

Usage of robot in education

Norwegian Ministry of Education and Research (hereafter the Ministry) received a letter from the Norwegian Directorate for Education and Training (hereafter the Directorate) on 6th of December 2016. In the letter the Directorate requested the Ministry to clarify various legal issues related to the use of robots in training. The Ministry deprecates the processing time.

Background - usage of robot in education

The Ministry assumes that the type of use that is subject for the inquiry (from the Directorate of Education) are situations where a robot is placed in a classroom (etc.) and offers the possibility of two-way transfer of audio and one-way transfer of image from a classroom to a student staying somewhere else. The student can control the movement of the robot and view the classroom and communicate with audio via web access. The target user group are students that due to illness or injury cannot attend school, but for example are on a health institution or at home. The absence from school is prolonged or frequent and repetitive, for example due to prolonged or chronic illness or a major injury. An example of this kind of robot is AV1 from the manufacturer No Isolation.

The Ministry's evaluations below must be seen in context with the above limitations.

In relation to the Education Act

The ministry has noticed that using this type of robot can be very beneficial for students who cannot attend school due to illness or injury. Using the robot to follow teaching and what is happening at school can provide the student with important training and an experience of not being completely absent and socially isolated from their class and classmates. These positive effects are important to bear in mind. Questions have been raised regarding the use of robots in the classroom and the relationship with rules in the Education Act. In its letter to the Ministry, the Directorate mentions the relation to the Non-Cost-Principle, to remote learning and special education. In addition, it can be discussed whether the usage of robots can be a method for school owners to fulfill their duty to provide training for students in health institutions. Below, the Ministry will comment on these questions. Questions about privacy, etc. is the theme in point 4.

Rights and duty to training in case of long term illness and injury

Children and adolescents who cannot attend school due to long-term illness or injury will usually either be in their own home or at a health institution. Both at home and at a health institution they have a right and a duty to training. Compliance with the law and duty must, however, be seen in relation with the students health. Normally it will not be possible for the student to participate fully and with the same intensity in teaching as if they had been in good health.

If the student has to be home due to illness or injury, and the situation is long-term, the school owner has a duty to offer training where the student is. This follows from children and young people's right to training. The right to training at home for students with long-term illness must be assessed according to the rules of Special education, ref. Udir-6-2014.

Special education follows the rules in Education Act, Chapter 5. The decision taken and the IOP prepared must take into account the student's health situation and how this possibly limits the student's opportunity to participate in training. The Ministry does not ignore the fact that usage of robot can be a possible way to organise special education. The Ministry, however, assumes that teaching via robot comes in addition to other ways of organising the education, for example home visiting. It is the school owner who is responsible for the student receiving the training he or she is entitled to, even if parts are carried out using a robot. The Ministry believes that school owners cannot fulfill their duty in accordance with either § 2-1 or § 3-1 by solely referring the student who is home, to use a robot. Usage of robot can be a supplement to other training, which can provide the student with an increased feeling of inclusion compared to not using the robot.

Children and young people who are patients in health institutions have rights under the Education Act as usual while in institution. It is the county municipality in which the institution is located that is responsible for the fulfillment of the students right to training in accordance with the Education Act, cf. the Education Act section 13-3 a. The education must be in accordance with the learning plan for the Knowledge Promise, including academic and time allocation and curricula for subjects. At the same time it is clear that the disease or injury can limit the student's ability to participate in training. Also in situations like this, the Ministry does not ignore the fact that usage of robot can be a possible way of organising education in health institutions. The Ministry, however, assumes that education via robot comes in addition to other ways to organise education, for example hospital schools. The county municipality is responsible for the individual student receiving the education they are entitled to, also if parts of it are carried out using a robot with contact to the student's school. The Ministry believes that school owners can not fulfill their duty in accordance with respectively § 2-1 or § 3-1 cf. § 13-3a first paragraph solely by referring the student, who is in an institution, to use a robot with contact to the school. Using a robot can be a supplement to other forms of training and can provide the student with an increased feeling of inclusion.

Usage of robot in the classroom is voluntary

The Ministry assumes that usage of robot in the classroom is used primarily as a supplement to existing learning in the home or the institution. The purpose of the robot is for the student to see and hear what is going on in the classroom, with concerns to the educational training, but more importantly to experience a sense of social belonging. The Ministry takes into consideration the fact that the robot has two-way audio communication, and not two-way visual communication. Usage is therefore first and foremost adapted for the person sitting outside the classroom, meaning the ill or injured student.

Usage of robot in the school has to be considered a voluntary measure, both for the student, school and school owner. This means that neither the school nor school owner can demand that a student absent due to illness or injury use the robot to attend school. This applies both for students at home and students in any kind of health institution. Usage of the robot to stay in contact with the class and the classroom is voluntary for the students. It further means that neither the student nor the parents can demand that the school accept usage of robots

in their classrooms. However, the Ministry emphasises that it is important to consider the positive effects usage of the robot may have for the students education and social belonging. Even if the school and school owner do not offer the use of robot, requests from students and legal guardians regarding the implementation of robots in the classroom should be considered carefully and accepted if it is not in hindrance of the education or to other students. The requirements that follows for the school owner in regards to the Personal Data Act are addressed in point 4 below.

The No-Cost-Principle

The No-Cost-Principle, defined in the Education Act, establishes that school owner cannot require students or parents to cover any expenses related to elementary education or secondary education.

The Ministry assumes that if usage of the robot is a part of the school's or school owner's offered educational activities, either as a way to organise their special education or as a part of the education in a particular health situation, school owner will cover the costs attached to usage. However, if the student and parents wishes to implement a robot in the classroom as a supplement to the offered educational activities, the school is not required to cover the costs based on the right to a free education. However, the Ministry emphasises that, despite this, the school is allowed to cover the costs in these cases as well.

Remote learning

There have been questions whether using the robot can be relevant in cases of remote learning.

The Ministry refers to previous statements regarding students with long term absence from school due to illness or injury, and that the responsible school owner can use robots as a way to organise parts of the educational activities for these students. The Ministry repeats, however, that the school owners cannot fulfill the requirements set to them by exclusively referring the student to use the robot to maintain contact with the student's ordinary school. The robot can be used as a supplement to other measures, to ensure an increased level of inclusion compared to not using the robot.

Usage of robot in the education as limited in this letter, is according to the Ministry not contradictory to any current regulations regarding remote learning.

In relation to the Independent Schools Act

The Ministry assumes that usage of the robot is relevant at independent schools as well. The premises and conclusions reached above also applies for students of independent schools and the schools themselves, with the adaptations they see fit.

In relation to the Personal Data Act and Privacy

Usage of robots in the school as suggested in this document raises questions concerning privacy and regulations of personal information. Questions regarding the handling of data, such as if usage means handling private data; if so, on what relevant grounds and under whose responsibility. The Ministry of Education is not the authority on the Personal Data Act, and cannot independently address these questions.

The Ministry has reached out to The Norwegian Data Protection Authority. The text below is written in collaboration with The Norwegian Data Protection Authority.

The Norwegian Data Protection Authority underlines that the Personal Data Act is valid when handling personal data completely or partially through electronic devices. Usage of robots in the classroom, described here as “to-way transfer of sound and one-way transfer of image from the classroom”, is, according to The Norwegian Data Protection Authority, defined as handling personal data through electronic devices. The Norwegian Data Protection Authority believes that one can assume that individuals can be identified through use of this kind of robot in the classroom. Based on this, the Personal Data Act comes into play.

the Personal Data Act’s legal scope has a limitation in § 3 second paragraph, where it is established that the law does not apply to “the handling of personal data used for strictly personal or other private purposes”. The Ministry of Education has previously differentiated between educational purposes and more social purposes. This differentiation is also relevant when considering whether or not the Personal Data Act comes into play or if the usage is to be considered for a strictly private purpose. The Norwegian Data Protection Authority believes that if the purpose of using the robot is for the student to be present and take part in the school’s or school owner’s educational activities, the handling of personal data is not for strictly private purposes, but for educational purposes. The Personal Data Act therefore comes into play and school owner is responsible for handling the data, and is thus required to follow the regulations set by the Personal Data Act.

If the robot is used *only* as a means for the student to experience social interaction with their class, there are indications in wording and preparations that the handling of personal data is done for private purposes, and therefore not relevant for the Personal Data Act. Such usage, however, is not particularly practical, as long as the robot is used in a classroom or for educational activities. In those scenarios, there will always be an element of educational purposes.

That the Personal Data Act comes into play means that the school owner needs to ensure that the requirements of the Personal Data Act are met. For instance, the law requires that there is a basis of handling the data, i.e. consent and information on involved parties. As the responsible party, the school owner is also required to ensure internal controls and secure data processing. If usage of the robot entails using the school’s internet connection, school owner needs to assess the risks involved with allowing the use of ICT-equipment beyond their control on the school’s internet connection. This assessment will be consistent with the assessment regarding all equipment (pc/mac, tablets/iPads, smartphones etc.) used by

employees and students on the school's internet connection, that is beyond school owner's control.