



Publications 2020

Telenor Research

Company Internal

¹ TELENOR ASA, Snarøyveien 30 N-1360 Fornebu, Norway

1 Publications during 2020

Researchers in Telenor had, alone or together with other researchers 22 articles published in peer reviewed journals and conferences in 2020. The complete list of scientific publications is documented below.

1.1 Customers & Competition

Wasenden, O. C., "Digitalt personvern – kunnskap, bekymring og adferd". *Magma*, 2020

Sivertstøl, N., Supphellen, M., Jakubanečs, A. and Haugen, H.M., "Bør norske merkevarer i asiatiske markeder kulturtillpasses? ", *Magma*, 2020

Freddi, E., Kvale, K., Hodnebrog, S., Sell, O. A., Følstad, A., "Understanding the User Experience of Customer Service Chatbots: What Can We Learn from Customer Satisfaction Surveys?", in *Chatbot Research and Design. CONVERSATIONS 2020. Lecture Notes in Computer Science*, vol 12604

Evjemo, B., Grønnevet, G., Ling, R., Nag, W., Røhr, H. L., Wasenden, O. C., "Privacy on Smartphones: A Cross-National Study", in *The Oxford Handbook of Mobile Communication and Society*, 2020

Reme, B. A., "Competition in Markets with Quality Uncertainty and Network Effects", in *Review of Network Economics*, 2020, 18(4): 205–242

1.2 AI & Analytics

Engebretsen, S., Engø-Monsen, K., Aleem, M. A., Gurley, E. S., Frigessi, A., de Blasio, B. F., "Time-aggregated mobile phone mobility data are sufficient for modelling influenza spread - the case of Bangladesh", *Journal of the Royal Society Interface*, <https://doi.org/10.1098/rsif.2019.0809>

Engø-Monsen, K., "Big Data for Social Good: The role of telecom", *The Oxford Handbook of Mobile Communication and Society*, Edited by Rich Ling, Leopoldina Fortunati, Gerard Goggin, Sun Sun Lim, and Yuling Li, <https://doi.org/10.1093/oxfordhb/9780190864385.013.20>

Kishore, N., Kiang, M. V., Engø-Monsen, K., Vembar, N., Schroeder, A., Balsari, S., Buckee C. O., "Measuring mobility to monitor travel and physical distancing interventions: a common framework for mobile phone data analysis", *The Lancet Digital Health*, [https://doi.org/10.1016/S2589-7500\(20\)30193-X](https://doi.org/10.1016/S2589-7500(20)30193-X)

Bach, K., Akselsen, S., Veiga, T. S., Kalamaras, I., "On the Use of Air Quality Microsensors for Supporting Decision Makers", *IoT '20 Companion: 10th International Conference on the Internet of Things (IoT 2020)*, Malmø, Oct 6-9, 2020. <https://dl.acm.org/doi/abs/10.1145/3423423.3423463>

Brandtsegg, Ø., Tidemann, A., "Shape: an adaptive musical interface that optimizes the correlation between gesture and sound", *Proceedings of the International Conference on Live Interfaces (Proceedings of ICLI)*, 2020. <https://ntnuopen.ntnu.no/ntnu-xmlui/handle/11250/2726763>

1.3 Next Generation Technology

Chang, H., Mikalsen, K. S., Nesse, P. J., Erdal, O. B., "Digitalization of Municipalities Through Ecosystem Collaboration", *Nordic and Baltic Journal of Information and Communication Technologies (NBICT)*, Vol 2019, <https://www.journal.riverpublishers.com/index.php/Nbjict/article/view/1048/537>

Kalogiros, C., Hallingby, H. K., Erdal, O. B., "5G Ecosystem Dilemmas: Sharing Roles and Revenues", in *Proceedings of the Virtual EuCNC 2020*, June 16-17 2020.

Gonzalez, A., Ordonez, J., Helvik, B., Nencioni, G., Xie, M., Lopez, D., Grønsund, P., "The Isolation Concept in the 5G Network Slicing", *EUCNC 2020*, DOI: 10.1109/EuCNC48522.2020

Dzogovic, B., Santos, B., Feng, B., Do, V. T., Jacot, N., Do, T. V., “Secure Healthcare: 5G-enabled network slicing for elderly care”, *2020 5th International Conference on Computer and Communication Systems ICCS 2020*, IEEE Press, ISBN 978 1 7281 6135 8, pp 864-868, Shanghai, China May 15-17, 2020

Santos, B., Dzogovic, B., Feng, B., Do, V. T., Jacot, N., Do, T. V., “Improving Cellular IoT Security with Identity Federation and Anomaly Detection”, *2020 5th International Conference on Computer and Communication Systems ICCS 2020*, IEEE Press, ISBN 978 1 7281 6135 8, pp 776-780, Shanghai, China May 15-17, 2020

Fuentes, M., Carcel, J. L., Dietrich, C., Yu, L., Garro, E., Pulia, V., Lazarakis, F., Grøndalen, O., Bulakci, Ö., Yu, J., Mohr, W., Gomez-Barquero, D., “5G New Radio Evaluation Against IMT-2020 Key Performance Indicators”, *IEEE Access*, vol. 8, pp. 110880-110896, 2020, doi: 10.1109/ACCESS.2020.3001641.

Mahmood, K., et.al, “Provisioning Private 5G Networks by Means of Network Slicing: Architectures and Challenges”, *ICC Workshop 2020*, <https://ieeexplore.ieee.org/document/9145055>

Grønsund, P., Gonzalez, A., Mahmood, K., et al., “5G Service and Slice Implementation for a Military Use Case”, *ICC Workshop*, <https://ieeexplore.ieee.org/document/9145236>

Xie, M., Pujol-Roig, J. S., et. Al, “AI-driven Closed-loop service assurance with service exposure”, *EUCNC 2020*, DOI:[10.1109/EuCNC48522.2020.9200943](https://doi.org/10.1109/EuCNC48522.2020.9200943)

Mahmood, K., et.al, “Dissecting Energy Consumption of NB-IoT Devices Empirically”, *IEEE Internet of Things Journal (Early Access) 2020*, <https://ieeexplore.ieee.org/document/9159902>

Xie, M., Gomes, P. H., Harmatos, J., Ordonez-Lucena, J., “Collaborated closed loops for autonomous end-to-end service management in 5G”, *IEEE NFV-SDN conference*, 2020, DOI: [10.1109/NFV-SDN50289.2020.9289902](https://doi.org/10.1109/NFV-SDN50289.2020.9289902)

1.4 Organization Development & Innovation

Jacobsen, D. I., Hildrum, J., Hillestad, T. and Yttri, B., “Alternative routes to innovation: The effects of cultural and structural fit”, *International Journal of Innovation Management*, 24(1). <https://www.worldscientific.com/doi/abs/10.1142/S1363919620500061>