

# What is Problematic Use of Digital Technology

There are clear benefits for children and youth who use digital technology; it can increase literacy, enhance the learning process, augment access to information quickly, and foster social connection [1, 2]. However, parents, families, and caregivers frequently identify the misuse, overuse, and unsupervised access to online involvement and digital time as a concern. Besides problems such as, stress and loneliness, increased physiological arousal, decreased attention and emotional well-being, sleep disturbances, hyperactivity, aggression, antisocial or fearful behavior, and excessive use or technology addiction [3].

The use of digital technology can activate the reward centre in the brain, releasing excess dopamine and leading to addiction. Using technology in an excessive or inappropriate manner can also cause changes in the brain, which has negative effects [4].

Through the process of developing this toolkit, the team created a visual that depicts substance use (alcohol, tobacco, drugs) and non-substance use (social networking sites, gaming, online gambling, and online pornography).

Figure 1 depicts non-substance use and substance use in relation to addiction and mental health. It provides an understanding of how substances and non-substance use can impact an individual's mental wellbeing, which may lead to addictions and mental health problems.

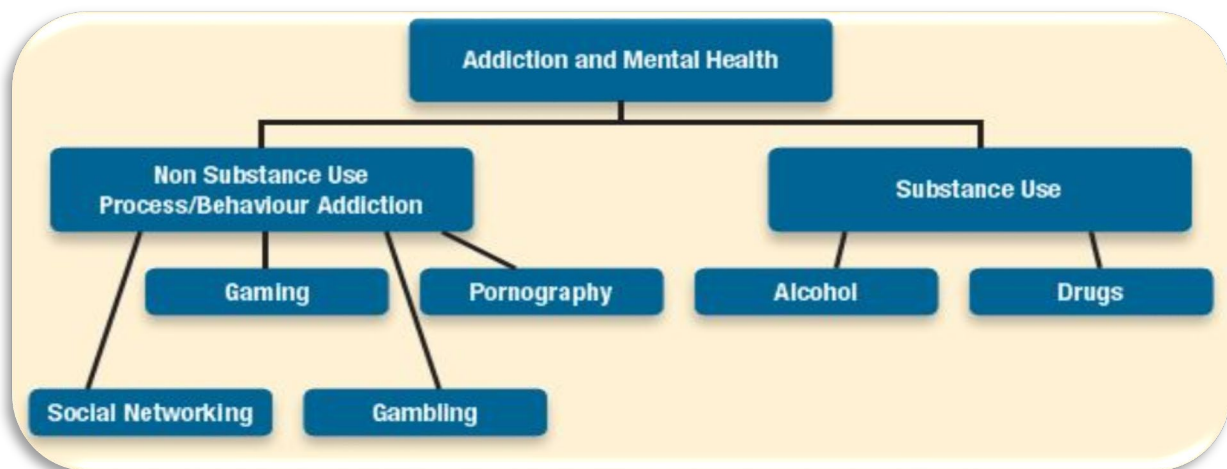


Figure 1: When digital technology becomes problematic

## What is Problematic Use of Digital Technology | 2

Healthy and problematic use of digital technology can be viewed on a continuum. Accessibility to digital technology can encourage excessive use, which may become problematic.

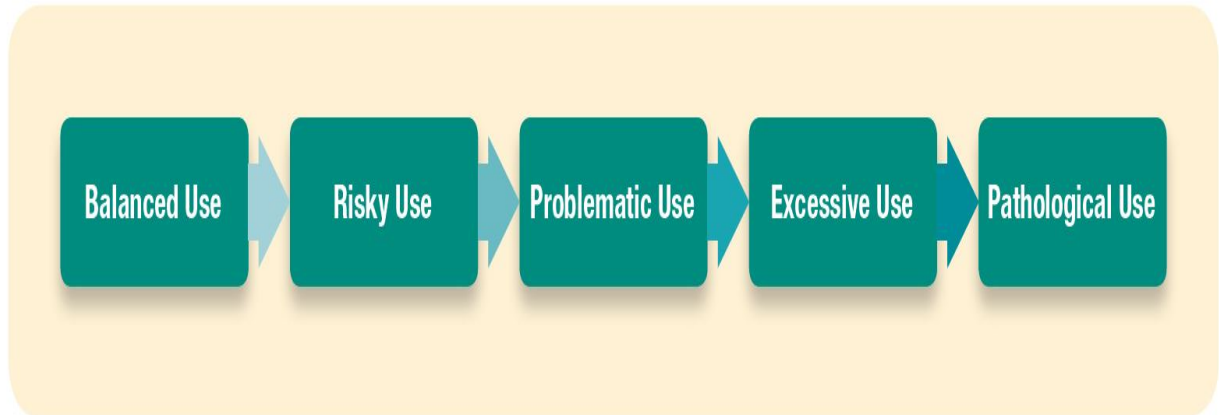


Figure 2: Continuum of Use adapted from The Center for Addiction and Mental Health [5].

Repeated exposure to digital technology stimuli contributes to changes in the brain, and limits the development of coping skills and responses to natural rewards. Children and youth who use digital technology may encounter challenges leading to overuse of technology and exposure to other risks such as isolation, depression and anxiety, obesity, sleep problems, cyberbullying, and violence even though no addictive substance is involved [6].

Service providers need to be aware that younger users are more at risk of addictive use of technology than most adults for different reasons: a) A large part of their social culture involves communicating via digital media, including email, social media, and texting [7]; b) Young people adapt to new technologies faster than adults, and are more likely to lose track of time while on social media [6, 8, 9]; and c) Research suggests youth are more susceptible to involvement in unsafe and illegal activities such as harassment, privacy violation, defamation of character, intentional infliction of emotional distress, bullying, and exposure to inappropriate information [10].

### References

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