

**Chapter Ten — We Need The Internet, Arts, Sciences, And**  
**New Technology To Support Our Growth Agenda For**  
**Children**

We live in a highly connected world. People text one another and engage in social networking communities with one another in very high numbers and high volumes every day. People use the Internet for research, learning, connections, and commerce in ways that expand almost daily.

People use the Internet to learn things, support activities, make decisions, and make various kinds of purchases.

We need to use that set of linkages and connections in a variety of ways to help with the approaches and processes that support strengthening brains of children in those key years.

We need to use several Internet tools to support the learning process for kids directly and we need to use those tools at multiple levels to help parents and other caregivers in their child raising and child support activities.

At a base level, we need to explain the core science of early brain development biological realities in easily accessible ways through the Internet for use by any people who are concerned about the intellectual

underpinnings for our early childhood child support activities and approaches.

The Internet is a great tool for communicating science. We need to use that tool to communicate this body of science to everyone who can make use of that learning.

There are actually a number of excellent Internet sites now that explain those issues. We need to do a better job of sharing those sites and those learning resources with more relevant people.

Legislators, community leaders, policy makers, parents, families, and various kinds of caregivers for children can all benefit from having easy to access descriptions of the best and most useful science about those issues.

Parents, in particular, need that core scientific information about why we need to help each child with the right interactions in those early years of life in order to be most effective in those interactions with their own child.

The Internet can explain why parents need to interact with each child and can also teach parents exactly what is possible to do for their child to strengthen their child's brain. Research data is good and direct coaching about the most effective parenting approaches can be even better.

The Internet is a good tool to use to get that set of “how to” information to parents and to all other people who care for our children in those key years. The Internet can also be a useful tool to connect parents with other parents for purposes of mutual teaching and mutual support.

### **We Need The Internet To Describe What Parents Can Do**

The pure and basic science is good to know. The Internet can help people get access to the great research being done at Harvard, Davis, Stanford, Yale, the University of Washington, the University of Minnesota, and a number of other relevant research settings.

Each of those academic research based settings has information available on the Internet that describes their work and communicates their research findings.

Organizations like The Urban Child Institute, The Million Words Institute, and the First Three Years Institute also each have their own Internet supported teaching tools, reports, and graphic illustrations that help explain key science and key issues relating to those first key years of development for each child.

### **The Internet Can Help Parents Know How To Interact With Their Child**

Parents can learn parenting skills on the Internet as well. Both written materials on the Internet and YouTube types of videos can help parents figure out good, effective, pleasant, and fun things to do with their child that strengthen their brains.

Various kinds of interactive sites for parents — and social media connectivity approaches for parents — can also make use of that tool kit in ways that help parents and other caregivers.

A highly useful use of the Internet that is even more beneficial than teaching that basic science to people is having the Internet explain in accessible formats and in clear and functional terms to new parents exactly what can be done by each parent to help their children grow and thrive.

Videos that show parents how other parents interact with their own child can be particularly useful.

It can also be extremely useful for parents who want to know how to interact with their children to see through various videos what other parents in settings like their own have done to help their own children.

Videos showing parents talking, reading, singing, and playing with their children can serve as teaching tools and as role models for new parents. The Internet can be a highly useful tool for communicating about those

approaches and practices to parents and families of young children because videos can be a very effective way of demonstrating effective approaches rather than simply describing effective approaches.

## **We Need To Connect Parents With Parents Through The Internet**

Many parents have figured out fun, useful, and effective ways to help their children grow their brain strength. The Internet gives us a great tool to use to help share that learning by parents about parents to parents and directly with parents.

We learn by example. We can learn a lot by seeing good examples in action and by seeing and hearing how those behavior examples directly worked for real children.

We need to do a better job of making that kind of information available to parents on the Internet. Watching a father ask fun questions to a 2-year-old child can give other fathers of 2-year-old children ideas and suggestions about those kinds of interactions far more effectively than having the new father reading about those interactions.

We need to create interaction tools and sites that let parents communicate directly with each other as well. A number of community-

based parenting groups have created internal dialogues and communications between parents that are reinforcing and educational for the parents.

We need smart people to expand the use of those kinds of tools, and we need to create a culture and robust set of learning and teaching interactions through use of those tools. We need to teach ourselves collaboratively how to be better parents and we need to use the Internet more effectively as a tool to do that work and facilitate that sharing.

### **We Need The Science And The Practice**

This is the right time for us to make both the science and the practice of helping develop children's brains easily available and accessible on the Internet.

YouTube videos can help that entire learning process for parents significantly. Having good YouTube videos that show other parents interacting with their children in ways that cause their children to both have fun and to grow more intelligent can be extremely useful to parents who are motivated to provide that support for their child, but who are trying to figure out specifically what to do with their own child and exactly when to do what is needed with their own child.

### **We Learn By Watching And We Learn By Doing**

We learn by example and we learn by doing. Watching and doing are two of those most effective learning tools we have for major areas of our lives. Direct interactions with other parents can be a key part of the process. Videos that show best practices can also be very useful. Seeing how other parents do those growth-provoking interactions with their children in effective ways that are pleasant for both parents and children can be a golden way for parents to learn.

Then — after watching those examples — actually doing those kinds of interactions with a child creates a set of experiences that each parent can build on to figure out the very best and most pleasant ways of interacting with their own child.

We don't need perfection.

There isn't one right way to do those interactions. There is no perfect approach. There are many very good approaches that all work. There are a number of effective patterns and useful approaches that can be effective as brain exercise and as fun activities for both parents and children.

The Internet can help tee up and teach those approaches and can make lives better for the children whose parents learn those skills.

### **We Need Parental Chat Rooms And Interactive Dialogues**

We need a rich and robust set of Internet support tools to have the best shared learning experience between parents. As part of that experience, we need parental chat rooms, interactive parental dialogues, and we need expert question and answer sessions from parents and other aspects on those topics available on the Internet.

Once people understand the importance of those interactions with their children, we need to use the Internet to help parents figure out fun and effective ways to interact with their own child.

We need education experts in various settings and from various groups to produce their own Internet tools and we need parental interactions — with “other parents like me” — to also be part of the learning tool kit.

We need all parents to understand those issues and we need all parents to know how to provide that direct interaction support to their own child. The Internet can be invaluable in that process.

We need to do a much better job of using that tool for those purposes. This is a call to action to people who have that skill set to create those kinds of tools and interactions.

Each community group should have its own group leaders on the Internet preaching and teaching the value of those early interactions. Each



group who wants to help their own children do well can benefit as a group from having its own cultural specific and culturally aligned examples and teaching tools that are available through Internet links and various texting and social media connections.

### **We Need News Media To Understand Those Issues**

To fully achieve a national culture and regional cultures of continuous learning for all of us from birth on, we also need our news media to understand and work with those issues.

Some media outlets have done great and useful stories and articles about those issues. Scientific American, National Geographic, Newsweek, and The New York Times have all done very useful and informative pieces on brain development in our youngest children. Multiple other media outlets have done good pieces on those sets of issues and opportunities as well.

But the truth is that far too many other media outlets have almost no sense that those are key issues for our children today. Even the media outlets that have done great pieces on those issues tend to drop the topic after those substantive pieces run their course and become old news.

To help every child in each setting and to create a culture of continuous learning for settings across America, we need constant media

support and attention to those issues. We need our media to do stories that celebrate successes and describe best practices in early child development.

We also need media stories that expose failures, risks, setbacks, and shortcomings when we fall short of helping our children in any setting with those key areas.

Our news media can come up with major communication approaches and with reporting focus topic lists that are based on those activities and those outcomes.

## **We Need A Culture That Celebrates Continuous Learning —**

### **From Birth On**

We need our arts, movies, and TV shows to also have those messages about that time of early childhood development embedded in them at the points where those messages make sense. That is actually beginning to happen in some scripts.

Having mothers in movies or in TV shows describing clearly the relevant child development science to someone else in the TV show or movie to explain why the mother in the show did something specific with their own child that was relevant to the plot of the movie or the TV show can be a good and long remembered teaching tool for us all.

Even rap songs could, in some cases, have some of those points about creating strong brains in children embedded in them. The best rappers, themselves, clearly had someone in their own lives who gave that gift of personal brain exercise to them in those key first three years.

Each of those rappers must have had someone in their own first years of life who was interacting directly with them at that point in time or those rappers would not have the dexterity of language needed now to rap.

### **A Debt Is Owed By Each Rapper To Whoever Stimulated**

#### **Their Brain**

A debt is owed by each rapper to whoever created that particular neuron linkage tool kit for each rapper in that key point in their life. There are probably ways that those factoids and insights could be relevant to a future rap — even if it is as indirect as a male rapper wanting to have children with a mother who will give his kids the right kinds of brain growth that will cause those kids to be able to succeed and to be winners going down whatever life paths they choose to follow.

If our various artists include points about those issues in their art — then that inclusion can be part of our education process about those issues for everyone.

## **Our Artists Should At Least Build Strong Brains In Their Own Children**

If our artists don't go down that path of adding that wisdom and those insights to their art, our artists should at least be sure that as they raise their own children that those opportunities for early neuron connectivity exist for their own children.

It's pretty clear from looking at the families of talented people that some of the talented people have interacted well and effectively with their children in ways that helped their children in those early years become talented as well — and it is also highly likely that some talented people did not do what needed to be done to help neurons connect and grow strong in their own children's brains in those first key years.

Some families have multiple generations of obvious talent and some families fall short and have next generations who do not have the abilities and the capabilities of their parents.

Each child is on his or her own path — and each path has its own internal consequences. Each talented person who has children can have a major impact on the life paths for each child.

## **We Can't Guarantee Perfection — But We Can Build**

### **Imperfection**

We can't guarantee perfection for children in those processes, but we can guarantee various levels of imperfection by having children whose connectivity needs are absolutely not met in that key time frame for biological brain growth.

We can absolutely guarantee that problems and significant challenges will happen for children by having children whose toxic stress neurochemicals are activated in damaging ways by the way they are raised in those early years.

Those children with that toxic stress syndrome need our help and those children with that set of problems and issues will probably need our help for their entire lives.

That is a tragedy — and that might inspire some level of artistic response because art often focuses on tragic occurrences.

### **We Need Electronic Tools That Support Needed Interactions**

It could be a very good thing for us to actually have an electronic tool kit of some kind that could help us help each child in those key early years.

One of the biggest opportunities that we face today relative to those issues and to the basic early childhood connectivity agendas and strategies is to somehow figure out ways of creating the needed levels of neuron connectivity for our children in ways that are electronically supported.

Having some kinds of electronic tools to help us do that work of early brains development could be a major asset and benefit for the process.

Screens alone do not make brains grow.

### **TV Alone Does Not Strengthen Brains**

We know from research that simply watching TV does not make the brain grow. Scans placed on infant brains show that watching TV can entertain a child, but it doesn't trigger the brain functions that create links and growth in an infant brain.

We know from good research that children can lose ground on their early learning status by watching too much TV. TV does not build the right learning process tool kit in the brain of a child.<sup>73,74</sup>

We know from good research that it takes a direct and personal interaction for the child with another person to make that part of the brain grow in a child.

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<sup>73,74</sup>

There is a kind of an imprinting process that happens for our children that is only triggered by direct interaction with a person.

Baby kittens learn future cat behaviors by watching and interacting with mother cats. Baby kittens usually do not learn their future behaviors by watching ducks or butterflies. Kittens are programmed to study and emulate cats.

Similarly, the parts of infant brains that light up electronically when growth is happening only light up when an infant or child is actually interacting with another person. That person is usually, in the life of children, the child's mother — but other adults can and do fill that need and other adults can also trigger that growth function in children.

We also know that television, alone, does not trigger any brain growth in those early years. Some studies show an actual loss of vocabulary in very young children who only get their visual input from television.

In later years — after the brain connections are safely in place for each child — then watching the right television shows can trigger great growth in knowledge and can create real insight for a child. In those first key years, however, television, alone, adds no value to the physical growth of the

brain. That strengthening process that we need for each child's brain only happens when children directly interact with an adult.

### **We Don't Know Yet If A Combination Approach Adds Value**

We now know that particular piece of science about the need for direct interaction with an adult. What we don't know yet is if a new set of interactive electronic tools — some kind of iPad-like tools and new generations of interactive cell phones — can also trigger brain growth if their use with each child is linked in some way to the child also interacting with another real person at that same time.

We need that research to be done. Some people are working on those issues. The questions are extremely important.

Can the needed brain growth that happens in a child's brain when mothers read to a child from a book also happen when a mother reads to a child from an iPad? Can the needed growth in a child's brain happen when a child interacts directly with an iPad while the child is also being held by the mother or held by another trusted adult?

Can we use electronic devices to help parents read books to their children — and could that be particularly helpful in some cases where the parents, themselves, do not read or do not read well?



Initial research appears to show that reading to a child from an iPad that is directly simulating the functions of a book does seem to help the child improve their reading skills — but if the reading is non-linear and if it involves making jumps from the words on the screen to other topics, those jumps seem to weaken the brain development a bit for the child at that point relative to both reading skills and linear thought.

In other words, it appears that when the iPad simply emulates a book, the tool seems to work well and functions much like a book. But if the iPad content has non-linear linkages, then the linear thinking skills in a child are not built as well as they are built by a more linear, pure, and traditional book reading process.

## **We Need Major Research Into The Impact Of Interactive Electronic Tools**

This is an area where we need more research soon and we need to link that research quickly to helping our children in a very direct way.

We see major levels of use of those devices now by very small children. We need to be sure that those uses of those devices are building needed brain cells and not just entertaining small children or even causing those children to lose linear thinking skills.

In a best-case situation, if the right tools are built and if those new tools are both affordable and accessible, and if those tools are used by the children in ways that help brains grow, then that new interactive tool kit may have an extremely good set of consequences for children.

In worst case situations, if the children are isolated, insulated, and merely passively entertained by an electronic tool — but are not directly stimulated in ways that strengthen neuron connectivity — then the children whose brains develop under the impact of those more problematic tools could end up with new kinds of dysfunctional problems and might even have a whole new set of negative syndromes that we don't even suspect or have names for today.

Using electronic screens purely as a book read by a parent to a child apparently does not seem to raise those concerns at this point. Books work well to exercise the brain of a child. Electronic books also can exercise a child's brain.

Now we need to figure out what other ways we can use to engage the entire electronic tool kit as support for our children.

## **Improving Connectivity And Reducing Toxic Stress Would Be**

### **A Good Package**

It would be a wonderful thing if we could figure out a set of electronic tools that involved parents and children interacting in ways that create brain growth and that also help with toxic stress avoidance for our children.

We need some very smart people to figure that set of functions out and to develop those tools.

Various kinds of electronic tools could obviously be particularly useful when mothers or fathers are illiterate, but those tools could possibly have great use for all families if they can be used in ways that meet the children's needs and can help the parents do their part of the growth functioning.

The truth is that a very high percentage of families have various electronic tools in their homes now. We need to figure out how to use those basic tools most effectively to help our children.

### **Texting Can Distract Mothers From Their Child**

We also need to make very sure that mothers and other caregivers do not focus their attention too much on texting other people and then ignore their children while texting.

Children who are functionally ignored because of texting parents can go through multiple levels of difficulties for obvious reasons.

Texting can create its own kinds of isolation for a child. Isolation is isolation, regardless of the cause or the trigger, and we know how much damage isolation can do to a child. That science and that damage are both unquestioned.

This is not a call to end texting. That is both impossible and not necessary.

We do need the caregiver for each child to set aside time regularly that is text free and focused directly on each child. Text free time focused directly by the adult on the child should be a goal and a practice for every parent who texts.

That text free time frame for each child needs to be an intentional and deliberate process for each parent and caregiver or it is highly unlikely to happen.

We now know that we need direct and regular contact with each child and we need that contact between parent and child to be direct and interactive in order to trigger the results that we want and need for brain development and brain strengthening for a child.

It would be deeply unfortunate if we closed the learning gap between higher income children and lower income children by having the mothers of

higher income children spending so much time with texting and other levels of electronic connectivity that they end up functionally isolating their children in those key months and years when direct interactions with a child exercise and build the child's brain.

We need the Internet to help parents understand all of those issues and we need to use the Internet so that parents can see models of other parents and caregivers showing how those interactions can achieve the best results.

### **The Internet Can Remind Us As Well**

Using the Internet as a simple reminder tool to remind mothers/parents to interact directly with very small children can be useful all by itself.

One experiment used regular texts that were sent to each mother at pre-arranged times to remind the mothers to set aside their other interests — including texting — to interact with her child that experiment had a very high level of success.<sup>59</sup>

The study showed that the interaction time with children for some mothers who received those reminder texts significantly increased.

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That approach and others like it can have obvious value as child support approaches.

Another study simply sent texts to each mother at regular intervals to remind the mothers about the advantages and the possibilities of brain development for their children. That study simply sent reminders of those basic facts to mothers on a regular basis with no other interventions.

At the end of two years, the learning levels for the child whose mothers received those basic and simple text reminders was more than two full months ahead of the learning levels for the children who did not receive those reminders.<sup>56</sup>

That study is cited in the final chapter of this book. Having a baby who is two full months ahead of other children at only 2 years old is a powerful and highly positive impact. The only tool that was used to create that benefit was a text sent to mothers telling the mothers that they could, in fact, strengthen their child's brain.

Mothers who received those texts spent more time interacting with their children than the mothers in the same study who did not receive the texts. Those additional interactions with each child had the impact that

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interactions tend to have — each child with that support had better learning abilities at age three as a result.

Mothers love their children. Mothers want their children to do well. The simple text reminder helped those mothers who received the reminder to actualize their love in a focused and effective way with their child.

### **We Need To Figure Out Creative Ways To Support Parents**

We need to use the Internet as support tools that are part of an overall development plan and strategy for each child. Overall, we need to understand our key sets of goals for interactions with each of our children in those early years. We need to collectively figure out a wide variety of creative and functional ways of helping parents in each setting create those needed interactions.

The Internet and various electronic and social media tools can all help with that process.

We need to teach effective approaches to parents and other caregivers in effective ways that we can communicate electronically and support in our media and through our various Internet tools.

### **We Are Just Beginning To Benefit From That Set Of Tools**

The Internet needs to be a key part of our strategy to build strong brains in our children. We are just beginning to benefit from using that set of tools for those purposes. We need to make our use of the Internet to support our children an asset, a benefit, a workable set of processes, and we need to make those processes continuously better.

Very smart people who are Internet experts should be building applications now that can further and support all of those agendas. The goal is clear. The need is great. The tool sets are, at this point, largely unknown and only in their pilot and experimental stages. They are not robust and they are currently not widespread and easily available.

It's time to change that reality to make lives better for our children. Every life we save is a life we save. Every child whose life trajectory is enhanced benefits forever from having that better set of capabilities.

Creative people can help save lives and make lives significantly better by channeling their creativity into approaches that can achieve those goals.