

researchers involved in PuppyIR, as well as industry practitioners potentially interested in this topic.

4.4 Proposed Activities

We will facilitate a highly participatory workshop [12] in which attendees can discuss the landscape of the area under study, identify key elements that contribute to the current status of IR systems for children, and propose future research directions. We will do so via an interactive format involving community building exercises, informal interactions, facilitated group work, and very short presentations of accepted contributions and attendees' backgrounds.

To encourage lively brainstorming we will assign a **pre-workshop** homework to our participants and invite them to answer "how far have we got since then and where we would like to be in 10 more years?" (a positive question to help us better define the remit of this exploration into the future of IR for children) and "what did stop us from being already there?" (a negative one about existing barriers).

The proposed workshop **schedule** (times in CET) as follows:

Welcome & Introductions (16.00-16.15). A brief welcome address, along with an overview of activities planned for the workshop and tools that we will use to encourage interaction, e.g., Miro and Zoom's breakout rooms.

Overview (16.15-16.30). A brief presentation showcasing the motivating factors prompting the need for space for the IR community to discuss children and IR systems.

Lightning Round (16.30-17.00). Showcase of accepted contributions (i.e., vision papers and interest form); presentations will last 5 minutes. These presentations ensure that workshop participants are aware of each others' interests and expertise, but will be short to keep the workshop flow and to allow for focused group work later on.

Discussion (17.00-17.45). Discussions in various groups to identify the most important research questions for the next ten years.

Outcomes (17.45-18.45). Joint discussion to merge findings from small-group work, resulting in a research agenda for the next 10 years for children and IR.

Wrap (18.45-19.30). Final notes emerging from the day's group work. Plans for next steps.

4.5 Potential Program Committee

We will gather a program committee with the experience to examine submissions and value the respective possible contributions regarding informing workshop discussion on understanding the "status" of this particular area of study as well as helping shape future research agenda on this area.

5 EXPECTED WORKSHOP OUTCOMES

A primary goal of the workshop is to reactivate the network of IR people with a (future) focus on children. The various research institutes and large and small tech companies want to jointly define a research agenda for the next ten years, in which all topics are considered in a broad context so that we can discuss how to collaborate going forward. Based on this workshop, we hope there will be a centrifugal force for IR and Children, so that ten years from now we will be able to say, "Well, we have really moved forward".

As an immediate outcome, we will summarize findings from this workshop on a report to be submitting to SIGIR Forum, to reach the IR community at large.

REFERENCES

- [1] James Allan, Bruce Croft, Alistair Moffat, and Mark Sanderson. 2012. Frontiers, challenges, and opportunities for information retrieval: Report from SWIRL 2012 the second strategic workshop on information retrieval in Lorne. In *ACM SIGIR Forum*, Vol. 46. 2–32.
- [2] Oghenemaro Anuyah, Ashlee Milton, Michael Green, and Maria Soledad Pera. 2019. An empirical analysis of search engines' response to web search queries associated with the classroom setting. *Aslib Journal of Information Management* (2019).
- [3] Dania Bilal. 2000. Children's use of the Yahoo!igans! Web search engine: I. Cognitive, physical, and affective behaviors on fact-based search tasks. *Journal of the American Society for Information Science* 51, 7 (2000), 646–665.
- [4] Dania Bilal and Li-Min Huang. 2019. Readability and word complexity of SERPs snippets and web pages on children's search queries. *Aslib Journal of Information Management* (2019).
- [5] Keayn Collins-Thompson, Paul N Bennett, Ryan W White, Sebastian De La Chica, and David Sontag. 2011. Personalizing web search results by reading level. In *Proc. of the 20th ACM international conference on Information and knowledge management*. 403–412.
- [6] J Shane Culpepper, Fernando Diaz, and Mark D Smucker. 2018. Research frontiers in information retrieval: Report from the third strategic workshop on information retrieval in lorne (swirl 2018). In *ACM SIGIR Forum*, Vol. 52. 34–90.
- [7] F.M.G. de Jong. 2012. PuppyIR – An Open Source Environment to Construct Information Services for Children. Final report. Available at: shorturl.at/ixO13.
- [8] Nevena Dragovic, Ion Madrazo Azpiaz, and Maria Soledad Pera. 2016. "Is Seven Seven?" A Search Intent Module for Children. In *Proc. of the 39th International ACM SIGIR conference on Research and Development in Information Retrieval*. 885–888.
- [9] Allison Druin, Benjamin B Bederson, Ann Weeks, Allison Farber, Jesse Grosjean, Mona Leigh Guha, Juan Pablo Hourcade, Juhyun Lee, Sabrina Liao, Kara Reuter, et al. 2003. *The International Children's Digital Library: Description and analysis of first use*. Technical Report.
- [10] Carsten Eickhoff, Pieter Dekker, and Arjen P De Vries. 2012. Supporting children's web search in school environments. In *Proc. of the 4th Information Interaction in Context Symposium*. 129–137.
- [11] Jerry Alan Fails, Maria Soledad Pera, Oghenemaro Anuyah, Casey Kennington, Katherine Landau Wright, and William Bigirimana. 2019. Query formulation assistance for kids: What is available, when to help & what kids want. In *Proc. of the 18th ACM International Conference on Interaction Design and Children*. 109–120.
- [12] Seeds for Change. 2017. *Facilitating Participatory Workshops*. Available at: <https://we.riseup.net/assets/25682/FacilitatingWorkshops.pdf>.
- [13] Jacek Gwizdzka, Preben Hansen, Claudia Hauff, Jiyin He, and Noriko Kando. 2016. Search as learning (SAL) workshop 2016. In *Proc. of the 39th International ACM SIGIR conference on Research and Development in Information Retrieval*. 1249–1250.
- [14] Hilary Browne Hutchinson, Allison Druin, and Benjamin B Bederson. 2007. Supporting elementary-age children's searching and browsing: Design and evaluation using the international children's digital library. *Journal of the American Society for Information Science and Technology* 58, 11 (2007), 1618–1630.
- [15] Michel Jansen, Wim Bos, Paul van der Vet, Theo Huibers, and Djoerd Hiemstra. 2010. TeddIR: tangible information retrieval for children. In *Proc. of the 9th international conference on interaction design and children*. 282–285.
- [16] Monica Landoni, Jerry Alan Fails, Theo Huibers, Natalia Kucirkova, Emiliana Murgia, and Maria Soledad Pera. 2020. 4th KidRec workshop "what does good look like?" from design, research, and practice to policy. In *Proc. of the 2020 ACM Interaction Design and Children Conference: Extended Abstracts*. 103–110.
- [17] Monica Landoni, Davide Matteri, Emiliana Murgia, Theo Huibers, and Maria Soledad Pera. 2019. Sonny, Cerca! evaluating the impact of using a vocal assistant to search at school. In *International Conference of the Cross-Language Evaluation Forum for European Languages*. Springer, 101–113.
- [18] Monica Landoni, Maria Soledad Pera, Jerry Alan Fails, Emiliana Murgia, Natalia Kucirkova, and Theo Huibers. 2020. 4th KidRec—What does Good Look Like: From Design, Research, and Practice to Policy. In *SIGIR forum*, Vol. 54.
- [19] Robby Nadler. 2020. Understanding "Zoom fatigue": Theorizing spatial dynamics as third skins in computer-mediated communication. *Computers and Composition* 58 (2020), 102613.
- [20] Pavel Serdyukov, Djoerd Hiemstra, and Ian Ruthven. 2011. Towards accessible search systems. In *ACM SIGIR Forum*, Vol. 44. 23–27.
- [21] Catherine L Smith. 2017. Investigating the role of semantic priming in query expression: A framework and two experiments. *Journal of the Association for Information Science and Technology* 68, 1 (2017), 168–181.