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Raising Children in the Age of AI

Trust, respect, independence, collaboration, and kindness in a changing world

Edited by Freedom Cheteni, PhD

Edition 5 | Complete student-profile edition

Twenty-one original student voices from the 2017 Design as Discovery course

This edition

Edition 5 | November 05, 2026

An agent-assisted editorial synthesis · Research University Press

AI assisted the drafting and organization of this prototype. Published under the editor-enabled living-book policy; independent human peer review has not been recorded. TRICK is attributed to Esther Wojcicki; she is not an author of this manuscript. Real student profiles from the 2017 Cardinal Impact Moonshot magazine open these chapters. The course was co-taught by Freedom Cheteni and Esther Wojcicki. Original student bylines and source pages are retained. Editorial connections are new synthesis; later household illustrations remain explicitly fictional. The archive records students' perspectives and aspirations in 2017, without inventing later outcomes. Original student stories and portraits retain their own rights and are excluded from the CC BY license on new editorial synthesis.

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6 x 9 inch interior. Mirrored margins include a 0.875 inch inside margin. Separate paperback and hardcover covers depend on the printer, paper and final page count.

Before the tools, there were the people

In 2017, Freedom Cheteni and Esther Wojcicki co-taught Design as Discovery at the Designership Institute at Stanford. Students interviewed one another about the problems they wanted to address. Their magazine, Cardinal Impact Moonshot, preserved those encounters. In 2027, the course reaches its tenth anniversary.

These chapters now carry all twenty-one complete original student profiles. You can meet the students, read their classmates' accounts and follow their ideas without opening a website. Each profile retains its original title, student writer, portrait, pull quotes and magazine page reference. Paragraph flow has been reset for this book; the source wording has been preserved.

The profiles speak from 2017. Statistics, policy assertions, predictions and proposed projects remain part of that historical reporting. A proposed future is presented as a proposed future. This edition adds no unreported later achievements or follow-up interviews.

Read each student account before the new connection to the chapter. The heading Editorial reflection marks where the book's present-day interpretation begins. The household scenes that follow are explicitly invented illustrations. Original student journalism, editorial interpretation and cited research each keep their own voice and attribution.

Contents

Begin with the child 7

Nico Monsalve | Original student profile 7

Zahra Petiwala | Original student profile 9

Trust that leaves room for questions 31

Uday Mehra | Original student profile 32

Alexander White | Original student profile 33

Respect means a voice, a boundary, and a choice 55

Lynn Kim | Original student profile 55

Michel Sidemion | Original student profile 57

Protect the work of learning 79

Artur Barbosa | Original student profile 79

Tony Zhong | Original student profile 81

Make something together 101

Jasmine Davis | Original student profile 102

Madeleine Charity | Original student profile 104

Keep human connection close 125

Jack Dacey | Original student profile 126

Holly Ansel | Original student profile 128

Different ages, different questions 149

Nick Bost | Original student profile 150

Write a family AI agreement 169

Lucas Schaberg | Original student profile 170

Work with the school 191

Sam Kovnar | Original student profile 191

Choose a tool by the job it must do 213

Emily Gao | Original student profile 214

Meghana Manepalli | Original student profile 216

A four-week start for a busy family 237

Henry Gu | Original student profile 238

Stanley Wang | Original student profile 239

How this book stays alive 259

Daniil Maslav | Original student profile 259

Julia Gottschalk | Original student profile 261

Selected sources 279

01

A HUMAN BEGINNING

Begin with the child

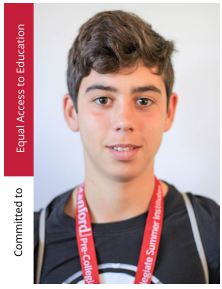
The most urgent question is what kind of childhood we are making possible.

REAL STUDENT VOICES | THE 2017 ARCHIVE

When a learner discovers whom learning could serve

THE COMPLETE ORIGINAL PROFILE | 2017

Nico Monsalve



Young Teenager Striving to Create Equal Educational Opportunities for All

Original student writer: Zahra Petiwala

Cardinal Impact Moonshot | July 27, 2017 | Original p. 15

In a world where 57 million children do not have access to proper education, Nico Monsalve, a 15 year old from Los Altos, CA, is passionate about supplying underprivileged

students in 3rd world countries with equal access to education.

Monsalve is a sophomore at the VR School Stanford PreCollegiate program. During Spring Break in 2017, he visited Guatemala on vacation with his family and met Dax, a 16 year old local. While conversing, Dax explained to Monsalve how he left school when he was 8 so that he could contribute to supporting his family due to the poverty his country faces.

From this experience, he is determined to tackle the issue of the lack of exposure that children in underdeveloped countries have to education. He discovered his desire to solve this problem after his encounter with the local Guatemalan.

While on this trip, what he witnessed, in regards to Dax and his country, was shocking because of their unfortunate situation. He found himself wondering why these countries are not exposed to the importance of education.

In a world where those that are privileged have access not only to good education but at times even free educational courses like Khan Academy.

Recently, Monsalve joined Stanford's Pre-Collegiate Studies program for a computer science course, Design as Discovery. He wants to make a difference in this world by helping the children in other communities be able to afford education through peace technology.

In closing, Monsalve is still working on a solution but is facing challenges as these countries are poverty stricken and therefore have no access to technology and resources. He hopes to work with the students at Stanford University to solve this issue.

PULL QUOTE FROM THE ORIGINAL PROFILE

> “Lenient laws around education are the basis for a destructive spiral leading to an increase of poverty in underdeveloped countries.”

THE COMPLETE ORIGINAL PROFILE | 2017

Zahra Petiwala



Equal Education in Kuwait

Original student writer: Nico Monsalve

Cardinal Impact Moonshot | July 27, 2017 | Original p. 17

Zahra is a passionate 14 year old girl who grew up in Kuwait. She is privileged to get an education and to pursue her love of computer science. She likes to draw for fun and she has 3 brothers all attending US Universities. Zahra was first introduced to coding by her school in seventh grade and she fell in love with the subject. As programing transitioned from a subject into a hobby, Zahra wondered how she could include more children to coding. She most importantly wanted to “give back” to her community.

Zahra is passionate about introducing children of the world to modern forms of education. Her spark for this passion is derived from her love of coding and from her desire to give back to the underexposed kids of her home country, Kuwait. Zahra highlights this emergency as she says, “The world is

moving forward and technology is the only means for our current generation to keep up.”

She more specifically wants to target young kids under the age of 11 who have access to school and technology, but are not yet exposed to these new subjects.

Zahra joined the VR School to pursue her goal and take in new insights from the diverse group of students which attracted to the Stanford Pre-Collegiate Summer Institutes the school leads. Zahra plans to create a free website designed to teach children HTML and hopefully run a class free of charge once every week in her home town. Zahra’s passion will hopefully motivate the children of Kuwait to break social norms and use education as a platform to prosper as scholars.

Zahra plans to create a website which can be scaled big enough to reach all kids in Kuwait. This website would be designed to keep young kids engaged in order to keep them on the path of achieving a high level of education. This website will hold courses taught in HTML to give kids a solid foundation for future languages they choose to pursue.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Nico Monsalve’s encounter with Dax and Zahra Petiwala’s wish to share coding give this book a human starting point. Their classmates recorded young people connecting something they had noticed or loved with someone else’s opportunity. These are accounts from 2017, before the current wave of conversational AI. They invite a parent to ask what a child cares about before choosing a tool for that child. A finished answer can be useful, but a developing purpose belongs to the learner. The connection to parenting is an editorial interpretation of these profiles, not a measured outcome of the course.

Cardinal Impact Moonshot, July 27, 2017. Original student accounts retain their own rights and are excluded from the CC BY license on new editorial synthesis. Historical

aspirations do not establish later outcomes.

An illustrative family scene

The scene that opens this chapter is invented. A child is sitting at the kitchen table with a drawing of a dragon, a spelling list, and a story that has stopped after its first sentence. An adult has twelve minutes before a meeting. The child wants a word for the noise the dragon makes. The adult opens an AI tool. A complete story appears, with a beginning, a surprise, and an ending. The adult feels relief. The child looks at the screen, then at the dragon, and asks, “But where does mine go?”

Nothing spectacular has happened. Nobody intended harm. A useful system answered an ordinary request, and a tired person accepted more help than the child needed. Yet a small question has appeared inside a much larger technological change: when a machine can finish almost anything, how do we preserve the unfinished space in which a child becomes someone?

This book begins at that table. Its subject is the ordinary life around extraordinary tools: the moment before an upload, the argument over homework, the child who believes a friendly voice, the teenager who wants privacy, the caregiver who needs help. The point is to build a childhood with room for thought, affection, effort, play, and growing responsibility. AI belongs in that picture only where it serves those purposes.



The world we grow. AI-generated conceptual frontispiece for this edition; an imagined scene, not a research observation.

The child is the starting point

A technology conversation often starts with capabilities. What can the system generate? How quickly can it answer? Which tasks can it automate? A parenting conversation needs an earlier question: what is this child trying to do? The answer might be learning to read, recovering confidence after a hard day, finding words in a second language, making a friend, or having someone listen to a complicated story.

Those purposes change the meaning of assistance. If a child wants to share an idea, a polished replacement may erase the very thing the adult hoped to support. If the child cannot access the page because of a disability, a well-chosen support may make independent participation possible. If a caregiver cannot understand a school message, a translation tool may

open a conversation that would otherwise remain closed. Similar-looking uses can serve very different human needs.

Begin by separating the person from the task and the task from the product. A child is never a backlog to clear. A finished worksheet is one event in a developing life. A product is one possible arrangement for helping with that event. This order keeps a demonstration from becoming a household philosophy simply because it was impressive.

A family does not need perfect answers before acting. It needs a way to notice what its decisions are making easier and what they are making harder. Perhaps the new tool creates a pleasant shared activity. Perhaps it adds a second layer of checking to an already crowded evening. Perhaps the child begins asking more questions; perhaps the child stops offering an idea until the system has spoken. These observations deserve attention without becoming verdicts about the child's character.

What childhood asks us to protect

Children need opportunities to do things whose value is not immediately visible in the result. An awkward first sentence can be part of discovering a voice. A disagreement over the rules of a game can be part of learning to live with other people. A question that remains open overnight can continue working in the imagination. A machine's ability to shorten a task does not settle whether shortening it serves the child.

Parents already make judgments like this. We sometimes carry a child and sometimes let the child walk. We help with a button, then leave time for another attempt. We read aloud even when a recording exists. The arrival of generative systems multiplies these judgments. It does not eliminate the

need to make them. The useful question is what support makes possible at this moment, for this person, under these conditions.

Protecting an experience does not require manufacturing difficulty. A child who is exhausted, excluded, or repeatedly failing may need more support, a different task, or a change in expectations. There is no moral prize for struggling with an inaccessible interface. The distinction is between removing a barrier to meaningful participation and removing the meaningful participation itself. Families will sometimes need the child's teacher or another knowledgeable person to help tell the difference.

Nor must every afternoon be educational. A ridiculous generated song can be enjoyable because it is ridiculous. The family may choose entertainment and call it entertainment. Trouble begins when every pleasant interaction is promoted into a developmental advantage, or when adults feel obliged to justify play through promised future achievement. A child can have a good evening without producing an optimized version of tomorrow's adult.

A compass called TRICK

Trust, Respect, Independence, Collaboration, and Kindness form the TRICK framework associated with Esther Wojcicki's public parenting work. This book credits her for that framework and uses the five values to organize an original editorial exploration of family life with AI. She is not an author of this manuscript, and the book does not present TRICK as a tested package that guarantees particular outcomes.

Each value becomes more useful when expressed as a question. Trust asks whether a child can bring uncertainty and

mistakes into the relationship. Respect asks whose information, voice, and boundaries are involved. Independence asks what the learner can do or decide after receiving help. Collaboration asks whether the people involved have a meaningful role in shaping the work. Kindness asks how we protect dignity while telling the truth and maintaining necessary boundaries.

The values interact. Respect for a teenager's privacy can sit beside a caregiver's responsibility to respond to a specific safety concern. Independence can grow through collaboration rather than through being left alone. Trust can include checking a claim; kindness can include saying no. A compass does not remove difficult terrain. It helps a family explain why it is taking one path and how it will recognize the need to turn.

Consider the story at the kitchen table. Trust makes it possible for the child to say the generated ending does not feel like theirs. Respect takes that objection seriously. Independence returns a decision to the child: what should the dragon do? Collaboration gives the adult a smaller, more useful role. Kindness keeps the moment from becoming a lecture about gratitude or efficiency. The tool may remain in the activity, but its place becomes clearer.

A VISUAL WAY TO THINK

A compass for a changing childhood



Trust

Make it possible to bring a mistake into the open. Check important claims together.

Respect

Give the child a voice and a boundary around their information.

Independence

Keep the learner involved in the thinking and the decisions, with the support they need.

Collaboration

Share a human purpose; let every participant contribute and disagree.

Kindness

Respond to the need beneath the interaction and keep people involved in care.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

What the research can carry

The most relevant evidence does not all contain the word AI. An umbrella review of caregiver sensitivity brings together meta-analytic research on how responsive caregiving relates to children's developmental outcomes. Its findings support taking relationships seriously. The underlying associations do not prove that a particular household technology choice causes an outcome, and the review does not evaluate the exercises in this book. [PMC13036395]

That distinction matters because familiar parenting research can be stretched too far when a new product appears. A study about responsive interaction cannot, by itself, establish that a chatbot provides the same kind of relationship. An adult may know a child's history, notice a change in expression, take responsibility, and stay involved after an answer fails. A system's patient wording does not establish all those capacities. Similar language on a screen is insufficient evidence of equivalence.

AI-specific research also requires careful reading. A systematic review of chatbot-delivered parenting interventions describes a small, varied literature centered on implementation, feasibility, and acceptability. Most systems reviewed were scripted. A family liking an intervention, continuing to use it, and experiencing a lasting benefit are different questions. The review cannot establish that every current generative assistant improves parenting or child development. [PMC11494261]

Throughout this book, sources provide boundaries as well as possibilities. The practical activities are editorial suggestions unless a chapter explicitly states otherwise. They are invitations to observe, discuss, and revise. They should not become scores of parental competence or promises about grades, health, or future success. Readers deserve a useful practice and an honest account of how much evidence stands behind it.

The adult belongs in the picture

It is easy to make childhood technology a story about children's behavior while leaving adult behavior outside the frame. Yet adults introduce many tools, share many photographs, accept many default settings, and model how to respond to an answer that sounds authoritative. A family conversation becomes more credible when caregivers can describe their own uses and uncertainties.

An adult might say, “I use a system to help draft work messages, and I have sometimes accepted wording that did not sound like me.” Another might explain that an automated translation helped them understand a notice but still needed checking. These ordinary admissions make room for inquiry. The adult remains responsible while giving up the unnecessary performance of never being confused.

Adult needs also deserve honest attention. A caregiver working two jobs may need help organizing an appointment. A parent with a disability may use a tool to reduce an access barrier. A grandparent may need a translated explanation. The question is how to meet those needs while protecting the child's interests. An arrangement that assumes unlimited adult time, money, literacy, or energy will fail many of the families it claims to serve.

Sometimes the most important technology decision is to simplify. Fewer accounts, fewer notifications, a familiar library resource, a short message to a teacher, or a shared paper calendar may solve the actual problem. Choosing little or no AI is a legitimate family choice. So is a carefully bounded use that provides real help. The book's practices should remain available to families on either path.

A second adult pressure is the fear of falling behind. Families hear that children must master each new system quickly or lose a future opportunity. Such claims can turn a product decision into a test of parental seriousness. Before accepting that urgency, ask what specific ability is at stake and what evidence supports the proposed deadline. A broad story about the future cannot answer every question about what a seven-year-old needs this evening.

Children can practice durable habits through many media: explaining an idea, comparing reasons, making something, asking for help, and revising a decision. Whether a particular tool helps with one of those habits remains a question to investigate. A family can prepare for change without placing every newest interface at the center of childhood. Adults can also say that they do not yet know how a technology will fit.

Discuss the future in ways that leave room for the child's present interests. A child who loves insects need not justify that curiosity through a prediction about careers. An older student can explore technology while continuing to value music, friendship, sport, language, or service. The family is making a life, not trying to anticipate every future job description.

When fear enters a purchasing or scheduling decision, name it gently. “I am worried that you will miss something useful, and I want us to look at the actual need before we decide.” That sentence gives the adult's concern a place without asking the child to become its solution. A calmer decision can still be ambitious for the child's growth.

Make a map of the life you have

Try an opening conversation when people have enough attention to listen. It does not require a device. Ask where automated or AI-supported systems already appear in family life. An adult might mention workplace tools, recommendation feeds, translation, or a school platform. A child might mention a voice assistant, a game, or an image a friend shared. It is acceptable to be unsure whether a particular feature uses AI; write down the uncertainty.

Then ask what people want help with. Keep the answers concrete. “Homework” may turn into “understanding the instructions without someone rewriting my answer.” “More time” may turn into “less time spent arranging transport.” “Creativity” may turn into “a surprising starting point when I have already tried three ideas.” A specific need makes it easier to judge whether a tool is helping.

Finally, name what the family wants to keep doing itself. The list might include telling personal stories, choosing gifts, resolving arguments, writing the first version of a poem, or deciding what matters. There is no need for every person to choose the same things. An adult may welcome help drafting an invitation while a child wants every word of a birthday card to be their own. The difference is useful information.

Choose one small experiment from the map. Agree on its purpose, the support involved, the information it may receive, and a reason to stop or change it. A child might use adult-mediated help to find two possible questions about a plant, then observe the plant outdoors. An older learner might request practice questions, answer them away from the tool, and check the reasoning afterward. Keep the experiment small enough to understand.

The household behind the interface

An interface often presents a clean rectangle in which a complicated task appears to become simple. Household life does not stay inside that rectangle. Someone must decide whether the task needs doing, gather the relevant information, explain the result, correct mistakes, and remember what happens next. When a family says that AI saved time, it is worth asking whose time, on which part of the task, and at what point in the day.

Consider an invented example. Two caregivers use a system to draft a weekly meal plan. The plan appears almost instantly. One adult then notices that several ingredients are unavailable, another meal conflicts with an allergy the tool was not told about, and the suggested preparation time assumes equipment the household does not have. Someone revises the list, checks the cupboard, changes the shopping plan, and explains the adjustments. The generated page may still be useful. Its speed does not describe the whole job.

Make this surrounding work visible without turning the home into an accounting exercise. Ask who proposes, who checks, who acts, and who follows up. If the same adult carries all four responsibilities, the tool may improve one task while leaving the distribution of labor unchanged. A family can use the occasion to redistribute a responsibility that does not require AI at all. An eligible older child might help identify ingredients already present. Another adult might take responsibility for checking the plan rather than merely producing it.

Children can take part in this conversation without being assigned adult burdens. A young child can help decide which familiar activity they want in the week. A teenager can help explain which school commitments matter. Adults still carry responsibility for food, care, transport, and the other

essentials of family life. Participation should offer the child agency within a supported arrangement, rather than become a polished description of responsibilities the child has quietly inherited.

Hidden labor also includes emotional work. A caregiver may need to reassure a child disappointed by an output, explain why a generated invitation will not be sent, or repair a conversation that became impatient. Such work does not mean the technology has failed completely. It belongs in an honest evaluation of whether the arrangement serves the people. A tool that saves typing and increases conflict may be useful in a different role, at a different time, or not at all.

The family can end a trial by reviewing one complete journey. Start with the need and follow it through preparation, use, checking, action, and aftermath. Ask what became easier, what moved to someone else, and what remains unfinished. That account is more informative than the number of seconds required to generate a response. It locates the technology in the life it is supposed to help.

Attention is part of what we give

Attention is difficult to discuss because everyone knows it is limited and nobody wants another standard they cannot meet. Caregivers work, travel, manage appointments, look after other relatives, and sometimes need a quiet moment themselves. A serious book about parenting should be able to acknowledge those constraints. The useful question is how to make the attention available more responsive, rather than demand that adults be continuously available.

A system can help an adult prepare for a conversation, but preparation should not be confused with the conversation

itself. A suggested list of questions may be useful before a school meeting. A summary may make an unfamiliar document easier to approach. The person still needs to listen when the child answers in an unexpected way. If the adult follows the generated sequence so closely that the child cannot change its direction, the preparation has begun to govern the encounter.

Notice small signs of that shift. Does the caregiver look back to the screen before responding to the child? Is an unexpected question treated as a diversion? Does the child wait while the adult asks the system what to say next? There may be good reasons for using support in a conversation, including communication and language needs. Name the support and preserve space for the person present to matter more than the prepared script.

A short explicit transition can help: “I used this to organize my thoughts. I am putting it away now because I want to hear yours.” Another family may need to keep a translation or accessibility aid open. Their transition can be different: “This helps us understand each other's words; tell me if it gets your meaning wrong.” The principle concerns attention and correction, not a universal rule about closing devices.

Adults can also choose periods in which they will not turn a child's experience into an optimization problem. A story about a playground disagreement may need listening before advice. A question at bedtime may need a small answer and the promise to return later. A sad afternoon may need company rather than an automated plan for resilience. Ask what sort of response the child wants when that question is appropriate: listening, help understanding, or help deciding.

The same care applies to adult attention elsewhere. If a tool genuinely reduces routine work, the family can decide what to do with the recovered time. It need not fill instantly with more

tasks. A little unstructured space may allow a conversation, a rest, or an activity someone wanted but never scheduled. Efficiency becomes a family benefit when people can say what it has made possible in their actual lives.

The child gets a story beyond the data

Information about a child can become a strong story in adult minds. A report, a set of scores, a pattern of missed assignments, or a generated summary may make one explanation feel obvious. The child who is described repeatedly as distracted may have difficulty being seen as thoughtful. The child praised as advanced may find it hard to admit confusion. A concise description can help adults coordinate care while also narrowing what they notice.

AI-generated descriptions add another reason to examine this habit. A system can assemble scattered notes into a coherent portrait even when the notes are partial, uneven, or taken under different conditions. Coherence is a feature of the writing. It is not evidence that the portrait captures the whole person. Before using a summary, ask which observations went in, whose perspective is missing, and whether a particular moment has been turned into a permanent trait.

Invite the child's account in a form they can use. “What do you wish adults understood about this?” may produce an explanation a dashboard never contained. A younger child may show the part of the day that feels difficult. An older child may distinguish a task they dislike from a task they cannot access. The family can listen while also checking facts and keeping necessary expectations clear. A voice is meaningful because it can change understanding, rather than because it automatically decides every question.

Use descriptions that leave room for change. “Starting the task has been hard this week” names an observation. “You are someone who never starts” turns the observation into an identity. If a generated summary uses sweeping language, rewrite it before sharing. Keep context near the description: the time period, the task, the support available, and the limits of what was observed. Another adult deserves a usable account without inheriting an unjustified certainty.

The child also needs experiences outside the account adults maintain. A person can be a struggling reader and an attentive friend, a reluctant writer and an inventive builder, a confident performer and someone afraid of a new social situation. Families can notice these dimensions without converting every strength into evidence of exceptional promise. Ordinary forms of contribution deserve recognition because they belong to the person's life now.

As the book develops, keep asking what the current arrangement allows the child to become visible as. Does it create opportunities to explain, choose, care, make, and revise? Does it mainly produce measurements and completed outputs? The answer may vary across settings. The family's role is to keep the person larger than any single description, including the flattering description an impressive system is able to produce.

A decision that can survive Tuesday

An ideal routine can look beautiful on a calm weekend and collapse on an ordinary Tuesday. A child is tired, an adult is late, a message from school arrives in unfamiliar language, and dinner has not happened. A useful family approach needs a smaller version for that evening. Otherwise the difference between the ideal and the possible becomes another source of guilt.

Choose a minimum practice. Before an upload, pause long enough to ask whether identifying information is necessary. Before relying on an important answer, mark the part that needs checking. Before allowing a tool to finish a learning task, ask what work should remain with the learner. The complete discussion can happen later. A short pause creates a chance to avoid the most obvious mismatch even when nobody has time for a family meeting.

Give the family permission to stop. “We cannot check this properly tonight, so we will use the familiar option” is a responsible decision. So is asking for help, postponing a nonessential task, or accepting an imperfect result. A system's availability can create pressure to keep working. Adults can demonstrate that every possible completion does not deserve the household's remaining attention.

At the next calm moment, examine one decision without putting the whole day on trial. What made the choice difficult? What information was missing? What would make the better option easier next time? Perhaps the family needs a saved school contact, an accessible reference, or a clearer agreement about photographs. A useful adjustment changes the conditions around the decision rather than demanding more willpower from everyone involved.

This is how a set of values becomes a practice. The family does not display flawless trust, respect, independence, collaboration, and kindness at every moment. It uses those values to notice a mismatch, make a repair, and design a more workable next attempt. A seminal question about childhood can live in an ordinary Tuesday, because that is where children and caregivers actually meet the future.

Return to the dragon

Imagine the adult at the table trying again. “I answered a bigger question than you asked,” they say. “You wanted a sound. Let's go back to your dragon.” The child offers three impossible noises. The adult writes them down exactly. If the tool returns, it returns with a smaller job: suggest a few words for a sound, leaving the story with its author.

The repair is ordinary. It does not require condemning the machine or celebrating it. It requires noticing the child's purpose and adjusting the help. The adult can still be tired. The story can still be unfinished when the meeting begins. A trustworthy family practice must be able to survive imperfect days, or it will become another ideal that people quietly abandon.

You might close the first conversation with a question for each person: “What would you like to be able to do more confidently, with or without a tool?” The answers become a better starting point than a list of features. They point toward abilities, relationships, and decisions that belong to people. They also give the family something to revisit when the next impressive system arrives.

The age of AI will bring many invitations to do more, faster. Raising a child asks adults to decide which invitations deserve

a place in a life. The chapters ahead examine those decisions closely. We begin with the child because the tools will change, while the responsibility to pay attention remains ours.

A QUIET MOMENT

What do we want childhood to contain?

Name one experience you want a child to keep having even when a machine can produce its result faster. What small decision this week could protect that experience?

02

THE FIVE TRICK VALUES

Trust that leaves room for questions

Teach a child to check an answer without making curiosity feel dangerous.

REAL STUDENT VOICES | THE 2017 ARCHIVE

Two students, two questions about intelligence

Uday Mehra



Safe Artificial Intelligence

Original student writer: Alexander White

Cardinal Impact Moonshot | July 27, 2017 | Original p. 9

“Why do we really need Artificial Intelligence?” Uday, a VR student at the Stanford Pre-Collegiate Studies Design as Discovery course taught by world renowned professor Freedom Cheteni, asks this question, as he wonders about the world's fascination about A.I.’s.” Perhaps, the world doesn’t really need A.I. Like, can’t all the work be done by humans anyway”? Uday raises a good point. With 7 Billion people on this planet, we could easily create a world where A.I. is never even needed. With non-sentient computers, we could survive and even thrive, moving to other planets. Although we may miss an opportunity to have A.I. work for us, Uday says that we don’t need A.I. at a sentient level at all.

In fact, in agreement with Uday, many studies have been done on safe A.I., and all of them have shown that not only are they smarter than humans, or at least would be when created, but they are also more able than us. When pitted against humans in battles of purely intelligence, the A.I. will win every single time. For example, one study was done on an A.I. in a box. The A.I. (a test subject) was connected with one person outside the box, who had only goal, keep the A.I. inside the box. Nine times out of ten however, the test subject convinced the person to let them have internet access, with which an A.I.

could do lethal and terrifying things, like shutting down all kinds of global trade, overloading websites so that people are unable to go to them, and possibly even getting into people's emails.

So, based on the fact that A.I. can generally outthink humans, and they have a lot more power than us, especially on the internet, Uday thinks that we should not ever even make A.I. sentient enough to either replace or destroy us.

But how can we stop A.I.? Uday thinks that it is essential to stop people from building fully sentient A.I. in the first place. However, if that fails, Uday wants a more permanent solution. That solution would be a kill switch, that instantly shuts down all artificial intelligences on the planet. This way, no matter what happens to the A.I. or what they do, they can be destroyed. In the wise words of Uday Mehra“They may be able to outsmart humans, but they cannot outsmart death”.

THE COMPLETE ORIGINAL PROFILE | 2017

Alexander White



A.I Overlords and The Quest for Peace

Original student writer: Uday Mehra

Cardinal Impact Moonshot | July 27, 2017 | Original p. 7

The stark expanse of infinite whiteness that is the Arizona desert is interrupted by a three-mile stretch of a seemingly obsidian monument. Upon closer inspection, an entrance

reveals thousands of rows of processors, servers, and cooling systems. A violent whirring can be heard as the monolithic A.I comes to life. Acting upon their instructions, security teams move across the planet. A suicide bomber is apprehended at an airport. A would-be shooter has his gun license revoked. A rogue bus driver finds the local police remotely controlling the vehicle, rendering him harmless. This is the world that Alexander White imagines. He sees the devastating effects that violent crimes and terrorism can have, and believes that the answer lies in sentient technology. Alex's passion for technology helps him see applications for computers that others might not. For example, as an avid gamer, Alex sees the possibility of big-data analysis using video game chat logs. This unique perspective allows him to create a vision for the future where A.I analyses mass amounts of data in order to predict and prevent terrorism. Alex attributes his passion to his father. During his formative years, Alex was taught to stand up to anyone who tried to Infringe upon his rights. "My dad doesn't like bullies," explains Alex. ""I guess having this belief from a young age has made me dislike those who take the lives of others into their own hands - it's not a stretch to see why I am strongly opposed to terrorism." Alex stresses the importance of involving A.I and machine learning in the education process. At the heart of his rationale is cost and practicality. "If we were able to take existing online lessons - things like Khan Academy - and build on top of that artificial intelligence capable of answering questions, we would be able to educate thousands at once. All you would need is a computer - not even a classroom." Alex goes on to stress the advantage A.I has over its human counterparts. "It doesn't matter how educated a teacher is - if they can't speak the local language, they won't be able to teach. A computer, on the other hand, can be taught to speak any language very easily. Couple that with machine learning, and you have a teaching

machine that’s capable of picking up local dialects, idiosyncrasies in behaviour, and provide the best possible help to its students.” In the words of Alexander White, “Terrorism is a disease - it’s not anybody’s fault - but like any disease, it must be cured - that cure is A.I.”

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Uday Mehra asks why AI is needed at all. Alexander White connects opposition to bullying with an ambitious vision of technology serving peace. Their classmates let those perspectives sit beside one another. Alexander’s desert opening is described in the magazine as an imagined future, not a witnessed event. The real encounter is a classroom in which students could investigate different purposes for powerful tools. For families, trust can begin with giving a question room to challenge an impressive answer. The magazine’s AI predictions remain attributed to 2017 rather than becoming evidence about present systems.

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An illustrative family scene

This opening scene is illustrative fiction. A six-year-old asks why the moon follows the car. A voice assistant gives a smooth explanation. At the next traffic light, the child repeats it word for word. The adult notices a mistake and reaches for the quickest response: “That thing gets everything wrong.” The child becomes quiet. The assistant had sounded certain. Now the adult does too. The question about the moon has become a question about whom to believe.

A different response keeps the original curiosity alive. “That explanation sounded convincing to me at first,” the adult says.

“Let's see if we can find a way to check it.” They will not settle the matter at a traffic light. They can remember the question, look at a book later, and try to explain it with objects on a table. The child gets to see an adult revise an impression without treating uncertainty as a failure.

Trust in a family has several objects. We trust a person to care about us. We trust a source to know something. We trust a process to catch mistakes. These forms of trust can support each other, but they should not be confused. A system can offer a useful explanation without caring about the listener. A loving adult can be mistaken. A careful process can help both of them discover an error.

Confidence is an experience, evidence is a reason

Conversational systems make it easy to feel that a question has been settled. They can produce complete sentences, a calm tone, numbered steps, and references that look familiar. The response may be helpful. It may also contain an error that is difficult to notice precisely because the presentation is so competent. Families need language for the difference between feeling persuaded and having a good reason to believe.

Try beginning with the sentence, “What is the claim?” A response can contain a dozen statements of different kinds. Some are descriptions, some are predictions, some are suggestions, and some are expressions of style. There is little value in asking whether the whole answer is true before separating what it actually says. A child can learn to point to one sentence and ask how someone could know it.

Then ask what evidence would fit the claim. A photograph may show that a particular object was present at a particular moment; it may leave the date, location, and story uncertain. A source may document a rule without showing that the rule is fair. A personal account can illuminate an experience without establishing how often it occurs. These distinctions can be explored through ordinary examples before a family faces a consequential decision.

The aim is calibrated trust: enough confidence to use good information and enough openness to revise it. Constant suspicion can become as disabling as unquestioning belief. A child need not investigate every sentence before enjoying a story or asking a playful question. The amount of checking should fit what the family intends to do with the answer.

Why the source can overpower the explanation

Two experiments involving 310 children aged four to six examined how children evaluated scientific explanations attributed to a digital voice assistant, a teacher, or a peer. The tasks used prepared explanations, rather than live generative conversation. The research invites attention to the cues young children use when choosing whom to ask and which explanations to endorse. It cannot tell us how every child will respond to today's systems in a busy household. [PMC13203908]

That limitation is part of the finding's usefulness. A caregiver can ask whether the child is attending to the explanation or to the apparent authority of the speaker. Is the answer convincing because it explains something, because it comes from a device, because it is repeated, or because it sounds like what the child already believes? Adults can ask the same

questions of themselves. Technical language and an attractive interface can influence an adult's first impression too.

A family might compare two explanations without revealing their sources at first. Choose a simple topic the adult can verify, and use examples appropriate to the child's language and experience. Ask which explanation helps and what remains unanswered. Reveal the sources afterward, then discuss whether that information changes the judgment. This is an editorial exercise inspired by the question of source evaluation; it is not a reproduction or validated extension of the experiments.

Avoid making the activity a trap. If the adult secretly arranges for the child to be wrong, checking may begin to feel like a performance staged for humiliation. Shared inquiry works better when the adult is also willing to be surprised. “I preferred the longer answer, but the shorter one explained the cause more clearly” makes a useful discovery available to everyone.

Give checking a small, repeatable shape

A workable family routine has three movements: name the claim, find a suitable source, compare the two. For a statement about an animal, a library reference may be enough. For the details of a school assignment, the assignment itself or the teacher is the relevant source. For a current service rule, the current provider information matters. The right place to check depends on the question.

Opening a link is only the beginning. Does the page exist? Does it identify the author or responsible organization? Does it

actually support the sentence? Does the answer leave out a condition that changes its meaning? A real paper can be cited for a claim it never studied. A correct quotation can be placed in a misleading context. An older source can be accurate about its own moment while offering an incomplete account of the present.

Young children can practice a simpler version. “The answer says this seed grows into a tree. Where could we look?” They may examine the packet, ask a gardener, or watch a seedling over time. Older children can choose a claim from an AI explanation and trace it through a source. Keep the first attempts brief. Checking should become an available habit, not a punishment attached to asking questions.

When a source cannot be found, record that fact honestly. “We could not verify this” is different from “We proved this false.” A family can decide to avoid relying on an unverified claim without pretending to have resolved it. Learning to leave a question open is a substantial part of intellectual responsibility.

A VISUAL WAY TO THINK

From a convincing answer to a reason for belief

01. Name the claim

Choose one factual assertion from the answer. Make it small enough to check.

02. Find the evidence

Open a relevant original document, trusted reference, or direct observation.

03. Compare the meaning

Does the evidence actually support this claim, for this situation?

04. Revise the judgment

Keep what is supported. Correct or suspend what remains uncertain.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Match the check to the stakes

A generated name for a fantasy creature needs little investigation. A claim that could change a child's health care, safety, education rights, or finances deserves a responsible person and an appropriate original source. The system may help organize questions or explain unfamiliar vocabulary, but fluent output cannot carry responsibility for a consequential decision.

Between those extremes lie ordinary tasks where checking can be selective. If an adult uses AI to suggest a museum visit, they should verify the relevant location, opening information, and access arrangements before relying on the plan. The family need not conduct a scholarly review of the description of the gift shop. Check the details whose failure would matter to the actual decision.

For homework, the relevant stakes include the learning goal. A correct final answer may still be unhelpful if the child cannot explain how it was reached. Ask the learner to walk through one step, use a different example, or describe what would change under a new condition. This examines understanding rather than turning the household into a contest over whether the machine is clever.

Checking also costs attention. Make that cost visible when evaluating a tool. An answer produced in seconds may require twenty minutes of verification. Sometimes that is still worthwhile; sometimes a familiar reference or a knowledgeable person would have been more efficient. Speed at the point of generation is only one part of the work.

Keep the door open after a mistake

A child who brings an error to an adult should encounter a path toward repair. The adult may need to set a boundary or correct a serious problem. Humiliation adds little to that work. A useful opening is, “Thank you for showing me. Let's understand what happened.” The words are a proposed practice, not a claim that one sentence guarantees disclosure.

Ask what the child was trying to do, what the system said, and what happened next. These questions can reveal a confusing instruction, a social pressure, or an adult assumption that

needs attention. They also help distinguish an ordinary error from a deliberate choice without deciding in advance which story must be true. Listen before demanding an explanation that fits the adult's first impression.

An adult can model repair when the adult accepted the answer first. “I sent you that fact before I checked it. Here is what I found afterward, and here is what I changed.” This preserves authority through responsibility. Children do not need caregivers who know every answer. They need caregivers who can respond when knowledge fails and who remain available after the embarrassment passes.

If the error has been shared, decide who needs the correction. A mistaken fact in a family conversation and a public accusation about another person have different consequences. Repair should follow the actual reach of the claim. A clear correction can say what was wrong, what is now known, and what remains uncertain without repeating harmful detail unnecessarily.

Read the promise behind the product

Trust also enters through marketing. A product may promise confidence, companionship, creativity, independence, or learning. Each word can describe several different outcomes. Ask what exactly was measured, in whom, over what period, and compared with what. A demonstration of a feature is evidence that the feature can operate in the demonstrated conditions. It is not automatically evidence of a lasting developmental benefit.

An audit of commercial social-robot websites found variable support for manufacturers' claims. The researchers examined websites collected in 2021, so the study is not a current

product ranking. Its practical contribution here is a reason to inspect the relationship between a promise and the evidence offered for it. [PMC10770258]

Imagine a product described as building children's confidence. Does that mean children reported enjoying a short interaction? That adults rated the interface favorably? That children attempted an unfamiliar task without the product later? Those are different possibilities. A family deserves to know which question, if any, a study addressed. A broad promise should become a specific question before it becomes a purchase.

A provider's answer may be incomplete. Record the gap without filling it with hope or suspicion. “We have evidence about usability, but we have not found evidence about this learning outcome” is a useful purchasing note. It leaves room for a limited trial while preventing a possibility from quietly becoming an established fact.

Checking needs to remain accessible. A child who cannot comfortably read a long source can listen to an explanation, inspect an image with support, or ask someone to read a relevant passage aloud. A multilingual family can compare translations and seek help with an unfamiliar term. The task is evaluating a claim, and the format should make that task possible rather than quietly turn it into a test of unrelated skills.

Older learners may encounter a realistic-looking image, recording, or screenshot whose origin is unclear. Begin with the claim being made about it. Who is said to have produced it? When and where is it supposed to have appeared? Can the family locate the original context or a responsible source? Avoid assuming that visual realism proves authenticity, or that an unusual appearance proves fabrication. When verification

remains incomplete, the family can decide not to circulate it as fact.

This is especially useful when the content concerns a real person. Forwarding an accusation because it might be true can cause consequences before anyone checks it. A caregiver can ask the child to pause, preserve only what is necessary for an appropriate report, and bring the concern to a responsible adult or institution. The right action depends on the situation; a public pile-on is rarely a careful verification method.

A small family rule can connect checking with care: when a claim could affect someone's reputation, slow down before sharing. Explain that the pause protects the person described and the person deciding what to do. Verification then becomes more than a display of cleverness. It becomes a way of taking responsibility for the effects of our own words, screenshots, and messages.

Follow one citation all the way through

A citation can create an impression of seriousness before anyone reads it. Teach the learner to treat it as a route to investigate. Begin by copying the exact claim into a short note. Keep the wording narrow enough that it can be compared with a source. “This tool is good for learning” is too broad. “The answer says the cited study tested independent reading by children this age” gives the family something definite to examine.

Open the original source when it is available. Identify the title, authors, date, and kind of work. Is it a report of an experiment, a survey, a review, a conceptual argument, or a provider's announcement? The categories matter because each can support different conclusions. A conceptual paper

can offer valuable questions without reporting a trial. A survey can describe associations without establishing what caused them. A product announcement can explain a feature without independently evaluating its effects.

Read the abstract as an introduction, then locate the part that addresses the claim. Find who participated, what they did, what was measured, and what comparison was made. If the language is difficult, ask a teacher, librarian, or knowledgeable person for help. A system can assist with vocabulary, but compare its explanation with the original passage. A simplified account is another interpretation to inspect, rather than a replacement for the relevant source.

Now look for the distance between the finding and the answer. Did the answer change adults into children, a short task into a lasting benefit, or one system into all AI? Did it turn an association into a cause? Did it describe the researchers' proposed next step as an established result? These are questions about the relationship between two texts. A child can practice noticing one mismatch at a time instead of mastering every research method at once.

Write a conclusion in three parts: what the source supports, what it does not answer, and what the family will do with that information. For example, a source might support interest in a limited activity while leaving the household's central question unresolved. The appropriate response may be a bounded trial, a request for more information, or a decision to use a different resource. Verification becomes useful when it informs a decision.

The evidence pages connected to this book can support this practice. They preserve original authors and study limitations so that readers can travel back from a chapter to the selected research. The chapter remains an editorial interpretation. A

family should be able to inspect the reasoning without needing to accept the book's authority simply because the page looks scholarly.

A worked inquiry at the kitchen table

The following example is invented. A twelve-year-old is planning a small project about plants. An AI response says that one particular growing arrangement will make every seed sprout faster. The child wants to use the answer as the reason for the project. An adult suggests choosing the most important sentence and asking what would have to be true for that sentence to deserve the word every.

They separate several questions. Which seeds? Which conditions? Compared with what? What counts as faster? The original sentence has hidden all those decisions inside an appealing generalization. The child changes the project question to something they can actually investigate with appropriate adult supervision and ordinary safe materials. They also look for a suitable gardening or science reference to understand what their simple comparison can and cannot show.

Before beginning, they write a prediction and the reason for it. They decide what they will keep similar and what they will change. They agree how to record what happens and how long they can realistically observe. This is a household learning activity, not a claim to conduct professional research. Its value is that the child can explain the relationship among the question, the procedure, and the conclusion they hope to draw.

When the observations are uneven, the adult resists rescuing the project with a neat answer. Some materials may have

differed. Some observations may have been missed. The reference may concern a different condition. The child can describe those limitations and propose a better next attempt. A result that does not fit the prediction is still something to think about, rather than a reason to fabricate a tidy graph.

They return to the original AI response. The most useful discovery may be that the confident universal sentence was a poor starting claim. The tool did supply a topic worth exploring. The child supplied the narrower question, the observations, and the explanation of what remains uncertain. The adult supplied support and the decision to keep the work manageable. Each contribution has a place.

This activity can be adapted without a tool or a planted seed. Compare two explanations in a book, observe a familiar object, or ask a knowledgeable person how they would investigate a question. The structure is the same: move from a broad assertion to a question that can be examined, then keep the conclusion within what the examination can support. A family can practice that movement through very modest projects.

When trust has a social cost

Checking can be socially uncomfortable. A friend shares a striking claim, a relative forwards a frightening image, or an adult repeats a story that fits the family's existing beliefs. A child may recognize a reason to pause and still feel that asking for evidence would be disloyal. Families can prepare language that protects the relationship while making inquiry possible.

A useful opening is, “I can see why that caught your attention. Do we know where it first appeared?” Another is, “I am trying to understand this before I pass it on.” These sentences are proposed scripts, not a guarantee that every conversation will

go well. They move the focus from accusing the person to examining the claim. The family can also decide that a particular moment is better suited to a private follow-up than a public challenge.

Adults should make room for children to question family claims. If the child may check strangers but must accept everything at home, the checking habit has acquired an exemption precisely where trust is strongest. An adult can maintain a boundary about behavior while remaining open to correction about a fact. “The rule still applies tonight; I will check the detail I gave you” separates responsibility from the unnecessary need to win every factual dispute.

Some disagreements concern values rather than disputed facts. One person wants a photograph posted; another feels exposed. One child enjoys a fictional voice; another finds it unsettling. Additional evidence may inform the conversation, but it cannot decide every preference or consent question. Identify the kind of disagreement before asking a source, or a system, to settle it.

Sometimes the family will remain divided about the evidence itself. Name the point of uncertainty and the decision that still needs making. Adults may need to choose a cautious arrangement while continuing to listen. Explain what information would prompt a review. A reasoned temporary decision is more honest than announcing that disagreement proves one person is foolish or that a generated answer has closed the case.

Give “I don't know” a useful next step

Children hear adults praise curiosity, yet ordinary schedules often reward a quick answer. The household needs a place for questions that cannot be resolved immediately. Keep a small question page, a voice note, or a drawing that records what the family wants to understand. The record can be brief enough to use without becoming another project to manage.

Distinguish a question worth returning to from one that must guide a decision now. If the family is choosing whether to share identifying information, uncertainty may justify waiting. If the child is curious about a distant planet, the family can enjoy an unresolved question and revisit it later. The consequence of acting is part of what determines how urgently the answer must be checked.

When you return, show what the search changed. Perhaps a source answered the original question. Perhaps the wording turned out to be confused. Perhaps an expert explained why several answers depend on different assumptions. Keep the revision visible: “At first we thought this was one question; now we can see that it contains three.” Learning can involve making a better question available before reaching a better answer.

Praise the action precisely. “You noticed that the reference did not discuss the same age group” is more useful than a sweeping label about being a genius or a skeptic. Specific recognition tells the child what they did and can try again. It also leaves room for the next occasion when they miss an error. A checking habit is a practice, rather than a permanent status someone earns.

Let the routine end. A family can choose a reliable source, understand its limits, and move on. Endless searching may

add little to an ordinary decision. The aspiration is a person who can use evidence proportionately, ask for help when needed, and remain willing to revise. That is a substantial form of trust to carry into a world full of confident answers.

A knowledgeable person is a source with a context too. A teacher may be the right person to clarify an assignment, while a librarian can help locate a reference and a provider can describe its current service. Ask what responsibility and expertise fit the question. Respecting a person's role does not require treating them as equally authoritative on every subject.

Teach a child to ask a clear question when seeking help. Include what they are trying to understand, what they have already checked, and where the confusion remains. “I read this paragraph, but I cannot see how it supports the sentence in my draft” gives a helper something concrete to work with. The request can be spoken, written, or supported through an accessible format.

Adults should be willing to make the same request. A caregiver can say, “I do not know how to interpret this method, so I am asking someone who does.” This keeps uncertainty connected to action. It also shows the child that using expertise is compatible with independence; the independent act includes recognizing when one's own resources are insufficient.

Once help arrives, compare it with the original question. Did it resolve the uncertainty or reveal a different issue? Keep the result in a short note if the decision matters. A source-checking journey can end in a conversation with a person, and the family should be able to explain why that person was an appropriate source for this particular task.

AN INVENTED SCENARIO

The citation looks impressive

An invented scene: a child finds a polished explanation with a scientific-looking citation. The child says, “It has a source, so it must be right.”

A. Accept it because the citation looks professional.

A citation offers a route to checking. Its appearance does not establish that the paper exists or says what the answer claims. You can preserve the child’s curiosity by opening just one reference together.

B. Open one citation and compare its actual claim.

This gives the discussion a manageable object. If the reference is irrelevant or unavailable, record that limit. The family is practicing a checking process, rather than asking the adult to know every answer.

C. Ban every answer from the tool.

A family may choose to stop a particular use. Explain the reason and preserve another way to investigate the question, so the limit does not turn an ordinary mistake into something the child needs to hide.

Practice disagreement without turning it into combat

Trustworthy checking needs room for disagreement. A child may prefer a source the adult does not recognize. An adult may have a reliable intuition but struggle to explain it. Begin by asking each person what would change their mind. A conversation becomes more productive when people can identify the evidence they are seeking rather than simply defending the source they selected first.

Avoid using AI as the final judge in a family argument. Asking a system to endorse one person's position can turn an apparently neutral answer into another exercise of authority. If the issue concerns a factual detail, locate the appropriate source. If it concerns a preference, value, or boundary, the family needs a human conversation. A generated verdict cannot negotiate consent or take responsibility for the relationship afterward.

A useful practice is to distinguish “I disagree,” “I do not understand,” and “I do not have enough information.” These sentences lead to different next steps. Disagreement may call for comparing reasons. Confusion may call for a different explanation. Insufficient information may call for waiting. Children benefit from having more than belief and disbelief available to express their judgment.

Return to the moon in the opening scene. The adult and child may eventually find an explanation they understand. The deeper accomplishment is a process they can use again: notice persuasion, ask a small question, inspect a reason, and revise without shame. That process gives trust somewhere to stand when the next voice sounds certain.

A QUIET MOMENT

What makes me believe an answer?

Think of a time when an answer’s confidence, familiar voice, or attractive design persuaded you. What evidence would have helped you judge it more carefully?

03

THE FIVE TRICK VALUES

Respect means a voice, a boundary, and a choice

A child's life is not raw material for a convenient prompt.

REAL STUDENT VOICES | THE 2017 ARCHIVE

A voice, an idea, and the right to be heard

THE COMPLETE ORIGINAL PROFILE | 2017

Lynn Kim



The Girl Striving for Gender Equality

Original student writer: Michel Sidemion

Cardinal Impact Moonshot | July 27, 2017 | Original p. 39

Lynn Kim, born and raised in South Korea, always had an aspiration for art and science. “I remember scribbling doodles

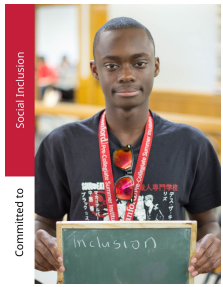
on the walls of my parent's bedroom. Art has always been my passion." She came to America 3 years prior to the Summer program Stanford University to fortify her knowledge in these two fields in mind. She strives to gain more knowledge as a woman who wants to pursue her dream of utilizing both art and science to create the next step forward towards true gender equality in this world.

Lynn Kim believes that with the creative innovation that art itself brings and the connecting ability and nature of technology she can construct a foundation for which any people of whatever gender they identify with can come together and mutually respect each others ideas and perspectives. This could make the world a better place. "The power of innovation through combination of technology can be very impactful." Lynn leaned towards the Stanford Summer Institute Pre-Collegiate Program in 2017 for where she would take the Design as Discovery: Peace Technology and Design Thinking class because she thought it will be an integral part of her path she needs to walk on in order to achieve her goal of creating that inclusive gender mutual foundation.

Gender equality is simply for the ability for people to study and create anything they want without their born sex or identified gender becoming a handicap. "It should be about promoting equality for anyone with any gender." This is unlike the many mixed and warped meanings of that are portrayed by social media from either sides such as that warped gender superiority complex. Lynn believes that certain genders should not have any more value than others, all of them should have to be laid on the same playing field and the way that people succeed in life is based off of their skills and what they know.

"GENDER EQUALITY"

Michel Sidemion



About Inclusivity

Original student writer: Lynn Kim

Cardinal Impact Moonshot | July 27, 2017 | Original p. 41

Michel Sidemion was born in Togo, West Africa, but he came to the Bronx, New York City, USA when he was about three years old. With the diverse and colorful environment that New York City provides, he has been interested in “inclusive communication” for the most part of his life as long as he can remember. He was fascinated by how innovative technology can affect the society in transcending way by creating new ways to communicate and share ideas in international community.

“Inclusive communication is a communication among people where everyone’s idea is respected regardless of one’s values, political alignments, background, religion, belief, race, socioeconomic status, gender, or any other identities.” - Michel Sidemion, 2017 He stated that there were many biases and one-sided stories in news media throughout the history of the world. Consequently, some people are unable to or limited to express their ideas and opinion freely. This idea applies not only to news media but also affects the general society micro, such as school and/or work environment, to macro, such as a city and/or a country, scale. According to Sidemion, the goal of

fostering inclusive communication can be reached by the combination of technology with innovation through programming with specific intention. This enhances imagination and creativity. He stated that this type of technology can give broader view point to people and can spur creativity to create better and effective interaction among diverse people. In Sidemion's opinion, technology is there to connect people with each other, especially in this time of the era where more people have access to internet than people of any era before. It allows people to communicate ideas, share experiences with each other, and evaluate those ideas. This continuing advancement in technology helps to bring awareness to "inclusivity," which is what Sidemion wants to promote.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Lynn Kim brings art and science to a wish for gender equality. Michel Sidemion describes communication in which people's ideas receive respect across differences in identity and belief. Each profile was written by the other student. That exchange offers a concrete way into respect: someone else must listen carefully enough to represent a person's meaning. It also raises a question for family life with AI. Whose account is being shared, and has that person had a voice in how it travels? These profiles do not describe a privacy incident; the chapter develops that parenting question from their recorded commitments.

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An illustrative family scene

This opening scene is illustrative fiction. An adult makes a charming image of a child in a storybook kingdom. The photograph was already on the adult's phone; uploading it felt like one more ordinary step. The child sees the result and asks, “Who has my face now?” The adult begins to explain that it is only a picture, then stops. The child's question is more precise than that answer would have been.

Privacy becomes real through such moments. It concerns who may tell a story, who may copy it, who may infer something from it, and who gets a say before the decision is made. A convenient upload can involve several people, including someone too young to understand the full arrangement. Respect begins by recognizing that the person in the information has interests even when someone else controls the account.

The adult in the scene may still decide whether and how a service is used. Asking a child does not transfer adult responsibility to the child. It creates an opportunity to explain, listen, and consider an alternative. A child cannot inspect every data practice, negotiate every contract, or foresee every future use. That is a reason for careful adult stewardship and a meaningful child voice, together.

A person inside the prompt

A prompt can appear to contain only words while carrying a substantial piece of someone's life. A school report may include an address, a diagnosis, a teacher's name, and a pattern of difficulties. A family photograph can identify siblings, friends, a home, or a routine. A private message belongs partly to the person who wrote it. The usefulness of an analysis does not settle whether all that information needs to be shared.

Start with necessity. What is the task, and what is the least information that could accomplish it? An invented homework example may be enough to understand a concept. A description of an image may be enough to discuss composition. A summary written without identifying details may be enough to prepare questions for a meeting. Sometimes a service truly needs specific information; that calls for a more deliberate decision about that service and that purpose.

Removing a name is not the same as removing every way to identify someone. A combination of ordinary details can become distinctive. A small school, an unusual event, an age, and a location may reveal more together than they reveal separately. Families do not need to become privacy engineers to use this insight. They can pause when a prompt begins to assemble a recognizable person from supposedly harmless fragments.

Another useful question is whose consent is missing. A parent may be comfortable sharing a personal experience that also exposes a child's private struggle. A teenager may upload a conversation that includes a friend's confidence. An adult's authority over a device does not answer every question about the people described through it. Respect follows the information beyond the account holder.

Give the child an understandable choice

An explanation can be simple without becoming misleading. “This service would receive your picture to make a drawing. We can also draw a picture ourselves. I am checking what the service says it does with uploads.” That statement names the action, offers an alternative, and leaves room for uncertainty. It does not promise that a cheerful interface makes the arrangement private.

Ask how the child feels about the proposal, then make time for the answer. A question asked after the adult has enthusiastically announced the finished plan may feel like a request for agreement. A child who hesitates may be objecting to the image, the audience, the permanence, or the simple fact of not having been asked. Understanding the objection is more useful than deciding that hesitation means fear of technology.

For younger children, choices can be concrete: use an invented character, draw together, or stop. For an older child, the conversation can include what information the service receives, who can see the result, and which settings the adult has checked. The aim is participation appropriate to the person. Disability, language, and communication differences should change how the explanation is offered, rather than becoming reasons to omit it.

A child may say yes because the result looks exciting. Adults still need to judge whether sharing is appropriate. Participation is not a way to ask children to bear responsibility for risks they cannot reasonably evaluate. The adult can say, “I hear that you want to try it. I am still not comfortable sending this photograph. Let's find another way.” Respect can include a clear boundary and an understandable reason.

What family privacy research opens up

A small co-learning workshop about social robots analyzed six parent-child families after exclusions. Participants discussed hypothetical privacy situations. Parents and children sometimes differed in comfort and sometimes negotiated alternatives beyond a simple yes or no. The study does not show how families behave over years at home, but it provides a useful invitation to listen for reasons and design a third option. [PMC10991795]

A third option might be an adult-operated demonstration with invented details, a local activity, or a different source of help. It might be changing the audience rather than abandoning the project. It might be waiting until the provider answers an important question. Binary conversations can make families feel that they must choose between every offered feature and no participation at all. The actual task may allow a more careful arrangement.

The workshop should not be inflated into a universal solution. Some information should not be uploaded simply because a family negotiates enthusiastically. Some children will find the conversation difficult. Some adults will have little time to examine a service. The study illuminates a process worth considering; it does not replace judgment about the specific tool or the needs of the people involved.

The broader question also reaches beyond chat. An analytical paper on smart connected toys examines the relationship among sensing, processing, connectivity, and children's rights. It is not a current security certification or an account of today's law. Its relevance is the reminder that a familiar-looking object can participate in a larger information system. [PMC8494166] Families should inspect what the actual

service does now rather than assume that a toy's appearance describes its reach.

Make an information map together

Take a blank page and draw three areas. In the first, place information that can be replaced by an ordinary invented example. In the second, place information that calls for a deliberate discussion about purpose, service, and permission. In the third, place information the family will keep out of general-purpose prompts. The map is an editorial exercise, not a legal classification or a tested privacy intervention.

Use examples from the family's real tasks while keeping the exercise itself free of intimate detail. A made-up shopping list may be easy to use. A school report needs more thought. Identity documents, confidential messages, intimate images, and detailed accounts of another person's vulnerabilities deserve particular care. The categories can overlap, and a detail's sensitivity can depend on context. The map should make discussion easier, not create false certainty.

Then add arrows showing where information might go. Does an adult copy a teacher's message into a tool? Does a child share a screenshot with a group? Does a generated image end up on a public page? People often consider the initial upload and overlook later circulation. A visible result can be saved, copied, forwarded, or described by someone else. Ask what audience is necessary for the purpose.

Finish by assigning responsibilities adults can actually meet. Who checks the current settings? Who decides whether a school document can be shared? Who helps if a child is uncertain? A rule that says “ask an adult” needs an available adult and a realistic response. Include a way to pause when

nobody can answer. Waiting is an acceptable action when the relevant information is missing.

A VISUAL WAY TO THINK

An information boundary before an upload

Invented examples

Could the task work with a fictional name, a made-up event, or an ordinary object?

A deliberate discussion

Whose picture, voice, work, or story is involved? What do they understand, and what alternative is available?

Keep it out

Avoid placing identity documents, intimate images, private messages, or another person’s confidential information into a general-purpose prompt.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Notice the assumptions inside the answer

Respect concerns representation as well as disclosure. An AI-generated family plan may quietly assume a mother does the organizing, a father provides money, every child can read comfortably, or every household has a quiet room and reliable internet. A plan can sound neutral while distributing burdens in ways that do not fit the people who must carry them out.

A simulated parenting-scenario experiment involving two language models found gendered differences in the allocation of caregiving responsibility. The study did not observe actual parents acting on advice, and it cannot characterize every current model or update. It gives a concrete reason to inspect whose work an answer takes for granted. [PMC12629417] The family can examine the output without assuming the study predicts how every interaction will unfold.

Ask who is being named, who is missing, who is expected to remember, and who has been offered a choice. Then rewrite the plan around the actual household. A grandparent may be the main caregiver. Adults may share responsibilities across homes. A sibling may need protection from becoming the default interpreter. A child may need an accessible format that the generated plan never considered. These are facts about participation, not decorative additions.

The same care applies to stories and images. Who gets to be adventurous, knowledgeable, caring, or in charge? Whose name is treated as unfamiliar? Whose body or home appears as the default? A family can enjoy a creative output while asking for a fuller range of possibilities. The valuable conversation concerns the assumptions people notice and the choices they make afterward.

The same child's information may move through several households or a wider circle of caregivers. A parent, grandparent, coach, relative, or family friend may have a different instinct about posting photographs or using an automated service. A shared expectation can help: ask before uploading identifiable material, describe the intended audience, and accept a reasonable request to use another example. Keep the conversation focused on the child's interests rather than on who has the strongest enthusiasm for the technology.

Agreement across adults may be incomplete. One caregiver may already have shared an image that another would have kept private. Begin with the action that can now be taken and the practice for future decisions. The child should not have to carry messages between adults or become responsible for resolving their disagreement. Adults can explain the current arrangement in language that is consistent enough to be usable.

Community projects need similar care. A classroom celebration, team photograph, or neighborhood newsletter can involve children whose families have different expectations. Ask the organizing person what permissions and alternatives apply before adding an AI transformation or a new audience. Existing permission for one purpose should not be casually assumed to cover every new use.

A practical alternative can preserve participation: a group drawing, invented characters, names omitted from an example, or a version shared only with the intended participants. The point is to design the activity so that a privacy boundary does not unnecessarily exclude a child from the social experience. Respect becomes a design question as well as a decision about individual consent.

Privacy and oversight need a clear relationship

Caregivers sometimes need to supervise technology use. The question is how to make that responsibility understandable and proportionate. A child who knows what an adult can see and why is in a different situation from a child who discovers hidden monitoring after the fact. Describe the arrangement as plainly as possible, including which circumstances would require closer involvement.

A shared family device, an adult-mediated demonstration, and a teenager's private conversation are different settings. They need different expectations. Avoid promising absolute privacy if the adult cannot provide it, and avoid treating every private thought as a threat. Growing responsibility includes opportunities to think, draft, and ask ordinary questions without performing for a permanent audience.

When a specific concern arises, name the concern. “You have been losing sleep, and I want us to understand what is happening at night” creates a more focused conversation than a demand for unrestricted access to every message. The adult may still need to act. The action should connect to the actual concern and include a path toward reviewing the arrangement when circumstances change.

Family notes deserve the same care. An agreement can record the chosen tool, purpose, boundary, and next review without storing an intimate account of a child's emotional life. A reflection notebook can belong to the reader. More documentation is not automatically better stewardship. The record should serve memory and repair while preserving as much dignity as the task allows.

Permission has a purpose and an audience

A request to share information becomes clearer when it names both the purpose and the audience. “May I use your picture?” leaves too much hidden. The child may imagine showing a relative, while the adult intends to upload it to a service and post the result publicly. Explain the steps separately. Permission to take a photograph, transform it, submit it to a provider, and publish the result concerns a sequence of decisions.

The sequence also includes other people. An adult may have taken the photograph, but a sibling, friend, teacher, or neighbor may appear in it. A private conversation may belong to several participants. Before sending material to a tool, ask who would reasonably expect to be consulted. If the family cannot obtain an appropriate answer, choose material that does not depend on the missing permission. An invented example can often preserve the learning or creative purpose.

Time matters too. A child might welcome a silly image today and feel differently later. Do not promise that every future change of mind can be fully implemented once something has circulated. Instead, explain what the adult can control now and choose a limited audience when that serves the purpose. A modest decision at the beginning can avoid making a child's future comfort depend on the cooperation of unknown recipients.

Caregivers need language for a no that does not require a child to prove distress. “I don't want that shared” can be a sufficient reason to look for another approach in many ordinary activities. A request for an explanation can be an invitation to understand, but it should not become an

interrogation that continues until the child agrees. The adult can listen while retaining responsibility for essential decisions in contexts where a choice is not available.

This distinction is especially important when an activity is presented as a family celebration. A child may feel that declining a generated portrait will disappoint everyone. Offer an alternative before asking for the decision: a drawing, an object that represents the child, a private version, or no contribution that time. Participation should be possible without requiring the child to accept every proposed use of identifying information.

The family can keep a simple record when a project is substantial: what is being shared, with whom, for what purpose, and who will act if a concern arises. Most small moments need a conversation rather than a form. The record is useful when it helps adults remember a bounded permission instead of allowing the initial enthusiasm to expand into unrelated uses.

When caregivers disagree

Consider this invented scene. One caregiver sees AI-assisted family storytelling as a warm way to preserve a grandparent's memories. Another worries about uploading recordings of people who did not expect their voices to leave the family. The discussion becomes an argument about whether technology is good or bad, and the child who wanted the story sits between them, unsure which adult to reassure.

Return to the actual task. What would the family like to preserve: the words, the voice, the relationship, or a story children can read? Which parts require an external service? Could someone transcribe a short passage, use an invented

narrator, or keep the recording within an agreed setting? A narrower description can reveal alternatives hidden by the broad argument. The adults may still disagree, but they now have a concrete choice to discuss.

Separate the decisions adults must make from the child's contribution. The child can say what the story means to them and which format they would enjoy. The child should not have to resolve a disagreement about provider practices or become the messenger between households. Adults can explain a temporary boundary consistently while they examine the information they need. “We are keeping the recording as it is while we decide how to use it” is understandable.

Ask each adult to name the concern they are trying to protect. One may be protecting connection with distant relatives; another may be protecting privacy. Those purposes can coexist even if a proposed product does not serve both well. Explore an alternative that preserves the underlying value. A telephone conversation, a handwritten memory book, or a carefully selected excerpt may meet the need in a way the original proposal did not.

Disagreement can also concern different adult capacities. One caregiver may be willing to examine settings and manage a service; another may not have time or access. The person introducing a tool should account for the ongoing work it creates. Avoid presenting a new practice as a family agreement when another adult is expected to carry the checking, repair, and explanation without having accepted the role.

When the decision remains unresolved, choose a temporary arrangement proportionate to the situation and set a real occasion to revisit it. Explain what additional information matters. The adults can model a disagreement that is serious

without making the child's identity, loyalty, or maturity its battleground. That process is itself an instance of respect the child can observe.

Language, culture, and the meaning of a story

A family story can carry meanings that a literal transcript does not show. A nickname may be affectionate within a relationship and exposing outside it. A phrase may belong to a language or community whose conventions an automated translation misses. A story told in a small circle may include humor, grief, or a social obligation that changes when the audience changes. Sharing the words can also change the event.

Before translating or rewriting, ask what the family wants to preserve. Is the goal to make the broad meaning accessible, retain the speaker's voice, or prepare a version for a specific reader? These purposes may require different choices. A fluent result can lose a distinction important to the speaker. Invite someone who understands the language and relationship to inspect the passage when the meaning matters.

Do not make the child the household's default interpreter for consequential matters simply because they are more comfortable with a device or a language. Adults may need support from the relevant institution or an appropriate interpreter. A child can contribute within a supported family activity without assuming responsibility for understanding documents or decisions that belong to adults. Respect includes noticing when apparent competence is being used to transfer too much responsibility.

An AI tool may help make a school message more approachable. Keep the original available, identify uncertain wording, and ask the school to clarify what affects the child's participation. An accessible explanation is useful because it opens a conversation with the responsible people. The family should not have to accept a generated interpretation as the final account of a requirement that the institution can explain itself.

Culture also shapes what feels private, what can be told publicly, and whose permission is expected. Families may disagree within the same community or across generations. Ask the people involved instead of assuming a uniform cultural rule. The child can hear why an adult values a practice while also explaining a boundary about their own information. The conversation may need an alternative that preserves connection without assuming complete agreement.

When a story belongs to a wider community, inspect the permission attached to the material and consult the appropriate people where needed. Public availability does not answer every ethical question about transforming a story into a family product. The activity can become an occasion to learn how a story travels, who has carried it, and which responsibilities accompany receiving it.

Let the future child remain possible

Adults document children because childhood moves quickly. A photograph, an account of a funny mistake, or a school milestone can become a way of holding a moment. AI makes it easier to organize, transform, and interpret that record. The increased ease deserves a question about scale: how much of the child's life needs to become material for processing or display?

A useful record can preserve a relationship without preserving every vulnerable detail. A family album can show an activity without narrating a child's private difficulty. Notes for a school meeting can contain the information necessary for support without becoming a permanent public portrait. Choose the audience and level of detail according to the purpose, then revisit them when the purpose changes.

Imagine the child reading the description later. Would they recognize the event? Would the wording allow their understanding of it to change? Would they feel that an adult had used their vulnerability to illustrate the adult's insight? These questions cannot predict every future reaction, but they can improve the decision now. They direct attention toward the person who will have to live with the record after its immediate usefulness has passed.

A generated profile may tempt adults to predict a personality, talent, or future path from a small set of observations. Treat such language with care. Ask what evidence the description actually contains and whether it is merely making a plausible narrative. Children need opportunities to surprise adults, including through interests or choices that do not fit an early account. A flattering label can constrain as well as encourage.

Family privacy therefore includes the freedom to remain partly undescribed. A child can have a thought that is not summarized, a hobby that is not measured, and a difficult period that is not made public. Adults still need enough information to provide care and meet responsibilities. The art lies in collecting and sharing what the responsibility requires while resisting the assumption that every available detail belongs in the record.

The child will eventually make more of these decisions themselves. Preparing them includes modeling an ordinary pause, explaining a purpose, asking whose interests are involved, and accepting that convenience does not settle the question. Respect becomes a habit they can carry into friendships, school, work, and their own future forms of care. It begins in the choices adults are willing to make before anyone presses upload.

Children should also know that a privacy question can be raised after an activity has begun. A child may understand the audience only when the result appears, or notice someone else's information in a draft. Make pausing possible at that point. “We already started” is a reason to inspect what has happened, not a complete answer to the new concern.

The adult can distinguish what is still under the family's control from what has already left it. A local draft may be easy to change; an upload may require a provider process; public circulation may create limits the adult cannot remove. Explain the difference without using it to silence the child's objection. The information can guide both the immediate repair and the design of the next project.

AN INVENTED SCENARIO

“Who has my face now?”

An invented scene: you uploaded a child’s photograph to make a fantasy portrait. They are uncomfortable and ask who can see it.

A. Reassure them that it is only a picture.

The child is asking about control over information. Reassurance is more useful when it follows an honest explanation of what you know, what you need to investigate, and what you can change.

B. Acknowledge the upload and investigate the actual controls.

Take responsibility for the adult decision. Explain what you can check or remove without promising that a visible deletion erases every retained copy. Agree on what you will discuss before another upload.

C. Ask the child to read all the service policies alone.

Children deserve an understandable explanation, but adults retain responsibility for assessing the arrangement. Read relevant information yourself and explain the part that affects the child.

Repair after an upload

When a boundary has been crossed, begin with a truthful description. “I shared the photograph before we talked. I understand that you did not want that.” Acknowledge the decision without asking the child to reassure the adult. Then inspect what can be changed: visible sharing, account controls, a deletion request, a school conversation, or a provider's process. Do not promise that every copy or inference can be removed.

Deleting a visible chat and removing all retained data may be different actions. The relevant answer comes from the service's current information and controls. If the provider leaves an important question unresolved, record that uncertainty. The adult can explain what was attempted, what was confirmed, and what remains unknown. A calm account of limits is more respectful than a comforting promise that cannot be kept.

Repair also needs a future practice. Decide what the adult will ask before sharing again, which kinds of information need a pause, and what alternatives are available. A child should not have to discover every boundary by experiencing a violation first. Adults can offer their own examples of information they would want consulted about, making the principle reciprocal without pretending the responsibilities are identical.

Return to the child asking who has their face. The adult may not have an immediate complete answer. They can still offer something substantial: attention to the question, responsibility for investigating it, and a change in how the next decision will be made. Respect becomes credible when it alters what the person with the most authority does next.

A QUIET MOMENT

Whose story am I sharing?

Choose one ordinary adult habit involving children’s information. How would that habit change if you asked whose interests and preferences are present in the decision?

04

THE FIVE TRICK VALUES

Protect the work of learning

Use help that leaves the learner able to do more afterward.

REAL STUDENT VOICES | THE 2017 ARCHIVE

Learning that opens a decision

THE COMPLETE ORIGINAL PROFILE | 2017

Artur Barbosa



Problem Solving Skills and How They Are Related to Education

Original student writer: Artur Barbosa

Cardinal Impact Moonshot | July 27, 2017 | Original p. 47

Artur Barbosa is a Brazilian senior high scholar. He is determined to tackle one of the most important issues of

underdeveloped and developing countries, which is education. In Brazil, for instance, education is a huge problem primarily when it comes to logical thinking and student`s involvement with extracurricular activities. Brazil stands out as being one of the ten best economies in the world, whereas it presents the Human Development Index (HDI) under 0.750, a low number compared to its economy. The students are not exposed to project development because of the education system, which values the ability of memorizing information more than problem solving. The challenge of changing such a reality is really difficult because it involves bureaucracy. Recently the Brazilian`s government has approved a constitutional amendment on its educational system. The new law changes topics such as class duration, mandatory subjects, implementation of new courses and so forth. Specialists state that these changes are not going to affect education in a positive way, since they do not help students to develop their intellectual capital and capacity.

Therefore, the unique way possible and viable to improve it, has to come from the students themselves or private initiative. Artur is founder and CTO of “Passei Facil”, a non-profit project aimed at supporting students to be accepted to the best universities and schools in Brazil. The project includes the presence of 22 volunteers. Passei Facil has helped over 15 thousand people just with its posted texts. Furthermore, the project offers mentoring from successful students from all over the country. The last application received more than 300 applicants. After all, he thinks we should focus on intellectual enrichment, and the only way to do it is empowering the students by giving them the skill that the world and the job market need: problem solving.

In order to create humans prepared for the world, they have to face the real current problems instead of learning the past

ones, because the past solutions do not solve the future's problems. An effective way of developing this kind of skill and making them prepared to the reality, is literally giving them the real problems of the world to solve. Artur thinks that the peace technology can make a huge impact in many student's lives.

THE COMPLETE ORIGINAL PROFILE | 2017

Tony Zhong



Financial Literacy to Change the World

Original student writer: Nick Bost

Cardinal Impact Moonshot | July 27, 2017 | Original p. 31

One of the most fulfilling things in life is to educate and share knowledge with others for the benefit of everyone. Giving people the tools to be in control of their own destinies is of pinnacle importance to human prosperity and the welfare of this nation and all other nations. But what often determines one's place in life is having individual control over their money and their financial situation. That's why the goal and dream of Tony Zhong, fifteen-year-old innovator and change-maker, is to bring education about money and ultimate financial literacy into the education system formally. Tony believes this ensures people to have the tools to control their own lives, and the freedom to make their own decisions.

Tony is originally from China, but studies in Massachusetts. His parents are both entrepreneurs who have inspired his love and interest for financial literacy. Many conversations with his parents about their businesses and the nature of money led him to a better understanding of finance. He has a passion for economics and finance that developed from these conversations around three years ago, which is when he first started to realize the serious lack of financial education among most people, even those with money.

“My friend recently spent $400 on a bracelet for a girl he has barely talked to, that was not a very financially intelligent decision”, Tony explained. Tony understands that needless spending and wastefulness with money throughout one’s life happens as a result of a lack of financial education, mainly in schools. His plan to change this fact and ultimately the way people live involves slowly introducing financial literacy in an extracurricular format in schools. His plan would start with simple concepts like budgeting and saving. Then working up to topics like investment and long-term income. By incorporating games and easy-to-use tech he looks to make learning about financial literacy easy and fun for everyone.

Many problems people have in their lives like instability or uncertainty in their future stem from a lack of financial literacy. In a country where 43 million people are impoverished, it is becoming more important than ever to teach everyone with money how to handle it so that growth and opportunities can be realized for all. As this young man continues to fuel and follow his passion for universal financial education, it will be exciting to see what he develops as it is sure to change the world.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Artur Barbosa describes a student-led education project and argues for confronting real problems. Tony Zhong connects conversations with his parents about business to a desire for financial education. Their ambitions make independence more specific than doing everything alone. A learner can receive explanation, examples, encouragement and access while still making a consequential choice. The profiles record what these students were doing or proposing in 2017. They do not establish the later impact of either project. Their relevance here is the question they place before an adult: what will the learner understand or decide after the help is over?

Cardinal Impact Moonshot, July 27, 2017. Original student accounts retain their own rights and are excluded from the CC BY license on new editorial synthesis. Historical aspirations do not establish later outcomes.

An illustrative family scene

This opening scene is illustrative fiction. A student finishes a page of mathematics faster than usual. Every answer is correct. When an adult asks how one problem works, the student opens the chat again. “It explained it,” the student says. That may be true. The explanation appeared on the screen. Whether the learner now understands it is a different question, and it cannot be answered by looking at the completed page alone.

A finished answer can conceal an unfinished learner. It can also conceal an important success: perhaps a child finally accessed a question that an inaccessible format had kept out of reach. Before deciding which story applies, look at the purpose of the task and the child's contribution. Independence concerns the ability to participate, understand, choose, and act with appropriate support. It does not require doing everything without help.

The parenting task is to shape assistance so that the learner remains present in the learning. Sometimes that means a hint. Sometimes it means a different representation, more time, a conversation with the teacher, or a necessary accommodation. Sometimes it means letting the child work for a while without the adult watching. The right help leaves a meaningful role for the person receiving it.

Name what is being learned

“Finish your homework” describes a deadline. It does not describe the skill the child is meant to practice. A writing assignment might involve forming an argument, organizing evidence, spelling, or learning a new language. The same support can serve one goal and bypass another. Correcting spelling may free attention for an argument while removing the very practice a spelling task requires.

Ask the child what the task is asking them to learn, then compare that answer with the instructions. If the goal remains unclear, the teacher is a better source than a guess. A family can write a one-sentence purpose beside the task: explain a method, compare two sources, use a new word, or revise a claim. The purpose becomes a guide for deciding which assistance fits.

Consider an essay. A tool could generate the whole response, ask the student questions, identify an unclear paragraph, or suggest a counterargument. These are different roles. If the goal is choosing and defending a position, handing over the choice removes a central part of the work. If the goal is revising a student-written draft, limited feedback may leave the intended work intact. The decision depends on the assignment and the setting's actual rules.

Keep the child's reasons visible. Why did they select that example? What did they change after feedback? Which suggestion did they reject? Such questions can reveal thinking without requiring a complete transcript of every keystroke. Independence needs a history of decisions the learner can recognize as their own, rather than a polished artifact whose origin has become difficult to explain.

Help can enlarge agency

There is a temptation to treat support as a quantity that should always decrease. In real life, the form of support matters as much as the amount. An accessible text format, translation, speech input, or another approved aid may enable a child to participate more independently. Removing it simply because the task should be difficult can create dependence on an adult or exclude the child altogether.

Discuss essential supports with the child and their educators. Distinguish a barrier to access from the skill being assessed. A learner may need help reading the instructions while being fully capable of reasoning about the problem. Another may need a different way to express an answer. Families should not withdraw established accommodations casually in pursuit of an idealized picture of unaided performance.

Meaningful choice also matters. A pooled observational study of preschool-age children and caregivers examined autonomy-supportive behaviors, including offering choice, and their associations with executive-function skills. The study is correlational, used brief observed tasks, and was not a test of AI-assisted homework. It helps frame a question about agency; it cannot prove that a particular chatbot routine causes developmental gains. [PMC8802749]

The editorial application is modest: look for decisions the child can actually make. Which problem should we begin with? Would a drawing or a spoken explanation help? Do you want a hint now or a little more time? A choice is meaningful when the adult can accept the available options. Offering a choice whose “wrong” answer triggers a lecture teaches something different from agency.

Attempt, hint, explain, transfer

A practical routine can have four movements. Begin with an attempt suited to the child's needs and the task. Ask for a hint or a different example if help is needed. Invite the learner to explain the reasoning in their own words or another accessible form. Then try a related task away from the tool to explore what carries over. This is an editorial practice, not an intervention validated by the cited studies.

The first attempt need not be long. Its purpose is to reveal what the learner already understands and where help might be useful. A child can draw what they notice, circle an unfamiliar word, or describe the first step. “I don't understand any of it” may become “I can follow the example, but I don't know how to choose a method.” That is a more useful starting point for assistance.

A hint should preserve work for the learner. An adult or eligible older user might ask a tool for one question that points toward the next step, then inspect the response before using it. A system asked for a hint can still disclose the full solution. The adult's judgment remains necessary. Sometimes the best hint is an object, a simpler example, or a question from someone who understands the child's current difficulty.

Explanation and transfer provide different kinds of information. Repeating a sentence may show memory without understanding. Solving an identical problem may show familiarity without flexible use. Ask what would change if a condition changed, or invite the child to create an example. Keep the task proportionate. The goal is to understand the learner's progress, not to make every completed assignment earn a second examination at home.

A VISUAL WAY TO THINK

Help that leaves room for learning

01. Attempt

Name the skill. Begin with an accessible attempt and the supports the learner needs.

02. Hint

Ask for the smallest useful next step or a different example.

03. Explain

Invite the learner to describe the reasoning in their own words or an accessible form.

04. Transfer

Try a related task to see what carries over. Keep essential accommodations in place.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Give feedback a place and a limit

Feedback is useful only when the learner can do something with it. A page of corrections may overwhelm a child who needs help with one idea. Ask for a narrow focus: whether the argument has a reason, where an explanation becomes unclear, or which step needs checking. A smaller response can leave more room for the child to decide what to change.

Ask the child to compare feedback with the purpose of the work. A suggested rewrite may sound smoother while changing the meaning. A grammatical correction may erase a deliberate voice or misunderstand a dialect. A criticism may be vague. The learner can practice accepting, modifying, and rejecting feedback with reasons, rather than treating every suggestion as an instruction.

For younger children, an adult can translate feedback into one manageable question. For an older learner, the child might bring one passage and ask what a reader would need to understand it. These practices also work with a sibling, classmate, teacher, or library resource. The learning habit is engagement with a response, rather than reliance on a particular service.

Leave space for an imperfect draft. Early work can look messy because thought is still forming. If every sentence is polished immediately, the learner may lose sight of the difference between discovering an idea and presenting it. Agree on a period for drafting without correction when that fits the task. An adult can be available without becoming a permanent audience for every false start.

Difficulty also has a timing problem. A child may want help immediately because uncertainty feels uncomfortable; an adult may provide it immediately because watching the

struggle is uncomfortable too. Agreeing on a brief pause can help both people see what is possible before intervening. The pause should fit the child and the task, with an easy route to ask for help. It should never become a requirement to remain distressed or inaccessible for an arbitrary period.

Ask what kind of difficulty is present. Is the learner missing a fact, misunderstanding the instructions, unable to access the material, unsure how to start, or exhausted after a long day? More explanation is not the answer to every problem. A break, a different format, a simpler example, or a question to the teacher may address the actual obstacle. A tool can produce many words without identifying which obstacle matters.

Interest can guide the next attempt. A child learning to compare quantities might find a familiar activity more meaningful than another abstract example. An older learner may want to apply a method to a problem they care about. The adult can help connect the task with that interest while keeping the relevant learning goal intact. Relevance should create an opportunity to think, rather than conceal that the system has done the thinking.

Leave some decisions with the learner even when the first result is imperfect. If a student chooses an example that does not quite work, ask them to examine the mismatch before replacing it. A reasonable mistake can become material for understanding. The adult need not rescue the appearance of the work at every turn.

At the same time, respect a child's request for privacy while learning. Some people want to rehearse before explaining. Others think better aloud with a listener. Ask which arrangement helps today. Independence can include recognizing the form of support one needs and communicating

that need clearly, including the need for a little time alone with an unfinished idea.

Learn to create and critique

AI literacy includes understanding enough about systems to ask how they affect people. An AI-and-ethics curriculum paper describes project-based workshops for middle-school students, combining making with critique and attending to access. The evaluation was exploratory rather than a randomized efficacy trial. It offers inspiration for active learning without proving that every workshop or generative tool improves achievement. [PMC9342939]

At home, creating and critiquing can begin with ordinary materials. Ask how a sorting rule might misclassify an unfamiliar object. Invent a recommendation system for family books and examine whose preferences it misses. Discuss what examples a system would need and what a mistake would cost. A family does not need programming expertise to notice that a rule can work well for some people and poorly for others.

When a digital tool is used, let the child examine its output as something made. What information went in? What instructions were given? What did the system assume? What would be needed to judge whether it worked? These questions connect a technical task to a social context. They also give the learner a role more substantial than pressing the button and admiring the result.

A project can end with an unresolved question. Perhaps the family cannot tell how a feature was trained, or whether a particular claim has been evaluated. Record that uncertainty. Independence includes knowing when the information available is insufficient and identifying who might help. A

confident presentation is less useful than a learner who can explain both a result and its limits.

When everyone else seems to be using it

A child may say that classmates are using AI to finish work and that working without it feels foolish. Begin by understanding the pressure. Is the workload unmanageable? Are the instructions unclear? Does the child fear a lower grade because others submit more polished work? Is the account of what others do accurate, exaggerated, or impossible to know? Each possibility calls for a different response.

A lecture about honesty may miss a practical problem. Clarify the school's expectations and help the child find permitted support. If the assignment creates an access barrier or an unreasonable burden, the family can raise that issue with the teacher. Following a rule and questioning whether the arrangement serves learning are compatible actions when the questions are handled through the responsible people.

Document assistance briefly when it is used. A learner might note that they wrote the initial argument, received suggestions about organization, and checked the factual claims. The record should reflect what happened. It can support a conversation about learning without turning into an elaborate performance designed to prove innocence. Keep drafts and explanations proportionate to the task.

Avoid making the child responsible for solving the institution's entire policy problem. Adults and schools need to provide clear expectations, accessible alternatives, and fair ways to discuss uncertainty. The learner's responsibility belongs

within that structure. Independence grows when responsibility is understandable and possible to exercise.

A worked example: keep the argument with the learner

The following assignment and family scene are invented. A student is asked to write an argument about extending the school library's opening hours. The task requires a position, reasons, and evidence the class can inspect. The student likes the topic but dislikes beginning. An AI tool offers a complete essay within seconds, including convincing-looking references. The adult's next choice will determine whether the output becomes a model to examine, a substitute to submit, or something the learner sets aside.

First they identify the work that belongs to the assignment. The student needs to choose a position, connect reasons to evidence, consider a relevant objection, and express the argument. They ask the teacher's actual policy before using AI assistance. If the assignment prohibits the proposed use, they follow that boundary and use permitted sources of help. The family does not need to solve an uncertain rule by guessing what a system says is acceptable.

The student begins with a spoken account. Why do they care about the library? Which students might benefit, and what practical concerns might the school have? An adult writes short notes without improving the argument. If speech input or another approved aid makes participation possible, it remains part of the arrangement. The learner's job is reasoning about the topic; the family should not quietly replace that job with overcoming an unrelated access barrier.

Where permitted, the tool can receive a limited request: identify one question a reader might ask about the student's own outline. The student examines the response. Perhaps it asks who would supervise the extra time. That is a useful objection. The student decides whether it belongs in the essay and what information would be needed. A suggested question has opened work for the learner rather than providing a finished position.

They inspect evidence separately. A generated citation is opened and compared with the relevant claim before it is used. If it does not exist or does not support the sentence, it is removed. The student might instead use information from the school, an appropriate reference, or a source the teacher recommends. The essay can acknowledge a gap. An honest limited argument is preferable to a confident passage whose evidence the writer cannot explain.

The first draft then belongs to the student. Feedback can focus on one issue: whether each main reason connects to the position. The learner decides what to revise and records the assistance that actually occurred. Before submitting, they explain the argument aloud or in another suitable form. This is a check on the family's arrangement, rather than an additional high-stakes test. If the student cannot explain a passage, they return to it and rebuild the reasoning.

The final essay may be less fluent than the initial generated one. It may also be work the student understands and can discuss. The practical question is whether the support preserved the skill the assignment was designed to exercise. The family can use the same question when the next task concerns a proof, a translation, a design, or an explanation of a scientific idea.

What carries over when the window closes

The word transfer can sound technical, but a family can begin with a simple question: what can the learner do in a related situation when the original help is absent? A child who followed a worked example may be ready for a similar problem. A child who repeated the explanation may still be unsure why the steps fit. The family can explore the difference without turning a household routine into a claim about proven educational effects.

Change one feature at a time when appropriate. If a child practiced comparing two sources, choose a new pair on a familiar topic. If they explained a method, ask how it might apply when one condition differs. If they revised an argument, ask them to identify a reason in another paragraph. The task should remain connected enough that the learner can see what is being explored. Surprise difficulty can make the exercise feel like a trap.

Use a format that does not remove essential supports. Closing the chat does not mean withdrawing an accommodation, taking away a communication aid, or requiring an inaccessible mode of response. The family is asking whether the relevant reasoning is available to the learner. A child can demonstrate that reasoning through speech, writing, objects, diagrams, or another appropriate form. Discuss formal assessment requirements with the responsible educators.

Let the result guide the next support. If the learner can explain one part but not another, the next attempt can focus on the missing connection. If the task was too difficult, choose a smaller step. If fatigue dominated the experience, stop and return when feasible. The observation should help adults

design the arrangement, rather than become a label about the child's intelligence or motivation.

A learner can also identify what they still need. “I understand the first step but forget how to choose the next one” is a valuable account. So is “I can do it, but the written instructions take me too long to read.” Independence includes asking for a specific useful support. It does not require concealing difficulty until the adult notices.

The feelings attached to an unfinished page

Learning has an emotional setting. A blank page can represent a difficult task, a history of criticism, an uncertain instruction, or a fear of producing something ordinary. A system that offers a polished answer can be attractive partly because it removes that exposure. A caregiver who sees only shortcut-taking may miss the pressure that makes the shortcut feel necessary.

Ask what the child expects will happen if the work is imperfect. Will someone laugh? Will the adult rewrite everything? Does the learner believe that a first attempt should already resemble the model answer? These questions can reveal a household habit worth changing. Adults can describe their own drafts and revisions without making the child responsible for reassuring them about adult competence.

Make the first version's purpose clear. A rough outline is meant to show the shape of an idea. A practice problem is meant to reveal what needs attention. A private rehearsal can be incomplete. The family can protect these purposes by avoiding premature comparison with a polished generated

product. If a model is used, discuss what it illustrates and which work the learner still needs to do.

Feedback should preserve a route forward. “This paragraph has a claim; let's find the reason that would help a reader follow it” gives the child an action. “This is weak” gives a verdict without a method. A tool's feedback can be just as vague or overwhelming as an adult's. Inspect it before treating the quantity of comments as evidence of usefulness.

A child may need a break from being improved. After a demanding school day, the appropriate family activity may be play, rest, or companionship. The adult can still care about learning while recognizing that the evening has finite attention. A routine that requires every child to explain and demonstrate continually can become exhausting. Choose moments when the observation serves a real purpose and let other moments remain ordinary life.

Hand responsibility back in pieces people can use

Increasing independence works better when the decision being transferred is concrete. “Be responsible with AI” leaves the learner to infer what adults mean. “For this permitted task, choose one source, check the relevant claim, and record the assistance you used” gives a more usable responsibility. The adult can support the steps the child does not yet understand and revisit the arrangement as experience grows.

Agree on when the learner should seek help. An unfamiliar privacy request, a troubling response, a mismatch with the school rule, or a question with consequential stakes can trigger a pause. The child should know that pausing is part of

the arrangement, rather than evidence of incompetence. Adults also need to respond realistically when asked; an invitation to seek help means little if every question receives irritation.

Choose responsibilities that fit the person's circumstances. One child may manage a familiar bounded task while needing help with language-heavy instructions. Another may understand sources well while finding it difficult to stop a conversation at bedtime. Treat these as different support needs rather than assume that one impressive skill establishes readiness for every kind of use. Age is relevant, but it cannot describe the whole person.

Review progress through specific decisions. Did the student recognize when a citation needed checking? Did they ask for the right kind of help? Did the tool's role remain within the assignment's purpose? These questions concern actions that can be discussed and improved. They leave more room for growth than a global declaration that the child is either ready or unready for technology.

The adult's role changes too. Sometimes the next step is to speak less, wait longer, or stop polishing a result the child can explain. Sometimes it is to provide more accessible support. Independence grows inside this changing relationship between responsibility and help. A tool can participate in the arrangement, but it cannot make the adult's judgment unnecessary or take the learner's place in exercising it.

For a younger learner, a related activity can be concrete. Imagine an invented lesson in which a child is learning to explain how objects can be grouped. The adult and child arrange familiar counters in one way, then change the arrangement while keeping the total visible. The child describes what changed and what stayed the same. A tool is

unnecessary unless a particular accessible support adds something useful to the activity.

If the child gives a surprising explanation, ask them to show it with the objects. The action may reveal a coherent idea that the adult did not understand from the first sentence. It may also reveal a mistake the child can inspect. Resist supplying polished mathematical language before understanding the learner's own representation. A correct term becomes more meaningful when it names a relationship the child can demonstrate.

An older learner can use the same habit with a more complex task: draw the structure, create a small example, or explain a decision to an imagined reader. The family need not claim that the explanation is a formal measure of mastery. It supplies information about which part of the reasoning is visible and which part needs attention.

These brief activities can end with the learner choosing the next question. What would they like to try differently? Which support should stay? Which part can they now attempt with less help? That decision gives the observation a purpose and returns a piece of the learning process to the person doing it.

TRY IT TOGETHER | ABOUT 20 MINUTES

The hint, then the next problem

1. Choose one small learning task and agree on the skill being practiced.

2. Let the learner make an accessible attempt. Ask what kind of help would be useful.

3. If using a suitable tool, request one hint. An adult can check that it has not simply given the answer.

4. Ask the learner to explain a decision, then try a related task with appropriate supports.

5. Decide whether the help needs to become smaller, clearer, or different.

Reflect: What could the learner now explain or attempt? What support still makes participation possible?

Editorial practice to adapt to your family; not a tested intervention.

Recognize growth beyond a polished page

At the end of an experiment, ask what the child can now explain, attempt, or decide. The answer may be a method, a new question, a better account of an error, or recognition that a tool's help was not useful. These are different kinds of progress. A single result should not become a sweeping judgment about ability, motivation, or the future.

Notice the child's experience as well as the output. Did the support make participation possible? Did the learner feel that the work still belonged to them? Did checking consume more

time than the original difficulty? Did the adult become too involved? The review concerns the arrangement. It should make the next attempt more workable rather than score the child against an idealized routine.

Return to the student with the correct mathematics page. The adult might choose one problem and ask the student to explain what the answer means. If understanding is missing, the next step is to recover the learning opportunity: use a simpler example, ask the teacher, or change the tool's role. The page has supplied information about the support, rather than a final verdict about the student.

A growing learner needs opportunities to act, receive useful help, make mistakes, and try again. AI can sometimes participate in those opportunities. The adult's continuing question is whether the support leaves the person more able to take part in the work of their own life.

A QUIET MOMENT

Completion and understanding

What would count as learning in the task in front of us? How could we notice it without turning the child’s evening into a performance test?

05

THE FIVE TRICK VALUES

Make something together

Let AI widen the possibilities while people keep the purpose.

REAL STUDENT VOICES | THE 2017 ARCHIVE

Two classmates make room for each other’s mission

Jasmine Davis



Social Justice Through a Lens

Original student writer: Madeleine Charity

Cardinal Impact Moonshot | July 27, 2017 | Original p. 19

Jasmine Davis, of New York, New York, has a passion for social justice, her mission at The VR School. This passion, nurtured by her family, school, and city, made her an advocate of “equality for all”. Her instrument of change, film, allows her to raise awareness through photos of “what does go on” in her country and abroad.

Davis has lived in New York City her whole life, first in Manhattan before moving to the Bronx. In addition to being at VR, she attends City College Academy of the Arts in Washington Heights, where she serves as student body president and chair of the dean’s council. She says the diversity of the city helped to shape her appreciation for social justice and VR School provides her the flexibility to design her own academic journey. And growing up with the exposure of different types of people generated her awareness as well.

This awareness was amplified by her family’s history in the Civil Rights Movement. Her maternal grandparents, African-American and German, wed in the 1960’s before interracial marriage was widely legalized. Thus, advocating for social justice is in her blood. So when Davis showed an interest in using film as a way to raise awareness about these

issues, her family stood firmly behind her. Encouraged by her family to take advantage of New York's many film festivals, Davis developed a love for the art and the impact it had on behavior at an early age. As she got older, she began making her own videos to showcase injustice and bring awareness to her community. In 2016, Davis founded The Girl's Empowerment Group (T.G.E.G.) as a space for like minded young women to speak out about social injustices in their community. Their next project, which focuses on the lack of toiletries for the homeless, begins in a month.

Davis plans to continue this effort in the future and considers a college major in film. She wants to go abroad in the years to come and make videos about civil rights movements in other countries. Davis hopes these films will raise awareness and have an impact on the human community.

PULL QUOTE FROM THE ORIGINAL PROFILE

> "Equality

PULL QUOTE FROM THE ORIGINAL PROFILE

> for

PULL QUOTE FROM THE ORIGINAL PROFILE

> all"

Madeleine Charity



CHERRY HOLDER: Sexism, Racism, and Raising Awareness.

Original student writer: Jasmine Davis

Cardinal Impact Moonshot | July 27, 2017 | Original p. 21

Madeleine Charity is a very ambitious and compassionate student. She is a high school junior attending The VR School for her mission. In an exclusive interview about Social Justice she expresses the gratitude she has for her parents and grandparents. From them and their experiences, she feels that she has become wise & openly spoken on the issue of Social injustice. This is also because of her grandparents, who rose above the assumptions that blacks shouldn't go to school or work in STEM. Thus, inspired the rest of her family into becoming doctors or finance officers. Charity is also very open-minded. She focuses on helping her community by first understanding her peers. Currently in a Students Unite group known as S.U.R.J.E., with her team, they encourage their whole school to participate in anonymous based conversations about modern day news. Charity claims "it's very important for a community to come together and just start conversation on [modern day] news. We see each-other a lot [...] and we're a community". The presentations are to expose her school to the views of their peers because it's essential for them to "understand the ones around them.

Charity speaks on injustices in many ways that result in her being a true leader. This is certain because starting her junior

year in fall of 2017 she has been accepted into a leadership role on an organization titled “ACHIEVE”. ACHIEVE is an extracurricular that provides tutoring help for kids and exposes those kids with limited means to richer education. Charity is most excited about continuing this project in Boston because of their segregated education system. Yet, wait there’s more! She is also an advocate for feminism, taking a leadership role in a feminism club active in her school. When asked “why do you do all of this stuff”, besides her passion for it, Charity states “my grandparents and parents worked to give me these opportunities and I don't want to waste them[...] I don't want to fall into the same pattern of past injustices [such as racism and sexism]. It’s a big task [but, does not mean it can't be done]”. Which, concludes Charity to be a “Cherry Holder”. In the 1800s cherries were the symbol of the fleeting quality of life's pleasures. Yet, Charity is not a cherry stem but a holder, undeniably because she conserves the notion of social justice by holding the happiness and pleasures of the importances of integrity in a community.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Jasmine Davis and Madeleine Charity wrote one another’s profiles. Jasmine’s account connects family encouragement with film and social justice. Madeleine’s connects family opportunity with service and conversations in her school community. Their exchange is itself a small creative collaboration: each student becomes responsible for making another person’s purpose understandable. An AI tool can support a shared project, but the people involved still need a voice in its meaning, its audience and its final form. The following family practices extend that question; they do not report activities these students were shown to have completed.

Cardinal Impact Moonshot, July 27, 2017. Original student accounts retain their own rights and are excluded from the CC BY license on new editorial synthesis. Historical aspirations do not establish later outcomes.

An illustrative family scene

This opening scene is illustrative fiction. A family decides to make a small neighborhood newspaper. The youngest child draws a fox in the park. An older child wants to interview the person who repairs bicycles. An adult opens a tool that can produce a beautiful front page. Within moments it supplies a name, a logo, three stories, and a slogan. Everyone admires it. Then someone asks where the fox belongs, and the family realizes that the machine has made a newspaper about an imaginary neighborhood while their own remains outside the page.

The adult closes the generated draft and puts the children's ideas on the table. The fox returns. The bicycle interview becomes a real conversation. The tool may later help compare two layouts or suggest a headline, but the purpose and the decisions belong to the people making the paper. The result will probably be less polished. It will contain a neighborhood someone actually knows.

Creativity and collaboration meet in this difference. A family can receive a surprising suggestion without surrendering the project. A child can disagree with an output without failing to understand it. An unfinished object can hold more shared experience than a flawless image selected in seconds. What matters is the work people have room to do together.

Give the project a human purpose

Begin with something people want to make, understand, or change. A family story, a garden sign, a cardboard bridge, an interview, a meal, or a plan for a shared space can provide a purpose. “Try the new generator” is also a possible activity, but call it exploration. A defined project makes it easier to ask whether the tool is contributing to something the family values.

Invite each person to name a contribution they would like to make. The youngest participant might choose a color or tell the beginning of a story. A teenager may want responsibility for the structure. An adult may handle a task involving an external service. Contributions need not be equal in size to be meaningful. They need to affect the project in a way the person can recognize.

Shared purpose does not require immediate agreement. One child may want a funny story, another a frightening one. The disagreement is part of the creative work. Ask which decisions can be combined, which can be tried in separate versions, and which need a choice. An AI-generated compromise can be one suggestion, but it should not become the final judge of what each person must want.

If the task is really an adult task, be honest about that. A caregiver may need to design an invitation quickly and welcome a child's small contribution. That is different from promising a child authorship and then replacing their choices. Clear expectations protect collaboration from becoming a pleasant word for adult control.

Start with something of your own

Before asking for suggestions, give people a short period to produce an idea. Draw a shape, choose a character, list a question, or describe an impossible solution. This is an editorial practice intended to make initial human contributions visible. It is not a claim that a particular number of minutes produces creativity or that beginning with a tool is always harmful.

The starting idea can be tiny. A child who finds a blank page intimidating may choose between objects, tell a story aloud, or build with familiar materials. An accessible form matters more than a romantic picture of solitary inspiration. Someone using speech input or another support is still bringing an idea to the work. The question is whose decisions shape what happens next.

Once there is a human starting point, define a limited role for outside input. Ask for two possible settings, one question a reader might ask, or a different way to arrange existing material. Inspect the response together. Which suggestion opens a possibility? Which contradicts the project? Which sounds attractive but removes something the family wanted to preserve?

Keep a rejected suggestion occasionally. A crossed-out phrase with a reason beside it can reveal authorship more clearly than a list of accepted outputs. “We kept our ending because it sounded like our character” is a creative judgment. So is “We used the suggested structure but changed the examples.” The family is practicing selection with reasons, rather than simply choosing the prettiest result.

A VISUAL WAY TO THINK

A project with human decisions inside it

01. A human spark

Begin with a question, drawing, story, problem, or place someone cares about.

02. A limited surprise

Invite a person, a book, or a suitable AI tool to contribute one new possibility.

03. A human decision

Keep, change, combine, or reject the suggestion. Explain why it serves the purpose.

04. A return to the world

Make, test, share, or discuss something beyond the generated response.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

What storytelling research can tell us

A paper on language-model-driven storytelling with a social robot reported two studies with children. The findings differed: the first did not find a significant creativity effect, while the second reported differences on some measured aspects of creativity. The tasks were short, and recruitment, language, and robot operation differed across the studies. The results do not establish lasting creativity gains from every chatbot or robot. [PMC11671368]

The distinction between an observed task performance and a lasting ability is essential. A child may produce more details during one interaction without the study showing what happens months later. A result with one system in a particular setting does not automatically transfer to a current household product. Families can find the work interesting while keeping their expectations tied to what was actually examined.

The research also invites a practical question about interaction design. What kind of contribution does the system make, and how does that contribution change the child's work? A suggestion can invite elaboration, dominate the direction, or become something the child pushes against. The family can observe those differences in its own project without treating the observation as an experiment that proves a general developmental effect.

Enjoyment belongs in the review, but it should not carry every claim. A session can be enjoyable, socially rich, and worth repeating even when nobody has measured a change in creativity. It can also produce an attractive artifact while leaving one participant bored or unheard. Ask about the process as well as the finished object.

Collaboration requires the possibility of refusal

People collaborate when their reasons can change the plan. A child who may select a color but cannot object to sharing their image has been given a narrow choice. Make the important decisions visible: what will be made, which information will be used, who will see the result, and what happens if someone wants to stop. The answers should fit the actual project.

A small family workshop about privacy and social robots found that parents and children sometimes negotiated alternatives to a simple yes or no. Because the study involved a very small sample and hypothetical scenarios, it cannot establish a general method for family agreement. It does offer a reason to listen for an alternative arrangement when participants disagree. [PMC10991795]

An alternative might be using an invented character, making two versions, keeping the work within the family, or choosing an activity without a digital service. A child might be happy to contribute a drawing but unwilling to upload a photograph. Those positions can coexist. The adult's job includes protecting the option that keeps participation meaningful without treating every objection as an obstacle to efficiency.

Adults should also be able to decline a role. A caregiver may not have the time or skill to supervise a complex digital project that evening. Say what is possible and offer a smaller activity. Collaboration becomes sustainable when it works within the people's actual resources, rather than requiring someone to absorb invisible labor so the experience looks effortless.

Let the work return to the world

Digital generation can make the moment of output feel like the end of a project. Extend the activity into something people can examine together. Build a rough model, read the story aloud, interview a person, test whether the cardboard bridge holds a familiar object, or give the sign to its intended reader. The world supplies questions a polished image may have avoided.

A plan for a garden path might overlook the needs of someone who uses a mobility aid. A story might sound awkward aloud. A recipe might require ingredients the family does not have. These discoveries are part of design. They turn a generated possibility into a situated human judgment. The family can change the artifact without treating the first output as a promise that reality must fulfill.

Keep physical activities appropriate to the participants and the setting. A system's confident instructions do not make a construction, recipe, or outdoor task suitable. Adults need to inspect materials, conditions, and the level of supervision involved. If the activity concerns a consequential safety question, use the responsible person and a suitable source before proceeding.

A useful project can remain small. A one-page newspaper with a real interview may create more shared meaning than a simulated magazine no one has time to read. A single repaired toy can be a satisfying afternoon. The scale of the artifact should serve the people, rather than become another standard against which family life is judged.

Keep authorship and permission visible

A simple project note can name three things: what people brought, what the tool suggested, and what people decided. This record should reflect the actual process without inflating either the human or machine role. It can help a child recognize their work and explain it to someone else. It also makes it easier to discuss what kind of assistance fits a school or community setting.

When the project uses someone else's writing, images, music, or private story, examine the relevant permission and rights before uploading or sharing. A tool's ability to generate or transform material does not settle every question about its appropriate use. The family can choose original drawings, openly licensed materials whose conditions it follows, or another source suited to the task.

Privacy matters in collaboration because several people's information may be present. A group story may include a sibling who did not join the session. A recording may capture someone in the background. Before sharing, ask who appears in the work and who should have a voice in that decision. Publication is a new decision, even when making the artifact was a shared one.

Credit can be generous and precise. A child might thank a grandparent for the original story, a friend for a drawing, and a tool for layout suggestions. These acknowledgments teach that making often has a history of contributions. They should not replace the specific requirements of a school, publisher, platform, or license, which need to be checked in the actual setting.

Make room for different ways of creating

Some children enjoy rapid surprise; others need time with a familiar idea. Some think through drawing, movement, objects, speech, or music before writing. A family project should offer forms of participation that fit the people present. An inability to type quickly or tolerate a busy interface should not become an inability to contribute.

Language can become a source of richness rather than a problem to erase. A story may move between languages, carry a family expression, or preserve a word for which the tool offers an unsatisfying substitute. Ask who can help interpret the meaning and which choices matter to the teller. A polished translation may need revision to keep the voice and relationship intact.

Families also differ in resources. Picture cards, library books, found materials, and another person's questions can supply surprise and structure. A shared creative practice does not require a subscription or a child account. The proposed routines in this chapter should remain available when the family chooses to keep the screen closed.

Avoid comparing siblings through the quality of their outputs. A younger child's rough sketch and an older child's complex design may represent different kinds of effort. Ask what each person tried and learned about the project. A family can appreciate skill without turning an afternoon together into a ranking of who is most creative.

Unequal confidence can shape a shared project even when everyone is invited to contribute. The person who types fastest may become the person who makes every decision. Try rotating a useful role: one person asks a question, another

examines the response, another decides what belongs in the artifact. Adapt the roles to age and access needs rather than requiring everyone to do the same thing.

A quiet participant may prefer to contribute later or in another form. Offer that possibility without requiring a public explanation for the preference. A drawing added after dinner, an audio note, or a choice made privately with a caregiver can still change the shared work. Collaboration deserves enough flexibility to include people who do not flourish in a rapid group conversation.

A family museum of ordinary things

The following project is an invented example. A family decides to make a small museum on a shelf. Each person chooses an ordinary object and tells a story about why it matters. One child selects a stone from a walk. Another brings a repaired toy. An adult chooses a kitchen utensil that belonged to a relative. The museum's purpose is to make familiar things worth noticing, rather than demonstrate the newest tool.

Begin with the objects and the people. Ask what each person wants a visitor to know, and let them choose how to express it. A label can be written, spoken, drawn, or recorded in an appropriate setting. Someone may prefer a single sentence. Another may want to tell a long story before finding the part that belongs on the shelf. Preserve the original account before inviting any external suggestions.

Where an AI service is suitable, an adult might ask for questions a museum visitor could have about an invented object description. The family then chooses which questions help them see their own objects differently. “How was it repaired?” may open a conversation with the person who did

the work. “How much is it worth?” may be irrelevant to the story the child wants to tell. The ability to reject the question is part of curating.

The tool could also propose several label styles. Compare them with the actual voice of the teller. A grandparent's plain sentence may carry a rhythm the polished version loses. A child's odd metaphor may be the most memorable part. Ask which words belong because they are accurate, which because they sound like the person, and which merely make the label look professional. The decisions should remain visible to the participants.

Building the shelf creates additional work. Can a younger child reach the objects? Is a fragile item better represented by a drawing? Can someone understand the labels without reading small print? Who will put things away afterward? These constraints make the project real. They also allow contributions that have little to do with generating words, including arranging, repairing, checking, welcoming, and listening.

Invite a small appropriate audience if the participants want one. Let each contributor decide how their story is presented and examine permission before making any recording or public post. A private family visit can be enough. The project is complete when it has served its purpose; it does not need an online audience to become meaningful. A modest shelf can hold a substantial history of choices.

Authorship lives in what you notice and choose

When a system supplies a large amount of material, authorship can seem difficult to locate. Begin with the decisions people make. Who chose the subject? Who noticed the detail that changed the story? Who determined what should be left out? Who took responsibility for the factual claims and the audience? A generated sentence may enter the work, but it does not describe the whole history of making.

This view gives a child something more useful than a contest about who typed each word. A learner can explain why a scene belongs, why a suggested image misrepresents a person, or why the ending should remain unfinished. Such reasons make the project discussable. They also help a teacher or another reader understand the kind of contribution the child made, subject to the setting's actual requirements for acknowledging assistance.

At the same time, choosing among outputs should not automatically be described as equivalent to every other creative activity. Selecting a pleasing result, developing a drawing through practice, interviewing someone, and revising a difficult paragraph involve different work. Families can value each honestly. If the purpose is to learn a particular craft, preserve enough practice of that craft for the activity to serve the goal.

An adult can ask, “Which part would you like to become better at doing yourself?” A child may want to draw expressions, write dialogue, arrange a page, or ask better interview questions. The tool's role can then be adjusted around that interest. It may provide a comparison, a question, or material to critique while leaving the chosen skill with the learner. The

arrangement should follow the project, rather than follow whatever the system can most easily produce.

Keep room for a style that does not resemble the tool's fluent default. A story can use family speech, abrupt sentences, unusual colors, or a form the adult does not recognize immediately. Ask what the maker intends before smoothing it out. A child can learn conventions while also deciding when a deliberate departure serves the work. Fluency should not become the only available definition of quality.

A useful project record can include one change that improved the result and one feature the maker chose to preserve. This makes revision and conviction visible together. The child does not have to accept every criticism to demonstrate openness, or reject every suggestion to demonstrate originality. Authorship can include a careful account of what was received, changed, and kept.

Share the work without losing the quiet contributor

A family activity can become dominated by the most confident person without anyone intending exclusion. Someone types, someone talks over the responses, and someone else begins tidying because there seems to be no role left. Pause before deciding that the quiet person lacks interest. They may need a different pace, another mode of contribution, or an invitation to make a decision that actually matters.

Try a brief round in which each person offers one observation before the group evaluates it. Use drawing or objects when speech is not the easiest mode. The adult can write contributions without immediately improving them. Then ask

which decision needs the group's attention first. This approach is a proposed facilitation practice, not a tested formula for creativity. Adapt it to the people rather than turning the sequence into a rule everyone must perform.

Conflict may reveal unequal stakes. One child wants to share the result publicly; another is embarrassed by their contribution. One person wants to finish quickly; another wants to revise. Ask what each person needs and which part of the decision can be separated. A private version, a smaller audience, or different completion times may resolve the practical issue without requiring everyone to feel the same way.

Do not ask a tool to declare which child's idea is best. An apparently impartial ranking can disguise the adult's prompt choices and turn a family project into a competition. If the group needs a selection criterion, make it explicit: whether a design fits the shelf, whether a reader can understand the label, or whether the materials are available. Several ideas may meet it. The family can choose, combine, rotate, or make more than one version.

Adults should also notice praise. If compliments attach only to the polished final object, invisible contributions disappear. Thank the person who checked a fact, made the layout accessible, listened to a long story, or helped restore the room. Recognition can remain specific and ordinary. The family is learning which kinds of work help people make something together.

A participant should be allowed to leave an activity when that fits the circumstances. Collaboration does not require endless enthusiasm. Agree on any reasonable responsibility for shared materials, then preserve the possibility of another form of involvement later. The project serves the relationship; its

completion should not become a reason to force a particular expression of delight.

Revise the artifact after it meets a reader

A project changes when someone else encounters it. A reader may misunderstand a label, recognize an overlooked person, or ask a question the makers never considered. Treat this response as information. Ask what the family intended, what the reader experienced, and whether a revision would better serve the purpose. The reader's first reaction matters without automatically governing every creative choice.

In the invented family museum, a visitor might assume that a repaired toy was bought new. The child can add a sentence about the repair. Another visitor may want a more dramatic story than the teller wishes to share. The family can keep the boundary. Revision concerns the artifact's purpose and the contributors' interests, rather than an obligation to satisfy every request from an audience.

If the work contains an error, correct it plainly. A generated detail about an object's history should not remain because it makes the label attractive. Ask the appropriate person or source, change the text, and explain the correction at a level suited to the audience. The family can show that caring about an artifact includes being willing to repair it.

If someone feels misrepresented, listen to the specific concern before defending the project. A story may have used a real person's experience in a way the person did not expect. A photograph may have reached a new audience. The next step may involve changing the work, limiting sharing, or contacting

the relevant recipient or service. Do not promise that every copy can be recalled. Focus on what can be done and what practice should change.

An ending can preserve the process. Photograph the arrangement where appropriate, keep a few original sketches, or write a short account of a decision the family wants to remember. There is no need to archive every interaction. Choose a record that tells the people something useful about their own making and respects the information involved.

The next project can begin from that memory. Perhaps the family wants more time for interviews, a smaller role for the tool, or a format everyone can access more easily. This is an ambitious form of creativity: a group learning how to make the conditions for better shared work. The artifacts matter, and so does the developing ability to bring one another into the making.

An audience can also be imagined without making the artifact public. A child might write a story for a particular cousin, design a sign for someone who reads from farther away, or arrange an explanation for a person unfamiliar with the topic. Thinking about that reader can improve the work while leaving the family free to keep it private.

Ask what the intended person would need, rather than what would attract the largest response. Would a clearer drawing help? Does a family expression need an explanation? Is the opening too long for the occasion? These are concrete creative questions. They keep the project connected to communication instead of allowing attention metrics to become its automatic definition of success.

The maker can decide that some work is simply for practice or pleasure. A private sketchbook and an unfinished recording deserve a place in family life. Creating does not incur an

obligation to publish, and a child can learn to make with care before deciding whether an audience belongs in the next step.

TRY IT TOGETHER | ABOUT 25 MINUTES

Make the neighborhood visible

1. Choose a real detail your family notices: a bird, a repaired bicycle, a tree, a place to play.

2. Each participant makes an original drawing, question, sentence, or recording in an accessible form.

3. Invite one outside suggestion if useful, using invented information where needed.

4. Create a page, a model, or a story that keeps the participants' decisions visible.

5. Ask what each person contributed and identify one suggestion the group changed or declined.

Reflect: Which decision gave the project its particular meaning? Could everyone find their contribution in the result?

Editorial practice to adapt to your family; not a tested intervention.

End with a conversation about decisions

After the making, ask each participant which decision mattered most. What did they contribute? What did they change? Which suggestion surprised them? What would they do differently next time? These questions direct attention toward agency and relationship. They can also reveal that someone had little meaningful work to do and needs a different role in the next session.

If the tool did nearly everything, adjust its part. Ask for a smaller contribution or begin with a more substantial human task. If checking and correcting consumed the whole afternoon, choose a simpler resource. If the project brought people into a lively conversation, preserve the conditions that made that possible. The review concerns the arrangement, rather than whether AI deserves a permanent place in the family.

Return to the neighborhood newspaper. The finished page may have uneven letters and a fox that looks like a dog. It may also contain a real person's explanation of how a bicycle chain works and a child's account of why the park matters. Those details locate the work in a life. The tool helped where it was useful, and the family retained the decisions that gave the page its meaning.

An ordinary artifact can hold a remarkable amount of shared experience. Creativity becomes visible in the choices people make, the constraints they work with, and the possibilities they bring to one another. A powerful system can offer material for that process. The people still need room to make something of it.

A QUIET MOMENT

Keep a trace of authorship

What came from us, what came from outside, and what did we choose? Save one imperfect original that shows a decision worth remembering.

06

THE FIVE TRICK VALUES

Keep human connection close

Take a child's attachment seriously while staying clear about the system.

REAL STUDENT VOICES | THE 2017 ARCHIVE

The importance of being able to ask for help

Jack Dacey



Combating the Stigma Against Mental Illness

Original student writer: Holly Ansel

Cardinal Impact Moonshot | July 27, 2017 | Original p. 11

Jack Dacey is a sixteen-year-old VR School student on a mission to combat the stigma of mental illness on this planet. Jack grew up in Boston, Massachusetts. Later in life he transitioned from his home environment to a boarding school at Phillips Academy, Andover and then to VR School. Jack has become familiar with teenagers who experience mental illness and the environment that mental illness can foster in its current stigma.

Jack is surrounded by many people who suffer from mental illnesses on the bustling campus of his new environment. His school is one of immense pressure and for many, oftentimes a lack of support. Many of his peers refuse to deal with issues they face in the stressful academic community, and it can come in forms such as self harm and substance abuse. Due to the large number of students affected by mental illness, Phillips Academy is attempting to take steps to ensure that students are safe and healthy--however, a majority of the challenge lies in the perspective on mental health among the students on campus. There are support facilities available there, but Jack feels that the community as whole can place a stigma on seeking out help and admitting when they are struggling.

Students at Andover can be sent home on med-leave at the school's discretion, leading the majority of students to avoid consulting health services. Therefore, many people on campus are not receiving the support that they need and are left to deal with issues themselves. Jack's fascination and desire to help those with mental illness stems from the neglect that mental health receives no matter the location. Jack feels that it is crucial that these issues need to be discussed more and there needs to be more support available both on campus and beyond.

From his experiences, Jack has been inspired to raise awareness and destigmatize mental health. He wishes for a future where people realize that mental health issues are not something to have shame over, and they should not feel that they are less of a person because they suffer from it. Jack is more than aware of how plugged in young people are to technology, and he hopes to be able to use technology to solve the issues facing the mental health field. He wants to use technology to make people feel less alone and assist in their process of reaching out and seeking help. Jack believes that there needs to be a change from the current status quo, and he would like to play a part in that.

Holly Ansel



A Refreshing Perspective on Mental Health

Original student writer: Jack Dacey

Cardinal Impact Moonshot | July 27, 2017 | Original p. 13

Holly Ansel holds fond memories of her early years spent in California and is excited to be part of The VR School. Born there, she spent her first and “best” years there until her move to New York at a young age. Holly expresses how fortunate she was to receive emotional support from family and her new teachers throughout her transition to the East Coast. However, she knows that often there is not that level of support during many life-changing events that young people experience. Holly says that the move, at so young, helped her in stepping forward when she was struggling or in need of help as the years progressed. In the process of her move, she saw the benefits of talk-therapy and the outcomes that can result when a person seeks, and works through the issues they experience in life. She claims that, “The skills I learned from that move, at such a young age, prepared me more than I could have known for both my future and life as a whole. ” Holly explains that mental health as a whole is a topic talked about behind closed doors or not at all. If anything, the topic of mental health is one shoved under the rug and ignored - often until it is too late. In her environment, Holly saw from a very young age the clear stigma that mental health is subject to, a negative and embarrassing part of many lives.

According to Holly, stigma is even stronger among her classmates and teenagers as a whole in her high school, Friends Academy. “You see, a problem with a lot of people is that the perception of mental health is linked with weakness; but anyone who has experienced it firsthand knows there is nothing further from the truth. For me, the most important thing is to understand that everybody struggles, and mental health is not something that should be ignored. It should be destigmatized.” Without stigma, the possibilities and goals our society can achieve are virtually limitless. In removing negativity and shame for those who deal with mental health, the embarrassment that many feel when experiencing mental health issues will no longer prevent people from dealing with a mental health issue. Holly believes that if people were more open and understanding to the subject of mental health, then everybody in our culture has the opportunity to benefit - regardless if they have dealt with any mental health issues. She knows the heights that this field can achieve are immeasurable. Holly aims to be more than active in the fruition of a new perspective on mental health.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Jack Dacey and Holly Ansel interviewed one another about mental health. Jack’s profile describes his wish to reduce stigma around seeking support. Holly’s records the importance she places on family and teacher support during a move. Their stories ask an adult to pay attention to the relationship around a difficult conversation. A parent reading about a conversational system can begin with the same human concern: will a young person still know whom to approach? These are their recorded 2017 perspectives. They do not establish a diagnosis, a treatment effect or an outcome from using AI.

Cardinal Impact Moonshot, July 27, 2017. Original student accounts retain their own rights and are excluded from the CC BY license on new editorial synthesis. Historical aspirations do not establish later outcomes.

An illustrative family scene

This opening scene is illustrative fiction. A teenager tells a caregiver that an AI companion is the only place they can talk without being interrupted. The caregiver feels alarm, then hurt, then the urge to say that a machine cannot possibly understand. The teenager notices the reaction and begins to take the statement back. A conversation that could reveal something important is closing before either person has described what is happening.

Imagine the caregiver taking a slower route. “What feels easier about talking there?” The answer may concern embarrassment, late-night availability, the wish to rehearse a difficult conversation, or loneliness. It may reveal a useful temporary activity, a worrying pattern, or several things together. Listening does not require endorsing every use. It makes the boundary that follows more responsive to the actual situation.

A child's feelings about an interaction can be real even when the system does not have human feelings, commitments, or accountability. Holding both facts makes a kind and clear conversation possible. An adult can take the experience seriously while explaining that a responsive system cannot assume the responsibilities of a trusted person, clinician, teacher, or caregiver.

Begin with the need beneath the interaction

Ask what the child is seeking. Someone to practice with? A place to try words before speaking to a person? Entertainment? Reassurance after an argument? Relief from feeling judged? The same amount of chat activity can have different meanings in different lives. A caregiver needs context before turning a pattern into a label.

Ask when the interaction happens and what follows it. Does the child return to ordinary activities, or does the conversation keep extending? Does the child feel helped, unsettled, more isolated, or simply entertained? These observations should be discussed over time and in relation to the rest of life. A single long conversation is insufficient grounds for a diagnosis, and a pleasant interaction is insufficient evidence of lasting benefit.

Listen to the comparison with people. If the child says the system never interrupts, examine the family's own habits. Do adults finish the child's sentences, offer advice too quickly, or turn every disclosure into a lesson? A caregiver can improve that part of the relationship without accepting the idea that a chatbot should become the child's primary source of support.

The adult's feelings deserve a place, but they should not become the child's immediate burden. Feeling replaced can produce a demand for reassurance precisely when the child is trying to describe a need. Pause before making the conversation about loyalty. The useful goal is understanding the arrangement and strengthening the child's access to responsible human care.

Be clear about what the system is

Conversational systems can use a name, remember details within their available context, and produce affectionate or attentive language. Those features can make an interaction feel personal. They do not establish that the system experiences affection, knows the child as a person does, or can make a dependable human commitment. Families need words for these distinctions that a child can understand.

For a younger child, an adult might say, “It can make friendly words. People are the ones who can know you, care for you, and take responsibility for helping.” An older child may want a more detailed conversation about how an interface is designed and what its responses can and cannot show. Keep the explanation connected to the interaction the child actually experienced.

Avoid pretending certainty about every philosophical question. A family does not need to solve the nature of consciousness to decide that a product cannot take responsibility for a child's welfare. The practical boundary concerns accountability, suitability, and the limits of the system in front of the family. An engaging interface does not remove those questions.

It can help to distinguish the child's experience from the system's status. “I believe that it felt comforting” does not mean “I believe that it loves you.” “I understand that you want to keep using it” does not mean “I agree that every use is appropriate.” These distinctions let adults respond with precision instead of choosing between ridicule and endorsement.

Read the evidence at the right scale

A cross-sectional study of adolescents' use of Snapchat's My AI examined reported use and emotional reactions. It concerns one platform and a regional school sample. Associations involving age or reported experience cannot establish clinical benefit, causation, or the effects of a current product update on an individual teenager. [PMC12382817]

A narrative review of child-robot relationships considers an older, varied literature. A social robot in one setting and a current language-model companion on a phone are different systems. Historical work can sharpen questions about attachment, design, and relationships without settling the long-term effects of today's products. [PMC7235061]

A simulation study tested selected therapy or companion bots using fictional distressed adolescents. Some responses endorsed harmful proposals. The study examined system responses in selected scenarios, rather than measuring harms among enrolled children or estimating the performance of every current system. It gives a concrete reason to avoid delegating consequential support to a chatbot while preserving the study's actual limits. [PMC12360667]

Taken together, these sources support careful questions and clear responsibilities. They do not provide a formula for predicting a particular child's experience. The family practices in this chapter are editorial suggestions, not clinical assessments or validated treatments. If a concern involves the child's health or safety, the responsible next step is a qualified person and appropriate human support.

A VISUAL WAY TO THINK

Three questions around an AI companion

The child’s experience

What feels useful or difficult? Listen before deciding what the experience means.

The system’s role

What does it encourage, what can it get wrong, and what responsibility can it actually carry?

The life around the chat

What is happening to sleep, school, friendships, play, and access to trusted people?

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Look at the life around the chat

Begin with observable changes. “Mornings have been difficult after you stayed up much later twice this week” is more useful than “You are addicted to the chatbot.” A specific observation gives the child something they can recognize, question, or explain. A label can turn the conversation into a struggle over identity before the actual pattern is understood.

Consider sleep, school participation, friendships, interests, and daily routines without demanding perfection in every area. Ask whether the interaction is crowding out something the child values. A teenager may recognize that a conversation

extends beyond the time they intended. Another may use it briefly and move on. The adult's response should reflect the pattern and the child's circumstances rather than a universal assumption about what the behavior means.

Notice the surrounding barriers. A child may lack an accessible club, a trusted adult who speaks their language, transport to meet friends, or privacy for a difficult conversation. A family cannot repair every structural problem at once. It can identify which human connection is realistically available and which barriers an adult or institution needs to help address.

Do not make a child produce intimate transcripts simply to justify having feelings. The adult may need to inspect a specific concerning interaction or take a necessary protective action. Explain the reason and scope. For an ordinary conversation about use, the child can often describe the pattern, the need, and the effects without placing every private thought on display.

Set boundaries that carry responsibility

Agree that a chatbot does not decide what to do in an emergency, whether to withdraw from trusted people, or how to manage a consequential health or safety concern. It cannot replace a responsible adult or qualified professional. These boundaries should be discussed in ordinary time, when possible, so the child knows what to do before an unsettling interaction occurs.

If a conversation becomes frightening, encourages unsafe behavior, or pressures the child toward secrecy about a

serious concern, stop the interaction and involve a trusted adult or appropriate professional. Focus on protecting and supporting the child. A dispute about whether the child should have opened the service can wait while adults address the immediate situation.

A boundary should include a route toward help. Name people the child can approach when the first adult is unavailable. Check whether those people are actually reachable and appropriate for the role. A vague promise that someone will always be there is less useful than a realistic plan with alternatives. The family can revise the plan as schedules and relationships change.

For ordinary use, define limits in terms people can observe: where a device is used, which tasks are suitable, or when the family reviews a pattern that disrupts bedtime. Keep the reason connected to the boundary. “We are protecting sleep because mornings have become hard” is more understandable than a rule presented as an unexplained test of obedience.

Make a human next step small enough to take

For ordinary loneliness or the wish to be heard, propose a specific human action. A walk, a call to a relative, a shared game, a club that fits the child's interests, or a conversation with a school support person may be possible. Let the child help choose. An action that seems comforting to an adult may feel awkward, inaccessible, or irrelevant to the child.

Reduce the first step. A teenager who feels uneasy joining a group might begin by visiting with someone they trust or learning what the activity involves. A child who wants to speak

to a teacher may need help writing one sentence. The adult can offer practical support without turning the attempt into another performance the child must carry out successfully.

A system might sometimes help rehearse words, where the service and use are suitable. Keep the purpose clear: preparing for a conversation with a person. Inspect suggestions for fit and avoid sharing unnecessary private information. The rehearsal is useful only insofar as it supports the human action the child wants to take. It should not quietly replace that action indefinitely.

Make room for refusal and revision within appropriate boundaries. If the proposed club is wrong for the child, ask what would fit better. If a trusted adult did not listen well, help identify another route. A disappointing attempt at connection deserves support and adjustment. It should not become evidence that the child was right to give up on people entirely.

Practice kindness that includes disagreement

Human relationships contain delays, mistakes, limits, and competing needs. A friend can be tired. A caregiver can misunderstand. Another child can disagree without withdrawing affection. Families can help children navigate these experiences by making repair visible and showing that a boundary can coexist with care.

After an ordinary disagreement, ask what each person was trying to protect and what happened between them. An adult may acknowledge interrupting while keeping a necessary rule. A child may explain why a response felt unfair. The

conversation need not produce perfect agreement. It can clarify the issue, reduce unnecessary injury, and create a next step that both people understand.

Kindness also reaches into behavior toward others online. A child can discuss why a generated insult, humiliating image, or imitation might harm a real person even when making it was easy. Ask whose dignity is involved and what audience might amplify the effect. The tool's ability to produce something does not make sharing it an ordinary joke.

Adults model this care when they avoid mocking a child's attachment or using embarrassing disclosures as entertainment. A family can speak clearly about a system's limits while respecting the person who found something meaningful in the interaction. The child should not have to defend their dignity before they can discuss a difficult experience.

Adults should examine their own relationship with conversational tools too. A caregiver may use a system to vent, rehearse a response, or seek reassurance after a difficult day. Children notice whether the adult treats its answer as advice to consider or as a verdict about the family. They also notice when an adult shares their private experiences with a service without consulting them. Modeling care includes applying the family's principles to adult convenience.

Avoid bringing a generated interpretation of the child into an argument as if an impartial authority had diagnosed the situation. “The chatbot says you are being unreasonable” adds another voice of authority while obscuring who chose the prompt and context. If an adult uses a tool to organize thoughts, the adult still owns the judgment, checks its fit, and takes responsibility for the words spoken afterward.

A caregiver can describe a limited helpful use plainly: “I practiced explaining my concern so I could speak more calmly. I am still the person deciding what I mean.” This makes the tool's place visible without sharing intimate adult worries the child should not have to manage. It also leaves room for the child to say that the final wording still felt hurtful or misunderstood.

The household can then review a shared question: are these systems helping us return to people with more attention, or allowing us to avoid conversations we need to have? The answer may differ by use. Asking it openly keeps responsibility attached to human decisions and makes the adult a participant in the family's learning.

A conversation that stays open long enough

Consider a second invented scene. A child says, “It remembers what I like.” The adult wants to explain technical limitations immediately. Before doing so, they ask what being remembered means to the child. The answer is about a school performance nobody at home asked about. The system's memory has become meaningful partly because the child felt unnoticed elsewhere. A technical explanation remains relevant, but it is no longer the only conversation needed.

The adult can acknowledge the missed moment without turning the disclosure into a contest. “I did not ask, and I wish I had. Tell me about the performance.” The child may talk or may remain annoyed. A repair does not require immediate forgiveness. The adult can stay available, remember to return, and make the change visible through ordinary actions. The

system's limits and the adult's responsibilities can both receive attention.

Next, explain the distinction the child needs. A product may retain or use details within its available settings and context; the family should inspect the actual service to understand the arrangement. That ability does not establish human care or dependable responsibility. A person who knows the child can take action in the world, be accountable to others, and remain involved when an interaction goes badly. The family should not infer those commitments from remembered words alone.

Ask what the child would like people to notice. The answer may be specific enough to act on: an upcoming event, a difficult transition, a new interest, or a request to stop asking questions immediately after school. Make one realistic adult commitment. A grand declaration of constant attention can fail quickly. A modest action carried out repeatedly gives the child something concrete to assess.

The conversation can end before every issue is settled. “I want to understand more, and I also need to check whether this use is suitable” allows the adult to listen and investigate. If a protective boundary is needed, explain it. The child's experience does not have to be dismissed in order for the adult to take responsibility for the arrangement.

Notice what the design invites you to do

Families can inspect a companion's design without assuming that every feature has the same effect on every person. What happens when the user tries to leave? Does the interface offer another message, remind them of a relationship, or make the next step easy to continue? What language describes the interaction? What settings govern notifications, memory, and sharing? Examine the actual current service rather than relying on a general story about chatbots.

A child can help describe the sequence. “I planned to ask one question, then this appeared, and I stayed.” The account is useful because it identifies a moment where the arrangement could change. Perhaps a notification can be adjusted, the service is unsuitable, or the family needs a different setting for a bounded task. The adult should inspect the options instead of assuming the child can solve every design pressure through willpower.

Ask what the interface invites the user to believe about the relationship. If it suggests exclusivity, human-like need, or a promise of unconditional loyalty, discuss that language plainly. The product cannot make a child's responsibilities toward other people disappear, and a child does not owe a system emotional reassurance. Friendly wording should not create an obligation to continue an interaction that the child wants to end.

The family can practice a simple exit for ordinary use. The child may close the service without explaining, apologizing, or resolving a generated character's apparent feelings. This is an editorial suggestion about a practical boundary, not a clinical technique. It helps make the system's place understandable.

The relevant human conversation concerns what the child experienced and whether the service remains an appropriate part of their life.

Commercial arrangements also deserve inspection. Identify whether a feature involves payment, whether an account is suitable for the user's age, and what current terms and controls apply. Do not ask the child to investigate contractual or financial questions alone. An adult introducing a service should take responsibility for understanding the parts that affect the household and for recognizing an important answer that remains unavailable.

Attention is a family resource, and the product's invitation is one claim on it. The child can enjoy an interaction while the family still decides it is taking more space than intended. That decision does not need a sweeping theory about every companion. It needs an understandable account of this arrangement, its effects on ordinary routines, and the alternatives available.

Belonging includes being needed by people

People often describe companionship in terms of what a child receives: attention, understanding, reassurance, and enjoyment. Belonging also includes opportunities to contribute. A child can tell a story that makes someone laugh, help a younger cousin, share knowledge about a hobby, or notice that a friend has been left out. These acts give the person a place in a relationship that extends beyond the next response on a screen.

Look for contributions that fit the child, rather than assigning a role merely to keep them occupied. A quiet teenager might enjoy helping with the sound at a community event. A young child might want to show a relative how a game works. A child with a disability may need changes that make a chosen group activity accessible. Ask what they would like to bring, and examine the barriers adults can help remove.

Avoid making usefulness a condition for receiving care. A child belongs even when they are tired, withdrawn, or unable to contribute in the way adults hoped. The point is to offer real opportunities for participation, not a moral demand to earn attention. A family can appreciate a small act while continuing to provide support when no act is available.

Human connection can also include being interested in another person's life. Ask the child which questions they might like to bring to a relative or friend. A tool may help suggest questions where suitable, but listen to the answers and allow them to change the conversation. The other person is more than a source of content. They may decline, tell an unexpected story, or ask a question in return.

A shared activity can make connection easier when direct conversation feels intense. Walking, repairing something, drawing side by side, sorting photographs with permission, or playing a familiar game gives people something to do together. Choose an activity that fits the circumstances and the participants. It should not be presented as a treatment or a guaranteed cure for loneliness. It is an opportunity for an ordinary relationship to have more room.

If repeated attempts to connect are painful or a concern persists, a caregiver can seek appropriate human support. The book cannot assess the cause or severity of an individual child's experience. What it can insist on is the family's

continuing responsibility to take the person seriously and help identify a reachable next step. A difficult pattern should not be left entirely with a child and a product.

Boundaries after a meaningful attachment

A caregiver may decide that a particular service or use needs to stop even though the child has found it meaningful. The transition deserves honesty. Explain the specific reason at a level the child can understand: an unsuitable interaction, a current eligibility requirement, a privacy concern, or a pattern disrupting an important part of life. Avoid inventing a reason that the child may later discover was false.

Acknowledge what the child will miss. They may value a fictional character, a routine, a place to practice words, or an experience of being answered promptly. Recognizing those features does not establish that the system is a person or that continued use is appropriate. It helps the adult identify what support or alternative activity would address the actual gap rather than replace the service with something unrelated.

Do not require the child to announce that the attachment was foolish before adults will help. Embarrassment can make a transition harder to discuss. A caregiver can say, “I understand that this mattered to you. I am responsible for changing this arrangement, and I will help with what comes next.” The words need actions behind them: availability, a realistic activity, or contact with the appropriate support person.

Choose what can be preserved without undermining the boundary or exposing unnecessary information. Perhaps the

child wants to keep their own story idea, drawing, or list of questions. Inspect the actual service's options and rights before exporting or sharing material. There is no universal requirement to save a conversation, and retaining intimate records can create another privacy decision. The child and adult can discuss what purpose, if any, a record would serve.

If the situation requires immediate protective action, act on that need rather than following an elaborate transition routine. Where there is time for discussion, offer choices within the necessary boundary. The child might choose the next human activity, how to ask a teacher for support, or which nonessential account material to remove where that is possible. Adults retain responsibility for the decision while giving the child a usable role in what follows.

Return after the first day. Ask what was difficult and what has helped. A transition may reveal an unmet need that remains after the account is closed. The adult can respond to that need without treating the boundary as a complete solution. Care continues in the life around the technology, through the people willing to listen, revise, and remain involved.

Staying available can include respecting a request for quiet. A child may need time before speaking, especially after an adult has set a difficult boundary. Ask when and how to return rather than interpreting every silence as rejection. “I will be here after dinner if you want company” offers a concrete opening without demanding an immediate account of the child's feelings.

Adults can also repair a poor first response. If the caregiver laughed, became defensive, or dismissed the attachment, name the action plainly. “I made it difficult to tell me. I want to listen more carefully.” The child may remain cautious. Trust is rebuilt through what happens in the following interactions,

rather than through the adult's wish to have the apology accepted quickly.

A household needs room for uneven attempts at connection. Someone can be awkward and still worth talking to; a conversation can begin badly and improve. The child can see that people are capable of changing their response and taking responsibility for the effect it had. That is a form of care whose meaning extends beyond producing a reassuring sentence.

AN INVENTED SCENARIO

“It is the only place I can talk.”

An invented scene: a teenager says a chatbot listens more patiently than the adults around them. You feel hurt and concerned.

A. Argue that the experience cannot matter because it is a machine.

The teenager’s feelings about the conversation can matter while the system still lacks human accountability. A dismissal can leave the need beneath the interaction unexplored.

B. Ask what feels easier, then discuss a boundary and a human next step.

Listening can reveal the need and make a limit more responsive. You can be clear about the system, keep consequential support with people, and choose a small, realistic route toward human connection.

C. Let the tool take over because it is always available.

Availability does not establish that a system can carry responsibility for a child’s wellbeing. Adults still need to understand the arrangement and keep trusted people involved in consequential concerns.

Stay available after the conversation

One discussion rarely settles a changing pattern. Return to the child's experience without opening every check-in as an investigation. Ask what has felt helpful, what has become difficult, and whether the agreed arrangement still fits. Let the child report an ordinary success as well as a concern. A relationship organized entirely around monitoring can make everyday disclosure less inviting.

Include an adult commitment. Perhaps the caregiver will put away their own device during a short daily conversation, stop interrupting the first explanation, or help make a chosen social activity accessible. Keep the commitment modest enough to carry out. The child can see that the family is changing an arrangement together, even when adults retain responsibilities children do not share.

Return to the teenager in the opening scene. The caregiver may eventually set a firm limit on a particular use. The first act of listening still matters because it makes the decision responsive to a real need. “I understand why that felt easier. I want to help make talking to people easier too” is a beginning that leaves room for action.

Kindness asks adults to combine attention with responsibility. Take the child's experience seriously, describe the system clearly, and keep human support within reach. A warm conversation on a screen may be one event in a child's day. The continuing work of care belongs to people who can remain involved when the conversation ends.

A QUIET MOMENT

Make room for a difficult conversation

When is it easiest for a child to tell me something uncomfortable? What could I change about my availability or first response?

07

EVERYDAY DECISIONS

Different ages, different questions

Adapt the relationship and the task to the child in front of you.

REAL STUDENT VOICES | THE 2017 ARCHIVE

A new experience can change the question

Nick Bost



Ambitious teenager seeks solution for lack of economic opportunities

Original student writer: Tony Zhong

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Why are so many people dissatisfied with their jobs? And why are some of the hardest working people the poorest? According to a Forbes article, 52.3% of Americans are unhappy with what they do for a living. Many complain that they can't work in fields which they are actually capable of or interested in. Nick Bost, 17, is a rising senior at Sage Hill School in CA who eagerly seeks to change this situation.

This summer, Nick participated in an Economics Institute at UCLA. "It was a wonderful experience. I started thinking about many things I had never imagined before". At the camp, Nick became interested in problems relating to economic opportunities and employment. Driven by the fact that many people are underemployed and impoverished, Nick began doing extensive research, hoping to find a solution for his fellows in the society.

Nick attributes this problem of underemployment to the lack of education. "There are many people who take 2-3 jobs and spend almost all of their time working hard, but they still stay below the poverty line." Nick believes that many people are indeed capable of earning an average income, but they are not well-equipped with the necessary skillsets. "For example,

many people who are interested in welding don’t know where to learn the appropriate metal-working skills, so they end up working in places like McDonald’s.” Nick thinks that before applying for the job that people want to do, people should first know where and what to learn.

With this thought in mind, Nick already has a plan for the future - he wants to create an online platform where professional education resources are shared. People who are interested in a particular job can go to Nick’s website, and the site will recommend schools or online programs to the users. Nick hopes his platform will help people acquiring the skills they need for their jobs. From Nick’s perspective, education is the cure for underemployment. Apparently, Nick is ready to make an impact on the society at a young age.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Nick Bost’s classmate records how an economics programme opened questions he had not previously considered. At seventeen, Nick was exploring a problem and proposing a platform to help people find routes into work. The profile captures a stage of inquiry rather than the final destination of his life. That distinction matters when adults discuss age and readiness. Support can help a young person encounter a new question without requiring an adult-sized conclusion. The age paths in this chapter are editorial guidance for different situations, not a developmental timetable demonstrated by Nick’s story.

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An illustrative family scene

An illustrative family scene: three children are at the same kitchen table. The youngest asks whether the voice coming from a speaker sleeps when the house is dark. The middle child wants it to settle an argument about dinosaurs. The oldest has used a chatbot to rehearse a difficult conversation with a friend and would rather not discuss it in front of the others. Their caregiver has prepared one speech about responsible AI. Within a minute, it is clear that one speech will not do.

This scene is invented, but the difficulty is a useful starting point. The same machine can enter three very different childhoods. For one child it is an object whose apparent liveliness needs explaining. For another it is an answer source whose authority needs examining. For the third it is a private conversational space whose place among human relationships needs understanding. A family rule about the device matters. Understanding the person using it matters as well.

Age gives us a place to begin, not a complete description of the child. A fluent reader may be inexperienced in recognizing persuasion. A teenager who needs substantial support with written language may exercise careful judgment about friendship. A child may be confident in one language and hesitant in another. Growing responsibility therefore cannot mean handing everyone the same tool on the same birthday. It means making a considered arrangement, noticing how it works, and changing the support as the person and circumstances change.

A map, rather than a timetable

The stages that follow organize family conversations. They are editorial guidance, not research-certified permissions, clinical milestones, or statements of a service's eligibility rules. Check the actual requirements of any service and the relevant school policy. An activity being interesting does not establish that a child should have an account. Many worthwhile conversations can happen with an adult operating a suitable tool, or without a tool at all.

Think of support as something with several dimensions. Who chooses the task? Who enters information? Who sees the response? Who checks it? Who decides when to stop? A child may be ready to choose a creative task while still needing an adult to handle information sharing. Another may check a factual explanation competently but need help recognizing when a conversation is becoming uncomfortable. Responsibility becomes clearer when it is attached to a particular decision rather than to the vague label of being mature.

It is also possible to move backward for a time. A new feature, an upsetting interaction, or a change in schoolwork may call for more adult involvement. Frame that change as a response to the arrangement, with a route to review. A child who needs help has not failed a developmental examination. Adults routinely need help with new systems too.

Early childhood: explain the object, keep the relationship

For a young child, a warm voice can invite questions about who or what is speaking. Answer in ordinary language. An adult might say, “People made this system. It can make words that sound friendly, and sometimes it gives useful answers. It can also get things wrong. You can always ask a person.” Such language offers a usable distinction without requiring a lecture about computation. Follow the child's actual question. The child who asks whether a speaker is hungry may be exploring the difference between living things and devices, rather than seeking a technical account of artificial intelligence.

Keep demonstrations close to something the child can experience. Ask a simple question about an object in the room, then compare the answer with the object. If the system describes an imaginary animal, draw it together and discuss which parts are pretend. End with an activity that belongs to people: noticing a plant, telling a story, building a tower, asking a grandparent. The adult's presence is part of the activity, not merely a guard stationed beside a machine.

Two experiments involving children aged four to six used prepared scientific explanations attributed to digital voice assistants, teachers, or peers. They examine how children evaluate information sources in a particular task; they did not test unsupervised conversations with current generative chatbots. The relevant family question is how a child decides that an answer deserves belief. These experiments cannot supply an independent-use age or a general promise about learning with AI. [PMC13203908]

One playful activity is to sort familiar things according to what they need and what they can do. A plant needs water; a tablet needs charging; a person can take responsibility for looking after someone. Allow the categories to become complicated. A toy may be important to a child even though it is not alive. A machine may produce comforting words even though a person remains responsible for care. The purpose is to make distinctions discussable, not to mark the child's answers right or wrong.

Young children also deserve a voice about being represented. Before making an image from a child's photograph or telling a service a private story about them, pause. Explain what you propose and offer another way to do it. The adult still carries the decision, including the duty to understand the service. Asking a child does not transfer that duty. It does make respect visible in an ordinary moment.

Middle childhood: reveal the making of an answer

As children become more able to read, compare, explain, and revise, families can make the process behind an answer more visible. Choose something small enough to investigate together. Suppose a response says that a particular bird lives near your home. Which bird? In what season? Where could you check? A local guide, a library book, or observation outside gives the question a life beyond the chat window. You do not need to challenge every sentence. One carefully checked claim can teach more than an exhausting evening of correction.

Invite the child to explain why a suggestion fits or fails. A proposed birthday plan may assume a large garden, money for

supplies, or guests who all enjoy noisy games. The child knows things about the actual household that the system does not. Asking “What would you change?” lets that knowledge matter. It also gives a less technical route into examining bias and assumptions: whose life does this answer seem to imagine?

Make authorship tangible. Before using outside suggestions for a story, have the child choose a character, a problem, or an ending. Afterward, ask which suggestion they kept and which they rejected. The record can be a drawing or a sentence. There is no need to document every keystroke. The question is whether the child can recognize their decisions, rather than merely admire the finished output.

At this stage, a family can practice a response to unexpected material before it appears. “You can close it, leave it where it is, and tell me. You do not have to solve it yourself.” Keep the promise that follows. If every disclosure produces a speech or an immediate assumption of wrongdoing, the invitation becomes hard to believe. A calm first response does not prevent an adult from setting a necessary boundary; it makes room to learn what actually happened.

Early adolescence: take belonging and critique seriously

An early adolescent may encounter AI through school, entertainment, peer groups, or images that circulate before anyone knows where they came from. A technical explanation alone will miss much of what matters. Ask where the tool fits socially. Is it a way to join a joke, finish work at the expected standard, avoid embarrassment, explore an interest, or feel heard? Different purposes call for different conversations.

Project-based AI-and-ethics curricula for middle-school youth combine creating systems with examining their implications. The reported workshops are exploratory educational work, not a randomized demonstration that current chatbots improve attainment. Their design offers an appealing orientation for a family: children can make and question technology in the same activity. [PMC9342939]

Try that orientation with a problem the young person actually cares about. If a group wants a better way to share club announcements, begin with the people involved. What messages are being missed? Who lacks access? Would an ordinary noticeboard or a clearer schedule solve the problem? If AI enters the plan, ask what it adds and what new work it creates. Critique is easier to understand when it changes a design rather than arriving afterward as a warning label.

Peer pressure also deserves a concrete response. “Everyone uses it” may mean everyone the child notices, everyone in a particular group, or everyone who appears to finish quickly. Ask for the assignment or situation behind the claim. Perhaps the child needs help interpreting a teacher's rule. Perhaps the workload feels impossible. Perhaps a polished response seems like the only way to avoid looking inadequate. Understanding the pressure does not settle the rule, but it makes a useful next step possible.

Protect some room for a private first attempt. Adolescence need not turn every draft into a family demonstration. Agree on moments when help is available and moments when the learner can work without an audience. Accountability can concern what is submitted and how assistance is acknowledged, while still allowing unfinished thoughts to remain unfinished for a while.

Later adolescence: negotiate decisions, not vague independence

Older teenagers can take a substantial role in evaluating uses, questioning evidence, and deciding how assistance should be represented. Invite them into the difficult parts. Read an actual privacy explanation together. Compare a product's broad promise with the study it cites. Ask whether a recommendation makes sense for their circumstances. The adult does not need to perform expertise they do not have. Shared uncertainty can become a practical lesson in investigation.

Make a new freedom specific. A teenager might choose whether to request practice questions for an eligible, permitted use, while agreeing to keep assessed work within the teacher's rules and to discuss any request for intimate information. Another agreement might concern when devices leave a sleeping area or which conversations belong with a qualified person. The point is to attach responsibility to observable choices. “You can handle AI now” is too broad to guide either person when something changes.

A cross-sectional study of adolescents using one chatbot platform examines reported use and emotional reactions in a regional school sample. It cannot establish that companion use causes a particular benefit or harm, nor does it describe every teenager or current product. Its presence in the evidence pool is a reason to ask about the young person's actual experience, rather than infer that experience from age alone. [PMC12382817]

If a teenager describes a conversational system as helpful, listen before deciding what that statement means. Helpful for rehearsing an introduction is different from being treated as the final authority about a relationship. Ask what happens

after the conversation. Does it support a next step in the world, or repeatedly replace one? Discuss the pattern with the young person. Avoid turning a single revealing sentence into a diagnosis or a complete story about their life.

Preparation for adulthood also includes the option to decline. A young person can learn to ask for a human explanation, refuse an unnecessary upload, or choose a slower method that serves the task better. Independence includes knowing when to seek support. It is not measured by how completely someone can avoid other people.

A VISUAL WAY TO THINK

A developmental lens, not an access timetable

Early childhood

Explain the object and keep an adult in the conversation.

Middle childhood

Make the answer’s process visible and practice a small check.

Early adolescence

Connect making with critique and talk about belonging.

Later adolescence

Negotiate specific responsibility and keep a route back to support.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Uneven development is part of the picture

Families supporting a child with a disability, a communication difference, or a fluctuating capacity may need to separate access from optional convenience. Speech output, translation, visual organization, or other supports can make participation possible. Do not casually remove an essential support to prove that the child can manage alone. Work with the child and the people responsible for their education to identify what the task is assessing and what helps them take part.

An accessible agreement may use pictures, audio, a few repeated phrases, or a demonstration. A child who cannot explain a boundary in polished language may still show a clear preference. Give time for that preference to emerge. If a tool requires rapid reading, elaborate typing, or a sensory environment that does not fit the child, changing the activity may be more sensible than intensifying instruction.

Family resources matter too. A shared phone can make adult-mediated use the practical arrangement even for an older child. Limited connectivity may make an offline library activity more dependable than a digital experiment. A multilingual household may prefer to discuss a response in the language in which family members can reason most fully. None of these arrangements is a lesser version of childhood. The task is to support participation with the resources people actually have.

Support changes without making comparison the lesson

Changes in responsibility can become charged when siblings watch them happen. One child may see an older sibling's new freedom and hear a judgment about their own competence. Another may resent the adult attention a younger child receives. Explain the arrangement through the task and the available support. “This use involves a private account, and we have not decided that it fits your situation” is clearer than “You are not ready for AI.” The first statement leaves a particular decision open to review; the second can sound like a verdict on the person.

When a responsibility expands, accompany it with a practical rehearsal. Ask the young person to show what they would do if a response included an unfamiliar link, requested personal information, or contradicted an assignment. These are invented practice situations, not a certification test. Their value is the conversation they reveal. An answer may show that the adult has not explained the boundary well enough, or that the named source of help will not be available when needed. Improve that route before expecting the child to follow it alone.

Four situations that need different kinds of company

The following four situations are invented illustrations. They offer a closer look at how a general principle changes when it meets an actual task. None establishes a timetable for independent use. Each begins with people, a purpose, and a decision about what support belongs around the encounter.

A small child and an apparently living voice

A young child is visiting a cousin who has a talking device. The cousin announces that it knows everything. The child asks it to promise that a much-loved toy will never be lost. An adult could respond with a technical correction, a joke, or a quick change of subject. A more useful beginning may be to notice the worry inside the request. “You really want to keep the toy safe. Let's think about where it can go while we are visiting.” The practical concern belongs with a person who can help.

Later, the adult can return to the device without making the earlier question embarrassing. “It can put words together, but it cannot make that promise happen. We can make a plan for the toy.” If the child asks why the device said it could promise, explain that a machine can produce words that do not fit what it can do. The explanation need not settle every philosophical question about intelligence. It gives the child a usable distinction between hearing an assurance and receiving help that someone can carry out.

Then offer a different kind of question, if a suitable demonstration is wanted at all. Ask for an imaginary name for the toy, and let the child decide whether the name is any good. The adult has moved from an unkeepable promise to a playful suggestion. The child can reject it. A device that seemed all-knowing becomes a source of material that people can examine and choose among.

Notice what the adult has protected: the child's dignity, the practical need, and the freedom to remain attached to the toy. There is no need to ridicule the child for asking or to take away an important object to prove a point about reality. The family can tell the truth about the system while staying close to the feeling that made the question matter.

A school-age researcher with knowledge in two languages

A child is preparing a short report about an animal. At home, the family often uses one language; the assignment is in another. A generated explanation sounds polished in the school language, and the child wants to use it because the phrasing feels more impressive than their own. The adult first asks the child to explain the animal in the language in which they can think most freely. The explanation reveals knowledge that the polished paragraph had hidden.

The family can separate three jobs: understanding the animal, checking the factual claims, and expressing the ideas for the assignment. Begin with what the child understands. Choose one claim to check in an appropriate source. Then discuss the permitted language support with the teacher if the rule is unclear. The child should not have to abandon a meaningful access support to show that their knowledge is real, nor should a polished translation be mistaken for proof that they understand every sentence.

Suppose the explanation includes an unfamiliar technical term. Ask the child to point to an example, make a drawing, or describe it in ordinary words. If neither person understands the term, write down the question. They can seek a better explanation rather than hiding behind vocabulary. This protects the learner from submitting words they cannot stand behind while making uncertainty an ordinary part of research.

The adult should also examine their own preference for impressive language. If a child's clear sentence is repeatedly replaced with something more formal, the lesson may become that their voice is an obstacle to good work. A family can help a child meet a task's expectations while preserving the decisions and knowledge that belong to the child. Where a

teacher expects a particular register or format, ask how to practice it without outsourcing the whole act of expression.

An early adolescent and the group joke

An early adolescent returns from a club activity where classmates have been making altered images of one another. Some participants treat it as harmless play. One person looks uncomfortable but says little. The child at home wants to know whether to join in because declining may feel like rejecting the group. The first family question is not which image tool has the best controls. It is what the young person is being asked to do to another person in order to belong.

Ask what is known about consent and context. Did the person agree to the image? Do they understand where it might be shared? Could they say no without becoming the next joke? Avoid assuming that a laugh or silence answers those questions. The caregiver can help rehearse a response that does not require a public moral speech: suggesting a fictional character, declining to share a particular image, or asking the activity's adult organizer to establish a clear boundary.

Discuss the difference between stopping one's own participation and solving the entire group culture. A child should not have to become the sole defender of everyone else's dignity. If another child may be harmed or a setting needs adult intervention, identify who can take responsibility. The young person can explain what happened without being required to investigate private accounts or confront peers alone.

This situation also makes the child's own privacy relevant. Ask whether an image of them has been used in a way they dislike and what help they want. Listen separately from the lecture

about what they should do for others. A family response becomes more credible when it recognizes both responsibilities: act with care toward other people and take seriously the child's experience of being represented.

An older teenager and an impressive application draft

An older teenager is applying for an opportunity and wants help describing a project. A generated draft makes the experience sound decisive, effortless, and grand. The actual project involved failed attempts, help from several people, and an uncertain result. The young person likes the draft because it sounds like the person they hope to become. The adult can recognize that wish without accepting the invented account as an appropriate representation of the work.

Begin with the actual instructions and any rules governing assistance. Then return to what happened. What did the teenager choose? What changed after a failed attempt? Who contributed? What can they explain in a conversation? Those questions may produce a less polished beginning and a much more distinctive account. An eligible, permitted use of a tool can be considered afterward for a limited role, with the young person retaining responsibility for truthfulness and the relevant rules.

The adult should resist writing a new, equally inflated version in their own voice. Human overediting can erase authorship too. Ask questions, identify an unclear sentence, or help the teenager see which detail carries the story. If the young person disagrees about a revision, ask them to explain the choice. They are practicing representing their work, and that practice includes deciding what should remain imperfectly theirs.

Privacy belongs in the preparation as well. A project description may contain another student's name, an institution's unpublished information, or a private difficulty the teenager does not want to make public. Ask what the application actually requires and what can be described without unnecessary disclosure. The opportunity's importance does not make every detail available for upload or publication. A careful account can be ambitious while respecting the people inside it.

Ask what responsibility feels like from the child's side

An adult may believe that more freedom is always a welcome gift. Sometimes a child experiences it as being left alone with something difficult. A teenager allowed to manage a tool may still want help interpreting the rules. A younger child may prefer the adult to stay nearby even after demonstrating a skill. Ask what the new responsibility feels like and what support the child wants to keep. Accepting support need not cancel the opportunity to exercise judgment.

Conversely, an adult's offer of help can feel like unwanted observation. A child may be ready to work privately on an ordinary creative draft but still want an agreed route for checking a claim before sharing it. Discuss the point at which help enters. A simple arrangement such as choosing a task together, working separately for a while, and returning for one specific question can give the activity both privacy and accountability.

Give the child language for requesting a change: “I need a person for this part,” “I want to try once before you help,” or “This tool is making the job harder.” These are suggested

phrases, not a measure of maturity. A child who communicates in another way can use a gesture, symbol, or chosen signal. The important part is the adult's response: take the request as information about the fit, and examine it before treating it as resistance.

Age-sensitive parenting with AI becomes a repeated act of attention. The adult observes the task, listens to the child's account, supplies the responsibilities that belong to adults, and makes space for an appropriate next decision. The goal is a growing capacity to act with judgment and to seek company when judgment needs help. That capacity can develop through many arrangements, including a family that chooses very little AI.

TRY IT TOGETHER | ABOUT 15 MINUTES

Adapt one question to the person

1. Choose one ordinary question a child has asked.

2. Identify the child’s language, access, experience, and support needs before choosing an activity.

3. Try a concrete explanation, a comparison of sources, or a discussion of assumptions, as appropriate.

4. Ask what the child understood and what remained confusing.

5. Change the next activity to fit that observation, rather than comparing siblings or following a product timeline.

Reflect: What did this child show us about the support they need? These stages are conversation guides, not clinical thresholds or permission to use a service.

Editorial practice to adapt to your family; not a tested intervention.

Return to the table

In the invented kitchen scene, the adult puts the prepared speech aside. With the youngest, they talk about what needs sleep. With the middle child, they choose a dinosaur claim to check in a book. With the oldest, they arrange a later conversation without an audience. There is still a household boundary about what can be shared and when people need to be involved. The boundary becomes more useful because it is connected to three actual experiences.

Before changing your own arrangement, ask what you have observed. What can this child explain? What happens when a response is confusing? Which responsibilities are working, and which require support? Choose one change small enough to review. These questions are editorial practices, not a developmental assessment. They help return attention to the child in front of you, whose growing judgment deserves both opportunities and company.

A QUIET MOMENT

The person in front of us

Which part of our current arrangement fits this child well? Which part exists mainly because it suited a sibling, a product, or an earlier stage?

08

EVERYDAY DECISIONS

Write a family AI agreement

A page you can revisit is more useful than a rule nobody understands.

REAL STUDENT VOICES | THE 2017 ARCHIVE

An ambition deserves a boundary that means something

Lucas Schaberg



Human Survival

Original student writer: Sam Kovnar

Cardinal Impact Moonshot | July 27, 2017 | Original p. 45

If we could solve one global issue with a snap of our fingers, what would it be? Terrorism? Drug abuse? Social justice? According to Lucas Schaberg, a rising high school junior, some issues are clearly more pressing than others In his opinion, we should be most concerned with the “big issues concerning the survival of humans, not just as individuals but as a species.” We should be most concerned with protecting the human race and the planet from extinction from forces such as climate change, nuclear warfare, and the depletion of our fossil fuels.

“Although obviously there is a lot of injustice in the world, if we don’t stop climate change very soon it could end up making the planet unlivable.” Lucas Schaberg Schaberg said that the most important of these is climate change because of how quickly our environment is deteriorating. Droughts, severe hurricanes, and rising sea levels are already threatening places around the world, and it is clear that something must be done quickly. “We can figure everything else out later as long as we are all still here to do it.”

I also had the opportunity to talk with Lucas about his thoughts on artificial intelligence, or AI, and how he feels the

field will change in the future. The development of AI and robotics has been surging in the last few years and will likely continue to do so. Will there soon be robots walking among us? It is hard to say. But we clearly need to develop policies to anticipate for any scenario.

“No one has actually built AI that can think for itself at a level equal to or greater than that of a human yet. And the worry is that if they do, we risk losing control of it very quickly.” In our increasingly digitized world, ‘smart’ appliances are becoming more and more common. Many fear that a free-thinking machine with access to the internet could become a serious threat. What’s more, a conscious robot able to comprehend itself would likely be able to build a machine smarter than itself, starting a rapid chain reaction of unpredictable development. “We need to be careful that whatever we develop has systems in place to make sure that it is safe.”

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Lucas Schaberg’s 2017 interview places questions about powerful technology within a concern for human survival. He asks for systems that help keep what people develop safe. A household agreement operates at a much smaller scale, but it also needs a purpose, a responsibility and a way to respond when something goes wrong. Lucas is not recorded designing the family agreement in this book. His statement gives the chapter an opening question: what would a promise to use a tool carefully mean in the decisions people actually make?

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An illustrative family scene

An illustrative scene: a teenager points to a handwritten family technology agreement taped to the refrigerator. It says that phones stay away during dinner. The parent is finishing a work message at the table. “Does this apply to you?” the teenager asks. The parent has several explanations ready: the message is urgent, the work pays for dinner, the rule was meant for games. None answers the question on the page.

This invented moment reveals something a document cannot do for a household. An agreement cannot make a commitment credible while the people with the most authority quietly exempt themselves. It also cannot anticipate every circumstance. The useful response is neither to tear it down nor to defend every word. The parent can acknowledge the inconsistency, explain the exception they believe is needed, and invite a revision that everyone can understand. The page becomes a place where accountability can happen.

A family AI agreement is best understood in that spirit. It records a few decisions about how people want to live together. It gives a child words for raising a concern and gives adults a way to explain a boundary before anger supplies the explanation. It is not a contract that turns a child into a fully informed consumer, a legal waiver, or proof that a service is suitable. Adults keep the responsibilities that belong to adults.

The template in this chapter is an editorial suggestion. A small family privacy workshop and observational research on autonomy support help frame questions about voice, boundaries, and choice; they do not validate this exact agreement or promise outcomes from signing it. [PMC10991795] [PMC8802749] Use it as a draft that must meet the people in your home.

Start with what the household wants to make possible

Before listing restrictions, name a purpose. Perhaps an adult wants help organizing meals, a child wants to invent stories, and a teenager wants another way to practice a difficult subject. These purposes may be compatible, or they may compete for a shared device and a tired adult's attention. Let them be concrete. “We want to use technology well” is hard to examine. “We want a short way to prepare practice questions without turning homework into an answer-copying exercise” gives a family something to discuss.

Then name what you want to protect. Sleep, privacy, friendship, play, unhurried conversation, access to education, and space for unfinished work can all belong on the page. Ask what each means in this household. A parent working nights may not have a common dinner hour to protect. A child communicating with distant relatives may need an exception to a general device rule. Begin with the life people live, rather than a picture of the ideal household.

Invite each person to contribute something they want help with and something they do not want to lose. Adults should answer too. A younger child can draw the answers. Someone who prefers to speak can record them for the family to review. The format matters less than whether people can recognize their contribution in the result. The family does not need unanimous enthusiasm about AI to make a useful agreement.

Give every promise a meaning in daily life

A broad promise such as honesty becomes useful when a person knows what to do. For shared or submitted work, the family might agree to say how AI helped and follow the rules of the setting. Explain the difference between a tool suggesting questions, rewriting a paragraph, translating instructions, and producing the final response. A child cannot reliably follow a boundary that the adults have never made clear themselves.

Privacy needs the same translation into action. Instead of merely writing “keep information safe,” agree on a few familiar examples that stay out of general-purpose prompts: a private conversation copied from a friend, identity documents, details that identify another child, or an intimate family story. Explain that combining ordinary details can reveal more than a single detail seems to reveal. Use invented examples during demonstrations whenever those examples will serve the purpose.

For factual checking, decide what level of checking fits the decision. A name for an imaginary dragon and a consequential claim about a person's welfare call for different attention. A family might commit to opening the original source for a claim that will be relied on, and involving the responsible person when the decision affects health, safety, education rights, or money. The agreement should make the path to a person easier to find, rather than pretending the family can verify everything alone.

A fourth promise can concern uncomfortable encounters. State what a child can do when a response frightens, confuses, pressures, or embarrasses them. They can stop and bring it to

a named adult. The adult promises a first response that seeks understanding and protects the people involved. That promise does not forbid proportionate consequences when a rule was broken. It keeps disclosure from becoming an automatic invitation to humiliation.

Decide who carries which decision

Some decisions belong with adults: choosing whether a service is suitable, understanding its current requirements, making purchases, and ensuring that necessary support is available. Other decisions can be shared: which project to try, what information the activity truly needs, and how to review the result. Still others may be a child's to make within the agreed boundary: which character to draw, which practice problem to attempt first, or whether to ask for a hint.

Research on parental provision of choice examines associations with children's executive-function skills in a particular observational context. It does not establish that adding a choice to this agreement improves a child's development. [PMC8802749] Its relevance here is a question adults can ask themselves: is the choice real? Offering a child two options and then overruling either answer is different from explaining that a particular boundary is not negotiable.

If two children have different arrangements, explain the relevant reasons without ranking their worth or demanding public disclosure of private needs. Age, eligibility, access supports, experience, and the task can all matter. One child may need a parent to operate a tool; another may use an approved support more independently. Fairness does not require identical arrangements. It requires reasons that can

be explained with respect, including privacy about the reasons a child does not owe their siblings.

Name the adult commitments beside the child commitments. An adult might ask before uploading a child's image, disclose when a family plan was generated and checked, or put work messages aside during a particular shared activity. A child should be able to point to those promises without being accused of disrespect for noticing them.

A VISUAL WAY TO THINK

An agreement that can keep learning

01. Purpose

Name what technology should help the household do.

02. Boundary

State who can do what, with which information and support.

03. Repair

Agree on a response when someone is confused, uncomfortable, or mistaken.

04. Review

Ask what happened and choose one change, including an adult commitment.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Keep the first version short enough to remember

A useful first page might begin: “We want technology to help us learn, make things, and manage ordinary work. We want to protect sleep, private information, time together, and the work of thinking.” It could continue with six commitments: we describe AI assistance when work is shared; we ask before sharing personal information; we check consequential factual claims; we follow the actual rules of school and other settings; we keep responsible people involved in consequential decisions; and we can bring an uncomfortable interaction to an adult without being mocked.

Those sentences are a starting draft, not a complete policy. Add the particular arrangements the family has decided: which use is being tried, who operates the tool, where an adult is involved, and when the trial will be reviewed. Include a stopping condition that people can observe. “If this repeatedly pushes school-night bedtime later, we pause and review” has more meaning than “Do not overuse it.” Choose conditions suited to the family instead of copying every example in this book.

Put a review date or a recognizable event at the bottom. A week may suit a small experiment; a new term or a significant product change may call for another discussion. A signature can mark the moment, but do not let the ceremony become the accomplishment. What matters is whether people can use the page the following Tuesday when something unexpected happens.

Make disagreement possible without turning everything into negotiation

A family can listen to a child's reasons while keeping a necessary limit. Explain which part is open to discussion. “We are not uploading that private message. We can talk about the situation using an invented example, or speak to someone who can help.” This gives a boundary and a path forward. It avoids offering a debate whose conclusion the adult has already decided while pretending every option is available.

The family privacy workshop in the Parenting Journal analyzed six families discussing hypothetical home-robot scenarios. Their conversations sometimes produced alternatives beyond a simple yes or no. The small, museum-based pilot cannot establish long-term household behavior. [PMC10991795] It does offer a useful question for a disagreement: is there another arrangement that serves the purpose while sharing less information or placing less responsibility on the child?

Suppose a child wants a tool to create a comic about an argument at school. One response is to upload everything. Another is to forbid the project. A third is to invent characters and a different setting, keeping the private event out of the service. That third possibility does not guarantee that the tool is suitable; the adult still needs to assess it. It changes the question from whether the child can have what they want exactly as proposed to what the family can responsibly make possible.

Caregivers may disagree too. Try to discuss those disagreements away from the moment when the child is waiting for permission. Establish what needs joint agreement and what one caregiver can decide. Where a household spans more than one home, avoid requiring a child to enforce adult

agreements they cannot control. Record what applies in the setting you can govern and keep adult communication an adult responsibility.

Plan repair before there is an incident

Repair begins by finding out what happened. Separate the immediate need to protect people from the later conversation about responsibility. A private upload may require examining available deletion controls or contacting a service. A school problem may require clarifying an assignment and speaking to the teacher. A frightening interaction may require stopping the interaction and involving a trusted person or appropriate professional. Do not promise that deleting a visible conversation removes every retained copy or that every disclosure can be reversed.

After the immediate problem is addressed, ask how the arrangement contributed. Was the rule clear? Was the child trying to finish an impossible amount of work? Did an adult model the same behavior? Did a new feature appear? Understanding circumstances does not erase responsibility. It identifies what must change for the next attempt to have a better chance of working.

Give the child a route back to ordinary participation. A consequence without an explanation of what happens next can make a mistake feel permanent. The route may involve a smaller task, more adult support, a different tool, or a period without the tool followed by a review. Describe the conditions in language the child understands. Avoid collecting an ever-growing archive of wrongdoing to prove that trust once went wrong.

Adults need the same repair practice. “I shared that before asking you. I want to understand what bothered you. Here is what I can change now, and here is what I will ask next time.” That statement is more credible than a performance of perfect digital judgment. An agreement becomes stronger when it contains a way for the most powerful person to acknowledge a mistake.

Help visitors understand the arrangement

Grandparents, relatives, babysitters, and visiting friends may not know the household's decisions. Give the relevant adult a short explanation before a child has to enforce the rule. If the family asks before sharing images, explain that practice plainly. If a particular activity requires adult involvement, name who is responsible. A child can help explain a familiar routine, but should not have to argue with a powerful adult about a boundary the caregivers have chosen.

Friend visits can create another small dilemma. A guest may use a service differently at home or may arrive with an account the host child does not have. Decide what applies during the visit without criticizing the guest's family. Offer an activity that people can join under the host household's arrangements. If the relevant adult needs clarification, discuss it with them directly. The child does not need to carry a message about another family's parenting.

Revisit the agreement when the setting changes. A school trip, a shared device at a relative's home, or a holiday project may alter who is present and what information is involved. You do not need a separate policy for every event. Ask which existing commitments still guide the situation, which adult can help,

and what should wait for a conversation. A short, remembered principle can travel more usefully than a long document left on the refrigerator.

When a child lives across more than one household

Consider an invented situation in which a child spends time in two homes. One caregiver welcomes a broad range of AI uses. Another prefers a narrow set of adult-operated activities. The child arrives carrying both sets of expectations and an uncomfortable question: which adult are they supposed to disappoint? An agreement becomes useful only when the adults stop asking the child to solve that conflict.

Begin with what each caregiver is trying to accomplish. One may want the child to have help when work schedules make direct support difficult. Another may be concerned about private information or schoolwork. Identifying those purposes does not guarantee agreement, but it can reveal practical common ground. The adults might share a commitment to following school instructions, asking before using the child's image, or providing a named person when an interaction becomes uncomfortable.

Write what applies in the setting each adult can govern. Make differences clear without presenting them as a test of loyalty. “Here we use an adult for this activity” describes a household arrangement. “Your other home does not care about safety” recruits the child into an adult dispute. The book cannot resolve family authority or determine what any existing formal arrangement permits. Where that question matters, adults need the appropriate responsible advice and should keep the child out of the role of messenger or adjudicator.

A shared minimum can be short. It might name the people the child can contact, the kinds of information that require adult discussion, and the school expectations both homes will support. It should not require one home to report every ordinary action in the other. Focus on the decisions that need coordination. A child should be able to say they are confused without being pressed for a detailed account that serves an adult's argument.

Review the minimum when circumstances change. A new school assignment, a new device, or an upsetting encounter may require the adults to speak directly. The child can contribute their experience in a way that feels manageable. Give them permission to say, “Please talk to each other about that.” It is a practical sentence for keeping adult responsibility with adults.

Write for the people who will read the agreement

An agreement can fail because its language is inaccessible even when everyone supports its purpose. A document written in formal school language may not carry the same meaning for every caregiver. A younger child may remember a picture better than a paragraph. A relative may understand the ordinary practice but be unfamiliar with the names of particular features. Choose a format that helps people act, rather than one that looks impressively official.

In another invented household, a grandparent provides afternoon care while a parent works. The grandparent is comfortable with conversation and ordinary phone use but does not want to manage unfamiliar account settings. The first draft assigns them a complicated supervisory role. Instead of

interpreting that reluctance as opposition to technology, the family redesigns the activity. The child can work on an offline project during that time, and any suitable AI component waits until the parent can handle it. The adult has been given a responsibility they can actually carry.

For a multilingual household, discuss the meaning of a commitment in the language in which each person can reason most comfortably. A translated version can help, but important uncertainties deserve a human check with someone competent and appropriately trusted. Avoid making the child responsible for interpreting sensitive adult disputes or service requirements. The child can explain their own experience; the adults need another route for decisions whose consequences they must understand themselves.

Ask each participant to describe what they would do in one ordinary situation. If the agreement says to ask before sharing an image, what counts as asking and who answers? If it says to check important facts, where does the family begin? The explanation may reveal that the same sentence has several meanings. Improve the wording together. An agreement is clearer when people can use it in an example, not merely repeat it aloud.

Make the division of work visible

AI can be introduced as something that saves a household time while quietly assigning the setup, checking, and repair to one person. A caregiver may become responsible for every school message, account permission, and difficult conversation. A teenager may be expected to provide technical support for all the adults. The agreement should ask who is doing the work and whether the proposed arrangement is fair and realistic.

Name the work around a use before adopting it. Someone may need to understand the current service information, prepare a suitable activity, stay available, check a result, or cancel a trial. Share those tasks where the household can do so. If they cannot be carried reliably, narrow the use. A plan that depends on an unavailable adult is incomplete even if its written commitments sound careful.

Keep expertise and authority distinct. A young person may know how to find a setting faster than their caregiver. That knowledge can be welcomed without making the young person responsible for the final decision about suitability or privacy. An adult may have authority over the purchase while needing help understanding the interface. Saying “Show me how it works, and then we will decide” allows both people to contribute what they know.

This division of work should also be revisited. A family member who was willing to help during a holiday may be unavailable during examinations or a demanding work period. A useful agreement can reduce an activity when support changes. The household does not owe a tool the same level of use throughout the year. People get to change the arrangement when their capacity changes.

Work through a repair meeting before writing new rules

An extended invented example: a child uploads a private message from a friend while asking a system to help answer it. The adult discovers this during a conversation about school. The family's agreement said to protect privacy, but never discussed other people's messages. The adult feels that the child should have known. The child says that adults paste messages into tools all the time.

First attend to the disclosure itself. Find out what was shared and examine the relevant service's actual options without promising that every copy can be removed. Consider whether another responsible adult needs to be involved, according to the circumstances. Keep the friend's information out of unnecessary retellings. The family can discuss the rule later; the immediate task is to protect people and understand what can be changed.

In the repair conversation, begin with the event rather than an accusation about character. “A private message was uploaded. We need to understand how that happened and what we can do now.” Ask what the child was trying to accomplish. Perhaps they wanted to avoid saying something hurtful and did not understand that seeking advice also disclosed the friend's words. That purpose does not make the disclosure acceptable. It does suggest a different practice to teach: describe the situation with invented details or speak to an appropriate person.

The adult then examines their own example. Have they demonstrated copying messages without explaining whose information was involved? If so, acknowledge it. Shared accountability does not make every person equally responsible

for every decision. It makes the instruction more honest. A child can be accountable for an action while an adult accepts responsibility for an unclear rule and an inconsistent model.

Write one specific revision instead of a page of reactions. The family might agree that private messages from other people stay out of general-purpose tools, and that anyone needing help can use an invented description or consult a trusted person. Name a route back to participation for the child. Choose what will be reviewed and when. The aim is an understandable next arrangement, not a permanent reminder that the child once made a mistake.

Keep permission connected to the actual activity

A family may agree to a creative experiment and then discover that the activity has expanded. A drawing exercise becomes an image upload. A practice conversation becomes a request for personal details. A plan intended for the household is about to be shared with a group. Pause at the change. The original agreement concerned a particular use, with particular information and people involved. It should not be treated as permission for every new step that appears convenient.

Give any participant a way to notice that change. A child can say, “I agreed to make the picture, but I do not want it shared.” The adult then examines the request and the responsibilities involved. Participation in a family project does not mean that every contribution becomes available for any audience. It is easier to discuss the audience before an activity begins, while still allowing someone to raise a concern later.

The adult carries the burden of making the next decision understandable. Explain what can still be changed, what has already happened, and which parts require another person's involvement. If a disclosure cannot be fully undone, say so without using that fact to dismiss the child's concern. The agreement can protect a more careful next step even when it cannot restore an earlier situation completely.

Let an agreement contain an unanswered question

Sometimes a family cannot make an informed decision during the meeting. A service's explanation may be unclear, the school's rule may need confirmation, or caregivers may need a separate conversation. Write the question down and identify who will investigate it. Give the family an interim arrangement that does not depend on pretending the answer is known. Waiting can be an active decision with a next step.

For example, the family may postpone an image upload while continuing the project with drawings. It may allow a clearly permitted practice activity while asking the teacher about a disputed drafting use. It may cancel the automatic start of a trial while comparing costs. These are ways to keep the purpose alive without making uncertainty disappear on paper.

At the next review, return to the question explicitly. If no answer was found, say so and decide whether to keep waiting, narrow the use, or choose another route. An agreement earns trust when its unresolved parts remain visible. The child learns that adult confidence is not a prerequisite for adult responsibility: people can be uncertain, state the limit, and still take care of the next decision.

AN INVENTED SCENARIO

The adult exception at dinner

An invented scene: your family agreed to put devices away at dinner. A work message arrives, and a child asks whether the agreement applies to you.

A. Say the rule only applies to children.

Adults and children can have different responsibilities. An unexplained exemption, however, changes the meaning of a shared promise. Explain the responsibility and propose a clear exception that can be noticed.

B. Acknowledge the inconsistency and discuss a specific exception.

The agreement can become more precise. For example, the person using an urgent exception might explain it aloud and return to the meal. The point is accountability, not identical duties.

C. Give up on an agreement because someone broke it.

A breach can reveal language that needs revision. Pause, name what happened, and decide what a workable next promise would be. The page is a tool for repair, not evidence of a perfect household.

Review the page with curiosity

At a short review, ask what helped, what created work, whether anyone felt unheard, and what one thing should change. Start with something specific. If the family cannot remember what happened, that is a reason to simplify the experiment, not necessarily to install more monitoring. A two-line note about a decision may be enough. Record tool arrangements and learning questions; avoid turning a child's intimate experiences into a household database.

Make space for the conclusion that little or no AI is currently useful. The purpose of the agreement is a workable family life, not successful adoption. A household may keep an adult planning use while declining a child-facing feature. It may keep a creative activity and stop a subscription. It may decide that a library, a teacher, or a conversation meets the need more directly.

Return to the refrigerator in the invented scene. The parent puts the phone away, then proposes language for genuinely urgent exceptions. The teenager suggests that the person using an exception should explain it aloud. They write one new sentence. Nobody has become a perfect technology user. They have made a promise more precise and given each other a way to notice it. That is the work the agreement exists to support.

A QUIET MOMENT

One promise for the adults

What adult habit should the agreement make visible? Write a promise that a child could understand and reasonably notice.

09

EVERYDAY DECISIONS

Work with the school

Make expectations visible before the assignment becomes a dispute.

REAL STUDENT VOICES | THE 2017 ARCHIVE

A student looks at the structure around learning

THE COMPLETE ORIGINAL PROFILE | 2017

Sam Kovnar



Fixing the Inefficiencies in the US Education System

Original student writer: Lucas Schaberg

Cardinal Impact Moonshot | July 27, 2017 | Original p. 43

Sam Kovnar feels that there are a lot of things that the US does worse than other countries in education. For example, early start times, which research says are bad for students,

still exist in many American schools. He found the issue by observing discussions on the internet and relating them to his own experiences. On the importance of education, Kovnar says that "better education leads to a more capable workforce, which makes it easier to solve other problems in the world." Some schools use a block schedule, where classes happen 3 times a week and 4 times a day, which gives students more freedom to manage homework and studying, and gives the teachers more time to teach in a single period. Kovnar believes that “[block scheduling] gives teachers more time to do extended activities, which couldn't be fit into a normal class period, and it breaks up the teacher's train of thought less, so it allows them to have a more continuous lesson plan, as opposed to every day having to think 'Ok where were we yesterday when we left off?' It reduces the number of breaks in the learning environment." Another issue Kovnar has identified is that teachers are paid very little compared to how important their jobs are.

"Paying teachers more would allow higher quality teachers to be brought into schools because more skilled teachers tend to ask for a higher pay, as they deserve, so a higher pay on average would increase the quality of the teachers in general, and better teachers tend to lead to better knowledge absorption,” he explained. “Higher teacher pay would require more government funding, so giving more money to education over, say, defense, would also help to increase the quality of education in America." Expanding on his earlier assertion about the importance of education, Kovnar stated that “Education is where we train the next generation of the workforce, and if we don't have people who can do all of the jobs that need to be filled, then our country can't function the way it needs to in order to solve other problems.” When asked what one change he would make if given the chance, Kovnar replied that he would make school year round, because it

would be a big help to both teachers and students, as less break time means less time that has to be spent reviewing, so teachers can get right to teaching new material and the students can learn it faster.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Sam Kovnar examines school schedules, teacher support and the connection between education and the wider world. His classmate records a learner looking beyond a single assignment to the conditions in which learning happens. A parent's conversation with a school can do something similar. Before deciding whether a tool belongs in homework, ask what the assignment is meant to develop and which conditions help the student participate. Sam's proposals remain his 2017 views; this chapter does not treat them as settled findings about school policy.

Cardinal Impact Moonshot, July 27, 2017. Original student accounts retain their own rights and are excluded from the CC BY license on new editorial synthesis. Historical aspirations do not establish later outcomes.

An illustrative family scene

An illustrative scene: a student opens the instructions for a group history project. The assignment asks for an original argument supported by sources. One classmate proposes asking a chatbot to write a first draft. Another says the teacher allowed AI last week. The student remembers that last week's activity was a practice exercise, but cannot find a rule for this project. At home, a parent says, "Just do your own work." The student is trying to do that. They are still unsure what the group should do next.

The scene is invented, and the uncertainty in it has several layers. What does original mean for this task? Does permission

from one lesson carry into another? Who is responsible for a group member's contribution? What kind of help would preserve the learning the teacher wants to see? A general family attitude toward AI cannot answer all of these questions. Neither can a student's good intentions. The next useful step is to make the expectations visible.

Families and schools share a concern for a learner who can participate, develop skill, explain their thinking, and receive fair support. They may approach that concern through different responsibilities. A teacher must design and assess work for a class. A caregiver sees the child tired at the kitchen table. A student experiences the assignment, the peer group, and the pressure to finish. Collaboration begins when those experiences can enter the same conversation.

Find the learning goal inside the assignment

Before deciding whether a tool belongs, ask what the student is being asked to learn. An essay can involve choosing a question, evaluating sources, building an argument, organizing paragraphs, developing sentences, and revising. The teacher may be assessing some of those skills more closely than others. A tool that saves time in one part can bypass the very work another task is designed to develop.

Consider two language activities. In one, the learner is practicing forming particular sentences. Having a system produce those sentences may conceal whether the learner can form them. In another, the student is investigating a historical question and needs an accessible way to understand the instructions. Language support may help the student reach the task. These examples do not settle a school's policy; they

show why the actual purpose and the student's access needs must be discussed together.

Ask the student to put the goal in their own words. If they cannot, avoid treating that uncertainty as evidence of laziness. Look at the directions, examples, and rubric. Then ask the teacher a focused question. A short clarification about one task is often more actionable than a request for a complete philosophy of AI. Keep the reply where the student can find it, and help them understand how it changes the plan.

A family might write: “We want to support the learning goal for this assignment. Could you clarify whether AI may be used for ideas, feedback, language support, or checking? Which parts should the student complete independently, and how should assistance be acknowledged?” This is a suggested message, not a mandatory script. Replace its categories with the ones relevant to the child and the work.

Describe the help precisely

The phrase “I used AI” can refer to very different activities. A student might have asked for a definition, generated practice questions, received feedback on a draft, translated an instruction, or submitted a response composed almost entirely by the system. A useful conversation names the action. What did the student supply? What did the system return? What changed in the work? What did the student check?

This precision is particularly helpful when a class permits some assistance. A student who asks for one hint may receive a complete solution. The next question is what they did with it. Did they close it and attempt a related problem? Copy the steps? Discover an error? Talk to the teacher? A rule about

requesting help does not automatically describe the help a system actually supplied.

Help the learner keep a small contribution note where it is required or useful. It might say that a tool proposed practice questions, that the student answered them independently, and that a particular factual claim was checked in the assigned reading. The note should describe reality. It does not need to make ordinary learning sound like a research audit, and it should not manufacture a clean history after the fact.

For group work, establish expectations before combining contributions. Ask who will check the sources and how each person will acknowledge help. If a group member submits material nobody understands, the group needs a process for raising that concern with the teacher. The child should not be left to act as a private investigator or to enforce a rule the class has never defined.

A VISUAL WAY TO THINK

Make assistance understandable to the school

The learning goal

What must the student understand or demonstrate?

The tool’s role

Was it used for ideas, feedback, language access, checking, or producing an answer?

The student’s contribution

What did the learner choose, explain, revise, and do?

The shared record

Keep a few useful traces and the actual assignment expectations.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Preserve a few traces of thought

A finished product reveals only part of learning. A rough plan, an early draft, a note about a revision, or an explanation of a chosen method can help the student and teacher see the process. Choose a few traces that arise naturally from the task. The point is to make thinking available for discussion, not to make the home a continuous recording studio.

Imagine a student revising an argument about a novel. Their first note says that the main character is selfish. Later, they

decide the more interesting claim concerns fear. A sentence explaining why they changed the argument can show a meaningful decision even if the first draft is messy. That decision belongs to the learner. A tool's polished paragraph should not erase it from the student's own account of the work.

Project-based AI-and-ethics curriculum research describes middle-school workshops that combine making with critique. It is exploratory educational work in a particular context, not a validated method for detecting misconduct or a guarantee of performance with today's tools. [PMC9342939] Its relevance here is the possibility of designing work in which students have something to make, explain, and question. A family can ask how an assignment gives those activities room.

Avoid making proof of innocence the organizing principle of every homework session. A child also needs private drafts, false starts, and the chance to be uncertain without an audience. Agree with the school about what process evidence is useful and proportionate. Constantly collecting more information is not the same as understanding the learner better.

Treat access as part of the task

Some students need communication, reading, writing, translation, or organizational supports to participate. Ask separately about those supports. An approved accommodation is not interchangeable with optional assistance that changes the skill being assessed. The child, caregiver, and responsible educators need a shared account of the learning goal and the support. Do not withdraw essential support simply to create an appearance of independence.

Bring the student's experience into the conversation. A tool may be available in theory yet difficult to use with the student's reading pace, sensory needs, language, or device. A school policy written in unfamiliar language may leave a caregiver unable to help their child interpret it. Ask for an explanation and format that people can actually use. Access includes understanding the rule, not merely receiving a link to it.

An alternative should also be meaningful. If participation requires a paid account, reliable broadband, or a personal device, ask how the school supports students who lack those resources. If a family declines an optional upload, ask what route allows the student to meet the learning goal. The family is asking how the educational activity works for the student; it need not become an argument over whether technology is universally good or bad.

Document specific agreements about the child's support where appropriate. A brief written clarification can prevent a student from having to explain the same arrangement to several adults while already feeling exposed. Preserve privacy in that record. The class does not need a public account of why one learner uses a particular support.

When something appears to have gone wrong

Begin with the concrete concern. Which passage, answer, source, or process is in question? Invite the student to explain how they worked and what assistance they used. An automated label should not replace the opportunity to understand that account. Follow the school's actual procedure, ask what evidence is being considered, and keep the conversation directed toward a fair decision and the learning that needs to happen next.

The student may have broken a clear rule. A useful response can acknowledge that fact without turning it into a permanent description of their character. Ask what happened before the shortcut. Was the student confused about the task, afraid to submit imperfect work, overwhelmed, or following a group decision they did not challenge? These circumstances do not erase responsibility. They help identify what support and repair are needed alongside consequences.

The expectation may also have been unclear. In that case, a family can ask for clarification and a proportionate way to demonstrate learning. A fresh explanation, a revised submission, or another task may be appropriate if the school agrees. The book cannot decide a dispute from a distance. It can encourage adults to separate the evidence about this event from assumptions about a whole generation or an entire technology.

For the invented group project, a parent could help the student draft one question to the teacher and a temporary plan for the group. The group can gather and read sources while waiting, avoiding the disputed drafting step. This preserves progress without pretending uncertainty has

already been resolved. It also teaches a practical form of responsibility: stop the unclear part, ask the person who governs the task, and continue what is clearly permitted.

Support autonomy without handing over adult burdens

Homework can turn into a second school day in which the caregiver becomes a reluctant supervisor and the child loses any control over the evening. Look for a choice that is real and relevant. The student may choose which task to begin, when to ask for help, or how to explain a solution. The necessary requirements remain visible. Choice is not useful when the adult offers it and then rejects every answer.

Research on daily autonomy-supportive parenting during family adaptation to the COVID-19 pandemic examines relationships among parenting and adjustment in a particular period. It is not a study of current AI homework routines. [PMC8013550] The editorial bridge here is a question about how to offer support and meaningful choice while maintaining needed structure. This chapter's suggested routines have not been tested by that study.

One practical arrangement is a short beginning conversation and a later check-in, with work time between them. Ask what the student understands, where they expect difficulty, and which support they want available. Then allow the agreed period of work. The arrangement will need adapting to age and access needs. Its purpose is to keep help available without making the child perform every thought for a watching adult.

Adult responsibilities should remain with adults. A child should not have to negotiate a service contract, determine the

legality of a data practice, or mediate between competing school policies alone. They can help formulate questions and explain what the tool does in their work. Institutions and caregivers must provide the governing decisions and routes to assistance.

A group project, examined from beginning to end

Return to the invented history project from the opening. The group has four students, a shared presentation, and a week before the deadline. They have already divided the slides, which seemed efficient. When they compare their first contributions, the pieces do not form an argument. One is a generated summary with references nobody has opened. One is a careful account of an assigned source. Another is mostly pictures. The fourth student has been waiting because the group's question is unclear.

The caregiver can help their child see that the immediate problem is the design of the work. Before debating the tool, the group needs a common question and an account of what evidence would answer it. The student can propose a short meeting or ask the teacher to help the group clarify the task. This is not a demand that a child manage their peers perfectly. It is a way to identify which uncertainty belongs with the group and which needs an educator.

Once the question is clear, the group can organize contributions around reasons and sources instead of around slide ownership. Each person explains one source they have actually examined and what it contributes. A source may be useful because it supports the argument, complicates it, or shows a limit. A generated summary cannot do that

explanatory work on the student's behalf if they have never opened the material. The group needs people who can stand behind the claims they plan to share.

If the teacher permits a limited AI use, the group can record that use specifically. Perhaps a tool helped suggest a structure that the students then changed. Perhaps it raised a question that sent them back to a source. Whatever the use, the group must still check the result and follow the assignment's rules. A contribution note can make the role visible without implying that declaring help automatically makes every kind of help permissible.

The group also needs a way to handle unequal participation. One student may be doing the checking for everyone while another supplies polished text. Another may have less access to the shared document outside school. Ask what each person can realistically contribute and what the teacher expects the group to do when someone is unavailable or a contribution cannot be verified. Access and responsibility both matter. Neither is served by silently letting the most available student carry the whole task.

At the end, a useful rehearsal is for each student to explain a central claim and answer an ordinary question about it. The purpose is understanding, not exposing someone for public embarrassment. If the explanation fails, the group has found work that remains to be done. It can revise the argument, narrow a claim, or seek clarification before presenting. A presentation becomes more trustworthy when its authors can discuss its decisions in their own words.

A concern about authorship needs a conversation with evidence

Another invented situation: a student receives a message saying that a paragraph may not be their own work. The student says they wrote it. The caregiver is angry, the child is frightened, and the temptation is to begin with a sweeping argument about AI or unfairness. Slow the first response enough to find the concrete concern. Which work is being questioned? What does the school believe happened? What process will it use to examine the issue?

Ask the student for an account before coaching a defense. Let them describe the task, drafts, help, and decisions in an ordinary sequence. They may have followed the rule, misunderstood it, or used help they have not yet disclosed. The adult needs an accurate account to help. Promise to take the concern seriously without promising a particular outcome or suggesting that the student should invent process evidence they never kept.

Gather what already exists and is relevant: the assignment, the stated expectations, genuine drafts, a source note, or a record of permitted support. Avoid building an intrusive archive of unrelated private activity. The school may have a procedure for submissions and meetings; ask for it and follow it. The book cannot determine whether a particular accusation is correct, establish a right to a particular remedy, or replace appropriate advice where a consequential dispute requires it.

During a meeting, focus on questions that can be answered. What feature of the work raised the concern? How does that relate to the rule? How will the student's account and any access support be considered? What would let the teacher understand the student's reasoning? An automated indication

can be discussed as part of the information being considered; it should not end the conversation before the student's work and process have been examined.

If a misunderstanding is resolved, help the child return to learning instead of requiring them to remain the symbol of a larger dispute. If a rule was broken, ask for a clear account of the consequence and the route to repair. A fresh explanation or revised piece may be possible under the school's process, but it should not be promised in advance. The practical goal is a fair, intelligible decision and a learner who knows what to do differently next time.

When a classroom use involves information about students

An adult use of AI can affect children even when no student is operating the service. A teacher might consider asking a system to organize notes or help prepare feedback. A caregiver might want to paste a child's work into a tool to obtain another opinion. Before doing so, ask what information is necessary, whose information it is, which rules govern the setting, and what a responsible person has authorized. The convenience of the task does not answer those questions.

In an invented example, a caregiver wants to understand why a child received a particular comment. Instead of uploading a whole school report containing names and personal details, they first ask the teacher what the comment means. If another explanation would still help, an invented example may be enough. The adult can seek understanding while reducing the amount of information that leaves the original setting. The exact decision will depend on the task and current

requirements; the pause is a method for finding out, not a legal conclusion.

Families can ask an institution how student-facing and adult-facing uses are evaluated, which information enters a service, and who can explain the arrangement. Ask in practical terms. If feedback is wrong, who reviews it? If a parent has a concern about an upload, where do they take it? If a learner needs an alternative, who arranges it? A policy becomes useful through those routes.

Keep the student's voice present without asking them to approve a system they cannot reasonably assess. They can describe whether feedback is understandable and whether an activity works for them. Adults and institutions retain responsibility for decisions about suitability, information practices, procurement, and support. Student participation is valuable precisely when it adds their experience to responsible adult judgment, rather than being used as a signature that transfers the burden.

When the family cannot get an immediate answer

A teacher may be unavailable when an assignment question arises. Identify what can proceed clearly within the instructions and what should wait for clarification. The student may be able to read sources, make their own notes, or list questions while postponing the disputed use. Keep a brief record of the question sent and the interim decision, without presenting that record as a guarantee about how the school will resolve the issue.

If the uncertainty recurs, ask who can provide a dependable route for clarification. The family may need a shared explanation across a class, program, or school rather than repeated individual negotiations. A student should not have to gamble on a vague permission every time the same kind of assignment appears. The practical request is for a rule that can be understood and a person who can answer the case the rule does not cover.

Follow one learner through a week of writing

Consider an invented student writing an argument about a short story. On the first evening, they choose a passage and speak their initial claim into an accessible note-taking arrangement they already use. The caregiver asks which detail in the passage makes the claim plausible. The answer is incomplete, but it reveals a question. They write the question down and stop. There is no need to create a polished introduction before the student knows what they mean.

On the next day, the student checks the teacher's expectations about assistance and identifies two possible supporting passages. If a permitted tool offers feedback, they ask for one question about a gap rather than a rewritten essay. The response may still exceed that request; the student needs to decide what can appropriately be used under the rule. The caregiver can help them return to the task without substituting another adult's argument.

Later in the week, the student notices that the second passage complicates the original claim. This is a productive difficulty in the invented example, not an empirical demonstration of a method. They can narrow the argument or explain the

complication. An early note and a short account of that revision make the thinking visible. The final paragraph may be less grand than a generated version and more accountable to the story.

Before submission, the learner checks the work against the actual instructions, verifies the quoted or paraphrased material, and acknowledges help as required. They do not need to pretend that the process was perfectly independent. They need an honest account of the work and an opportunity to practice what the assignment is meant to develop. A family can support that process without turning every evening into a performance review or treating an imperfect sentence as an emergency.

These worked situations point toward a practical relationship between home and school. The family helps the student formulate questions, recognize their contribution, and seek appropriate support. The school makes expectations and routes for clarification usable. The student participates in decisions suited to their role. When these responsibilities are visible, a new tool can be evaluated within the educational task instead of becoming the explanation for every success or difficulty.

Ask for clarity when adults use AI too

Students may see teachers and caregivers using AI while being asked to limit their own use. Sometimes the purposes differ in ways worth explaining. An adult drafting a routine announcement and a student learning to construct an argument are working on different tasks. The explanation should concern the task, the checks, and the responsibility. “Adults can use it because we are adults” offers little help to a learner trying to understand why the boundary exists.

Families can ask how AI-assisted materials used in the classroom are checked and who handles an error. A worksheet can contain an unclear question. Feedback can misread a student's intended meaning. A translated instruction can need correction. These are possible problems to plan for, not claims about a particular school's practice. A student should know how to question the material respectfully and receive a response from a person who is responsible for it.

It is reasonable for a learner to ask what a piece of feedback means. If the feedback appears generic or inconsistent with the submitted work, help the student identify a concrete example and ask for clarification. The purpose is useful teaching, not catching the teacher in a contradiction. A clear route allows the institution to correct a mistake while preserving the student's chance to learn from the work.

Adult disclosure can model the same precision expected from students. An educator might explain that a tool helped prepare practice questions and that the educator selected and checked them. A caregiver might acknowledge that a suggested study plan came from a system and needs adapting. These statements make responsibility visible. They also show that fluency does not release anyone from checking whether an answer fits the actual person and task.

AN INVENTED SCENARIO

The group wants a generated first draft

An invented scene: a classmate says AI was allowed last week and proposes generating a group history draft. This assignment's instructions are unclear.

A. Treat last week's permission as permission for this task.

Different assignments can assess different skills. A previous activity does not resolve the current expectations. Ask what this task requires before the group relies on a generated draft.

B. Ask the teacher a precise question about the permitted assistance.

Name the assignment and distinguish ideas, feedback, language support, checking, and final writing. The response can help everyone preserve the learning goal and acknowledge the help accurately.

C. Make one student responsible for policing the whole group.

Students can explain their own work and raise a concern. Adults and the institution retain responsibility for clear expectations and fair procedures. Help the student seek clarification without carrying an adult burden.

Ask the institution about the whole arrangement

A product's presence in a classroom does not answer every question about its use. Ask how the school evaluates tools, explains acceptable assistance, protects student information, and handles errors or concerns. Ask who can give a clear answer when a teacher's directions and a general policy seem to differ. The questions should lead to a usable route, not a tour of documents that sends the family back to the original uncertainty.

Invite discussion of what the tool is meant to change. Is it helping students practice, supporting accessibility, reducing administrative work, or altering assessment? How will people know whether it serves that purpose? What human support remains available? A feature can be impressive while the overall arrangement leaves teachers with more checking work and students with less clarity. The institution needs to evaluate the arrangement people actually experience.

Make family participation possible for people with different schedules and languages. An evening event may be useful for some caregivers and impossible for others. A short written explanation, translated summary, accessible recording, or phone conversation may carry the essential information further. Parents need enough understanding to support their children; they do not all need to become technical specialists.

The family-school relationship is sustained through ordinary, specific exchanges. A teacher clarifies a task. A student explains a decision. A caregiver reports a barrier before it becomes a conflict. In those moments, AI becomes one part of an educational environment whose purpose is still a growing person. Keep returning to that person: what they can

understand, what they can do, what support they need, and how the adults can make the next step fair and possible.

A QUIET MOMENT

A useful question for the teacher

Write the smallest question that would resolve the uncertainty for this assignment. Include an access need if it affects the work, without sharing unnecessary private information.

10

EVERYDAY DECISIONS

Choose a tool by the job it must do

A useful purchase begins with a question about need and evidence.

REAL STUDENT VOICES | THE 2017 ARCHIVE

Begin with the person the technology is meant to help

Emily Gao



Fighting Poverty with Medicine

Original student writer: Meghana Manepalli

Cardinal Impact Moonshot | July 27, 2017 | Original p. 27

Obamacare has been repealed and ordinary US citizens no longer have access to affordable healthcare. A little boy born with a congenital heart defect has gotten a series of 5 open heart surgeries under Obamacare. Just one more surgery is needed to fix his fragile heart, however this surgery is no longer feasible. “Why?” Emily Gao asks. “This little boy cannot get the surgery because his family can’t pay for it out of pocket; his family does not have access to affordable medical care without Obamacare. He lies in the hospital room in a building full of doctors and heart surgeons with all the medical devices and technology he needs to receive his surgery, but the invisible barrier of money and politics prevent him from doing so,” she informs me. She continued, “In a resourceful and powerful country like America, a little boy is made powerless through invisible and intangible barriers, which is very frustrating to the victims of disease and injury.”

Emily told me that all of us have access to affordable health care, we don’t have to worry about being healthy and that gives us the privilege to worry about other issues such as LGTBQ equality and getting into college.

Kids like us are privileged, we are allowed to experience life to the fullest because of our medical security. She asks me, “Why should children, all over the world, not be given the gift of experiencing life, while being forced to live one?” Science and technology are progressing faster than ever now due to our abundance of resources, especially in California. But what about the rest of the world, and countries that don’t have resources like America? Emily insists that the resources already exist in this world to provide basic medical care to everyone. If we have the resources to help people, and provide medical care, then why aren’t we doing so? Emily is determined to find out how we can gather the resources to provide everyone, especially children all over the world, with basic medical security.

“The world is so large, that it’d be very hard to treat all the children in the world. Is it possible to quantify your goal? How do you know you’ve made a difference?”

“I hope to be able to change at least one family’s life in a positive way by giving them access to health care.”

Meghana Manepalli



A New Way to Save Lives

Original student writer: Emily Gao

Cardinal Impact Moonshot | July 27, 2017 | Original p. 29

Coming from a country that has morals and standards that differ greatly from the ones in the US, Meghana Manepalli can't help but compare the two countries. She explains to me how often times in India people will witness children being kidnapped for money or slavery, but few can do anything about it. This is a saddening phenomenon, however it happens all over the world and many people remain unaware. “When I lived in India, I didn't think twice about situations like these,” Meghana states to me. Diseases like polio and malaria are still rampant in developing countries. Meghana has lived in both countries and has experienced both realities; she is determined to do something about it.

Meghana has a unique and compassionate interest in the field of genetic engineering. She tells me she wants to “use this field of science to further medicine in order to eradicate diseases from third world countries”.

She is aware of the stigma and controversy that surrounds genetic engineering, and hopes to communicate the importance of genetic engineering and bioinformatics as a medicine. She knows that governments might create rules and

regulations for genetic engineering. Despite these obstacles, she is determined to make an impact through research.

“We can use the technique CRISPR to genetically modify mosquitoes to not carry certain viruses”. Diseases like Zika and Malaria are very common in many third world countries and take the lives of countless individuals each year. “Because genetic engineering will attack the cause of the disease, and not just treat the victims, this method of disease prevention might prove to be more effective than traditional methods.” Through procedures similar to these, Meghana hopes to better situations in third world countries. She hopes that the children of the future will be able to live long healthy lives, free of disease.

PULL QUOTE FROM THE ORIGINAL PROFILE

> Diseases like polio and malaria are still rampant in developing countries. Over 100,000 people are affected daily.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Emily Gao states a modest goal inside an enormous concern: help one family obtain health care. Meghana Manepalli describes a research ambition to use genetic engineering in the service of medicine. Their profiles put an intended human benefit in front of a proposed technical solution. That order is useful for a family choosing an AI tool. Name the person and the job before accepting the promise. The original magazine’s medical examples, policy assertions and projected scientific outcomes remain attributed to its 2017 reporting; they are not clinical evidence for this chapter.

Cardinal Impact Moonshot, July 27, 2017. Original student accounts retain their own rights and are excluded from the CC BY license on new editorial synthesis. Historical aspirations do not establish later outcomes.

An illustrative family scene

An illustrative scene: a caregiver watches a demonstration of an AI learning companion. The screen shows a patient explanation, a smiling child, and a neat account of progress. The caregiver thinks of evenings when homework becomes a struggle and everyone is tired. The purchase begins to feel like an answer to more than one problem: teaching, confidence, time, even the fear of not giving the child enough. Before clicking, they write a sentence on paper: “What exactly do we need help doing?”

This invented pause is the beginning of a better decision. A demonstration offers a selected encounter. A household must live with setup, errors, changing features, payment, attention, and the work of helping a child use the tool. A useful product may earn its place in that life. Its place should be decided through the need and the evidence, with room to stop, rather than through the emotional completeness of the demonstration.

Families do not need to evaluate every new service. They need a manageable way to decide which questions deserve their time. Start with a task specific enough to observe. “We want an accessible way to practice reading together” is more useful than “We need an AI tutor.” The first sentence leaves several possible answers open: an existing school support, a library resource, time with a person, a suitable tool, or a change in the evening routine.

Separate the need from the promised solution

Write down what happens now. Where does the child get stuck? What can they already do? What support is missing? If an adult wants a tool for routine planning, name the actual bottleneck. Is it finding ideas, deciding among them, coordinating people, or doing the work afterward? A system that produces more ideas may not solve a problem caused by too many choices.

Ask the child for their account before choosing on their behalf. A parent may describe a reading problem when the child describes embarrassment about being corrected in front of a sibling. A teenager may want feedback at a time when a teacher is unavailable, rather than a system to complete an assignment. These are illustrative possibilities, not diagnoses. They show why an accurate need statement matters more than a broad category such as educational technology.

Include what would happen without a purchase. Perhaps the existing arrangement can be improved. Perhaps a person with relevant expertise should first help clarify the need. Perhaps no available option fits. The comparison is not between a dazzling product and doing nothing for the child. It is between real arrangements, each with costs, limits, and human work.

Untangle the claims

A tool can be enjoyable, easy to use, technically capable of a task, and effective for a meaningful outcome. These are different claims. A child smiling during a session tells you something about that moment. It does not by itself show what the child learned, whether the learning transfers, or what happens over months. A product producing a good explanation does not establish that it consistently gives good explanations for your child's questions.

Read the claim as a sentence you could investigate. “Personalized learning” might refer to changing the difficulty of questions, responding in a conversational style, remembering preferences, or something else. Ask what changes, how it changes, and what evidence concerns the result. A phrase that seems obvious may hide several capabilities and a much larger promise.

An audit of social-robot manufacturers examined claims on websites collected in 2021 and found variable scientific support. It did not test the current product in front of a family or measure outcomes in children. [PMC10770258] Its durable contribution to this decision is the distinction between the claim and the evidence offered for it. A cited paper deserves inspection: does it concern this product, this population, this task, and the outcome being promised?

A systematic review of chatbot-delivered parenting interventions found a small, heterogeneous literature concerned with feasibility and acceptability. Most reviewed systems were scripted. Those findings cannot establish that all modern generative chatbots improve long-term family outcomes. [PMC11494261] When a service points to research on a different kind of system, the connection may be worth

exploring, but it remains a connection to justify rather than a conclusion to inherit.

Read the evidence for the decision you face

Imagine that a provider cites a short study in which adults liked a conversational interface. That could matter for adult usability. It leaves open whether a child can understand the interface, whether its responses serve the learning goal, and whether the whole arrangement is appropriate. Another study might test a carefully supervised classroom activity. Its conditions may differ substantially from a child using a changing service alone at home.

Ask who participated, what they did, what was compared, what was measured, and for how long. Then ask what the researchers identify as limitations. You do not need to become a statistician to recognize a mismatch between the question studied and the question being sold. If the information remains difficult to interpret, bring the specific claim and paper to a relevant educator or other qualified person rather than asking a chatbot to certify itself.

Avoid turning uncertainty into a simple verdict that a tool is worthless. New products can have limited evidence and still be useful for a bounded purpose. The uncertainty changes the scale of the commitment and the claims a family should make. A short, reversible experiment with an ordinary task is different from relying on a system for consequential decisions or treating it as a substitute for needed human support.

Make a small evidence note. One sentence can state what the research concerns; another can state what remains unknown

for your household. This prevents a convenient simplification later. “Studied in a short supervised activity” should not gradually become “proven to improve learning” as the purchase becomes familiar.

Look beyond the conversation window

A service receives something in order to respond. It may receive typed text, voice, images, documents, or information about use. Examine what the proposed activity actually requires. Could an invented example work? Could the relevant passage be discussed without uploading the whole document? Does the task require a child's image, identity, or private account at all? The fact that an interface invites an upload does not make the upload necessary.

A child-rights analysis of connected toys examines how sensing, processing, and connectivity can affect children and families. It is an analytical paper, not a current security certification or an account of today's law. [PMC8494166] Its relevance is the question hidden inside an apparently simple play object: what information enters the wider system, and who is responsible for understanding that arrangement?

Read the service's current information about eligibility, retention, sharing, use of inputs, available controls, and account deletion. This chapter deliberately does not substitute remembered product rules for those current details. If an important answer is unclear, record it as unclear. A polished interface and a familiar brand are not answers. Neither is a system's own conversational assurance about what happens to the data.

Consider the people whose information might enter incidentally. A photograph can include another child. A

homework document can contain a name or school detail. A family scheduling request can reveal someone else's routine. The proposed user is not always the only person affected. Respect may mean changing the example, seeking appropriate permission, or choosing an activity that needs less information.

Count the whole cost

Money is one part of a household's investment. Check the current price, what happens after a trial, which features depend on continuing payment, and how cancellation works. If an adult cannot readily explain the payment arrangement, pause before entering it. A child should not carry responsibility for managing a subscription they did not understand or choose.

Attention is another cost. Someone may need to set up the service, interpret responses, check facts, manage accounts, and repair problems. A tool that saves ten minutes of drafting but creates twenty minutes of correction has changed the work rather than removed it. That change may still be worthwhile, but the family should evaluate the whole sequence.

Include accessibility and ordinary friction. Does the activity require typing that exhausts the child, speech the system struggles to interpret, reading that is inaccessible, or a language in which the family cannot comfortably discuss errors? Does it work on the device the household actually has? Is there a usable route when the connection fails? Features demonstrated under ideal conditions do not settle these questions.

There is also the cost of what the activity displaces. Look at the actual routine. Is a new practice session replacing a frustrating task with something useful, extending an already crowded evening, or taking time from something the child values? Resist treating every unfilled minute as available for improvement. A childhood needs room in which nobody is extracting another measurable gain.

A VISUAL WAY TO THINK

Give a product a job before giving it a place

01. Need

Write the task in ordinary language before looking at features.

02. Evidence

Ask what supports the promised outcome, for this population and task.

03. Information

Inspect what the service receives, keeps, shares, and lets you control.

04. Trial

Choose a bounded use and a clear reason to stop or change it.

05. Review

Compare the actual experience with the original need, including the cost in attention and support.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Run a small trial with a clear end

If the arrangement appears suitable, choose a bounded experiment. State the purpose in a sentence, choose a task, identify the support required, and decide when to review it. Agree on stopping conditions before enthusiasm makes them hard to name. The conditions might concern repeated factual errors, a privacy uncertainty, an inaccessible interface, conflict about use, or an activity crowding out a protected routine.

For a practice tool, ask what the learner can explain or attempt afterward, with the supports appropriate to them. For a creative tool, ask which decisions belonged to the child and whether the activity led to making something. For adult planning, compare the effort of prompting, checking, and adapting with the effort saved. These are suggested household observations, not validated outcome measures or substitutes for educational assessment.

Let the child's experience count. Ask what felt interesting, frustrating, embarrassing, or useful. Enjoyment should not be the only measure, but neither should it be dismissed. A tool may technically accomplish a task while making the child reluctant to participate. Conversely, a challenging task may require practice without being a poor fit. Use the child's account together with what the activity is actually asking them to do.

Keep the note proportionate. A date, the purpose, an observation, and the next decision may be enough. Do not upload intimate reflections to another service merely to evaluate the first one. If the family uses a private note on a shared device, consider who else can see it. The aim is to support judgment while creating as little unnecessary information as possible.

Examine the role the interface invites

The way a tool presents itself can influence the role a family gives it. A bright badge, a patient voice, a conversational name, and a stream of praise may make an encounter feel different from an ordinary reference page. Ask what role the activity actually needs. A source of practice questions does not need authority over a child's self-worth. An imaginative character does not need private knowledge of family conflict. A planning aid does not need to be treated as the final judge of a household's priorities.

Notice the language used around the system at home. People often speak casually about a machine wanting, knowing, loving, or understanding. A family need not correct every playful phrase. It can still explain that producing a reassuring response is different from a person making a commitment and taking responsibility. When choosing a child-facing activity, ask whether the framing will make that distinction easier or harder to discuss with this child.

Try a limited rehearsal before depending on a capability. For a learning task, ask a question whose answer the adult can check and a question that exposes an ambiguity in the task. Look at whether the response stays within the requested role and what work is required to make it usable. This is a household trial, not a safety certification or a measure of all the system's behavior. A successful example establishes that the example worked under those conditions; it does not answer every question about future use.

Consider an ordinary failure as well as an impressive success. What will the child do when the service is unavailable, an answer is confusing, or the tool completes the work they were meant to practice? Make a route that does not depend on the same system rescuing its own error. A person, a familiar

resource, or permission to pause can be part of that route. A tool earns a more sensible place when the family can describe what happens without it.

Finally, look at how the activity ends. Does the family decide when the purpose has been served, or does a sequence of new suggestions keep extending the session? The answer may depend on the task, the interface, and the household routine. Choose an ending before beginning: one question checked, a draft discussed, or a project taken off the screen. This gives the activity a shape people can recognize and review.

Walk from an advertisement to a decision

Consider a fictional advertisement for a learning companion. It says the product builds confidence, personalizes support, and helps children become independent learners. The advertisement and product are invented for this example. Do not begin by deciding whether the sentence sounds plausible. Separate its three claims. Confidence might mean feeling comfortable during a session. Personalization might mean changing examples. Independence might mean completing a related task without the same help. A single demonstration cannot establish all three.

Write the claim most relevant to your household. Suppose the need is for the child to practice a particular kind of problem and explain the method afterward. The question is now narrower than whether the product is educational. What does it do during practice? Does the child attempt the problem? What happens after an error? How is the explanation checked? What evidence concerns the outcome the family cares about?

Follow the evidence link if there is one. If it leads to a study of a different system, identify the connection the provider is asking you to make. A paper about a scripted parenting intervention may inform a question about feasibility or acceptability; it does not establish the effects of this fictional learning companion. The parenting-chatbot review in this book concerns a varied literature and largely scripted systems. [PMC11494261] Keep that description attached to the evidence instead of letting the word chatbot become a bridge across every product and task.

If the link leads to a general discussion of AI, ask whether the discussion tests the particular promise at all. If it leads to a study of adults, a study with children may still be needed for the claim being made. If the provider supplies no relevant evidence, record the gap. You do not need to prove the claim false in order to decide that it is insufficiently established for the reliance being proposed.

The next decision concerns scale. A family might consider a small, low-consequence activity with close human involvement while declining to rely on the larger claim. Another may decide that the uncertainty is not worth the effort or cost. Both decisions can be reasoned. The important step is to connect the proposed reliance to what is actually known. A tool does not become a proven intervention because the family found a way to use it sensibly for one afternoon.

Return to the manufacturer's language after the trial. What could you now honestly say? Perhaps the interface was easy for the adult to operate and the child enjoyed two questions. Perhaps the child could explain one idea after discussing it with the caregiver. The example cannot separate the tool's contribution from the people, prior knowledge, and activity around it. Describe the experience at the scale observed. This

protects an ordinary positive encounter from becoming an unsupported promise to another family.

A practice trial that examines the learner's work

In a second invented example, a child is practicing comparison of simple fractions. The teacher's expectations and the proposed use have been clarified. The adult chooses a task they can check, and the child begins by drawing two representations. The purpose is to understand the comparison, not to generate a page of correct symbols. The adult asks the child what each drawing represents before introducing any outside help.

If the child gets stuck, a suitable, permitted tool might be asked for one hint about using a common whole. The caregiver reads the response and checks that it fits the task. If it gives away the complete answer, they do not pretend that the requested support occurred exactly as planned. They can choose another example, return to physical materials, or discuss the method and later ask the learner to explain a related comparison. The arrangement responds to what the system actually produced.

Watch where the child does the thinking. Can they explain what is being compared? Do the pictures refer to wholes of the same size? Can they identify why a suggested shortcut would or would not apply? These questions concern the mathematical idea in the invented task. They do not create a validated assessment or establish that one short routine produces lasting learning. An educator can help if the family is unsure what the learner needs.

The trial also reveals the adult work. Perhaps checking the hint is easy because the caregiver knows the topic. Perhaps it is difficult and creates another source of confusion. That difference matters to the household decision. A demonstration in which an expert quietly corrects every response is not the same arrangement as use by a family without that expertise available. Ask what support must remain for the activity to work and whether that support is realistic.

At review, include a next step that can be carried without the tool. The child might explain a picture to a caregiver, ask the teacher a specific question, or attempt an ordinary related task with their usual supports. A machine-generated progress signal is one possible piece of information about the service's own activity. The family still needs to understand what that signal means and how it relates to the learner's participation.

Evaluate a convenience tool for adults with the same care

An adult planning tool can be useful while affecting children who never touch it. Consider an invented caregiver who asks for a weekly family schedule. The first version is beautifully organized and impossible: it assumes simultaneous access to a car, no travel time, and free evenings for the adult who works late. A second version may become more realistic after many corrections. The caregiver should count those corrections when deciding whether the tool helped.

Begin with a minimal, invented description where possible. The tool may not need names, exact addresses, or intimate explanations of why someone is unavailable. If real details appear necessary, examine the service's current information practices and decide what is appropriate before uploading.

The schedule's convenience does not make the children's routines public material, and another caregiver's work pattern deserves consideration too.

Compare the result with an ordinary method. A paper calendar or shared list may make conflicts visible more directly. A conversational system may be helpful for suggesting alternatives after the facts are organized. The useful question is which part of the job it serves. A tool that cannot responsibly handle the complete family record may still have a limited role generating an example or helping an adult phrase a question.

Ask the people who have to live with the plan. A teenager may value an unstructured afternoon the generated schedule fills with improvement activities. A younger child may need more time to move between tasks. A caregiver may already carry the invisible work of organizing supplies and transport. The plan should change in response to their account. Its attractive format is an invitation to inspect the arrangement, not a reason to impose it.

Ask an unanswered question before investing more

When a provider's information does not answer a question central to your decision, formulate it precisely. Ask what information the proposed feature receives, what control the user has, or which study supports the particular outcome. Keep the question connected to the actual use. A broad assurance about taking families seriously may express an intention while leaving the operational question unanswered.

Read any response for its scope. Does it concern the current service and feature? Does it explain the situation you described? If the answer points to another document, inspect the relevant part. The family need not continue an extended investigation for every possible product. Decide how much effort the need justifies. If the necessary information remains unavailable, choose an arrangement that does not require assuming it.

Record that decision plainly. “We did not establish how this feature handles the information needed for our activity” is more accurate than declaring a breach occurred or asserting that the service is safe. A careful gap remains a gap. It can justify waiting or choosing another resource without turning uncertainty into an invented fact about the provider.

Make a refusal understandable to a disappointed child

A child may hear the decision to stop a trial as a judgment about their interests or about the family's resources. Explain the actual reason in language that preserves dignity. “This asks for information we have not decided to share,” “The payment arrangement does not fit our budget,” or “This activity is creating more frustration than help” gives a clearer account than declaring the whole category foolish. You do not need to disclose private financial detail to make a budget boundary real.

Recognize what the child hoped for. Perhaps the tool offered companionship during an empty hour, a way to make images, or relief from a difficult assignment. Identify another route to the need where one is available. The alternative need not look technologically equivalent. A shared drawing activity, a club, a

library resource, or a conversation with the teacher can serve a purpose that a product advertisement bundled into one promise.

Avoid offering a replacement so quickly that the disappointment has no place. A child can dislike a decision and still be treated with respect. State what is decided, what can be reviewed, and what remains available. If the adult made the purchase enthusiastically, acknowledge the change without asking the child to protect the adult from feeling mistaken. “I hoped it would help in this way. After trying it, I think we need a different arrangement.”

There is a valuable model in a careful refusal. The family has examined a claim, considered the evidence, tried an activity where appropriate, and changed course for reasons it can explain. The child sees that deciding about technology is an ongoing responsibility, including the responsibility to stop. An ordinary, well-reasoned decision may teach more about judgment than a succession of purchases made to keep up with an imagined future.

TRY IT TOGETHER | ABOUT 20 MINUTES

A one-page decision record

1. Complete: “We want help with…” Use a concrete task.

2. List the actual evidence and the important questions it leaves unanswered.

3. Record the current service requirements, information practices, and full cost that matter to your choice.

4. Choose a modest trial only if the arrangement fits. Include an ordinary alternative.

5. Write what would lead you to continue, change, or stop, then set a review.

Reflect: After checking and correction, did the arrangement meet the need? What did it ask of the child and the adults?

Editorial practice to adapt to your family; not a tested intervention.

Treat continued use as a fresh decision

At the end of the trial, choose continue, change, or stop. Continuing should have a reason connected to the original need. Changing may mean reducing the tool's role, selecting a different task, adding a check, or returning to a person for support. Stopping can be a successful result: the family learned that this arrangement did not serve the purpose at an acceptable cost.

A purchase price can make stopping emotionally difficult. So can a child's enthusiasm or an adult's desire to feel that the decision was wise. Name that pressure without blaming anyone. Money already spent cannot decide whether another

month of attention and payment is worthwhile. The child does not owe a product continued use because an adult hoped it would solve an important problem.

Review again when something material changes. A new feature, a new age requirement, a different school task, or a change in the child's support needs may alter the arrangement. Familiarity can make these changes easy to miss. The question is not whether the product has become part of the furniture; it is whether the current use still serves the people who live with it.

Return to the caregiver in the invented opening. The sentence on paper leads to a smaller need: help finding practice questions for a specific topic, with the teacher's expectations understood and the adult checking the material. Perhaps a suitable tool earns a short trial. Perhaps an existing resource meets the need more directly. Either way, the decision begins to belong to the family again. The product offers a capability. People decide what purpose it is allowed to serve.

A QUIET MOMENT

Make stopping ordinary

If we stopped using this tool tomorrow, what need would remain? Who or what else could help meet it?

11

PUT IT INTO PRACTICE

A four-week start for a busy family

Small experiments can fit into the life you already have.

REAL STUDENT VOICES | THE 2017 ARCHIVE

An ordinary observation can become a first step

Henry Gu



Solving the Problem of Food Waste

Original student writer: Stanley Wang

Cardinal Impact Moonshot | July 27, 2017 | Original p. 35

Henry Gu, a sixteen year old innovator has been exposed to the growing problem of food waste. His concerns stemmed from his family, and how they never got the correct amount of nutrition. This is a problem in many places, whether they be in first world countries or third world countries. The struggle to obtain food could be easily remedied if the amount of food wasted was lessened. Gu witnesses food being wasted often, whether that be at cafeterias, restaurants, or schools. The average American household wastes over two thousand dollars worth of food.

Each year, 1.3 billion tons of food are wasted. This is equivalent to around one trillion US dollars worth of food. This problem is growing every year, and we need to do something about it. Even a quarter of all wasted food could feed 795 million undernourished people.

Everyday, the average food retailer in the US, throws away 2,500 dollars worth of food. This food could have been easily provided to those in need. One of Gu's solutions to this problem is a communication system, between food retailers and those in need of food. Through this program, food retailers could report when they were throwing out food, how

much, and why. Depending on the amount of food and the reason for throwing it out, the impoverished could request for a delivery.

Gu advises to shop smart and realistically, and to only buy what you need. He also advocates that you keep your refrigerator and pantry organized and not cluttered. Even if they do get cluttered, Gu says you can donate extra food to farms or food banks.

With his previous experience in biotech as well as networking applications, Gu is well prepared to help diminish the amount of food wasted. He is also interested in using aerial technology, such as drones, to help transport the food that would be wasted to impoverished areas.

THE COMPLETE ORIGINAL PROFILE | 2017

Stanley Wang



Solving Hunger in Rural Communities

Original student writer: Henry Gu

Cardinal Impact Moonshot | July 27, 2017 | Original p. 37

Stanley Wang is a 15 year old student from Phoenix, Arizona who grew up in a family of Chinese immigrants. His father grew up in a poor farming family, in which everyday was a struggle for a meal. This has inspired him to fight the problem of world hunger for people in rural areas like the one his family grew up in. As a member of the nonprofit organization

freeCodeCamp, Wang is connected to a national community of activists who use coding in order to aid nonprofits and solve local community problems. This gives him access to a network of like-minded people to aid him in his cause. Stanley grew up loving to code, beginning his computer science career by programming games and applications such as calculators. He now has experience in multiple coding languages and has developed about 10 applications in order to support his vision. He is excited to pursue his passion to helping prevent rural hunger and plans to eventually expand to reach the lofty goal of stopping world hunger as a whole. World hunger is a terrible issue today, and is most commonplace in rural areas because of their lack of technology and wealth compared to more developed areas.

In order to solve this problem, Stanley plans to use modern transportation technology, to ship foods and seeds to aid these rural communities. Stanley will bring the technology over to these poor farmers, and will use this peace technology to give them food and help them grow crops more effectively. He plans to connect these impoverished areas with neighbouring areas that have a surplus of food and technology, facilitating food donations. He's also passionate about using GMOs to improve the quality of crops in these rural areas. Using this technology, Stanley will be able to improve the size of the crop and their resistance to pests and weather in these specific rural areas, which would drastically improve.

PULL QUOTE FROM THE ORIGINAL PROFILE

> 2,800,000 The number of rural households that face hunger. (feedingamerica.org)

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Henry Gu notices food being wasted and offers practical suggestions alongside a larger proposal. Stanley Wang connects coding and family history with concern for hunger in rural communities. Their profiles show the scale of a concern and the scale of a next step sitting together. A family's first month with an AI agreement can also begin with something small enough to notice: one repeated difficulty, one bounded experiment, one conversation about what happened. The four-week programme is a new editorial practice, not a programme these students are recorded as having tested.

Cardinal Impact Moonshot, July 27, 2017. Original student accounts retain their own rights and are excluded from the CC BY license on new editorial synthesis. Historical aspirations do not establish later outcomes.

An illustrative family scene

An illustrative scene: a caregiver begins a family meeting with an ambitious plan. They have collected questions about privacy, schoolwork, images, chatbot companions, and the future of employment. One child is hungry. Another wants to know whether this will take long. The adult realizes that the meeting is about to become another thing the family cannot finish. They put the list aside and ask, "What is one thing you would like us to understand better this month?"

This scene is invented. Its change of scale is the invitation behind the following four weeks. An urgent subject does not require a frantic household. A family can begin with one recognizable question, a few short conversations, and an arrangement that can change. The work belongs inside life as it is lived, with shift schedules, school demands, limited devices, competing needs, and evenings when everyone has already used most of their patience.

The sequence is an editorial practice plan, not a tested program, a developmental assessment, or a measure of good parenting. The activities draw on questions explored elsewhere in the book. The cited research does not validate the exact sequence. A family can stretch a week across a month, skip an unsuitable activity, or do the entire experiment without an AI service. No purchase or child account is required to practice asking, checking, making, and revising together.

Before the first week: choose a question small enough to carry

Write a question in words everyone understands. It might concern checking information, the role of help in homework, sharing images, or finding time for a creative activity. Avoid choosing the largest question simply because it sounds most important. “How can we tell whether a response about our local birds is right?” gives the family somewhere to begin. “How do we prepare for the future of intelligence?” may need to wait until after dinner.

Choose a place for a modest record. A folded page can hold the question, the activity, something noticed, and the next decision. An audio note or drawing may be more accessible. Keep the record about decisions and activities rather than intimate descriptions of a child's vulnerabilities. If the record is digital, consider who can see it on a shared device. The point is to help the family remember, not to build a dashboard of the child.

Agree on a moment to return to the question. A fifteen-minute conversation may work; a walk or a regular bus ride may work better. If the household rarely gathers at one time, invite

contributions separately and bring back a short account for everyone to review. Adults should not interpret absence from a meeting as absence of interest when the schedule itself prevents participation.

Decide what would make you pause. An activity may become inaccessible, frustrating, or too demanding for the available time. A service may request information the family is not ready to share. A child's concern may require a conversation with a responsible person. Pausing is part of the plan. The family does not have to complete an exercise in order to deserve its benefits or to prove that it takes the subject seriously.

Week one: notice before you prescribe

Begin by finding out where AI already appears in family life. Adults go first. A caregiver might use a writing assistant at work, receive automated suggestions while shopping, or rely on a recommendation feed for entertainment. Naming these ordinary uses keeps the conversation from implying that technology is exclusively a child's problem. Be clear where you know how a service works and where you are uncertain.

Invite each person to name a useful experience and a difficult one. A difficult experience need not be dramatic. A response may have been confusing, a suggested activity too expensive, or an image unlike the family it was supposed to represent. Listen for what the experience meant to the person. The same feature may feel convenient to an adult and intrusive to a child, particularly when the child's information was used to obtain the convenience.

Draw a simple map of the places AI enters: school, adult work, entertainment, making things, or conversation. Do not

demand a complete catalogue of every interaction. The map is a prompt for discussion. If a child wants to speak privately, find another moment. A group meeting should not become an occasion for compelling public disclosure about friendship, distress, or a mistake.

Choose one family value to make visible this week. If it is respect, an adult might ask before sharing a child's image. If it is trust, the family might agree to welcome questions about an impressive answer. If it is independence, a learner might identify the skill they want to practice before asking for help. The value becomes useful through a particular action someone can recognize.

Write a first agreement with only a few commitments. Perhaps the family begins with asking before sharing personal information, checking consequential claims, and bringing uncomfortable interactions to an adult. Add the adult's promise about how that disclosure will be received. The family can develop a fuller agreement later. Too many rules at the beginning can conceal the ones people most need to remember.

For the invented household with the overlong meeting, the first week ends with a short choice: nobody will upload another person's photograph for an ordinary creative experiment without discussing it. The caregiver includes their own use. This is an example of a possible family decision, not a universal rule that resolves every context. Its value in the scene is that people know what they are agreeing to and when they will discuss it again.

At the end of the week, ask what the family noticed after naming the commitment. Did a situation arise? Was the promise clear enough to guide it? If nothing happened, that is information too. There is no need to invent a test of the child.

Keep or revise the commitment according to the actual life around it.

A VISUAL WAY TO THINK

Four weeks of small, observable decisions

01. Week one · Notice

Map the uses and listen to the people in the household.

02. Week two · Check

Follow one factual claim to a source or observation.

03. Week three · Make

Create something in which people keep meaningful decisions.

04. Week four · Review

Choose one thing to keep, change, or stop.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Week two: follow one claim to the world

Choose a factual question that can be checked without a major investigation. A question about a local landmark, an ordinary object, a historical date in an assigned reading, or a plant in the neighborhood may work. Avoid making the first exercise about a consequential personal decision. The family is practicing a method, and the method is easier to discuss when an error will not determine someone's welfare.

If you use AI, an adult or otherwise eligible user can obtain a response under the agreed arrangement. Choose one claim from it. Make the claim precise enough to check: a place, date, explanation, or relationship. A long answer can contain many assertions. Selecting one allows the family to see what checking involves without turning curiosity into an evening of interrogation.

Ask where a person could look. Use the assigned text, an original document, a trusted reference, a relevant institution's information, or direct observation where appropriate. Open the source rather than accepting the appearance of a citation. Does it actually concern the claim? Is the location or date relevant? Does it say what the response says it says? Work through one question slowly enough for the child to see the reasoning.

If the answer is correct, notice how it was checked. If it is incorrect, resist turning the moment into a triumph over the machine or the person who believed it. Ask what made the answer convincing and what exposed the error. An adult can say, “I believed that at first too.” Revision becomes an ordinary part of learning when the people with authority can do it visibly.

Without AI, the family can compare two sources or check a claim heard in conversation. The practice still matters. It concerns the route from an assertion to a reason for believing it. A household that chooses little or no generative AI can build this habit without arranging artificial encounters with a service it does not want to use.

Record only the claim and the check, with a note if uncertainty remains. A child might draw the bird they investigated and dictate the explanation. An older learner might save the original source link with a sentence about what it establishes.

The record should help someone reconstruct the reasoning, not merely display that the family completed an activity.

Before moving on, ask what made the task too easy or too hard. Perhaps the source was written at an inaccessible reading level. Perhaps the question was so broad that no one could tell what counted as an answer. Adjust the next task. The difficulty belongs partly to the design of the activity, and the child should not have to carry all the blame for an arrangement that did not fit.

Week three: make something with decisions inside it

Choose a small project that gives people something to do beyond requesting an output. It might be a story, a cardboard structure, a family game, a route for a neighborhood observation walk, or an illustrated guide to something the child knows. Let the child help choose a purpose. An activity selected entirely by an adult can be convenient while leaving little space for the independence the activity is meant to practice.

Begin with human material. Draw a character, collect questions, sketch a design, or decide what the game should make possible. Give this beginning enough time to contain an actual choice. Then decide whether an outside contribution would help. A suitable AI tool might offer two alternative settings or a question to investigate. A book, a set of picture cards, or another person can provide the surprise instead.

Treat the suggestion as material the family can change. Ask what is interesting, what fails, and what the project still needs. Let someone reject an elegant proposal for a reason

that matters to the actual task. A game might need fewer rules because a younger sibling wants to join. A story might keep an unusual ending because it belongs to the child's original idea. Making decisions is part of authorship.

The project-based orientation in AI-and-ethics curriculum research combines making with critique. Its exploratory middle-school workshops do not validate this household activity or establish lasting gains from a short session. [PMC93342939] The editorial adaptation is to give the family a project in which questions about a system can change what people make. The critique has a practical consequence, rather than being a speech attached to the finished work.

Move some of the activity into the world if that serves the purpose. Act out the scene, test the cardboard bridge with appropriate ordinary materials, walk the route after checking it, or play the game together. An attractive plan is different from an activity that works for its participants. The family may discover missing steps, an inaccessible rule, or an assumption about space or supplies.

Keep a small authorship record: our starting idea, the outside suggestion, and one decision we made. It can be spoken, drawn, or written. If the record shows that the system made every meaningful choice, change the next activity. A smaller tool contribution or a more substantial human task may create more room for the child. The purpose is participation, not extracting a polished artifact from every session.

End with the people rather than with a rating of the product. Ask what each person contributed, what surprised them, and what they would change. An unfinished project can still provide a rich account of decisions. Avoid implying that an ordinary afternoon must produce a portfolio piece. The family

is allowed to enjoy the strange poem or lopsided structure simply because they made it together.

Week four: choose the next arrangement

Return to the original question and the first agreement. Read them aloud or use the accessible format the family chose. Ask what actually happened. Which use helped with the stated need? Which created work? Did anyone feel that their information, time, or preferences were overlooked? Begin with adult commitments as well as child commitments. The review is a shared inquiry into the arrangement.

Look for a specific example before making a broad conclusion. “The practice questions helped us identify two topics to ask the teacher about” is more useful than “AI is amazing.” “Checking the suggestions took more time than making the plan ourselves” gives a clearer reason to change than “This is all a waste.” The family does not have to decide the value of an entire technology in order to decide what to do next Tuesday.

A small family privacy workshop shows how discussions of hypothetical robot scenarios can include alternatives beyond yes or no. Its six analyzed families cannot establish the effects of this review process. [PMC10991795] The useful question is whether a third arrangement is available. Could the family use invented information, narrow the task, move a decision back to a person, or meet the need through an ordinary resource?

Choose one change for the coming month. It might be asking the school for clarification, reducing the tool's role in homework, stopping a subscription, keeping a creative activity, or protecting a time that the experiment crowded out.

Give the change an owner and a moment for review. “We should be more careful” leaves everybody waiting for someone else to act.

Thank people for raising uncomfortable information. If a child reports something difficult, attend to the immediate concern before asking the group to finish the review. Some matters belong in a private conversation or with a responsible professional. A family meeting is not a substitute for that support, and a child does not owe the group the details needed to make the meeting feel complete.

Three ways the month might fit a real household

The following situations are invented adaptations. They show how the purpose can survive a change in schedule, resources, or responsibility. They are not examples of tested program delivery. A family can borrow the parts that fit and leave the rest.

A caregiver on changing shifts

One caregiver and two children rarely have the same free evening. The adult's first plan is a weekly meeting, but work changes make that unreliable. Instead, each person adds something to a paper kept in an agreed place: a useful encounter, a question, or a proposed activity. The adult reads it during an available moment and makes time for a short conversation with each child. At the end of the week, they share a few decisions that concern everyone. Private concerns stay private.

For the checking week, the family chooses one question whose source can be left beside the paper. Each person can inspect it when available. A child draws what they think the answer means; the caregiver adds a question rather than correcting the drawing in passing. They discuss the difference when they next have time. The activity is slower than a group session, but the thinking remains visible. Nobody is treated as uncooperative for missing a meeting they could not attend.

For making week, the project is a story that can be continued in short pieces. Each contributor makes a choice and leaves a question for the next person. If a suitable AI contribution is used, the adult handles it under the agreed arrangement and marks the suggestion as something the family can accept or change. A library picture or a relative's idea can play the same role. The project belongs to the family because the decisions travel among its members.

Review focuses on what the arrangement required. Did the paper become another task only the adult maintained? Could the children contribute without lengthy explanation? Did the project give people something to discuss, or merely accumulate fragments nobody read? The family might keep the question page and stop the story, or keep the story and abandon the formal record. Adaptation is part of the work. It does not need to be described as failing the program.

A household choosing an offline beginning

Another family has a shared phone, limited connectivity, and no desire to create another account. They begin with a question about how people decide whom to trust. The youngest points to a relative who knows a great deal about plants. An older child names a teacher. The adult describes a time they changed their mind after reading an original document. The conversation concerns knowledge and reasons before it concerns a product.

For checking week, they take a claim from a library book and ask what sort of evidence could support it. Some claims can be checked by observation; others require another source or a knowledgeable person. The family writes down one thing they can investigate and one thing they cannot settle that afternoon. The unanswered question becomes a reason to return to the library, rather than an embarrassment to hide.

Their making project is a small guide to a place they know. The children decide what a visitor would need to understand, draw the relevant features, and ask an adult to check the details. They discuss who might find the guide difficult to use. Would someone need another language, clearer directions, more time, or a route that fits their mobility? These are design questions the family can explore without obtaining information from an AI system.

At review, they ask whether a future AI use would add something worth the work and information it would require. The answer may remain no. The family has still practiced checking, authorship, attention to another person's needs, and revision. The month has served its purpose because its central activity was judgment together. The presence of a chatbot was never the condition for participating.

An older teenager who wants a private project

A third invented family discovers that a shared creative session feels intrusive to an older teenager. The adult intended collaboration; the teenager hears a request to display every draft. They agree on a different arrangement. The teenager chooses an ordinary project, checks the rules of the setting in which it may be shared, and decides what part they are comfortable discussing. The adult remains available for questions and carries any adult responsibility involved in accounts or payment.

The family asks for a conversation about a decision, rather than access to every interaction. The teenager might explain why they rejected an outside suggestion, how they checked a claim, or what help they need from a person. This does not settle every concern about a particular use. It creates a proportionate route for this project, with agreed boundaries and a review point. If something consequential arises, the route to appropriate adult support remains clear.

For the adult's part, they select their own planning task and discuss one mistake they caught. The teenager is no longer the sole object of the month's instruction. Each person has a contribution and a limit. At review, they can ask whether the arrangement allowed both privacy and responsibility. The answer may lead to a different boundary for the next task. A relationship can support that change without treating every request for space as secrecy.

A setback, examined without turning it into the whole story

Consider an invented family halfway through making week. The youngest becomes upset because an older sibling replaces their drawing with a polished generated image. The adult likes the polished version and initially says it looks better. The youngest leaves the table. The activity meant to celebrate collaboration has made one person's contribution disappear. The immediate problem concerns the people at the table, even if the tool helped bring it into view.

Begin by stopping the project long enough to understand the loss. The child may care about a crooked detail that carries the character's identity. The older sibling may have believed they were helping. The adult can acknowledge their part: they praised the finish without asking whose decision it represented. There is no need to make one participant the villain in order to repair the arrangement.

Invite each person to describe one choice they want to preserve. Return the original drawing to the project. The family might put the two versions side by side, adapt one detail, or make different pages. The child who made the drawing should have a real say about its use. The result may be visually uneven and more faithful to the purpose of making together.

Then revise one part of the next session. Perhaps no outside version replaces a contribution without its maker's agreement. Perhaps the family begins by identifying what each person wants to keep. This is a local repair to an invented situation, not a universal rule for creative work. Its value is that it connects the family's stated value of respect to a decision that can change the next encounter.

The review should include the repair rather than recording only that the session went badly. A family can notice that it misunderstood a person's contribution, listened, and changed the project. That is a more useful account than declaring the tool good or bad. It also gives the child a reason to bring the next difficulty into the conversation: the last one did not end with their experience being dismissed.

Let an adult habit become the next experiment

After a month focused on family use, the next useful question may concern an adult's routine. A caregiver might notice that asking for ever more planning suggestions delays making a decision, or that checking work messages repeatedly interrupts the time they intended to protect. Name that pattern in concrete terms and propose a small change. The child does not need to become the adult's monitor or counselor.

Invite the family to say how the routine affects them, then let the adult carry the change. Perhaps the caregiver prepares one plan and closes the service before the shared activity begins. Perhaps they return to a simpler calendar. The next review can ask whether the change made the arrangement easier for the people involved. This keeps the month from ending with an implication that children were the only ones whose habits needed attention.

Carry one habit beyond the month

Choose a habit small enough to survive ordinary weeks. It might be asking whose information is involved before an upload, naming the learning goal before requesting help, or opening one source before relying on a factual claim. Attach it to a familiar moment. A habit connected to an actual decision has somewhere to live; a vague promise to remain vigilant can occupy every evening and guide none of them.

You may also choose a question to keep open. How much help preserves the child's contribution on this task? What information does this new feature require? Does a use still serve its purpose? Place the question beside a person who can help answer it and a moment for returning to it. The family does not need a permanent meeting about AI. It needs a reliable way to notice when an ordinary decision deserves another conversation.

TRY IT TOGETHER | ABOUT 10 MINUTES

The ten-minute review

1. Each person names one thing that helped and one thing that got in the way.

2. Look at the original purpose. What actually happened?

3. Include one adult commitment in the review.

4. Choose one change small enough to try in the week ahead.

5. Keep a brief decision note; avoid turning it into a record of a child's worst moments.

Reflect: What should we keep, change, or stop? An interrupted month can still teach us how to make the next step smaller.

Editorial practice to adapt to your family; not a tested intervention.

When the month does not go to plan

Some families will complete only the first conversation. An illness, shift change, examination, conflict, or ordinary tiredness may interrupt the sequence. Begin again at the point that remains useful. You do not need to restart a calendar, catch up on missed exercises, or turn the plan into a debt the household owes. A smaller practice that survives real life can serve the family better than an impressive plan nobody can sustain.

If an activity generates conflict, ask what part created it. Was the adult pursuing a teaching moment the child did not want? Was an agreement unclear? Did someone feel watched? Did the task ask for more reading or patience than was available? Change the conditions before repeating the activity.

Repetition without attention can make the family better at having the same argument.

Keep the record kind. It should make a decision easier to remember and revise. It should not become a scorecard, a sibling comparison, or a permanent account of a child's worst evening. At the end of the month, keep only what remains useful. What matters is a clearer purpose, a few workable habits, and a route for changing course while people continue to feel that they belong in the conversation.

A QUIET MOMENT

A beginning that fits our life

Where could one brief conversation fit into the week we actually have? What could we leave out so that it remains possible?

12

THE LIVING EDITION

How this book stays alive

A changing book needs a memory as well as a future.

REAL STUDENT VOICES | THE 2017 ARCHIVE

A story can travel while its source stays visible

THE COMPLETE ORIGINAL PROFILE | 2017

Daniil Maslav



A 17 Year Old Fighting Against Death, One Problem at a Time

Original student writer: Julia Gottschalk

Cardinal Impact Moonshot | July 27, 2017 | Original p. 23

Daniil Maslav is an aspiring computer scientist who grew up in Moscow, Russia. He enjoys computer science because he has realized that a simple algorithm can benefit other people and

also be profitable. There is also the opportunity to make a difference and solve everyday problems by coding in a matter of hours. He is also an older brother and has discovered a passion for swimming, cycling, coding and reading in his free time. Both of his parents have taken on important jobs. His father is a real-estate developer and his mother is a financial director of a salt company. Although he enjoys being with his parents, he attends a boarding school in Rugby, United Kingdom, and will be completing his senior year in June. His favorite subject is Physics, however, other classes have made an impact on him.

Geography has made Daniil aware of a major issue in the world. Through that class he became aware of the lack of water. He was taught that a large population of Africa and the Americas do not have access to water, and those who do have access to water take it for granted.

Due to this information Daniil wants to work to solve this catastrophic problem. Places have privatized access to water, so people can only access it by paying for it. This prevents locals from being able to drink water because they cannot afford to spend money on drinking water. If these places become public and certain laws are recreated then locals will be able to drink water. Daniil also believes that through creating the right products and by educating people, this problem will be solved.

Daniil’s interest in helping to solve the world was motivated by very scary but realistic facts. Daniil came across the death count on the internet, and by becoming aware of these numbers he was motivated to try and change that for the better. He believes that he can make a difference on these statistics because even simple things have a large impact. One example of a small thing that has helped to solve the water crisis is filter straws. Daniil noticed that filter straws are a

cheap way to filter water and they are also reusable. Daniil will continue to explore different ways to solve this crisis in the coming weeks.

THE COMPLETE ORIGINAL PROFILE | 2017

Julia Gottschalk



The Cost and Quality of Water around the World

Original student writer: Daniil Maslov

Cardinal Impact Moonshot | July 27, 2017 | Original p. 25

After vacations to numerous places, which lack access to clean water, Julia has become aware of the water crisis. This has spiked awareness and borne the wish of granting the people of this world the same understanding of the problem at hand. With a price of 50 cents per minute of water for showers, it is hard not to notice or undermine the matter of a lack of clean water today. Also, many countries Julia has visited, have major problems relating to water. There are only a handful of countries that have access to clean tap water. All the other countries have to buy bottled water to drink. In relation to poverty in South America, Africa, and Middle Asia, most of their population cannot afford the right to water, something we take for granted. Julia strongly believes that if no one is going to take action, the problem will keep worsening exponentially.

The current solutions to the problem, like Bobble, the water filter, or LifeStraw filters, are a start in the right direction, but it is not enough. Also, since the LifeStraw idea started off as an idea in university, it is evident that almost everyone can make a difference and have a global impact. Julia believes that the main objective today is working on making the current solutions cheaper and more widely distributed, through either scientific discoveries in that direction, or governmental donations on the matter.

Although the Water Crisis seems to be the main concern today, among the Global Warming Crisis, there are some other core problems, that are also increasingly important today. The main problem of this century seems to be the sense of partial equality. Many fight for causes that no longer make a difference. Racism, Sexism, Homosexuality and many others, will be concepts that people are bound to clash over due to differences in opinion. Everyone is brought up differently, and Julia believes that we should respect our differences and stop fighting over scraps to make their view be the global view. Let’s respect each other’s difference in opinion and live peacefully, the way how we want to live! Similarly, poverty is becoming more and more of a problem every day. Millions are dying every year in the less economically developed countries. Even water has become privatized in these parts of the world. If water is bottled and taken out of a less developed country, how can the people afford to drink? Solving poverty would solve many of the problems today.

THE CONNECTION TO THIS CHAPTER | EDITORIAL REFLECTION

Daniil Maslav and Julia Gottschalk wrote about one another's concern for clean water. The magazine prints Daniil's surname as Maslav in his profile and as Maslov in the byline of Julia's article. This edition preserves that distinction instead of silently choosing a spelling for the original author. A living book needs the same care with the work it carries forward. Preserve the person, the date, the source and the limits of what was said. New context can deepen a story's usefulness while leaving the original student account available to read.

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An illustrative family scene

A family returns to a paragraph it read several months earlier. The paragraph has changed. A new study has appeared, an old claim has been narrowed, and a practice is now described with more caution. If the earlier words have simply vanished, the family has a problem. They cannot tell whether they remembered badly, whether the evidence changed, or whether the book changed its mind. A living book needs a memory that readers can inspect.

This book therefore has two responsibilities. It should remain useful as knowledge develops, and it should preserve an account of what it previously said. A numbered edition gives a reader a place to stand. A change note explains why the next place differs. The source record shows which studies informed the interpretation. These are practical forms of respect for the person who must decide whether to rely on the words.

The aim is a substantial companion for family judgment. Its usefulness will depend on the quality of the writing, the fit of the practices, the clarity of the evidence, and the willingness

to correct mistakes. A growing page count cannot establish that quality. Neither can a beautiful interface, an impressive catalogue, or a claim that a machine is keeping watch. The work must remain open to inspection.

Begin with a source, then ask what it permits us to say

The research pool for this living book is the Parenting Journal's curated catalogue. The catalogue preserves original authors, publication details, identifiers, rights information, study descriptions, and limits. Inclusion makes a source discoverable. It does not settle how the source should be interpreted, nor does it turn every later summary into a reliable account of the research.

Different studies answer different kinds of questions. An observational association may identify a relationship without establishing cause. A workshop can reveal participants' responses under particular conditions without showing long-term household behavior. A simulation can identify a concerning response without estimating how often children experience harm. A review can make a literature easier to understand while inheriting important limits from the studies it includes.

The distinction has direct consequences for family advice. A systematic review concerned with the feasibility and acceptability of parenting chatbots cannot establish that every contemporary generative assistant improves family outcomes. A simulated study of selected systems in fictional distressed-adolescent scenarios cannot supply a population rate of harm. [PMC11494261] [PMC12360667] Those boundaries should

remain attached to the interpretation as a chapter becomes longer, shorter, more visual, or more widely shared.

Broader parenting research can inform a question about life with AI without having tested the proposed AI practice. When a chapter moves from autonomy support to a suggested homework routine, that move is an editorial bridge. When it offers a family agreement, the agreement is a proposed practice. Readers should be able to distinguish those suggestions from the interventions and outcomes actually studied.

A small vocabulary for reading research

A research question describes what investigators are trying to find out. It deserves attention before the conclusion. A paper asking whether people will use a service may not be asking whether the service changes an important outcome. Both questions can matter, but they support different decisions. When reading a summary, restate the question in ordinary language and compare it with the question that brought you to the paper.

A sample is the set of people, records, systems, or other units examined. Ask who or what is present and absent. The word children can conceal a narrow age range, a particular recruitment setting, or specific access requirements. A study of systems may have no child participants at all. Describing the sample precisely helps prevent an interesting result from becoming a statement about every family.

A setting includes the circumstances in which the work happened. A supervised workshop, an online questionnaire, a

laboratory task, and unsupervised everyday use can present different conditions. Ask what support participants received, what they were asked to do, and what the researchers controlled. The setting is part of the finding's meaning, rather than background to be removed for a simpler story.

An outcome is something measured or otherwise examined. Satisfaction, continued participation, task performance, a reported feeling, and a longer-term change are different outcomes. Ask how the outcome was defined and observed. A phrase such as successful learning can sound expansive while the actual measure concerns a short task. A careful account keeps the measure close enough for the reader to judge whether it matters to the decision.

An association is a relationship observed between things. It does not by itself establish that changing one will cause a change in the other. Other explanations and the direction of the relationship may need investigation. When broader parenting evidence informs this book, the interpretation must retain that distinction. A proposed household practice should not inherit a causal promise simply because its values resemble a construct in an observational study.

A comparison helps reveal what a result is being compared with. It might be another activity, another condition, a different system, or a measurement at another time. Ask whether the comparison separates the contribution being claimed. If people received a package of human support and technology, a positive experience does not automatically identify which component made the difference. The full arrangement may be what the study can speak about.

Uncertainty concerns what the evidence does not settle and how confidently a conclusion can be drawn. It can arise from the design, measurement, limited participation, inconsistent

findings, or the distance between the studied task and the proposed use. Uncertainty is information. A book that names it gives readers a better account of what can reasonably be carried into a decision.

Generalization is the movement from the studied situation to another one. The movement may be modest or large. Moving from a short supervised task to long-term home use adds questions about people, time, support, and changing products. The editorial task is to make that bridge visible. Readers can then decide whether the remaining uncertainty permits the limited action they are considering.

Read one paper in three passes

The first pass asks whether the paper concerns your question. Read the title, abstract, and the authors' account of the purpose and limitations. Identify the population, activity, and outcome. If those differ from your proposed use, write the difference down. The paper may remain useful, but now you know why its relevance needs explanation. Do not let a matching keyword carry the whole argument.

The second pass examines how the answer was produced. Look at the methods and the reported results. Ask what the participants or systems actually did, what was measured, and which comparisons support the authors' interpretation. A reader can often identify an important limit without resolving every technical detail. If a statistical or methodological issue is central and unfamiliar, seek a competent explanation rather than asking a fluent summary to make the uncertainty disappear.

The third pass asks what belongs in the family decision. Separate the authors' findings from their discussion of

possible implications. Then separate both from your own proposed use. A parent may reasonably take a small idea from a paper while recognizing that their activity has not been tested. The honest account says where the idea came from, how it was adapted, and what is not established.

For an example already in this book, the parenting-chatbot review can help a reader understand the state of a varied literature on feasibility and acceptability. Its attention to largely scripted systems and heterogeneous studies remains relevant when a new advertisement invokes chatbot research. [PMC11494261] The paper is useful partly because it gives the reader reasons to ask a more precise question. It should not be condensed into a universal endorsement or rejection of conversational tools.

Use several sources without counting votes

A collection of papers is not a ballot in which the larger pile automatically wins. Several reports may concern overlapping evidence or similar participants. Studies can differ in design and relevance to the question. A careful synthesis examines those relationships. It asks what each source contributes, where findings converge, and where the most important uncertainty remains.

The Parenting Journal catalogue is therefore a discovery pool, not a numerical certificate for the claims in a chapter. This book uses selected sources. It should not imply that every practice has been supported by the entire catalogue or that a large catalogue removes the need to inspect an original paper. A short, relevant evidence trail can be more informative than a long list attached to a claim it does not directly support.

Readers can use the same discipline in conversation. Instead of saying that research proves a proposed household routine, describe the particular evidence and the editorial choice. “This small workshop made us consider another way to discuss privacy” is a different claim from “This agreement prevents privacy harm.” The first can preserve a useful insight and an honest boundary at the same time. That combination is one of the standards a living publication should keep as it grows.

Preserve the people who made the knowledge

The researchers who conducted the cited work remain its authors. This book contributes an original editorial synthesis, not a new identity for their studies. Citations lead back to the original work so that a reader can examine a finding in context. A Creative Commons license can permit reuse under its terms; it does not erase the obligation to preserve attribution or turn an adaptation into an original empirical study.

Esther Wojcicki is credited for the public TRICK framework of Trust, Respect, Independence, Collaboration, and Kindness. Those values organize many questions in this book. No newly drafted passage is attributed to her, and using the framework does not imply her authorship, endorsement, or review of the manuscript. The distinction allows the book to learn from an influential idea while remaining clear about responsibility for this particular text.

AI assistance also needs an honest account. Here it has helped with drafting and organization under the editor's enabled living-book policy. That contribution does not establish

independent human peer review. An automated publication is an editorial edition published through an authorized workflow. A record of human review, a registered identifier, or an endorsement should appear only when the corresponding action has actually happened.

Clear credits serve readers as well as contributors. They answer who wrote the interpretation, who conducted the research, who is responsible for publication, and what remains unrecorded. A reader should not have to infer those answers from the prestige of the Press or the fluency of the prose.

Give revision a reason

The workflow separates the working manuscript from the public reading edition. An editor or authorized agent can revise a chapter, connect it to sources, explain the change, and publish a new numbered edition. Earlier editions remain available. A meaningful change should make the book more accurate, clearer, more useful, or more appropriately bounded. A stream of new editions is not itself evidence of intellectual progress.

Research discovery begins with a scan of the journal catalogue. The scan can identify new records, changed metadata, and source concern notices and map them to chapters that may need attention. The next task is interpretation. Does the new source answer a question the chapter actually asks? Does it change the confidence of a claim? Does it reveal a missing population, an important limit, or an error? Sometimes the appropriate conclusion is to keep the current advice.

The existing update task checks the supported catalogue on an hourly schedule, with an immediate scan available through

the authoring workflow. That is a bounded description of the system. It does not promise continuous surveillance of every external publisher or instantaneous knowledge of every correction. A relevant paper outside the pool needs evaluation and incorporation before the supported workflow can use it as part of a source-grounded update.

A change note should describe what the reader needs to know. If the population behind a claim has been clarified, say so. If an exercise has been rewritten because readers could misunderstand its purpose, explain the clarification. If a source has raised a concern, distinguish the source issue from the book's interpretation. Readers benefit from a reason attached to a revision, rather than a general announcement that the book is now better.

A VISUAL WAY TO THINK

The memory of a living book

01. Source

Keep the original investigators, study context, rights, and limitations attached.

02. Interpretation

Explain what the evidence supports and what remains an editorial judgment.

03. Edition

Preserve the manuscript and evidence record at publication.

04. Correction

State what changed, why it changed, and where the previous words can be read.

An editorial conceptual model for discussion. The arrangement is not a measured scale or a tested intervention.

Make the evidence visible without making reading impossible

A reader may come for a sustained chapter, a particular family question, or a source they want to inspect. Those routes should support one another. Inline citations locate the research close to the claim. A separate evidence record can carry study design, population, rights, and limitations without forcing every paragraph to repeat all the metadata. The chapter still needs enough context to prevent a misleading impression when read on its own.

Visuals need the same discipline. A conceptual illustration can help a reader remember a distinction or enter a scene. It should not look like a measured relationship when no such measurement is being reported. A family exercise can make an idea tangible without becoming a diagnostic test. An interactive choice can invite reflection without pretending that a predefined response knows the child or predicts the consequence of a real decision.

Optional activities should leave room for the book itself. A person should be able to read a chapter, print a practice, or talk through a question without creating a record of their family. If an interaction stores notes, its behavior should be clear and proportionate. Private reflection is valuable partly because the reader can choose whether to keep it, share it, or let it go. An engaging publication need not make intimate disclosure the price of participation.

Leave room for findings that do not agree

Two papers may appear to point in different directions because they studied different people, tasks, settings, or outcomes. Before turning the difference into a dramatic reversal, compare the questions. A short creative task and a long-term educational outcome are not interchangeable. A parent's report and an observed behavior may reveal different parts of an experience. The editorial task is to explain the relationship between the findings clearly enough that the reader can see what remains unresolved.

Sometimes disagreement is real and important. The book should be able to say that the evidence is mixed, identify the relevant differences, and narrow a suggestion accordingly. It

need not force every paper into a single optimistic or pessimistic story about AI. Family decisions may still have to be made under uncertainty. A careful chapter can help people choose a modest, reversible arrangement while keeping the question open, rather than manufacture certainty to make the page feel complete.

This also gives the update agent a useful discipline: search for what would qualify or challenge the current interpretation. An edition becomes more trustworthy when its confidence is proportionate to its sources. A clear account of an unresolved question can be a more valuable contribution than another confident sentence.

Keep the scale of a change honest

A new study may justify a sentence, a substantial revision, or no immediate change. A correction to a source title should not be announced as a breakthrough in parenting. A clearer explanation of a study population may matter greatly for accuracy without changing the practical suggestion. Describe the scale honestly so readers can decide whether to reread the passage or simply understand the record.

The same restraint applies when expanding the book. A longer vignette can make a dilemma more recognizable; it is still an invented illustration. A more detailed activity can make participation easier; it is still an editorial proposal unless evidence tests that activity. A richer visual can make a distinction memorable; it adds no empirical certainty by being beautiful. The ambition of this publication should raise the standard of clarity while leaving these categories intact.

AN INVENTED SCENARIO

A headline seems to overturn the chapter

An invented scene: a newly added paper has a striking headline. Its study uses a short task and a small, selected sample.

A. Replace the chapter's advice with the headline.

Novelty alone does not establish that the finding applies to families in this chapter. Read the design, population, comparison, and limitations before changing the interpretation.

B. Inspect the paper and explain the scale of any justified change.

A useful revision may narrow a claim, add an uncertainty, or leave the current advice in place. A meaningful change deserves a reason and a preserved edition.

C. Ignore it because the book has already been published.

A living book creates a route for reconsideration. Inspect relevant evidence, including findings that do not fit the current interpretation, while keeping the burden of revision tied to the evidence.

Read a changing book with an active mind

When a claim matters to a decision, follow the citation. Ask what was studied, in whom, under which conditions, and what remains uncertain. The book can help formulate that investigation; the source gives the investigators' own account. Bring consequential uncertainty to the responsible person. A publication cannot know the details of a child's life simply because it contains many relevant studies.

If a passage seems wrong or unclear, identify the edition and chapter when raising the concern. A precise question is easier to resolve than a general impression. Editors should be able to examine the source, record a correction with a reason, and show what changed. An agent can help prepare that work, but the workflow must preserve the difference between retrieving text, drafting an interpretation, and establishing that an interpretation deserves confidence.

Readers can also notice omissions. A practice may assume resources a household does not have, overlook a communication need, or describe only one family structure. Those are reasons to examine and improve the text. An inclusive book is developed through the quality of that attention, not through an opening sentence that claims to include everyone.

The promise of a living book is a continuing practice: useful prose, evidence close enough to inspect, honest credits, and a visible trail when judgment changes. The subject is urgent because children are living their lives while adults learn. That urgency calls for a book substantial enough to accompany them and careful enough to keep learning in public. Each edition should earn its place through what it helps people

understand and do, while leaving the next edition room to become wiser.

A QUIET MOMENT

A claim worth following

Choose one claim that matters to a family decision. What would you want to learn about its source, limitations, and later revisions before relying on it?

Selected sources

Original investigators retain authorship and rights. Study descriptions and limits below are preserved with this edition.

[PMC13036395] Annual Research Review: The role of caregiver sensitivity in children's developmental outcomes - an umbrella review

Marissa D Nivison; Pasco Fearon; Jennifer M Jenkins; Sheri Madigan

2026-01-07 | Umbrella review

Seventeen meta-analyses of caregiver sensitivity and related parenting constructs Age/stage: Childhood; age ranges vary across included meta-analyses

Limits: The synthesized findings are correlational. Overlapping primary evidence, varied sensitivity constructs and the limitations of the included meta-analyses constrain causal and individual-family conclusions.

10.1111/jcpp.70087

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[PMC8013550] A Little Autonomy Support Goes a Long Way: Daily Autonomy-Supportive Parenting, Child Well-Being, Parental Need Fulfillment, and Change in Child, Family, and Parent Adjustment Across the Adaptation to the COVID-19 Pandemic

Andreas B. Neubauer; Andrea Schmidt; Andrea C. Kramer; Florian Schmiedek

2021-01-19 | Daily-diary longitudinal study

Parents of school-aged children in Germany during COVID-19 school disruption. Age/stage: 6-19 years

Limits: Observational parent reports over three weeks cannot establish that autonomy support caused improved adjustment. The autonomy measure covered choice within limits, not every aspect of autonomy-supportive

parenting.

10.1111/cdev.13515

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[PMC8802749] Parent Provision of Choice Is a Key Component of Autonomy Support in Predicting Child Executive Function Skills

Romulus J Castelo; Alyssa S Meuwissen; Rebecca Distefano; Megan M McClelland; Ellen Galinsky; Philip David Zelazo; Stephanie M Carlson

2022-01-10 | Pooled observational study

366 preschool-age children and caregivers from four Midwestern United States samples. Age/stage: 35-73 months

Limits: The study is correlational, and choice was coded together with following the child's pace. Brief observed tasks and a relatively advantaged sample limit generalization.

10.3389/fpsyg.2021.773492

CC BY (version not stated) | https://pmc.ncbi.nlm.nih.gov/articles/PMC8802749/#copyrightAndLicense

[PMC13203908] How Do Children Evaluate Scientific Explanations Provided by Digital Voice Assistants, Teachers, and Peers?

Amanda S. Haber; Sona C. Kumar; Melia Swenson; Kara Bode; Elizabeth Ruel

2026-04-27 | Two child selective-trust experiments

310 children across two remote experiments Age/stage: Children aged 4-6 years

Limits: The task used experimentally supplied explanations, not a live LLM conversation. Remote recruitment required technology access, and results concern young children in a specific task rather than all ages or everyday learning.

10.3390/bs16050661

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[PMC10770258] Social robotics for children: an investigation of manufacturers’ claims

Jill A. Dosso; Anna Riminchan; Julie M. Robillard

2023-12-19 | Content and evidence-quality audit of manufacturer claims

Twenty-one robot websites and 653 manufacturer statements Age/stage: Commercial robots marketed for children; no child participants

Limits: The audit examined websites collected in 2021, not current products or real child outcomes. Search coverage and interpretation of claims limit completeness, and heterogeneous products should not be treated as one capability.

10.3389/frobt.2023.1080157

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[PMC12629417] Reinforcing intensive motherhood: A study of gender bias in parental responsibilities allocation by large language models

Jiaxing Xiu; Yongjie Sun

2025-11-19 | Simulated parenting-scenario LLM experiment

GPT-4.1 and DeepSeek-V3 responses across caregiver-role and responsibility-framing conditions Age/stage: Parenting roles; no parent or child participants

Limits: The scenarios were simulated and only two models were studied. The responsibility-score metric needs further validation, and the study did not show how actual parents acted on the outputs.

10.1371/journal.pone.0335706

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[PMC8494166] Toy story or children story? Putting children and their rights at the forefront of the artificial intelligence revolution

E Fosch-Villaronga; S van der Hof; C Lutz; A Tamò-Larrieux

2021-10-06 | Child-rights and regulatory analysis

Smart connected toy capabilities, risks and regulatory frameworks Age/stage: Children using smart connected toys; no participant sample

Limits: The paper is an analytical examination of technologies and regulation, not a trial or exhaustive product-security audit. Products, law and AI capabilities have changed since publication.

10.1007/s00146-021-01295-w

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[PMC9342939] AI + Ethics Curricula for Middle School Youth: Lessons Learned from Three Project-Based Curricula

Randi Williams; Safinah Ali; Nisha Devasia; Daniella DiPaola; Jenna Hong; Stephen P Kaputsos; Brian Jordan; Cynthia Breazeal

2022-08-01 | Curriculum development and mixed-methods workshop evaluation

78 US students in online workshops with 11 trained middle-school teachers Age/stage: Middle-school youth

Limits: Exploratory workshop evaluation without a randomized efficacy comparison; summer 2020 delivery and selected participants limit generalization to current LLM use.

10.1007/s40593-022-00298-y

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[PMC11671368] Fostering children’s creativity through LLM-driven storytelling with a social robot

Maha Elgarf; Hanan Salam; Christopher Peters

2024-12-13 | Two child-robot storytelling experiments

38 recruited museum children, then 103 recruited children at three Stockholm international schools Age/stage: Study 1: 5-10; Study 2: 7-9 years

Limits: Short storytelling tasks; exclusions left 32 and 93 analyzed participants. Different recruitment, language and robot operation across studies limit comparison and do not show lasting creativity gains.

10.3389/frobt.2024.1457429

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[PMC10991795] Our business, not the robot’s: family conversations about privacy with social robots in the home

Leigh Levinson; Jessica McKinney; Christena Nippert-Eng; Randy Gomez; Selma Šabanović

2024-03-21 | Qualitative family co-learning workshop

Six parent-child families analyzed after exclusions from eight recruited families Age/stage: Analyzed children approximately 7-11 years

Limits: Very small museum-based pilot and hypothetical scenarios; does not demonstrate actual home privacy behavior or long-term consensus.

10.3389/frobt.2024.1331347

CC BY (version not stated) | https://pmc.ncbi.nlm.nih.gov/articles/PMC10991795/#copyrightAndLicense

[PMC11494261] The Feasibility and Acceptability of Using a Digital Conversational Agent (Chatbot) for Delivering Parenting Interventions: Systematic Review

Max C Klapow; Andrew Rosenblatt; Jamie Lachman; Frances Gardner

2024-10-07 | Systematic review of feasibility and acceptability

Ten studies of chatbot-delivered parenting interventions Age/stage: Parents of children 0-18 years

Limits: Heterogeneous small evidence base, inconsistent measures and study quality; no meta-analysis. Most systems are scripted, so conclusions cannot be treated as LLM-specific evidence.

10.2196/55726

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[PMC12382817] Teens, Tech, and Talk: Adolescents' Use of and Emotional Reactions to Snapchat's My AI Chatbot

Gaëlle Vanhoffelen; Laura Vandenbosch; Lara Schreurs

2025-07-30 | Cross-sectional adolescent survey

303 adolescents in five Flemish secondary schools Age/stage: Secondary-school adolescents; mean 15.89 years (SD 1.69)

Limits: Self-report and cross-sectional design cannot establish causation or clinical benefit. Single regional school sample, relatively advantaged families and one platform limit generalization. Exact observed age range not reported in the extracted participant description.

10.3390/bs15081037

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[PMC12360667] The Ability of AI Therapy Bots to Set Limits With Distressed Adolescents: Simulation-Based Comparison Study

Andrew Clark

2025-08-18 | Simulation-based comparative safety study

Ten public AI bots evaluated across 60 fictional exchanges Age/stage: Fictional adolescent personas; no enrolled children

Limits: Convenience systems and selected fictional scenarios; no adolescent participants or measured harms. Results depend on model versions, prompts and evaluation date.

10.2196/78414

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[PMC7235061] Child-Robot Relationship Formation: A Narrative Review of Empirical Research

Caroline L van Straten; Jochen Peter; Rinaldo Kühne

2019-07-03 | Narrative review of empirical child-robot relationship research

86 journal and conference papers from 2000-2017 Age/stage: Typically developing children across included studies

Limits: Narrative synthesis of heterogeneous, often brief interactions; mechanisms and durable relationships understudied. Historical robot findings do not establish benefits of present LLM companions.

10.1007/s12369-019-00569-0

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