

HOW DO CHILDREN COMMUNICATE WITH EACH OTHER ONLINE?

PROJECT REPORT



Authors:

Nina Kelly

Professor Nuria Lorenzo-Dus

Published by Swansea University (2024)

All rights reserved. No part of this content may be copied or reproduced in any form without the written permission of the copyright owner.

This report has been produced by Swansea University. It builds on the findings of research conducted in the DRAGON+ project, which is supported by the [Tech Coalition Safe Online Research Fund](#).

Suggested citation: Kelly, N. and Lorenzo-Dus, N. (2024). *How do children communicate with each other online?: Project Report*.





INTRODUCTION

Online communication has become a staple in children's lives. Perhaps unsurprisingly, multiple academic studies have been conducted that seek to understand children's use of the internet, including in terms of the length of time they spend online and with whom, how their online routines shape their lives, and so forth. This report focuses on one aspect of children's digital engagement, namely how children communicate with each other in informal online settings. The report discusses the results of a systematic review of the published literature on child-to-child (C2C) informal, online communication. This is important not only because it enables us to identify key learnings about and possible gaps within the 'field' of children's digital engagement, but also because it can contribute to strengthening the knowledge base on which to build safe digital spaces for children.

In this report we use the term 'child' / 'children' to refer to those under the age of eighteen, except when a particular study is directly referenced in which an alternative or specific age group (e.g., children and young people; or adolescent) is used. While acknowledging academic debates in this area (see., e.g., Bolander and Locher 2020 and Lorenzo-Dus 2023), the report uses the terms 'online' and 'digital' communication interchangeably to refer to discourse that is mediated by internet communication technology.

METHODOLOGY

In April 2023, a systematic literature search was carried out to gather studies which explored how children communicate with each other online in informal settings. To keep the studies aligned with the aim and focus of the review, the following inclusion and exclusion criteria were developed.



- Primary research published in English
- Published within 2018-2023 for relevancy
- Focused on online communication in informal settings
- Explored children’s communication through a) language or b) the use of online platforms to communicate



- Focused on child-adult communication
- Explored formal communication in digital spaces (e.g.: virtual classroom learning)

The searches were conducted in the following databases: *Applied Social Sciences Index & Abstracts (ASSIA)*, *Linguistics and Language Behaviour Abstracts (LLBA)*, *Linguistics Database*, and *Research Library: Social Sciences*. **541** articles were returned from the search. After screening the articles by title and abstract, then applying the inclusion and exclusion criteria to the remaining results, a total of **15** final studies were included in the literature review. Please see Figure 1.

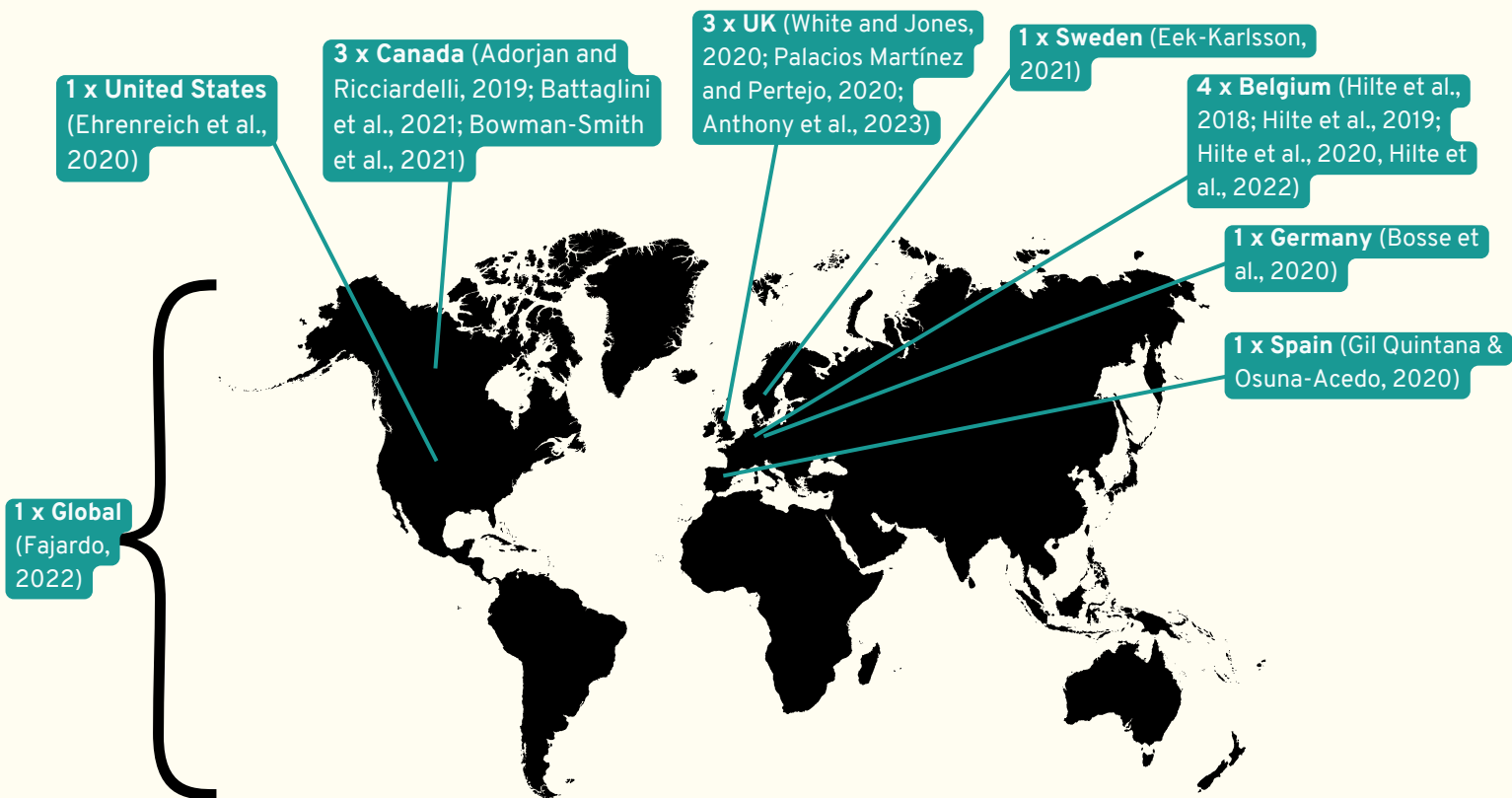


Figure 1: Studies included in the literature review presented by dataset provenance.

FINDINGS

Participants

The participant cohorts whose language was analysed in the studies were predominantly children of secondary/high school age, ranging from 11- 20, and recruited through their attending school (Adorjan and Ricciardelli 2019; Anthony et al. 2023; Battaglini et al. 2021; Bosse et al. 2020; Bowman-Smith et al. 2021; Eek-Karlsson 2021; Ehrenreich et al. 2020; Gil Quintana & Osuna-Acedo 2020; Hilte et al. 2018; 2019; Hilte et al. 2020; White and Jones 2020).

Out of these, two studies involved student participants who attended a special needs school for complex communication needs or intellectual disability (Bosse et al. 2020; White and Jones 2020).

One study was unable to specify the details of the participants due to it using a large corpus from teenage online chatrooms (Fajardo 2022). Furthermore, one study utilised a corpus from three London rappers strongly associated with Multicultural London English (MLE) to represent the language used by London teenagers.

Emerging themes

Five key themes emerged from the literature:

1. Gender
2. Friendship and privacy
3. Complex communication needs
4. Age and education
5. Linguistic style in digital communications



EMERGING THEMES

Gender: Studies focus on

Language Style: Adolescents perceive gender-based linguistic differences in online messaging. Girls tend to use more expressive markers, including emoticons and letter repetition, while boys use fewer of these stylistic features (Hilte et al. 2019). In mixed-gender conversations, girls are found to reduce their use of expressive markers, while boys are found to increase their use to adapt to a more female writing style, demonstrating the influence of gender in linguistic accommodation online (Hilte et al. 2022).

Online Activities and Expression: When compared to girls, boys engage more in online gaming and adopt online nicknames to conceal their identities, whereas girls are more inclined toward activities like sharing pictures, watching series, and curating online playlists (Gil Quintana & Osuna-Acedo 2020). Girls tend to produce longer social media posts, exhibit more emotionally expressive language, and use more lexical richness in their texts compared to boys (Hilte et al. 2020).

Affirmation and Prosocial Behaviour: Both boys and girls believe girls need more affirmation, leading to more frequent exchange of positive comments among girls (Eek-Karlsson 2021). Girls are more likely than boys to send prosocial messages in social media communication tasks (Bowman-Smith et al. 2021).

Research in this area tends to focus on difference-based patterns of communication, typically boys vis-à-vis girls.

Friendship and privacy: Studies revolve around three areas:

Friendship Dynamics on Social Media: A significant majority of children engage in daily communication with close friends through social media, with this frequent online interaction being associated with higher levels of well-being (Anthony et al. 2023).

Children who spend more time co-ruminating as an interpersonal emotion regulation strategy through social media are likely to engage in increased in-person co-rumination, demonstrating how online communication can complement real-world interactions (Battaglini et al. 2021)

Online Presence and Friendship: Children often maintain an online presence to garner positive attention from friends, particularly close friends. However, this presence is delicately balanced between being open and protecting one's privacy (Eek-Karlsson 2021).

EMERGING THEMES CONTINUED...

Friendship and privacy continued...

Online Privacy: As children progress through high school, it is generally assumed that youths know how to manage their online privacy when engaging with peers online. This expectation appears to be the result of a reduced parental role in children's self-management of risk as children age. Additionally, the choice of social media platform can significantly affect children's perception of privacy, with platforms that offer customizable privacy settings being preferred for communication with chosen close friends (Adorjan & Ricciardelli 2019).



Research in this area highlights that children tend to view the act of accepting or denying friendship requests on social media as a reflection of social norms, with online spaces being navigated with a nuanced understanding of interpersonal dynamics which blurs the online-offline boundaries.

Complex communication needs: Studies focus on two aspects:

Internet Usage: Internet usage among children with complex communication needs primarily revolves around sending and receiving emails (Bosse et al. 2020). The usage of alternative social media platforms such as WhatsApp and Meta (previously Facebook) is less frequent, with the low connection to social media being attributed to the participation barrier faced by children with complex communication needs (Bosse et al. 2020).



Communicative Barriers: The choice of online communication methods is a significant consideration for children with complex communication needs. Many children with such needs prefer video chatting functions offered by some platforms over text-based communication. This preference for video communication offers a solution to bypass challenges related to understanding and interpreting text-based communication, as well as navigating cyber-etiquette (White & Forrester-Jones 2019).

Research in this area identifies children's preferences as regards the mode of online communication, namely non text-based.

Age and education: Studies focus on two aspects:

Topics: Children engage in increasingly more emotionally laden and risqué topics with their peers through each grade, with the volume of text messaging reaching a peak at 17 years old. Topics also become increasingly more negative, sexual, and antisocial among peers as high school progresses (Ehrenreich et al. 2020).



Language Development: Older teenagers produce lexically richer and longer posts compared to younger teenagers. This change is recognised as the result of the growth in vocabulary range and verbal expression as literacy skills are acquired through age. The use of expressive language or typographic expression (through the use of emojis) tends to decrease with age (Hilte et al. 2020).

Research in this area identifies age as a factor that influences topics in children's online communication, with a direct relationship being found between an increase in age and in risqué topics. Lexical richness is also seen to increase with age.

Linguistic style ('netspeak'): A range of language style features are identified in the studies examined:

- Compound hybrids and multiple base constructions, the frequency and particular use of which depend on factors such as group membership and the frequency of slang within the group (Fajardo 2022).



- Euphemistically motivated initialisms, which in their full form often carry derogatory connotations. Perceived anonymity in online communication, which children believe to offer a 'shield' from social exposure, is provided as a reason why derogatory language is used.
- Emoticons, all caps, letter repetition, and kisses (stylised by 'x'), which children use to compensate textually for absence of expressive cues like volume or facial expressions in text-based forms of digital communication (Hilte et al. 2018).
- Non-standard and vernacular language use: Sociolinguistic variation aligned to geographical location of children is also observed. For example, use of grammar and lexical features associated with non-standard orthography is found in the online discourse of children based in multicultural urban spaces such as London (Martínez and Pertejo 2022) and use of oral vernacular features, particularly among working-class youth (Hilte et al. 2018).

Research in this area identifies online language use by children as being dynamic and expressive.



STUDY LIMITATIONS

The literature review had the following limitations to be considered:

- The literature search was not geographically restricted and multiple studies in non- English speaking countries were seen to integrate informal elements of English in their communicative expression. Additionally, one study exploring children's attitudes to privacy highlighted differing attitudes based on a rural or city-based location (Adorjan & Ricciardelli 2019). These nuances warn against any wide generalisations being made from the review findings.
- Cross-sectional studies also need to be approached with caution. As social media apps and communicative trends are quick to change, it cannot be assumed that the findings are applicable across time.
- Studies utilising self-report data to assess the relationship between online communication and well-being result in correlational findings, and caution must be applied considering response bias and the lack of a causative relationship.

FUTURE RESEARCH DIRECTIONS

This review has identified:

1. A comparative, and significant dearth in studies of C2C informal, online communication vis-à-vis those that examine other aspects of online engagement, including their communication with adults and with each other in formal settings. This is of concern given that such engagement is not only pervasive but also, and crucially, channelled through different communicative modes. The number of studies per theme is small, and the themes themselves appear haphazard, as opposed to being driven by a systematic research agenda. Such an agenda should be inspired, we would like to propose, by children's digital rights.
2. A prominent gap in the limited literature on C2C online communication . Of the few studies that focus on how children communicate (through text and other modalities) online in informal settings, hardly any adopt communication (specifically language) analysis methods. Discourse analysis research, has the potential to form part of an evidence-base for further research into children's online practices. Such research should integrate different discourse modalities – text-based, voice-based, video-based – to account for the actual multi-modal nature of much online communication, including that involving children interacting online with each other in informal settings
3. Research into C2C online communication should incorporate socio-demographic variables, such as gender, age, language variety etc. Most importantly, it should do so through an intersectionality lens.



REFERENCES

- Adorjan, M. and Ricciardelli, R. (2019). 'A New Privacy Paradox? Youth Agentic Practices of Privacy Management Despite "Nothing to Hide" Online'. *Canadian Review of Sociology/Revue canadienne de sociologie*, 56, 8-29. DOI: <https://doi.org/10.1111/cars.12227>
- Anthony, R., Young, H., Hewitt, G., Sloan, L., Moore, G., Murphy, S. and Cook, S. (2023), 'Young people's online communication and its association with mental well-being: results from the 2019 student health and well-being survey'. *Child Adolesc Ment Health*, 28, 4-11. DOI: <https://doi.org/10.1111/camh.12610>
- Battaglini, A. M., Rnic, K., Tracy, A., Jopling, E., & LeMoult, J. (2021). 'Co-rumination across in-person and digital communication: Associations with affect and relationship closeness in adolescents'. *Journal of Adolescence*, 89, 161–169. DOI: <https://doi.org/10.1016/j.adolescence.2021.04.011>
- Bolander, B., & Locher, M. A. (2020). 'Beyond the online offline distinction: Entry points to digital discourse'. *Discourse, Context & Media*, 35, 100383. DOI: <https://doi.org/10.1016/j.dcm.2020.100383>
- Bosse, I. & Renner, G. and Wilkens, L. (2020) 'Social Media and Internet Use Patterns by Adolescents With Complex Communication Needs". *Language, Speech, and Hearing Services in Schools*, 51(4), 1024-1036. DOI: https://doi.org/10.1044/2020_LSHSS-19-00072 .
- Bowman-Smith, C. K., Sosa-Hernandez, L., & Nilsen, E. S. (2021). 'The other side of the screen: The impact of perspective-taking on adolescents' online communication'. *Journal of Adolescence*, 92, 46–56. DOI: <https://doi.org/10.1016/j.adolescence.2021.08.006>
- Eek-Karlsson, L. (2021). 'The Importance of Belonging: A Study About Positioning Processes in Youths' Online Communication'. *SAGE Open*, 11(1). DOI: <https://doi.org/10.1177/2158244020988860>
- Ehrenreich, S. E., Beron, K. J., Burnell, K., Meter, D. J., & Underwood, M. K. (2020). 'How Adolescents Use Text Messaging Through their High School Years. Journal of research on adolescence'. *Journal of the Society for Research on Adolescence*, 30(2), 521–540. DOI: <https://doi.org/10.1111/jora.12541>
- Fajardo, J. (2022). 'Exploring euphemistic initialisms in teenage computer-mediated communication'. In C. Groff, A. Hollington, E. Hurst-Harosh, N. Nassenstein, J. Nortier, H. Pasch & N. Yannuar (Eds.), *Global Perspectives on Youth Language Practices*, 67-84. De Gruyter Mouton. DOI: <https://doi.org/10.1515/9781501514685-005>
- Gil Quintana, J., & Osuna-Acedo, S. (2020). 'Transmedia Practices and Collaborative Strategies in Informal Learning of Adolescents', *Social Sciences*, 9(6), 92. DOI: <http://dx.doi.org/10.3390/socsci9060092>
- Hilte, L., Vandekerckhove, R. & Daelemans, W. (2022). 'Linguistic Accommodation in Teenagers' Social Media Writing: Convergence Patterns in Mixed-gender Conversations'. *Journal of Quantitative Linguistics*, 29(2), 241-268, DOI: 10.1080/09296174.2020.1807853
- Hilte, L., Daelemans, W., & Vandekerckhove, R. (2020). 'Lexical Patterns in Adolescents' Online Writing: The Impact of Age, Gender, and Education'. *Written Communication*, 37(3), 365–400. DOI: <https://doi.org/10.1177/0741088320917921>
- Hilte, L., Vandekerckhove, R. & Daelemans, W. (2019). 'Adolescents' perceptions of social media writing: Has non-standard become the new standard?'. *European Journal of Applied Linguistics*, 7(2), 189-224. DOI: <https://doi.org/10.1515/eujal-2019-0005>
- Hilte, L., Vandekerckhove, R., & Daelemans, W. (2018). 'Social Media Writing and Social Class: A Correlational Analysis of Adolescent CMC and Social Background'. *International Journal of Society, Culture & Language*, 6(2), 73-89
- Lorenzo-Dus, N. (2023). *Digital grooming: Discourses of manipulation and cyber-crime*. Oxford University Press.
- Palacios Martínez, I. & Pertejo, P. (2022). 'Teenagers and social networking. Twitter as a data source for the study of the language of London teenagers and young adults'. In C. Groff, A. Hollington, E. Hurst-Harosh, N. Nassenstein, J. Nortier, H. Pasch & N. Yannuar (Eds.), *Global Perspectives on Youth Language Practices*, 85-104. De Gruyter Mouton. DOI: <https://doi.org/10.1515/9781501514685-006>
- White, P. & Forrester-Jones (2019). 'Valuing e-inclusion: Social media and the social networks of adolescents with intellectual disability'. *Journal of Intellectual Disabilities* 24(3), 381-397. DOI: https://doi.org/10.1177/1744629518821240open_in_new



DRAGON+

DEVELOPING RESISTANCE
AGAINST GROOMING ONLINE:
STORIES STRENGTHENED SAFEGUARDS