We are pleased to release the second newsletter of the SIGN-HUB project and to share with you the preliminary results of our research. During the past years, the project units have been working in synergy to develop the main objectives of the project:

i. The writing of the grammar of 6 sign languages;
ii. The creation of an ATLAS of sign languages;
iii. The development of assessment tools in sign languages;
iv. The collection of interviews with elderly Deaf signers sharing their memory and culture;
v. The creation of a digital platform to archive all material and make it accessible to the public.

Find out what we have accomplished
Working on the grammar of 6 sign languages

Sign languages lack such a basic resource as comprehensive grammars. This type of reference work is being created as part of the project for 6 of them (Catalan, German, Italian, Spanish, Turkish Sign Languages and Sign Language of the Netherlands) following the same guidelines, called the SignGram Blueprint.

In their final form, these grammars will include visual media and will be available on the SIGN-HUB interactive online platform. The online grammar writing tool itself will be open for researchers to use, in order to promote producing grammars for more sign languages from around the globe.

At the current stage, each language team has summarized the existing research and transformed that information into the format of the Blueprint. Given that the linguistic aspects already studied vary significantly from language to language, this will give us a clear picture of the new work to be carried out in order to attain a comprehensive coverage of the grammar of each language.

The SignGram Blueprint experience

Using the SignGram Blueprint as a common tool to develop the grammars of the sign languages to be described constitutes both a safe basis and a challenge. It provides a common structure and background information across the teams that is useful for the writing itself, and it will enhance comparability among the resulting grammars. Still, this imposes some rigidity that needs to be overcome in the process of aggregating and compiling existing and new information. In addition, turning existing information into a coherent and reliable description is far from an easy task, because of the different levels of detail and of the disparate types of existing materials to be integrated.

Linguistic data has been analyzed using ELAN, a software that allows the annotation of sign language data by importing visual material in the same working sheet.
The Atlas of world’s sign languages

The project component “Atlas of linguistic structures of the world’s sign languages” aims to create an online platform that shows a wide range of sign languages all around the world picturing their unique linguistic features. At current state, the design of the questionnaire, which forms the basis of the Atlas, has been completed. Based on the SignGram Blueprint, we have defined more than 100 grammatical categories, for which we are going to elicit data of each sign language included in the Atlas.

The Atlas questionnaire will collect information on more than 100 grammatical categories

We have developed corresponding questions that do not only address linguistic sign language experts, but also linguistically informed sign language users working on less investigated (non-Western) sign languages. Currently, we are pursuing three objectives: (i) compiling a list of potential content providers for as many sign languages as possible, (ii) programming and implementing a pilot of the online questionnaire and (iii) finalizing the set of questions for the final questionnaire based on the grammatical categories we defined.

Objective (ii) is executed in close collaboration with CINI, the SIGN-HUB technological partner. The pilot will soon be sent to a small group of selected representative content providers to get feedback on design, content and functionality of the questionnaire. Based on their feedback, we will improve the structure and content of the final version of the questionnaire, which will then be sent out to all content providers around the world. Containing a glossary and the possibility to upload pictures and videos, the final questionnaire will enable us to collect specific linguistic features and individual examples from sign languages worldwide.

The uses of an Atlas of sign language structures

Similar to the World Atlas of Language Structures (WALS, http://wals.info/), which presents a great amount of linguistic features of spoken languages distributed around the world, the sign language Atlas will be a great tool for deaf and hearing linguists, sign language teachers, interpreters and interested people, who want to investigate the structures of sign languages.
Assessment tools in sign language

Today, when a deaf signing person arrives in the hospital after brain damage, and when a signing child has developmental syntactic impairments, there are very few syntactic tests in various sign languages to diagnose these impairments.

In the framework of SIGN-HUB, we develop novel syntactic tests, based on theoretical analyses of several sign languages: Italian, French, Catalan, Spanish and Israeli Sign languages.

The tests aiming at assessing the lexical competence of signers are ready for three sign languages: Italian Sign Language, French Sign Language and Catalan Sign Language, and will be soon validated with hearing and deaf participants. They test both the comprehension and the production of signs that have been carefully selected for not being transparently accessible to someone who doesn’t know the sign language under investigation.

As for the comprehension tests, the participant sees the video of a sign and has to select the matching picture among a set of options. These options include the target answer and several “distractors”, incorrect answers that have been selected because they bear either a phonological similarity (a sign which is articulated in a similar way) or a semantic similarity (a concept that belongs to the same semantic field) with the target.

A final important feature of these tests is that they are maximally similar across languages. In parallel, a set of tests aiming at assessing the syntactic competence of signers are being developed. The Israeli team is leading here, and has already run a pilot for tests on agreement, on questions, and on role shift. The other teams are closely following.

Dyslexia in fingerspelling

In the framework of SIGN-HUB testing, we discovered the first case of a specific dyslexia in fingerspelling. Israeli Sign Language uses fingerspelling for introducing new names from Hebrew. Anya, a congenitally deaf woman, shows the exact same dyslexia (letter position dyslexia) in reading written Hebrew words and in fingerspelling: in both she made letter transpositions. This may indicate that fingerspelling is read with the same mechanism as written words.
Interviews with elderly signers

As for the project component on “life stories of elderly Deaf signers”, the interview phase was completed in November 2017. In five countries, a total of 137 interviews with 142 interviewees has been conducted, interviewees ranging in age between 66 and 97 years. The interviews, all of which were conducted by Deaf research assistants, followed a pre-established questionnaire, in order to ensure comparability of content, but still allowed for on-the-spot adaptations. The general picture that emerged was that participants were happy and eager to share their memories and experiences, often supplementing their stories by photos or other memorabilia.

137 interviews have been conducted, interviewees ranging between 66 and 97 years old

Browsing through the materials (which are presently translated and partially subtitled), we do not only find joyful memories about school days, work-related matters, and personal relationships, but also reports on negative, and at times confronting, experiences, including experiences of suppression and abuse. Taken together, the recordings provide a vivid picture of the history and culture of Deaf communities across Europe. Within countries, we further observe interesting variation in the use of the local sign language, which likely results from changing educational policies.

The fieldwork experience

Interviewing elderly Deaf people, aged from 80 to 90, has been very exciting. I would like to highlight three issues. Firstly, most interviewees lived the Spanish Civil War. They remember when bombs fell and their parents took them to the anti-aircraft shelters. It was very distressing since, due to deafness, they did not understand what was happening. Regarding education, at that time Deaf children went to schools for the Deaf. Interestingly, although they all signed, what most interviewees emphasize are their good skills in the spoken language, and say nothing about sign language. Although their current life is in sign language, it seemed something secondary. Finally, the impact of technology also emerged. They used to go to Deaf associations to meet people, but there was no way to know if they would meet somebody. Today, interviewees see new technologies as surprising, and video calls seem amazing to them.
The SIGN-HUB digital infrastructure

The first version of the whole platform is now available to the members of SIGN-HUB. In this version we implemented the first prototype of the grammar tool (the tool grammar writers will use to upload Sign Language grammars) and the streaming tool (the tool where the documentaries about the history and culture of Deaf communities will be available), a developed version of the assessment tool and of the Atlas tool are also released.

The SIGN-HUB agile development process

The development of the platform is now following a full agile working methodology. For each component of the platform, engineers and software developers regularly interact with the leaders of each research group to implement and incorporate the requests and make the platform more and more user-friendly. The working methodology is based on two-week windows during which engineers and software developers intensively work on the development of specific branches of the platform. After the two weeks, a new release of the platform is made available for testing to the leaders of the research group. After the testing phase, the release becomes available to all members of SIGN-HUB. This procedure guarantees a double de-bug procedure and makes the platform more efficient.

IT and linguists collaboration

The cross collaboration between linguists and IT experts blends heterogeneous expertise and jargons. The constant contacts within an informal communication board coordinated by Carlo Geraci, and the organization of workshops with sign-hubbers and external experts created a fertile environment. The first workshop was held on November 8th 2017 and focused on the organization of the data repository, security issues and data protection. Dr. Van Uytvanck illustrated the advantages of using the CLARIN platform as repository for the materials to-be-produced within SIGN-HUB. The second workshop was held on February 23rd 2018 and focused on the evaluation of the status of each front-end under development. Dr. Thomas Hanke from the University of Hamburg presented his work on the digitization of the German Sign Language corpus with particular reference to the visualization of regional variation, a topic strictly related to the future development of the Atlas.

The platform is entirely accessible via internet browser and offer easy-to-use applications to manage visual materials. Access to the platform is currently limited to SIGN-HUB researchers working on the content creation. In the next steps, we will work on final user interfaces to provide access to the general public.
UPCOMING EVENTS

FEAST Conference

The ‘Formal and Experimental Advances in Sign language Theory’ (FEAST) is the conference connected to the SIGN-HUB project. It is devoted to disseminating the most advanced research in the domain of the linguistic and experimental studies on the world’s sign languages.

The next FEAST7 conference will take place at Ca’ Foscari University of Venice, on June 18-20, 2018.

Invited speakers are Luca Des Dorides (Istituto Statale Sordi di Roma), Carlo Geraci (Institute Jean-Nicod Paris), Meltem Kelepir (Boğaziçi University) and Krister Schönström (Stockholm University).

More information: https://sites.google.com/site/feastconference/feast-2018-venice

SIGN-HUB Summer School

The SIGN-HUB and CNRS Thematic School in Sign Language Linguistics will take place on 11-15 June, 2018 in Villa Grumello, Como Lake, Italy. The Summer School addresses theoretical and experimental issues in sign language linguistics, sign language assessment and Deaf history. It is open to Master students, graduate students and junior researchers. The Summer School is fully accessible, it is free and a number of bursaries have been offered to cover costs of lodging to Deaf and hearing students.

More information: https://sites.google.com/site/feastconference/home/summer-school/summer-school-2018

Workshop in Crete

The workshop ‘Sign Language grammars through the formal and experimental glass’ will take place on July 25, 2018. It will be hosted by the University of Crete in Rethymnon, within the CreteLing Summer School 2018.

Several SIGN-HUB researchers will deliver the talks. In addition, the workshop will host a poster session.

More information: www.phl.uoc.gr/conf/ cssl18
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

National websites
Visit the project national website of your country:

➢ Spain:
https://signhub-upf.joomla.com/cat/

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

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

➢ The Netherlands:
http://gok.uva.nl/research/groups/groups/content/folder/sign-lang/sign-grammar/typology/sign-hub/sign-hub.html

➢ Italy:
http://www.sign-hub.it/

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

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

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