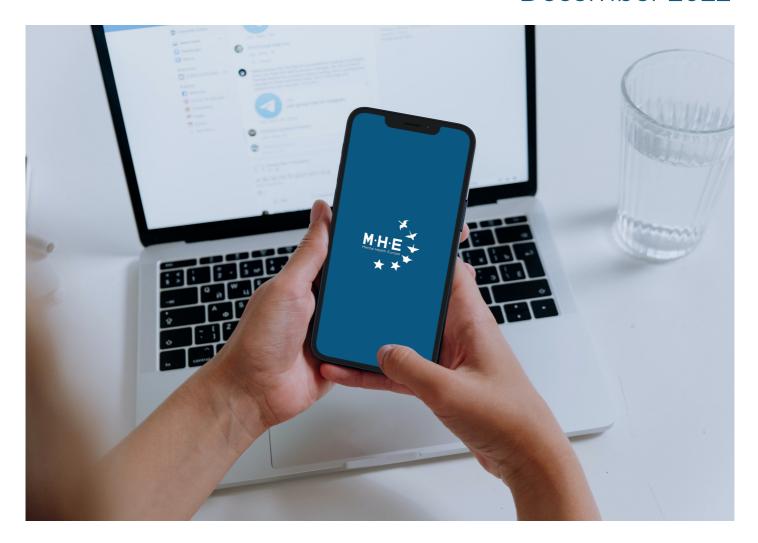December 2022

Report on
Digitalisation in Mental Health

Mental health in the digital age:
Applying a human rights based, psychosocial approach as compass

Contents

Summary

Digital technology has become an increasingly big part of our personal and professional lives, as well as of our health care systems. Developments and technologies such as social media, electronic health records, apps, Artificial Intelligence (AI), telehealth and games all bring new opportunities and risks to mental wellbeing and the mental health care field. The impact of these risks and opportunities will likely not be equally distributed across the population. Local, national and European regulations and policies are necessary to minimise negative impacts and stimulate positive opportunities in an equal and inclusive way.

At Mental Health Europe (MHE), we have researched the leading risks and opportunities related to living and working in a digital world, as well as to digital provision of mental health care. This assessment is not carried out in order to decide whether we need to rely or not on digitalisation, but rather to be aware of the risks, so that we can minimise them. It will be clear that digital technology in itself is neither good nor bad. Swaying the balance towards the opportunities will depend on how technologies are implemented, managed and regulated.

MHE has developed a vision on how European countries can optimise mental health in the digital age: by applying a human rights framework as compass. We indicate which values we would like to have reflected in the digital world and what is needed to achieve them.

The report targets the general public, persons with psychosocial disabilities, policymakers, service providers, corporate and any other stakeholder interested in how to optimize mental health in the digital age.

The empowerment and meaningful engagement of different stakeholders – including people with lived experience – in debates and decisions on digitalisation and mental health is fundamental to ensure balanced policies and innovation and to guard against exacerbating health inequalities in society.

About this report

This report provides an assessment of the impact of the increasingly large presence and role of digital technologies in our lives on our mental health. It investigates how digitalisation is changing our personal and professional lives, as well as the way we receive mental health care.

The first Chapter focuses on opportunities and risks of digitalisation for mental health. It is broken down in three subchapters.

The subchapter "Living in a digital world" provides an overview of opportunities and risks related to social media, games/online gambling and the metaverse.

The second subchapter investigates the impact of digitalisation on the world of work, mainly referring to remote work, digital platform work and AI workers management.

The third subchapter focuses on the application of digital technologies in the mental health care field, presenting opportunities and risks of telehealth, digital mental health apps, data sharing between people and health professionals, as well as the use of virtual reality in mental health care settings.

The second Chapter zooms in on a core issue of digitalisation: the unequal distribution of the risks and opportunities across the population. A careful balancing act is required to minimise the risks and maximise the opportunities.

Building on the assessment provided in the first chapters, the report presents Mental Health Europe's vision of digital advancements strengthening -rather than threatening- human rights (Chapter 3).

Chapter 4 presents relevant policy developments at EU level, in order to investigate whether our vision is already translated in policy and what else is needed to do so. Specific recommendations for each of the three main domains are provided, broken down by category of stakeholders. In the Conclusions, we highlight the core principles unifying all of them.

This report is based on desk research, followed by a consultation with MHE members and key actors in the digitalisation field. It needs to be viewed as the first step of a growing commitment: the knowledge gathered here will serve as evidence to inform our future advocacy efforts.

1. Digitalisation: opportunities and risks for mental health

1.1 Living in a digital world

In this subchapter we provide an overview of opportunities and risks related to social media, games/online gambling and the metaverse.

Social media

Opportunities

Social media is a rapidly growing aspect of everyday life in the 21st century. Many of us rely on social media platforms such as WhatsApp/Signal/Telegram, Facebook/Instagram/Tik Tok and LinkedIn to communicate with friends and family, find jobs and to find information and entertainment. For many people, social media is the first information consumed when waking up and the last information consumed before going to sleep.

Feeling connected to people around you is a universal human need. (1) Social media caters to this need by enabling people to connect and stay in touch with family and friends around the world; to find new friends and communities, and to network with other people who share similar interests or ambitions. This opportunity to find and maintain social connections - particularly relevant for people living in a remote area, with limited physical mobility or who are part of a marginalized group - acts as protective factor for good mental health. (1)

Social media can also prove very effective in promoting worthwhile causes and raising awareness on important issues, as digital content can be seen by significantly more people and in a much shorter time than traditional media. The success of mental health awareness campaigns (such as European Mental Health Week, led by MHE) and the popularity of influencers and celebrities advocating mental health confirms this potential.

Furthermore, social media can be an effective tool to seek or offer information and support about mental health problems. Social media communities dedicated to mental health present aspects of peer support, allowing people with lived experience to have a voice and help each other. This can be an empowering experience and can offer a useful step in the recovery process. (2)

Risks

Despite the benefits and opportunities of social media, studies also show a link between heavy social media use and an increased risk for experiences of depression, anxiety, loneliness, self-harm, and even suicidal thoughts[1]. There are multiple pathways through which social media can cause mental health distress.

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[1] The most robust studies suggest that moderate use of digital technology tends to be beneficial for children and young people's mental wellbeing, while no use or too much use can have a small negative impact (UNICEF, 2017).
The OECD's PISA survey indicates that extreme internet users (more than 6 hours a day) were most likely to have lower life satisfaction and wellbeing. Moderate internet users (1-2 hours a day) had the highest life satisfaction, even when compared to those who used the internet one hour or less on a weekday (OECD, 2017). Similarly, the World Health Organization has found adolescents who report very low or very high levels of internet use reporting the lowest life-satisfaction scores (World Health Organization, 2016). A small association between social media use and depression has been found (McCrae, Gettings and Purssell, 2017), with a similar link found between anxiety symptoms and high daily social media use (Vannucci, Flannery and Ohannessian, 2017). The multiple studies used to detect these correlations vary widely in methods, sample size and results, and the direction of the association remains unclear – that is, whether social media is contributing to elevated symptoms or social media is utilised more by those with anxiety and depression.

Firstly, social media cannot replace real-world human connection. Ironically, for a technology that is designed to bring people closer together, spending too much time engaging with social media can actually make people feel more lonely and isolated, by reducing physical social contact. (3)

Secondly, social media may pave the way for social comparison and trigger fear of missing out (FOMO). (4) This can potentially negatively impact mental health, by negatively affecting body image, causing increased anxiety or decreased self-esteem and it can fuel even greater social media use. Moreover, sharing selfies and one's innermost thoughts on social media can make people vulnerable to cyber-bullying and abuse.

Cyberbullying is a widespread problem, affecting a large number of teens (59%), as well as adults. (5) The methods used to cyberbully can range from sending threatening or taunting messages via email, text, social media, or Instant Messages to sexting, posting revenge porn, or stealing someone's online identity to hurt and humiliate the person. By making communication spreading easily, rapidly and at times anonymously, social media platforms can be hotspots for the dissemination of hurtful rumours, lies, and abuse that can leave lasting emotional scars.

Another risk is related to "always being on": we constantly receive messages and notifications. This feels good, but it can also be exhausting and make it difficult to concentrate. The success of social media platforms is measured by how much time users spend there. Concerns have been raised about these platforms having been deliberately designed to promote addiction. By using knowledge of behavioural psychology, neuroscience and artificial intelligence, the platforms features would persuade people to use social media more and more and never switch off. (6)

Moreover, group chats have become oftentimes the preferred communication platform. As a result, people without a smartphone miss out on a lot of opportunities and group dynamics.

In addition, although social platforms have a great positive function in bringing people together who feel like an outlier in the physical world they live in, and providing them with a warm and open community, they might also work as a bubble. Bringing likeminded people together in such a way that they reinforce each other's thoughts and perhaps even unaccepted behaviours. These 'echo-chambers' - environment where a person only encounters information or opinions (sometimes even fake news) that reflect and reinforce their own - might drift people off even further from the physical communities they are part of, and thus make them lonelier.

In line with this risk, information sources on social media are not reviewed, and are therefore not necessarily reliable. People may get wrong information or give themselves a diagnosis based on what they have read, while in fact the mental health journey of each person is different and unique. A review of available mental health information online shows that online information mainly conveys biomedical solutions and thinking, causing an overmedicalization of mental health issues. In addition, some information on social media might even promote self-harm and suicidality (especially among youth). (7)

Dilemma: How far can we go in ensuring a safe space online and whose responsibility is it?
A young girl from the UK -aged 14- committed suicide after she binge-consumed content about suicide and depression on sites including Instagram and Pinterest — some of which was algorithmically curated for her, based on the platforms tracking her viewing habits. The coroner concluded that "negative effects of online content" were a factor in her death, adding that such content "shouldn't have been available for a child to see". Coroner's report into UK school girl's suicide urges social media regulation | TechCrunch

This case study seems to imply that social media companies have a responsibility to ensure a safe space online (at least for those underage). How far can this way of reasoning go? For instance, Facebook has expanded its pattern recognition software to detect users expressing suicidal intent. In 2018, Facebook reported that it had conducted over 1000 'wellness checks' involving the dispatch of first responders. In many circumstances, the first responders sent to people's home are police officers and in some cases this has entailed involuntary psychiatric intervention and in others violence by the police towards the distressed person (with a bias against people of colour, indigenous).

Hence, while Facebook/Meta's wellness checks may seem like a positive contribution to public health on Facebook's behalf, it is becoming increasingly clear that police wellness checks can do more harm than good. (Joshua Skorburg and Phoebe Friesen, retrieved in Digital Futures in Mind: Reflecting on Technological Experiments in Mental Health & Crisis Support)

The following dilemma exists: how to ensure that actions aimed to prevent harm do not translate into human rights violations? Who is accountable? How to balance conflicting rights (such as freedom of expression, privacy and the right to be safe?)

Games and online gambling

Opportunities
Over the past fifty years video games have developed into a large worldwide industry, (8) with almost 50% of Europeans playing video games.[2] Young teenagers game the most (84% of 11-14 year old kids game), but also many older people play. (9)

Playing video games can bring different mental health benefits. (10) It can train people to be and feel faster and sharper and provide moments of success, which can be an effective way to improve your mood or to take your mind off things that worry you. It also allows people to live in another world for a bit, where they can experiment with different parts of themselves and experience new feelings. Lastly, online games can provide an opportunity to build connections and communities with people across the world and experience adventures together. This can be particularly beneficial for those who have difficulties in making contact with people in their own school, community or work and who experience loneliness because of it.

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[2] 50% of Europeans in Germany, France, Italy, Spain, UK aged 6-64: ISFE, Key Facts 2020: https://www.isfe.eu/wp-content/uploads/2020/08/ISFE-final-1.pdf

Risks

The mostly named risk of gaming is addiction. Games tune into reward and learning systems, (11) which can make people want to play more and more to receive the reward and victory they are expecting. Online games that are played with other people can be especially addictive. Excessive gaming is associated with depression, anxiety and addiction to substances. Underlying factors are lack of sleep, hyperarousal, 'imposter syndrome', lack of physical activity, lack of 'real' connection with the outside world, and addictive patterns. However, it is good to note that only a small percentage of gamers actually classify as being addicted, (12) and the majority of people are able to restrict their gaming behaviour and have meaningful lives outside of the game.

Cyberbullying – usually linked to social media- can occur in online gaming, too. Online gaming bullying can extend beyond just hurtful words. It can also include the activity known as swatting, a dangerous prank practice in which perpetrators locate the home address of the victim and make a false criminal complaint to the victim's local police, who then "send in the SWAT team" as a response. (5)

Next to gaming, online gambling has seen a large rise in the past years as well. (13) In comparison to offline-gambling, online-gambling shows high participation of adolescents (14) (even when this is illegal).[3] Online gambling ties into some similar reward seeking behaviours as gaming and can also be addictive. (15) It can lead to money problems, substance misuse and is strongly correlated with mental health problems. Online gambling can be problematic, because it appears to be more addictive than off-line gambling (16) and because vulnerable groups, such as adolescents and people with mental health problems, can be targeted actively or find it particularly difficult to resist gambling adverts or cut down gambling. (17) (18) (19)

The metaverse

Opportunities

The metaverse can be seen as a continuation and coming together of different technological developments and can best be described as a 'virtual universe'. Using virtual and augmented reality, the metaverse allows people to meet each other in online worlds – just like games do – but in a more immersive and realistic way and with a unified digital identity. The focus of the metaverse is social: linking social platforms/media, gaming communities and 'real world' business together in one world. Real world companies are already preparing to set up shop in the metaverse. For example, Microsoft is developing workplaces populated by digital avatars, and fashion brands Nike to Gucci are designing avatar clothes and accessories. (20)

The metaverse is just starting to develop and might not even develop the way people envision now, so the opportunities and risks for mental health we describe here are mostly based on predictions. One possible opportunity is that the metaverse will further globalize the world, and make online connections even more accessible, real and meaningful. In addition, the promise of the metaverse is to provide a world where users have a say and decisions are made democratically, thereby creating a place that might feel safer, fairer and friendlier than the 'real world' and the current internet.

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[3] The minimum age to play anywhere where gambling is legal in Europe is 18 years old. There are some exceptions though. For example, in Germany, Ireland and Belgium, you must be 21 years old to gamble. Greece is another exception where you must be at least 23 to gamble. In Portugal, it's higher still, with players needing to be 25 years old. For the US, players are required to be 21 years old to play for real money, with the exceptions of Alaska, Idaho, Minnesota, and Wyoming, where you can gamble for real money if you're over 18 years old.
This shows though that each state has its own laws on gambling, with some only allowing certain games and bets too. This also applies to online gambling. Source: Legal Gambling Age Around the World | Gamblers Daily Digest

Risks

The metaverse may also bring risks for mental health. Because of how real this online world feels, people might be less motivated to build up contacts in their own physical community, work or school, making them lonelier when they realize that virtual reality cannot replace physical reality completely. Additionally, a digital world where users are participants and the borders between gaming, social media and work become vaguer could also lead to a further fading of boundaries between work and private life, which can lead to fatigue and burnout.

1.2. Working in a digital world

In this Subchapter we investigate the impact of digitalisation on the world of work, mainly referring to remote work, digital platform work and Artificial Intelligence (AI) workers management.

Remote work is the practice of working remotely using informational technology. It has an important and growing role in the workplace, and it has a significant impact on the health, safety and wellbeing of workers.

Digital platform work is all paid work provided through, on or mediated by an online platform. Online platforms are an online marketplace operating on digital technologies that facilitate the matching of demand for and supply of labour. Examples are food delivery services and passenger transport services.

AI workers management refers to a system that gathers data, often in real time, from the workspace, workers and the work they do, which is then fed into an AI-based system that makes automated or semi-automated decisions or provides information for decision-makers (for example, human resources managers, employers and sometimes workers), on worker management-related questions. These decisions might include evaluating the performance of workers, monitoring the activities of workers and giving recommendations on how to prevent health risks.[4]

Remote work

Opportunities

When organized and carried out properly, telework can be beneficial for mental health and social well-being. It can improve work–life balance, reduce time spent on commuting to the workplace, and offer opportunities for flexible work arrangements. (21) It can also increase efficiency/productivity. (22)

Risks

On the other hand, teleworking has been proven to have a major impact on the organisation of work. Increasing flexibility can end up with workers constantly available, which has frequently resulted in blurring of the lines between work and private life and contributed to workers' mental health problems such as burnout, technology-related stress (technostress), psychological overload and fatigue. Difficulties related to communication may make it difficult for workers to understand the task at hand, resulting in stress. Some workers may feel the effects of social or professional isolation, owing to decreased communication with their colleagues and management. Employees working from home

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[4] For instance, AI can be used to accurately, and in real time, identify stress in workers through their writing and speech patterns. Use of wearables with AI supervision can spot signs of stress.

tend to work longer hours compared to when they are working at the premises of the employer, in part because the time to commute to the workplace is replaced by work activities, and also because of changes in work routines and the blurring of the boundaries between paid work and personal life. (21) Moreover, in a context of teleworking it can take longer for managers to spot potentially problematic situations, or a deterioration in an employee's wellbeing.[5]

Digital platform work

Opportunities

Literature and evidence on the opportunities that platform work brings to health is quite scarce. In general, it is clear that the platform economy has led to the creation of jobs and income for workers who commonly face issues entering the labour market. Examples include newcomers who do not speak the local language but could easily take up platform work which does not require knowledge of the local language, such as parcel delivery. Research has also indicated the opportunities that digital platform work presents for people with disabilities, as it (to some extent) allows them to independently control their work schedule and create individualised disability accessible work systems. (23) Moreover, digital platform work offers flexibility as to when, how and where to work and this can represent a work opportunity for people with caring responsibilities. At the same time, many of the jobs offered in the platform economy were often performed to a large degree in the grey economy (for example, domestic work and handyman jobs). In that sense, platform work may present an excellent pathway in the fight against undeclared work, which may provide opportunities for improved occupational safety and health and working conditions, as it allows the relevant authorities to reach those workers who were previously invisible. (23)

Risks

On the other hand, precarious employment conditions, including low income, irregular working times, a lack of autonomy and control, job insecurity, unconventional workplaces and a lack of collective representation – typical connotations of digital platform work – can have a negative impact on the physical and psychological health and wellbeing of platform workers. (23)

Most platform workers experience stress, because of the conditions in which they operate (such as being available at short notice, lack of job control, professional isolation, blurring of work and private life, insecure income or lack of collective voice) and because of the way tasks are allocated, monitored and evaluated (algorithmic management and digital surveillance). Platform workers often depend on having a good reputation and positive reviews to be assigned work. Having to maintain a good rating at all times and in real time – as well as dealing with the consequences of having a poor rating- can be very stressful for platform workers.

Similarly, platforms rely on a range of nudges and incentives ('gamification') that aim to encourage platform workers to be available for work for longer periods of time (such as Uber encouraging workers to stay online rather than logging off) or to work faster (such as workers being paid based on the number of deliveries made rather than the number of hours worked) and this can entail a negative impact on mental health.

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[5] Managers need to set clear expectations regarding occupational safety and health (OSH) for teleworkers and monitor OSH in virtual teams. Managers should engage in regular OSH-oriented communications, for instance, by dedicating a specific time in virtual meetings for safety and well-being discussions. https://osha.europa.eu/en/publications/telework-and-health-risks-context-covid-19-pandemic-evidence-field-and-policy-implications

Artificial intelligence for worker management

<u>Opportunities</u>

Opportunities and benefits for workers' (and their mental health) are not clear, while the possible risks are apparent.[6]

<u>Risks</u>

AI and digital technologies used to manage workers (for example by measuring the length of their toilet breaks, informing the workers when their breaks are deemed by the algorithm to be too long) can lead to the disproportionate and illegal surveillance and monitoring of workers, infringing on their dignity and privacy. When workers are aware that they are constantly monitored and their performance is evaluated, they may refuse to take breaks when needed and they might also neglect social interactions with other peers, which may make them feel lonely and isolated. In addition, some systems create a complete overview of one's performance that is visible to peers. Together with the reduced peer interactions, this may create an unsafe and competitive environment, instead of one of community and shared responsibility. This kind of climate and pressure can lead to anxiety, stress, low self-esteem and workplace bullying and mobbing. (24)

AI tools used to monitor workers' health can undermine the freedom and autonomy of people. The quick development of technologies like wearables and biometric technologies that are becoming more sophisticated and affordable will empower employers to monitor their workers in an increasingly intrusive way. Concerns are raised by the 'growing impulse' to identify emotions and other states such as exhaustion and concentration levels based on external appearances. This tendency to flag mental health problems, exclusively on the basis of biometric factors, with no considerations with the broader context and the specificities of individual experiences, constitutes a concerning development.

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6 If AI workers management is implemented in a transparent, safe and ethical way, it could have a supporting function for management and workers' representatives to optimise work organisation while providing information helpful in identifying occupational safety and health (OSH) issues, including psychosocial risks, and areas where OSH interventions are required, by reducing the exposure to various risk factors, including harassment and violence, and providing early warnings of hazardous situations, stress, health issues and fatigue in relation to tasks and activities carried out by workers. AIWM systems can also provide individually tailored real-time advice that would influence workers' behaviour to improve their safety and health. AIWM could therefore support evidence-based prevention and advanced workplace risk assessment and more efficient, risk-based, targeted OSH inspections. https://osha.europa.eu/en/publications/artificial-intelligence-worker-management-overview

1.3 Mental health care in a digital world

<u>Opportunities</u>

Digital technologies are used more and more to help people achieve better mental health and are slowly becoming a standard part of mental health care around the world. This trend was amplified during the COVID-19 pandemic as service users and providers searched for ways to deliver and access mental health care amid social restrictions.[7]

The evidence for digital approaches supporting mental health is compelling, with self-help approaches and telemedicine in particular showing strong benefits, including in middle-income countries. (25)

Since the risks of digitalized mental health care are shared between technologies, we have organized this subchapter a bit differently than the first two. We will start with the opportunities per technology and end with general risks.

Telehealth (remote therapy)

Remote therapy, for example through safe videocall-platforms, can offer a sustainable solution to the chronic problem of limited access to mental health care. It can help services overcome geographical barriers and use the available workforce more efficiently through remote consultations, task-shifting, and supported self-management.

In addition, telehealth can facilitate people that have trouble coming to therapy physically, for example due to the time/cost of travel, the perceived stigma or due to (mental) health issues, such as social anxiety or chronic fatigue. Additionally, it can be easier to involve family members, who might be living far apart from each other, in therapy or allow continuity of care when someone is sick or in hospital. Another benefit of therapy from home, is that mental health problems can be addressed in real time, in the places where and moments when they naturally occur. For example, video-therapy can work well for some cases of compulsive behaviours in the home environment. Additionally, seeing someone in their home environment can give a therapist a lot more information about how someone is doing, and thus might improve their ability to help. Lastly, video-therapy makes it possible to have more flexible contact, for example three 15-minute sessions instead of one 45-minute session per week, which might be more effective for some problems and might fit more easily in someone's life.

Digital mental health apps

Digital apps can be used to support therapy (with homework or psycho-education) when blended with face-to-face therapy or delivered with the support of a coach/therapist, or can stand by themselves to provide more general preventive support to a wider audience. A major benefit of digital mental

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[7] The most notable impact of the pandemic on mental health services was the rapid scale-up of virtual (that is, telephone-delivered and videoconference-delivered) mental health service provision. Studies of this scale-up to virtual mental health appointments indicate that the switch to virtual appointments often took a few weeks. Virtual mental health services attracted a large percentage of service users for whom it was the first time using virtual health services, even in healthcare settings in which virtual services were previously offered. Many individuals and healthcare providers quickly adopted Digital mental health interventions (DMHIs) to provide mental healthcare services while maintaining physical distancing protocols during the COVID-19 pandemic. Organizational policies and state laws shifted to accommodate the need to deliver healthcare services at a distance, such as allowing clinicians to deliver remote services from home (WHO, An overview of and recommendations for more accessible digital mental health services).

health apps is increased accessibility to care.[8] The affordability of digital mental health apps in comparison to face-to-face consultations facilitates access to mental health information and support for a wide and diverse audience, giving it the potential to prevent mental health problems. For example, self-guided mental health apps can be used by employers to promote employee's good mental health, by a school for their students, or by health insurances for their clients. They can be used anonymously, which can help people who are hindered by stigma or barriers to look for help, information or support. Additionally, the increased amount of people working on their mental health through these apps might also reduce the stigma that is related to mental health issues.

Lastly, given the large groups of people that are reached by mental health apps (and chatbots and social media), the data that is collected may bring an increased understanding of mental health distress, which might improve (preventive) mental health interventions.

Easy communication and data-sharing via apps/chats/platforms between health care professionals

With a shift towards community-based care, network care and communication between professionals is becoming more and more important. Recent years have seen the development of many new digital tools for safe communication and information sharing between different health care and wellbeing professionals and/or informal supporters in a community, with and around a person. If implemented well, these technologies will facilitate better integrated care.

Easy communication and data-sharing via apps/chats between people and health professionals/services

Recent years have seen the development of digital apps/platforms via which people can access their personal health data and easily communicate with health care providers. The ability to access your own health data, decide who else has access to it, make improvements and additions to the information, and take initiative in reaching out to support, allows people to play a more active role in their own treatment. Especially when it comes to mental health, feeling autonomy and agency and taking an active role in choosing your own supports is often an important step in personal recovery. Digital tools can play a role in facilitating this process.

Personalized care

Increased information sharing, the ability of tools/apps to learn about their users' preferences, and personal interfaces, make it possible for algorithms to be developed that learn how to provide the best fitting care. For example, like Netflix and Spotify can predict what music and movies you like, a mental health app can learn that people who like to use the guided meditation may also benefit from psycho-education about how to relax. In interplay with the person and their mental health supporters, suggestions from digital algorithms can be used to explore new solutions or determine which interventions might be most likely to help.

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[8] There are more than 380,000 health apps available through Apple and Android operating systems, and around 20,000 of them address mental health, according to the European Connected Health Alliance.

Virtual reality and the metaverse

Virtual reality can quickly bring people into a different environment. This can be a helpful tool in therapy, for example by helping to expose people to situations/objects/animals they fear, in a safe and temporary way. It can also be used for the opposite: to relax, by providing a temporary escape from a stressful work/school/home environment.

The metaverse can be seen as a combination of virtual reality and telehealth: seeing your therapist, supporters or even other service users in a virtual reality (oftentimes in an avatar form) might feel quite close to seeing them in real life. However, virtual reality offers the following advantages: the environment can be controlled (for instance, to reduce stimuli); service users and professionals don't need to travel to meet each other.

Gaming

Gamified digital tools are quickly becoming more popular in mental health care. Adding the 'gaming' element - for example via an app- can help to increase service users' engagement and improve adherence to healthy behaviours. For many people training new habits and making mentally healthier choices is simply easier when it's made to be fun or when there is a competitive element to it. Over the past decade, gamification has been applied to mood, anxiety, tobacco and substance misuse, sleep, wellbeing and serious mental health issues. Although it is experienced by many as a promising new field, the technology is still very young and much work is needed to figure out the most effective and accessible elements of gaming[9].

Risks

Difficulties in assessing when in person vs. digital care is necessary, and in proving the value of in person vs. (the often cheaper) digital care

One uniformly acknowledged risk is that digitizing mental health support may reduce the human connection and compassion that is indispensable to providing and experiencing care, support and healing. Care is not just the execution of tasks; it is also emotion. It is a fundamental part of human relationships, and it is a highly complex social interaction. (26) Although videocalls and the metaverse can replace part of interpersonal interactions, many people still feel that is different from face-to-face contact. It is a difficult and personal assessment whether face to face contact or virtual contact fits better, given the circumstances such as personal preferences, mental health needs, available funding, geographical accessibility, accessibility of the technology[10], access to a safe space to videocall[11], etc.

The digitalisation of the care relationship can also entail a lack of engagement. Relationships across digital platforms lead to looser ties to sites and individuals. This - true across social media- seems valid also for digital mental health delivery platforms. The provider-user relationship across many digital platforms is often non-existent or limited, mirroring digital relationships in the broader sense (the premature termination of therapy with an e-counsellor over a digital mental health portal mirroring the ease of "unfriending" an acquaintance on Facebook or blocking someone on Instagram or Twitter).

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[9] Including research focused on reducing risks and training of mental health professionals and service users in exploiting gamification optimally.

[10] For example, some telehealth platforms are not accessible enough for people with visual or hearing impairments

[11] Some people lack a safe, private space at home or at work where they can videocall/work on their mental health digitally

(27) A more traditional delivery model could encourage service users' engagement through supportive accountability.

Limited quality control of new digital services and new players

An important concern regarding many digital technologies in the field of mental health care has been the lack of evidence regarding their efficacy and effectiveness. From over 1000 publicly available apps focused on wellness and stress management in 2020, only 2% had any research supporting them. (28) Even when present, the quality of evidence was poor. This has been partly related to factors such as rapid evolution of technologies, the slow timescale of evidence generation, and the difficulty to test digital mental health technologies according to rigorous research (for example, via randomised controlled trial). (29)

If the information people receive is not reliable and scientifically vetted, it may lack validity and thereby tamper both health outcomes and service users' trust in mental health services.

There have been specific cases clearly exemplifying these problematics, such as the case of a child advice chatbot -promoted by the UK national health system- failing to spot sexual abuse (and to let human moderator step in). (26) This raises concern about the safety of digital technologies, the possibility to trust them. They also open the discussion on who should be accountable when things go wrong.

Risk of data leaks or other violations of people's privacy

The most frequently mentioned risks of digital mental health technologies addressed in the literature regard the privacy, confidentiality and security of the user's data and information. Privacy breaches have already been observed in several digital mental tools such as mobile health apps, wearables and consumer neuro-technologies.

Ensuring digital data collected for mental health purposes is not repurposed and used for surveillance or sold for profits/marketing is critical, as any lack of trust or transparency in such a system will erode meaningful use. (30)

A Canadian review of the most popular mobile mental health apps on Apple app store and Google Play store has found that the majority of commercially available apps do not include a privacy policy or terms of agreement, the reading level of existing written policies is frequently inaccessible to the general population and many of the existing privacy policies state that users' information may be shared with third parties.[12] These privacy weaknesses include illicit access by third parties to confidential patient-related information, cybercrime and accidental data leakage. Data security and privacy weaknesses are likely to have a negative snowball effect on service users' trust and the doctor-user relationship. Such data sharing risks are an important consideration given the intersection of

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[12] Popular smartphone app stores were searched using combinations of keywords "track" and "mood" and their synonyms. The first 100 apps from each search were evaluated for inclusion and exclusion criteria. Robillard, J. M. et al. Availability, readability, and content of privacy policies and terms of agreements of mental health apps. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6430038/

commercial and public health interests in the digital space.[13] Thus, there are clear ethical concerns. (31)

Also, data that is leaked can be used to discriminate against individuals, for instance in the context of insurance, employment, housing, credit ratings.

Increased information sharing between health professionals and services also amplifies the risk of data leaks. Even if the systems are safe, misuse of the system or human mistakes in following the protocols can still lead to data leaks. The more data is shared on a world-wide scale, the higher the chance that something goes wrong. Also, people can make mistakes with their own health data.

Failure to attend to privacy issues could shape individuals' willingness to disclose their distress. If the data are insufficiently secured, hence at risk of being breeched, multiple negative consequences are expected to arise from service user mistrust. (32) First, service users' trust in their care provider may be lost. Second, the prospect of privacy breaches and security vulnerabilities is expected to decrease the acceptance of digital mental health technologies.

Reinforcing individualistic views of mental health and making social determinants invisible

Another concern is the tendency of many technological approaches, such as for example personalized care, to be directed on detection and diagnosis, with a focus on the individual, who is identified as requiring expert intervention.

This dominant framing undermines the importance of social network and relations in mental health problems and recovery processes, with the result of making the social determinants of mental health and the importance of communities invisible. (26)

Overreliance on technology and unrealistic expectations

On a macro-level, over-stating the evidence of technological advancements can alter how funding is directed and draw resources away from where they are needed most. This increases the possibility of technology monopolising limited resources. (26)

Moreover, unrealistic expectations of around-the-hour-availability of care providers through mails or text messages could pose additional burden on health professionals.

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[13] In a cross-sectional study of 36 top-rated apps for depression and smoking cessation (Huckvale et al., 2019), 80% of the apps transmitted user data to Facebook and Google, but only 40% of those apps disclosed this in a privacy policy. It is even more concerning given many users do not read privacy policies for apps.

2. Unequal distribution of risks and opportunities

As assessed in the previous pages, digitalisation brings both risks and opportunities for mental health. The goal of policy makers, innovators, citizens and public institutions all over the world in the coming years is to find a way to experience a maximum number of benefits and opportunities, and reduce the amount of harm and risks. However, just as important, they also have to focus on how to make sure that these opportunities are equally and fairly distributed across the population, and that digitalisation does not increase existing inequalities or create new ones. In the next two sections we will focus specifically on these two risks.

2.1 The rise of new inequalities: the digital divide

Digital divide describes the phenomenon that technology is not equally available to all social groups. A first, core "digital divide" concerns issues of access (presence of Internet connection, availability of a computer or a smartphone) and affordability (internet access can be prohibitively expensive for some population groups). Equal access, however, does not imply equal opportunities: a broadband connection and access to a hardware doesn't get you far if you don't also have quality content and digital literacy needed to turn that connection into a portal of possibilities. (33)

Disparities in access to and proficiency in information and communication technology (ICT), particularly between socio-economically advantaged and disadvantaged children, and between rural and urban residents, have long been a focus of public policy. The expression "digital divide" was coined to underline the fact that such disparities may threaten social and national cohesion, as they impede full participation in work and reduce political efficacy for population groups that are left behind on the analogue side of the divide. (34)

This is much bigger than a technology problem. It is a social determinants of mental health problem. When a digital divide stands in the way of obtaining quality education, it's also a knowledge divide.[14] When it stands in the way of seeing your doctor, it's a health and wellness divide. When it stands in the way of gaining skills and competing for jobs, it's an opportunity divide. (33) When it stands in the way of protecting yourself against phishing, identity theft, abuse and marketing, it is a safety and security divide. Hence, the unequal distribution of material, cultural and cognitive resources to tap into these opportunities may perpetuate and even exacerbate existing status differences.

The gaps in digital access and competency are not merely situational but systemic in nature. They have to be addressed before we can reap the full benefits of digitalisation. (35)

Digital inclusion strategies – such as subsidising the purchase of equipment, internet billing support and education to improve digital literacy – may be required to prevent people becoming excluded from both digitised health and social services, but also from society in general. However, addressing digital equity may also mean ensuring that people can access entirely 'non-digital' resources for those who do not wish to, or cannot, use digital technological approaches to care and support. (26)

It is also crucial to provide extra, tailored support to population groups which are particularly vulnerable to the risks of digitalisation (e.g., children and young people) or those who are at higher risk of being digitally excluded or deceived by marketing/phishing etc. (such as some people experiencing mental distress or older people). Surveys in high-income countries suggest that people living with mental health problems - including people residing in long-term care facilities- face a

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[14] One-third of the world's school-age children (or 463 million students) could not access remote learning during the pandemic. UNICEF.

heightened risk of digital exclusion, because of material deprivation and diminished opportunities to use or be trained in information technology or the internet. (25)

2.2 The strengthening of existing inequalities

The potential for algorithmic bias or discrimination is well-documented: some digital mental health technologies are powered by machine learning models, which can perpetuate existing biases and present risks of algorithmic discrimination. Public discussion in this area has often focused on gender, race and socio-economic inequality. Recent studies (26) also refer to AI and algorithmic technologies perpetuating existing mental health and disability-based discrimination.

One response to biased algorithmic systems has been to focus on creating un-biased datasets. Datasets could be made more diverse, in order to capture diverse human experiences. This would avoid negative consequences for people who, through the various human and circumstantial complexities in their lives, are considered 'statistical outliers' for whom algorithmic decision systems are ill-equipped. (26) Another solution is to train algorithms on smaller subgroups of specific sub-populations or communities. In order to create representative datasets, people from marginalised communities (e.g., racial minorities or people with psychosocial disabilities) need to be involved in the design and development of digital technologies, otherwise they won't be able to benefit from them.[15]

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[15] This is particularly important to consider when working towards more equitable access of digital mental health interventions, as white individuals, and particularly white young to middle-age adult women, are typically over-represented in research trials. https://www.nature.com/articles/s44159-021-00003-1.pdf?proof=tr+

3. Mental Health Europe's vision: a human-rights based, psychosocial approach as guiding principle

Digitalisation is here to stay and has many advantages for mental health. However, it also brings significant risks, including strengthening existing inequalities and creating new ones.

It is therefore vital for countries and the EU to make policies and regulations that enhance the 'equalizing opportunities' digitalisation brings and reduce the risks, especially for groups that already have fewer chances in life.

A possible strategy to help counter the risk of digital technologies is to move the emphasis away from the technology itself and more toward the question of who benefits from the push for these technologies, and – perhaps more importantly- who doesn't or is worse off because of them. (26)

Digitalisation should be seen not as an end in itself, but rather as a means to an end. A means towards a mentally healthier society, increased autonomy and agency over our own mental health, and better fitting mental health care. New technologies should be framed in a bigger picture, such as "advancing human well-being and empowering citizens", beyond technology simply being profitable, legal and safe. This is particularly important, considering the commercial interests at play.

We believe this can be accomplished by adopting a psychosocial model of understanding mental health and by following a value-based human rights approach as a central guideline. We must look at ways for technologies to promote and protect human rights (such as the right to health, the right to privacy, prohibition of discrimination,) and we must look at the bigger picture, by addressing the socio-economic and environmental determinants of mental health. Co-creation is of essence: research that actively involves users in the development, design and implementation of technology – as well as its governance – will help to ensure technology is enabling rather than disabling.

'Human rights by design'[16] represents an emerging approach to design that ensures human rights are built into all elements of technology and AI development. Human rights by design could be pursued by governments and civil society actors, including technology developers and businesses. (26)

"There are potential serious negative consequences if ethical principles and human rights obligations are not prioritized by those who fund, design, regulate or use AI technologies for health".

World Health Organisation

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[16] The Oxford Handbook on AI Ethics identifies four pillars to human rights by design:1. Design and deliberation – the systems should be designed in ways that are compatible with human rights, and should include public consultations to properly identify any human rights risks and mitigation strategies 2. Assessment, testing and evaluation – technologies should be assessed, tested and evaluated, in an ongoing manner, against human rights principles and obligations 3. Independent oversight, investigations and sanctions – there should be robust regulatory oversight agencies which can conduct investigations and impose sanctions for potential or actual breaches of human rights arising from technologies 4. Traceability, evidence and proof – systems must be designed to ensure auditability by independent oversight agencies, such as by preparing, maintaining and securely storing design documentation, testing and evaluation reports.

4. Translating the vision into action

How can we translate this vision into reality? We will address this question for each of the three domains. But first we'll provide an overview of key policy developments already taking place at EU level.

4.1 Key EU policy developments

One of the headline priorities of the 2019-2024 European Commission, set out in the political guidelines of Commission President Ursula von der Leyen, is "A Europe fit for the digital age". From this overall priority flow several areas of action. On 19 February 2020, the Commission published different documents to take forward its strategy on digitalisation. The [Communication "Shaping Europe's digital future"](#) sets out priority actions under three headings: 1) technology that works for people; 2) a fair and competitive economy; 3) an open, democratic and sustainable society. Artificial intelligence is included under the first heading; the EU data strategy under the second, and a proposal on electronic health records under the third heading. On the same day, the EC also released the [Communication a ''European strategy for data''](#) and a [white paper "Artificial intelligence – a European approach to excellence and trust"](#).

In December 2020, the European Commission proposed two legislative initiatives to upgrade rules governing digital services in the EU: the [Digital Services Act](#) (DSA) and the [Digital Markets Act](#) (DMA), which have entered into force respectively on 16 and on 1st November 2022.

Together they form a single set of new rules that will be applicable across the whole EU to create a safer and more open digital space.

The DSA and DMA have two main goals:

1. to create a safer digital space in which the fundamental rights of all users of digital services are protected;

2. to establish a level playing field to foster innovation, growth, and competitiveness, both in the European Single Market and globally.

MHE – as part of a coalition led by [5Rights Foundation](#), an organisation promoting children's rights in a digital world – has advocated for these policy developments to take into account the specific needs of children. Our efforts have been successful: the Digital Services Act asks big tech to assess and mitigate risks to Children's health and wellbeing. All platforms need to ensure the safety of minors, not target them with ads, and be more transparent. This is an important step towards a digital world safer for children.

Another key development is the [Artificial Intelligence Act](#) (AIA), a proposed European law on artificial intelligence (AI). It is the first law on AI by a major regulator anywhere. The law assigns applications of AI to three risk categories. First, applications and systems that create an unacceptable risk (such as government-run social scoring) are banned. Second, high-risk applications (such as a CV-scanning tool that ranks job applicants) are subject to specific legal requirements. Lastly, applications not explicitly banned or listed as high-risk are largely left unregulated.

Another important current development on the EU level is the [European Commission's proposal to implement a European Health Data Space](#) (EHDS).

The European Health Data Space aims to:

- Empower people with regards to access to and control over their personal health data.

- Facilitate the EU-wide use and exchange of health data for research, innovation, policy-making and regulatory activities, to improve quality of health care, policies and innovations.

- Foster a genuine single market for electronic health record systems, relevant medical devices -including wellness apps- and high-risk AI systems.

To achieve these goals, the European Health Data Space provides infrastructures, rules, common standards and practices and a governance framework, stimulating and safeguarding the primary use (on a case level) and secondary use (on a population level) of health data.

It is important to note that the EHDS is about data *exchange*, not about data *storage*. There will not be a European system that stores all Europe's health data. Instead, the EHDS provides an infrastructure to exchange data safely between stakeholders. Primary data is only exchanged when service users and healthcare professional agree with the request. Secondary data is only exchanged in a pseudonymized, encrypted, highly secured form.

More details are available in the box below.

Focus on the European Health Data Space

What will the European Health Data Space change in the mental health field?

- For service users, the EHDS provides the right to electronic access to and control over your personal health data. You can see what is recorded by a service provider and who has access to this information. You can also suggest corrections in the record, refuse particular people or health professionals' access to your data, or request the exchange of particular information to other European health providers.

- For mental health professionals and service providers, the EDHS asks for changes in infrastructure (being able to link electronic health records to personal health data apps and to national data exchange systems) and a readiness and tech-savviness of professionals to truly increase people's access and control over their own health data. Increased data sharing will probably minimize double administration but will also ask that services and professionals are available to answer data requests.

- For companies providing electronic health record systems and wellness apps, the EDHS brings increased EU quality control in the form of certification (for electronic health records) and voluntary labelling (for wellness apps).

- For companies, researchers and policy makers using health data, the EHDS provides the right to request secondary health data from all available data sources (for example service providers, wellness apps and health registries) in Europe. A national health data access body reviews the request and grants permission for the exchange.

- For countries, it means setting up infrastructures that link to national data exchange systems to the HealthData@EU and MyHealth@EU platforms, and governance structures to review data requests, facilitate safe exchange and improve data quality. It also asks for participation in European governance structures to guarantee that the EHDS is just, fair, safe and efficient.

At Mental Health Europe we are positive about the aims of the European Health Data Space, and the focus that is put on increasing service users' agency and ownership over their own health data. We hope that increased sharing of data will improve service quality and reduce the administrative burden that professionals and service providers experience. We agree with the EHDS's proposed quality certificates for electronic health records and recommend starting with at least voluntary labelling for wellness apps to be encouraged strongly by EU and member States.

We also see some points that need attention in the further development of the EHDS:

- **Mental health in focus**. With the EHDS being a health wide initiative and mental health care only forming a small part of the health sector, we see the risk of mental health being overlooked. Mental health care requires different categories, processes and tools than physical health care. For example, mental health information is particularly sensitive to stigma and discrimination, and requires more descriptive information to fully capture someone's situation and distress. It is therefore important that mental health receives the focus and special position it deserves in the further design and implementation of the EHDS.
- **Psychosocial approach**. Mental health is influenced by many factors, and therefore requires a broad focus and diverse set of interventions. For this, connection between mental health care and social and employment domains is of great importance. Since the EHDS focuses only on health care, there is a risk that in its design new barriers are created between mental health care and social support services, for example for knowledge sharing and collaboration. Therefore, with a focus on mental health, the importance of a psychosocial approach to mental health should also be emphasized.
- **No digitalisation without participation**, in every step. The EHDS is a great endeavour, both on national and on European scale. While the EC's proposal does describe that service user's and patient representatives will be invited to attend and contribute to meetings and decisions of for example the EHDS board, we believe that participation of mental health service users is crucial in every step - with special attention to the involvement to disadvantaged groups. Only in this way can we design a system that really empowers people, prioritizes their needs and limits the potential risks to a level that is acceptable for everyone using the service.

In relation to policies developments in the employment domain, on 5 July 2022, the European Parliament adopted a resolution on mental health in the digital world of work. The resolution asks the EU and member states to regulate digital work to protect mental health, in cooperation with employers and workers' representatives, implementing an EU Mental Health Strategy along with national action plans.

In 2021, the EP called for the right to disconnect from work outside working hours with no negative consequences. More recently, on 10 March 2022, the Parliament adopted the resolution on a new EU strategic framework on health and safety at work post 2020. In this resolution, the EP notes that the Framework Directive 89/391/EEC on measures to improve safety and health at work may not prove effective enough for the world of work in the 21st century. The Directive introduces measures to encourage improvements in the safety and health of workers at work. Yet, it does not explicitly include the terms 'psychosocial risk' or 'work-related stress', thus causing a lack of clarity and misinterpretation when it comes to implementing the Directive across different EU Member States.

The lack of binding common standards and principles regarding psychosocial risks in the EU leads to *de facto* unequal legal protection of workers. The EP calls on the Commission to propose, in consultation with the social partners, a directive on psychosocial risks and well-being at work aimed at the efficient prevention of psychosocial risks in the workplace.

In relation to platform workers, the EP welcomes the [Commission's proposal for a directive on improving working conditions in platform work](), which was published by the EC in December 2021, with the goal to improve working conditions for platform workers. A key component is a change in their employment classification. Instead of letting platforms designate the workers who use them as "independent contractors," - a status that deprives them of the social rights and benefits that come with traditional employment- they will be presumed to be regular employees unless they or the platform provide evidence otherwise.

4.2 Recommendations

We have developed a set of key recommendations per domain (Living, Working and Mental Health Care). The recommendations concern the topics 'Safety & Quality', 'Equity' and 'Going beyond technology: framing mental health in a bigger picture', as we see these as the three priorities for EU and national policies and regulations to target.

Some of the recommendations focus specifically on children. We apply this focus, because children and adolescents do not only find themselves at a crucial stage in their mental health development, but also are particularly sensitive to some of the risks and opportunities highlighted in chapter 1. Lastly, children are protected in additional specific ways by The [UN Convention on the Rights of the Child](). For example, by the right to play.

Living in a digital world

Safety & quality

- ✓ Governments need to prioritise the development of robust standards for the design and development of digital technology, and regulate to require that **safety, rights, and privacy, especially of children and young people,** are upheld **by design and default**.

- ✓ Technology companies must design digital services that cater for vulnerabilities, needs, and rights of children and young people by default. Crucially, this principle of advanced consideration must apply to all the digital services that children and young people are likely to access in reality, not just those services that are specifically targeted at them.

- ✓ Governments should ensure a **strong enforcement of the GDPR** and ePrivacy provisions, especially regarding the use of sensitive personal data. This includes the prohibition of targeted advertising based on involuntary tracking, personal profiling and inferred data.[17]

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[17] Current practices of behaviour-based advertising rely on inferred data to create user profiles. These profiles, supplemented by information about what friends or similar users interacted with, determine which ads are recommended.

✓ Social media companies –in the absence of legislation and regulation – should take a proactive approach to **self-regulation** to make their platforms safer for their young users and for other potentially vulnerable groups, such as people with psychosocial disabilities.

✓ Technology companies must ensure consistent and accessible methods for user **reporting of illegal content** (including hate speech, bullying and harassment).[18]

✓ Very Large Online Platforms (VLOPs) must be mindful of the mental well-being of young people and other vulnerable groups and empower them to decide how they wish to interact with apps and websites, for example through prompter systems that signal a certain amount of daily use. There should be public discussion about the extent to which social media companies can use **features that are deliberately designed to promote behavioural reinforcement and addiction**, particularly on platforms used primarily by youth.

✓ Online platforms should **include trigger warnings for sensitive content** (e.g., self-harm or eating disorders).

Equity

✓ Governments at all levels need to invest in digital infrastructure and affordability of ICT solutions, to ensure that **everybody can access digital technologies**. Tailored actions towards disadvantaged groups need to be put in place to ensure that nobody is left behind.

✓ National and local governments must couple the above efforts with **investment in digital literacy**, by ensuring that the curricula of schools, universities and training institutes across Europe include digital skills and competences <u>from an early age</u>. These measures should go hand-in-hand with initiatives to increase the digital literacy of parents and older people, who did not receive such training in school and do not have the formal education opportunities to catch up with the developments. Digital literacy should include awareness about appropriate digital use and risks, in order to stay safe online.

✓ Governments should develop regulations that **prevent AI algorithms/marketing technologies to actively target children or vulnerable groups**, such as people with psychosocial disabilities.

✓ Particularly when it comes to new advancements such as the metaverse or increasingly powerful AI, **young people should be meaningfully consulted** thoroughly to ensure that new technologies help to enhance their lives rather than compound concerns around surveillance and addiction. (36)

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[18] When it comes to content moderation on websites and social media platforms, young people feel that breaches to community standards are not dealt with fast enough or taken seriously enough. Whilst online posts containing illegal content (incitement to commit a crime, or to violence, sexual exploitation) have clearer rules for being detected and removed quickly, "objectionable" content continues to circulate widely on social media platforms. This applies notably to hate speech, bullying and harassment. Source: [Making digitalisation work for young people](), European Youth Forum, August 2022.

Going beyond technology: framing mental health in a bigger picture

✓ Policymakers should ensure initiatives aimed at **addressing the social, environmental and economic factors that underpin family well-being and nurture resilient communities.** Such a broader approach is essential to children and young people to navigate the challenges they will face in life, including but also beyond those related to digitalisation.

✓ Governments at all levels need to ensure that **critical thinking skills** are embedded in all educational curricula. This will enable users to recognise and reject fake information.

Working in a digital world

Safety and quality

✓ Employers should provide **clear and transparent rules on teleworking arrangements** to ensure that working hours are respected and prevent social and professional isolation and the blurring of working time with other time spent at home; a full or partial shift to teleworking should be the result of an agreement between the employer and employee representatives.

Equity

✓ the European Commission, its Member States and non-EU countries should provide targeted investments to **ensure that all workers have a sufficient access to digital services**, especially for the most digitally excluded groups (such as older workers or people with disabilities). Increasing accessibility includes access to lifelong learning and vocational training tailored to individual needs to increase **digital skills**.

Going beyond technology: faming mental health in a bigger picture

✓ The current regulatory framework at the EU level should be reinforced to better prevent and deal with work-related psychosocial risks. The adoption of a new binding instrument at the EU level - an EU directive specifically addressing work-related psychological risks - is essential. It would bring about legislative changes in the Member States where they are needed most and gradually ensure an equal minimum level of protection for workers across the EU.

✓ Given that work-related psychosocial risks are a collective challenge and not an individual issue based on worker resilience, an EU directive specifically addressing work-related psychosocial risks should focus strongly on **preventive measures at work** (for instance, by putting in place mechanisms to prevent experiences of anxiety, depression and burnout), taking a **collective regulation approach over an individual one**.

Mental health care in the digital world

Safety & Quality

✓ Service providers and policymakers should increase the protection of service users-generated data and **protect service user's privacy**, via technical solutions (e.g., cryptography) and normative interventions.

✓ Governments should invest in robust **evidence-based research** of digital mental health technologies and should only fund those which respect strict evidence of safety and efficacy.

✓ **People with lived experience should be involved** in development and impact/risk assessments of future digital technologies.

✓ **Quality standards** need to be developed for digital mental health apps, chat bots and counselling and for AI-algorithms that flag who might need which support. The EU and national governments should stimulate the development of these standards and regulate their implementation.

Equity

✓ People from marginalised communities (e.g., racial minorities or people with psychosocial disabilities) need to be involved in the design, development and testing of digital technologies. This will "train" the algorithms on which many digital health tools are based, so that sensitive user groups (based on age, gender, ethnicity, etc.) are no longer considered statistically outliers. By ensuring that digital mental health tools are effective for users belonging to minority groups, co-design responds to considerations related both to effectiveness and equity.

✓ Governments, universities and foundations need to dedicate **more funds** to research on AI in Europe, to ensure that machine-learning processes are free from bias.

✓ Governments need to **increase digital literacy**, among users and providers. A critical effort required is teaching health professionals and peer support specialists how to use digital and mobile technologies for delivering care. Training new providers is, however, only half the picture. Equity considerations also call for ensuring digital literacy of all users, especially those most at risks of exclusion.

✓ In order to increase the accessibility of digital mental health services, including in rural areas and among disadvantaged socio-economic segments, governments should explore interventions that could **lower the costs** of sufficiently validated digital mental health services for individual users. There are a number of strategies to achieve this aim, such as promoting the adoption of open-source hardware and software as well as adopting cost reimbursement plans by healthcare providers.

Going beyond technology: framing mental health in a bigger picture

✓ Governments should allow for the decision between digital care and face-to face encounters to be **value based and not cost based**. This means that governments, in addition to guaranteeing accessibility of digital mental health care, should also continue to ensure the possibility for in person care and support. The decision about which care works best is to be made by the service user, supported by health professionals, not by service providers or health insurances.

✓ Governments should **resist the temptation of 'techno-solutionism'**, the (flawed) belief that every social problem has a technological fix and that simple technological fixes are possible for what are actually highly complex social issues (26). Mental health is not an individual issue, which can be addressed with an easy technological fix. It is societal, as it is determined by socio-economic, relationship and environmental factors and these need to be taken into account by policymakers.

5. Conclusions

It should be clear by now that for digital technologies to strengthen opportunities for good mental health across the population, governments need to invest in **safety** and **quality** and ensure **accountability** when these are not provided. Accountability should not be placed on the technology itself, but rather on those who design, develop and deploy it. The appropriate attribution of responsibility and redress is not only vital for individuals, but also for public trust in technology driven solutions. (26)

Moreover, fairness and **equity** need to be considered. Avoiding the exacerbation of socio-economic inequalities via digital tools is a paramount requirement for the ethically aligned deployment of these technologies. Active involvement of those most impacted by algorithmic and data-driven technologies should not be seen merely as a required step of 'stakeholder engagement', but rather as an ethical necessity. This way digital technologies will be applied not just because they are feasible, but because they respond to a real need. (26)

This report does not have the presumption to provide an answer to all possible questions in relation to digitalisation and mental health. The complexities of the issues at stake, the fact that there are different actors with competing interests, the different speed between technological advancements and law-making processes make it impossible to address all the nuances in a brief document. Yet, our analysis has made it clear where we want to head: **towards digital technologies that reinforce human rights and allow people to flourish**. In this sense, digital technologies are just a tool for a bigger purpose. How do we ensure that? By hearing the voice of all the interested actors. By using the human rights framework, the psychosocial model and the co-creation approach as compass to solve any current or future dilemmas.

A society "where everyone's voice is not analysed but heard, in a context which is collective and democratic". Dan McQuillan

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