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“YOU EITHER LOVE IT IMMEDIATELY, OR YOU HATE IT” REFLECTIONS AND EXPERIENCES OF ESTONIAN EMPLOYEES WITH MICROCHIP IMPLANTS

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New applications and smart devices enable employers to collect enormous quantities of employees' personal data and to do so within a reasonable time and with inexpensive means (Ogriseg, 2017). In addition to prediction and flagging tools, remote monitoring and time-tracking, gamification and algorithmic management (Mateescu & Nguyen, 2019), for the last decade, employers have also experimented with the use of Radio Frequency Identification (RFID) microchips as additional tools for monitoring employee activities (Michael & Michael, 2013; Smith, 2008). In fact, research indicates that during the last decade employers around the world (e.g. USA, Mexico, Sweden, Belgium, Estonia) have started to implant employees with microchips (Esfola, 2018; Petersen 2019).

Initially microchips were used to track livestock and pet animals for their proper identification (Khan, 2015). Today, however, chips are being injected into human bodies worldwide for a variety of reasons, such as personal recreational use, research and medical applications (Ip, Michael & Michael, 2008). Although, scholars (Gauttier, 2019) have referred to potential new benefits microchips provide, e.g. paying for purchasing, triggering computers and printers, opening doors, etc.; many different problems have also been identified; e.g. a persons' privacy may severely be infringed upon (Smith, 2008). Thus, regardless the fact that some scholars (Pierce et al. 2013) have argued, that in the workplace context employee surveillance and monitoring could actually lead to beneficially effects for the workplace in case the employees are aware of the

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surveillance; more recent studies (Mousa 2015) suggest monitoring can lead to the increase of stressors for the employees and thereby decrease workplace morale.

Even though scholars have theorized upon different ethical and legal concerns (Rodriguez, 2019; Ogrisek, 2017) regarding employee microchipping, empirical scholarship (Petersen, 2019) which would reflect upon the experiences and opinions of microchipped employees themselves is still currently lacking. Thus, as pointed out by Irp, Michael and Michael (2008), there is not enough insights about the opportunities and risks microchipped employees associate with the technology.

In order to fill this gap in literature, in autumn 2019, we decided to carry out semi-structured individual interviews with microchipped employees (n=14) from six different organizations in Estonia so as to explore their reasoning for accepting microchip implants from their employers and the potential benefits and problems they associate with the technology. Relying on the diffusion of innovations theory (DOI) by Everett Rogers (1962 [2003]) the current presentation aims to trace the five steps of the innovation-decision process our interviewed employees underwent when adopting to microchip implants. We decided to rely on Rogers' (2003) theory as it has become a popular theoretical framework in the area of technology diffusion and adoption (Ismail, 2006; Stuart, 2000; Dooley, 1999).

Participants in our sample were found through a snowballing method. First, we contacted the two organisations who have gathered some media attention due to their microchipping practice and requested the management to distribute our invitation to contribute to our study. Our final sample consisted of 11 males and 3 females (N=14), all of whom had been carrying microchip implants in their hand from 6 months up to four years, with a median of two years.

Our analysis indicates that social reinforcement from one's colleagues played an important role in the formation of attitudes and beliefs our interviewees acquired about microchip implants. In fact, innovators within one's organization, were considered most influential for spreading awareness and knowledge about the microchips. The ease of use and the opportunity to carry the chip on oneself at all times were perceived as the main relative advantages of the microchip implants. At the same time, some interviewees believed the innovation to be compatible not only with their own individual needs and values but also with the existing values and overall culture of their organisations. In short, our interviews also reveal a strong element of homophily existing within the social system both on the organisational as well as interpersonal levels. For example, employees who decided to get a microchip implant were considered to be more loyal and dedicated as well as more in sync with the overall goals and values of the organisation; whereas the employees who rejected the innovation were viewed as less motivated and not as invested in their organisations.

Although social reinforcement by colleagues played an important role in their decisions, all our interviewees stressed that they were voluntary adopters of the innovation i.e. they perceived the idea of implanting a microchip to be the result of their own free will and did not feel pressured by anyone. Furthermore, our interviewees were totally unconcerned about the potential problems microchips could pose and wholeheartedly

believed in the value of trade-off between convenience and privacy, referring to the negativity and scepticism they had experiences as “irrational paranoia”. Still, all our interviewees believed that microchipping should always be a voluntary thing and no employee should ever be persuaded or pressured into getting a microchip by their employer.

References

Esfola, M. J. P. (2018). *Bar Coded at Work. An analysis of the European privacy and data protection legal frameworks regarding the hypothetical use of RFID Implants for workers' surveillance*, University of Tilburg.

Gauttier, S. (2019). 'I've got you under my skin' – The role of ethical consideration in the (non-)acceptance of insideables in the workplace. *Technology in Society*. doi:10.1016/j.techsoc.2018.09.008

Ip, R., Michael, K. & Michael, M. G. (2008). The social implications of humancentric chip implants: a scenario - 'thy chipdom come, thy will be done'. *Collaborative Electronic Commerce Technology and Research* (pp. 1-11). Spain: IEEE Computer Society.

Mateescu, A. & Nguyen, A. (2019). *Workplace Monitoring & Surveillance*. Available from: https://datasociety.net/wp-content/uploads/2019/02/DS_Workplace_Monitoring_Surveillance_Explainer.pdf (accessed 15.07.2019).

Michael, K. & Michael, M. G. (2013). The future prospects of embedded microchips in humans as unique identifiers: the risks versus the rewards. *Media, Culture & Society*, 35(1): 78 –86. DOI: 10.1177/0163443712464561

Moussa, M. (2015). Monitoring employee behaviour through the use of technology and issues of employee privacy in America. *Sage Open*, 5(2).

Ogriseq, C. (2017). GDPR and Personal Data Protection in the Employment Context. *Labour & Law Issues*. doi:10.6092/issn.2421-2695/7573

Petersen, M. (2019). *The Swedish Microchipping Phenomenon*. London: Emerald.

Rodriguez, D. A. (2019). Chipping in at Work: Privacy Concerns Related to the Use of Body Microchip (RFID) Implants in the Employer-Employee Context. *Iowa Law Review*, 104(3):1581–1611

Rogers, E. (2003). *Diffusion of Innovations*. New York: Free Press.

Smith, C. (2008). Human microchip implantation. *Journal of Technology Management & Innovation*, 3(3): 151-160.