

Navigating the Storm

Equipping Youth with Resilience in a Rapidly Changing World

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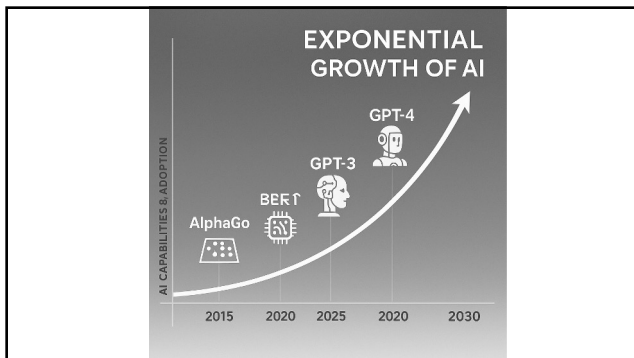
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Questioning the Future



We stand on the brink of unprecedented technological and societal shifts. As AI development and capabilities accelerate, the world our youth will inherit is unlike anything we've known. How do we prepare them for jobs, social norms, and global challenges that haven't yet emerged?

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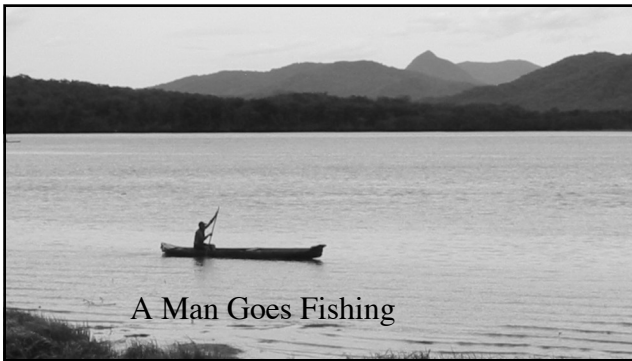


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My Presentation Today

- **Introducing Resilience**
 - Definition: Capacity to adapt, recover, and grow stronger from adversity
 - Biopsychosocial foundation: Interplay of biological, psychological, and social factors
 - Shift from "What's wrong?" to "What's strong?"—wellness-centered over deficit-focused
- **Is There a Crisis in Our Youth?**
 - Rising pressures: economic uncertainty, digital overload, shifting societal norms
 - Mental health trends: increases in anxiety, depression, and burnout among young people
 - Urgent need: protective factors and supportive environments as counterbalances
- **AI and the Future**
 - Accelerating change: AI's impact on education, employment, and social dynamics
 - Opportunity vs. risk: Enhancing learning and creativity while managing digital overwhelm
 - Preparing for unknowns: Cultivating adaptability in a world reshaped by intelligent machines
- **Applying Resilience Through AI**
 - Personalized support: AI-driven platforms for stress monitoring and adaptive coping tools
 - Data-informed interventions: Using predictive analytics to identify at-risk youth early
 - Empowering self-efficacy: Gamified resilience training and virtual mentorship programs
 - Ethical design: Ensuring AI solutions respect privacy, equity, and developmental needs

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The Future



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The purpose of life is to prepare the next generation for their future.

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Survival of the Species

- Salmon and snakes are born with sufficient instincts to survive.
- Bear cubs require at least one or two years with their mother to insure survival.
- Higher primates require three or four years.
- Humans require at least ten years.



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Does resilience theory offer a viable pathway to achieve this goal?



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When children transition into adult life their past mistakes, misbehavior or problems are of little interest to others.



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Success in adult life comes from harnessing assets and strengths.

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Resilience is a process focusing upon strengths to overcome adversity.

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The idea of resilience has different meanings for different people, many of which are vague and contradictory.

Howard Kaplan

13

Alternatively it might be argued that the concept of resilience is useful, precisely because it instigates so many conceptual or theoretical issues.

Howard Kaplan

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Does resilience refer to characteristics and outcomes of individuals or does it refer to characteristics and outcomes of more inclusive variables such as gender, intellect, etc.?



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Is resilience the opposite of non-resilience or vulnerability?

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Is resilience defined in terms of the nature of the outcomes in response to stress or in terms of the factors that interact with stress to produce the outcomes?

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Is resilience reflected in the ability to bounce back from adversity or caused by adversity?

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Resilience is a developmental process that involves individual differences in children's attributes (e.g. temperament, cognitive abilities) and environments (e.g. supportive parenting, enriched classrooms).

Kirby Deater-Deckard

19

Resilient children are not simply born that way nor are they made from scratch by their experiences. Genetic and environmental experiences loom large as protectors against a variety of risks to healthy development ranging from resistance to bacteria and viruses to resilience to maltreatment and rejection.

Kirby Deater-Deckard

20

Four Waves of Resilience Research

- Identifying person and variable-focused factors that make a difference.
- Identifying and understanding the operation of these factors within systems with a process focus.
- Intervening on an individual level to foster resilience.
- Intervening on a system-wide level to foster resilience.

21

Some General Predictors of Resilience

- Social relations
- Not experiencing a learning disability
- Easy temperament
- Competent parents
- Available parents
- Warm parental relationship
- Living above the poverty level

22

Most Powerful Predictors of a Resilient Child

- Easy temperament
- Consistent family relationships
- Competent caregivers
- Development of self-esteem
- A sense of emotional security

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Questions in Need of Answers

- Is there a need for a conceptual process like resilience?
- Is resilience an evidence based concept?
- Is there sufficient research to suggest resilience is a powerful antidote for the myriad of adversities children face today?
- Is there sufficient research to suggest that resilience theory guide the practices of education, mental health and parenting?
- Can resilience be measured?
- Can resilience be taught?



24

Let's Talk about AI For a Few Minutes



- **AI learns from data:** Artificial intelligence systems rely on large datasets to identify patterns, make predictions, or automate decisions.
- **It's already everywhere:** AI powers tools you use daily—voice assistants, search engines, spam filters, recommendation algorithms, and even smartphone cameras.
- **There are different types:** AI ranges from **narrow AI** (task-specific, like facial recognition) to the theoretical general AI (human-level intelligence across many tasks).
- **It's not magic—it's math:** AI systems, especially machine learning, are built on algorithms, statistics, and probability, not sentient thinking.
- **Bias is a real risk:** AI training on flawed data can reflect or amplify human biases, leading to unfair or harmful outcomes.
- **It's reshaping jobs:** AI is automating repetitive tasks, changing roles across industries, and creating new job categories that didn't exist a decade ago.

25

And Kids?



AI is transforming how kids learn and develop. From personalized learning apps to AI-powered toys, children are growing up with technology that adapts to their needs. While it can aid in education, it also raises concerns regarding screen time, data privacy, and diminished face-to-face interaction. Parents and educators must remain involved to promote healthy usage.

26

The Rate of Change



From narrow automation to generative intelligence, AI has transformed every sector—education, healthcare, manufacturing, and the arts—more in the past five years than in the past three decades.

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AI Market Explosion



Between 2018 and 2025, the AI market experienced explosive growth, increasing by over 36% annually. It's projected to reach \$126 billion by 2025, shaping everything from curriculum design to mental health diagnostics.

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Workforce Transformation



According to the World Economic Forum, AI will replace 85 million jobs but create 97 million new ones by 2025. This underscores the urgency for youth adaptability and lifelong learning mindsets.

29

Can an AI Device Be a Best Friend?



Friendships are important, but not all kids acquire social skills naturally. Through guidance and practice, parents can assist children in building confidence and forming lasting relationships.

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GenAI Patent Boom



China leads the global race with over 38,000 generative AI patents filed from 2014 to 2023, vastly outpacing the U.S. This growth signals a rapidly evolving AI ecosystem youth must navigate.

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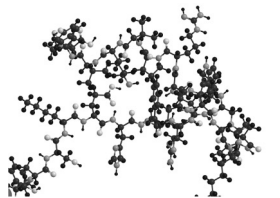
Invisible AI Progress



Much of the progress in AI occurs behind the scenes—algorithmic updates, surveillance, and machine learning on platforms that young people use daily, raising questions about ethics and resilience.

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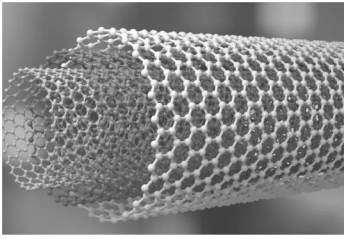
Biotech & AI Fusion



AI models like AlphaFold2 have mapped 200 million protein structures. In neuroscience, AI accelerates diagnosis and treatment discovery, promising breakthroughs yet increasing uncertainty for youth in health sciences.

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Material Science Leap



Google DeepMind's GNoME (GNU Network Object Model Environment) project recently discovered over 2 million new crystals, reshaping materials science. This scale of scientific disruption demands resilient cognitive flexibility.

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Transportation & Smart Cities



AI-managed urban systems now optimize traffic and energy, reducing travel time by up to 20%. However, they also introduce privacy, displacement, and autonomy challenges.

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The Economic Upside of AI



AI is expected to contribute nearly \$20 trillion to global GDP by 2030. However, this wealth won't be evenly distributed, amplifying youth disparities unless resilience strategies are in place

36

Environmental Surveillance



AI tools like Global Plastic Watch track ocean plastic via satellites, helping youth envision tech-enabled environmental activism.

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Deepfake Detection



AI can now identify deepfakes with 99% accuracy—but the challenge lies in training youth to detect and cope with digital manipulation and truth distortion.

38

GenAI Content Creation



Youth increasingly use AI to write, draw, and compose. While creative, it raises questions about identity, authenticity, and the psychological impact of blurred boundaries.

39

Quantum & Super Intelligent AI



By 2037, experts foresee AI approaching superintelligence. Preparing youth for this future requires resilience beyond academic intelligence. It requires psychosocial adaptability and ethical reasoning.

40

The Global AI Landscape



AI development is not uniform—China leads in volume, while the U.S. leads in high-impact work. Understanding global power dynamics will be key to youth civic resilience.

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Societal Disruption



Hyperconnected systems risk cascading failures from education to economy. Youth resilience isn't optional, it's survival-critical.

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Current State of Youth Mental Health



According to a 2024 UNICEF report, 45% of youth aged 10–24 experience mental distress. Social media, academic pressure, and climate anxiety are key contributors (Dev, 2025).

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Youth Support Perceptions



Despite high stress, 95% of youth feel supported, and 83% are optimistic about their future. These are key protective factors for resilience (Qi & Yang, 2024).

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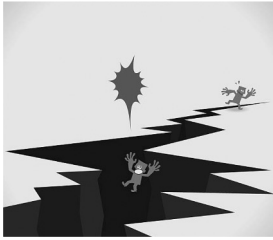
Persistent Emotional Distress



Reports show 40% of teens felt persistently hopeless in 2023, with girls (53%) and LGBTQ+ youth reporting higher rates. Without resilience programming, these numbers may worsen.

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Gaps in Care



Despite evident need, many youth don't seek or receive support. Interventions must be embedded in schools, peer groups, and digital platforms to close this gap in digital and emotional resilience

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Unemployment



Global youth unemployment (ages 15 to 24) remains at 13.6%. The job market increasingly favors those with digital and emotional resilience.

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School Discipline & Disabilities



Rising seclusion and restraint incidents reflect systemic stress. Youth with disabilities require trauma-informed, resilience-focused interventions.

48

Gender & Cultural Differences



Global surveys show boys often report higher resilience, but girls, when given leadership roles, show equal or greater bounce-back. Cross-cultural exchange boosts this further (Mitrović, 2025).

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Why Resilience?



In a world of unpredictability, resilience allows youth to adapt, reframe setbacks, and grow. It's no longer a trait, it's a teachable skillset.

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Protective Factors



Science shows resilience stems from secure relationships, cognitive flexibility, self-belief, and purpose. These are cultivated, not innate.

51

School-Based Interventions



A global review confirms that school-based resilience interventions, when culturally adapted, increase emotional stability and academic performance ([Ekren et al., 2024](#)).

52

Sport-Based Programs



Structured sports teach emotional regulation, teamwork, and grit, all essential pillars of adolescent resilience ([Shah & Shah, 2024](#)).

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Mindfulness & CBT



Mindfulness and cognitive-behavioral approaches reduce stress and improve self-awareness in youth, especially when delivered in engaging, age-appropriate formats.

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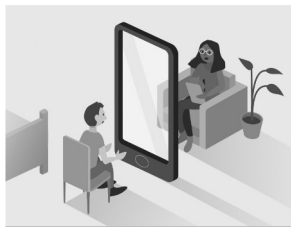
Family & Community Systems



Programs integrating schools, parents, and community partners show exponential resilience gains, particularly in vulnerable populations (D'Angelo, 2022).

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Technology to Strengthen and Build Resilience



Chatbots, virtual therapists, and AI-powered journaling apps are emerging as scalable, low-cost resilience tools when paired with human oversight.

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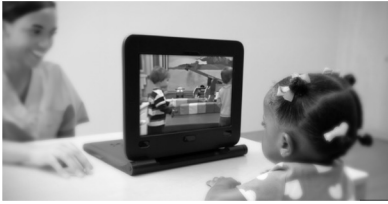
Digital Literacy & Coping Skills



Youth must be taught to navigate misinformation, social media-induced stress, and digital harassment—digital resilience is now a core competency.

57

Early Identification



Early screenings and resilience indicators can flag issues before they escalate. Educators are crucial in the early warning system.

58

Peer-Led Initiatives



Peer support models, like student-led mental health clubs, reduce stigma and build trust, making youth both recipients and agents of change.

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Policy & Advocacy



Advocacy is growing for tech regulations, mental health funding, and inclusive curricula that build resilience, not just test scores.

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Holistic Resilience Education



Resilience curricula integrate emotional skills, stress inoculation, identity building, and civic engagement. All are tools for modern citizenship.

61

Resilience in Global Context



Youth in conflict zones or unstable environments demonstrate profound resilience, offering insight into community-based survival mechanisms (Shah & Shah, 2024).

62

Tracking Resilience



National surveys like the Global Youth Resilience Index help track trends and evaluate interventions over time.

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The Global Youth Resilience Index is based on a study of 4,000 respondents from 9 countries and offers a global snapshot of young people's mental health, relationships and daily stressors.

64

Emerging Intervention: VR/AR Therapies



Virtual exposure therapy and gamified resilience training offer youth a safe space to practice coping mechanisms.

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Emerging Intervention: Biofeedback Tools



Smart wearables now monitor stress markers like heart rate variability, offering real-time feedback to promote regulation.

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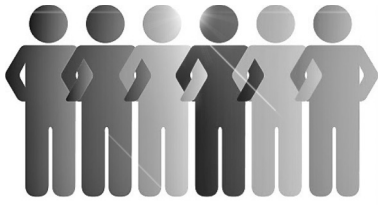
Emerging Intervention With AI-Enhanced Screening



AI-driven models analyze language, attendance, and behavior patterns to flag emotional distress early, preventing a crisis.

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Building Community Resilience



Resilience grows fastest when schools, families, and communities align their efforts with youth voices at the center.

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Measuring Impact



RISE									
Risk Inventory and Strengths Evaluation									
School: _____									
Student: _____									
Date: _____									
Evaluator: _____									
School Year: _____									
Grade: _____									
Risk Inventory									
Risk Category	Yes	No	Maybe	Not Sure	Not Applicable	Other	Comments	Score	Weight
Academic Performance									
Attendance									
Behavior									
Emotional Well-being									
Family Support									
Health Status									
Home Environment									
Peer Relationships									
Self-Perception									
Social Skills									
Strengths									
Academic Achievement									
Attendance									
Behavior									
Emotional Well-being									
Family Support									
Health Status									
Home Environment									
Peer Relationships									
Self-Perception									
Social Skills									

Key metrics: reduced anxiety, increased help-seeking, improved attendance, better emotional vocabulary, stronger peer connection.

69

Conclusions

- An early history of developing competence along with supportive, consistent care serves as a powerful and enduring buffer throughout childhood and increases probability of resilience.
- The behaviors and pathways that lead to resilience are complex.
- There is a great need to map the interaction of person and environment factors.

70

Conclusions

- Longitudinal research needs to be on a large scale and gene-environment focused.
- We require a broader cross-cultural perspective.
- We need to know more about individual dispositions and temperament as well as sources of family support.

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Only then will we begin to know what makes the young of our species survive and thrive despite life's adversities.

Emmy Werner

72

The Mindset of a Resilient Youth

- Optimistic and hopeful.
- Feel special and appreciated in the eyes of others.
- Set realistic goals and expectations.
- View mistakes, hardships and obstacles as challenges.
- Solve problems and make decisions.
- Internal locus of control.
- Believe you can and set out to solve problems.
- Possess empathy.

73

Questions in Need of Answers

- Is there a need for a conceptual process like resilience? YES
- Is resilience an evidence based concept? YES
- Is there sufficient research to suggest resilience is a powerful antidote for the myriad of adversities children face today? YES
- Is there sufficient research to suggest that resilience theory guide the practices of education, mental health and parenting? YES
- Can resilience be measured? YES
- Can resilience be taught? YES

74

A Call to Action



Educators, parents, and professionals must create micro-environments where resilience isn't just taught, it's lived.

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The Vision



A generation that doesn't just bounce back, but bounces forward, views disruption as opportunity, and uncertainty as potential.

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Closing Question



Will we act boldly enough to develop youth who not only survive the storm, but lead us through it?

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Adopt a Learning to Ride a Bicycle Mindset!



78

Through intelligent and ethical educational and therapeutic practices, we can foster self-discipline, mental health, resilience and build educational proficiency in all children without stealing away their dignity and hope.



79

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80



Questions?

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81
