

# TECHNOLOGY BETWEEN NEEDS AND OPPORTUNITIES IN LANGUAGE PRESERVATION AND READERSHIP IMPROVEMENT

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## ABSTRACT

There are some questions about the relevance and usefulness of the efforts to expand, enrich, and preserve these collections to society at large, despite the fact that the number of digital collections has been growing steadily and through a variety of techniques. These issues necessitate explanations and debates of how research initiatives and techniques used in digital libraries enhance the quality of human life in all areas, including education, business, socialization, public administration, culture, and the humanities. These inquiries also set off a hunt for brand-new approaches to creating, organizing, analyzing, and storing digital collections as well as for providing cutting-edge services in a complicated, connected, and dynamic environment that affects our daily lives.

**Keywords:** digital, language, literature, reading, preservation.

## INTRODUCTION

Data is viewed as the most important resource in the world and the foundation of all study (Borgman, 2012). It can be in any form, including text, sound, still photos, moving images, models, games, simulations, and organized databases. (Borgman, 2015). Studies demonstrate a number of advantages to sharing research data. Governments and organizations that fund research are therefore promoting open access and sharing of research data more and more, particularly when such data are produced through publically sponsored research. All of this is extremely wonderful, but the open access and sharing of data cannot completely materialize until researchers and other interested parties can locate and use data as and when they require it and with tolerable ease. The majority of research data repositories use the same or slightly modified versions of text retrieval engines for data retrieval because data retrieval systems are still in their early stages of development. (Borgman, 2015). It is impossible to expect ordinary text retrieval engines to adequately adapt to research data since the essential qualities of research data and the manner in which its users interact with it differ significantly from those of research papers. (MacMillan, 2014). The task of tagging datasets is frequently more difficult than tagging text, and unlike the indexing of research papers by services like Web of Science, the indexing of research datasets is not standardized or controlled. The inability to adequately contextualize data for discovery and reuse using standard metadata and description is one of the major problems with data retrieval. (Wallis, Rolando, Borgman, 2013).

## CLASH OF METHODS

Very little study has been done to compare how different teaching methods influence reading comprehension in children with individual differences—the thousands who are failing. Given the gravity of the situation, most younger children would be considered functionally illiterate in a few years if things continue as they are. They will read, but not with the necessary comprehension or depth of thought and emotion.

With these illiterate children in the forefront of our thoughts, the hybrid approach—physical and digital—to developing a biliterate brain needs to be much more carefully explored for primary schools. This calls for extensive, rigorous research, starting with studies that specifically address the effects of various media on children's attention and memory, the effects of children spending an increasing amount of time on digital devices while simultaneously becoming more distracted, the rising risk of addiction among our children, and the already

noted decline in empathy among young people. We must have a solid understanding of what works best for various learners at different stages of development. We need publishers and designers to build digital breakthroughs that are as intellectually successful as they are engaging, and we need scientific confirmation that this is the case. We also need parents, educators, and political leaders to demand such studies.

What are the chances that this will succeed in two mediums if many kids struggle to become proficient readers in only one? Will biliteracy prove to be yet another barrier to their success dependent on their class? How is it possible to assign instructors yet another onerous task?

Today, more than ever before, there are more causes for optimism. First, the new research has revealed that there are six or seven basic early reader profiles, which makes it much simpler to identify problem readers and assess them earlier. Then, teachers may more effectively adapt their lessons to the needs of various pupils. Digital media may in the near future completely alter the course of education. For instance, the majority of dyslexic children need up to 10 times more exposure to the letter-sound correspondence rules and frequent letter patterns of English than a teacher in a classroom of 25 students, regardless of grade, can easily supply. The adoption of the digital medium would change everything for those kids. Consider what would happen if those students who were having trouble reading were given the opportunity to practice letter patterns and rules either the day prior or the morning of the session. Using a digital medium in this way could give them the multiple repetitions they need and possibly showcase their frequently underutilized creative strengths, which would defuse the negativity that children with dyslexia frequently, unfairly, endure. This is important because children with reading challenges can easily feel like something is "wrong" with them.

Additionally, some kids will never make effective screen readers and will always favor print, and the opposite is also true. Julie Coiro's excellent study examined seventh-graders' preferences for reading. Her most interesting finding was that, frequently, the best print readers were the worst internet readers, and vice versa. It's feasible that certain children with dyslexia would benefit more from early adoption of digital reading, regardless of whether this finding already reflects the formation of two distinct reading circuits in older children today or an underlying learning difference.

## **DIGITAL VS PRINT**

Using digital technology to give kids the most exposure to the sounds, grammatical structures, and meanings of the words they read in a variety of contexts would undoubtedly be beneficial for both teachers and students.

Digitally interactive books, audiobooks, and carefully selected video games are helpful complementary media for somewhat older kids who are still struggling to learn to read and for whom books have become hated objects. (Vaughn, Wexler, Leroux, et al., 2012). According to the growing body of research on video games, some children's success in them not only improves their visual attention and hand-eye coordination, but also subtly promotes learning to read when it's necessary to succeed.

The teaching staff at Newgrange School, led by neuroscientist Gordon Sherman, uses a variety of digital technologies to pique and hold the interest of its older students, many of whom have a variety of learning issues. One of the most significant contributions of modern instructional technology may be the ability to draw on the inherent creativity of our different learners.

The introduction of educational technology into US schools has demonstrated that nothing about this is simple. When compared to traditional classrooms, meta-analyses of research looking into the integrated use of various digital devices in the classroom show significant but relatively small improvements in reading, math, and science achievement for elementary and high school students. (Wolf, 2014). Teachers' lack of interest is not the cause of this. According to a 2017 survey on the usage of educational technology, two-thirds of US teachers are actively using some sort of technology in their classrooms, but they feel the need for further assistance and training, as observed by publishing CEO Rose Else-Mitchell.

Given the cognitive impact of digital media, which we are only now beginning to understand, the dearth of professional development and support for teachers, and finally the great lumbering elephant in the room of all educational technology research: the digital access gap, it is highly likely that the use of digital media in the classroom has not yielded impressive results to date.

## **A MATTER OF OPPORTUNITIES**

If we are sincere about leveling the playing field for young students, we must confront the intricate link between inequality and digital access. A sizable percentage of kids live in homes with hardly any books and have little to no access to other digital gadgets than their overly-used cell phones. Robert Putnam and James Heckman claim that there are an increasing number of families living in disadvantaged conditions. (Wolf, 2014). They do not have the luxury of fretting about whether their kids are reading too many improved e-books or getting too much exposure to the digital world. They don't have either computers or books.

The remark that "use of the computer may have widened the writing achievement gap" can be continued. Children who read fewer books have distinct vocabularies and experiences with stories and storylines that other kids have read for a long time. (Wolf, 2014). In computer-based assessments, which many parents, teachers, and this author would approach with mixed feelings, children who have less exposure to digital gadgets and computers have a harder difficulty typing and far less practice utilizing a digital medium to record their thoughts. Both the frequently mentioned achievement gap and the less frequently acknowledged digital culture divide need to be addressed if we are to create a code-switching reading brain for every one of our kids.

Victoria Rideout and Vikki Katz describe a survey of more than a thousand low-to-moderate-income families in their excellent paper, "Opportunity for All?: Technology and Learning in Lower-Income Families." There are two different types of digital gaps in these families: one has to do with access to digital tools, and the other, according to researcher Henry Jenkins, has to do with participation, where parents have little ability to offer either guidance or high-quality apps, leaving kids to be more entertained than helped in their educational lives. (Wolf, 2014).

This study made it evident that while the majority of the families examined were digitally linked in some form, many solely utilized their cell phones, the majority of which were misused and used more data than they were supposed to. Only 6% of the families have registered for the (in theory) subsidized services for low-income families. In their conclusion, the authors stated that "access is no more just a yes-or-no question. The quality of a family's Internet connection and the types and capabilities of the devices they have access to affect both parents and kids in significant ways.

Simply having access does not guarantee that a child will be able to use digital gadgets effectively. In their report on a project within Philadelphia libraries, Susan Neuman and Donna Celano discussed one of the most depressing studies about digital access to date. The study's lofty goal was to look into the consequences of giving underprivileged kids and families access to books and the internet through libraries. The findings were contrary to all expectations: giving underprivileged children access to digital tools alone could have negative consequences if parents did not become involved. (Wolf, 2014). In that study, the children performed noticeably lower on literacy exams than other kids did, and the gaps between the groups widened as technology devices were introduced, especially when the kids used them for enjoyment.

## CONCLUSION

Digital learning's benefits cannot be boiled down to exposure or access problems. Many well-meaning technology professionals still believe that simply using a computer will cause significant synaptic growth in learning, including literacy. Such ideas stem from the well-intentioned but ultimately overromanticized belief that children's natural curiosity will drive learning and literacy. Although amazing, fruitful, and essential, curiosity and discovery are insufficient. Without learning anything about how to become literate, kids can learn a lot about digital literacy.

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