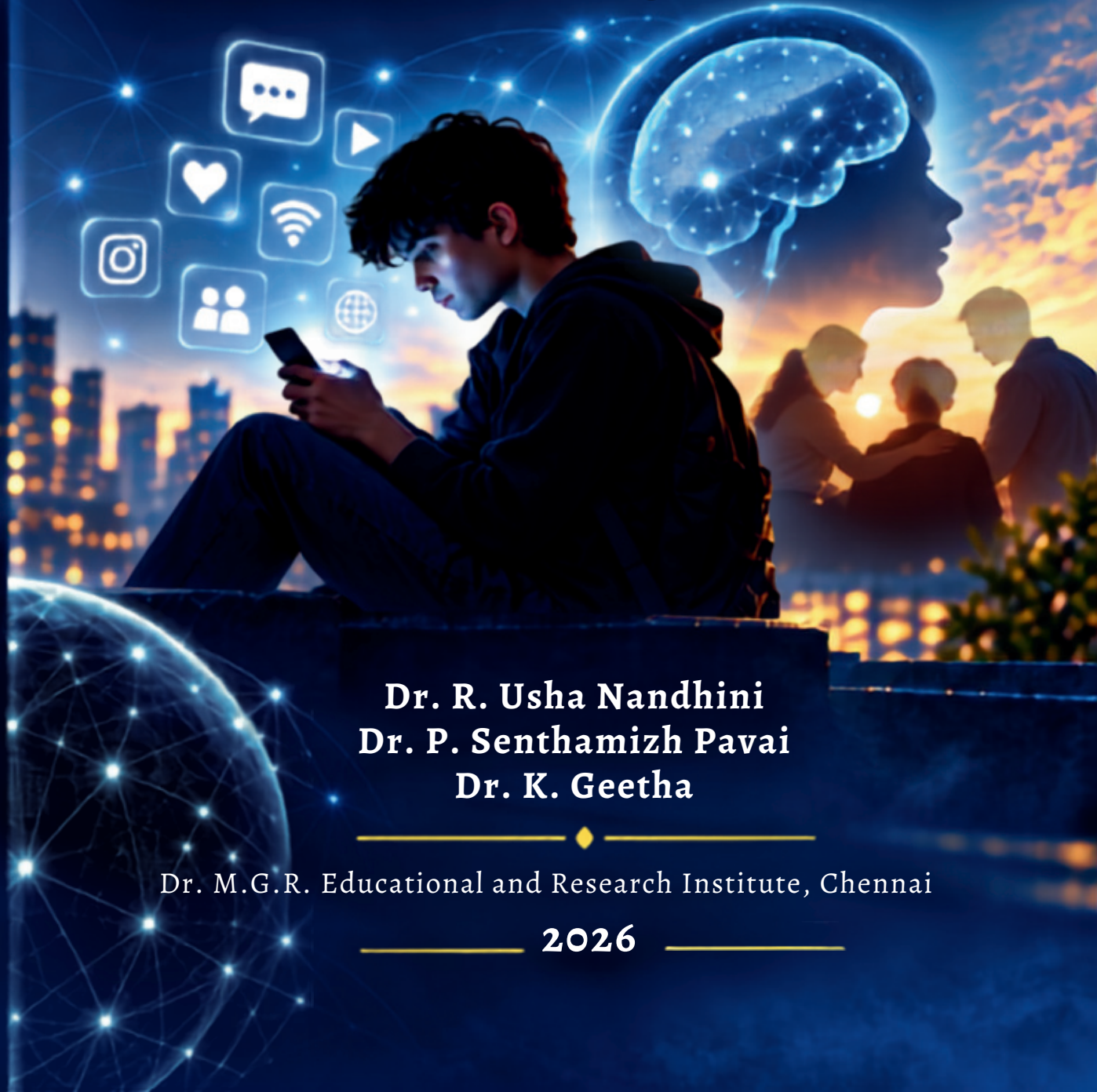


Digital Adolescence

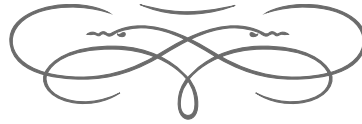
Internet Addiction, Parenting and Mental Health



Dr. R. Usha Nandhini
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Dr. M.G.R. Educational and Research Institute, Chennai

2026



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Preface

From doctoral research to a book for readers, families and schools.

This book grew from the doctoral research undertaken by Dr. R. Usha Nandhini under the supervision of Dr. P. Senthamizh Pavai and the co-supervision of Dr. K. Geetha, and from our shared concern about a familiar scene: students surrounded by unprecedented digital opportunity, yet increasingly vulnerable to habits that can disturb sleep, concentration, relationships and emotional balance. Through our work in education, research and academic leadership, we have seen how easily internet use can move from a useful part of learning into an activity that occupies attention long after its original purpose has ended. We have also seen that the same behaviour cannot be understood by looking at the student alone. The family environment, the character of parental guidance and the student's mental health all matter.

The doctoral study on which this book is based examined internet addiction and parenting style in relation to the mental health of XI standard students. The investigation used a survey design and gathered data from 1,000 students attending ten schools in Thiruvallur district. It considered the three main constructs together with selected personal and educational variables. The study employed descriptive and differential statistics, regression, discriminant analysis and structural equation modelling to identify relationships, group differences and explanatory pathways.

A thesis and a book, however, serve different purposes. A thesis must demonstrate the researcher's command of a field, document every stage of method and satisfy formal requirements for examination. A book must guide the reader through ideas, evidence and implications in a coherent and engaging way. For that reason, this volume is not a lightly edited reproduction of the thesis. Its material has been reorganised, rewritten and expanded around questions that matter to a wider audience: What counts as problematic internet use? How do parenting practices shape digital behaviour? What does adolescent mental health look like in everyday school and family life? Which patterns appeared in the Thiruvallur study? Most importantly, what can be done?

The short title, *Digital Adolescence*, reflects this wider purpose. The book retains the original research focus on internet addiction, parenting and mental health, while placing that focus within the broader reality of growing up in a connected world. Technology is neither celebrated uncritically nor blamed for every difficulty faced by young people. Our aim is to distinguish constructive engagement from loss of control, ordinary family disagreement from harmful interaction, and temporary stress from patterns that call for support.

The first part of the book establishes the context and evidence base. It examines how digital technology has changed education and adolescent life, reviews relevant Indian and international evidence, explains how the Thiruvallur study was designed, and presents the descriptive and analytical results in a form intended for readers beyond the original thesis audience.

The later chapters reorganise the evidence thematically. They examine the digital lives of students, the factors associated with mental health, differences across student, family and

school groups, and the pathways represented in the structural model. The concluding chapter translates the evidence into practical directions for students, parents, teachers, counsellors, administrators and policy-makers. These recommendations favour communication, realistic routines, digital literacy, early identification, counselling access, physical activity, sleep, offline interests and responsible adult modelling.

Several language choices are intentional. The expression *internet addiction* is retained because it is central to the original study and its measurement tools. In broader discussion, the book also uses *problematic*, *excessive* or *compulsive internet use* when those terms more accurately describe a pattern without implying a clinical diagnosis. Mental health is treated as a continuum that includes emotional, social and psychological well-being, not merely the absence of illness. Parenting styles are discussed as patterns of interaction rather than permanent labels attached to a parent or family.

This book is intended for teacher educators, teachers, school leaders, counsellors, psychologists, researchers, postgraduate students, parents and others concerned with adolescent development. Readers interested in the social and research context may begin with Chapters 1–7. Those concerned with the empirical findings may focus on Chapters 8–11. Parents and practitioners seeking direct guidance may read Chapter 12 first and return to the earlier chapters for explanation. Each route leads to the same central conclusion: digital well-being is created through informed habits and supportive relationships, not through fear or prohibition alone.

We hope the volume encourages careful conversation. Students should be invited to describe what they do online, what they value, what pressures they experience and where they feel they are losing control. Parents should be supported in setting predictable boundaries while preserving trust. Schools should treat digital well-being as part of education and student support, not merely as a disciplinary issue. Researchers should continue to examine cultural, social and technological changes with methods capable of capturing both risk and resilience.

The field will continue to change as platforms, devices and patterns of use change. The lasting task is therefore not to create one rule for every screen, but to cultivate judgement: the ability to use technology deliberately, to notice when use is displacing essential parts of life, and to seek help without shame. That is the purpose with which *Digital Adolescence* is offered to its readers.

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Authors

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Dr. R. Usha Nandhini
Dr. P. Senthamizh Pavai
Dr. K. Geetha
Authors

About This Book

A research-informed guide to healthier digital lives for adolescents.

Purpose and central argument

Digital Adolescence examines how internet use, parenting and mental health intersect during one of the most formative stages of life. Its central argument is that adolescent digital well-being cannot be explained by screen time alone. The meaning and effects of internet use depend on why a young person goes online, how much control the young person has over that behaviour, what activities are displaced, how family relationships operate, what demands are created by school and peers, and what emotional needs are being met—or avoided—through digital activity.

The book therefore moves beyond simple instructions to switch devices off. It develops a framework in which healthy digital use includes purpose, balance, self-regulation, safety, sleep, learning, supportive relationships and the capacity to disengage. Problematic use becomes a concern when it is compulsive, difficult to control or repeatedly associated with impairment in study, family life, social participation, physical health or emotional well-being.

The evidence base

The empirical core of the book comes from a survey of 1,000 XI standard students from ten schools in Thiruvallur district. The study examined internet addiction, perceived parenting style and mental health. It also considered gender, locality, school type, subject stream, birth order, family type, medium of instruction, socio-economic status and access to digital devices.

The study used an Internet Addiction Inventory developed for the investigation, a Parenting Style Scale, a Mental Health Scale and a personal data sheet. Analysis included means and standard deviations, independent-samples tests, analysis of variance, multivariate regression, discriminant analysis and structural equation modelling using SPSS and AMOS. These methods allowed the research to describe the sample, examine relationships, compare groups and test a model of pathways among the main variables.

Across the analyses, internet addiction and parenting style were associated with mental health. The research also identified differences in some perceptions and mental-health scores across selected personal, family and school-related categories, while other comparisons showed no significant differences. The structural model supported meaningful relationships among the principal variables and selected characteristics. The book interprets these results cautiously: a cross-sectional survey can identify association and statistical prediction, but it cannot establish simple one-way causation or replace individual assessment.

How the book is organised

1. **Chapter 1: Growing Up Online** sets the social and educational context, tracing the growing place of internet use in adolescents' daily lives and the need for digital balance.
2. **Chapter 2: What the Evidence Shows** explains how the evidence base was assembled and synthesises Indian and international research on internet addiction, parenting and adolescent mental health, including studies that connect these domains.
3. **Chapter 3: How the Study Was Built** explains the inquiry, research questions, variables, instruments, pilot work, sampling, fieldwork and statistical strategy used in the Thiruvallur study.
4. **Chapter 4: What the Data Show** presents the main empirical analysis, including reliability evidence, descriptive results, regression, discriminant analysis, group comparisons and structural modelling.
5. **Chapter 5: From Findings to Action** consolidates the principal findings and translates them into educational implications, recommendations for key stakeholders, practical suggestions and future research directions.
6. **Chapter 6: What Research Tells Us** synthesises relevant Indian and international literature, identifies recurring themes and clarifies the contribution of the present study.
7. **Chapter 7: Evidence from the Thiruvallur Study** explains the research design, participants, instruments, data collection, ethics and analytical strategy in reader-friendly form.
8. **Chapter 8: The Digital Lives of Students** describes the participants, their access to the internet and the overall patterns observed across the key measures.
9. **Chapter 9: What Shapes Adolescent Mental Health?** interprets the relationships between mental health, internet addiction and parenting, including the dimensions that contribute most strongly.
10. **Chapter 10: Differences Across Students, Families and Schools** examines comparisons by gender, locality, school type, subject stream, medium, birth order, family type and socio-economic status.
11. **Chapter 11: Mapping the Pathways to Mental Health** presents the regression, discriminant and structural models and explains what these models add to the overall picture.
12. **Chapter 12: Building Digital Well-Being** translates the evidence into recommendations for students, parents, teachers, counsellors, administrators and policy-makers.

Who should read it

- Parents and caregivers seeking practical ways to create boundaries without weakening trust.
- Teachers, teacher educators and school leaders who want to integrate digital well-being into classroom practice, pastoral care and institutional policy.
- School counsellors, psychologists and student-support professionals interested in the interaction between online behaviour, family experience and mental health.
- Researchers and postgraduate students studying education, psychology, parenting, adolescent development or technology use.
- Students and youth advocates who want language and strategies for understanding online habits without stigma.
- Policy-makers and community organisations concerned with digital literacy, mental-health promotion and equitable access to support.

How to use the book

The chapters may be read in sequence as a complete argument, but the book is also designed for selective use. A parent may begin with parenting and practical strategies. A teacher may move from the introductory chapters to the evidence and school recommendations. A researcher may focus on the literature, methods and analytical chapters. Discussion questions, case material and practical recommendations can be adapted for teacher-education classes, parent meetings, student workshops and counselling programmes.

The concepts in this book should support observation and conversation, not informal diagnosis. A single sign—such as late-night internet use, irritability or a temporary decline in schoolwork—does not by itself establish addiction or mental illness. Concern becomes more substantial when patterns persist, intensify and interfere across areas of life. Where there is significant distress, risk of harm, severe sleep disruption or major impairment, readers should seek assistance from an appropriately qualified health or mental-health professional.

Scope, language and limitations

- The word adolescent is used broadly for young people in the developmental period that includes higher-secondary education. The research sample itself consists specifically of XI standard students in Thiruvallur district, and findings should be generalised beyond that setting with care.
- Internet addiction remains a debated term across research and clinical contexts. The book retains it where it refers to the original study, scales or cited models, while also using problematic or compulsive internet use when a less diagnostic expression is more accurate.

- Parenting styles are analytical patterns, not moral verdicts. Most families display a mixture of behaviours that can change with context, stress, culture and the young person's needs. The book uses these categories to support reflection and improvement, not blame.
- The underlying study is cross-sectional and based substantially on self-report. Its results illuminate relationships within the sample but do not demonstrate that one variable inevitably causes another. Longitudinal, qualitative and intervention research can extend the picture developed here.
- Digital environments evolve rapidly. Platforms may change, but the underlying questions of purpose, control, communication, balance and well-being remain relevant. Readers are encouraged to apply the principles to current technologies rather than to treat any platform-specific example as permanent.

A practical commitment

The ultimate purpose of *Digital Adolescence* is constructive. It calls for digital literacy that includes emotional and behavioural awareness; parenting that combines warmth, consistency and age-appropriate autonomy; schools that teach healthy technology use and make support accessible; and communities that treat adolescent mental health as a shared responsibility.

A healthier digital culture is possible when adults listen before judging, when boundaries are explained and modelled, and when young people are helped to recognise both the value and the cost of their online choices. The book invites readers to begin that work with evidence, empathy and practical resolve.

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Abbreviations

Abbreviations are listed in alphabetical order. In the main text, each term should be written in full at first mention, followed by the abbreviation in parentheses; the shortened form may then be used consistently.

Abbreviation	Meaning
AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
APA	American Psychological Association
BPS-SF	Boredom Proneness Scale-Short Form
BSCS	Brief Self-Control Scale
BSMAS	Bergen Social Media Addiction Scale
BSRS	Brief Symptoms Rating Scale
CBT	Cognitive-Behavioral Therapy
CDC	Centers for Disease Control and Prevention
CIAS	Chen Internet Addiction Scale
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition
DSM-V	Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
GAD-7	Generalized Anxiety Disorder-7
IA	Internet Addiction
IAD	Internet Addiction Disorder
IAI	Internet Addiction Inventory
IAT	Internet Addiction Test
IGC	Individual Growth Curve
MH	Mental Health
MHL	Mental Health Literacy
MHS	Mental Health Scale
NIMH	National Institute of Mental Health
PIU	Problematic Internet Use
PIUT	Problem Internet Use Test
PPRSQ	Perceived Parental Rearing Style
PS	Parenting Style
PSI	Parenting Style Inventory
PSMU	Problematic Social Media Use
PSS	Parenting Style Scale
RTA	Reflexive Thematic Analysis
SEM	Structural Equation Modeling
SEL	Social-Emotional Learning
SES	Socio-Economic Status
SPSS	Statistical Package for the Social Sciences
SRQ	Self-Regulation Questionnaire

Abbreviation	Meaning
SSES	State Self-Esteem Scale
SSRQ	Short Self-Rating Questionnaire
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

About the Authors



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Chapter 1

Growing Up Online

Adolescence, education and everyday life in a connected world

The central question is not whether adolescents use the internet, but whether they can use it with purpose, control and balance.

Chapter overview

A young person may begin the day by checking a class group, travel to school with music or short videos, search the internet during a lesson, submit an assignment through a learning platform, speak with friends through messages, relax with a game and end the evening with a streaming service. None of these actions is unusual. Together, however, they show that the internet is no longer an occasional tool placed at the edge of adolescent life. It is an environment through which education, friendship, leisure, identity and family communication are increasingly organised.

This chapter introduces that environment. It considers what it means to grow up online, how digital technology has reshaped education, and why the COVID-19 period accelerated habits that did not disappear when schools reopened. It then examines the opportunities created by digital access and the risks that emerge when design features, social pressure, emotional needs and continuous availability pull a student toward uncontrolled use.

The purpose is not to begin with fear. Most adolescents use digital media without developing an addiction, and high engagement is not automatically evidence of disorder. The more responsible starting point is to ask whether use is purposeful, flexible and compatible with sleep, learning, relationships, physical activity and emotional well-being. Concern increases when a young person repeatedly loses control, cannot reduce use despite intending to do so, or allows online activity to displace essential parts of life (Griffiths, 2005; Kuss and Lopez-Fernandez, 2016).

The discussion also establishes a principle that guides the whole book: digital behaviour is relational. A device may be held by one student, but the pattern surrounding it is shaped by platform design, peer expectations, school systems, family rules, parental example, access to alternatives and the student's psychological state. Effective responses must therefore be wider than punishment or simple time limits.

Chapter aim: To understand how the internet became embedded in adolescent life, distinguish opportunity from risk, recognise early signs of problematic use and establish the need for balanced, supportive intervention.

After reading this chapter, readers should be able to

- describe adolescence as a developmental stage shaped by both online and offline environments;
- explain how digital technology has transformed access, participation and communication in education;
- compare student internet use before, during and after the COVID-19 disruption;
- identify educational, social and personal opportunities provided by responsible internet use;
- distinguish intensive but functional use from patterns marked by loss of control and impairment;
- interpret common case patterns without labelling or diagnosing a student; and
- explain why digital balance requires coordinated action by students, families and schools.

1.1 Adolescence in a Connected World

Adolescence is a period of rapid development. Young people form more complex identities, seek greater independence, become increasingly sensitive to peer evaluation and learn to manage stronger academic, emotional and social demands. These tasks have always involved experimentation and uncertainty. Digital environments do not replace them; they change where and how they occur.

A student's online life can serve several developmental purposes at once. It may provide a place to explore interests that are not represented in the immediate school or community, maintain friendships across distance, seek information privately, practise creative skills, join a collaborative project or receive reassurance during a stressful moment. It can also become a stage on which popularity is measured continuously, mistakes remain visible, comparison never ends and social absence is interpreted as exclusion.

The connected adolescent therefore lives within overlapping contexts. The home, classroom, peer group and digital platform are not separate containers. A disagreement that begins at school may continue through a messaging group after midnight. A tutorial watched for homework may lead directly into entertainment. A parent's message may offer safety while also extending supervision into spaces where the adolescent is trying to become independent. The same technology can support connection and produce pressure.

Portability intensifies this overlap. Earlier forms of media were often tied to a place: the television in a room, the computer on a desk or the telephone in a shared area. A smartphone travels with the young person. It can interrupt any activity, fill any pause and make social demands feel immediate. Because access is continuous, self-regulation must occur repeatedly across the day rather than only when a device is first switched on.

This is why the language of simple exposure is insufficient. Two students may each spend four hours online and experience very different outcomes. One may use the time for coursework, design, music, purposeful communication and a planned period of recreation. Another may

move between notifications and feeds without clear intention, remain online beyond the desired stopping point and lose sleep or study time. Duration matters, but purpose, control, content, timing and consequence provide the fuller picture.

Developmental context also matters. Adolescents are learning to regulate attention and emotion while digital services are designed to reduce stopping cues. Autoplay, streaks, notifications, variable rewards, algorithmic recommendations and public feedback metrics encourage return. These features do not remove personal responsibility, but they make it unrealistic to treat every difficulty as a simple failure of willpower.

At the same time, adults should avoid assuming that online experience is unreal. Friendship, humiliation, achievement, creativity and exclusion can all be psychologically significant when they occur through a screen. An adult who dismisses online concerns may unintentionally close the very conversation needed to identify risk. Listening does not require approving every platform or behaviour; it means recognising that digital events can carry real emotional weight.

Research on adolescents in the digital age has repeatedly challenged extreme conclusions. Digital technology is neither uniformly harmful nor uniformly beneficial. Average effects on well-being are often small and vary according to the individual, activity and context (Odgers and Jensen, 2020; Orben, 2020). This variability strengthens the case for careful observation: the important question is what a particular pattern is doing in a particular student's life.

A useful distinction: Connection describes access; participation describes what the student does; engagement describes intensity; problematic use describes loss of control or harm. These terms should not be treated as synonyms.

1.2 The Digital Transformation of Education

Education has been transformed by the internet at the level of access, communication, production and assessment. A learner can consult digital libraries, watch demonstrations, revisit difficult explanations, collaborate on a document, submit work remotely and communicate with a teacher beyond the physical classroom. For students who lack specialised resources locally, digital access can widen the range of subjects, languages and examples available to them.

The shift is deeper than replacing a printed page with a screen. Digital learning can be searchable, interactive, adaptive and multimodal. Text can be combined with animation, simulation, audio, discussion and immediate feedback. A student who does not understand an explanation in class may approach the same idea through another medium. A student with a strong interest may move beyond the prescribed lesson and encounter authentic data, expert lectures or communities of practice.

Communication has also changed. Learning-management systems and class groups distribute announcements, resources, assignments and reminders quickly. Group documents enable simultaneous contribution. Recorded lessons allow review. Video conferencing connects teachers and learners across distance. These affordances became highly visible during school closures, but many were already developing and have since become ordinary components of educational organisation.

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