right, toward Walmart, rather than left, toward wherever we were actually needing to go. When I called her attention to the fact, she laughed and jokingly blamed the mistake on the car, which "was just used to going to Walmart," she guessed. Over a period of a couple years, habit had trained her (or the car) to turn right at the intersection. The funny thing is that I vaguely recall the same incident having happened at the house in which we'd lived previously, where the choice was between turning left onto the highway (toward Magnolia) or right (toward the boonies). Back then, our car was trained to turn left, so it took mental effort to turn right instead. I have found a similar thing to be true when I

sign in to my computer. I pull up the web browser, and before I think consciously of what I'll search for, my fingers have already begun typing in Facebook. It doesn't matter if I'm thinking that I need to check email or search for an article or any of a number of tasks on the internet—my fingers have been trained to check if anything's new on Facebook, even if I've checked the same thing scarcely twenty minutes ago. This habit disturbs me, as does the habit of pulling my phone out the moment class is over and glancing at it for any new notifications—both habits I rarely notice. The times I notice most are when I'm working on extended projects (such as this one) or reading longer, more technical writing. I get distracted every fifteen minutes—if not more often, wasting at least five minutes each time I pause to scroll through a newsfeed or check for new messages. Thinking takes me longer when I have anything around that can access the internet, and while I know a good deal of my distraction is tied up in a lack of self-control on my end, I wonder how much it has to do with my mom's learned tendency to turn toward Walmart. In his article, "Is Google Making Us Stupid?" Nicholas Carr recounts his own experience with how the internet—while a practical tool for researching—seems to have changed how he thinks. Rather than "immersing [himself] in a book or a lengthy article," as he used to do, he loses concentration easily, and more often flits from webpage to webpage, skimming articles for the gist rather than the fuller, more nuanced argument (314). "What the Net seems to be doing," he says, "is chipping away my capacity for concentration and contemplation" (315). When we have access to such a wealth of information and sources, and all we have to do is click on a link or type in the first words of a phrase to find immediate results, our thought processes are liable to be scattered, rendering us unable to sit down to one book, on a single subject, and by a single author. Carr's decreased ability for contemplation particularly interests me, as it reminds me of Chesterton's story. I connect the words "contemplation" and "wonder," and I think that any

evidence Carr can find that the use of the internet has “chipped away” at people’s ability to contemplate might apply to Chesterton’s prediction of a general “want of wonder.” There’s no *time* to wonder, when one knows that the definition of a hard word is only a few keystrokes away. Why take the time to puzzle out a concept’s meaning based on its context when one can Google a few key terms and find a Wikipedia article covering the basics? I’m not complaining about Wikipedia, exactly, because it’s been helpful, especially for getting a rough idea of a subject, but I do agree with Carr that our tendency is to read for the bare minimum of knowledge, rather than “make the rich mental connections that form when we read deeply and without distraction” (317). Carr gives several examples of how we adapt how we think, depending on the nature of the tools we use. People learning to read languages that aren’t based in an alphabet system, for example, form different connections in the brain’s circuitry than do people learning systems with alphabets (318). We should not be surprised, then, if our brains work a little differently reading electronic articles than they do reading a bound book. The point is that our brains can, and do, change—they are “malleable” in that they may form connections and pathways at one point that may change over time. So it is that my mother (or her car, depending on how you want to see it) could form a habit of always turning left in one city, and always turning right in another city a few years later.

So what are some of the habits we are forming as we rely increasingly on the internet to research and connect with others? Carr gives several examples just within the realm of Google and its almighty search engine. Google’s founders, Sergey Brin and Larry Page, have spoken of their goal to make their search engine the smartest, most efficient tool around for research. In their view, Carr says, “information is a kind of commodity, a utilitarian resource that can be mined and processed with industrial efficiency” (324). In that aim, Google tracks both what

people search and how they search, refining its suggestions for the next time someone types in the first words of a phrase. It assumes the sort of thinking Carr complains about—the hurried tendency to skim—as well as a desire on the part of the customer to want answers immediately. It is not necessarily as concerned that the answers be the most credible, nor is it concerned with making sure both sides of an argument are represented in its top searches. It lists the most relevant according to key word, perhaps, or the most often visited site. But going back to the convenience-oriented researcher, this has a way of limiting or filtering what he sees. Most people I know rarely look past the first page of results for a Google search, assuming that the most credible or relevant sites will magically show up at or near the top. But how do I, the researcher, determine what sources are credible on a subject I know little or nothing about? For example, if I were to conduct research on a religious movement with which I'd had no real experience, how would I determine what was, and what was not, a credible, balanced resource? I might look at the author's credentials, or do some analyzing of my own on the tone or perspective of the source, but to a large degree, what I see will be filtered by what appears on the first page of results. I am not trying to say what Google is doing in trying to be more efficient is worthless—but I am saying that I rely largely on the aid Google gives me when I start out a search with “religious movement about” and it fills in any number of suggestions for what I was thinking. It helps me, but perhaps weakens my critical thinking skills in knowing what to search for next. It makes it so that I never have to learn how to ask the right questions.

Postman talks about previous ways in which American's means of communication has changed the culture itself. He explores in depth the nature of public discourse in the age of the Founding Fathers and through the eighteenth century, when print was the dominant means of rational discourse. The discourse of the time was dependent upon a highly literate, engaged

public, accustomed to listening to extensive oral debates, such as those between Abraham Lincoln and Stephen A. Douglas (44). The public was highly literate, and valued reading as a limited opportunity, an activity which, before electricity, was only possible by natural light or dim light sources. Toward the middle of the nineteenth century, there was a change both in advertising and in the perception of information itself. Advertisements went from being short paragraphs in “propositional form,” attempting to inform and persuade the reader, to being “one part depth psychology, one part aesthetic theory” (60). Whatever could catch a potential customer’s attention became the advertising technique, as “advertisers no longer assumed the rationality on the part of their potential customers” (60). Another advancement was the invention of the telegraph, which transformed the American perception of information, ever anxious for increased practicality:

The telegraph made a three-pronged attack on typography’s definition of discourse, introducing on a large scale irrelevance, impotence, and incoherence. These demons of discourse were aroused by the fact that telegraph gave a form of legitimacy to the idea of context-free information; that is, to the idea that the value of information need not be tied to any function it might serve in social and political decision-making and action, but may attach merely to its novelty, interest, and curiosity. *The telegraph made information into a commodity*, a “thing” that could be bought and sold irrespective of its uses or meaning. (65, emphasis mine)

While it may sound ridiculous to question the usefulness of the telegraph, it is one of a myriad of examples of how technology has changed how we think. What Postman describes as three “demons of discourse” plague today’s forms of discourse to a larger extent than anyone considering the advantages of the telegraph at the time likely could have imagined. Today, many

conversations about politics, religion, or social issues take place, for better or worse, on social media—or, if conducted in real life, are sparked by something controversial having been written online. As with Google’s helpful search-engine, Twitter and Facebook tend to filter what people see, based on how popular or controversial the topic is. For the most part, people see snippets of larger views, either reinforcing what they already think (in which case they are given an opportunity to “like” it), or challenging their opinions (in which case they are able to react against it with an “angry” emoji) before scrolling past. Twitter imposes a 140-character limit for each tweet, rewarding brevity and concision but perhaps also encouraging the “demons of discourse”: irrelevance, impotence, and incoherence.^{vi} Not only do we privilege the eye-catching nature of bite-sized news, but Postman’s insight that “the telegraph made information into a commodity” is remarkably similar to Carr’s assertion that Google treats information as “a kind of commodity, a utilitarian resource that can be mined and processed with industrial efficiency” (324). We might say that Google is a modern-day Western Union.

This reliance on Google to get me the information I want immediately is a reflection of how the way I think may be changing—both Carr and Postman point out the connection between a generation’s technology and how it views the brain—with today being the age of visualizing the brain as a type of computer, ““efficiency”” and ““immediacy”” being prized above all else. In contrast, the age of print prized “deep reading...valuable not just for the knowledge we acquire from the author’s words but for the intellectual vibrations those words set off within our own minds” (Carr 327). In other words, in the absence of “deep reading,” we may not be doing as much “deep thinking,” or considering how what we read connects with other knowledge we have (327). We trust the computer’s quick results, forgetting that the computer is merely a tool, not necessarily inerrant.

In his book *The Glass Cage*, Nicholas Carr traces the increase in automation in various industries and its effects on how we think. Automation is a specific area of technology which has great power either to “enlarge or diminish us” as a species (231). After examining several industries where automation has, in effect, taken over any need for human expertise, he concludes that “when automation [is] limited to distinct, well-defined, and repetitive tasks,” it can enlarge us. When, for example, welders are given better tools that do weld more cleanly and efficiently, then automation “[frees us] to climb to a higher pursuit, one requiring greater dexterity, richer intelligence, or a broader perspective” (66). This is the idealistic and perhaps most common opinion of automation, that while “we may lose something with each upward step, what we gain is, in the end, far greater” (66). In the case of Google, this would be the perspective that, even though we are not taking as long to research and consider sources, we have many more sources at our disposal and therefore are better off. One would be hard-pressed to find any large, antitechnological groups today akin to the Luddites during the Industrial Revolution—rather, people tend to equate more automation, more technology, with progress. This is where we should think carefully, Carr says, because “in automated systems today, the computer often takes on intellectual work—observing and sensing, analyzing and judging, even making decisions—that until recently was considered the preserve of humans” (66). In the aviation industry, for instance, the majority of operations are computerized, meaning that, apart from taking off and touching down, the pilot of a modern plane acts more as a “computer operator” than an expert at manually flying a plane. For the most part, automation in the aviation industry is seen as a very good thing, reducing the chance for human error in an undertaking routinely taken by many, and upon which so many lives depend. There is, however, a downside to aviation’s having become so heavily reliant on technology. If a novice pilot has had none of the rigorous practice of controlling the

machine manually, then, if a computer error occurs, he will be thrown into a situation he may not be prepared for. And Carr does not reserve his caution for specific industries: he believes that we as a species are in danger of losing something. We've fallen prey to the "substitution myth," the myth that "automation is benign, that it raises us to higher callings but doesn't otherwise alter the way we behave or think" (67). Carr cites two specific ways in which automation does change how people think: automation bias and automation complacency, both of which occur when people assume the absolute trustworthiness of automation. Automation complacency might be thought of as the assumption that since "computer don't make goofs," we may trust whatever information we obtain from them, disregarding the fact that "their outputs are only as good as our inputs" (69). Automation bias is similar, referring to a trust in software and technology so strong that it overrides our natural senses (69). It's the doubt we feel when the grammar checker highlights something in red that we are fairly certain should *not* be red, yet, for safety's sake, we changes to the spellchecker's suggestion. Surely the computer *must* be right.^{vii}

Why does it matter in the first place if the way we think is changing—is it a big deal that we rely on technological devices for so much of our knowledge? Does it matter that our collective memory and knowledge of history is stored "externally" rather than in our minds (Sparrow 778)? In a study of how Google's constant accessibility of information has affected our memories, researchers found that we are depending more on knowing where to find information than on remembering the information itself. In one of the experiments, participants were given specific statements of fact and asked to type them into a computer. Half of the participants were told the computer would save what they had typed, and half believed it would be erased— additionally, half of each group were "asked explicitly to try to remember the information" (776). Summing up the results of the experiment, Sparrow writes:

. . . when people don't believe they will need the information for a later exam, they do not recall it at the same rate as when they do believe they will need it. Participants apparently did not make the effort to remember when they thought they could later look up the trivia statements they had read. Because search engines are continually available to us, we may often be in a state of not feeling we need to encode the information internally. When we need it, we will look it up. (777)

Perhaps unsurprisingly, this study is one that Nicholas Carr and other writers have cited as an example of how our constant access to the internet has—if not necessarily made us worse at thinking—at least changed how we think. Carr, in particular, references the generation effect and its evil twin, the “degeneration effect.” The first is a well-documented correlation between “actively [calling information] to mind” and being able to recall that information later. As Carr describes the generation effect, he warns that it “requires precisely the kind of struggle that automation seeks to alleviate” (74). In other words, the sort of learning we do when we know we will have to remember it later is a struggle, but we are rewarded with better recall. Google, while helpful as an external source of information, can reduce the burden of having to remember, but the downside is that we may get worse at remembering, for want of practice. This is the degeneration effect, as he terms it, and he warns that it could have some ugly results, such as a decrease in our brains' ability to develop “*automaticity*, a capacity for rapid, unconscious perception, interpretation, and action that allows mind and body to recognize patterns and respond to changing circumstances instantaneously” (81). Simply put, automaticity is a good thing because it means your brain has mastered smaller, more insignificant aspects of a task or a process and is freed up to work on higher order problems. It sounds remarkably like the ode to industrial automation—except that Carr is arguing that the arduous ground-work is necessary for

the brain to sort through to achieve expertise in a particular field or process.^{viii} We might assume that, if we can eliminate the need to remember smaller, more mundane things (things we can always just “Google”), we will have more time to think through more important ideas, but Carr says—and I think Postman might agree—that it’s not that simple; that we need the practice of knowing small things:

Rather than extending the brain’s innate capacity for automaticity, automation too often becomes an impediment to automatization. In relieving us of repetitive mental exercise, it also relieves us of deep learning. Both complacency and bias are symptoms of a mind that is not being challenged, that is not fully engaged in the kind of real-word practice that generates knowledge, enriches memory, and builds skill. (84)

I think this skepticism goes along with Chesterton’s complaint that the people of his time assumed that only the modern sense of progress (of attaining higher and higher senses of achievement) was worth wondering at, and that every day, common things weren’t worth noticing. It’s old-fashioned, maybe, but it’s nonetheless a perspective I share with someone who lived a century before me.

Another reason for my uneasiness with the degeneration effect, or other ways in which technology may be changing how we think, is that I put a high value on deep thinking and memory. I think of the human mind as something unique and designed in the image of a Creator’s mind, and therefore, worth developing well. If, as proponents of Google and more automation claim, we are enabled to think about more sophisticated issues since we have such a wealth of external information, that is one thing. I just do not see that as being the case—it seems to be distracting us more than anything, or, at least, letting us take for granted that knowledge will always be at our fingertips—“when we need it, we will look it up.” Writing in the 1940s,

Dorothy Sayers elucidated a defense of the Christian view of the human mind in her book *The Mind of the Maker*. One unique aspect of mankind, according to Sayers, is that “he has no way to think except in pictures” (21-22). In other words, the way in which humans learn about the nature of their Creator is to learn about their own nature: if indeed we are “in the image of God,” then our knowledge of our Maker and his mind will be “analogical.” As she fleshes out her conception of what God is like (and therefore what humans are like), one of the “characteristic[s] common to God and man is apparently that: the desire and the ability to make things” (22). A good portion of her book, then, is devoted to considering how the human mind *makes* things and what we may learn about God through that human capacity. Sayers, a Catholic, held many of the fundamental beliefs that I do about the origin of man and his relation to God, but what applies most here, I think, is a common belief that there is a uniqueness about being human, a special capacity or gifting or whatever one may call it. The ability to philosophize, maybe or the gift of wonder. Something, at any rate, sets humans apart from other animals under this view. The human mind is more than a really fast computer that just happened to have evolved more than that of other animals’. There is a responsibility, I think, that comes along with a capacity to think of more than mere survival.

Obviously, not everyone agrees with my starting-point, so I expect that I will come to different conclusions than someone who is more skeptical of supernatural design. I am interested, however, in seeing how one’s view of the mind and how recent technology may be changing it reflects what one believes about human nature and whether it can evolve. Two fairly recent philosophical movements concerned with the future of human nature are transhumanism and posthumanism. Posthumanism is an umbrella term that is claimed by a number of distinct movements, with up to seven schools of thought delineated by Francesca Ferrando, who unifies

them around “an urgency for the integral redefinition of the notion of the human, following the onto-epistemological as well as scientific and bio-technological developments of the twentieth and twenty-first centuries” (26). In other words, all of these movements view human nature as something that can, or ought, to be improved, whether through recent developments in biotechnology or through a philosophical redefinition of what being human means. For simplicity’s sake (and because I am not altogether certain I know what I’m talking about), I will treat transhumanism in discussions of biological improvements (such as replacing faulty genes or improving life spans), and posthumanism in regard to moving past conceptions of what it means to be human (discussion of cyborgs or evolution into a better species). In general, it seems as if proponents of these views would not be troubled, as I am, by recent dependence upon technology; rather, they would likely see any developments of more efficient tools for acquiring knowledge as natural and positive. Unlike Sayers, who views man as a created being, Ferrando writes that transhumanism and posthumanism “share a common perception of the human as a non-fixed and mutable condition” (27). This perception assumes a highly-evolutionary starting point in which humans are no different from any other animal having a drive to survive and extend themselves. Humans are, however, prone to what Ferrando calls a kind of “exceptionalism,” meaning that—in Western tradition, especially—they view their species as being superior to others (30). If exceptional in anything, they are more prone to excluding the other of their species, and in that way need improvement, especially in the posthuman view. Transhumanists, typically more concerned with technological and scientific advancements, advocate biotechnical enhancements of humans, which can mean anything from “regenerative medicine to nanotechnology, radical life extension, mind uploading and cryonics” (27). Rather than deal with each of these areas, which would be an enormous task, I will present an article

from a bioconservative perspective, cautioning against the transhumanist movement as a whole, and the ensuing defense from a proponent of transhumanism.

In his 2003 lecture on “Biotechnology and the Pursuit of Perfection,” Leon Kass acknowledged the emerging field of biotechnology and its continuing advancements, while delivering a warning that, as premature as it might feel to begin discussing certain of the technologies (which seemed at the time like science fiction) it was time to start thinking:

Decisions we today are making—for instance, what to do about human cloning or sex selection and genetic selection of embryos, or whether to get comfortable prescribing psychotropic drugs to three-year-olds, or how vigorously to pursue research into the biology of senescence—will shape the world of the future for people who will inherit, not choose, life under its utopia-seeking possibilities. (10)

All of the bioethical concerns he mentions would likely be claimed with pride by transhumanists, which makes it tricky to be on the side purportedly questioning the value of improving life for future generations. The question, Kass says, is often put this way: is the technology in question “therapy” or is it “enhancement”—attempting to make one “better than well?” (15). In posthuman terms, the latter of the options would be making an individual “more than human.” While we have the capacity to try for both objectives (replacing faulty genes in both adults and unborn children), it does not mean necessarily that we ought to. He says “human beings have long dreamed of overcoming limitations of body and soul, in particular, the limitations of bodily decay, psychic distress, and the frustration of human aspiration” (Kass 14).^{ix} This is all well and dandy, Kass says, except that the more solutions we figure out, the more “we regard our remaining limitations with less equanimity, to the point that dreams of getting rid of them can be turned into moral imperatives” (14). We become, in other words, less content with being human

and more anxious to get on with what's next—but, taking a cautionary vein, Kass warns us to consider what other consequences may come. Like Kass, I agree it feels strange to question the goodness of technological feats such as extending human life spans or improving physical health during those extended life spans. It feels on par with questioning the obvious usefulness of a smartphone that can do any number of tasks I would find tedious if I had to struggle through them unaided. And yet I do question many of the same things as Kass. I can't help but consider the possibility that part of human flourishing is in the effort it takes—that in enduring the limitations of being humans, we achieve more than if everything were easy and life lasted indefinitely. Kass comes to a similar conclusion after asking himself and his audience “what is it that feels wrong about the objectives of transhumanism”:

. . . the disquiet must have something to do with the essence of the activity itself, the use of technological means to intervene in the human body and mind not to ameliorate disease but to change and (arguably) improve their normal workings. . . . What is disquieting about our attempts to improve upon human nature, or even our own particular instance of it?

Only if there is something precious in the given—beyond the mere fact of its giftedness—does what is given serve as a source of restraint against efforts that would degrade it. (17, 20)

This is what is difficult about arguing against transhumanism or the plethora of technologies that seek to enhance human nature—bioconservatism assumes that there is something different about humans that affords them dignity in a way that other animals lack. But this is a hard proposition to give empirical evidence for—Nick Bostrom, responding to bioconservatives like Kass, has no patience with the absence of measurable evidence to back their doubts. Rather than suspect new

technologies simply because they are new, Bostrom argues that any knowledge we gain ought to be made available to the public. If we have the capacity to eradicate a physical illness, those who are plagued by the illness ought to be the ones to decide whether the risk of losing human dignity in some vague way is worth more or less than conquering the illness.^x Transhumanism avers that dignity may be retained even in the attempt to improve oneself: Bostrom writes that “transhumanists maintain that we can legitimately reform ourselves and our natures in accordance with humane values and personal aspirations” (3). That sounds lovely, but as someone who holds to the view that man’s nature is—though designed in the image of a good Creator—in crucial ways corrupted, I am skeptical. Like Kass, it is not so much that I can explain why things that try to improve upon humanity are so “disquieting” to me—as with the discussion of automation and smartphones, I readily acknowledge the benefits of biotechnological research in developing new treatments (i.e. I am not advocating for Luddism)—but the questions that Kass raises seem worthy of consideration. Rather than assume that anything new must of necessity be an improvement, we ought to think carefully whether, once we *can* do something, we *ought* to do it. My peers and I ought to inform ourselves about the debate over designer-babies, for example; over whether it is ethical to, in effect, program the next generation based on desirable traits. It is not enough to trust a sunny prediction that we will somehow eliminate inherited disability; rather, we should consider what that would imply about our view of the disabled. What if, in the future, we are so concerned with attaining physical or emotional perfection that we lose sight of the fact that physically imperfect people deserve full as much dignity as those who have been modified or fixed? Here is where Kass’s conclusion applies, that the unease people feel at the future of bioethics is dependent upon their

understanding that there is something precious about human nature that could be compromised in the striving toward physical or emotional enhancement.

And it is here that discussions begin cropping up of what we mean by being human in the first place. While the more conservative proponents of transhumanism may only be thinking in terms of extending the health and capabilities of humanity, posthumanists seek more—an evolution to something past humanity. As mentioned before, there is a branching-off effect of the term, so that the word *posthumanism* signifies a variety of distinct movements, some more radical than others, but all generally unified around a discontentment with the current conception of humanity that goes deeper than transhumanism's goal of physical health.^{xi} In the eighties and nineties, the increasing development of computers and computerized technologies prompted Katherine Hayles and other authors to predict a change in how future generations would use and think about computers. In *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, Hayles argues that it is only a matter of time until we meld our own intelligence with that of computers, predicting that such a partnership will force a redefinition of what intelligence means and perhaps result in a posthuman state. Writing in a less accessible vein than some of the other sources I have encountered, Hayles writes that posthumanism is the “[privileging of] information *pattern* over material *instantiation*, so that embodiment in a biological substrate is seen as an accident of history rather than an inevitability of life” (3). The human mind, according to Hayles, is more a coincidence of evolution than anything close to Sayers' view of the human mind as analogical to a supernatural Creator's. Citing Alan Turing's test in 1950 in which he attempted to prove that “machines can think,” Hayles clarifies that Turing's “imitation game” blurred the line between intelligence in humans and intelligence in technology. If a machine can produce the same information, or pattern, as a human can, then

instantiation, or *where* the information is processed, does not matter—whether in a computer or in a human brain. The above definition of posthumanism (that of “privileging pattern over instantiation”) is the first in a four-part working definition Hayles provides. The other three parts are as follows:

2. “. . . [considering] consciousness, regarded as the seat of human identity in the Western tradition long before Descartes thought he was a mind thinking, as an epiphenomenon, as an evolutionary upstart trying to claim that it is the whole show when in actuality it is only a minor sideshow.”

3. “. . . the body . . . as the original prosthesis we all learn to manipulate, so that extending/replacing the body . . . [is] a continuation of a process that began before we were born.”

4. “. . . [configuring] human beings [to be] . . . articulated with intelligent machines . . . [There are] no essential differences . . . between bodily existence and computer simulation . . . ” (3)

I take the second part of the definition to mean what Ferrando called the human tendency toward “exceptionalism,” or of thinking itself more unique than it truly is. I will come back to this in a moment, but for now it suffices to say she proceeds from an evolutionary basis of human origin to her conclusions, which include the notion that nothing is unique about human beings and that we are merely a rung on a ladder. We only think we’re special. Here is an aspect in which transhumanism and posthumanism begin to diverge, with posthumanists moving beyond the transhumanist discontentment with the frailty of the human body. Posthumanists like Hayles seem to be tired of the whole thing and would rather see a new sort of thing emerge—simultaneously built from humanity and distinct from it. Ferrando connects the beginnings of the

posthuman movement with various groups of feminism, which were especially concerned in the 1990s with “deconstructing . . . public discourse” in an attempt to make it more inclusive to those traditionally seen as being oppressed or excluded in Western society (30). Hayles, accordingly, takes a dim view of the traditional conception of being human: “I do not mourn the passing of a concept so deeply entwined with projects of domination and oppression” (5). As she considers a future of conscious intelligent machines—that would be cyborgs, I’m guessing—she remains optimistic that humans can learn, if taught, to treat such machines as no different from themselves. This is quite similar to the caution Nick Bostrom includes near the end of his defense of transhuman dignity. Arguing that there is no “deep moral difference between technological and other means of enhancing human lives,” he implicitly acknowledges that there would be the danger of inequality or otherness about individuals who were technologically enhanced (210). Rather than denying them the same ontological worth as unaltered humanity (or considering them worth *more*), transhumanists “promote a more inclusive and humane ethics, one that will embrace future technologically modified people as well as humans of the contemporary kind” (210).

In several ways, the posthumanism put forth by Katherine Hayles seems to have a lot of common ground with transhumanism,^{xii} but she takes the ideas further. She cites two tests, the Turing test, briefly mentioned above, and the Moravec test: both, she says, had the effect of questioning what it means to be human.^{xiii} Each, in its own way, redefined knowledge, thought, and information as things independent of a body. The Moravec test was primarily a thought experiment, intended to foster the notion that human consciousness could be downloaded onto a computer, a notion still being discussed today. At the advent of the computer age, Hayles argues, “information lost its body . . . [and] came to be conceptualized as an entity separate from the

material forms in which it is thought to be embedded” (2). With such a premise, it makes sense to look for another “prosthesis,” as Hayles refers to the human body, and while we’re at it, to look for one that is less prone to human weaknesses and foibles, such as the need for sleep, the variance in intelligence between humans, or the contrary, illogical emotions that plague the human mind. If, as Bostrom and Hayles assert, there truly is no aspect of being human that sets humanity apart or above the rest of the natural world, why hesitate to make something better out of it? Even Kass admits that the most troubling thing about recent proposals for improving upon human nature is the thought that there is “something precious” or unique that ought to be altered only with great care and deliberation.

So what, if anything, could be the “something precious” Kass suggests? With all my talk of “human nature,” “being human,” and my unease at changing into something posthuman, what do the words even mean? I presented a little of my own view when I referenced Dorothy Sayers’ *The Mind of the Maker*, which begins with the conception of mankind as being formed in the image of God, and therefore having a mind that is in some capacity like God’s, in man’s ability to think and to reason, rather than simply act out of instinct. While I understand how Hayles and Bostrom come to their conclusions given their starting points, this is where I must begin—nevertheless I think it would be helpful to consider more deeply what people signify with the idea of being human, rather than just use the phrase a bunch of times in rapid succession. In *I Am a Strange Loop*, Douglas Hofstadter cautions his readers against saying the phrase “I know” without considering “what it truly means to say ‘I know’ when our minds would have us say it (5). If that initial jolt did not get my attention, the ensuing chapters did. Hofstadter thoughtfully considers what exactly we mean by concepts such as “being,” “thinking,” or “having semantics” (23).^{xiv} Hofstadter begins with a hypothetical remarkably similar to the results of the Alan Turing

“imitation game” in the 1950s: “Let us suppose that a machine had been constructed” which could mimic human thought (5). Our initial reaction, he suggests, might be a negation of the computer’s true ability; we might be tempted to stress the word “mimic” and leave it at that, a denial of the possibility of a thinking machine. Or, if we are thoughtful, we might be provoked into thinking about *thinking*, about what we mean by the word. Functionally, Hofstadter says, if the heart “is a pump,” then we may consider that “Analogously, a brain is a thinking machine” (27). Our brains do a good job of processing information, but we should not assume that the physical matter inside our skulls is the only place where that kind of processing resides most effectively. This is in effect what critics of Turing’s experiment are guilty of: “the tacit assumption that the level of the most primordial physical components of a brain must also be the level at which the brain’s most complex and elusive mental properties reside” (Hofstadter 30). These people are guilty of too much association between information and its instantiation, to borrow the term from Hayles’ discussions. Even to understand a little of the brain’s activity, most people must think in metaphors—in terms of pictures with which they are already familiar. Hofstadter provides the illustration of a number of large, slow-moving patterns within which there are innumerable, tiny elements zipping around at random. The larger patterns of thought are how we tend to picture our thinking, with rational patterns of logic and reason. What is actually behind those patterns, however, is an enormous collection of neural firing and atoms zipping back and forth pretty much at random (49).^{xv} The reason we tend not to think about thinking at the level of neural firing is that we would soon become overwhelmed. Our brains kick in for us and simplify what conscious thoughts we have, so that, rather than being occupied with the trivial-seeming operations of atoms, we think at a higher level of thought, considering questions of logic and reason and convincing ourselves, Hofstadter says, that we are unique

among the other evolved animals. He brings in the terminology of epiphenomena, mentioned in passing when discussing Katherine Hayles' view of the human. Giving a more general definition of the term, he says epiphenomena are "shorthands that summarize a large number of deeper, lower-level phenomena, never essential to any explanation" (47). Epiphenomena are the only reason we can speak in terms of logic and reason without having to grapple with every tiny, unconscious process that goes into the formation of a conscious thought. If it helps to think of it in terms of what I have already presented, one might think of it analogously with the aim of automation—the presence of an epiphenomenon (like better automation) has the effect of freeing up people to work on what they consider more important, rather than being bogged down by less important tasks. What I take Hofstadter to mean is that, when we say something like "I think" or "I know" or even "I," we are using a nickname of sorts—an epiphenomenon that represents all the many, many inscrutable things that would be impossible to articulate. Even as I, and Carr, and Postman, have criticized the rapid encroachment of automation into the way we think, Hofstadter would seem to suggest that automation is how our brains work anyway. Whereas I tend to think of automation, or technology that proffers to make intellectual tasks easier, as being in some way not as natural as puzzling something out for oneself, Hofstadter begins from a different view, one that sees humans the same as any living organism, concerned with survival and with efficiency. Any advantages we may have over, say, a mosquito, result from our being higher in the ranks of evolution, not so much from a unique gifting from a Creator. While we do tend to think we are special in some regard, Hofstadter attributes this to the phenomenon of feedback loops:

The presence of a feedback loop, even a rather simple one, constitutes for us humans a strong pressure to shift levels of description from the goalless level of

mechanics (in which forces make things move) to the goal-oriented level of cybernetics (in which . . . desires make things move). (53)

In other words, because it is so overwhelming to consider all the minutia of mental processing, we do not think in those terms, resulting in a hidden feedback loop. We see, instead, larger patterns of logic and reason—processes we consciously consider that are planned and wished and desired, and as a result, assume that those expressions of will and reason and emotion are how we think.^{xvi} Consider one more definition of an epiphenomenon:

. . . a collective and unitary-seeming outcome of many small, often invisible or unperceived, quite possibly utterly unsuspected events. In other words, an epiphenomenon would be said to be a large-scale illusion created by the collusion of many small and indisputably non-illusory events. (Hofstadter 93)

Hofstadter employs this language of illusion in his thesis of *I Am A Strange Loop*, when he discusses what it means to be human: “in a non-embryonic, non-infantile human brain . . . there is an abstract pattern that gives rise to what *feels* like a self” (95).

Reading Hofstadter, I appreciated the deep thinking his ideas prompted about concepts I have more or less taken for granted in my own thinking about post- or transhumanism. I can see how someone, proceeding from an ontology like that of Hofstadter’s, could advocate for either movement. I can see how, under this view, the concept of humanity evolving into something more efficient is not only plausible, but desirable. I also see certain aspects in which I cannot agree with Hofstadter, such as his near-equation of self-awareness and what we think of as personhood. Elsewhere in his book, he explains his understanding of what it means for something to have a soul. As always, his approach is thoughtful, but I am uneasy at his system of the size of a soul, which he expresses with the term “huneker” to indicate how much or how little

of a soul a particular living thing may have. He gives the example of a mosquito—no one, he says, thinks twice about swatting a mosquito, about extinguishing its soul. But we do think twice about euthanizing a dog, and the debate about human euthanasia is one of the most morally galvanizing of our time. He argues that we distinguish between the value of mosquitos' souls and dogs' souls and humans' souls, and because dogs' souls are in some way smaller than ours, we value them less (82). My aim is not to simplify or misrepresent Hofstadter's view, but if this is indeed what he meant to say, then I cannot agree. For myself, and for those who share my view of a unique human nature, I think the distinguishing mark between the value of living things is whether they are human or not. All life, having been created, is in a sense precious and not to be taken lightly, but because humans have the image of the Creator in a different sense, they are set apart in some way. And this includes “non-embryonic, non-infantile” humanity, who, Hofstadter admits, he cannot think of as having as many “hunekers” as a mature, rational adult human (17).^{xvii}

So could we ever evolve into something post-human? Under Hofstadter's view, it seems possible—but under a view that holds to a divinely created human nature, it seems less likely. If, on the other hand, one takes the view of already having evolved from lower creatures, it makes sense that we would use our tools and, like the chimpanzees before us with their stone tools, eventually become something higher on the ladder. When Hofstadter discusses the relative intelligences of mosquitoes and self-driving cars, he implies an evolution within our technologies of increasing their intelligence—giving them more capacity for soul-size than the tiny, living mosquito. On the capabilities of robot cars, Hofstadter writes that, while not the same as human perception, “it makes perfect sense to discuss living animals and self-guiding robots in the same

part of this book, for today's technological achievements are bringing us ever closer to understanding what goes on in living systems that survive in complex environments" (81).

At the time Hofstadter was writing, robot cars were not as efficient as the human brain at learning and adapting to new environments, but they were getting better. If the only defining difference between a computer's abilities and a human's is that, as of now, the human is more complex and more efficient, it seems like a computer *could* potentially attain the complexity of a human being. In fact, it seems like a matter of time before we do design computers that can not only mimic, but effectively think in the same way we do.

If you hold to the ideas of Hofstadter, or Hayles, or others who see human nature as nothing that special, then posthumanism and transhumanism can seem like sensible and attainable goals. Of course, you would think, we ought to develop better technologies to extend our span of life. Of course we ought to make everything more convenient and use our technology to become more connected with the rest of the world. All the dreams of becoming "better than well," or more than human—they sound pretty good and it feels somewhat audacious to challenge them (Kass). If, however, your viewpoint differs, as mine does, you may have doubts that a posthuman state is even possible. You may have doubts that, if it is possible, it is desirable. It does not make much sense, in my view, to talk of posthumanism unless we're talking about highly intelligent machines—perhaps this is one way in which I understand the movement better than I did initially. Posthumanism may not be as much an advocacy for human-computer hybrids or cyborg rights as it is a profound dissatisfaction with what being human means. Out of a core desire to improve oneself—be smarter, better, faster, or, as with Chesterton's giant, taller—we are fascinated by any new technology that promises to keep us constantly in the loop. While I do not think the human nature is something that changes, I do think we can be diminished as a

species, perhaps in the very midst of trying to enhance ourselves. We can be distracted from everything real and lasting; ironically, in wanting not to miss anything, we might miss out on things that make humans thrive.^{xviii} I will discuss in brief three examples of how society in the U.S. is drawn increasingly to virtual reality over real life: the rapidly-expanding pornography sector, the studies of texting while driving, and the need for continual distraction via social media.

The organization “Fight the New Drug” is a relatively new one, founded in 2009. Its aim is to inform about the harmfulness of pornography on the human brain, to provide help for those struggling with porn addiction, and to combat the sex-trafficking industry, which benefits from the consumption of porn. The organization’s website acknowledges that pornography—the viewing of sexually explicit images—has always been around. In the 1950s it became more normalized with Hugh Hefner’s production of the *Playboy* magazine, but never before the advent of the internet was it so widely accepted as normal—as socially acceptable behavior. FTND cites a study indicating that, in 2004, “porn sites were visited three times more often than Google, Yahoo!, and MSN Search combined” (*FTND.org*). With the advent of high-speed Internet, more people have access to porn 24/7. Study after study on the FTND website indicates a correlation between pornography addiction and a decreased interest in a real relationship with a partner with commitment on both sides. While not a religious organization, “Fight the New Drug” laments some of the same aspects of a digitally-run world that I do—choosing to celebrate instead personal communication over any satisfaction given by a computer screen. Seeing how pornography can change how a person sees other people is sobering—another example of how we can re-train our brains, as with the example of a car that has “been trained” to turn toward Walmart.

A series of studies on the effects of cell-phone conversations on drivers concluded, among other effects, “cell phone conversations slowed participants’ reactions by 18%, an amount comparable to the average slowing observed with senescence” (Strayer and Drews 645). While the realization that multitasking while driving tends to deteriorate one’s driving performance is hardly revolutionary, there is a difference that has come with cellular devices that can text and access internet as well as make calls. Especially with younger drivers who may not have as much self-control—or who may, as I have suggested, be slightly addicted to checking their phones—there is an added element of risk because there are more options for distraction. Because of the added temptations to be on the phone while driving, there is a nation-wide campaign—in many ways similar to the campaign against drunk driving—to inform people of the dangers of texting or surfing the net. This is in addition to the bans that many states have put in place against texting while driving. It seems that statistics teach better than the abstract knowledge of a law which one may or may not get caught breaking, and alarming advertisements during commercial breaks are more attention-grabbing still. One of these commercials, produced as part of AT&T’s “It Can Wait” campaign, portrays in heartbreaking detail the risks of even a glance down at the phone. On the website for the campaign, visitors may view a simulation of what it is like to drive while distracted by consistent text alerts, the end of which is a car crash and a view panning up into the sky. Such campaigns employ social media in a positive way, reaching those who are most likely to be accustomed to checking for notifications. AT&T’s campaign, for instance, offers an app that promises to “minimize distractions while driving and help you keep your eyes on the road” (itcanwait.com). It also encourages people to sign a pledge and post about their decision not to drive distracted, in this way taking advantage of the nature of social media as an influencer of public opinion. What is interesting is that, although there is a specific campaign

about texting and driving, there is not as much furor over hands free cellular use while driving—and yet, in the same study indicating the slowed reactions of 18% in distracted drivers, “there was no possible contribution from the manual manipulation of the cell phone” (Strayer and Drews 648). All the conversations conducted in the experiment were dialed and arranged before starting the car, indicating that the “problems associated with using cellphones while driving...can be attributed in large part to the distracting effects of the phone conversations themselves” (648):

In addition, even when participants directed their gaze at objects in the driving environment, they often failed to “see” them when they were talking on a cell phone because their attention was directed away from the external environment and toward an internal, cognitive context associated with the phone conversation. (641)

In other words, we are simply worse at multitasking than we think. Regardless of how convenient the technology makes it to do other things while driving, our brain will always be divided between the tasks and our ability to excel at either task will be impaired.

It is similar, perhaps, to the situation that occurs when, during a face-to-face conversation, I attempt to reply to a text I have gotten from someone else. Perhaps other people are better at this skill than I am, but almost always, one of the two conversations will suffer. I will either take extraordinarily long to formulate a message via text, or I will say gibberish in response to the people who are facing me. If they are the ones talking, I will hear roughly every other word they say, nodding at the end to acknowledge that I was listening. Or I may look up and assure them that I *was* listening to them—I just had to send that text “real fast.” Before I received my first phone, I saw how other people would do this—have several simultaneous conversations—and thought it incredibly rude to everyone involved, so I determined that I would

never text while having a real life conversation. I confess: on multiple occasions, I have texted a person while talking to another person face to face. Unless I think hard about it, I will unconsciously pull out my phone and check it during an in-person conversation. In an interview given for “The Guardian,” Sherry Turkle, who authored several books on the social effects of social media, gave her perspective on this very phenomenon.^{xix} In the interview, she talks about the “infatuation” Americans have with wifi and the ability to be connected all the time. While acknowledging the pull our phones have on us—they provide “novelty and distraction” as well as serve as useful tools—she warns that we are at a point where adults ought to be setting the example for a generation that has been raised on this technology. If we set the example of conducting social interactions always with half a mind, constantly distracted by our phones, that will be seen as acceptable. She clarifies that she is “not anti-technology” but simply “pro-conversation” (Adams). Here is yet another writer claiming not that technology is evil—just that we ought to consider well where and when it is helpful. The answer to this dilemma is the same answer to both the pornography problem and the distracted driving problem: put away your phone while you’re doing something else. This seems fantastically simple, to the point, and achievable, and yet it’s harder to stick to than it looks. My thesis project could have been to keep track of how many times I would distract myself on social media during my thesis project—or it could have been to ask people how many times they check Facebook or Twitter or Instagram while completing school or work assignments—I don’t think I’m the only one who feels, in a sense, addicted. It’s almost unconscious: as soon as I get out of a classroom, my hand has slipped to my pocket and my thumbs are tapping away to see if anyone has messaged me or liked something I said or said anything of remote interest. It’s as if I can’t help it. For some of my

peers, the siren call of their phones is too strong for them to resist using it during class or chapel or even concerts.

If you are familiar with Kurt Vonnegut's short story "Harrison Bergeron," you will remember that, during a momentous, beautiful dance between a ballerina and a man, the man's parents are staring dumbly at the television screen. They try to concentrate and understand what the things on the screen mean, but in this particular society, everyone must be equal in everything, so that the athletic people wear cumbersome weights and the intelligent people are likewise handicapped. Sometimes I feel like Harrison Bergeron's dad, who deals with all the handicaps the government has put on his intelligence—every time he has a thought other than one of amusement, he is violently disrupted by a loud awful noise in his headpiece. It is a description of something no one in her right mind would ever want, and yet that is what I feel I'm doing to myself. I distract myself all the time with insanely trivial things so that I am getting worse and worse at concentrating or contemplating anything of value. I feel I am making myself stupid. In the film adaptation of the short story, made in 1995, I recall a scene—expanded from the narrative of the original story, in which Harrison Bergeron is being trained in the governmental production of inane television sitcoms. It's a cringe-worthy scene, a snippet of a sitcom produced for the masses with the express intention of suppressing quality. In an exchange between the government leaders who are assessing the show for any subversive moments of excellence, a surprised Harrison Bergeron deems it "terrible," to which the head government replies, "Yes, they did a fine job!" He brags of the fact that their egalitarian society has been able to "eliminate quality altogether." It is played, quite obviously, as an expansion of the kind of government represented in the original story by Diana Moon Glampers, "Handicapper General," who violently suppresses the beauty and excellence represented by Harrison and the ballerina.

Elaborating on the idea, the adaptation indicates a society akin to that of Huxley's *Brave New World*, in which the majority is controlled by their constant, gluttonous intake of pleasure and amusement. There is, however, a slight difference between Huxley's vision and that of more Orwellian writers of dystopia. In a beautifully-written foreword to his book *Amusing Ourselves to Death*, Postman elucidates the difference—namely, that in much of dystopian fiction, a strong, oppressive government is required for the suppression of the excellent and good, while in Huxley's *Brave New World*, all that is required is that people come to “adore the technologies that undo their capacities to think” (vii). Postman continues:

Orwell feared those who would deprive us of information. Huxley feared those who would give us so much that we would be reduced to passivity and egoism. Orwell feared that the truth would be concealed from us. Huxley feared the truth would be drowned in a sea of irrelevance . . . In short, Orwell feared that what we hate will ruin us. Huxley feared that what we love will ruin us. (vii-viii)

I've read a lot about posthumanism and transhumanism and a lot of –isms that seek to improve the human lot. It all reminds me, weirdly enough, of the boy who wished to be a giant—who was so terribly concerned with conquering nature and building greater wonders than Niagara Falls. And this all sounds, I realize, awfully unscientific of me. The evidence that convinces me most is pretty unempirical, mostly. I have just seen too many beautiful days go by where everyone around me—often including myself—walks with their eyes down, looking at some triviality on their phones. I think we are missing something. I wanted to write a litany of reasons to look up and wonder, rather than being distracted from what I see as the real world. I am not sure I succeeded, but it was my aim.

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www.archive.org/stream/HarrisonBergeron/Harrison%20Bergeron_djvu.txt

ⁱ <http://www.thefreedictionary.com/hyperconnectivity>

ⁱⁱ This list could keep going for a long time.

ⁱⁱⁱ I *do* notice the absence of my phone, if I have misplaced it. My six-year-old niece enjoys hiding my phone and watching me search frantically for it before revealing her prank. The anxiety I feel without my phone (or after a prolonged time without access to the internet) is part of what makes me suspect I am at least somewhat addicted.

^{iv} Dr. Johnny Wink has the intellectual rights to this phrase, I think.

^v Apparently, for the past two decades there has been a debate between people who want to classify overuse of the internet as an addiction/disorder and people who say such a disorder would be as ludicrous as classifying socializing with friends in any other setting as an addiction/disorder. See <https://psychcentral.com/blog/archives/2016/02/20/the-relentless-drum-beats-on-about-problematic-internet-use-aka-internet-addiction/> and <https://psychcentral.com/netaddiction/>

^{vi} One wonders how the great orators of the Age of Typography so venerated by Postman would fare if forced to conduct their discourse via Twitter feuds and Facebook debates. Reading even two sentences of an excerpt of one of Lincoln's rebuttals to Douglas, I find it unlikely. It's also amusing, and a little embarrassing, to consider what Alexis de Tocqueville's judgment of modern-day America might be, considering his impression of its beginnings: 'An American cannot converse, but he can discuss, and his talk falls into a dissertation. He speaks to you as if he was addressing a meeting; and if he should chance to become warm in the discussion, he will say 'Gentlemen' to the person with whom he is conversing' (qtd. in Postman 42).

^{vii} The other example Carr suggests is that of GPS and how drivers will often ignore their own senses of direction in order to follow a faulty set of automated directions. I have personal experience with this involving wrong coordinates, a lonely gravel road, and Halloween night. Putting in the correct coordinates is key.

^{viii} Throughout *The Glass Cage*, Carr asserts that automation in itself is not the problem. Technology is not the work of the devil, but rather a tool that humanity has used for millennia. What Carr emphasizes is that humans are notoriously bad at knowing when to say "stop," or "enough is enough." We generally assume that the new thing is always the better thing, without considering that there might be unforeseen downsides to a new technology. He argues, as I do, for thoughtfulness on the part of the consumer, as well as the realization that large companies like Google have a monetary interest in developing products. They are not as altruistic as they might pretend.

^{ix} Recalling Chesterton's fairy tale, I am reminded of the first boy in the story, who wishes to be a giant, with none of the inconveniences of the natural world.

^xI can imagine Bostrom saying this phrase, “losing human dignity,” with air quotes, considering how sarcastically he treats those who, he says, have no arguments but “religious or crypto-religious sentiments” (2).

^{xi}The most unexpected of these which I read of on Wikipedia (doing exactly the thing I criticized earlier—reading for a main summary of belief, rather than reading for an expert’s opinion) was the “Voluntary Human Extinction Movement,” unified by a dislike for our own species so strong that its adherents “[call] for all people to abstain from reproduction to cause the gradual voluntary extinction of humankind.” I’m not sure I can (or want) to comment further, except to point out that this is almost as far a cry from the optimistic goals of transhumanism as is pure Luddism. In other words, *posthumanism* can mean a lot.
https://en.wikipedia.org/wiki/Voluntary_Human_Extinction_Movement

^{xii}More broadly, Hayles’ posthumanism has common ground with those who merely advocate for the latest trends in biotechnical medicine, who may not consider themselves anything but savvy pro-humans.

^{xiii}Hayles writes: “Whereas the Turing test was designed to show that machines can perform the thinking previously considered to be an exclusive capacity of the human mind, the Moravec test was designed to show that machines can become the repository of human consciousness—that machines can, for all practical purposes, become human beings. You are the cyborg, and the cyborg is you” (xii).

^{xiv}He defines “having semantics” as “the ability to genuinely think *about* things, as contrasted with the ‘mere’ ability to juggle meaningless tokens in complicated patterns.” This is a definition I certainly would have seized upon as being proof of my certainty that there must be something distinguishing humans from lower animals. After reading what I did of his book, I was less certain it proved anything I wished to prove.

^{xv}Here I feel I must apologize in case I am misrepresenting Hofstadter. I am not by any means a student of neuroscience, or of the sciences at anything but a beginning level. I am attempting to learn, however, and share what I’m learning. I greatly appreciate Hofstadter’s attempt to make his topic of discussion at least semi-comprehensible for an amateur such as myself. While reading his work, his mental picture of a “careenium” (like an air-hockey table within one’s brain) helped me visualize what he meant.

^{xvi}I am possibly the worst person to be trying to explain what a “feedback loop” is, as I barely understand it for myself. The most helpful illustration Hofstadter gives is that of audio feedback, which occurs “when a microphone gets too close to a loudspeaker that is emitting, with amplification, the sounds picked up by the microphone” (54). As the amplifier receives the sounds, they get louder and are, again picked up by the amplifier, getting increasingly loud in a sort of looping effect.

^{xvii}It makes me uneasy when distinctions begin to be made about the degree of soul or worth in humans based on self-awareness—and while that may not be Hofstadter’s aim, it is a place where I think our views must diverge.

^{xviii}What Hofstadter would call feedback loops, I think, and what Bostrom might dismiss for my lack of empirical, numbers-based evidence. How are you justifying the use of the word *thrive*, Jo? Well, who knows?

^{xix}Turkle’s works on the subject include *The Second Self* (1984), *Life on the Screen* (1995), *Alone Together* (2011), and, most recently, *Reclaiming Conversation: The Power of Talk in a Digital Age*, all of which seem like they would be helpful reads on the subject of technological effects on society.