

D6.2 Publicity and Dissemination Report for Y2



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Executive Summary

The SL-ReDu project aims to advance the state-of-the-art in the automatic recognition of Greek Sign Language (GSL) from videos, while focusing on the education use-case of standardized teaching of GSL as a second language. In this deliverable (D6.2), we present the dissemination activities during the second year of the project (M13-M26), which primarily included publications and presentations at international conferences. D6.2 will be updated as D6.4, summarizing the SL-ReDu dissemination activities during the third (final) year of the project.

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1 Introduction

Dissemination represents an important activity of research projects, as it allows spreading of the developed knowledge in a timely fashion to the scientific, stakeholder, and general public communities, while also allowing funding agencies to gauge project impact and investment return, as well as resulting to visibility of all parties involved. For this purpose, the SL-ReDu project has assigned a dedicated task (T6.1) of workpackage WP6 in its Technical Annex to the project dissemination activities, which remains active over the entire project duration with its activities reported yearly.

In this deliverable (D6.2), we overview the SL-ReDu dissemination activities during its second year (M13-M26), following a corresponding deliverable D6.1 [1] that covered its first year (M01-M12). Since the project logo, website, brochure, and poster were developed in Y1 and thus reported in D6.1, here we primarily cover scientific dissemination by means of papers and their presentations during Y2.

More specifically, we discuss:

- The publications of research work related to SL-ReDu (Section 2).
- The presentations of the project at various fora (Section 3).
- Any other dissemination activities, including student education activities (Section 4).

Finally, in Section 5 we detail some of our planned future dissemination activities, and in Section 6 we conclude the deliverable.

2 The SL-ReDu Publications During Y2

Following five scientific publications during Y1 of the project, in Y2 an additional four have appeared or been accepted for publication in well-established peer-reviewed international conferences. These are available at the SL-ReDu website (<https://sl-redu.e-ce.uth.gr/publications>) and are listed next:

- M. Parelli, K. Papadimitriou, G. Potamianos, G. Pavlakos, and P. Maragos, “Spatio-temporal graph convolutional networks for continuous sign language recognition,” [accepted for publication, to appear in:] *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2022.
- E. Efthimiou, S.-E. Fotinea, C. Flouda, T. Goulas, G. Ametoglou, G. Sapountzaki, K. Papadimitriou, and G. Potamianos, “The SL-ReDu environment for self-monitoring and objective learner assessment in Greek Sign Language,” in *Proceedings of the International Conference on Human-Computer Interaction (HCII): Universal Access in Human-Computer Interaction. Access to Media, Learning and Assistive Environments*, pp. 72–81, 2021 (DOI: 10.1007/978-3-030-78095-1_7).
- K. Papadimitriou, M. Parelli, G. Sapountzaki, G. Pavlakos, P. Maragos, and G. Potamianos, “Multimodal fusion and sequence learning for cued speech recognition from videos”, in *Proceedings of the International Conference on Human-Computer Interaction (HCII): Universal Access in Human-Computer Interaction. Access to Media, Learning and Assistive Environments*, pp. 277–290, 2021 (DOI: 10.1007/978-3-030-78095-1_21).
- G. Sapountzaki, E. Efthimiou, S. E. Fotinea, K. Papadimitriou, and G. Potamianos, “Educational material organization in a platform for Greek Sign Language self monitoring and assessment,” in *Proceedings of the International Conference on Education and New Learning Technologies (EDULEARN)*, pp. 3322–3331, 2021 (DOI: 10.21125/edulearn.2021.0707).

The first page of the second and third publications listed above are shown in Figure 1.



Figure 1: The first page of the two SL-ReDu publications at the HCII-2021 conference during Y2.

3 The SL-ReDu Presentations During Y2

Three of the four aforementioned publications have been presented during Y2 of the project at the corresponding conferences, all of which have been held virtually due to the ongoing pandemic crisis. Note that the fourth publication (the first one in the bullet list of Section 2) will be presented in M28 (also virtually), thus lying outside this reporting period.

The two HCII-2021 conference paper presentations were made online via the conference-organized zoom interface based on slides, with the presenters (see below) responding to audience questions as well. On the other hand, the EDULEARN-2021 conference paper presentation was uploaded in the form of a pre-recorded video using slides with voice-over that was available to the conference participants in an off-line mode. An effort has been made to produce all presentations following a uniform style and employing a consistent template, with all slides bearing the logo of H.F.R.I. and the final slide including the acknowledgements text requested by H.F.R.I. in the implementation guide of the funding action. An example of such format is shown in Figure 2, where the first and last slide of the two HCII-2021 presentations are depicted.



Figure 2: The first slide (left) and last slide (right) of the two SL-ReDu presentations at HCII 2021 (upper: first presentation in the bullet list of next page; lower: second presentation in the bullet list), showcasing the general presentation style adopted and the acknowledgement to H.F.R.I. funding.

In summary, the three project virtual presentations were made by:

- **E. Efthimiou** and **S.-E. Fotinea** at the *International Conference on Human-Computer Interaction (HCII 2021)*, specifically in the track / session on *Universal Access in Human-Computer Interaction / Access to Media, Learning and Assistive Environments*, in July 2021, presenting the second paper in the bullet list of Section 2.
- **G. Potamianos** and **K. Papadimitriou** at the *International Conference on Human-Computer Interaction (HCII 2021)*, specifically in the track / session on *Universal Access in Human-Computer Interaction / Access to Media, Learning and Assistive Environments*, in July 2021, presenting the third paper in the bullet list of Section 2.
- **G. Sapountzaki** at the *International Conference on Education and New Learning Technologies (EDULEARN 2021)*, in July 2021, presenting the fourth paper in the bullet list of Section 2.

Note that all three presentations (in the form of slides or video) can be retrieved from the project website (https://sl-redu.e-ce.uth.gr/project_news).

4 Additional Dissemination and Educational Activities

In addition to the above activities, the following two dissemination actions have taken place:

- The project (including the SL-ReDu prototype system) has been presented to the students of the Department of Special Education at the University of Thessaly (UTH-SED) in Volos, Greece, as part of the “Phase-A” project evaluation campaign, by **G. Sapountzaki**, **E. Efthimiou**, **S.-E. Fotinea**, and **K. Papadimitriou** in December 2021 (see also Figure 3).
- The project has been presented at the Staff Assembly of the Institute for Language and Speech Processing (ILSP) at the Athena Research and Innovation Center (AthenaRC) in Maroussi, Greece by **S.-E. Fotinea** and **E. Efthimiou** in December 2021. The presentation described the project’s results, as well as the offered services through the SL-ReDu prototype web platform for learners of GSL as a second language.



Figure 3: Presentation of the SL-ReDu project and prototype system to UTH-SED students in Dec.’21.

Further, supporting advanced education in the SL-ReDu research areas, a number of student Theses, ongoing or completed, are related to the project. Specifically, the following Ph.D. Thesis is ongoing:

- K. Papadimitriou, *Sign Language Recognition*, supervised by G. Potamianos,

the following Master Thesis is ongoing:

- V. Sirianou, *Language Data Organization Based on WordNet*, supervised by E. Efthimiou,

while the following Diploma Theses have been completed during Y2 or are ongoing at the time of composing this deliverable (March 2022):

- Maria Parelli, *Deep Learning Based Sign Language Recognition*, supervised by P. Maragos [completed in June 2021].
- Heleni Veroni, *Fingerspelling Recognition from Video*, supervised by G. Potamianos [completed in July 2021].
- Alexandros Dimos, *Tracking and Recognition of Fingerspelling from Videos*, supervised by G. Potamianos [ongoing, expected completion in July 2022].
- Angelos Pantopoulos, *A Computer Vision System for Automatic Evaluation of Greek Sign Language Fingerspelling Proficiency*, supervised by G. Potamianos [ongoing, expected completion in September 2022].

Finally, we have set up a Facebook account (<https://www.facebook.com/SLR.Education>), as well as a Twitter account (<https://twitter.com/SLReDu>) for the SL-ReDu project, in order to further facilitate its dissemination via social media platforms (see also Figure 4).



Figure 4: Dissemination of the SL-ReDu project via social media. **Upper:** Facebook; **lower:** Twitter.

5 Future Dissemination Plans

The SL-ReDu partners plan to continue dissemination activities in a series of events that attract heavy interest by the general public as well as some of the project stakeholders and policy makers. Among those, we plan to present the SL-ReDu project at an education event in June 2022 that is being organized by UTH-SED at their premises, in conjunction with the European Centre for Modern Languages (ECML) and the Directorate of European and International Affairs of the Greek Ministry of Education and Religious Affairs. The event will attract professionals in GSL education. In addition, depending on the public health conditions with respect to the pandemic at the time, we plan to participate in September 2022 at the Thessaloniki International Fair as part of the AthenaRC booth, as well as at the DEAFestival in Athens.

Further, AthenaRC plans to jointly organize the 10th Workshop on the Representation and Processing of Sign Languages (SLTAT), as part of the Language Resources and Evaluation Conference (LREC) in Marseille, France in June 2022, and possibly a sign language dedicated workshop as part of the Workshop Track of the International Conference on Acoustics, Speech and Signal Processing (ICASSP) in Rhodes, Greece in June 2023. It is hoped that both events will be held in-person.

Following on the footsteps of our Y1 and Y2 publications, we plan during Y3 to submit articles in a number of conferences, for example EduLearn 2022, SLAT 2022, and possibly at ICASSP 2023, Interspeech 2023, and EduLearn 2023. We also aim to submit one or two journal articles at suitable venues.

6 Conclusions

In this deliverable, we presented our dissemination activities during the second year of the SL-ReDu project, primarily involving conference paper publications and presentations, as well as some additional dissemination work and student supervision in their thesis work on the project challenging topics. Finally, we outlined our plans for possible future dissemination activities, which will be reported at the end of the project in Deliverable D6.4.

References

- [1] G. Potamianos, K. Papadimitriou, E. Efthimiou, S.-E. Fotinea, P. Maragos, and G. Sapountzaki, “D6.1: Publicity and dissemination report for Y1, including project website,” *Tech. Report, SL-ReDu Project Deliverable*, Volos, Greece, 2021.