## Children using information and communication technology (ICT): The good, the bad, and the ugly.

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Screens are here to stay. No amount of ignorance or wisfhul thinking amongst older generations will change this fact. Rather, it is time for us as parents, teachers, and professionals to make our peace with screens. In fact, ICT may be like gravity – it would be wiser to work with it, than against it. It is crucial for us to inform ourselves on both the benefits and pitfalls associated with ICT use amongst children. As the adults in their lives, it remains our responsibility to regulate and monitor their screen time, as we would any other important activity they participate in. Although this is a relatively new field of study, the research findings so far mostly indicate that ICT use in itself is not good or bad. It is far more important how children use screens, how often they use it, and also, what is considered developmentally appropriate in this regard.

Most international findings indicate that children younger than 18 should not be allowed to use screens for more than **TWO HOURS** per day, *excluding its use for educational purposes*. This implies that the combination of TV programmes, computor and cell phone use should not exceed two hours per day at home. From a psychological perspective, excessive screen use impacts both emotional development and brain development.

A recent large scale study that was conducted amongst high school learners at various schools in the Free State found that *some* ICT use (one to two hours per day) helped develop children's strengths, including their confidence, social skills, emotional intelligence, family involvement and school engagement. However, both *no* ICT use, and using it three or more hours per day were detrimental to their **PSYCHOLOGICAL WELL-BEING**. Excessive use has the negative effect of decreasing social interaction, increasing physical and mental health problems, decreasing academic performance, and even creating addiction to screens. The very ugly side included around 15% of children being exposed to bullying, exploitation, and even becoming involved in criminal activities via screens.

In addition, early findings indicate that frequent screen use may impact on **BRAIN DEVELOPMENT**. The first seven years of life is associated with rapid and expansive brain development (this process is only fully completed around 25 years of age). It seems as if frequent screen use amongst younger children may be associated with changes in the brain areas associated with sustained concentration and attention. Thus, the American Academy for Pediatrics advise that toddlers younger than two are not permitted at all to use screens, while children between the ages of two and five should not use it for more than one hour per day.

*How* children use screens, and the content they access, is thus very important to their wellbeing.

First, the necessary software should be obtained to **RESTRICT ACCESS** to certain sites, such as those containing pornography, and sites promoting suicide, violence, self-harm, and eating disorders.

Second, children should be explicity taught to **USE TECHNOLOGY RESPONSIBLY, ETHICALLY, AND SAFELY**. In 2004 an American researcher analysed chat rooms designed for children and found that the content of these conversations frequently model aggression, racism, negative attitudes towards women, homophobia, and early sexual experience. Online anonymity breeds a lack of social responsibility. However, there seems to be increasing consensus that the bad and the ugly associated with ICT use is a reflection of a bigger societal issue – the disintegration of the family and parent-child relationships, and the absence of value systems in families and schools. Thus, ICT may just be another avenue through which larger societal problems manifest itself. Some researchers warn that technological advances have outpaced gains in the human psychological condition; and that virtues such as self-control and empathy cannot mature with the electrical speed of the smart phone. Guidelines on teaching children the skills for healthy ICT use falls without the scope of this piece, but schools would do well to consult professionals working with children in this regard.

Third, it would be important for schools to have **POLICIES** on ICT use, as well as issues such as cyber bullying and sexting in place. Children should feel comfortable reporting exploitation or bullying to parents and/or teachers. Thus, secure relationships and open communication is vital to healthy ICT use. For children younger than 15 ICT use should be monitored frequently (e.g. accessing their browsing history in their presence). In addition, rules on ICT use in the class room should be implemented to provide structure and guidance and prevent misbehaviour in this regard.

Fourth, ICT should be seen as **A TOOL**, and not a lifestyle. This implies that it should never replace other activities important to healthy development such as play, outdoor activities, studying, and quality time between family members and friends. In the school-setting specifically, ICT cannot replace teacher-student contact. School engagement is enhanced by supportive teachers, a culture of academic excellence, positive class room behaviour, and a holistic approach. ICT use can be implemented in ways that can supplement these factors and enhance school engagement, but also in ways which could impede these factors.

Schools should therefore carefully consider **HOW TO IMPLEMENT ICT IN THE SCHOOL SYSTEM**. ICT cannot be used simply for the sake of using it. Every activity / programme / application used should enrich the child's experience. For example, instructing children to 'google' a fact is not helpful to their learning experience. However, applications that serve as tutorials, or help them practise a certain skill until they have mastered it, may be extremely useful – even more so in our country where many learners do not have academic support outside of the class room. Studies in many areas of child development reiterate that strategies (such as ICT use) can only be implemented effectively in the context of sound policy, sufficient resources, and adequate training of staff. The younger the child, the more structure, guidance, and boundaries they would need. Especially primary schools should carefully consider uniquely tailored ICT strategies to ensure maximum benefit to their learners.

Technology is not only the language of the young, but also of the work place. Young adults need to enter both higher education and the work place with a skill set that would enable them to be competent in their future careers. **THE ROLE OF SCHOOLS TO HELP THEM DEVELOP THESE SKILLS IS OBVIOUS AND INEVITABLE**. By accessing resources such as the Digital Citizenship event,

schools can acquire the information and tools necessary to cultivate the good, and contain the bad.