

## OPPORTUNITY #13

WHAT IF SCHOOLS WENT BEYOND SCHOOLING?

# MACHINE LEARNING AND A HUMAN TEACHER

Using neural interfaces to acquire knowledge with teachers serving to empower children with future life skills and mental well-being



### WHY IT MATTERS TODAY

Over 1 billion children go to school on any given day.<sup>123</sup> Globally, there are approximately 93 million children with disabilities – a group that faces the largest barriers to receiving education.<sup>124</sup> From a mental health perspective, 14% of 10–19 year olds have a mental health issue.<sup>125</sup>

Other complex challenges facing schools include early dropouts,<sup>126</sup> intolerance of ethnic and religious diversity<sup>127</sup> and exclusion due to poverty or conflict.<sup>128</sup> These issues have led to a greater need to promote student well-being in schools.<sup>129</sup> In response, more countries are adopting a whole-school approach, where students go to school not only to study conventional subjects but to engage with the school culture and become active in their communities.<sup>130</sup>

Nearly half of the Middle Eastern and North African population of around 465 million<sup>131</sup> are children and young people under the age of 24.<sup>132</sup> The region faces similar challenges to the rest of the world with calls for more inclusive education and demands for more support for mental health.

### SECTORS



### THE OPPORTUNITY TOMORROW

Traditional learning is giving way to broader development of aptitudes needed for everyday life and good mental health. As brain–computer interfaces for knowledge acquisition keep improving and accommodating individual differences, children will need less time to acquire knowledge and more educational capacity can be devoted to development of life skills and good mental health.

Technologies can be used to monitor brain signals and associated neurocognitive processes and interact with students through feedback mechanisms such as questions and prompts. This can both enable better learning for those with special educational needs and enable all students to learn and think more effectively.<sup>133</sup> With such accelerated learning, more time and attention will be devoted to understanding the best ways to learn life skills and improve mental health, including new approaches to hiring, training and monitoring teachers.

These shifts can combine to create the political and public will to transform the roles of schools in society. Curricula will be adjusted and schools repurposed as spaces for self-realisation and well-being, focusing on creativity, social skills and play. A teacher's role would be to empower and mentor children in life skills. The machine's role would be to ensure knowledge acquisition and empower teachers with better insights on learning and mental health.

### BENEFITS

Schools become hubs for new thinking and ideas. The shift away from exam-driven learning reduces childhood stress, with benefits for long-term well-being and psychosocial and physical well-being. Communities and families take on a wider role in improving childhood health behaviours and development.

### RISKS

Risks include widening inequality in employment and self-actualisation if not all schools are transformed. Harm can also arise if long-term evidence reveals that less structured learning does not equip students as well as intended.