

The Integration of Social-Haptic Communication in Deafblind Interpreting and Educational Settings

edited by Anna Cardinaletti and Laura Volpato

Introduction

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1 The 2023 Conference on Social-Haptic Communication

This volume is a collection of state-of-the-art papers on social-haptic communication (SHC) presented at the first international conference on SHC held in Italy, entitled *The Integration of Social-Haptic Communication in Deafblind Interpreting and Educational Settings*. The Hapticconf 2023 was organized by the Department of Linguistics and Comparative Cultural Studies of the Ca' Foscari University of Venice and held on September 4-5, 2023 in Aula Magna Silvio Trentin and on Zoom. The number of participants from Italy and abroad, including many deaf and deafblind people, was impressively high (110 in person and more than 250 on Zoom), attesting the widespread interest for the topic.

This conference aimed at gathering international expertise around the integration of social-haptic communication in the practice of deafblind interpreting and in deafblind learning environments. Social-haptic communication is extensively used in the Scandinavian countries and in many other countries, as confirmed by the participants and the speakers to the conference coming from all



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over the world (Africa, Australia, Brazil, many European countries).¹ SHC was introduced in Italy only recently (see § 2).

The international relevance of the conference was witnessed by the opening greeting of Dr. Sanja Tarczay, President of the World Federation of the Deafblind (WFDB). Its national relevance was underlined in the opening greeting by Dr. Patrizia Ceccarani, representing the Foundation Lega del Filo d'Oro E.T.S., the Italian Foundation focused on the needs of individuals who are deafblind.

SHC consists of brief touch messages (*haptics* or *social-haptic signals*) performed on the body of the deafblind person to convey environmental information, reactions by the interlocutors, directions, etc. SHC can be used with and by any deafblind person independently of their preferred communication modes and often combined with linguistic information conveyed through the other communication channels (tactile or visual sign language, Malossi, etc.). Haptics are used to communicate information in real time during different kinds of activities, including social interactions, descriptions of the environment, guiding and mobility, cultural events, hobbies, etc. (Lahtinen 2008, 142-6).

Starting from the pioneering work by Riitta Lahtinen and Russ Palmer in Finland in the 1990s, SHC has spread to the Scandinavian countries, the USA, many European (Belgium, England, Spain, The Netherlands, etc.) and extra-European countries (Australia, Brazil, Egypt, Zambia, etc.), and more recently to other European countries including Italy. Social-haptic signals are still being developed, through the negotiation with deafblind individuals, to respond to children's and adults' needs in specific areas and for different purposes. In all contexts, SHC improves communication accessibility with and among the Deafblind community and contributes to their autonomy and inclusion. SHC is also used with individuals with special needs beyond acquired deafblindness, such as individuals with congenital deafblindness, visual impairment, and intellectual disability. Its potentiality is not yet fully explored.

1 The selected papers from three more countries could unfortunately not confirm their participation in the conference: Amal Ezzat (Hope City Foundation, Egypt) "Integration of Social Haptic Communication in the Language Development"; Simate Simate (Deafblind Association of Zambia) "The Potential of Haptic Communication to Facilitate Training for Employment Among Deafblind Persons. A Case Study of Zambia"; Francisco J. Trigueros (FASOCIDE, EDbU) "Progress of a Haptic System in Spain".

2 SHC in Italy

In Italy, the development of social-haptic communication started in the last few years. This was possible thanks to a European project in which Ca' Foscari University Venice was the Italian partner and collaborated with the Foundation Lega del Filo d'Oro E.T.S. The Erasmus+ project entitled *Social Haptic Signs for Deaf and Blind in Education* (September 2019–November 2022) aimed at collecting and standardizing social-haptic signals in four European countries: Estonia, Italy, Portugal and Sweden, with the coordination of Thomas Lydell-Olsen, Founder and coordinator of the Europeiskt Teckenspråkcenter/European Sign Language Centre in Örebro, Sweden.

With the collaboration of the Lega del Filo d'Oro and the involvement of many people with deafblindness, about 130 social-haptic signals were negotiated and collected, and then made publicly available in the dedicated section of the Spreadthesign website: https://spreadthesign.com/it.it/social_haptic/ (Volpato, Cardinaletti, Ceccarani 2021). The process of creating and spreading the Italian social-haptic signals is presented in Volpato's (2024) doctoral dissertation, and its integration in deafblind interpreter training is discussed in Volpato, Mantovan 2021. In recent years, a dramatic change has occurred in the training of sign language interpreters and guide-interpreters in Italy, due to the official recognition of Italian Sign Language (LIS) and Tactile Italian Sign Language (LISt) by the Italian government on May 19, 2021. Law 69/2021 (<https://www.gazzettaufficiale.it/eli/gu/2021/05/21/120/so/21/sg/pdf>) also recognizes LIS and LISt interpreters as specialized professional figures. Their training, still under discussion, will hopefully integrate SHC as happened in other countries.

Volpato (2023) and Volpato (2024) also developed a detailed analysis of haptics in terms of their minimal components, i.e., haptemes in Lahtinen's (2008) terminology, similar to the phonological features of spoken and sign languages. As proposed by Lahtinen (2008) for Finnish SHC, each Italian haptice is articulated as a specific combination of haptemes, such as Place of articulation, Handshape, Movement (and direction of movement), Pressure, Speed, Duration, etc. Some of these components are also relevant in the articulation of visual sign languages, others, such as Pressure and Contact surface, depend on the tactile reception.

Before the Erasmus+ project, Ca' Foscari has been fruitfully collaborating with the Foundation Lega del Filo d'Oro E.T.S. for more than 10 years. Since 2012, Ca' Foscari University has been offering a course of Tactile Italian Sign Language as the only University in Italy. The engagement on the development of social-haptic communication in Italy confirms the commitment of Ca' Foscari towards deafblindness

in addition to its long-standing commitment towards deafness. Ca' Foscari is a leader University in Italy for both research and teaching on Italian Sign Language, the culture of the Italian Deaf community, the acquisition of LIS and written Italian by deaf individuals, and the training of LIS interpreters. The Deaf Studies program started 25 years ago, in academic year 1999/2000. For the history of teaching and research on deafness and LIS at Ca' Foscari, cf. Cardinaletti 2018 and Branchini, Cardinaletti, Mantovan 2024.

3 The Contributions to the Volume

The volume contains eleven papers delivered at the Hapticconf 2023. They present the history of the development of SHC in different countries and the integration of SHC in deafblind interpreting settings and in educational contexts.²

Four contributions report on how SHC developed in their countries. The paper by Riitta Lahtinen and Russ Palmer reports the birth of SHC in Finland in the 1990s of last century due to their collaboration. The first social-haptic communication article was published in the Proceedings of the 3rd IAEDB (DbI) European Conference in Potsdam in 1993 (Palmer, Lahtinen 1994). This research allowed people with acquired deafblindness to develop the touch communication that was later called 'social-haptic communication'. After a long process of creation and study of social-haptic signals, the definition of social-haptic communication was provided in Lahtinen's (2008) doctoral thesis and Lahtinen, Palmer, Lahtinen 2010.

In their paper "A Historic Perspective on Social-Haptic Communication in Norway", Bibbi Hagerupsen, Hildebjørg Karlsen Bjørge and Kathrine Goborg Rehder report on how SHC developed in Norway in the late 1990s through the collaboration between a Norwegian deafblind woman, Trine Næss, and Russ Palmer and Riitta Lahtinen. Trine Næss and their interpreters, who after her death

² The following four papers were also presented at the conference: Linda Eriksson (The Swedish National Resource Center for Deafblindness - NKADB): "Social Haptic Communication that Facilitates the Use of Computers and Smartphones"; Sigrid Slettebakk Berge (Norwegian University of Science and Technology, Trondheim): "Who is Doing the Talking? The Mutual Construction of Social Haptic Signals in Interpreter Mediated Dialogues Between Deafblind Interlocutors"; Peter Vanhoutte (Anna Timmerman VZW, Belgium), Koen Amerlynck, Annie Dierckx: "A Walk Through Social-Haptic Communication in Deafblind Interpreting"; Annmaree Watharow (Centre for Disability Research and Policy, University of Sydney), Moira Dunsmore (School of Medicine and Health, University of Sydney), Susannah McNally (Centre for Disability Research and Policy, University of Sydney): "Older People with DSI: Haptics and More". We thank the authors for their insightful contributions to the conference and regret that they could not participate in the volume.

founded the Hapti-Co company (<https://hapti-co.com/english>), developed the system of Norwegian social-haptic signals, which was also the base for social-haptic communication in the USA. SHC is now part of the training of sign language interpreters and professionals in three Universities of the country, where deafblind teachers are also involved. Hapti-Co is also responsible for the training of individuals with visual impairment. The National Blind Association realized that haptic signals could help reduce some of the obstacles that visual impairment may cause in everyday life.

As reported in Klaske De Greeuw, Thea Hendriks, Annette Schuster and Gaby Wynia's paper "Development of Social-Haptic Communication in the Netherlands", the project group for SHC in the Netherlands was formed in 2015 and took part in a two-day training led by Riitta Lahtinen and Russ Palmer. Employees of various organizations that work with people with deafblindness (amongst which DB-connect, Kalorama, and Kentalis) collaborated with 'experts by experience', that is, deafblind people. The Dutch social-haptic signals were based on the SHC manuals developed in other countries such as Finland, Denmark, and Belgium. The group has published both the teachers' manual and the students' manual used in the training courses and workshops they organize, as well as an adapted SHC training for people with deafblindness and intellectual disability.

Portugal was one of the countries that participated in the Erasmus+ project *Social Haptic Signs for Deaf and Blind in Education*, financed by the European Union. In the chapter "Building Up Social-Haptic Signs: The Portuguese Team", Cristina Gil, Bruno Mendes, Paula Liques and Orquídea Coelho document the creation of 24 haptic signs used by Portuguese Deafblind people, included in a published set of 80 national haptic signs developed for the Erasmus+ project (see https://spreadthesign.com/pt.pt/social_haptic/). The chapter details the methodology used, with the crucial collaboration of deafblind persons in the creation and filming of the social-haptic signals and in advancing the promotion of SHC in Portugal.

The three next chapters deal with social-haptic communication used in interpreting services. Eli Raanes' contribution entitled "Haptic Signals as Part of Interpreter Services for Deafblind People. Historical and Developmental Perspectives from a Norwegian Context" is a detailed report on how social-haptic communication was integrated into the interpreting services and the training of interpreters in Norway.

The chapter "Social-Haptic Communication in Brazil and Its Developments. Paths and Possibilities" by Elaine Gomes Vilela, Adriana Barroso de Azevedo and Stephanie Caroline Alves Vasconcelos, focuses on an eight-month training of four professional translators and guide-interpreters of Brazilian Sign Language (Libras) and

three deafblind people in the use of social-haptic communication (SHC). In Brazil, SHC was introduced by guide-interpreters and deafblind individuals who participated in the 10th Helen Keller World Conference, held in the Philippines in 2013. The chapter is a qualitative, narrative-based study of the participants' comments during the training, which reveal how relationships are established via touch-based interactions.

Johanna Mesch' chapter entitled "Touch and Haptic Sensations in Conversations Between Deafblind Signers and in Tactile Interpreting" is a case study on a corpus of conversations among Swedish deafblind signers. In combination with Tactile Swedish Sign Language, haptic communication is used quite differently by deafblind individuals in peer conversation and by providers and interpreters undertaking various activities. The places of articulation on the body are different, as well as the type of information conveyed, which is related to the different sensory access of deafblind interlocutors versus sighted interpreters and providers.

Giorgia Zorzi, Eli Raanes, Johanna Mesch and Gro Hege Saltnes Urdal's contribution "Depiction Beyond Hand Touch in an Interpreter-Mediated Setting Using Tactile Norwegian Sign Language" is a very detailed study of depicting signs from Tactile Norwegian Sign Language that are realized on the body of the deafblind person and not in the neutral signing space. They were used in constructed actions during an interpreter-mediated setting. Furthermore, these signs do not necessarily use hand touch, but may exploit other sensory inputs. For instance, the haptice *BLOW* is realized on the body of the deafblind person not through touch, but through air vibration in a flow of air out of the interpreter's mouth to the deafblind person's skin. The study opens up a very promising new sub-field in the research on social-haptic communication.

Finally, three papers present experiences with SHC in educational contexts.

Heather Colson-Osborne presents the "Benefits of Using Social-Haptic Communication with Children and Young People Who are Congenitally Deafblind", an understudied topic in particular in the UK. The chapter describes some situations in which social-haptic signals can be used in schools and colleges in order to reduce the deafblind students' isolation and improve their participation.

Russ Palmer and Stina Ojala's chapter on "Astrohaptices: Touching the Universe" is a fascinating contribution on how to make astronomy-related notions accessible to deafblind people in educational settings such as schools and museums. The techniques to create new haptices are presented in great detail. They can be used to describe both static objects, such as photos or maps, or dynamic events, such as a rocket launch or orbits. Astrohaptices may be used

as a complement to other facilities such as tactile maps or touch tours in order to improve accessibility for the deafblind.

The final chapter by Cathrine Timm Sundin and Nina Frisnes Øyan “Haptic Communication and Guide Dog” discusses a topic that has not received attention in the literature, namely the use of haptic signals to support the use of guide dogs for people with deafblindness and to improve communication between a person with deafblindness and their guide dog. In a pilot project, deafblind participants received not only information of the surroundings but also a variety of signals to gain information on the behaviour of their dog and to be able to give the right commands to the dog. This successful pilot project is shared with the aim to replicate it in other contexts and other countries.

In conclusion, the volume is a very rich and inspiring presentation of SHC, which will be very valuable for professionals and care-givers in those countries, like Italy, where SHC was introduced only recently, and the many countries in which SHC has not developed yet.

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