

## **TECHNOLOGY, DEVELOPMENT, AND SOCIETY: A CRITICAL REVIEW OF RHODA OKUNEV'S "THE PSYCHOLOGY OF EVOLVING TECHNOLOGY"**

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### **Abstract**

This article is about Rhoda Okunev's book *The Psychology of Evolving Technology*. The work talks about how social media and new technologies are changing our society. The review highlights the book's unique approach, blending technology history, developmental psychology, and practical advice for managing children's digital lives. Its main contribution is arguing that core human developmental stages, as defined by Piaget and Erikson, are not keeping pace with rapid technological change. This mismatch presents both challenges and opportunities for parenting and education in the digital age. While the review notes limitations, it concludes that the book offers a valuable, accessible, and practical framework for understanding children's engagement with digital technology.

Finally, the review found that the work's substance and rigor were sufficient to productively engage academic and professional audiences, even with remarks and critics.

*Keywords: psychosocial development; children and technology; screen time; parental mediation.*

### **1. Introduction**

Considering the overwhelming pace of technological progress in modern life, Rhoda Okunev's *"The Psychology of Evolving Technology: How Social Media, Influencer Culture and New Technologies are Altering Society"* represents a serious attempt to grasp the intricate ways technology and human psychosocial development intersect. The book centers on an important question: how can humans, who progress through the same developmental stages as their predecessors, adapt in healthy ways to a digital environment evolving faster than ever?

From the outset, Okunev is transparent about the scope and ambitions of her project. As she explains in her preface, "This book is a framework to start a conversation about this imperative and fundamental topic; it is by no means a scientific study or definitive explanation of how parents, teachers, mentors, or friends should make decisions" (Okunev, 2022, p. ix). Far from diminishing the work, this intellectual modesty situates it within an open, dialogic framework - one that invites critical engagement rather than demanding passive acceptance.

There is considerable scholarly interest in the subject matter of this book, making its exploration a wide-ranging effort. Extensive research, including systematic reviews, has explored the effects of technology and its interactive media on child development, both physically and socially. (Arabiati, Al Ja'afreh, & Bani Hani, 2023; Guedes et al. 2020; Mantilla, & Edwards, 2019). This book, therefore, is a valuable and meaningful intellectual undertaking for exploring the various possible intersections and perspectives.

#### **1. Rhoda Okunev's Research Project: A Multidisciplinary Approach**

Okunev brings to this project an unusually rich and varied academic and professional background, one that bridges the exact sciences and the humanities. She holds master's degrees in mathematics from the Courant Institute at New York University, in statistics from Columbia University, and in psychology with a concentration in developmental psychology from Yeshiva University, along with an advanced certificate in finance from Fordham University (Okunev, 2022, p. v). This interdisciplinary formation is unmistakably reflected in a research approach that weaves together historical analysis of technology, developmental psychological theory, and practical application. Okunev also brings over a decade of experience as a risk analyst in the financial sector and has conducted research at prestigious institutions including Harvard University, Columbia Presbyterian Hospital, and the Massachusetts Department of Public Health. She currently serves as an associate professor in the Applied Analytics Department at Columbia University's School of Professional Studies and also teaches in the Department of Mathematics at Nova Southeastern University. This combination of academic depth and real-world expertise lends her work an analytical rigor and a rare panoramic sensibility that is not always found in the literature on technology and society.

The research project Okunev undertakes in this book responds to an urgent need in our digital era. She notes in her preface that:

*“One thing is for certain: these technological advances are here to stay, and they are only going to get more advanced. Our world is dependent and thrives on progress. These technological advances rely on and are shaped by artificial intelligence. Data science uses machine learning algorithms and transforms them into applications for images, videos, and audio content. It can recognize faces and decipher writing biases, sentiments, and feelings. These advances are propelling our world forward in ways we could not have imagined years ago”* (Okunev, 2022, p. ix).

And yet she immediately tempers this optimism with a sober warning: these same developments, she observes, have *“disrupted simpler lives when smart devices with their apps and notifications were not constantly at our side”* (Okunev, 2022, p. ix). This tension between the promise and the peril of technology constitutes the animating thread running through the entire book.

## **2. The book content**

### **Part One: Scientific Developments and a Historical Journey Through Technology**

This section traces the technological lineage of the digital world across three chapters, linking each milestone to its social and ethical context. It moves from Ada Lovelace's first computer program and Turing's wartime cryptography, through the Internet's Cold War origins and the development of TCP/IP, to the rise of smartphones and video games. Each innovation is presented not merely as a technical achievement but as a product of human motivation and moral consequence.

### **Part Two: The History of Social Media**

Two chapters chart the rise of social media from SixDegrees (1997) to today's major platforms. Okunev focuses on the mechanisms through which platforms shape user behaviour - notably Facebook's Like button and Twitter's rapid evolution - and introduces the influencer economy as a product of digital commercialisation. The central insight is that children encounter these mechanisms precisely when their psychological development is most vulnerable.

### **Part Three: Developmental Foundations**

Okunev introduces Piaget's cognitive theory (four stages from sensorimotor to abstract thinking) and Erikson's eight psychosocial stages, with particular emphasis on adolescent identity formation. A comparative chapter aligns these classical frameworks with contemporary institutional benchmarks from the CDC and APA, bridging theory and practical parental guidance.

### **Part Four: A Framework for Technology Use**

The final section offers applied recommendations calibrated to developmental stages: no screens under two, co-use for toddlers, and increasing supervision through the tween years. It catalogues risks of excessive screen time - obesity, depression, behavioural difficulties - and closes with a central argument: healthy development depends on real human connection, which no technology can replace.

## **3. Critical Discussion**

### **3.1. Contributions: A Multidisciplinary and Applied Approach**

One of the most distinctive strengths of Okunev's book is its multidisciplinary approach, which brings together technological history, developmental psychology, and practical guidance. This orientation aligns with contemporary scholarly calls to understand technology within its social and psychological contexts. As Danah Boyd argues in her influential *It's Complicated: The Social Lives of Networked Teens* (2014), understanding young people's technology use requires moving beyond simple moral anxieties toward a deeper appreciation of social and developmental contexts.

The book's central insight -that technology evolves at speed while human developmental stages remain relatively constant- offers a powerful lens for understanding contemporary challenges. This perspective aligns with the findings of Davis and James (2012), which demonstrated that children and adolescents need to develop certain cognitive capacities before they can navigate the challenges posed by digital technologies.

Okunev's use of Piaget and Erikson as analytical frameworks provides a solid theoretical foundation. While these theories date from the mid-twentieth century, they retain their relevance. For Hirsh-Pasek and colleagues (2015), understanding children's cognitive capacities at different stages is essential to designing effective technological interventions. The integration of official developmental milestone charts from the CDC and the APA alongside the classical theories builds a valuable bridge between theory and practice - one that resonates with the American Academy of Pediatrics' 2016 policy statement *“Media and Young Minds,”*- which emphasized the importance of matching media content to children's developmental capacities.

The book's emphasis on family values and sustained parent-child dialogue reflects the "parental mediation" model developed by Sonia Livingstone and colleagues through their extensive research on children and the Internet in Europe (Livingstone, 2018; Livingstone et al., 2014). That model holds that the most effective approach is neither complete restriction nor unrestricted access, but active guidance and open dialogue.

### **3.2. Limitations :**

Despite its many strengths, the book does have limitations worth noting. First, the near-exclusive reliance on Piaget and Erikson may be somewhat constraining. While these theories remain influential, contemporary developmental neuroscience has added significant complexity to our understanding of brain development. Research on adolescent brain development (Blakemore & Choudhury, 2006), has shown that the neurological changes of adolescence are considerably more nuanced than classical theories assumed, particularly with regard to executive function and social cognition.

Additionally, we can put forward the idea that the confluence of psychology, pedagogy, and communication, visualized as a triangle that aligns with Okunev's interdisciplinary viewpoint, offers a richer concept for the impregnation of the social sphere with technology (Vlăduțescu, 2012), Where the Information Age is defined by its heavy reliance on computing, technology, and swift innovation. Further discussion is prompted by this referral regarding the ways digital environments shape people's, and specifically children's, prior cognitive and communicative expectations, particularly by examining Neutrosophic conformation (Smarandache & Vlăduțescu, 2014: p.07). Understanding communicative action as a cognitive component is underscored by this focus, as it is key to comprehending the processes and consequences of technological and digital platforms.

Second, while the book carefully catalogues the potential risks of technology use, it would benefit from a more balanced discussion of the potential educational and developmental benefits. More recent research - such as Linebarger and Vaala's (2010) study on screen media and language development- suggests that certain forms of technology use, particularly well-designed interactive educational programs, can support cognitive and linguistic development. Christakis (2018) have discussed that focusing on "screen time" as a quantitative measure may be less meaningful than attending to the quality of content and the context in which it is used.

Third, the book's focus on the family as the primary unit of intervention risks overlooking significant socioeconomic disparities and the broader social fabric. As Rideout and Katz (2016) demonstrated, lower-income households face fundamentally different challenges in managing children's technology use, including constraints of time, resources, and device availability. Okunev's framework may presuppose a level of parental availability that is not equally distributed. Furthermore, by centering primarily on the nuclear family, the text misses an opportunity to engage with wider community factors; for instance, Otovescu Cristina et al. (2015) highlight the importance of "resources of resilience" within urban populations, suggesting that social and community-level support systems are vital for individuals to adapt to the stressors of a changing environment. Integrating this perspective would provide a more robust understanding of how children in diverse urban or disadvantaged settings might navigate digital life.

Fourth, the book's focus is largely on the American context and Western culture, with limited attention to how technology use varies across cultures. As Michael Cole and colleagues have shown in their work on cultural psychology (Cole, 1996), cognitive and social development is profoundly shaped by cultural context. Comparative studies, such as Kavanagh, Litchfield and Osborne (2016) cross-cultural work on social media use, suggest that patterns of use and associated concerns differ significantly across different societies.

### **3.3. The Book in Broader Context**

Okunev's book contributes to a growing and genuinely multidisciplinary conversation about technology and childhood. The sociological literature on global crisis and population dynamics -represented notably by works such as "*Les problèmes actuels de l'humanité*" (Otovescu et al., 2012) - reminds us that the technological pressures Okunev documents at the level of the developing child are inseparable from broader structural transformations affecting entire societies and populations.

It can be situated alongside other recent works addressing related themes from different angles. Anya Kamenetz's *The Art of Screen Time* (2018), takes a more journalistic and practical approach, while the book titled "iGen" by Jean Twenge's (2017) draws more heavily on empirical data regarding the effects of smartphone use on adolescent mental health. What distinguishes Okunev's work is its deep grounding in classical developmental theory. This gives it a theoretical depth that some of the more popular accounts may lack, though it may also make the book less immediately accessible to general readers. In this respect, the book is likely to be most useful to professional practitioners - educators, counselors, and psychologists - who already have some familiarity with developmental theories.

Okunev's recommendations broadly align with official guidelines from organizations such as the American Academy of Pediatrics, but they offer a richer theoretical justification for those guidelines. The American Academy of Pediatrics - AAP's (2016) recommendation to avoid screens for children under 18 months (with the exception of video calls), for example, acquires deeper meaning when situated within Piaget's sensorimotor stage and Erikson's Trust vs. Mistrust stage. The book also intersects with literature on digital literacy and children's rights in the digital age. As Livingstone (2018) has argued in her work on children and privacy, children need special protections in digital environments, but they also need opportunities to develop digital competencies. Okunev's balance between protection and empowerment reflects this productive tension.

#### **4. Conclusions**

The Psychology of Evolving Technology makes a valuable and distinctive contribution to the growing literature on technology and human development. The book's core strength lies in its comprehensive multidisciplinary approach, which weaves together rich historical narrative, deep psychological theory, and detailed practical guidance into a coherent and accessible whole.

The book's central insight - that human development follows relatively stable pathways while the technological environment changes at unprecedented speed - provides a powerful lens through which to understand contemporary challenges. As Okunev herself writes in her preface, "*One thing is for certain: these technological advances are here to stay, and they are only going to get more advanced... Now and for the foreseeable future, it is time to embrace these robotic and machine-learning advancements and discover how they can benefit our lives and how we can learn to control their harmful powers so that our moral character is not weakened or destabilized*" (Okunev, 2022, p. x). This concern about "harmful forces" that undermine moral character has empirical grounds in several societies, particularly those characterized by economic instability, the upheaval caused by the pandemic, and weak institutional support. (Caro, 2023 ; Adigwe, Mason, & Gromik, 2025).

Even with these Okunev's reservations, the claim can be challenged when considered appropriately. Research by Shao et al. indicated that digital technology adoption yields a substantial and beneficial effect on adolescents' subjective well-being, and this beneficial effect is channeled through experiences of flow and learning engagement. ( Agarwal & Mewafarosh, 2021; Shao et al. 2024).

While there are areas for further development - particularly with regard to incorporating insights from contemporary neuroscience, presenting a more balanced account of the potential educational benefits of technology, and attending more carefully to socioeconomic inequalities and cross-cultural variation (Mbiriri, 2025), the book offers a solid and genuinely useful framework for parents, educators, and practitioners alike.

Okunev's closing message is both powerful and timely. Technology is a tool that can either nourish or hinder human flourishing, depending on how it is used. The answer lies neither in rejecting technology nor in embracing it uncritically, but in engaging with it thoughtfully, guided by values. As she concludes, "*Piaget and Erikson both indicate that we learn about the world and ourselves through interacting with parents, teachers, and friends whether through playing games or in other ways. They are our core, our circle of oneness, for what our world should be*" (Okunev, 2022, p. 111). Perhaps the book's most significant legacy is its emphasis on the supreme importance of authentic human connections, such as those with parents, teachers, and friends, in a time characterized by growing digital connectivity. Ultimately, technology, irrespective of its complexity, must fulfill humankind's essential requirements for connection, development, and thriving, not substitute them.

What Okunev presents in the end isn't a set of conclusions, but rather a structure for contemplation and dialogue, aligning with her introductory remarks. Given that technological progress is outstripping our ability to fully grasp its implications, creating a structure for knowledgeable and conceptually sound deliberation holds significant merit.

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