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What are the major OHS challenges being posed by new digital technologies and increasingly automated systems?

With the technical developments in the world of work, new demands are constantly being placed on work safety and health.

The new technologies are enabling new spatial-temporal structures and have led to new forms of work that are dynamic and complex. In consequence, the occupational mobility makes it difficult to secure a safe working environment in terms of ergonomics and working conditions. The opportunity to change and improve "non-stationary" working spaces outside a company is limited and requires work safety concepts which are both easy to adopt and flexible according to the individual needs of the worker.

At the same time, important occupational safety and health-related questions are arising from the integration of Artificial into workplaces. Stress, discrimination, the possibilities of work intensification and job losses have already been shown to pose psychosocial risks in digitalized workplaces.

Can we expect that applied correctly, technological innovations can help make workplaces safer? What factors need to be considered for this to happen?

New technologies can and should support in creating decent, human-friendly work. For example, by shifting physically demanding work from people to self-organising production systems. Or by physically separating workers from a hazardous environment thanks to remote-controlled systems.

In order to support the application of machines for enhancing both work safety and productivity, the work system as a whole needs to be taken into focus more than ever. This means that already during the planning phase of a work system, it is important to have the foresight to take into consideration physical and psychological aspects, as well as gender and age of the

worker. Furthermore, the type of work is an important factor for assessing the safety of a workplace where technological innovations are applied.

On a smaller scale, while these changes are on foot, what can individual employers do to ensure technology they adopt in the workplace is making work safer for workers and not increasing the risk of injury?

In the first place, as already mentioned, machines should be designed and applied in a way that they not only make work easier but also safer. On a second stage, workers need to be trained for a safe handling of the technologies. They need to be aware of the risks, how to prevent them and how to react in case of an injury caused during the work with the specific technology.

With education and training, the employer can make sure that workers have the control over the technical system they are operating with. Especially when decision-making processes or parts of them are carried out by artificial intelligence, the user must be enabled to understand this decision-making process, and to possess a certain supervisory control.

Particularly for employees with a workplace outside the company, the employer has the responsibility to improve the health literacy of their staff through according education. This means enabling them, if necessary, to design healthy working conditions themselves, which includes compliance with working hour laws and also the perception of tasks at an ergonomically adequate workplace.