



## Technology and Employees Now and Then – a Comparison of Survey Results from 2011 and 2021

---

Nico Schuster

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

October 28, 2022

# TECHNOLOGY AND EMPLOYEES NOW AND THEN – A COMPARISON OF SURVEY RESULTS FROM 2011 AND 2021

Nico Schuster<sup>1</sup>

<sup>1</sup>*Comenius University in Bratislava, Slovakia*  
e-mail: schuster8@uniba.sk

**Keywords:** information technology, workplace, human resources, new work

**JEL Classification:** L86, O14, O33

## 1 Introduction

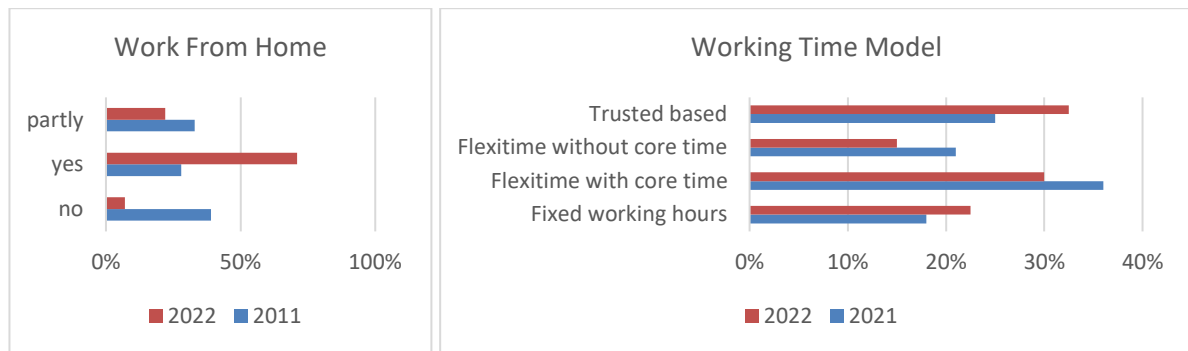
This paper aims to compare the results of two surveys regarding ICT usage. The goal of the original survey, which was part of the author's thesis in 2011, was to establish a better understanding of how far modern ICT technology has reached the work environment and how these ICT technologies influence the work environment – e.g. work from home, flexible working time. A decade later, the same survey was carried out in 2021. It included the same set of questions but was slightly extended to allow coverage of the recent developments driven by the worldwide Covid-19 pandemic.

## 2 Material and Methods

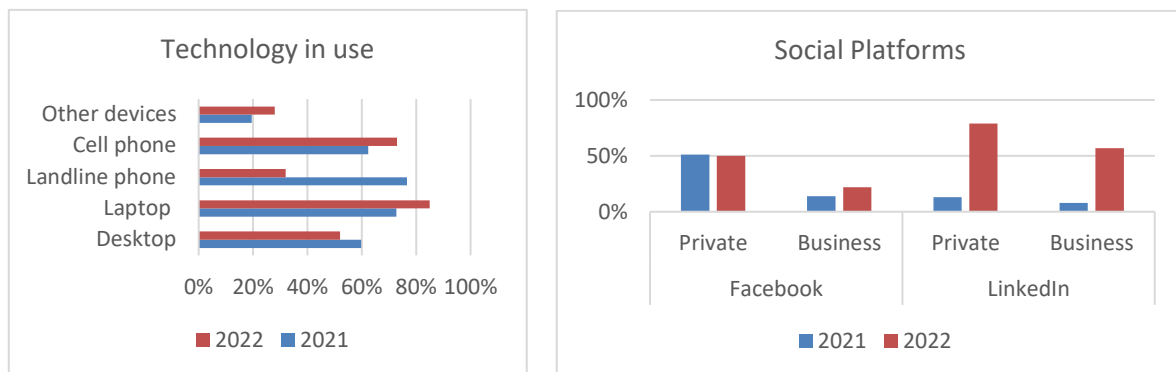
The initial survey was analysed in 2011, and the results have been included in the thesis "Anforderungen und Auswirkungen moderner Informations und Kommunikationstechnologien auf Mitarbeiter" (English: Requirements and Implications of modern information and communication technology on employees) [1]. The survey has been carried out as a quantitative online survey. To allow for easier comparison, the questions have not been altered, although it needs to be mentioned that some questions did not exactly apply to the current state of technology anymore and had to be slightly amended to reflect the technological development of the last years. The structure of the survey covered the parts 1) characteristics of the participants, 2) questions towards working time and place of work, and 3) questions towards the general use of ITC in daily work life.

## 3 Results

In both surveys the captured the main group of participants was of working age between 26 and 50 years, with 71% of the respondents in 2021 and 70% of the respondents in 2011. The age distribution shifted from 59% male and 41% female participants in 2011 to 79% male and 22% female participants in 2021. The question regarding work time and place of work (work from home, in 2011, it was still more common in the literature to refer to telecommuting).



A massive change between 2011 to 2021 is visible, but it also needs to be mentioned that 40% of the 2021 participants answered the question if a change was due to Covid-19 with "yes". Similar results are also visible in Barrero et al. [2]. Therefore, it can be assumed that not only technological advances but also the pandemic was a crucial driver for this transformation. Regarding work time models, the results show a shift away from fixed and core times towards more flexible and even trust-based working times. The technology in use by the participants clearly indicates more flexibility in this area. Whilst mobile or portable devices such as cell phones and laptops gained, stationary technology such as desktop computers and landline phones are not that common anymore. Looking at the usage of social platforms, there is not too much of a change visible in the 2011 and 2021 results for the private use of Facebook, but a massive increase for the private use of LinkedIn, where private use is higher than business use.



## 4 Conclusions

It needs to be considered that asking questions on technological developments via technical tools, such as an online survey, poses an inherent bias which should be considered in the analysis. Nevertheless, the results clearly indicate that work and technology became more flexible and time and place-independent. Additionally, it seems social networks such as LinkedIn are used as business and career tools e.g, for learning and development [2]. Further research should address the psychological influence of these developments on employees.

## References

- [1] Schuster, N.: Anforderungen und Auswirkungen moderner Informations und Kommunikationstechnologien auf Mitarbeiter. Independently published, 2011.
- [2] Barrero, JM., Bloom, N., Davis, SJ.: Why working from home will stick. National Bureau of Economic Research, 2021.
- [3] Dinath, W.: LinkedIn: A Link to the Knowledge Economy. *ECKM 2021 22nd European Conference on Knowledge Management*. Academic Conferences Ltd., 2021. 253-259