ICT-Enabled Sensor Journalism: Friend or Foe of Science and Democracy?

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Transparent, real-live data 'convinces' decision makers. Data-driven managerial decision-making and Artificial Intelligence (AI) may replace the 'HiPPO' – the 'Highest Paid Person's Opinion' (McAfee, Brynjolfsson 2012. Large decreases in transaction costs lead to mass amateurization without imposed professional standards (Shirky, 2008). What if both effects get combined?

In this context, we investigate the potential of ICT-enabled ***sensor journalism*** (Diakopoulos 2019; Vicari 2019) – a truly disruptive deployment of advanced IS hardware and algorithms. It brings massively available, sensor data directly, perhaps via chat-bots, to the audience.

Two co-developed examples:

- A broadcaster's *'Super Cows'*, three dairy cows (from a family farm, an organic farm, and a factory farm) equipped all with sensors around and inside the cow, reported for 30 days on what constitutes the life of a dairy cow. The cows 'wrote' a 24-hour diary and replied to audience questions –allowing for educative gamification elements around cow milk (Vicari 2019).
- Similarly, the project *'Beelife'* opened the blackbox 'beehive': the sensor-tagged queen bees reported through the summer season (April - September) from the inside of three beehives equipped with sensors – live, via newsletter, and Whatsapp.

At ICIS, we would like to introduce the potential of sensor journalism[1] along the above examples (short videos available) and get started on inter-disciplinary research that discusses the potential and the impact of sensor journalism – on journalism and the society (Loebbecke and Picot 2015). We would *pose three main questions*:

- How and where could an appropriation of technologies be used for critical reporting? How can journalists, together with sensors and networked devices, report on places and topics that would never be accessible to individuals?

- What are the options for sensor stories to increase value in socially and scientifically relevant awareness and information – the main tasks in political and science journalism?

- Who ought to place and control for the sensors? How to draw the line between data and story transparency and 'black box'?

We are interested in the ICT-enabled potential of increasing trust in and educational value of reported content and media outlets – both indispensable grounding for functioning democratic processes and the appreciation and dissemination of scientific findings.

References
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[1] The project *'Bicycle Measurements'* won the global 2019 'Award for **Innovation in Data Journalism**': cyclists attach specific sensors to their bikes measuring the side distance of passing vehicles – taking into account location, weather, speed, and more (**datajournalismawards.org/projects/radmesser**).