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Reading Changes in the Digital Age: An Action Plan to Improve College Students' Reading Ability Based on Historical Trajectory

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Abstract: This paper investigates how the digital age has reshaped college students' reading habits and abilities over time and proposes an action plan to enhance their reading proficiency. Adopting a narrative literature review and historical analysis, the study synthesizes findings from existing research published mainly from 2000–2024 and recent studies on digital reading behaviours. College students' reading engagement has steadily declined in recent decades as digital media consumption surged, leading to shallow reading practices and reduced comprehension. Many students now bypass traditional readings in favour of summaries, videos, or AI tools, indicating an urgent need to re-establish deep reading skills. Nevertheless, evidence suggests that print-based reading fosters stronger comprehension and critical thinking than on-screen reading. The proposed action plan recommends integrating deliberate reading skill development into curricula, balancing digital and print reading tasks, and creating supportive environments that encourage sustained, focused reading. By learning from the historical trajectory of reading habits, educators and policymakers can implement strategies to rebuild students' deep reading abilities for academic success and informed citizenship.

Keywords: Digital Reading vs. Print Reading, Screen Inferiority Effect, College Students' Reading Habits, Deep Reading Skills, Reading Comprehension in the Digital Age, Educational Interventions for Reading.

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1. Introduction

In higher education, proficient reading remains foundational to academic success, critical thinking, and personal growth. It enables students to grapple with complex concepts, encounter diverse perspectives, and cultivate the analytical and empathetic habits that underwrite lifelong learning. Historically, college coursework assumed steady engagement with substantial assigned readings. Yet there is growing concern that today's students read less and less deeply than prior cohorts, as instructors report skimming, selective sampling, or complete avoidance of course texts in favour

of lectures, summaries, or short videos (Gorzycki et al., 2020). Large scale surveys and assessments also corroborate this trend, showing declines in voluntary reading and in-depth engagement among adolescents entering higher education (NAEP, 2023; Hollander et al., 2022). While such reports highlight an important trend, the decline in reading engagement may be linked to multiple factors, including changes in digital culture, academic workload, and broader social pressures (Twenge, Martin, & Spitzberg, 2019). Beyond digital influences, factors such as increased academic workload, financial and time pressures, and shifts in assessment practices may also contribute to students' reduced commitment to students.

The digital world has made ample options available, which vie for attention. With laptops and phones always in reach, students are presented with flows of bite-sized messages and multimedia intended for fast consumption. Such circumstances encourage split attention and favour scanning over immersed engagement and thus render long scholarly texts less appealing or urgent (Kostić & Ranđelović, 2022). Since e-habits naturalize "fast" reading, the style of engagement also changes as readers scroll more, browse headings, and extract gist rather than build slow, inferential knowledge. In research, it is found that for longer, informative texts particularly under time pressure print reading actually yields small but reliable comprehension advantages over screens, medium effects on processing depth (Delgado & Salmerón, 2021).

These more recent trends build upon a longer trend of declining reading quantity. Longitudinal data reveal steep drops in voluntary book reading among adolescents across the past few decades, while internet and mobile media use rise (Twenge et al., 2019). By university age, many students have little experience with extended, effortful reading. National assessments echo this concern: recent trend data for 13-year-olds show declines in reading performance relative to earlier generations, underscoring systemic shifts in reading engagement and proficiency (Irwin et al., 2024).

The consequences are multifaceted. Reading is not only decoding; it requires monitoring comprehension, questioning, synthesizing, and retaining ideas. When deep, sustained reading recedes, students may struggle with complex argumentation, evidence evaluation, and transfer to writing (Gorzycki et al., 2020). Cognitive and neuroscience findings add texture: differences in processing depth have been observed between print and digital conditions, with some evidence of shallower semantic integration during screen reading unless readers deploy compensatory strategies (Froud et al., 2024). During the COVID-19 shift to remote learning, students relied heavily on digital texts; many reported fragmented attention, "simplification" strategies, and rapid forgetting patterns that persisted post-lockdown for some learners (Chang et al., 2023).

Importantly, technology is not inherently detrimental. Digital tools can scaffold active reading through annotation platforms, distraction controls, or adaptive presentation provided students are explicitly taught metacognitive strategies for deep engagement (Biedermann, 2023). The challenge for higher education, therefore, is twofold: to recognize how reading practices have evolved and to rebuild deep reading within contemporary conditions. This paper addresses that challenge by tracing the historical trajectory of college reading in the digital age and proposing an action plan aligned with current evidence to strengthen students' capacity for sustained critical reading.

1.1. Research Objectives

- To examine how college students' reading habits and competencies have changed

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from the pre-digital era to the current digital age.
- To explore the impact of digital media on students' reading engagement and comprehension, identifying specific challenges that hinder deep reading.
- To develop an action plan of evidence-based strategies to improve college students' reading ability, informed by historical trends and recent research findings.

1.2. Research Questions:

1. How have college students' reading practices and abilities evolved over time, particularly with the advent of digital technology?
2. What effects does the digital media environment have on the reading comprehension and engagement of college students?
3. What strategies can effectively enhance college students' reading ability and promote deep reading in the context of the digital age?

2. Literature Review

2.1. Historical Shifts in College Reading Habits

Reading habits among college students have undergone significant shifts over the past few decades. In the mid-to-late 20th century, college curricula heavily emphasized textbook and literature readings, and students were generally expected to spend extensive time on course readings outside class. Surveys from the 1980s suggest that a substantial portion of students did at least some of their assigned reading regularly (though even then, full compliance was not universal) (Ihara & Del Principe, 2018). However, longitudinal evidence reveals a clear downward trajectory in reading compliance and voluntary reading over time. Russell et al. (2023) documented this decline in a 16-year study: the percentage of students completing assigned readings in psychology courses dropped markedly between 1981 and 1997, reaching distressingly low levels by the 1990s. By the end of that study, on any given day only about 20–30% of students had done the reading (Hatteberg & Steffy, 2013). However, since that 16-year study was limited to one university department, its dramatic results may not generalize universally; reading compliance likely varies by context, and other studies suggest the decline can be mitigated when course design increases accountability for reading. This early decline is attributed to various factors, such as increasing workloads, the rise of alternative sources like test prep guides, and perhaps a shift in student attitudes viewing reading as optional or overly time-consuming.

Entering the 2000s and 2010s, the trend continued and was exacerbated by digital technology. Comprehensive measurements of youth reading habits indicate sharp declines in pleasure reading. A longitudinal study (Monitoring the Future) discovered that while 60% of high school seniors reported reading books or magazines nearly every day in the late 1970s, by 2016 the percentage had declined to 16% (Twenge et al., 2019). Similarly, the National Assessment of Educational Progress (NAEP) 13-year-old Americans data revealed a steep decline in reading achievement and volume. By 2023, the average reading scores of 13-year-olds were back to where they were in the 1970s, with the lowest readers scoring lower than their equivalents from two generations back (NAEP, 2023). This spectacular turnabout of reading achievement owes something to long-term shifts in reading habits less time spent reading books combined with other social circumstances. In short, students who matriculate at college

today have, on average, read much less in their spare time than college students of past generations. Twenge et al. (2019) add that the time previously spent on books has been taken over by digital media: by mid-2010s, adolescents spent about six hours daily on phones (texting, internet, social media) during their free time, while everyday reading of printed content dropped dramatically (Alexander et al., 2024). This is a cohort effect, and consequently, college educators are now instructing a generation that has much less experience with extensive reading.

Not only has the amount of reading shifted, but attitudes towards reading by students have changed too. Ironically, numerous students recognize the value of reading but confess to not engaging in it. Gorzycki et al. (2020) captured in a qualitative survey this academic paradox of reading among undergraduates: they all agreed that reading was worth it but reported they didn't necessarily do the reading yet earned the grades they desired. They provided such excuses for not reading as the readings were too lengthy, too difficult, or not specifically related to tests and assignments. Numerous students felt they could get along without reading by going to class or reading their summaries. That is, the incentive system (from the students' perspective) does not necessarily encourage effort on all of the reading, particularly because assessments do not directly reinforce them for reading. This is a break from past generations, who might have more readily attempted reading within fewer options available and potentially a more robust print reading culture. Today's students, accustomed to instant searching and web-based study guides, engage in reading on an economic model: if the benefit is not instantaneous, they balk. Those attitudes form a self-sustaining loop the fewer students read, the weaker their reading endurance and aptitude will be, and that makes it more intimidating and dubious by means of avoidance.

Another change in habit is how students engage with texts when they do read. Research suggests that superficial reading strategies have become more common. In an analysis of citations in college papers (the Citation Project), researchers found that students overwhelmingly cited from the first few pages of sources and rarely synthesized information from across a text (Jamieson, 2013). Only 6% of citations represented a true summary of the source's argument, indicating that students often do not read sources in depth or to completion. These findings imply that many students are engaging in surface reading skimming enough to pull a quote or two rather than deep reading for full understanding. Sandra Jamieson, a lead researcher for the project, contended that this is evidence of unfamiliarity with long-form reading and not being able to discern meaning if it is not immediately apparent (Jamieson, 2013). Historically, this type of behavior might be more common today due to students facing much more information but in disconnected bits, habituating them to extracting fast morsels as opposed to waiting patiently to take in long, complicated arguments. Briefly, the historical course reveals not only quantitative declines in reading but also qualitative changes in reading practice. Today's college students are less likely to read carefully or critically unless particular structures exist to encourage and support them. From a New Literacy Studies point of view, such changes represent a change in literacy practices instead of a consistent decline. Today's students may be engaging with texts in new ways (e.g. skimming multiple digital sources or parsing hyperlinked information), which constitute different literacies suited to digital environments, even if they appear to eschew traditional deep reading (Kinzer & Leu, 2016).

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2.2. The Digital Media Impact: From Deep Reading to Shallow Scanning

The rise of digital media is a central factor in the changing landscape of college reading. Digital technology has transformed reading in multiple ways: the medium of text (screen vs. paper), the mode of navigation (scrolling, hyperlinking), and the surrounding context (multitasking, notifications). Research in the past decade has increasingly examined how reading on screens compares to traditional print reading in terms of comprehension and depth (Stiegler-Balfour et al., 2023). A consistent finding is that, for lengthy and complex texts, reading on paper tends to yield better understanding and retention than reading on a computer or tablet screen. Cognitive and neuroscientific studies offer insight into why. Froud et al. (2024) conducted an experiment with middle-school students using EEG brain measures and found that reading the same material in print resulted in deeper semantic processing than reading on a screen. In the print condition, students' brain responses indicated they were making stronger meaningful connections with the text, whereas in the digital condition their responses suggested a shallower processing (as if the content was not fully integrated). While this study was with younger readers, its implications extend to college students: the human brain engages differently with digital text, often in a less immersive way unless extra effort is made to concentrate.

Several hypotheses explain the screen inferiority effect. One is the physicality of print holding a book or paper provides a tactile sense of progress (e.g. seeing how many pages remain) which can aid comprehension and memory. Digital text scrolling can feel endless or fleeting, reducing recall of where information was located. Another factor is that screens typically present additional features (hyperlinks, ads, toolbars) that can divert attention. Even the light from screens and the act of scrolling can subtly encourage a skim-and-move-on approach. As a result, readers on screens often develop an "F-shaped" reading pattern glancing across the top of text and down the left side, searching for key words rather than reading line by line (Pae, 2020). Maryanne Wolf, a prominent reading researcher, has noted that the brain is adapting to skim-reading as the new normal in a digital environment, potentially at the expense of the slower, contemplative mode of deep reading that builds critical analysis and empathy (Wolf, 2018). When people skim frequently, the neural circuits for sustained attention and inference may weaken from underuse. Thus, the convenience of digital text comes with a hidden cost: without conscious adaptation, it can encourage habits of fast but shallow reading. However, not all digital media impose the same challenges. For instance, dedicated e-ink eReaders that lack glare, and notifications can yield comprehension outcomes comparable to print, whereas reading on an LCD tablet or multitasking on a smartphone introduces more distractions and extraneous cognitive load that hinder understanding.

Empirical studies with college-age and adult readers have produced mixed but illuminating results. Early meta-analyses indicated that readers often perform worse on comprehension tests after reading from screens compared to paper, especially for nonfiction or longer texts. This gap is usually small to moderate but appears consistently in scenarios requiring understanding of details or inference of implicit meanings (Delgado et al., 2018). More recent analyses attempt to nuance this: when reading tasks are short or when readers have unlimited time, differences between screen and paper can vanish. However, under typical time constraints and with longer passages, print retains an edge in comprehension for most readers. Furthermore, the

"screen inferiority" effect is not universal. Research shows it is most pronounced for dense, academic texts requiring deep processing, whereas for narrative or simpler texts the comprehension difference between digital and print is minimal. In fact, some recent studies report essentially no performance gap at all between reading on modern devices and on paper, underscoring that digital reading can perform comparably to print under favourable conditions (Margolin et al., 2013). One 2020 meta-analysis spanning 20 years of studies concluded that overall reading comprehension was slightly better in print, with the difference most pronounced for informational texts and when reading under time pressure (Li & Yan, 2024). Notably, readers' own preferences might play a role many students believe they read better on paper and thus may put more effort or employ better strategies with print. Reiber-Kuijpers, Kral and Meijer (2021) emphasize that digital reading requires additional skills and strategies beyond those needed for print. For instance, digital readers benefit from knowing how to effectively use search functions, how to annotate PDFs, and how to minimize on-screen distractions. Without these strategies, students might approach a digital text with the same mindset as a social media feed – browsing rather than studying which hinders deep comprehension.

The digital impact is also evident in information consumption patterns among college students. Many undergraduates now obtain information through a mosaic of digital sources: Google searches, Wikipedia, online videos, blogs, and social media. These sources often provide quick answers or summaries, which can be helpful for efficiency but do not encourage the development of patience for complex reading. A 2021 survey found that over 70% of university students admitted they did not complete assigned readings regularly, with many citing digital alternatives as their go-to solution (Halabieh et al., 2022). Instead of reading a 30-page article, a student might watch a 5-minute YouTube explanation or use an AI-generated summary to extract the main points. Indeed, by 2024 the use of AI tools like ChatGPT to produce book summaries or reading notes had become prevalent on campuses. Students turn to these tools to save time, but educators worry this shortcut further weakens students' reading muscles – akin to outsourcing the cognitive work of reading to an algorithm. An Inside Higher Ed investigation quoted professors observing that some students now rely so heavily on summaries that they seem unequipped to read even 100 pages per week and struggle when asked to analyse texts in detail (Alaofi, 2020).

Digital reading tends to encourage a mindset of seeking convenience and immediacy. Hyperlinked texts allow jumping around and quickly leaving a difficult section to find something more digestible. Social media trains users to expect new content constantly, reducing tolerance for lengthy focus. Over time, these habits can erode the ability to sit with a challenging text, ponder ambiguities, or reread for clarity all key aspects of deep reading. It is important to note that digital media itself is not the villain; rather, it is the way it is often used. Digital platforms can, in theory, support robust reading (for example, high-quality e-readers with few distractions, or digital libraries that improve access to texts). However, the prevalent modes of student engagement with digital content lean toward fragmentation (Rabbi, 2023). One study described college students' digital reading behavior as "fragmented and superficial," with many engaging in snippet reading (skimming excerpts or search-engine snippets) rather than whole texts (Xie, 2019). This habit is reinforced by the structure of online information search results and question-answer sites provide just the bite one is looking for, removing the incentive to read an entire source.

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In summary, the digital age has introduced a complex set of challenges for deep reading. While students have more information at their fingertips than ever before, their approach to reading this information tends to be less linear, less focused, and more prone to shallow processing. The cognitive load of navigating digital content, combined with the myriad temptations to multitask, can impair comprehension. This outcome is consistent with Cognitive Load Theory, which posits that extraneous cognitive demands (such as interface distractions or multitasking) consume working memory resources and thus reduce the capacity for deep processing (Brüggemann et al., 2023). As a result, educators and researchers are increasingly worried about the "shallows" a term author Nicholas Carr famously used in which students skim along the surface of texts without diving into depth (Carr, 2020). Understanding these digital impacts is crucial for devising strategies to help students regain the art of deep reading, which remains as important as ever for higher-order learning and critical analysis (McMurtrie, 2024).

2.3. Contemporary Reading Behaviours of College Students

To ground the discussion in the present context, it is essential to profile how today's college students typically handle reading tasks and what attitudes they bring to reading. Research and campus surveys paint a consistent picture: many college students are strategic non-readers – they often choose what to read based on perceived importance and skip or skim the rest (Ihara & Del Principe, 2018). In an era of abundant information and busy schedules, students have become adept at triaging their academic work. If an assigned reading is not directly tied to a graded outcome, students are likely to prioritize other tasks. A recent report noted that over 70% of students confessed to not completing all their weekly assigned readings, with a significant portion admitting they never do the readings thoroughly (Bollinger, Lupo, & Sullivan, 2020). First-generation and STEM students in particular often see reading-heavy assignments as a low priority compared to problem sets or practical work, unless reading comprehension is explicitly tested.

One striking statistic comes from Hollander et al. (2022), who reported that between 60–80% of university students do not do the required readings on a regular basis. This means in a typical class of, say, 30 students, perhaps only 6–12 have read the material as assigned a number that aligns with what exasperated instructors observe. Students provide a number of explanations for such behavior: some claim that they lack sufficient time because of work or other classes, others find the course texts too overwhelming or uninteresting, and others depend on the teacher to present the significant points in class (impliedly relying on the assumption that coming to class is an acceptable alternative for reading). Interestingly, students have also become dependent upon ancillary materials. For school literature class, they would possibly employ the use of websites such as SparkNotes that provide summaries of books and articles. For textbook sections, they would possibly like to see a Khan Academy video about the subject or an online short article that provides the summary. The abundance of these alternatives has bred an attitude whereby reading the original material is considered one among many ways of obtaining information and usually the least convenient.

Another common practice is partial reading. Students may begin a reading and then abandon it when they feel they have gotten enough to meet immediate needs. For instance, a student may read the introduction and conclusion of a journal article (where the main argument and findings are summarized) and skip the methodology and

discussion sections. In their view, this yields diminishing returns why struggle through dense sections if a cursory approach yields the key points needed for class discussion or an assignment? While such pragmatism can sometimes suffice for short-term goals, it means students rarely engage with the nuances of an argument or the evidence presented. Over time, this habit can stunt the development of critical reading skills, as students do not practice analysing complex arguments or interpreting data within readings.

Contemporary students are also multitaskers by habit, which affects how they read. It is not uncommon for a student to read a few paragraphs of an article on their laptop, then switch tabs to answer messages or check social media, then return to the reading. This stop-and-start pattern breaks the flow of comprehension. Cognitive research shows that multitasking, or task-switching, impairs the ability to form memory of what one reads and to make inferences, because each interruption forces the brain to reorient to the text context again. Unfortunately, many students are so accustomed to constant connectivity that a fully isolated reading session (with the phone silenced and no internet distractions) is rare. One study noted that students appear to read in bursts and have difficulty sustaining attention on a text for more than a few minutes at a time a stark contrast to students a generation ago who might spend an hour or two straight on a chapter (Gallen et al., 2023). This behavioral change is partially voluntary and partially conditioned by the digital environment.

Despite these challenges, it is important to highlight that students do value reading in principle. When asked, they often express regret or concern about not reading more. Many know that reading deeply would help them understand the material better or contribute more in class. There is also evidence that when students find readings engaging or directly relevant to their interests, they are more likely to do them. For example, in courses where readings are shorter pieces tied to current events or tangible problems, participation in reading tends to be higher. This suggests that part of the issue may lie in the alignment (or misalignment) between traditional reading materials and the experiences or expectations of modern students. If a reading seems abstract or disconnected from what students perceive they need to know, they will question its relevance. A student might ask, Will this be on the test? or Why are we reading this? and if they do not get a compelling answer, they may decide not to invest the effort.

Additionally, the COVID-19 pandemic time (2020–2021) had a peculiar impact on student reading patterns. With online learning, numerous courses lightened reading burdens or moved wholeheartedly to e-texts, and teachers frequently simplified content knowing students were under pressure. Some students had more leisure time and in fact enjoyed more leisure reading (there are anecdotal accounts of college students reconnecting with reading for enjoyment during lockdown), but others fell further behind once the structure of being in a physical class that could keep them on track was removed. One study in China discovered that during the pandemic, university students did acquire more online reading habits due to necessity, but fragmentation and simplification issues were reported that meant students would read in pieces over time and look for simplified versions of material (Liu et al., 2022). Now, returning to face-to-face environments, those pandemic coping mechanisms might continue, with students now expecting more condensed, accessible readings.

Finally, one cannot ignore the effect of stress and mental health on reading behavior. College students today report higher levels of anxiety and stress than in past decades. Reading, especially difficult academic reading, requires cognitive bandwidth and a

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relatively calm, focused mind. A student dealing with anxiety or burnout may find it extremely hard to concentrate on a dense text, thus avoiding it and potentially falling into a vicious cycle of stress and backlog. In recent surveys, students describe feeling guilty about not reading but also overwhelmed by the sheer volume of material given in college (Hollander et al., 2022). This indicates that solutions must be empathetic acknowledging that pushing students to "just read more" without supporting them may not be effective. Instead, strategies that make reading feel more manageable, purposeful, and rewarding will likely gain more traction with contemporary students.

In summary, the current generation of college students approaches reading pragmatically: they weigh its immediate utility, often opt for shortcuts, and struggle to engage deeply due to habits shaped by the digital, multitasking world. Yet, they recognize the value of reading and can be encouraged to read more under the right circumstances. These observations will inform the action plan, which aims to reconnect students with deeper reading by addressing the realities of their behaviours and attitudes.

3. Methodology

3.1. Research Design

This investigation employed a qualitative integrative literature review approach, combined with a historical analysis of reading trends. Rather than conducting new experiments or surveys, the research systematically gathered and synthesized existing research and data to answer the research questions. The rationale for this design is that the topic spans both past and present requiring a look at historical data on reading habits as well as recent studies on digital reading. A literature-based approach allowed to collate a wide range of evidence, from large-scale assessments to cognitive studies, and interpret them in a cohesive narrative. This approach is appropriate for developing an action plan grounded in empirical findings and proven practices.

3.2. Data Sources and Collection

The study conducted comprehensive searches of academic databases, including Google Scholar, ERIC, Scopus, and PsycINFO, as well as reports from reputable organizations in education and literacy. Specific inclusion criteria were used, peer-reviewed articles, educational/governmental reports, and organizational releases that speak specifically to college reading patterns or online vs. print reading comprehension were included, while opinion pieces and non-academic sources were not.

Search Terms: The main search strings included "college students reading habits," "digital reading vs print comprehension," "reading trends over time," "reading assignments compliance," and "improving reading skills."

Timeframe: Sources published from 2010 onward were prioritized, with an emphasis on 2019–2024 for the most recent insights. Older seminal works were included when necessary to provide historical trajectory.

Corpus Size: Approximately 92 documents were initially retrieved:

- Journal articles: 58 (peer-reviewed, both qualitative and mixed-methods)
- Reports (education and literacy organizations): 18
- Policy papers / government documents: 6
- Credible news or commentary sources: 10

Screening: After removing duplicates and non-relevant items, about 50 sources were retained for closer review. From these, a refined set of 24 highly relevant sources was analysed in depth. The narrowing from 92 to 24 sources was informed by relevance to the research questions, quality of methodology (sample size, empirical orientation), and recency, to ensure only the most rigorous and representative studies were included.

A PRISMA-style flow figure is presented in the table below to openly record the identification, screening, eligibility, and inclusion of studies process.

Phase	Description
Identification	Records identified through database searching and reports (n = 92)
Screening	Records after duplicates and non-relevant removed (n = 50)
Eligibility	Full-text articles assessed for eligibility (n = 50)
Included	Studies included in final synthesis (n = 24)

3.3. Selection Rationale

- Journals provided empirical findings (e.g., large-scale surveys, cognitive studies).
- Reports offered longitudinal data such as Monitoring the Future and NAEP results.
- Policy documents framed institutional responses.
- Credible news/policy commentary provided recent observations of reading culture during the COVID-19 period.

Processing: Although the ultimate set consisted of 24 sources, this was not random cut-off, but instead the review employed a narrative synthesis method, which kept only those sources that most immediately addressed the study's aims. Evidence was grouped into recurring categories such as:

1. Historical decline in reading engagement.
2. Digital vs. print comprehension and cognitive effects.
3. Student behaviours and attitudes toward assigned reading.
4. Interventions and institutional strategies.

This transparent categorization ensured that different source types complemented one another, while maintaining focus on the three research questions guiding the study.

3.4. Research Analysis

The research reviewed the selected literature and data qualitatively, identifying major themes and findings related to each research question. Throughout the analysis, this study used a thematic synthesis approach: grouping evidence into themes such as "decline in reading for pleasure," "screen reading and shallow processing," "student attitudes toward reading," and "effective reading interventions." This helped to organize the findings coherently. Triangulation of different data sources was used to increase validity – for example, corroborating a trend by citing both a statistical study and a descriptive account from educators. The outcome of the analysis is a set of key findings that directly inform the proposed action plan. It should be noted that this study, while systematic in its search process, adopts the form of a narrative integrative review. The analysis drew on a broad range of relevant literature and historical evidence. This narrative approach ensured that key perspectives were not excluded and provided a comprehensive foundation for the thematic results presented in the next section.

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4. Results

4.1. Interpreting the Findings

Results of this review show a mix of technological, historical, and educational factors that have shaped the current reading skills of college students. There has been a clear shift from a time when reading large amounts of text was common to an era focused on brevity and quickness (Lurye, 2024). This change is marked by less reading overall (fewer books and articles read) and a decrease in reading quality (more skimming and less deep engagement) (National Center for Education Statistics, 2023). This trend coincides with societal changes, such as the surge of information and the rise of electronic media, which are likely among several contributing factors. Today's students encounter far more information daily than previous generations, but this information does not provide the deep, sustained reading experiences needed to build comprehension skills (Pramerta, 2024; The Education Trust, 2023). The literature review in this study highlights that this is not merely about today's kids being lazy; it reflects a broader change in how reading fits into daily life and learning. On the other hand, factors like increased academic demands, changes in assessment methods, and socio-economic pressures on students can also explain some of this decline. Recognizing this allows teachers to avoid misplaced nostalgia and instead focus on practical solutions (National Assessment Governing Board, 2025).

The report finds that digital media affects reading habits in two ways. On one hand, it offers an unmatched range of reading material. On the other hand, it seems to promote habits that oppose deep reading experiences. Research by Froud et al. (2024) shows that reading from screens leads to shallower cognitive processing. At the same time, Twenge et al. (2019) demonstrate that, for the population as a whole, screen time has gradually replaced reading time. The behavioral patterns of students, tracked by Gorzycki et al. (2020), reflect this shift: they often choose and discard information easily, mainly due to the convenience technology provides. The overall result is a generation of students who are good at finding information but not as skilled in thinking critically about it (Flaherty, 2025). This contrast is significant. In higher education, where combining ideas and critical analysis are key, this trend raises concerns (Flaherty, 2025). However, the impact of digital media isn't entirely negative. Other studies suggest that for linear or structured texts, digital reading is similar to reading print versions. Additionally, some students, such as those with dyslexia, find that e-readers with different features improve their reading experience (National Council of Teachers of English, 2022). The discussion should not just focus on criticizing screens, but rather on understanding these effects to prevent negative outcomes and leverage the benefits.

4.2. Theoretical and Educational Implications

The recommendations in the plan are derived from best practices noted in the literature. For example, integrating reading strategy instruction is supported by Horning (2024), who argued that critical reading needs to be taught explicitly as part of student success initiatives. Balancing print and digital finds support in studies like Baron and Goodwin (2021), which suggest that students often prefer print for serious study and comprehend better with it, even if they think they read faster on screens. The plan also emphasizes making reading relevant this resonates with motivational theory

and evidence that students engage more when they find personal or professional value in the material. The plan's stress on accountability (like quizzes or required annotations) is backed by decades of pedagogical research showing that assessment drives behavior; when reading is tied to something tangible, students allocate time to it. Meanwhile, leveraging technology (like collaborative annotation or distraction blockers) directly addresses the realities of how students interact with devices, turning potential foes into allies.

The discussion of implementation acknowledges that change will not happen overnight. However, small improvements can compound. If a student who used to never read starts reading 50% of the time due to quizzes and finds their grades improving, they may internalize the benefit and become more likely to read in the future without external prompts (Alonso, 2024). If campus culture begins to celebrate reading for instance, students see posters of influential leaders with captions about what books shaped them – the attitude shift can encourage more reading for personal enrichment, not just obligation (Vyse, 2025). Importantly, improving reading ability is not just about forcing compliance; it is about helping students experience the rewards of reading so that they become self-motivated readers.

Another perspective in this debate is the equity dimension. Deterioration in the practice of reading is worse in students who had lesser resources or support for reading in their early education (Horowitch, 2024). Any action plan should therefore be sensitive to bridging that gap. Interventions such as skill training and support are particularly helpful to students who may have been left behind by presuming college-level reading abilities. There is, in the literature, an acknowledgment that restoring some model of developmental reading assistance in colleges (which had been cut back in most institutions) could assist individuals who otherwise struggle in courses as a result of inadequate reading skills (Ávila Trujillo, 2018). Practical approaches to remove these barriers are phased implementation, in-service workshops for professional growth, and collaboration with campus libraries and learning centers to exchange knowledge and resources.

5. Discussion

This research takes the shape of a narrative literature review and historical synthesis. The patterns and relationships presented here thus arise from interpreting and comparing results across earlier studies, rather than from new data collection. Discussion therefore seeks to identify convergences, tensions, and gaps in the current evidence base, rather than make definitive causal claims. These readings should be understood to be an educated synthesis of existing scholarship that recognizes patterns and poses questions for future empirical inquiry.

While the action plan proposed is a systematized response to declining reading habits, its success is contingent on how far it is implemented in various settings of higher education. Higher education institutions differ in size, culture, and capacity to change, and therefore challenges such as constrained budget, teachers' resistance to curricular innovations, or students' indifference can occur. Therefore, apart from the following six approaches, the plan also focuses on contextual issues, required resources, and realistic ways of overcoming issues so that suggestions can be made feasible for implementation in order to achieve sustainability.

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5.1. Action Plan to Improve College Students' Reading Ability

Improving college students' reading ability in the digital age requires a multifaceted strategy that acknowledges both the historical decline in reading and the contemporary student experience. Implementation will differ between institutional settings: e.g., community colleges might focus on skills foundation workshops, whereas research universities could include discipline-specific reading seminars. Based on the insights gathered, this study proposes the following action plan consisting of concrete steps for educators, institutions, and students. This plan draws on evidence-based practices and aims to foster a culture of deep reading alongside digital literacy.

1. **Integrate Explicit Reading Skill Development into Courses:** Colleges should treat reading as a skill to be taught and practiced, not just an assumed competency. Instructors can dedicate class time or assignments to teaching students how to read effectively for example, demonstrating active reading strategies like annotation, summarizing paragraphs, questioning the text, and mapping arguments. By making critical reading instruction an overt part of the curriculum (especially in first-year seminars or writing courses), students build the tools needed for deep comprehension. Research suggests many students never learned these strategies in high school and benefit from guidance in how to approach complex texts (Ilyas, 2023). Embedding mini workshops on reading in courses signals that reading is a valued skill. Moreover, offering reading-intensive exercises (like having students write brief reflections or analyses of readings) can reinforce careful reading by linking it to course assessment. These efforts take institutional resources, such as faculty training, block instructional time, and availability of teaching assistants or reading specialists, to make them sustainable.
2. **Balance Digital and Print Reading to Develop "Bi-Literate" Skills:** To counteract the tendency toward shallow digital reading, educators may deliberately incorporate a mix of print and digital materials. Important or challenging readings could be provided in hard copy or recommended to be printed out by students. Wolf (2018) advocates for nurturing a "bi-literate brain," meaning the ability to read deeply in both digital and print mediums. By using printed books or course packets for certain readings, students get practice in the sustained attention that print encourages. At the same time, teaching students how to optimize digital reading is crucial for instance, instructing them on using apps that disable notifications while reading, or techniques like pre-reading (skimming headings) and chunking digital text into sections. The goal is to help students experience the benefits of print-based deep reading (like better retention and understanding) while also improving their capacity to focus on digital text when needed. Studies indicate educators should not throw away printed books entirely in education, as print still shows an advantage for depth of processing (Shibata & Omura, 2020). Thus, a balanced approach perhaps using print for intensive readings and digital for supplemental ones can enhance overall reading ability. Obstacles like teacher reluctance to make syllabus changes or thin budgets for making print versions available can slow adoption. Institutions might need to pilot small programs, find external funds, or offer incentives to teachers in order to get them to participate.
3. **Make Reading Assignments Manageable and Relevant:** Faculty should critically

evaluate the volume and relevance of assigned readings. Rather than overloading students with large quantities of material (which can lead them to give up and read nothing), it is more effective to assign a curated selection of high-impact texts and clearly communicate why each reading matters. When students see a direct connection between the reading and class discussions, projects, or their future goals, they are more likely to invest effort. For example, linking readings to real-world applications or class debates gives purpose to the task. In practice, this might mean updating reading lists to include more contemporary, diverse voices or case studies that resonate with students' interests. It can also involve explicitly framing each assignment: a professor might say, "*Read this article because next class we will use its theory to analyse our case study*" – thus priming students to read with that purpose in mind. This addresses the common student question: "*Why do we need to read this?*" If the "*why*" is answered, compliance and engagement improve. Additionally, chunking readings into smaller sections with interim deadlines (e.g. discuss half an article in one class, half in the next) can prevent procrastination and overwhelm, helping students digest material gradually.

4. **Leverage Technology to Support, Not Replace, Reading:** Instead of fighting technology, educators can harness it in ways that promote better reading habits. For example, there are digital platforms and apps designed to aid reading comprehension tools for collaborative annotation (like Perusall or Hypothes.is) where students can highlight and comment on texts socially, or e-readers that track reading time and provide summaries of time spent. These can gamify the reading process and build a sense of accountability to peers. An instructor might assign an article on a collaborative annotation platform and require each student to post two comments or questions in the text; this encourages careful reading and allows the instructor to gauge understanding in real time. Additionally, teaching students about digital note-taking (using OneNote, Evernote, etc.) or citation management tools can make engaging deeply with texts feel more rewarding and efficient. The key is to demonstrate that technology can be an aid to active reading rather than a crutch for avoiding reading. For instance, showing students how to use text-to-speech to listen while reading along can help those who are slow readers, and using online dictionaries or encyclopaedias to quickly look up unfamiliar concepts can enhance comprehension rather than tempt students away from the text. By consciously modelling these supportive uses of tech, educators steer students away from the purely passive consumption mode that often accompanies screen reading.
5. **Cultivate a Reading Culture on Campus:** Beyond individual courses, institutions should strive to create an environment that values and enjoys reading. One idea is to establish reading communities or book clubs that align with student interests (e.g. a sci-fi literature circle, a social issues reading group). These give students a venue to discuss readings informally and share recommendations, making reading a social as well as academic activity. Universities can host events like Common Read programs, where all incoming freshmen read the same book over the summer and then engage in seminars about it – this sets an early expectation that reading is part of the collegiate experience. Libraries and learning centres can contribute by curating displays of popular fiction and non-fiction for leisure reading, recognizing that any reading practice (even outside one's coursework) can bolster reading ability and vocabulary. Some colleges have experimented

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with “Drop Everything and Read” initiatives or designated quiet reading hours in dorms, signalling institutionally that carving out time for reading is important (Amato, 2024). While not all students will jump on board immediately, these cultural cues can gradually shift attitudes. When students see peers reading for pleasure or hear faculty talk about books they enjoy, it normalizes reading as more than just an assignment it becomes a valued part of personal and intellectual life.

6. **Provide Support for Struggling Readers:** Not all college students arrive with the same level of reading preparation. Those who have dyslexia, ADHD, or simply weaker backgrounds in vocabulary and reading comprehension may find college readings especially daunting in the digital age. Colleges should offer support services such as reading tutors or workshops through academic success centres. For example, a workshop might cover “Strategies for Reading Scholarly Articles,” walking students through how to break down an academic paper’s structure, or “Tackling Heavy Textbooks,” teaching SQ3R (Survey, Question, Read, Recite, Review) and other techniques (Aguayo Guamán, 2025). Similarly, disability services can ensure students who need accommodations (like audiobooks or extra time to read) receive them without stigma. By proactively helping those who struggle, students can be prevented from falling into the habit of giving up on readings. This also ties into mental health – overwhelmed students might need coaching on time management specifically for reading (scheduling short reading blocks with breaks, rather than cramming) to reduce anxiety. The message should be that it is okay to find reading challenging, and that with practice and support, improvement is possible. This growth mindset, reinforced by seeing progress (for instance, a student understanding a full chapter that seemed impossible a month ago), can boost confidence and willingness to engage with difficult texts.

All of these action plan steps work together. The general idea is to meet students where they are and help them progress to where teachers want them to be as readers. Students used to read because it was required and there were few options. Now, teachers can focus on boosting motivation and reading skills. By using these tactics, teachers can help students rediscover their interest in rich, deep reading despite the distractions of the digital age. Success will be measured not just by better grades and more meaningful class discussions, but also by students recognizing the value of reading. They have seen success in both practice and research. For example, daily reading quizzes in class raised completion rates and improved test scores (Marshall, 2024). Schools that brought back quiet study spaces and print materials found that students reported better concentration. These are all encouraging signs that the decline in reading is not unavoidable. With a careful plan of action, teachers can help a generation of college students regain strong reading skills. This will empower them to think critically about the world and become informed citizens.

5.2. Broader Educational and Societal Implications

It is also useful to connect the findings to broader educational outcomes. Strong reading ability underpins success across virtually all academic domains. When students read better, they write better, they contribute more in class, and they can teach themselves new material more effectively. On the flip side, poor reading habits can hamper critical thinking development. The ability to parse arguments, evaluate

evidence, and detect nuance comes from practice with reading such content. If students mostly consume simplified summaries, they may lack exposure to the complexity of original scholarly or literary works. Thus, improving reading is foundational to the mission of higher education to produce informed, critical, and creative thinkers. The action plan, though focused on reading, likely has positive ripple effects: for instance, fostering empathy (through reading diverse narratives), improving concentration (which will benefit studying in general), and reducing over-reliance on potentially unvetted sources (a well-read student is more likely to discern quality information).

5.3. Challenges and Future Directions

Implementing these recommendations will face challenges. One is student buy-in – how to convince students who are already pressed for time that they should devote more effort to reading. Part of the solution is showing them the relevance and giving small incremental successes. Another challenge is faculty buy-in; some instructors might resist reducing content coverage in favour of skill-building, or they might be uncomfortable trying new methods like collaborative annotations or reading quizzes, worrying it could "dumb down" their course. Professional development and sharing success stories among faculty can help overcome this, by highlighting that fostering better readers ultimately elevates the level of class discourse and learning.

A direction for future research suggested by the literature is to investigate the long-term impact of combined interventions on reading habits (Singer Trakhman, Alexander, & Berkowitz, 2019). For example, if an institution adopts our action plan, it would be valuable to track if cohorts of students show improvement in reading comprehension tests over their college years, or if retention and performance improve because students are more engaged with coursework. Another area is exploring personalized approaches with AI and analytics, could educators tailor reading support to individual student patterns (for instance, an app that gently nudges a student when it detects they have not opened the reading or that quizzes them in a custom way)? Future studies might also examine how reading habits formed in college carry into professional life. Will today's skimming students struggle in careers that demand reading and digesting reports or research? Some evidence in professional domains (like business and medicine) suggests yes thus reinforcing that colleges should intervene now to prepare students for those demands.

Reading difficulties among college students are significant but not impossible to overcome. By reflecting on past experiences and recognizing how the reading environment has changed, we can use current knowledge from cognitive science and teaching methods to improve deep reading practices. This skill is essential for academic success and civic engagement. The following action plan serves as an initial guide that will need ongoing adjustments and dedication. However, it provides a foundational approach to counter the decline in reading and help students navigate the digital age while still benefiting from reading deeply and effectively.

6. Conclusion

This study tried to identify how university students' reading habits have changed in the digital age and how to improve their reading skills. The review highlights repeating trends seen in other studies. Over the past few decades, students have significantly decreased their amount and depth of reading. The rise of digital technology has made this worse. It

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offers faster, easier ways to get information, which are often less thoughtful. Many college students today complete their coursework by using reading methods that would be hard to imagine for students of the previous generation. They quickly skim through texts, skip chapters, and even rely on videos and summaries for more complex tasks. Research from campuses and national studies points out that if these trends continue, critical thinking, analytical writing, and the professional readiness of graduates could suffer.

With every challenge comes an opportunity for practiced creativity. The action plan described here covers drastic curriculum changes and significant culture shifts, all aimed at improving a culture of close reading. The shared belief among these individuals is that reading skills need to be intentionally developed. Students in science labs or art rooms, just like those using advanced textbooks, have to be taught how to navigate these materials. Additionally, the plan aims to establish a reading culture through various social and technological adjustments that continuously change how students learn. It addresses digital communication in its pursuit of balance. Instead of choosing between screens, this approach encourages students to be adaptable and skilled in both print and digital media.

This research supports a broader movement in education that fully recognizes the need to balance technological advancement with the preservation of basic cognitive habits. As noted, some education systems have started to reintroduce print and silent reading time after seeing the hazards of over-digitization. The action plan is consistent with these observations, promoting deliberate hybridity that leverages digital resources without undermining the cerebral habits print reading fosters.

The reading capacity of college students can indeed be developed by learning from the past and adapting to the present. It will require a collective effort: instructors who design and implement teaching methods that support reading, administrators who facilitate and encourage reading initiatives, and students who are willing to step out of their comfort zones to rebuild their attention spans and curiosity, page by page. By adopting the given action plan and continuously refining it based on feedback and research, higher education institutions can ensure that their graduates in the digital era are not only familiar with technology but also capable and close readers. These graduates will be able to absorb complex concepts, challenge them, and propose new ones — exactly the kind of bright minds society needs in an era when both information and understanding are in short supply.

6.1. Limitations and Future Research

While this study offers a thorough analysis of the issue and a proposed action plan, certain limitations must be acknowledged. First, the research is based on a literature review and synthesis, not original empirical data from researcher's own intervention. This means the recommendations, although grounded in existing research, have not been tested as a unified program in a real college setting within this study. A further limitation is the possibility of selection and publication bias, as the included studies may overrepresent particular regions, methodologies, or positive results and underrepresent null or contradictory findings. The effectiveness of the action plan as a whole is inferred rather than directly measured. Future research could implement these strategies at an institutional level and use experimental or longitudinal methods to assess outcomes – for example, comparing reading comprehension gains or course performance between students at colleges that adopt these measures and those that do not (Deale & Lee, 2022). In addition to comprehension tests, assessments in the future should also capture

changes in students' attitudes toward reading, self-reported interest, staying with longer texts, and disciplinary variation in reading strategy application. Such studies would provide stronger evidence of causality and allow refinement of the plan.

Another limitation is that the study largely treated "college students" as a homogeneous group, but there are important differences by discipline, academic level, and individual background. STEM students, for instance, might engage with texts (e.g., problem sets and technical manuals) differently than humanities students engage with novels or theory. Within the sources, some were skewed toward humanities courses (where heavy reading is expected) and others toward general education. The action plan is meant to be broadly applicable, but certain elements might need tailoring. Future studies could investigate discipline-specific strategies for example, does guided reading work better in social science courses versus flipped classroom approaches in science courses? Additionally, investigating how factors like prior reading proficiency, language background (for ESL students), or learning differences interact with these strategies would help in customizing interventions.

Finally, rapidly evolving technology means that some challenges and solutions will change. For example, the rise of AI like ChatGPT in 2023–2024 presents new questions: Will AI become a crutch that further reduces student reading (by doing the "understanding" for them), or could it be harnessed to enhance reading (by serving as a tutor answering questions about a text)? This research review included initial observations of AI usage, but this is an area ripe for more research. Future work should closely monitor how new technologies affect reading behaviours and update the action plan accordingly. Perhaps AI can be part of the solution for instance, an AI system that quizzes students interactively on readings or helps them generate summaries to check their understanding could be beneficial, if used ethically. There is room for innovation in that space, and research should guide how to integrate technology in a way that complements deep reading rather than competes with it.

In summary, this study offers a detailed look at the issue of declining reading habits and suggests a way to respond. However, it should be seen as a starting point for more research. The challenge of keeping strong reading skills in the digital age is complex and changes over time. Ongoing research, especially studies focused on interventions, will be essential to refine the methods that really improve students' reading skills and, in turn, their overall learning. Finally, the effects of this research extend beyond the classroom. Improving deep reading skills impacts civic engagement, lifelong learning, and job readiness. Future research should not only consider classroom results but also how better reading skills support students' overall academic and social growth.

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