

Where Technological Literacy and Literacy Meet: New Terms for Old Competencies

Thomas Kjærgaard¹, Ariana Ward Jespersen¹ and Anne Lassen²

¹University College of Northern Denmark, Denmark

²Niels Brock Copenhagen Business College, Denmark

tmk@ucn.dk

Abstract This paper presents a study of how, where, and what a group of young people (12-25 years of age) read and write and how their literacies and the affordances of their technologies affect the communicative networks that emerge, and the nomenclature utilized to describe reading and writing. The participants have very few arenas that demand long-form writing and reading. Just a few decades ago, reading and writing were the only sources for long-form input (books, newspapers, journals etc.). Traditional literacy (read books/letters, write on paper) has been a panacea for generally improving living conditions; however, it seems that the concept of literacy is changing and the technologies for reading and writing may have altered the general state of literacy. This study asks the questions; which arenas demand the ability to read longform, linear texts and which real-life context require long-form writing skills? Where is the relevant arena that demands traditional reading and writing skills? What is reading and writing to the youth of today, where do the youth utilise reading and writing skills? Which technological affordances are exploited to communicate in ways that foster learning, community and friendship? We map out and study the arenas, practices and technologies for reading and writing to understand possible changes in the pupils' and students' needs and purposes for literacy. The findings are presented in three cases that collectively show the arenas that emerged in the data. We raise the question, whether there is a discrepancy between the notion of what reading and writing is in school and maybe in education in general and the pupils' and students' actual need and purpose for literacy in technology-rich everyday lives? We suggest the concepts of the 'rhizome' and 'arborescence' to describe new and traditional literacies.

Keywords: Technological Literacy, Reading, Writing, Affordance, Rhizomes

1. Background

This paper presents a study of young people's reading and writing practices and how their linguistic register and technological affordances affect the communicative networks that emerge, and how the nomenclature utilized to describe reading and writing develop into something else and where these new literacies are necessary and applied in a communicative practice. The inspiration for the investigation is to contest the public and political notion that young people don't read (fiction) and write as much as the used to, and that this development represents a problem. Hence the Minister for Culture implemented a national strategy for improving young people's desire to read fiction in Denmark (2024). The minister motivated the strategy and the accompanying funding by the following statement from the press release:

"Unfortunately, our children are reading less and less. A sad development that we must do everything we can to reverse. One way to boost the joy of reading is to get more people to read a physical book."
(Kulturministeriet, 2024)

In a national report mapping out young people's fiction reading habits Hauer (2024), it is stated that 17,9% of the population in Denmark (above the age of 12) never read fiction, 48,5% read less frequently than weekly. This indicates that reading fiction may not be the main arena for developing literacy anymore. Therefore, we wanted to map and understand the general reading and writing arenas of young people, and to understand when they are reading and writing, the modality/medium and how they do it developing the skills to read and write has been a mainstay in school for centuries. Learners across the globe spend hours learning to decode letters into words, into meaning, and the other way round they learn to bring voice to thoughts through writing. This study asks the question:

Which arenas for reading and writing appear in the communicative practices of young people (12-25 years) and which literacies do young people learn and need?

It is, thus, important to note that this is not a study of literacy, multimodality, reading or writing as such. It is a study of how literacies are applied, and which technologies, purposes, practices and arenas require the ability to read and write in the traditional sense.

2. Method

We speak about language in school, and we implement a meta-language for linguistics, and we develop an academic nomenclature in the subjects. However, outside of the language classroom, language use is mostly a tacit phenomenon, and the data for this project suggest it is a covert and internal process that mainly emerge as investigable expressions when we ask for reading comprehension or when we read somebody's writing efforts. Thus, we don't have direct access to the mental process of reading and writing (in any modality). To overcome this methodological issue, we utilise the method of the 'Go-Along-interview' (Harvey, 2024; Kusenbach, 2016). In practice, we have developed an interview guide to scaffold and systematise the participants expression of what, how, why, when they read and write while the participants show us their arenas for writing and reading. In addition to the Go-Along we designed a background survey consisting of both a qualitative and a quantitative section. The survey asks questions in relation to defining reading, writing and to investigate the arenas and technologies utilised in. The survey precedes the Go-Alongs and, thus, it informs and qualifies the interview/observation guide designed for conducting the Go-Alongs.

2.1 Population of Investigation

The project is designed as a cascading investigation of the reading and writing arenas of, first, teacher students and, then 6th and 8th grade pupils in school. This cascading design was designed to map differences between the pupils' and the teacher students' reading and writing arenas to lay bare potential discrepancies between those learning to read and write and those about to teach reading and writing. The third wave of the cascading investigation was for the teacher student to take the research design into their placement to do their own investigation of their own pupils' reading and writing arenas (not presented in this paper). The purpose of the cascading investigation was to develop a new way of disseminating the findings of a research project directly into the practice investigated.

2.2 The Survey

The mapping of the field was commenced by designing and distributing a survey to the population of 6th and 8th graders and teacher students. The survey produced data on the population's definition of reading and writing and gave insights into what the population regard as reading and writing and where and how they read.

2.3 The 'Go-Along-interview'

The Go-Along interview method allows for the collection of rich, contextual data that reflects the participants' lived experiences. Additionally, it facilitates a deeper understanding of the spatial and social contexts that influence reading and writing behaviours (Kusenbach, 2016, 2018; Risko et al., 2013). This method also helps to build rapport between the researcher and participants, fostering a more relaxed and open dialogue (Risko et al., 2013). However, the main reason why Go-Along interviews were chosen as the prime method for producing data for this research was that it was a way to force an explication of phenomena that would otherwise only reside in the participant's mind.

The participants showed us how they use their devices for communication at the university/school, or at home. We ask open-ended questions to elicit detailed descriptions of their experiences, preferences, and challenges related to reading and writing.

The practice of doing the Go-alongs were:

1. Research question formulation
2. Designing a background survey with the same questions as the Go-along interview with an added quantitative section
3. Design of an interviewguide based on the research questions and on the survey responses
4. Conduct the Go-alongs. Ask the participants to show their reading and writing arenas on their devices (apps), textbooks/books/cartoons/places, while using the interviewguide to structure the conversation. We utilised the questioning technique 'probing' to lead investigation trajectories in alternative directions if they presented themselves (Scott & Usher, 2011)
 - a. Audio/transcript
 - b. Video of arenas
5. Coding/analysing and interpreting data

The lead-in process of the Go-Alongs was to ask a series of defining questions, similar to the questions in the survey, so that we could compare the interviewees' expressed understanding of reading and writing to their shown practice of applying literacies to their reading and writing arenas.

The Go-Alongs are used to make exemplary cases that show three different stories of reading and writing arenas that emerged in the data. Thus, the findings are qualitative and particular to this study's population. However, the cases report common traits among the majority of both Go-Along interviews and survey responses, so the cases are exemplary and valid in the context of this study's population and in relations to the way Flyvbjerg (2006) describes exemplary cases. Which means that the cases are 'deep', 'paradigmatic' and strategically selected to show the findings in relations to reading and writing arenas and the research question in general.

2.3.1 Data

The data that supports this study consists of a background survey and 16 Go-Along interviews with participants in the age group 12-25 years of age. The data was produced in the period from 1/9 2024- 1/3 2025. The groups represented in the population are chosen based on getting a, potentially, broad spectre of reading and writing arenas. The youngest participants (12 years) were chosen because they represent that first age group to be legally on social media and because they, statistically, should have automated reading and writing to a level of proficiency (Cooper et al., 2024). Therefore, we asked 37 6-8 grades to answer the survey of whom 6 also took part in Go-Alongs. The 20–25-year-old participants were chosen because they were teacher students expected to play a pivotal role in developing relevant literacy skills in pupils in their future practice. 99 teacher students answered the survey, 10 of them participated Go-Alongs.

For this paper the Go-Alongs represent the main empiric data aimed to describe cases, the survey is only used to support the findings.

Table 1: Data production

	Age 12-15 Group A	Age 20-25 Group B	Total
Survey	N=31	N=99	N=130
Go-Along	N=6	N=10	N=16
Participants	N=37	N=119	N=146

The bi-variate analysis of the survey data showed that the two age groups are active in the same arenas for reading and writing. The table below shows if they strongly agree or agree that the specific reading and writing arena is acknowledged as reading or writing.

Table 2: Positive identification of acknowledged reading and writing in specific media, shown in percent points (pp)

	Age 12-15 Group A	Age 20-25 Group B	Difference
Text (SMS)	89%	86%	3 pp
Messenger	55%	85%	30 pp
Snapchat	89%	38%	41 pp
Facebook	Data missing	38%	Data missing
Language models (prompting/replies)	33%	58%	25 pp
Video, shorts, YouTube	89%	25%	64 pp
Books (paper)	83%	100%	17 pp
Shorts texts (posters, adds)	34%	85%	51 pp
Subtitles	94%	81%	13 pp
Reading comments in SoMe	78%	69%	9 pp
Blackboard in class	78%	Data missing	Data missing
Understanding emojis	72%	Data missing	Data missing

The main differences between the two age groups are that Group B (teacher students) is more prone to regard 'messenger' as reading and writing, while Group A (pupils) is more prone to regard 'snapping' as reading and writing. Furthermore, Group A is more prone to regard shorts as reading and writing, conversely, Group B is more prone to acknowledge text on ads and posters as reading and writing. These slight differences are interesting, but probably to be expected and, thus, not part of the analysis and finding of the paper.

2.3.2 Describing and Selecting Cases

The specific Go-Alongs, selected for case description, were chosen because they represent reoccurring, exemplary anecdotes from the participants that present pivotal and seminal traits that are traceable in some form in most Go-Alongs (15/16) and surveys, but the traits are clear, collected and distinct in these three specific anecdotes. These traits are present in most of the 16 Go-Alongs but in a more scattered form, hence we chose the 3 specific Go-Alongs as cases for analysis and presentation in the paper. The one Go-Along, that doesn't show any of the traits, is of a 13-year-old boy, who doesn't use TikTok or YouTube and only rarely uses Snapchat. He uses his phone for texting friends and family. Instead, he reads comic books and plays football. He would have been a great choice for an extreme case for another paper.

3. Theory

The data indicate that the participant rarely 'just' read or write. They normally interact in networks of many modalities and technologies. Thus, we analyse the data as 'rhizomatic' processes (Parr, 2010). A 'rhizomatic' process is a networked, ahierarchical exchange of information. The rhizome is a metaphor from biology, where it represents a rooted network that some robust plants have (ex. weeds). The rhizome roots form networks where nutrition is exchanged where a path is possible and needed. The metaphor is used by Deleuze (Deleuze, 1986; Deleuze & Guattari, 1987; Holland, 2013) to describe the process of thinking. It is often utilised to describe the internet because the internet and its users seem to find ways of spreading and getting information, despite attempts to organise and limit how information spread on the internet, much like weeds in the garden. The use of the hashtag (#) and handles (@) across platforms are examples of how rhizomes are formed by actual needs for exchange that emerge when needed and disappear when the conditions and needs for communication pass. Deleuze describes this process as a 'line of flight', which is a channelling of information through the 'plateaus of intensity' that serve as hubs for further transport of the information. A 'plateau of intensity' could be a subreddit, a hashtag (#metoo), a handle (@Banksy), but it could also be the space around the coffemaker in the workplace or the kitchen in a home.

We understand traditional reading and writing as 'arborescent' processes that are hierarchically determined by external conventions and protocols/grammar that the data shows are generally ascribed to education. Conversely, we find that the reading and writing processes of the participants are mostly 'rhizomatic'. Deleuze defines reading as hovering over a text like a hawk, to stoop down into the text, where the text provides a 'plateau of intensity', that is, a passage of condensation and importance (Deleuze & Parnet, 1987). Deleuze emphasizes that reading involves a form of encounter where the reader interacts with the text to produce something new. This approach to reading leads to the notion that decoding leads to a 'becoming', the emerging of something that wasn't here before (Deleuze, 1994), where reading is a dynamic process that transforms both the reader and the text. Today, the rhizomatic approach to reading describes a fragmented process of assembling inputs from multiple, eclectic sources into a meaningful unit that can serve as a plateau for thinking and formulating utterances in speech and writing to form new connections (Cormier, 2008; Ovens et al., 2016). This notion lends itself to the aggregated inputs that the participants show in the Go-Along interviews, and it contrasts the traditional understanding of reading and writing as linear processes of decoding and encoding letters into coherent texts.

We also use the term Technological literacy, it is defined: 'as the ability to 'use, manage, assess, and understand technology' (Hasse, 2017; Hayden, 1989). Conversely, the participants show a merger, an assemblage, of literacies and an extensive technological literacy that utilise their reading and writing skills and develop new skills and tacit practices (Kjærgaard, 2016 p. 106).

4. Findings

The most protruding finding is that the participants in both survey and Go-Alongs express traditional views on reading and writing while, conversely, they show completely different practices of combining literacy and technological literacy in their arenas for reading and writing in the Go-Along.

In the beginning the interviews the participants express reading as

Reading and writing, is understood as decoding and encoding of grammatically and syntactically correct utterances in text and speech and the participants defined it as:

- Writing: The majority of the participants assess that writing is encoding of text over more than half a page (1200 characters).
- Reading: The majority of the participants assess that reading is decoding of text over more than half a page (1200 characters)
- Nomenclature of literacy
 - The majority describe writing activities in other verbs. The protruding verbs for writing are:
 - To post, to snap, to DM, to text, to message, to comment,
 - All of which include encoding letters, sounds, videos, images, smileys and memes into multimodal, coherent texts.
 - The majority describe reading activities in other verbs. The protruding verbs for reading are:
 - To watch, to scroll, to check, to share,
 - All of which include decoding letters, sounds, videos, images, smileys and memes into multimodal, coherent meaning.

The assessment gauge of half a page seems to be the threshold that defined when their definition of reading and writing goes from recognition graphics and word-images into actual, systematic reading based on grammar. Above the threshold of half a page reading and writing is understood as the formal, traditional and arborescent definition of grammatical writing and linear reading. Below the threshold of half a page the rhizomatic network of literacies are expressed in completely other terms than reading and writing.

The interesting scope of investigation, then, is utterances/texts between 1 and 1200 characters. These texts are text multimodal assemblages of images/audio/video/text/diagrams/hyperlinks/experiences (stories), places (snaps). These utterances all require specific affordances from the technologies that deploy the utterances and technological literacy to utilise the potential of the technology for their communicative needs. The objective affordance is the total potential of the technology (Gibson, 1977), conversely, the subjective affordance is what the user may be able to do with the technology (Gaver, 1991). In this study the participants have all developed a needs-based technological literacy, they do and learn what is necessary to utilise the technologies needed to engage with education (ex. TEAMS, email), friends (ex. Messenger, Snapchat, Instagram), family (ex. Messenger, email, texting), hobbies (Messenger, email) and, in some cases, work (ex. AULA, email, Messenger).

They describe a series of communicative arenas all of which have different purposes, participants, registers and practices.

4.1 Case 1 Interconnected Technologies

The participant (male, 22) explains how he has set-up an arena for communication that is compiled of a smartphone, a smartwatch and a computer. They are all interconnected, and they all potentially enable him to communicate. However, the smartphone is the anchor that gives him a status of all his communication from the university, work, friends, hobbies and family. Furthermore, the smartphone is the main technology for media consumption (reading, watching, interaction). The smartwatch is what he refers to as 'nice to have'. It gives him a quick and effortless status of things and it tracks his pulse and activity, both of which he finds helpful. He has, carefully, chosen which notifications should be on the watch, and which should only be on the phone. He filters the notifications because he gets distracted by the notifications on the watch.

The computer is his main technology for production, he primarily uses the computer for educational purposes. However, he also uses the computer for long-form contributions to reddit.

He operates at least 3 different linguistic registers for communication.

- One that has grammatical punctuation, orthography, careful editing in MS Word on the computer utilised for education.
- One that aims for correct grammar and orthography in short clauses with limited use of smileys, utilised in texts and Messenger with family and hobbies.
- One that requires context and consist of smileys, memes, acronyms, netspeak, with a limited use of words, utilised in Snap, Instagram, TikTok, Messenger with friends

they decide that S1 should text their mom asking for wishes and details about the time and place of the celebration. S1 sees the snap on her smartwatch and replies on her smartphone. S1 shares the mom's answer in a group chat in Messenger that includes their brother (B). Then they individually go on search engines to look for possible gifts and good offers. They share deep links to web-shops and decide on a present, and B buys it. S2 agrees to write a greeting card. She asks a Chatbot for help and edits the Chatbot's suggestion and shares the wording of the greeting card in the Messenger chat. Finally, they wrap the gift, print the greeting card and attend the birthday party.

These rhizomes of reading and writing requires both traditional literacies and technological literacies and the competency to write and read in multiple registers and in both English and Danish.

The initial snap is comprised for of almost equal amounts of words and smileys, however the snap lacks punctuation. The snap has the added affordance of showing if they have read the snap, and where in the physical world they are situated, which leads to the decision that S1 should 'text' their mother, since S2 is at work and S1 is on a morning walk, utilising her watch to both get notifications and to track her activities.



Figure 3: Smartwatch as a reading arena and tracking device

The 'text' to their mother utilises a traditional register with punctuation, orthography and only one smiley. The 'text' doesn't show if it has been read or where the recipient is.

The messenger group chat combines the registers from the snap and the 'text'. There are more smileys than in the 'text', but they do use punctuation more precisely than in the snap. They don't have location/GPDdata of each other; however, they do get information that the other participants in the chat are active in the chat and that they have read the messages.

The search for the gift and the gift card writing requires technological literacy and literacy. They are all aware that if they search for products, then their SoMe feeds get cluttered with advertisements for that type of products, hence, the search in 'Incognito mode/Private', which allows them to search without leaving traces of their web search and website visit to potential advertisers. Getting a good offer requires the skill to apply the appropriate search phrases to search for a particular website's offers. It also requires the skills and practice of 'lateral reading' to read across reviews and offers from different sites to make a safe and cheap decision.

Finally, they share the bill in Mobile pay, which also requires technological literacy.

The rhizome, that this decision-making-conversation forms, is determined by access to technology, literacy to express and understand the utterances in the rhizome and the technological literacy to engage in the rhizome with the appropriate technology.

4.4 Analysis Of Cases

The cases progress from private literacy practices, technological literacy and technology use (case 1) to specific areas for reading and writing (case 2) to a community of people, technologies, arenas and technologies that share literacies to complete a collaboration task (case 3).

All participants, in all age groups have a computer and smartphone, 15 out of 16 participants use their technologies extensively. They regard the smartphone as an extension of themselves, while the computers are primarily for school/studies/work and for watching series and films, thus, substituting a television for most participants. The literacies to utilise their smartphones are self-taught through trial and error and/or

YouTube/TikTok tutorials, or through peer-learning in their communities. There has been no teacher/parental influence in gaining technological literacy on the smartphone, which means that the in-built intentionality of the phone/apps have free reign to unfold in the hands of the young users in this study. The computer programmes, mainly GeoGebra, Word/Docs and Excel/sheets, have been included in the courses, where they were exemplary and useful. On the smartphones the arenas for reading and writing have emerged as the apps and practices of peers have developed. A repeat example of that is the 'snap map'. The 'snap map' facilitates the emergence of a rhizome that connects the virtual reality to the actual reality leaving users with a new modality to consider when snapping each other. The map acts as a tool to keep track of the community, however, it also reveals where you are and with whom. It appears as if the snap map represents a 'point of no return' for the users, since once it is turned on, it is difficult to turn off again without being confronted with questions why they are 'hiding' from their peers.

4.4.1 *Rhizome of Affordance and Need*

Case 1 shows how the technologies (smartwatch, smartphone and computer) act as plateaus of intensity for the user forming both an individual and personal rhizome and a shared and community-based rhizome. It also lays bare a business-model that promotes sticking to one brand. Especially Apple-products contain contingencies that make them work more fluently if all the user's technologies are Apple-products. They still work in connection with other brands, however, not as extensively, since services such as iCloud, Lighting-socket, AirDrop, Universal Clipboard and iMessage only work between Apple-products. Therefore, Case 1 (and 6/16 other participants) have only Apple-products in their tech-arena. Case 1 is very aware of this business-model and how it has made him make Apple-oriented decisions buying devices. Convenience beats critical thinking in the case of interconnected Apple-product. As he says, 'it just works'. His tech-arena allows him to form reading and writing arenas that suit where he is (place), what he is doing (time/activity/community) and how he is doing it (affordance). He explains that if he gets a notification on his watch while running in the forest, he records a 'speech to text' reply on the spot, not because it is necessary but because it is possible and convenient. Case 1 has a reading/writing arena that consist of traditional writing, posting, speech to text, snapping, texting, messaging, DM'ing. All these verbs cover encoding of information, however, only writing a coherent text longer than half a page is regarded as writing to Case 1. The other verbs utilise, a complex combination of letters, sounds, Smilies, acronyms, alternate spellings, memes and 'stickers'. There is a disconnect between what he calls writing and the other verbs for encoding he uses to express how he encodes his thoughts into communication. He has learned to write in school; however, the other competencies are learned in a literacy practice that includes real communicative needs and technological affordance.

4.4.2 *Case 2 Rhizome of Reading for Information*

The acronym TL:DR represents a low patience with longer texts with unnecessary details, redundancies and tangents in writing. Case 2 uses Reddit a lot (5/16 other participants use Reddit), it is main SoMe pastime, he reads most posts in the subreddits he follows, upvotes often, and posts occasionally.

Case 2 shows an extremely low threshold for prolix and circumlocutory wording, it is referred to as 'bad writing'. Case 2 appreciates the democratic, shared process of sharing a reading arena (subreddits) with a community of likeminded (astronomy interest). He likes the affordance of reddit that allows him to evaluate posts through upvoting and using the acronym TL:DR. He sees reddit and the reading arena, that it represents for him, as a direct and better alternative to ChatGPT/CoPilot. The democratic process of curating information in a subreddit in combination with lateral reading to support the information given in the subreddit is his prime arena for reading. He assesses that it improves his access to useful information, and it enables a knowledge building process that is based on the analysis of many sources and reading in many genres and registers and in both Danish and English.

Conversely, he claims that he is bad at reading in the traditional sense. He doesn't read books and in Danish class he was assessed as a mediocre reader. Nonetheless, he has empowered himself to investigate complex and complicated matters through a combination of traditional literacy and technological literacy.

4.4.3 *Case 3 Rhizome as the Practice of Task Solving*

Buying a gift is a task that would involve meeting up, phone calls and going to shops just 20 years ago. Today the task is an immediate emergence of a rhizome made from plateaus of intensity and lines of flight (text/messenger/snap/GPS/web shopping/smartphones etc.). It is an intersection of literacy and technological

literacy that allows for time, place and joint enterprise to meet in several linguistic registers and in several technological literacies with different affordances. The reading and writing arenas that come into play in this case are simple when seen in isolation, according to the participant, however the rhizome that the case describe is very complex (not complicated). It requires a series of simple skills and the competency to combine them in a complex rhizome that leads to buying the right gift at the right price, at the right time to be delivered at the right place. The linguistic registers are applied in relation to field (topic), tenor (relation to recipient) and mode (means of communication) (Lee, 2001). This indicates that the literacies, technological and linguistic, needed to complete this task by far exceed what the participants have learned in school. Thus, the traditional assessment and evaluation criteria for assessing literacy, utilised in education to understand a learner's literacy aptitude (PRILS, PISA, RERF etc.), doesn't include the learners' ability for engage in rhizomes of communication or the learners' ability to code-switch between registers (Alvarez-Cáccamo, 2013). The siblings in Case 3 show a seamless flow thru 4 different registers and 2 different languages, displaying an elaborate technological literacy and literacy even though the sibling participating in this study says that either one of them are good at reading or writing and that they have a low level of technological literacy.

5. Conclusion

The data generally tells the story of a disconnect between an educational understanding of reading and writing and the reading and writing practices in actual communication between the participants in this study. These practices occur both in school and outside of school. The traditional arenas for reading and writing have changed and there are very few arenas for writing and reading longer texts outside of language class. Thus, traditional literacy may have lost its arenas (books, letters, emails, newspapers, magazines etc.) and, consequently, it may lose its relevance as an isolated competency. However, this study indicates that reading and writing has shifted position in the literacy-hierarchy and have become more of a supporting and upholding literacy that fixates the other modalities in the meaning making process. The participants say, that when they scan their communication for facts and documentation (meeting times, prices, numbers, names, facts etc.), they mainly look for words and numbers and secondarily at other modalities. Contrarily, they look for other modalities first when they read for the digest of a message (scanning for smileys, memes, pictures, acronyms etc.). They don't refer to either of those processes as reading, though. The three cases show the emergence of different rhizomes that rely on a complex understanding of the affordances of the technologies that the participants use for school (chromebook, smartphone), education (computer, smartphone and smartwatch) and how to engage in the rhizomes for pragmatic and noncritical purposes. The only explicitly critical participant is the 13-year-old boy that has chosen not to be part of SoMe, while enjoying comic books instead, he explained that he thinks it is difficult to anticipate the effects of being on SoMe. He doesn't feel that he's missing out and he can't grasp the consequences of being on SoMe. He is rejecting developing technological literacy for now, however, he expressed confidence that he would be able to acquire technological literacy when it may become needed.

He sticks to a traditional nomenclature for literacy, reading is reading books, however, he also uses the term reading to refer to leafing through a comic strip, even though the actual number of words is as low, or lower, than in memes/TikToks/Stories. He calls it reading mainly because it is a leaflet printed on paper. Based on the data, we conclude that the technology generally dictates the verbs used in the collocation associated to the technology, according to our data:

- paper=reading/writing,
 - Arena; language class, in school
- smartphone=watching/checking/scrolling/posting/replying/commenting/upvoting/snapping/DM
 - Arena; in school, outside of school
- computer=reading more than half a page, preferably PDF, writing more than half a page, preferably in Word/Docs
 - Arena; in school, outside of school (older demographic, 20–25-year-olds)
- SoMe platforms= watching/checking/scrolling/posting/replying/commenting/upvoting/snapping/DM
 - Arena; in school, outside of school

The nomenclature for traditional literacy has changed and the technology for literacy has changed. Literacy and technology now form a rhizome of connections between people with intentions and needs, technologies with affordances and information that is expressed in other verbs than reading and writing. Thus, the cases show a disconnect between the quote from the Minister of Education in the first section of the paper and the multimodal and technological literacies that the participants actually need to express themselves, communicate

and learn. The communicative arenas and practices that the participants have shown us show an extremely complex kind of literacy that includes a lot of traditional reading and writing, however, not in the traditional sense. Therefore, we suggest further research into intersections between literacy and technological literacy, and, also, how the literacies may be dialectically connected. So, they read and write a lot, they just don't read books.

Ethical Deceleration

This study does not require an ethical declaration

AI Declaration

No AI tools, apart from spell/grammar-check, were used to write this paper.

References

- Cormier, D. (2008). Rhizomatic education: Community as curriculum. *Innovate: Journal of Online Education*, 4(5), 2.
- Deleuze, G. (1986). *Kafka: Toward a minor literature*. U of Minnesota Press.
- Deleuze, G., & Guattari, F. (1987). *1000 Plateaus, Capitalism and Schizophrenia*.
- Deleuze, G., & Parnet, C. (1987). *Dialogues*. Athlone Press London.
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219–245.
- Gaver, W. W. (1991). Technology affordances. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 79–84.
- Gibson, J. J. (1977). The concept of affordances. *Perceiving, Acting, and Knowing*, 1
- Hauer, K. (2024). *Læsekultur, læsepraksis og læsefremmende tiltag i Danmark – en kortlægning af aktuelle tendenser og perspektiver*. Nationalt Videncenter for Læsning. Redigeret af H.R. Lund. Tilgængelig på: <https://videnomlaesning.dk/media/5988/hauer-2024-laesekultur-laesepraksis-og-laeseafremmende-tiltag-i-danmark-en-kortlaegning.pdf>
- Hasse, C. (2017). Technological literacy for teachers. *Oxford Review of Education*, 43(3), 365–378.
- Hayden, M. A. (1989). What is technological literacy? *Bulletin of Science, Technology & Society*, 9(4), 228–233.
- Holland, E. W. (2013). *Deleuze and Guattari's 'A Thousand Plateaus': A Reader's Guide*. A&C Black.
- Kjærgaard, T. (2016). *The Full Circle of PowerPoint: Investigating the use of Digital Technology in University College Teaching: and Deleuze inspired suggestions for development*
- Kulturministeriet (2024) *Flere børn skal introduceres for bøgernes forunderlige verden*. [Online] Available at: <https://kum.dk/aktuelt/nyheder/flere-boern-skal-introduceres-for-boegernes-forunderlige-verden> [Accessed 29 Jul. 2025].
- Kusenbach, M. (2016). The go-along method. *Sensing the City: A Companion to Urban Anthropology*, 155, 154.
- Kusenbach, M. (2018). Go-alongs. *The SAGE Handbook of Qualitative Data Collection*, , 344–361.
- Ovens, A., Strom, K., & Garbett, D. (2016). A rhizomatic reading of becoming-teacher educator. *Enacting Self-Study as Methodology for Professional Inquiry*, , 181.
- Parr, A. (2010). *The Deleuze Dictionary*. Edinburgh University Press.
- Risko, E. F., Buchanan, D., Medimorec, S., & Kingstone, A. (2013). Everyday attention: mind wandering and computer use during lectures. *Computers & Education*, 68, 275–283.
- Scott, D., & Usher, R. (2011). *Researching education: data, methods and theory in educational enquiry*, . Bloomsbury Publishing.