

PREFACE

This text is designed to provide a survey of the impact of digital media on key aspects of children's and adolescents' cognitive development pertaining to attention, memory, language, and executive functioning. In addition to our focus on learning, we examine how children and adolescents evaluate the content presented to them via the diverse screens they encounter, and how they understand the affordances of different types of screen media—topics subsumed by the term *media literacy*. In highlighting how screen media impact cognitive development, the text addresses a topic often neglected amid societal concerns about pathological media use and vulnerability to media effects (notably aggression, cyber-bullying, and Internet addiction).

The intended audience includes educators, researchers, policy makers, and media designers dedicated to promoting children and adolescents' cognitive growth in the digital era. The volume is written to be an accessible introduction for undergraduate or graduate students and researchers interested in how technology use impacts cognitive development. Because we anticipate that most readers will be academics in the fields of psychology, human development, education, communications, and media studies, we adopt a tone and presentation of content consistent with that found in research articles. It is conceivable that the volume could serve as a text for a seminar on technology in human development or a course on the psychology of media. We expect that the interested public including educational media producers and curriculum designers, school administrators, legislators, and pediatricians also may find the volume of interest.

The text surveys the impact of digital media on key aspects of children and adolescents' cognitive development from both theoretical and practical vantage points. To that end the volume includes topics such as parent-child interactions around media; video games, texting, and virtual reality as contexts for learning; the development of effective educational media; children's and adolescents' critical thinking about media; social policy for increasing access to high-quality education media and the Internet; and parenting strategies for coping with the challenges of raising children in the digital age.

This volume is organized into four sections. The first section addresses young children's learning from screens such as those provided via television and tablets and factors that contribute to that learning such as parental scaffolding of child-screen interactions. The second section focuses more

specifically on the cognitive skills that are enhanced via children's and adolescents' interactions with screens during game play, while texting, and when immersed in virtual reality. The third section highlights children's and adolescents' cognitive abilities as reflected through their media literacy. The final and concluding section presents policy and practical recommendations for children's and adolescents' media use.

The volume overall addresses topics of relevance to developmental psychology, education, youth and family studies, media studies, and communication science.

Our focus on cognitive development as impacted by interaction with electronic screens other than television clearly distinguishes our text from potential competitors. Our text focuses specifically on how various screen-based electronic media impact children's and adolescents' cognitive development. While a great deal of scholarship has examined how technology-mediated interactions (via social network sites and massive multiplayer video games, for example) impact youth development, including mental health, aggression and other behavioral problems, peer interactions and bullying, cognitive development via screen-based media has been a relatively neglected topic in the popular press as well as in more academically oriented texts concerned with media usage.