

THE NEWS LETTER

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WELCOME

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020



Reception, Management and Integration of Third Party Nationals

The First Year of the Project

First workshop with refugees

On September 26th 2020, the first workshop that involved one of the target groups of the WELCOME Project (namely refugees) has taken place in Hamm (Germany). The workshop was organised by the WELCOME partner Caritasverband Hamm e.V. in cooperation with the social association Al-Bayan. The goal of the workshop has been to collect and discuss the expectations and needs of refugees upon their arrival, integration and post-integration life in Germany. The outcome of the workshop provides to the Consortium very important insights and further guidance with respect to the coverage of the services and information to be offered to TCNs as well as with respect to the functionality of the WELCOME technologies.



Photo: Caritas Hamm

About the project

The goal of the WELCOME Project is to draw upon innovative solutions in the field of Information and Communication Technologies in order to help public administrations and NGOs to overcome the challenges of the reception and integration of migrants and refugees (commonly referred to as “Third Country Nationals”, TCNs). For this purpose, WELCOME is about to develop intelligent conversational agents, which act as dedicated personal assistants to TCNs. Of particular importance in this context are knowledge-based visual analytics technologies, language technologies, immersive Virtual Reality environments, and intelligent agent team-based human computer interaction – paired with the findings from psycho-sociological research.

The WELCOME Consortium consists of 15 highly consolidated partners: 6 research institutions, 3 ICT companies, and 6 user partners dealing with reception and integration of migrants and refugees. The WELCOME Platform is envisaged as a product co-designed and co-created by the entire Consortium and all parties involved in the process of TCN reception and integration.

The co-design of the WELCOME technologies

During the first year of the Project (1/02/2020 – 30/01/2021), the interaction of the user with the WELCOME Platform and the WELCOME technologies needed to account for this interaction were co-designed by the entire WELCOME Consortium, i.e., Technical and User Partners alike. Co-design is at the heart of the work in WELCOME; it guarantees, on the one hand, that the developed Platform serves the needs of the Users and, on the other hand, that the expectations of the Users towards the Platform can be realized from the R&D point of view. The co-design implied conducting a theoretical and empirical study to assess the backgrounds of the target groups of the WELCOME Platform and determine the socio-psychological dimensions of the TCNs that need be taken into account in order to be able to develop a personalized solution.



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The outcome of the study led to the definition of selected basic interaction patterns between TCNs and the MyWELCOME Agent that will underlie the functionality of the WELCOME technologies in the 1st Operational Prototype (due by month 18 of the Project, i.e., end of July 2021). Brainstorming sessions, in which, again, both User and Technical Partners participated, led to the first list of high priority user requirements. These requirements are based on the needs of the Users (i.e., TCNs and the social workers / administrations).

Advances towards the achievement of the innovation objectives of the Project

Guided by the collected user requirements, a big step has been done towards the achievement of the innovation objectives of the Project related to the design and development of the WELCOME Platform during the first year of the lifetime of WELCOME. Thus, the first versions of the modules of the core technologies for the realization of the personalized agents in WELCOME (including automatic speech recognition and synthesis, language analysis and generation, agent service coordination and knowledge processing) have been implemented. In this context, the Consortium worked on the acquisition of multilingual resources and models required by the language technologies, a great variety of complementary and background information, and recorded interaction simulations between employees of the Partners due the COVID-19 pandemic restrictions.

The first version of the Machine Translation module has been deployed for the Modern Standard Arabic – English language pair and 3D avatar models that will embody the WELCOME Agents have been created. The innovation objective related to the support of Administrations and NGOs has also been addressed in that the first prototype of the Visual Analytics-based decision support module has been developed. As far as the overall goal of WELCOME is concerned, the architecture of the entire WELCOME Application and of the mobile device-based MyWELCOME App have been designed and put into action, such that all modules are integrated and can communicate with each other as foreseen by the information and data flow, first for First Reception Services as offered in Catalonia, Spain. Lists of Frequently Asked Questions (FAQs) complement the current prototypical functionality of the Application.

In parallel, a guide to privacy, data protection, ethical and social issues have been developed and a joint data control agreement has been drafted.

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Advances towards showcasing WELCOME

Taking into account the user requirements, various scenarios have been designed and aligned with the three planned pilot use cases in order to drive the development of the WELCOME application and showcase it to both interested parties and the general public. The scenarios concern reception of TCNs in the host countries, language teaching, specific topics of higher education, and cultural and social immersion. In this context, a storyboard for the Virtual reality environments has been created and immersive gamification techniques and language learning setups that complement the existing training courses have been explored to enhance language learning.

Joint Migration Policy Whitepaper

Joint Migration Policy Whitepaper

TOWARDS ICT-ENABLED INTEGRATION OF MIGRANTS



WELCOME is one of the six projects in the area of migrant reception and integration that are currently funded by the European Commission in the context of its Horizon 2020 research and innovation Program (WELCOME, MIICT, REBUILD, NADINE, MICADO and EASYRIGHTS, commonly referred to as the “MIGRATION-06 Project Cluster”). All six projects hold regular common working sessions, in which they address issues that are of relevance to the topic of migration in general. The outcome of the most recent cooperative effort of the MIGRATION-06 Cluster carried out as the *Joint Migration Policy Roundtables* on the 14th–16th of October 2020, is a joint whitepaper intended as a strategical input for shaping future migration policy of the EU.

Entitled as [“Towards ICT-enabled integration of migrants”](#), the whitepaper summarizes the common thematic lines of the MIGRATION-06 Project Cluster and formulates the recommendations for the European Commission that are grounded in the experience of the Consortia dealing with migration. The recommendations concern, in particular, the common pillars of all the six projects, which focus on co-creation and participatory design, multi-stakeholder collaboration and ICT tools and digital services for supporting integration. The whitepaper has been very positively received and can be said to have had a strong impact.

Blog of articles



Photo: Unsplash

To mitigate the impact of the COVID-19 pandemic on the Project outreach activities, a blog of articles was launched in December on WELCOME’s project website. So far, we have published the following articles by various consortium partners:

- [“COVID-19, a problem or an opportunity for the Welcome project?”](#)
- [“How does Dissemination shift due to digitization?”](#)
- [“Digital transformation in social work”](#)
- [“Review of healthcare issues among third country national \(TCN\) communities inside Greece”](#)



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Scientific publications

In the first year of existence of WELCOME, the members of its Consortium published several scientific articles related to the topics dealt with in the Project:

- For the development of AI-supported integration services, which is being carried out in the context of WP2 of the Project will be summarized in a journal article: Magdalena Böhm, Eleni Dimopoulou, Maria Moudatsou, Marlen NiubóEdeler, Viktoria Makejkin, Ester Carrasco, Steffi Davey, Mónica Domínguez, Imke Friedrich, Elena Jaramillo, Matthias Klusch, Mirela Rosgova, TheoniSpathi, Dimitris Varadinis, Leo Wanner. "A theoretical and empirical study of psychosocial profiles of Third Country Nationals in Germany, Greece and Spain for the development of AI-supported integration services", to be published in the *Social Sciences Journal*.
- Bolaji Yusuf, Lucas Ondel, Lukas Burget, Jan Cernocky and Murat Saraclar: A hierarchical subspace model for language-attuned acoustic unit discovery, accepted to ICASSP 2021, Toronto, <https://2021.ieeeicassp.org/>
- Ekaterina Egorova, Hari K. Vydana, Lukas Burget, Jan Cernocky: Out-of-vocabulary words detection with attention and CTC alignments in an end-to-end ASR system, submitted to Interspeech 2021, Brno, <https://www.interspeech2021.org/>.
- M. Domínguez-Bajo, M. Farrús, and L. Wanner "The Information Structure-Prosody Interface in Text-to-Speech Technologies. An Empirical Perspective". accepted for publication in *Corpus Linguistics and Linguistic Theory*
- M. Domínguez, J. Soler-Company, and L. Wanner. "ThemePro: A Toolkit for the Analysis of Thematic Progression". In *Proceedings of LREC 2020*.
- B. Fisas, L. Espinosa-Anke, J. Codina-Filbà, and L. Wanner. "CollFrEn: Rich Bilingual English–French Collocation Resource". In *Proceedings of the Workshop on Multiword Expressions and Electronic Lexicons*, collocated with COLING 2020, Barcelona, Spain, 2020.
- S. Mille, A. Belz, B. Bohnet, T. Castro Ferreira, Y. Graham, and L. Wanner. "The Third Multilingual Surface Realization Shared Task: Overview and Evaluation Results". In *Proceedings of the Third Workshop on Multilingual Surface Realization, collocated with COLING 2020*, Barcelona Spain, 2020.
- A. Shvets and L. Wanner. "Concept Extraction Using Pointer-Generator Networks". In *Proceedings of the 22nd International Conference on Knowledge Engineering and Knowledge Management*, Bolzano, Italy, 2020.
- Ntioudis, D., Kamateri, E., Meditskos, G., Karakostas, A., Huber, F., Bratska, R., Vrochidis, S., Akhgar, B., and Kompatsiaris, I. (2020): IMMENSE: A Personalized System Addressing the Challenges of Migrant Integration, Proc. IEEE International Conference on Multimedia and Expo (ICME) - Workshop on ICT and Multimedia Tools for Migrants Inclusion in Host societies (WIMMIH), London, UK. IEEE.
- L. Espinosa-Anke, J. Codina-Filbà, L. Wanner. "Evaluating language models for the retrieval and categorization of lexical collocations". In Proceedings of the Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2021.
- L. Pérez-Mayos, R. Carlini, M. Ballesteros, L. Wanner. "On the Evolution of Syntactic Information Encoded by BERT's Contextualized Representations". In Proceedings of the Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2021.

Universitat Pompeu Fabra, Centre for Research and Technology Hellas, Charles University Brno University of Technology, Deutsches Forschungszentrum für Künstliche Intelligenz, Sheffield Hallam University, EVERIS, Nurogames, Método, Estudios Consultores, Mind Refuge, Kentro Meleton Asfaleias, Departament de Treball, Afers socials i famílies, CARITAS Verband Hamm e.V., PRAKSIS, iSocial Foundation



Partners:

