PART SIX:

A POSTSCRIPT FOR THE DIGITAL AGE (How to hold on to kids in the era of Internet, cell phones and video games)

Chapter 19:

THE DIGITAL REVOLUTION BENT OUT OF SHAPE

Something really big has occurred since the original publication of *Hold On To Your Kids*. In retrospect, we can say that this book amply foreshadowed, but could not have fully pictured, the impact of the digital revolution that, in the intervening years, has come to dominate our world and that of our children. That impact has been, to say the least, distressing. Technological advances that had—and still have—immense potential for good have, instead, caused a major cultural setback. Unless we come to our senses, the reverberations of the digital transformation will impair the healthy development of our children for generations.

What has happened? How do we make sense of the direction the digital revolution has taken us? What are the implications for parenting in the digital age?

By 2010, 73% of teens were members of at least one online social network and, by 2012, there were one billion Facebook subscribers internationally. Studies have shown that millions of preteens are already Facebook members, even though the site stipulates that no one under age 13 is supposed to have an account. The typical teen sends over three thousand text messages each month![i]

"During the last 5 years, the number of preadolescents and adolescents using [social media] sites has increased dramatically, " the journal Pediatrics noted in 2011. "According to a recent poll, 22% of teenagers log on to their favorite social media site more than 10 times a day, and more than half of adolescents log on to a social media site more than once a day. Seventy-five percent of teenagers now own cell phones, and 25% use them for social media, 54% use them for texting, and 24% use them for instant messaging. "The results, this prestigious publication concludes, are ominous. "Thus, a large part of this generation's social and emotional development is occurring while on the Internet and on cell phones."[ii]

Add to the mix the disturbing statistics regarding Internet pornography, the existence of cyber bullying and the predominance of gaming, and we see plenty of reasons to be concerned that young people between the ages of 8 and 18 spend an average of over ten hours a day engaged with technology of one form or another,

We, the authors, have often been approached by parents feeling anxious about the impact of digital media on children and wanting to know how to control their children's access to computers, games and other digital devices, and when to introduce such technology to children. These chapters were written to address such concerns. However, as with parenting in general, it is not a matter of specific practices or recommendations. We have emphasized throughout that parenting is not a set of skills and behaviors, but above all a *relationship*. As the epigraph to this

book states, without understanding relationship, any plan of action will only breed conflict. What we offer here is not a precise recipe but an understanding, an explanation, along with broad guidelines. How these will apply to each child and each family will depend on the parents' ability to foster the necessary relationship with their offspring. There are no age-specific recommendations possible—a child's relationship with the parents and his/her level of emotional maturity dictate what needs to be done. It is futile to suggest universally applicable, rigid rules.

How, then, to fathom the impact of the digital transformation on our children's lives? Discerning the contours of a phenomenon that is so big, and one that we are still in the middle of, is like trying to determine the shape of a cloud that has enveloped us. Without a working knowledge of the most preeminent human drive, attachment, there is no way to explain what has taken place.

Attachment is the key to explaining the shape the digital revolution has assumed, and an understanding of peer orientation in particular is necessary to account for the facts and figures involved. Without such understanding, the facts and figures are bewildering. Nor, without appreciating the centrality of attachment in human life, can we explain the wild popularity of social media, the dynamics of cyber bullying or the seductive appeal of video games and online pornography—all issues to be further explored in these two chapters on the digital age.

The cultural milieu in which our book was written was already characterized by the increasing peer orientation of our young people, but that was before Facebook was launched and Twitter came on the scene, before video games came to preoccupy our youth and online pornography accounted for 30% of Internet activity, and before anyone would have thought that within a few years 90% of children ages 8 to 16 will have viewed pornography online. Doctors had not yet expressed their concerns about the deleterious effects of screen time on children's health, nor had they yet issued their warnings of rising Internet addiction.

Pornography aside, some may ask,: What's wrong with young people spending so much time online, seeking information or diversion? Do we really have a problem here?

When digital devices first appeared to manage information, it was assumed that they would be used for either business or education or entertainment. Scientists developed the web as a route for the rapid and efficient communication of complex data. The first target population for cell phones was the business community; for computers, it was the school community. After all, we need information for scientific research or to conduct business, and school is all about getting information across to students. Google went public in 2004 with its mission to organize the world's information and make it universally accessible and useful. The information age had officially arrived. It was in this context that we put digital devices into the hands of our children.

The Basic Flaw: Ignoring Attachment

There was a basic flaw in the assumptions driving the digital revolution. At the core of our being it is not information about the world that human beings seek, nor even entertainment. When it comes to engaging the attentional mechanisms of our brains, neither information nor entertainment have priority. In fact, in our brains' hierarchy of importance, information ranks very low: it is more likely to be tuned out than tuned in. The brain filters out most sensory and cognitive data reaching it lest it lose sight of what is essential at any moment.

As we have seen throughout this book, our primary and dominant need is togetherness. It is connection we seek, not factual information about the world. Human beings—often as adults but especially as immature young creatures—are hungry for information not about the world but about our attachment status. We want assurance that we belong to those who matter to us. We are concerned that we are seen as similar to those we value, are important to them and liked by them; that we are wanted and understood by them, that we matter. We are driven to know whether or not we are invited into another's presence, and we present ourselves in the hope that this invitation will be forthcoming.

Business is not our highest priority, nor is learning, nor entertainment. What shapes our interaction more than any other factor is attachment, whether we interact in person, by mail, by phone or through the Internet. The technology may be new, but the dynamics are as old as humankind.

It is not surprising, then, and in line with the perspective originally outlined in this book, that the amazing technology originally designed for information has been pressed, instead, into the service of seeking connection. And, by means of distraction and diversion, it has also come to act as a compensation for the frustrated attachment needs of our children. But compensating for a core issue can never resolve the difficulty; it can only make it worse. To those who are vulnerable, digital media is addictive. Our children use these means much less to learn than to form and maintain relationships, much less to solve problems than to escape from them.

Once one understands the need for togetherness, the basic human dilemma becomes clear: *how to be close when apart.* There are many aspects to this problem: how to feel connected to people from whom one is physically separated; how to experience a sensation of closeness when one is actually not feeling wanted; how to get a sense of significance, how to feel important when we do not seem to matter to those who matter to us.

We can "solve" the problem by recruiting dozens or hundreds of "friends" on Facebook who will "like" us, without any genuine intimacy. These scenarios are incredibly alluring as they give us the fleeting sensations we so desire. They are our

modern-day sirens. They take us where we want to go with no hint of the risk involved, no inkling of what lies down that path. These attachment fixes can become more appealing than real life itself, and for many young people they have. It is far from rare, for example, to see young parents ignore their kids while engaged in texting and other digital communication.

Is there, then, no safe or useful way to introduce our youth to the benefits of the digital age? As we will show in the next chapter, it is a matter of timing. Children and young people can be granted access to technology in a safe manner, but only when they are ready for it, when they have developed sufficiently so that the use of technology will enhance their growth rather than undermine it. Our job in the meanwhile is not to put temptation in their way.

Until they are ready, what the digital world offers young people is not what they need—in fact, it interferes with what they need, as we will see in the next section.

Digital connections allow peer-oriented kids to stay together even when apart

Traditional society was organized around hierarchical, multigenerational attachments, not peer attachments. The home was the container for the family and the village provided the supporting cast of attachments. I remember asking people in the village of Rognes, where we enjoyed a sabbatical in Provence, why so few of them were engaged in digital social networking.[1] The answer was typically some variation of "why would we want to, we're all here." There is no need to substitute digital connection when you already are with those who matter most to you. We had a similar experience in Bali recently.

However, as peer orientation took root in Western civilization, a problem began to emerge. School has become the breeding ground of peer orientation in western civilization and also has functioned as the gathering place for peer-oriented kids. Recess and lunch hour and after-school activities with peers became the attachment structures that replaced the family meal, the family walk, the family play time and the family reading time. Most peer-oriented children go to school to be with their friends, not to learn about their world.

How do peer-oriented kids keep close to their peers in the evenings and on weekends and on holidays? And what about when they leave school? As we all know and have experienced, there is nothing more impactful psychologically than facing separation from those we are attached to. The resulting alarm is immense and pursuit of proximity desperate. The motivation to close the gap becomes all-consuming.

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[1] As in the previous sections of the book, the personal pronoun "I" refers in each case to Gordon Neufeld.

I believe this was the force that bent the digital revolution into the shape we see now. Remember that attachment is the strongest force in the universe. The digital devices designed to serve school and business became repurposed to connect the peer-oriented with one another. The digital revolution has become, for all intents and purposes, a phenomenon of social connectivity.

The statistics speak for themselves. Internet use is now reported to be 100% among 12- to 24- year-olds, with 25 % of the time spent interacting on social media. This is a significant amount of time when you consider, as we have noted, that the average 8-to 18-year-old spends 10 hours and 45 minutes a day using digital devices.

Facebook and RENREN (its Chinese equivalent) have essentially allowed recess to go on forever—kids can now hang out with one another full time. These social networking sites originated in colleges to serve their peer-oriented students and have become now the instruments of connection for the peer-oriented throughout the world.

I often wonder what would have happened if the digital revolution had occurred before peer orientation took hold, but after increasing mobility, job scarcity and high divorce rates had separated us from those we love. Without peer orientation perhaps a culture would have evolved to digitally connect children to their parents and teachers, uncles and aunts, grandmothers and grandfathers. Parents may be reading bedtime stories to their children through these digital tools when away from home; teachers and students creating a context of connection to facilitate learning; grandparents connecting with their grandchildren when far away.

On this last note, when my wife and I were in Bali on a mini sabbatical, we used the little Internet connection we could get to Skype our grandchildren every few days or so. It wasn't easy as the antenna that was in our compound and that connected us to Internet in the village was easily disabled by the birds that would land on it. I became an expert at rock throwing, motivated as I was to make connections to our grandchildren on the other side of the globe. To this day, I have the most wonderful back-tingling Pavlovian response to the Skype ringtone, anticipating a fulfilling time of connection to loved ones far away. There are many who use digital devices and social media for this purpose and to my way of thinking, this should be applauded. But the facts and figures suggest that those of us who use social networking this way are not the ones shaping this phenomenon. It is the peer oriented who rule the Internet waves.

The digital revolution favors and furthers peer orientation

If peer orientation has shaped the digital revolution, the digital revolution both favors and furthers peer orientation.

First, those with digital devices and the technical competence to use them are more likely to connect with each other. As any non-tech-savvy adult who has ever fumbled with a complicated remote control can testify, this dynamic certainly favors the young and their relationships to one another. In comparison, coming together to share a meal would typically favor multigenerational attachments.

Second, social networking sites, as well as digital technology itself, dictate the nature of the connection, favoring superficial contact over emotional and psychological intimacy. Digital devices in particular and the social media in general do not make it easy to share one's heart with another, never mind all that is within one's heart. What is shared is often contrived and shallow. It is difficult in texting to convey one's enjoyment of, or delight in, the other. The twinkle in the eyes and the warm, inviting voice are harder to convey. Emphasized are the superficial dynamics of sameness—do we like the same things and same people—rather than who we are at the core. There is no genuine self-disclosure that would lead to one truly being known. Significance, being important to those we seek connection with, becomes all about making a favorable impression than about seeking a vulnerable invitation to exist in the other's presence as we really are. As such, technology entices and rewards those with superficial attachments: the immature, the undeveloped and the peer oriented.

MIT psychologist Sherry Turkle interviewed hundreds of young people about their web-based lives for her book *Alone Together*. As *Newsweek* reported, "people tell her that their phones and laptops are the 'place for hope' in their lives, the 'place where sweetness comes from.' "

Third, the traditions, rituals and taboos that historically evolved to protect family and intergenerational attachments do not govern the digital world. Traditional cultures, cultures where multigenerational relationships are still honored, are full of customs about who is to talk to whom, what kind of touch is allowed, who can eat with whom, with whom secrets are shared, and so on. These activities foster attachment and so must be controlled. For a culture to reproduce itself, and for the raising of children to be enabled and effective, hierarchical attachments must be preserved. The digital world is relatively devoid of any customs or rituals or taboos that would protect family attachments and hierarchical relationships. Information itself is not arranged hierarchically, in terms of importance or validity. Everything is flat-lined: equality is the rule. Even capital letters are losing ground.

Thus, peer orientation has not only become the driving force of the digital revolution and its instruments, but also its ultimate outcome. We may have put digital devices into the hands of our children for sensible reasons, but they in turn have repurposed these devices to connect with one another, both at the individual level and on the mass scale. The result is a further disastrous erosion of the ground for healthy human development.

The Emptiness of Digital Intimacy

Why should we be so concerned about our children and youth connecting with each other through digital devices? Even if it is not what they need, as long as they are getting what they truly need from the adults in their lives, shouldn't this be okay? Can't there be different kinds of attachment activity, with digital social connection being only one kind?

This line of reasoning seems logical enough—if only it were that way. The problem is that the technological attachment activity our children are engaging in acts like a persistent and pervasive weed that eventually takes over the garden, crowding out all the other plants that are rooted there. Worryingly, digitally mediated social connection interferes with what they truly need.

The whole purpose of attachment is to find release, to be able to rest from the urgent need to find attachment. Growth emanates from this place of rest. When rest can't be found, development is arrested. If attachment activity doesn't lead to fulfillment, it cannot forward maturation—the anxiety is too great, the vulnerability unbearable. For emotional growth children need to stay vulnerable, and to be able to stay vulnerable, they need to feel secure.

With fruitless pursuits and empty connections, the cravings only get worse and the preoccupations become more urgent and obsessive. When we eat empty food, the consumption of food increases. I believe this tells the story of social networking. Paradoxically, Facebook is not successful because it works so well but for exactly the opposite reason: it doesn't work. Attachment never comes to rest; the pursuit or proximity is never satiated. As physician and researcher Vincent Felitti has astutely said, "it is difficult to get enough of something that almost works." The attachment hunger of our web-hooked youth is insatiable and, therefore, addictive. In the brains of Internet addicts, researchers have found biochemical and white matter changes similar to those in the brains of people with substance dependencies to drugs or alcohol.[iii]

The root of the problem is that digital intimacy doesn't deliver. It is essentially empty of the elements required to bring it to fruition. Like a cookie that is devoid of the nurturing elements a body needs, it not only is empty food but spoils the appetite for the food the body does need.

I see six reasons why digital intimacy is empty.

1. In digital interaction the attachment invitation does not get across

The emptiness of digital intimacy is uniquely illustrated by one study comparing the physiological effects of live-voice connection to texting between girls and their

mothers.[iv] The girls were stressed out by a test and then were invited to make contact with their mothers, either by voice or by texting. Only the former promoted a decrease in these girls' stress hormones and generated comforting attachment hormones as well.

Why would digital connection be so empty or ineffective? It has to do with what we are all looking for—affirmation that we are invited to exist in the other's presence. This message is especially important in the face of failure or inadequacy. How is this message usually conveyed? Words are only a part of it and probably quite insufficient by themselves, especially in the truncated speech so typical of texting. We normally judge this invitation by the warmth in the other's voice, the smile we sense in their eyes. Once we have found what we are looking for, we can go back to face our world content in the knowledge that regardless of what happens, the invitation is secure. Alarm dissipates; adrenaline and cortisol diminish, our attachment circuits are bathed in the love hormone oxytocin. Digitally mediated connections, for the most part, cannot give us that fulfilling warmth of connection and thus cannot deliver. As we will clarify below, some forms of digital contact (e.g., Skype) can serve healthy attachments as well. It's a matter of who is using them and for what purpose. By and large, however, digital connections are an unfulfilling substitute for real attachments.

2. <u>The defenses required to engage in unprotected social interaction render such interaction unfulfilling</u>

Satiation is only possible when the invitation to exist in another's presence actually sinks in. Being emotionally fulfilled is essentially a vulnerable experience. The place from which we can feel fulfilled is exactly that place from which we can feel our wounds. So if there is any defense against the possibility of getting wounded, also lost is the ability to feel satiated.

This is the story of digital intimacy. It is essentially unprotected—unprotected because it lacks the safety of nurturing relationships with adults—and therefore evokes a vulnerability that is too much to bear. The brain has no option but to equip for wounding interaction.

When the objective is psychological intimacy—to be known and understood—the possibility of wounding is so great that everything should be done to make sure it is safe to proceed. Psychological closeness is similar to sexual intimacy in this regard. Even within a secure and committed relationship, most of us would not think of engaging in sexual interaction cold. We typically go through a process of collecting and testing, even if we are not aware of what we are doing. If we cannot get the invitation in the eyes, some smiles and some nods, we know intuitively it isn't safe to proceed. Even in everyday interaction, we will collect the eyes, some smiles and some nods before proceeding. This engages the attachment instincts of the other,

greatly increasing the likelihood that the other will be nice to us, take care of us, make things work for us, agree with us, take our side on things, keep our secrets, be good for us. To proceed without this warming ritual is to ask for trouble: rudeness, meanness, nastiness, wounding, shaming and, of course, bullying in all its forms and manifestations.

The basic problem is that digital intimacy is engaged in cold. It's a pseudo-intimacy. There is no attachment foreplay to prime interaction, no testing to make sure it is safe to proceed. This is happening every day with texting and email, never mind the self-presenting that is the fodder of social media.

When anonymity is added to this equation, there is little to contain the dark side of the attachment. Remember, most children are not nice by default unless they are too insecure to be otherwise. They generally become nice in the context of engaged attachment. The Internet is a place sorely lacking in attachment manners or the rules of human engagement. We should not be surprised by the nastiness that can result. It can make the halls of high school look tame in comparison.

How do our children adjust to such surroundings? Unconsciously, their brains equip them for a wounding environment by the usual defenses of emotional shutdown or detachment. The problem is with the cost: when we emotionally shut down or detach, we cannot be fulfilled at the same time. Our children's brains can't both protect them *and* still preserve their capacity for satiation. The end result is that no amount of connection is enough; there is no completion, no sublimation, no release. Our peer-oriented children have been taken hostage by their own digital pursuit of each other, imprisoned by their insatiable and unquenchable hunger. The more they seek, the less they find.

As we will see, such defenses against vulnerability may also give rise to pornography, cyber bullying and addiction to video games.

3. <u>Self-presentation works only one-on-one</u>

Facebook is all about presenting ourselves in the hope that those who matter to us will like what they see. It is the ultimate in efficiency in that only one presentation is required—we send out the same information to many people at the same time. Then it is up to the viewers to respond. It is this elegant efficiency that is the essence of the problem. Psychological intimacy doesn't work this way. It is like sexual intimacy in this regard.

Feeling known is only possible in the context of an intensely personal relationship. One doesn't feel known by displaying one's insides in a book, or in a lecture, or even on YouTube. Nor do the recipients of our self-presentation or self-disclosure feel the

least bit special for all our group-directed revelation. The partner in psychological intimacy, like in making love, must have the sense that they were specifically chosen and that the gift of our self was given specifically to them. Anything else cheapens the interaction. When presenting oneself, it only has meaning for both the recipient and the giver if it is personally intended. When taken out of the context of an intensely personal relationship and out of the process of deciding to reveal oneself to another, self-disclosure simply doesn't deliver.

For this reason, many of us who value genuine psychological intimacy cannot participate in Facebook. I for one would never want to read the postings of my adult children or come to know about them in that way. *I want to truly know them, not know about them*—there is a world of difference. To know them involves volitional self-disclosure on their part, made personally to their father. I would want and expect nothing less. Anything else would leave both of us feeling rather empty.

4. <u>There is no satisfaction when manipulation is involved</u>

For most children and youth, social media involves managing their image with the aim of making an impression and increasing their status among their peers. The result is what *Newsweek* writer Tony Dokoupil has called "the evaporation of the genuine self," citing the work of Sherry Turkle. "What I learned in high school," a teenager told Dr. Turkle, "was profiles, profiles, profiles; how to make a me."

We all want to be liked, of course. But the more we do to influence the verdict, the less fulfilling the verdict becomes. If we are successful in getting a good verdict, it is only what we did that was liked, or the impression we have created that is liked, not our true selves. So our insecurity grows and with it our obsession with image management. It is an ever-escalating cycle. Why would we ever want to visit this neurosis on our children?

They will get there sooner than later, but hopefully with some maturity, they will be able to resist the temptation of taking shortcuts to nowhere. Despite its promise and allure, image management is a game for losers in every sense of the term. The very nature of the pursuit disqualifies the outcome.

It is not surprising to find that youth who are most engaged with the Internet are also more prone to suffer from emotional problems. Dr. Larry Rosen, past chair and professor of psychology at California State University, Dominguez Hills, has found in his research that there is a strong "link between Internet use, instant messaging, emailing, chatting and depression among adolescents," and also "strong relationships between video gaming and depression."

Our children need their innocence for as long as we can give that to them. Social sophistication—presenting appearances while pretending not to care about the

outcome, what we may call the "coolness disease"—will deny our children the emotional nourishment required for maturation.

5. <u>There is no fulfillment unless the provision is greater than the pursuit</u>

As pointed out earlier, a key ingredient of nurturing attachment interactions is that the provision must be greater than the pursuit. Fulfillment is not about equality or reciprocation or about contact on demand. Unless the hug is met with a bigger hug, the "I love you" is responded to by something more, the desire for validation trumped, the interaction is incomplete and fruitless. This, however, is not the nature of peer-oriented interaction in general and the Internet or digital connectivity in particular, where the interactions tend to be equal, neutral, cool. That enthusiastic invitation to exist in one's presence is the domain of adults responsible for children. It is not the stuff of digital social connectivity.

6. <u>Digital intimacy spoils the appetite for what a child truly needs</u>

As stated previously, the emptiness of digital intimacy is deepened by the fact that it spoils the appetite for the kind of connection that actually would edify. By promoting peer orientation and addictive pursuits, it displaces healthy adult connections and thus denies children their essential need for fulfilling human interactions.

Mice whose reward circuits are continually electrically stimulated will die of starvation because they will not seek food. Stimulating our children's brains with digital technology will similarly divert them from what will truly nourish them.

This dynamic is behind the most negative and insidious effects of video games, pornography and digitally mediated social connection. These activities directly titillate the attachment-reward centers in our children's brains, rendering them uninterested in the kind of interaction that could lead to true fulfillment and satiation. Even the kind of self-presentation we are doing on Facebook fires these same attachment-reward circuits.[v] These attachment fixations spoil the appetite for the kind of interaction that could truly nurture and satiate.

It should come as no surprise that family time has dropped by a third in the last decade, even though it was consistent for decades before that,[vi] or that those who spend more time playing video games have less positive attitudes towards their parents.[vii] An Australian study found that Facebook users had significantly higher levels of not feeling close to their family. This study did not answer the question of what came first, but does indicate the competing nature of connection.[viii]

Most of us can feel that the screens are taking our children away from us. We don't need research to tell us this. What we do need to know is that through their screens they cannot receive what they truly need. We are still their best bet.

John Cacioppo, arguably the world's leading expert on loneliness, cites an experiment in his book *Loneliness* (2008) in which the effects of different kinds of contact are compared in their effectiveness to reduce loneliness. The results were unequivocal. Those with a greater frequency of online interactions were the loneliest of all. Those with a greater proportion of face-to-face interaction were the least lonely.

Sherry Turkle captures the emptiness of digital intimacy in her book *Alone Together*. The title tells the story. Although her understanding of attachment is more intuitive than informed, she certainly articulates the gist of the problem. *"These days, insecure in our relationships and anxious about intimacy, we look to technology for ways to be in relationships and protect ourselves from them at the same time."* She continues, *"The ties we form through the Internet are not, in the end, the ties that bind. But they are the ties that preoccupy."*

The incompleteness of the intimacy is what drives the obsessive pursuit. This relentless urgency is illustrated by the fact that nearly half of Facebook's 18- to 34-year-old users log on minutes after waking up, most even before getting up.[ix] It is not surprising then to find that digital intimacy can be more addictive than cigarettes or alcohol.[x]

So the ultimate irony is this: digital devices can indeed be the apparent solution to our basic human problem—how to be close when apart—but not sufficiently so as to release us from our relentless pursuit of closeness. For the peer oriented, connecting digitally has tragically become the only way to keep close to those who matter to them, the only way to connect without having to be vulnerable.

<u>Cyber bullying, gaming and pornography as attachment phenomena</u>

Video games may seem to be an innocent pursuit, but precisely because they provide a pseudo-satisfaction for unmet attachment needs, they can be extraordinarily addictive.

Being important, feeling like we matter, having a self-image of genuine mastery can only develop in nurturing relationships with people who care about us. They are the outcomes of healthy attachments. When these needs are not met, as they are not for peer-oriented children, we can compensate through fantasy and pretending. Unlike creative fantasy or, say, books, games are highly immersive with immediate rewards and a real addictive pull. We can became "masters of our fate" and "winners" in a virtual reality, which also becomes the place where we can act out some of our pent-up aggression, also a result of unsatisfied attachment drives.

As discussed in a previous chapter, bullying is another aberrant attachment phenomenon. Our alpha instincts, the urge to dominate in a relationship, should support taking charge in order to take care of the vulnerable. On the contrary, when the alpha person becomes defended against the vulnerability of caring and responsibility, he is moved to exploit and attack the vulnerable instead. I have called this particular perversion "alpha awry." Rather than being moved to cover up the exposed, to nurture the vulnerable, to defend the naïve, one is moved instead to expose and embarrass, to assert superiority through putting down. This is what we are seeing, particularly given the protection of anonymity the Internet offers to potential bullies.

Bullying, including sexual shaming and gay bashing, is unfortunately all too prevalent on social networking sites and in online communications.

We are seeing that most childhood interactions reflect attachment dynamics. Sex is also about closeness. Our sexuality is no more developed than our capacity for intimacy. When there are problems in the development of attachment, there are corresponding problems in our sexuality. Ideally, making love should be a response to an invitation for intimacy that is not only exclusive but also secure. Otherwise. the potential for wounding is too much to bear.

When attachment becomes prematurely sexualized, as it does with the peer oriented, the answer to our attachment needs can appear to us to be in the form of sexual interaction, even if fantasized.

Given the virtual playground where children are exposed—and often exposing themselves—we are now witnessing the joining together of bullying problems with immature sexuality. For the bully type the opportunity to exploit the vulnerable is too much to resist. Under such conditions a person is likely to relate sex with a desire to possess or to belong rather than with a deep emotional connection. Instead of the yearning for intimacy, the fantasies are more likely to be of dominance and exploitation. Little wonder cyber-sexual bullying is rampant among children and adolescents, to say nothing of immature adults drawn to the non-vulnerable seduction of pornography. People can now have intense sexual feelings without any vulnerability whatsoever. This can, of course, be true even without digital media, but the impersonality, immediacy and anonymity of the Internet fuels such dynamics all the more.

Having lost our children to the cyber world, we can no longer protect them from the wolves.

Chapter 20:

A MATTER OF TIMING

Is there something inherently evil about digital devices? Should we prevent our children from becoming involved? Certainly not, and we couldn't even if we tried. The digital revolution is irreversible. There is nothing inherently bad about these devices; the concerns are about their use, especially when in the hands of our children. When to introduce and when to discourage such use is the question.

It takes a long time for a society to adjust to major technological advances, creating the rituals and routines and restrictions that maximize its benefits and minimize its dangers. We haven't even caught up with ourselves with regards to movies and television, never mind the cell phone, the computer, Google and social networking. Given the damage already done, we don't have a long time to sort it out.

We have many precedents for dealing with things that are inevitable, even good, but with potentially damaging side effects for children. Take sex, for example. Sex is good, but not for children. It is an ultimate bonding experience that releases superglue chemicals in the brain, coupling us for procreation and the parenting responsibilities that come after. It is not to be played around with, especially by children. We need to control sexual activity until there is some developmental readiness.

Alcohol can be a celebratory social lubricant, part of ritual and feasting, but it is also not for children. It anesthetizes the alarm system that is meant to keep us out of trouble. Alcohol is everywhere, but as parents we attempt to control access to it until the child is mature enough to handle it.

Cookies are good. Like most desserts, they can be quite tantalizing. A child's world is full of sweets and cookies and desserts. For the most part, we do a fairly good job of controlling access. We don't prohibit desserts, despite their being relatively empty of nutrients. We control the timing. *After dinner* is the rule, at least until the child is mature enough to have formed healthy intentions and to control impulses. In other words, cookies are okay as long as a child is full of the good stuff. The less a child feels the need for a cookie, the less harmful the empty food is.

Timing is always the key issue in healthy development. For everything there is a season. The secret to handling potentially damaging experiences is not prohibition, which can be an exercise in futility and act as a potent trigger for counterwill.[2] The secret of reducing the damage is in the timing of things. *We want children to be*

[2] The dynamic of counterwill is explained in Chapter 6

fulfilled with what they truly need before they have access to that which would spoil their appetite for what they truly need.

For sex, the timing is certainly *not* before the capacity for relationship has fully developed, *not* before an exclusive relationship has formed in which emotional and psychological intimacy is experienced, and *not* before the capacity to make and keep commitments has developed. Premature sexual interaction, like premature access to cookies, spoils the appetite for the real thing: deep committed love.

For alcohol, the right time is *not* before one has developed the courage to face one's fears and *not* before one has accepted and can keep the rituals that regulate the intake. Alcohol reduces feelings of vulnerability and can easily be abused by using it for this purpose. The temptation would be overwhelming unless one has first come to embrace reality with its bumps and bruises, has come to accept feelings of emptiness and loss. The problem with alcohol taken prematurely is that it spoils the appetite for reality.

There are two key principles in handling these dangers, in exposing young people to potential seductions from the path to wholeness. Such exposure should *occur after one is full of what is needed* and *only when one is mature enough to handle the decisions involved.* We've been doing this dance with cookies and other sweets for thousands of years. But then, we've been around sweets for thousands of years. We don't have enough time to reinvent the wheel here. We have to apply what we've learned to the new challenges confronting us.

We need to manage our children's access to the digital world while we still can, in order to control the timing of things. We need to keep the tantalizing temptations out of the way, the sirens out of reach. We need to be enough of a buffer to the digital world to give space and time for the fulfilling interaction a child needs and for the child to become mature enough to handle decisions involving their interface with the world. We need to slow things down, delay things somewhat.

This consciousness is not out there in the parent or teacher community. According to a University of Southern California survey, 89% of today's parents don't see the amount of time their children spend on the Internet as problematic.

Jean-Jacques Rousseau said that one of most significant responsibilities of parents is to act as buffers between the child and society. If this was true in the 18th century, how much more is it true today. Today's parents have become agents of society, rather than buffers to society. Most parents assume that children need connection to their peers, need to be entertained to escape boredom and need immediate access to information. A full 10% of the parents interviewed were concerned that their children were not on the Internet enough.[xi] They were afraid their children would be left behind. Today's parents are more willing to entrust their children to a digitalized society than they are to the developmental design of Nature.

We seem to have lost sight of this buffer role. We are more likely to act as agents of society, putting temptation in our children's way. What would happen if we put the cookies all over the counter and took the alcohol out of the cupboard and removed the restrictions regarding sexual contact? Yet we put TVs in their bedrooms and cell phones in their pockets and give them unlimited access to personal digital devices. Few adults can handle their affair with the Internet, how do we expect our children to be able to handle it?

The Schurgin O'Keeffe report in 2010 (American Academy of Pediatrics) revealed that even families who struggle to put food on the table "*will get their kids a digital device because they want them to be part of society.*" "A large part of this generation's social and emotional development is occurring while on the Internet and on cell phones," Dr. Schurgin O'Keeffe has commented.[xii]

Parents are far too concerned that their children will be misfits if they are not plugged in. We should be far more concerned with our children realizing their potential as human beings.

The blindness around this digital technology is much like the blindness around the phenomenon of peer orientation. What is normal is judged by what is typical, not by what is natural or what is healthy. This blindness has also been exacerbated by our love affair with technology and the naïve assumption that what is good for adults must also be good for children.

So how does one get the message through? Many seem to suspect that if someone rains on the digital parade, he/she must either be a Luddite or a reactionary. Critics are often dismissed as alarmists. So how does one convince the parent and teacher community of the space a child needs in order to mature? Today's society is not going to do this for us. We are on our own. That is why we need a collective consciousness and a language with which we can talk to each other.

<u>There is a time and a season for digital social connection</u>

That *time* is after children are satiated by adult contact.

Once the child is full of the food that edifies, desserts are a relatively harmless pleasure. At that point we can afford to be more relaxed in our control. Likewise with attachment hunger. The worst thing we can do is send the child away from us hungry. Doing so only sets the stage for peer orientation and then for the pervasive use of digital devices that enable them to stay in touch with their peers.

We return to the necessity of having rituals and routines and activities where we can collect their eyes, their smiles and their nods, for no other purpose than to fill them up and help inoculate them against the attachment addictions that are plaguing their friends. They need this dose of fulfilling connection in the morning before leaving for school. They need this after school when they get home. They need this at family meals and special family times. They need this before going to bed. Our job is to get across our invitation to them to exist in our presence so that there is no need to look for it elsewhere. Best immunized against using digital devices for social connection is a well-satisfied and well-satiated child.

The *season* for digital connection arrives when a child is sufficiently developed and mature to preserve her or his own personhood. When this is to occur cannot be formulaically prescribed but depends on the parents' best intuitive knowledge of their child.

The deeper we can cultivate the relationship with our children, the more they can hold on to us when physically not with us. There is no need for digital connectivity when they are able to hold on in deeper ways. It renders social networking largely redundant. We can reduce the necessity for digital connection by cultivating the natural solution to this problem of holding on while apart. Nature, we will recall, already has answers for how to preserve closeness when apart. As pointed out earlier, these are: being like, belonging to, being on the same side as, being dear to, mattering to, being attached at the heart, and finally feeling known by. However, these natural attachment modalities take time as well as the right conditions to develop. We must be patient for this to happen. Once a child can hold on to us when not in our presence, there is little to be concerned about.

The same is true for our children with their friends. Once they are more fully developed in their capacity for relationship, they will also tend to self-select for friends at the same level of intimacy. Children who can attach at the heart will be more attracted to friends who reciprocate. Children who want to be known will tend to select for friends that have also developed this capacity for intimacy. When children have deeper attachments with each other, they can hold on to each other when apart. This makes social networking less enticing and addictive.

This association between the capacity for intimacy and Facebook usage was captured by a study conducted by the Universities of Buffalo and Georgia. The basic finding was that the deeper people's emotional connections, the less time they spent on Facebook. This makes perfect sense when you understand the underlying function of social networking. Not only would the more superficial connections be unnecessary but also less appealing. The more well developed a child, the more immunized against the cravings for digital connection. So, by far, the best prevention for an obsessive preoccupation with digital intimacy is healthy relational development. There is a season for digital connection but mainly later and mostly after Nature is able to have its way with our children. Our job is to be a midwife to

this process, making it as easy as we can for our children to fall into attachment with us.

The ultimate resolution to being preoccupied with attachment is not to depend so much on attachments in order to function. The only way to get there is through becoming viable as a separate being. This is the ultimate yearning of development, but again requires a great deal of time and conditions that are favorable. The more individuated the child, the more emotionally self-reliant, the less in need he/she is of the digital solutions invented by a society that is coming undone.

There is no shortcut to individuation. Personhood must be grown. Those adolescents who want to be themselves and can truly hold on to themselves when in the company of their peers do not need social networking to function. The less a child needs social networking, the less likely he/she will be damaged by it. But to get adolescents to this place in development, we first need to hold on to them. To emphasize a point we made earlier: to promote independence, we must invite dependence.

Suggestions for controlling digital access in the meantime

To create the space for nurturing interaction to take place and to buy time to get to the season where children no longer feel such a need for digitally mediated connection, we must attempt to keep temptation out of their way.

It is best to start early with this if you can. As with watching television, which for my own children was limited to half an hour a day, so should we be building in the structures and rituals to keep digital access under control. I don't know that there are any easy answers.

It seems that every parent has to find his/her way through at this point. We as parents have much room for improvement, however, even regarding television. Statistics suggest we are not doing very well. In 64% of homes, the TV is on during meals. In 45% of homes, the TV is on most of the time. Seventy-one percent of children report they have a TV in their bedroom and 50% have a video-game player. Only 28–30% of kids indicate that their parents have rules on TV watching and video-game use. Only 30% of parents limit kids' computer time. [xiii]

But once again, the best timing for allowing digitally mediated connection is after times of warm fulfilling connection. One shouldn't simply restrict without truly answering the underlying need. To protect these times of fulfilling connection, we need to create digital-free zones in our homes and in our schedules. Mealtimes and family times and evenings and bedtimes are the most important to keep free of digital activities, both to create the space to provide the connection our children really need and to slow down the obsession.

When working with older children, it is important to bring them onside with good intentions to honor the limits and structures we have created and believe are best for them. (Recall, we discuss evoking a child's intentions in a previous chapter.) Because of the nature of the Internet and the degree of access possessed by most children, we do require their cooperation in these matters. Attempts to bring them onside should be done when the parent-child relationship is best and the influence is greatest, not in the middle of frustration and trouble. If the parent effectively evokes the child's good intentions, then the problem is not that serious, at least not yet.

If the good intentions cannot be solicited, it indicates a deeper relationship problem between the child and the parent that must first be addressed. If the child can't make good his/her intentions, or is sneaky about the issue, then the problem lies deeper. We shouldn't be too surprised. This kind of attachment addiction can be as powerful as those to cigarettes or alcohol. What it does tell us is that the child is out of control and needs our help, not more yelling.

When a child is out of control, adding coercion and consequences won't help. These measures will simply drive the problem deeper, adding layers of counterwill and frustration to the dynamics. We cannot control a child who cannot control him- or herself. This problem must be dealt with like any addictive or compulsive behaviors: arranging competing activities, finding connecting activities to substitute and controlling digital access indirectly where possible. These measures are only to buy some time and allow us to get our foot in the door of the relationship. It is our children's attachment to us that needs to be warmed up and nurtured. Only as we fulfill their attachment hunger can their cravings for digital connection reduce.

When battling addictive attachment behavior one must not get caught in a battle against symptoms, but rather retreat to address the root problem. As always, the first consideration is the relationship: tactics and methods follow from that. We will say more on this below

<u>When Should Video Games Be Introduced to Children?</u>

Despite arguments that video games can lead to improvements in specific cognitive-motor skills, there is no evidence that these isolated improvements are unique to video games or would not happen anyway as a result of normal development. More significantly, there is absolutely no evidence of increased brainpower or brain maturation or psychological maturation. There are, however, plenty of concerns regarding the physiological side effects and developmental liabilities of spending time in front of screens. New evidence is coming in almost monthly of the adverse effects on such things as sleep cycles, eyesight development, physical development and so on.

As we have stated, video games represent an attachment activity. The reward centers involved in gaming are precisely those that are designed to lead children into relationship. It has traditionally been up to culture to build the attachment infrastructure. The gaming culture, however, has not evolved with parenting in mind. So, video games are, by default, a competing attachment activity. Children fail to pursue proximity with their family when playing video games and, worse, the very activity itself spoils the desire for family connection.

Games have always been important for development. But it is certain kinds of games that are pivotal: games that exercise the body, games that lead to a mastery of life skills, games that link the generations, games that promote cooperation. One is hard-pressed to make the case that most of today's video games would serve these functions.

One important function of games is to help children develop resilience regarding the experiences of losing, loss and lack. Life is full of suffering, and games give children a chance to adapt to these experiences one step removed. Whether it is losing in a game of cards, losing in a word game, losing in a soccer match, losing in bowling, it is all preparation for dealing with loss and lack in the life and in relationships.

But don't video games count as play and don't children need to play? Children definitely need to play. Evidence is mounting continually about the pivotal role of play in healthy development. Not only do all young mammals play, but it is critical that they do so. Developmentalists now believe that play is the primary motor of brain development, that play constitutes the growing edges of the maturational process. It is in play that a sense of agency first emerges; it is in play that inner dissonance is first encountered; it is in play that adaptation is first primed. So yes, play is absolutely vital for healthy development.

Herein lies the problem. Video games, despite their name and the fact that they are played, do not count in our brains as play. What renders an activity play is not its capacity to be outcome based. In true play, the fun is *in* the activity, not the end result. True play is for play's sake, not for winning or scoring. Some video games count, but not many. Myst, which immerses the participant in an enchanted quest without seeking to defeat someone else, is probably a good example of a video game that would count as true play.

Video games take the place of the kind of play that should be happening in a child's life. The most important kind of play from a developmental perspective is emergent play—when the child's true, creative, curious and confident self emerges. This is a wonderful venturing-forth kind of play that only happens in the wake of fulfilling attachment activity. Children, including youth, need lots of emergent play and thus lots of times of satiating attachment activity.

Given the impact of video games, the best time for this activity is after a child has had the kind of play that is good for him or her. As far as games and play are

concerned, video games should never be the main course. If it is, the child is in trouble. The less a child is driven to play video games, the less concern we need to have about her mental balance and development.

There is a place for escaping from reality but only if the escape prepares us to embrace reality upon our return. Many children engage in video games before they have come to prefer to be themselves or welcome reality as the ideal state of being. In times preceding movies and the digital revolution, imagination was all children needed to escape reality from time to time. The brain could easily tell the difference between what was real and what wasn't. That boundary has blurred thanks to the digital revolution; now anything can be made to look and feel real. Commercial enterprises do the imagining for a child. There is no need to return to reality, at least not for long, because the next escape is only a click away. It appears that our need to escape reality is in direct proportion to our failure to adapt to real life.

Until a child is mature enough to prefer being him- or herself, until he or she is prepared to embrace reality and is able to exercise self-control, we are best not to indulge a child's requests to lose themselves in video games and digital entertainment. Reality must always be the main course and the futility of escaping reality the main lesson. A child should be able to cry over the futility of attempting to bend reality to his or her expectations. Once that futility has sunk in, escaping reality from time to time is great fun and quite harmless.

But what, some parents ask, about the teasing or ostracizing that may ensue from peers if, contrary to the norm, a child is not permitted video games or Internet access? This may, indeed, be uncomfortable for a child. We reiterate, though, that there are worse things than being taunted by immature peers. A child well connected to adults can endure such teasing without harm because he or she has the emotional security not to depend on the opinion of peers. The long-term goal of healthy development must always trump the short-term sting of peer disapproval.

<u>There is a time and a season for granting uncontrolled access to online information</u>

There is a deep and disturbing paradox to the information age. Humans, and most certainly children, were not designed to handle the amount of information they were being subjected to, even before the digital revolution. The only way our brains can process information in the first place is by tuning out 95–98% of the sensory input. The human problem is not that we don't have enough information, but rather that we have much more information than we can possibly make use of. The ultimate and paradoxical effect of increasing access to information is to evoke further defenses against it.

I do not believe it is mere accident that the epidemic of attention problems plaguing our children today parallels the barrage of information they are being subjected to. Our attentional mechanisms, especially when immature, are simply not built to

handle this amount of information overload. Such overload is well known to cause concentration problems, memory problems, retrieval problems and distraction problems. Attentional systems cannot develop properly while dealing with a constant onslaught of incoming information. Studies show that we need downtime, time away from stimulation, to integrate the information we receive. Constant exposure to media diminishes rather than enhances our capacity to absorb information.

Another way of looking at this is that one must not ingest more than one can digest. This is a cardinal rule for all infants when it comes to food. As the ability to digest food develops, we can ease off our control. Even as an adult, however, I can feel the toxicity that results when I take in more than my system can comfortably absorb. The same principle is true of information. If children ingest more information than they can digest, their attentional mechanisms become stressed and as a result fail to develop properly. Symptoms of stressed and immature attentional systems include problems with focus, memory, retrieval and distraction. Most of us suffer from this kind of attentional dysfunction when the information is more than we can process. These days, I find myself yearning for a state in which I am not subjected to more information than I can digest. Ironically, when we can't process and utilize information, it is not more information we need but less.

A great deal of developmental readiness needs to be in place in order to benefit from the information received. Childhood is the time when that readiness needs to develop. Even if it is *our* age of information as adults, it must not be *their* age of information as children. There are no shortcuts to getting ready to take in the world and there is a heavy price to pay for being too much in a hurry. Childhood should be primarily about coming out as a child, not about taking in. The inflow of information is interfering with the outflow of emergent ideas that was meant to happen first. First curiosity, a willingness to learn and to receive, *then* information.

One of the most significant signs of a lack of emergent outflow in a child is the experience of boredom. The very word "boredom" connotes a hole. When there is a lack of emergent outflow in the child's system—that is, a lack of interest, curiosity, initiative and aspirations—the resulting hole is experienced as boredom. Ironically, most people consider the solution to boredom to be more stimulation. This only exacerbates the underlying problem and the vicious cycle escalates. In an age of unprecedented information and entertainment, there are signs and indications that boredom is increasing among our children. Boredom is the sign of a child being empty of the emergent internal processes and content required to take in the world.

So the best time for children to take in their world is *after* they have become full of their own ideas, thoughts, meanings and contemplations. This honors the natural developmental order of things: outflow before inflow.

The challenge of preserving our role as the providers of information

There is an aspect of the information age that is most troubling for parenthood and childhood. It has always been the responsibility of adults to inform their children. It is not only the content of the information that is important, but the context and the timing and the framing.

To give children answers before questions have formed is to harden them against the beneficial power of the information. To inform them about their existential insecurity—that is, that they could die or that mommy or daddy could die—before they have a sense that such relationships are forever is downright cruel. To provide information about sexuality prematurely is to harm their development. Information has always been one of the primary tools for raising our children. We tell our children what they need to know and only as much as they need to know, *when* they need to know it and *when* we are convinced that they are ready to handle it. One could make the argument that much of our parenting and teaching involves keeping secrets until we decide that knowing is better than not knowing. Making decisions about what and when and how a child comes to know about something has always been our prerogative as parents and teachers. Until now, that is.

The information age has changed all that. We no longer get to make those crucial decisions regarding context and content and timing. And if we do decide to skew the truth for the child's own good, we can be proven wrong in a few seconds. What are the implications for parenting, for teaching, for childhood?

Part of our alpha role as provider is also to give information when and where it is needed. Our children often come to know more than we do about many things, can find the information quicker than we can about most things and no longer see us as a source of the information they need. This can greatly threaten our role as Compass Point in their lives. And if they are not using us as a Compass Point, they are also not using us for guidance and direction, to get their bearings, to form their values, to discern right from wrong. If we no longer serve as their Compass Point, they lose much of what we are to provide as the adults responsible for them. Healthy development is endangered. Neil Postman argues that childhood itself is endangered when adults no longer have any secrets from children.

It is in this vein that Postman stated: *"If parents wish to preserve childhood for their own children, they must conceive of parenting as an act of rebellion against culture*." Once again, parents must become the buffer to society, not the agent of society. The degree that we can do this regarding our children's access to information, this would be good. But even if we can't, all is not lost.

We may not be able to compete with Google as conveyors of information, but fortunately, we do not need to. What our children most need to be informed about is not their world but themselves. They need to see their value and significance reflected in our eyes, exuded through our voice and expressed through our gestures.

Google cannot provide that. What they need most, and what the Internet cannot give them, is information regarding their invitation to exist in our presence. That is why we must hold on to our children.

Peer-oriented children will look to their peers for this information, to which they now have instant access through texting and through social media. I do believe we can survive this hit to our role as providers. If we cannot compete in *giving* them the answers, we must dig deep to *become* our children's answers. Despite their universal and immediate access to information, there is still information that should only come from us.

There are other ways we can compensate for the fact that we are losing our role as the provider of information. In times past, this role was a primary source of dependence. We need to find other arenas in which we can invite our children to depend upon us. Many of us have skills and hobbies that our children could indeed benefit from. Part of the alpha-dependent dance is to pass on these activities. Too many of us are outsourcing the teaching of these skills to others: riding a bicycle, flying a kite, woodworking, knitting, swimming, throwing a ball. We send our children to community centers, day camps and summer camps to learn these skills. We should be rather possessive of these opportunities to invite dependence upon us. Far more important than the skills that need mastering is the relationship that develops through such interactions. Given that we no longer are the natural providers of information and the keepers of secrets, we can ill afford to lose much more.

Winning back the "lost" child

Many of us despair of overcoming the competition for our children's attention posed by digital devices and the Internet. This, often, is a serious and nearly intractable challenge for the parents of peer-oriented youth.

There really is no way out but through. We must confront the problem at the core, and we must do so patiently, diligently and confidently. As stated earlier, we may need to win our children back first. We are not able to nurture them unless they are feeding at our table. If our children's world has become their peers, then texting will be their preoccupation and Facebook will be where they live. It may be too late to address these digital connection issues, but it is never too late to address the underlying peer orientation that drives it. This is a relationship matter and any headway in this arena will reduce the corresponding drive for social connection. Remember that there would be no Facebook if it not for peer orientation, so that must be addressed first.

Once again, if the child shows obsessiveness or sneakiness, it is imperative to back off trying to control him or her. Such signs demonstrate that the entertainment or video games or digital connections are serving a function in a child's life that they

should not be. Such a child needs our help, not more distressing interaction. We should not overtly challenge a child already addicted by trying to control the behavior.

There is no solution for the digital threat outside our relationship with our kids—attempts to control, prohibit or deprive access will all fail in the absence of what we have called "relationship power." Better to bite our tongue, accept our sadness, and recognize and acknowledge the futility of coercive approaches that would only further embitter the parent-child relationship. That is hard to do when our own frustration and worry would drive us to intervene more forcefully—and when so many so-called authorities call for authoritarianism. There is no substitute in such cases for the patient, loving approach we have recommended.

[editorial break]

Marshall McLuhan suggested that technological innovations should be understood, not in terms of their content, but in terms of how they change society. When we create a new technology, we are changing ourselves in fundamental ways. And for every extension there is always a corresponding amputation.

Digital devices have extended our children's reach to each other, but what is being amputated is their vital connection to us. While technology has extended our reach, it has disrupted our roots.

The social connectivity among our youth is nearly ubiquitous, with more than three-quarters of our high school and college students connecting to each other through their preferred social network via their cell phone. This is the glue that holds them together, but it is also the wedge coming between them and those whose loving connection could relieve their attachment hunger and foster their maturation.

Many of us have experienced the disruptions in family connection as our sons and daughters (and even our spouses) reach for their cell phones when together with us, or hurry through their meals or special family times to get back to their texting and emailing and social networking, for fear of falling through the attachment cracks. It is not enough to be with each other anymore for connection to happen. In former times, we at least used to get our children back after school or after day care, when their peers were no longer accessible or available. We had a chance to make them our own again, to restore the connection by which we could parent. Thanks to technology, peers are now omnipresent in our children's lives.

Our challenge, more than ever, is to hold on to our children. If we can hold on to them, we can make them immune to the dark side of the digital revolution. We must give them a chance to mature so that they can become the masters of these new tools, not their slaves.

ENDNOTES, CHAPTER 19

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[i] The facts and figures in this chapter and the next come primarily from the University of Southern California Centre for the Digital Future and the Kaiser Family Foundation. Other sources include Nielson Surveys, Media Use Statistics and the social media entry of Wikipedia.

[ii] Gwenn Schurgin O'Keeffe, MD et al., The Impact of Social Media on Children, Adolescents, and Families, *Pediatrics* 2011; 127:4 800-804

[iii] Fuchu Lin et al. Abnormal White Matter Integrity in Adolescents with Internet Addiction Disorder: A Tract-Based Spatial Statistics Study (2012) www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0030253

[Haifeng Hou et al. Reduced Striatal Dopamine Transporters in People with Internet Addiction Disorder, www.hindawi.com/journals/jbb/2012/85452

[iv] This intriguing study was conducted in 2011 by Leslie Seltzer of the University of Wisconsin and published in the *Journal of Evolution and Human Behaviour*

[v] This was the finding of a 2012 Harvard study conducted by Diana Tamir.

[vi] This is the conclusion of the University of Southern California Centre for the Digital Future after collecting data from more than 30 countries over decades. They also concluded that there is a significant negative correlation between network use and family closeness.

[vii] This was the finding of Linda Jackson in a Michigan State University study in 2011 involving more than 500 middle school students.

[viii] Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. Computers in Human Behaviour, Volume 27, Issue 5, September 2011, Pages 1658-1644

Authors: Tracii Ryan and Sophia Xenos of RMIT University in Melbourne, Australia

The sample consisted of 1324 self-selected Australian Internet users (1158 Facebook users and 166 Facebook nonusers), between the ages of 18 and 44.

According to the authors, Facebook users had significantly higher levels of family loneliness that Facebook nonusers.

[ix] These figures come from an article by Stepehn Marche, "Is Facebook Making Us Lonely," which appeared in the May 2012 issue of *The Atlantic*.

[x] This was the finding of a 2012 study by Wilhelm Hofmann of Chicago University's Booth Business School with subjects in Wurzburg, Germany.

ENDNOTES, CHAPTER 20

[xi] These figures are from a Donald Shifrin study conducted in 2010 for the American Academy of Pediatrics. Dr. Shifrin is a pediatrician in Washington State.

[xii] www.modernmedicine.com/modernmedicine/Modern+Medicine+Now/New-Report-Issued-on-Impact-of-Teen-Social-Media-U/ArticleNewsFeed/Article/detail/713718?contextCategoryId=40145&ref=25

[xiii] These findings are based on a survey by the Kaiser Family Foundation of more than two thousand American children aged 8–18, conducted between October 2008 and May 2009.