

# Newsletter no.4 (August 2018 - December 2018)

## Dissemination of eCare web corpus

*September 10, 2018*

---

The eCare web corpus has been presented in two academic events, a conference and a workshop. In May, Wiktor Strandqvist presented “Towards a quality assessment of web corpora for language technology applications”, co-authored by Wiktor Strandqvist, Marina Santini, Leili Lind and Arne Jönsson at the TISLID18 Conference, Ghent University, Belgium.

In September, Marina Santini’s presentation showed the experiments described in “Can We Quantify Domainhood? Exploring Measures to Assess Domain-Specificity in Web Corpora”, co-authored by Marina Santini, Wiktor Strandqvist, Mikael Nyström, Marjan Alirezai, Arne Jönsson at the international workshop TIR 2018, held in Regensburg, Germany.

The eCare corpus is a public textual corpus containing web pages downloaded from the web. The corpus has been designed as a dynamic and extensible corpus whose size can be increased over time. The corpus is a concept-specific medical collection, i.e. the corpus contains web pages that talk about chronic diseases (e.g. “ansiktstics” or “lungemfysem”). More information on the eCare corpus can be found [here](#).

## Dissemination at the Swedish Language Technology Conference in Stockholm

*October 29, 2018*

---

The project will be disseminated at the Seventh Swedish Language Technology Conference that is held in Stockholm on November 7-9. In the paper, Marina Santini, Wiktor Strandqvist and Arne Jönsson describe an approach to profile the domain specificity of specialized web corpora in Swedish. The proposed approach is based on burstiness. Burstiness is a statistical measure that identifies words with uneven distribution across the documents of a corpus. We apply burstiness to two medical web corpora that have different size and different domain granularity. Results are promising and show that burstiness is an appropriate measure to profile the domain specificity when matched against reference lists (gold standards) that represent the target domains. However, further research is needed to find adequate evaluation metrics, less empirical cut-off points and more principled gold standard design.

## Fall project meeting in Västerås

*November 23, 2018*

---

On November 15, representatives from all partners met at Mälardalen University premises in Västerås. During the meeting, we discussed:

- the experiences from the half-time review and the comments received
- the progress made in each work package
- the permanent demo
- the production of a cookbook for setting up and using an E-care@home like system and the database
- the next workshop with users
- the planned industrial day
- the future of E-care@home

In addition, Maria Lindén from Mälardalen University, who is the PI of the KK Foundation profile ESS-H but also involved in E-care@home, gave a keynote on ESS-H but also on the newly submitted ESS-H+ application and the reasoning behind it.

## E-care@home workshop at Ängen on November 23rd

*November 23, 2018*

---

On November 23rd, colleagues from Örebro University, Mälardalen University and SICS ICT met physically and virtually to work on the new permanent demo and to prepare for the upcoming industrial day.

The goals of the workshop were to:

- Integrate Shimmer into demo (with activity recognition)
- Connect E-care laptop to screen for visualization
- Test MoveCare (H2020 project) sensors and get basic data collection going
- Test new Contiki application layer (remotely with Nicolas from SICS ICT)

## E-care@home Smart Homes for Health Event on February 25th 2019

*December 6, 2018*

---

We will present a demo of our data collection and activity recognition solution and share our visions and research results. In the afternoon session, we aim to identify new research questions and challenges relevant to you, the stakeholders.

Participants may present their companies' vision/solutions/challenges related to e-health during the morning session to foster the afternoon's discussions.

Want to get more information on the event? Contact Uwe Köckemann on [uwe.kockemann@oru.se](mailto:uwe.kockemann@oru.se)

## Seminar at ASSA ABLOY

*December 17, 2018*

---

On November 5, 2018, Nicolas Tsiftes from RISE gave a seminar at ASSA ABLOY in Stockholm titled [Sleepy Devices vs. Radio Duty Cycling: The Case of LwM2M](#). The seminar covered the research in a recent paper by C. Gonzalo Peces, J. Eriksson, and N. Tsiftes, which has been accepted for publication in the IEEE Internet of Things Journal.

The paper evaluates two major energy-saving strategies, radio duty cycling and sleepy devices, within the context of LwM2M—the device management protocol used to implement the E-care@home application layer for sensor devices. Based on the experimental results and an empirical model, the paper gives recommendations on which strategy is the most efficient to choose with regards to battery lifetimes and communication latency for a given IoT network setup and application requirements.

As part of the work on the paper, we have released both the server and client software as open source. The server software has been integrated in [Eclipse Leshan](#), whereas the client software has been integrated in the [Contiki-NG](#) operating system.

## AI research meeting societal challenges

*December 19, 2018*

---

On November 20th, Universitetslärares published the article [Här pågår AI-forskning för samhällets utveckling](#). The paper present AASS (Center for Applied Autonomous Systems, Örebro University) which is lead by Professor Amy Loutfi who is also the coordinator of E-care@home.

In the article, also the Ängen Research and Innovation Apartment at which the E-care demo has been deployed, is mentioned. Ängen has approximately a thousand visitors (mainly from the public sector). The apartment is seen as a tool for preventing the fear of AI with knowledge. Many visitors are sceptic towards the technology when entering the apartment but more positive when leaving it. Ängen is not about selling products but a facilitator of discussions and debate. Such discussions can be used for adjusting the direction of the research.