



Typography and Children

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Discussing the Role of Typography in Children's Educational Books and its Impact on Learning.

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Abstract:

More than a century after the encyclopedia for adults gained popularity, Arthur Mee published the first ever encyclopedia for children - 'The Children's Encyclopædia'. This advancement in the ocean of knowledge manifested the future of educational books for children and the ripple effect spread far and wide. This research attempts to focus on displaying the emphasis on the expression of concepts that can be achieved through effective and appropriate usage of Playful Typography. Referring to some of the most efficacious work done in synthesizing complex information suitable for children.

With the advancement in education and educational systems, effective information visualization has become more important than ever before. The pace of knowledge transfer has increased substantially, thus demanding a sharp learning curve from children of all ages. While this can be extremely challenging and strenuous at a young age, this research focuses on observing whether playful and effective typography can help children in grasping and retaining information more easily.

Key words: *Comprehension, Children, Educational Books, Playful Typography.*

1. Introduction

In the context of Children's books, images and visuals loom large when engaging the reader's attention. Educational books at a school level also make the best use of illustrations to support text which ensures that students understand certain concepts easily. However, effective usage of typography in educational and informational books for

children is vital for their comprehension. Just as poems, for children, are easier to read and memorize than prose as they are interspersed at regular intervals with rhymes that lend a rhythm. The rhythmic/playful nature of Type can also aid their learning. The well-known ways in which prosody is visualized in typography are in the punctuation of normal typefaces, and in phonetic transcription in comic books (Bessemans, Renckens, Bormans, Nuyts & Larson, 2019). This research brings to light the idea that although images are rudimentary, some experimental-type projects have explored different approaches to visual prosody and gained popularity, evident first in the 1920s. Parallels can be drawn in contemporary typographical work by typographers like Hansjörg Mayer and Sam Winston and the playful impact it created on the current landscape of typography.

2.1 Tracing the origins of rhythm

If one looks back in the effort to search where Type derived its fluid qualities, poetry comes to the rescue. Paul van Ostaïjen who was a modernist Flemish poet and writer, in collaboration with Oscar Jespers produced poetry layouts in *Bezzete Stad* (1921 - Typographic Expressionism) that are some of the early attempts of breaking away from the rigidness in type, bringing a sense of dynamism with meaning and making the content playful. Before this period, similar attempts with 'Concrete Poetry' can be seen in George Herbert's "The Altar" and "Easter Wings" in the 17th Century. This attempt to endow typography with the fundamental characteristic of fluidity in Poetry, also sometimes referred to as 'Visual Poetry' made a mark on the readers and its influence can be seen in many pieces of work for children. Some layouts in the 'Book of Knowledge', an encyclopedia aimed at juveniles, first released in 1912, can be seen to include layouts that made an attempt to break away from the monotony of text that was otherwise the norm.

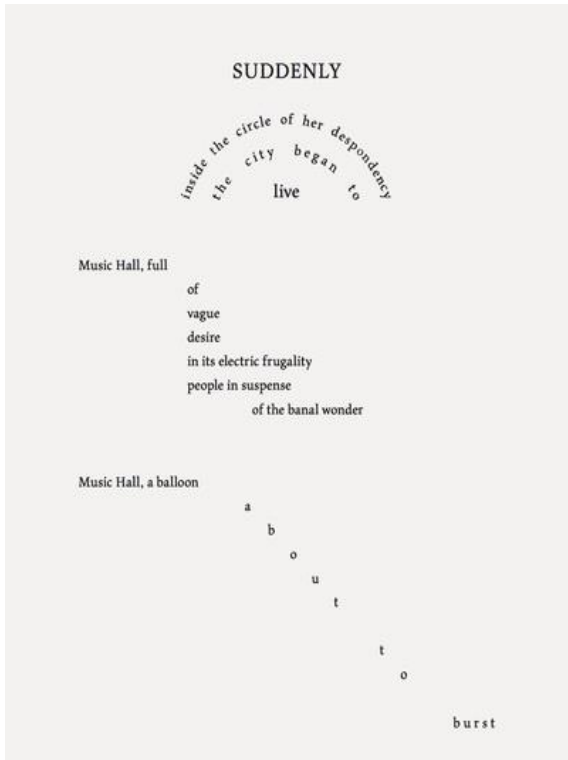


Figure 1: 'Concrete Poetry' by Oscar Jespers.

This is the English translation of the original Dutch work

Image Source: modernpoetrytranslation.com

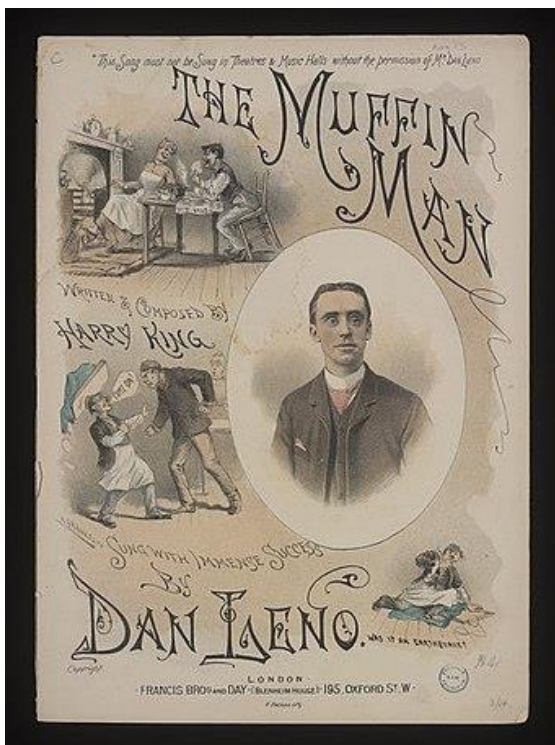


Figure 2: Sheet music for Harry King's setting of the Song performed by Dan Leno (1889).

Image Source: <https://collections.vam.ac.uk>

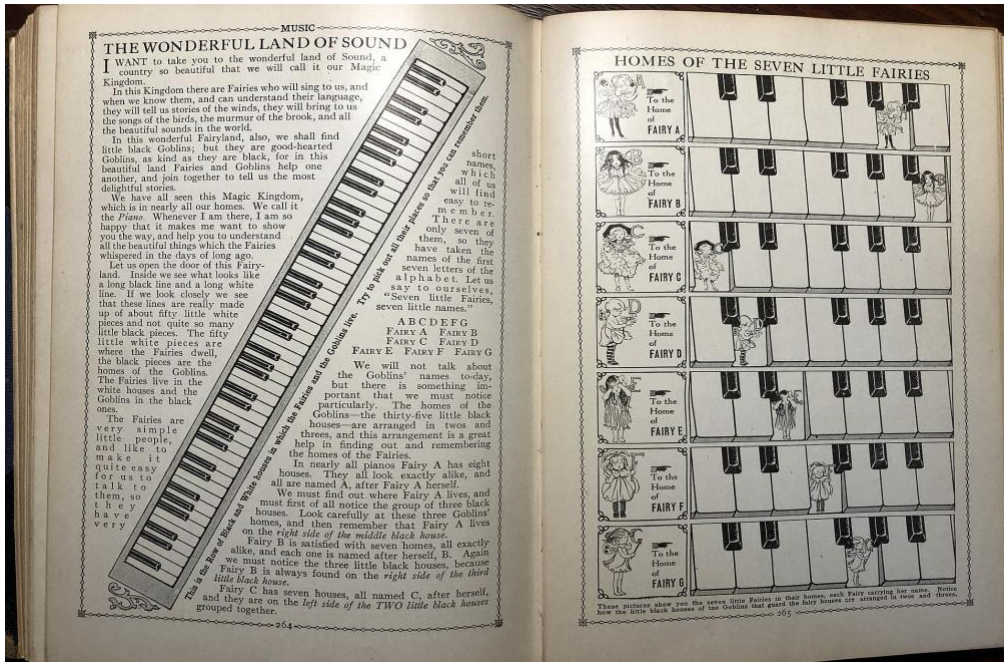


Figure 3: A spread from 'The Book of Knowledge'. Image Author: Randal Oulton, own work.

German Artist and Publisher Hansjörg Mayer published his first Concrete Poetry portfolio in 1964 which he calls 'Typoems' an enthralling and playful approach towards typesetting. He considered printing presses his playground and produced several series of concrete poetry, books, posters, videos and records that gained him immense popularity.

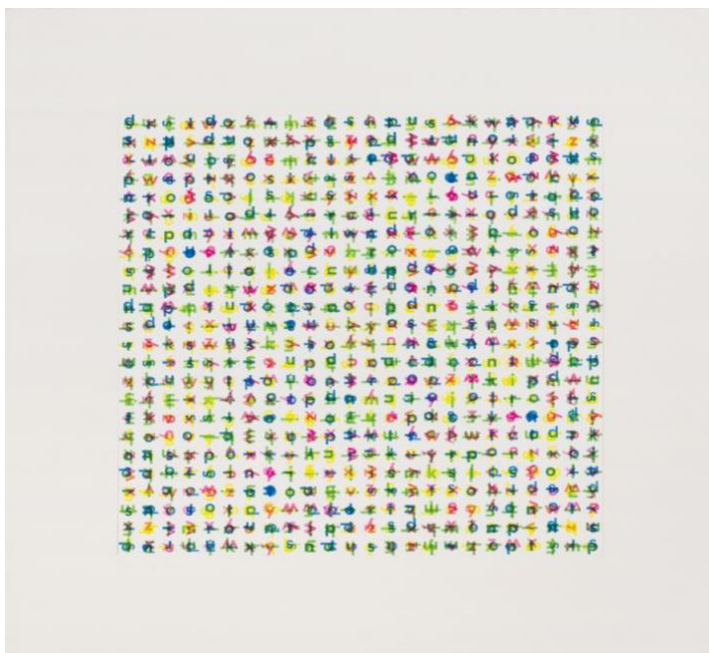


Figure 4: 'Typoem' by Hansjörg Mayer. Image Source: www.zkm.de

Another case in point for discussion in this context is the work done by Spanish artist, designer and sculptor Javier Mariscal. Mariscal's work is not only celebrated with great respect but also proves to be an exceptional reference point for designers and typographers as it displays interesting playful forms, colours, and possesses a peculiar identity. In the anthology 'Typography Sketch Books' put together by Steve Heller & Lita Talarico, Mariscal is mentioned to be perpetually drawing. Not only visuals but letterforms as visuals. Mariscal says, "For me, it's (drawing) the only way to understand reality because I have my problems, probably because I am dyslexic without ever having been diagnosed. If I want to know what a coffee machine is and how it works, I first have to draw it." This does not just come from a problem-solving approach towards design but also gives us an insight about designing type playfully for children - that it has to come from a space of making their lives easier and more fun. Mariscal's 'Señor Mundo and Me: A Happy Birthday Story' is a great book to educate children about the wonders of the universe. The typefaces Mundo Sans, Mundo Romana, Mundo Moderna (1994) and Mundo Demibold (1996) possess the perfect amount of playful and casual characteristics while keeping the legibility intact for kids reading.

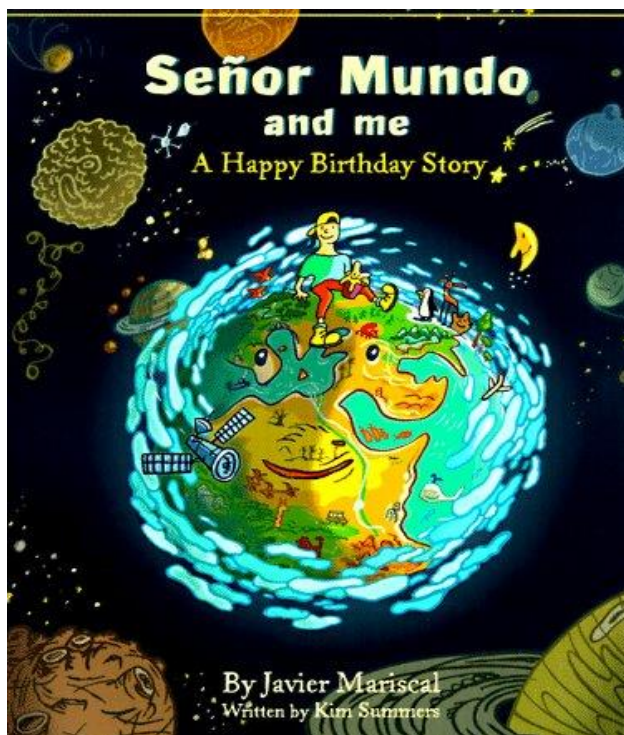


Figure 5: 'Senor Mundo' By Javier Mariscal. Image Source: www.publishersweekly.com

2.2 Finding rhythm in contemporary work

Sam Winston's practice is to do with language; his work is considered a carrier of words and forms. It is an interesting way of engaging children with images and mainly text which is a favourable condition for their learning. Text in Sam Winston's work not only floats, plays, twirls and whirls on the spreads of the books that is not only amusing for children to engage with, but also allows them to look at text from a very different perspective. As opposed to the common conception about text among children, heavy text equals boredom. A notable example of this is 'A Child of Books' (2016), Sam Winston's work in collaboration with Oliver Jeffers. Engaging children with this book is a great way to educate them about life.

B. J. Novak's hilarious 'The Book With No Pictures' is another example of how text if put in a certain way can bring laughter and delight. It is not a picture book that evokes certain kinds of feelings in the viewer's mind, instead, it makes one read, pronounce and make the sounds that don't make sense but teach the power of words to children at a young age. There is scope for producing this kind of work with words and text in vernacular languages in India. This opens up opportunities to engage children with their roots, to sensitise them to the Indian scripts in today's changing landscape of vernacular languages.

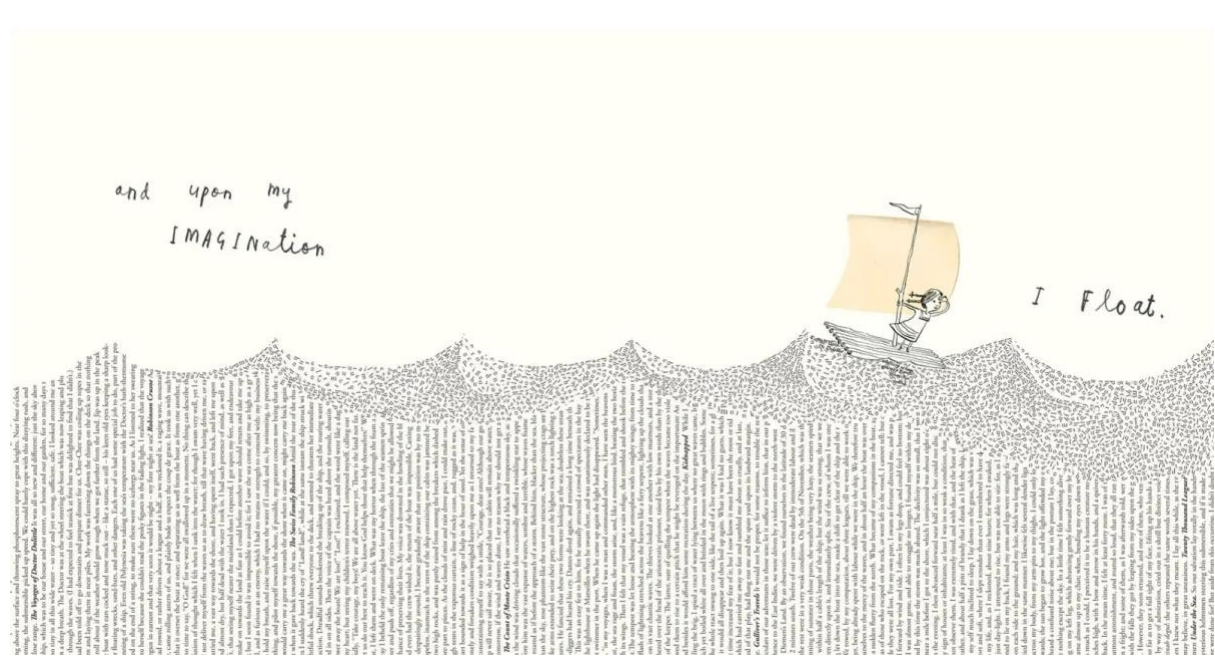


Figure 6: Spread from 'A Child of Books' by Sam Winston & Oliver Jeffers.

Image Source: www.samwinston.com

2.3 Encouraging experiments

Knowing the structure of typography that is governed by certain rules is a must, however, breaking away from them can sometimes result in playful yet meaningful explorations that can be taken forward to produce compelling work. Students who choose to work with Typography create numerous iterations while exploring the given briefs that can be categorized as playful and experimental. Here are some examples of students' work that has the potential of turning into real-life projects:

The brief for this project was to explore words with onomatopoeia, palindromes and anagrams and to create interesting and (possibly) legible type compositions with the chosen words.



Figure 7: Postcard created with the type-composition for the Onomatopoeia of the sound of cutting. Student: Rohan Parameshwar. Undergraduate student 2021. Srishti Manipal Institute. Course: Experimental Typography



Figure 8: Postcard created with the bilingual type-composition for the Onomatopoeia of the sound of punching. Student: Rohan Parameshwar. Undergraduate student 2021. Srishti Manipal Institute. Course: Experimental Typography

Students have also worked with motion graphic + typography to create kinetic typography videos. Screens promise a huge impact on children's learning, comprehension and growth. Kinetic typography takes text beyond conventional forms and ways of displays. Moving images have always proved to be more engaging, especially to keep up with the diminishing attention span of children from an early age.

https://www.youtube.com/watch?v=XOdAqYORhAA&ab_channel=IndranilChakraborty

Student: Indranil Chakraborty. Music + Kinetic Type Exploration. Undergraduate Student, 2021. Srishti Manipal Institute. Course: Experimental Typography

https://www.youtube.com/watch?v=DyrCkUfP7Ak&ab_channel=DeviShrutiPippara

Student: Devi Shruti Pippara. Music + Kinetic Type Exploration. Undergraduate Student, 2021. Srishti Manipal Institute. Course: Experimental Typography

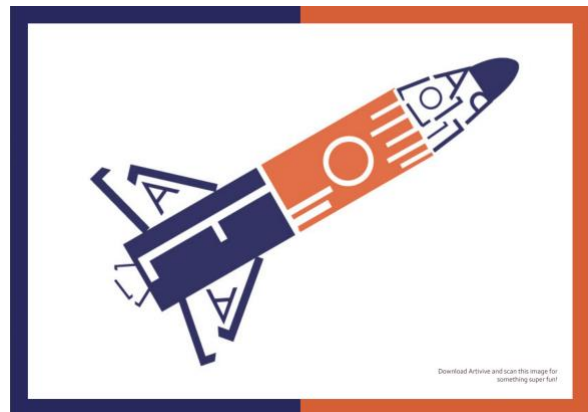


Figure 9, 10, 11 (clockwise) Student: Akansha Sain. Interactive Type Composition using Artives application. Undergraduate Student, 2021. Srishti Manipal Institute. Course: Form & Meaning (Typography + Print Production)

3. Collating the bits

Type has evolved considerably in terms of form, function and expression when it comes to encyclopedias and other educational books. A comparative analysis of four such specimens from different time periods ('The Miracle of life' Edited by Harold Wheeler, 1964. 'The

Orbis Encyclopedia of Birds of Britain and Europe' Edited by John Gooders, 1978.

'Withaker's World of Facts' by Russel Ash, 2009.) gives us an understanding of how type evolved and what impact it has on learning. Some observations from the comparison:

- Characteristics of typeface used for Title and Body Text - Sans serif started being popular from late 90s. Earlier than that, serif typeface can be seen prevalent.
- With the advancement of CMYK printing systems, encyclopedias started colour coding the content. To begin with, index was clearer than before, because of the colour coding used in text setting. Leading and spacing was also consciously looked at.
- By Early 2000s, content was spread out well with the usage of bullet pointers, sections and modular grids as opposed to the typesetting in the books from mid 90s. Thereafter, two column grid was prominently used.
- A significant change in the characteristics of letterforms can be seen in the newer encyclopedias and other educational books. Not only do they mimic handwritten style, but they are also more legible, appealing and leave a mark (as children relate with the style more, as opposed to the typesetting and typefaces in the old books where there was no difference between Type for adults and Type for children.)

Size variation, a greater number of styles designed for a single typeface etc. are some more characteristics of newer fonts that are specially designed to efficiently communicate with children.

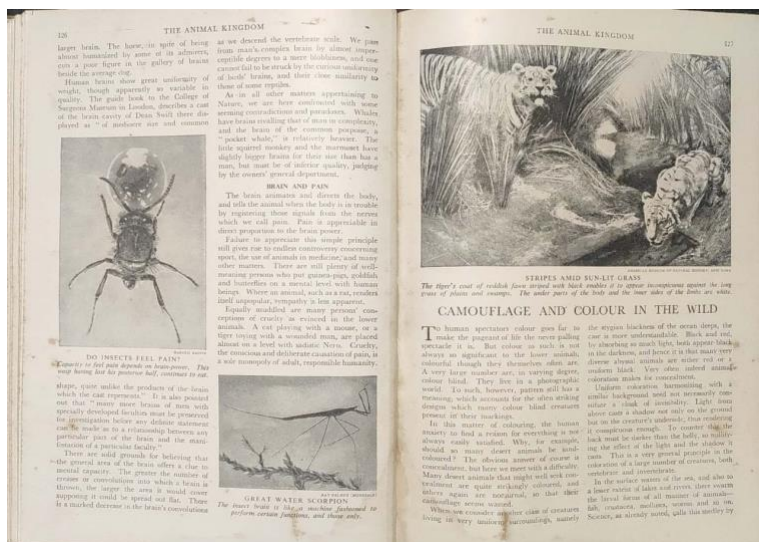


Figure 12 (Left): Spread from 'The Miracle of Life', 1964.

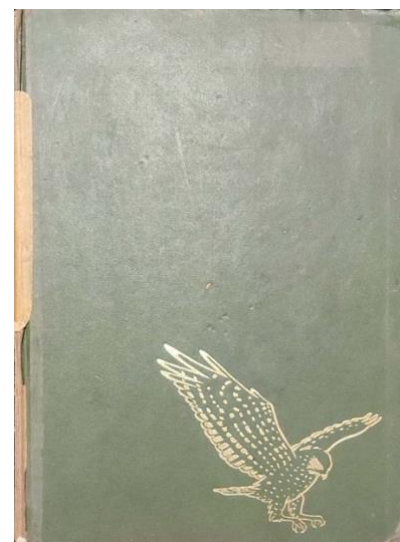


Figure 13 (Right): Cover of the book - 'Birds of Mountain & Moorland', 1978.



Figure 14: Spread from 'Birds of Mountain & Moorland', 1978.

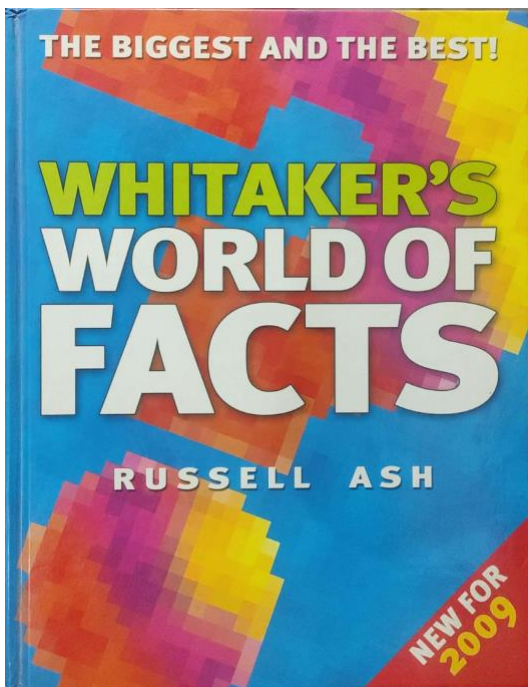


Figure 15 (Left): Cover of the Book 'Whitaker's World of Facts', 2009.



Figure 16 (Right): Page from the book 'Whitaker's World of Facts', 2009.

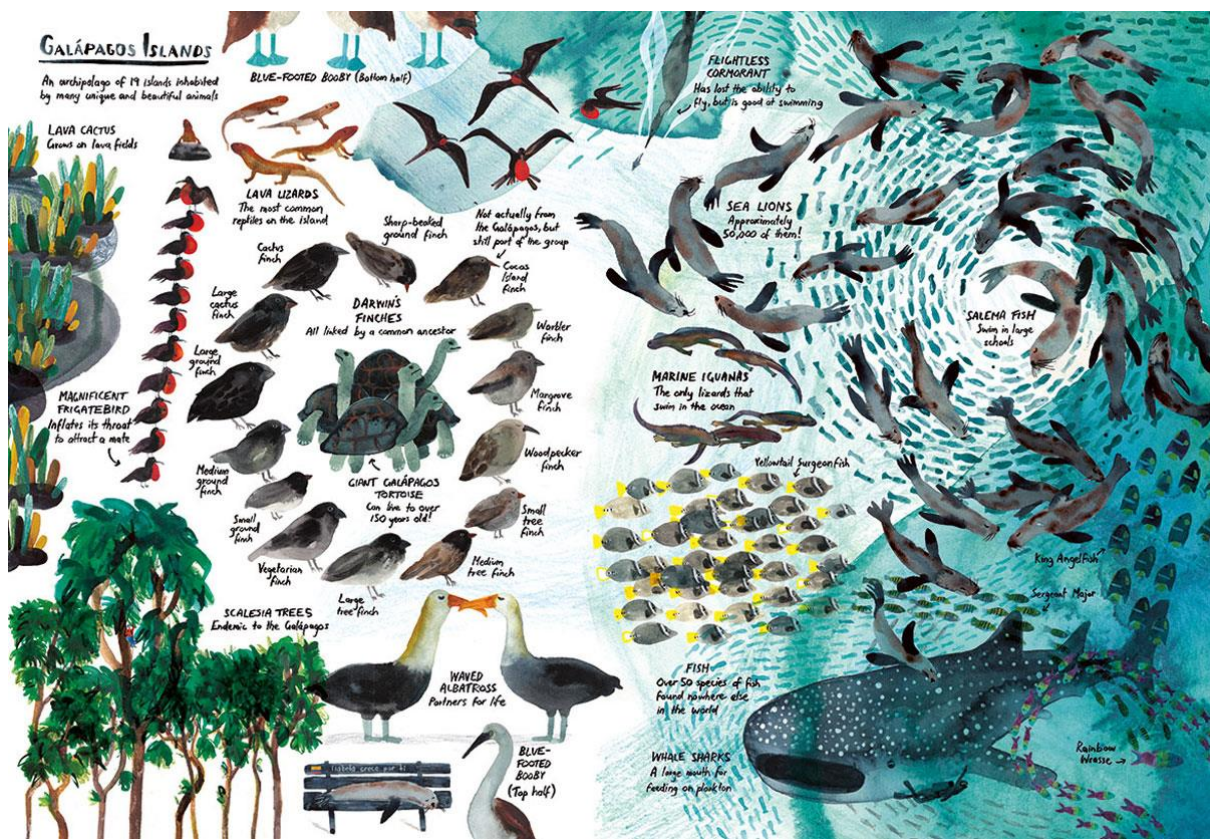


Figure 17: Spread from the book 'Lots' by Marc Martin, 2016.

Image Source: www.marcmartin.com

Modern-day educational books for children are not limited to conventional and printed books. The rate of audio as well as audio-visual books and interactive books (AI-oriented books), is increasing at a fast pace. This helps generate opportunities to examine and draw references from unconventional books to examine the role of typography on screen. This research will extend the possibilities of innovative practices that can be generated through kinetic typography and how this can be used to communicate effectively with children.

'Bitbook' is an award-winning concept and technology that aspires to change the way we read books. Bitbooks appear the same as traditional books and keep the organic qualities of paper intact thanks to the use of Conductive Ink and other printed electronic applications that make the experience seamless and environmentally sustainable. Bitbook's technology is currently under development by AmphiLab.

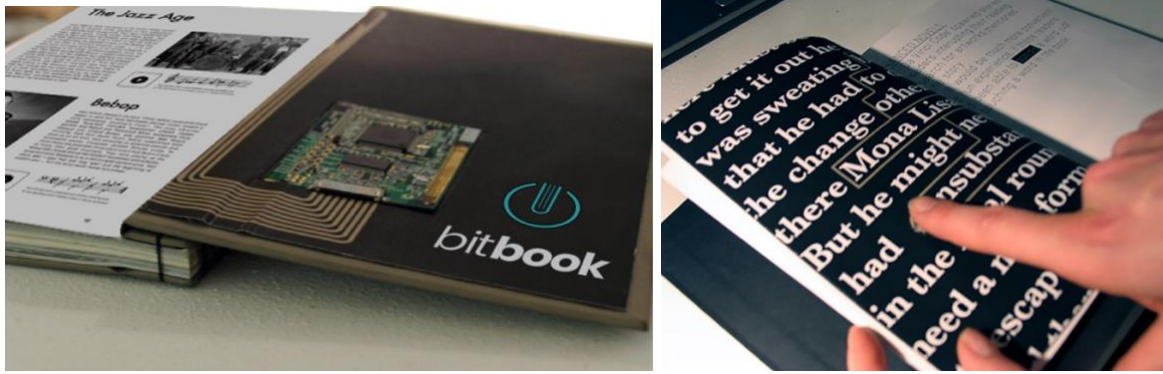


Figure 18, 19 (Left to Right): Images showcasing the 'Bitbook' technology.

Image Source: www.bitbook.ink

4. Type for differently abled young readers

In Kevin Larson's talk organized by ATypl, on 'Typography for Children' he speaks about how children grasp information slower than experienced readers and thus, type needs to be designed differently for children. He further talks about Microsoft's initiative with online learning through 'OneNote' which is a note-taking software. These documents can be curated and shared by educators and the software allows children with reading disabilities to modify the documents by adjusting the spacing, leading and size of the text. This software also allows students to use the text to sound feature and text is read out to them. This advancement has certainly improved the pace of learning for many children with reading disabilities.

To gain some insights from someone who regularly encounters children in a learning space, I interviewed Ms. Navaaz Hormusjee, Head of Learning Support at Mallya Aditi International School, Bangalore. The objective of this interview was to examine the problems encountered by them when they come closely in contact with young readers. Ms. Navaaz shared her observations which prove to be useful for knowing the gaps in printed books for children. Ms. Navaaz conformed that reading disabilities can be spotted in students when they are in second or third grade. While some overcome the reading difficulties with the help of careful attention, some can never really overcome them. In that case, a different series of books called as the 'Fuzzbuzz' series is made available for the students who are struggling. The large size letters, playful forms, added spaces and amusing colours used in these books make reading comparatively easier. However, these students tend to lack confidence as they evidently need different books than the others use (The NCERT Books as authorized by the Indian Council of Secondary Education).

International schools following the ICSE and the CBSE curriculum can provide students with better technology (iPad, audio books, curated text to sound mechanisms etc.) that can ensure some improvement in the reading ability. However, these measures do not reach far and wide. There is a gap in the system on the textbook level which can be addressed. There is a scope for school textbooks to be more inclusive and can serve all types of readers better.

While word spacing, and sentence leading needs to be more for ease of reading for children and specifically for children with reading disabilities, studies have also shown that some text in children's books is so widely spaced that it may make it difficult for children to perceive lines of text at all (Walker, 1992). Thus, it is important to maintain an equilibrium in spacing the text.

5. Conclusion

The research, study and finding led me to observe the scope for improvement in designing and printing textbooks as well as other educational books. This engagement brought to light numerous examples of typographic work created to engage children in playful ways of learning. This study will further extend to fill the gaps between teaching and learning, through effective typography.

Mr. Rohan Narayana Murty's mission with the Murty Classical Library of India aims to reintroduce Indian Literary Classics to the largest readership in the world, specifically targeted towards a new generation worldwide. This project emphasizes on reflecting the highest design standards by featuring newly commissioned typefaces. Alongside English translations, the series will consist of literary work in Bangla, Hindi, Kannada, Marathi, Punjabi, Persian, Sanskrit, Sindhi, Tamil, Telugu and Urdu language in the appropriate regional script.

Tara Books, a publication house in Chennai has extensively worked with children's content since 1994. They curated a trust to support their research activities, which go beyond the scope of books and include topics such as child rights, gender, environment, language learning etc. These projects impart knowledge to children that encourages them to have a wholesome outlook towards life. Tara Books have majorly published in English and Tamil but they wish to also start extensively publishing in Hindi.

Projects like these have made way for content in vernacular languages to flourish and be appreciated by children, parents, and educators. This research also brought to light the

opportunities that these projects offer to experiment more in vernacular typography for teaching and learning.

Acknowledgement

This paper and the research behind it would not have been possible without the support from Kumkum Nadig, Dean, School of Design Business and Technology at Srishti Manipal Institute of Art, Design & Technology.

I extend a special thank you to Nupur Banerjee, Head of Studies, Visual Communication Design at Srishti Manipal Institute of Art, Design & Technology, for guiding me during the research process.

I would also like to thank Dr Pooja Jain, Associate Academic Dean (PG) at Srishti Manipal Institute of Art, Design & Technology for her guidance. Thanking Mrs. Dharma Kannan, for routing me to Navaaz Hormusjee, Head of Learning Support at Mallya Aditi International School, Bangalore. I am thankful to Navaaz Hormusjee for sharing with me her experiences with students and the issues faced by them in learning.

Thanking all the students who have produced some riveting typographic work that supported my study.

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