SIGN HUB

The SIGN-HUB platform is close to going live!

Welcome to the third newsletter of the SIGN-HUB project!

During the past year, we have advanced in our project and we are glad to share the preliminary results in the following areas :

i. We have produced novel descriptions of some linguistic phenomena of the **grammar** of 6 sign languages;

ii. We defined more than 100 grammatical categories for the **ATLAS** that will allow us to collect data on the sign languages of the world;

iii. We defined the structure of **assessment tools** for 5 sign languages;

iv. We collected 137 **interviews** with elderly Deaf signers belonging to 5 countries;

v. We are developing the **digital platform** that will host all the contents, making it accessible to the public.

In this issue

The writing of the digital grammars has speed up

In the past year, we have advanced in the writing of the grammar of six sign languages (Catalan, German, Italian, Spanish and Turkish Sign Languages and Sign Language of the Netherlands). After devoting the first two years of the project to the topics for which linguistic descriptions were already available, in the past year we concentrated on the description of some of the linguistic phenomena for which no research had been carried out yet. With the help of our deaf collaborators, we collected the visuals (videos and stills) and we created the content describing the grammatical phenomena belonging to the domains of: socio-historical background, phonology, lexicon, morphology, syntax and pragmatics. The six grammars follow the same Table of Content and share the same glossing conventions, formatting and writing style.
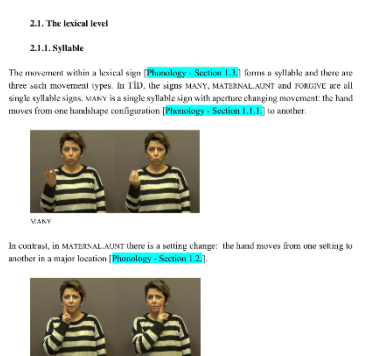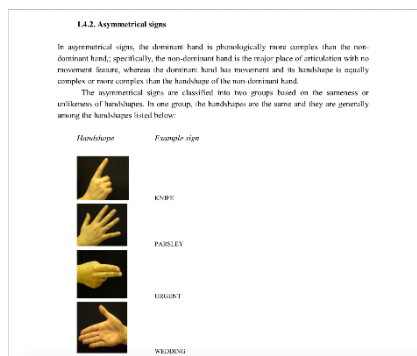
In order to work in synergy and avoid inconsistencies across grammars, we defined common guidelines and conventions.

In the next year, we will: (i) complete the description of the linguistic phenomena by providing new content for the remaining sections; (ii) implement the written descriptions and the visuals on the SIGN-HUB interactive digital platform. In a year's time, the online grammars will be available to users and freely accessible to anyone interested in order to boast the knowledge, understanding and research on sign languages of the world.

As open pieces of work in digital format, they can be enriched in the future as new research is carried out. Ideally, they will start a trend of reference grammar writing for many more sign languages.

Elena Fornasiero, PhD student
Ca' Foscari University of Venice

The experience of a PhD student

Writing the grammar of a language is a quite challenging task, more so if the language lacks an official recognition. This is the case of Italian Sign Language (LIS), whose grammar I am contributing to write. As a PhD student at Ca' Foscari University of Venice, the writing task has become a great chance to further discover LIS and to be part of a community of researchers both at national and international level. Of course, none of this would have been possible without the precious contribution of Deaf informants who are part of the SIGN-HUB project. The writing of the grammar involves the collaboration between the scientific and the Deaf community who work together towards the development of tools which will be crucial to foster the study of Italian Sign Language and, hopefully, to obtain its official recognition in Italy.

Fragments from the grammar of Turkish Sign Language with the written description of the linguistic phenomenon and exemplifying images.

The Atlas questionnaire is ready to be sent around

The project "Atlas of linguistic structures of the World's sign languages" will produce an online tool, with which the users can navigate through the sign languages of the world and learn about their linguistic features.

The Atlas will be open to everybody. It should appeal to anybody who is interested in the diversity of sign languages: deaf people, who want to know more about the sign languages of the world, sign language teachers or interpreters, students, sign language linguists, who are interested in typological questions, and general linguists, who want to know about the grammatical structures of sign languages.

As a starting point of navigation, we can picture a map of the world with little dots for each sign language.

Next to this map, there will be a table of contents, organized according to the standard linguistic areas "phonology", "lexicon", "morphology", "syntax", "pragmatics" and a "socio-historical background" with a list of grammatical features or phenomena in each one. So, users have the opportunity to navigate through the Atlas either by sign languages or by the list of grammatical features.

An example: On the world map, users can find a sign language on a small island in the Western Caribbean – Providence Island Sign Language (PISL). Since it is a village sign language and not (yet) deeply investigated, the information in the Atlas about PISL will be on a basic level, such as number of native speakers or preferred word order.

In contrast, users can also look through the table of content and click on a grammatical feature of interest, say reflexive pronouns.

Those sign languages, for which we could access this information, will appear as dots on the map. The dots will be color coded with regard to the values of this feature.
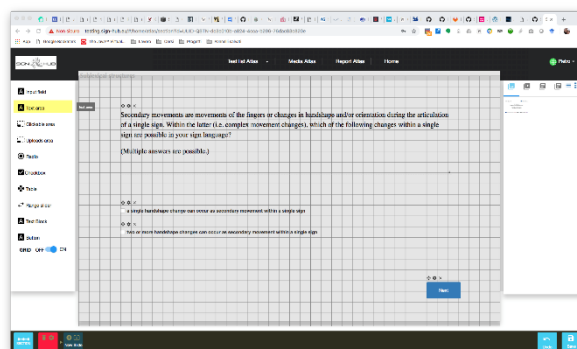
A screenshot showing the insertion of a linguistic feature for a sign language through the questionnaire.

Software tools for the Atlas

At the current state of our project, we are designing and developing the software tools, which will (a) extract the information of our questionnaires to display the grammatical features, and (b) present them on maps. The information for each sign language will be collected in different questionnaires, filled out by several content-providers, i.e. sign language experts and linguists. The questionnaires will be launched in the next months, so we expect to see the first maps of the Atlas soon.

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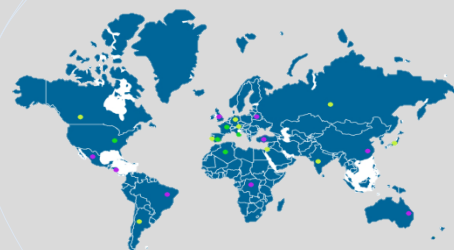
The form and structure of the assessment tests for 5 sign languages are ready

Diagnosis of linguistic deficits in clinical populations of signers requires the use of specific assessment tools.
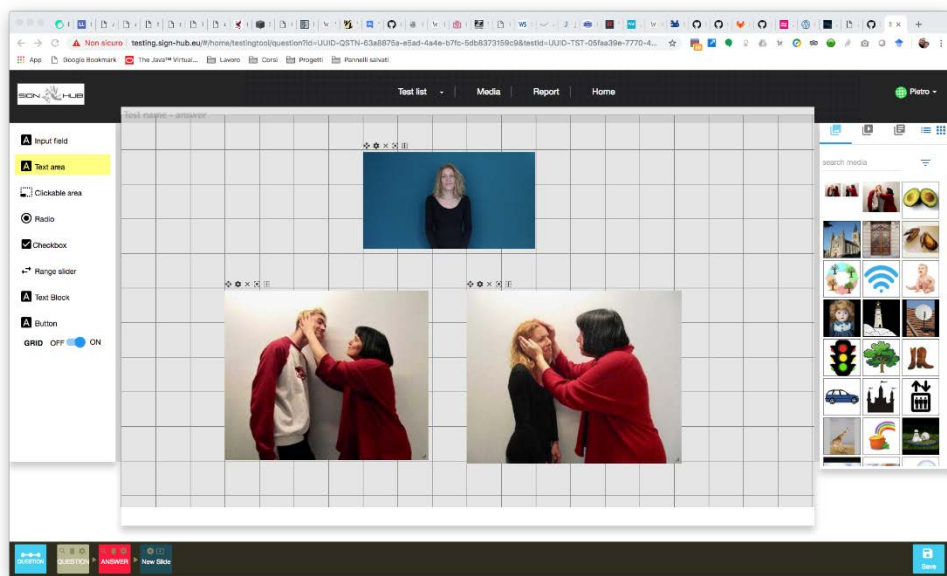
However, the available diagnostic resources for sign languages are only few. To fill this gap, we are developing a battery of tests aiming at assessing both lexical and syntactic competence of signers.

In the first stage of the project, we defined the form and structure of the assessment tests for Catalan, French, Israeli, Italian and Spanish Sign Languages.

As for the lexical tests, we completed the selection of the items and the collection of the visual materials (stills and videos). To verify whether the lexical tests are well formed and reliable, we are now working on their validation.

As for the syntactic tests, the Israeli team has run some pilot and validation tests with Deaf signers with the purpose of improving test design and reliability. The other working teams will benefit from the output of this exploratory phase to create their syntactic tests.

Is it a good test?

❑ Some lexical stimuli have been administered to hearing non-signers to exclude that the meaning of the signs is too easily recognizable.

❑ To verify whether some criteria for phonological similarity hold, perception tests have been conducted with hearing signers and non-signers.
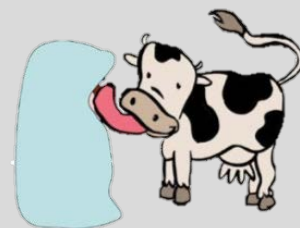
❑ Pilot tests have been administered to Deaf consultants to assess the overall complexity and the presence of possible ambiguities.

❑ The SIGN-HUB battery of tests has been used with a language-impaired deaf signer for the first time! First results show that the tests are able to tease apart selective linguistic deficits from impairments of different kinds.

A screenshot showing the test editor interface while building a syntactic comprehension task. Participants will be presented a video showing a sentence and a set of 2 pictures. They will be asked to select the corresponding picture.

## Towards the creation of the documentary on Deaf elderly signers

In the attempt to preserve the old signers' linguistic and cultural heritage, we are working at the creation of a digital archive of life narratives. In the interview phase, we conducted a total of 137 interviews with Deaf seniors coming from five countries (Germany, Italy, The Netherlands, Spain and Turkey). Moreover, we digitalized existing archives of Deaf French and Israeli signers.

To pave the way for future linguistic, historic, and anthropological studies, in the last year we have been focusing on two important activities, such as subtitling and annotation.

We subtitled either fragments or entire interviews in the local spoken languages.

Some fragments of interviews were also annotated for individual signs and linguistic properties by means of the software ELAN.

Further steps toward the preservation of old signers' linguistic and cultural heritage will be the publication of an edited volume and the creation of a documentary movie on Deaf elderly signers. We have already established contact with a publisher for the volume and a film maker for the documentary movie. The next months will be devoted to the finalization of these two exciting projects.
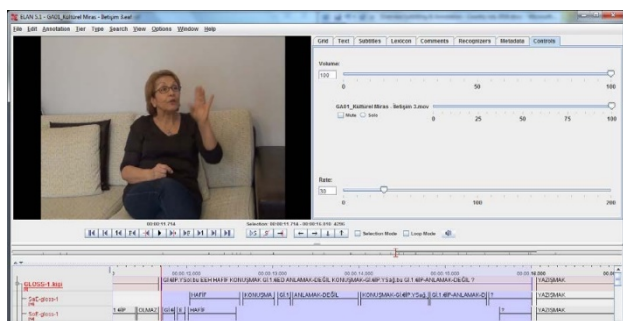
We annotated aspects of linguistic variation using ELAN, an annotation software designed for the analysis of sign language data.

Interviewing German Deaf elderly people

The interviews with Deaf elderly people have brought to light many positive as well as negative exciting experiences.

First, many deaf seniors have only learned German Sign Language (DGS) at school, either secretly or during school breaks.

Second, for many deaf seniors the club life has a very high priority. Here, they meet friends and can communicate barrier-free in DGS. Thus, many deaf seniors condemn today's club shrinkage, blaming modern media for that. However, technologies often make their lives easier in many areas.

Third, many seniors reject the use of interpreters at a doctor visit, for instance. Because of the issue of confidentiality, they would rather be accompanied by their own children or, if necessary, go alone to their doctor. On the other hand, there is a desire to be more involved in accessible public life.

Fourth, many deaf seniors also hope for an improvement of the care system. Some of them are worried about the future.

From these perspectives, the interviews show that there is still much need for change.

Dr. Jens-Michael Cramer,
Georg-August-
Universitaet Goettingen

SIGN HUB

How is our platform being built?

The digital infrastructure is an essential output of the SIGN-HUB project, serving the purpose of making the digital content produced by the project available and accessible to the widest audience possible.

Online grammars

An interactive grammar tool will allow the users to access the content of a collection of sign language grammars and navigate through them by following cross-references and links to the glossary for the explanation of common terms.

Interactive Atlas

The platform will also offer an interactive atlas of the word sign languages where users can interactively superimpose information about the diffusion of the essential sign language features onto a navigable world map.
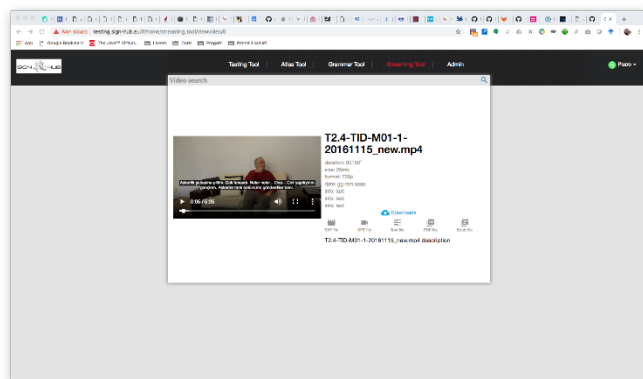
Archive of interviews

The third component of the platform will be an archive of videos and documentaries about the history and culture of Deaf communities across Europe and Israel.

Sign language assessment tools

Finally, the platform will offer tools for educators and clinicians that will allow to assess language impairments in signing deaf subjects.

Delivering such a novel and feature-rich digital infrastructure presents a number of challenges. Special care was taken to ensure that the developed platform matches the requirements and project vision for the services it will offer. To this end, development activities were complemented by continuous validation through periodic interaction between the technology and researchers, and through the production of pilots.

A screenshot of the digital infrastructure making the archive of interviews to elderly Deaf people available to the public.

IT and content creators collaboration

For the aspects related to the development of the web-platform, content creators started submitting their feedback directly to computer scientists, who organize and prioritize the requests according to the needs of the various teams. The efforts of the mediation is then shifted on other more subtle aspects of the digital materials created for Sign-Hub. The intensive collaboration and mediation across the various teams has led to a scientific contribution, presented at AISV 2019, a conference on "Audio archives at the crossroads of speech sciences, digital humanities and digital heritage". The paper illustrates the general structure of the platform and use the video-streaming tool as a case study of preservation of Digital Archives for Deaf communities.

SIGN HUB

WHAT'S GOING ON

TISLR13 Conference

The 13th international conference of Theoretical Issues in Sign Language Research (TISLR) will be held at the University of Hamburg on September 26-28, 2019.

The TISLR conference is organized by the Sign Language Linguistic Society (www.slls.eu) every three years. It represents an opportunity to share ideas and research findings in different fields of sign language research.

Invited speakers are Ronice Quadros (Brasil), Jordan Fenlon (UK), Gladys Tang (Hong Kong) and Karen Emmorey (USA).

More information: https://www.idgs.uni-hamburg.de/en/tislr2019.html
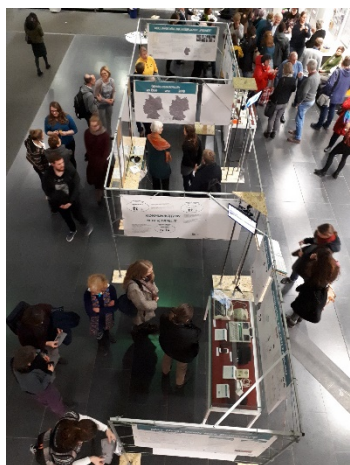
Exhibition of the life stories of elderly Deaf people in Germany

The student exhibition "Life Stories of elderly Deaf people» was opened at the cultural center of Göttingen University on January 15th, 2019. The exhibition, connected to the collection of interviews to elderly Deaf people within the SIGN-HUB project, aimed at sharing the narrations about the life of elderly Deaf people in Germany. The exhibition was open to the public until February 28th, 2019 and proposed various hands-on and communication games, which allowed insights into the world of Deaf people.

More information: http://www.unigoettingen.de/de/598123.html

Summer School in Hamburg

A Summer School connected to the TISLR conference will be organized in Hamburg from September 30th, 2019 to October 4th, 2019.

The Summer School will address issues connected to the linguistic study of sign language. Deaf and hearing students and young researchers are welcome to attend.

More information: https://www.sign-lang.uni-hamburg.de/summerschool
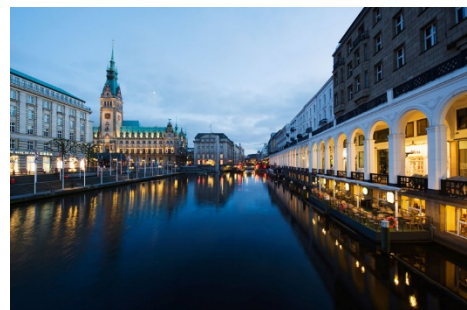
SIGN HUB

SIGN-HUB: preserving, researching and fostering the linguistic, historical and cultural heritage of European Deaf signing communities with an integral resource

The SIGN-HUB website

Visit the project website to get more information on the project, to keep updated on our dissemination activities and preliminary results, and to contact us
www.sign-hub.eu

Our Facebook page

To keep updated with our activities, to share your comments and experience with the scientific and Deaf communities visit our Facebook page
www.facebook.com/sign.hub.project

Subscribe online to receive the SIGN-HUB Newsletter by writing to sign-hub@upf.edu

National websites

Visit the project national website of your country:

➢ Spain:
https://www.upf.edu/web/sign-hub

➢ France:
https://sites.google.com/view/signhubfrance/

➢ Germany:
https://www.uni-goettingen.de/de/546745.html

➢ The Netherlands:
http://www.uva.nl/en/discipline/sign-linguistics/research/sign-hub/sign-hub.html?1552838114864

➢ Italy:
http://www.sign-hub.it/

➢ Turkey:
https://signhub.boun.edu.tr/en

➢ Israel:
http://www.tau.ac.il/~naamafr/sign-hub/index.html