YOUNGMOB

Facing youngsters' mobile addiction through an innovative technological app

WHITE PAPER
SHORT VERSION

The YOUNGMOB Consortium

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WHITE PAPER

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Content

1. Proposal

In order to promote the correct use of mobile phones and prevent smartphone addiction among young people, a White Paper has been developed for parents, teachers, education professionals and policymakers. The White Paper will be published and distributed to a wide audience to raise awareness among teachers, education professionals, parents, and policy makers who will likely use the YOUNGMOB toolkit. This document presents a short version of the White Paper with the purpose to make it easier to be read by different stakeholders.

This material aims to provide a comprehensive document with the knowledge acquired in previous output complemented with existing best practices addressed to support teachers, educational professionals, and parents in promoting better use of mobile phones among youngsters between 10 and 15 years old.

The short version of White Paper will be an open, single and affordable eBook available on the project website (www.youngmob.eu) to be downloaded in pdf and epub formats. It will include different topics (Executive summary, Analysis of the best practices and Conclusions) where the most critical points of the full version of the White Paper are outlined.

This manuscript highlights the analysis of best practices carried out by all the members that make up the project consortium. Also, this document is available in English, Spanish, Portuguese, Italian and Slovenian, ready to be used by targets across Europe.

The White paper promotes a correct use of mobile phones and prevents mobile addictions adapted to youngsters from 10 to 15 years old. Based on the identified best practices and acquired knowledge in YOUNGMOB toolkit development, partners propose recommendations to support teachers, educational professionals, parents, and policy makers in preventing mobile addiction at practical and organizational levels. This short version will be shared with all partners, associated partners and experts who participated in output development to validate the usability of the document and deliver the materials to support targets to prevent youngsters' smartphone addiction.

The content of this short version of the White Paper is divided into four main sections that address different points related to the project: The first point is the proposal, the second point is the executive summary of the project, the third point is an analysis of best practices developed both in the countries that make up the consortium (Spain, Italy, Portugal and Slovenia) and in other European countries; and finally, some general conclusions.

2. Executive summary

The YOUNGMOB project addresses the issue of mobile phone addiction, also known as mobile phone dependence, referring to the fact that the individual's behavior is out of control due to the use of mobile phones. This behavior results in a state of obsession and possible interference in work, school or society and relations. Some studies in the current literature have emphasized the negative effects of problematic smartphone use. But, according to the knowledge of the project partners, there is little work on how to specifically avoid mobile addiction and promote correct use without eliminating its use at an early age, emphasizing the need to readjust bad behavior patterns related to the use of smartphones. Thus, the objectives of the YOUNGMOB Project were:

- To design and develop an innovative toolkit (app&strategies) that allows parents and teachers to identify the level of addiction of young people to smartphones and incorporate a virtual tutor that accompanies young people in the process of learning the correct use of the smartphones.

- To deliver useful and practical materials to schools and parents to design tailored strategies to promote correct use of smartphones by young people and prevent mobile addictions.

- To provide practical recommendations for policymakers to promote correct use of mobile phones.

The YOUNGMOB project brings together partners from 4 European countries (Spain, Italy, Slovenia and Portugal) from academia, education, and business to achieve these

objectives. During the 36 months of the project, the partners have worked on data collection and analysis and creating a mobile application and strategic lines to prevent addiction. Now, as part of the last steps of the project, the Polibienestar Research Institute, in collaboration with the consortium, has been working on elaborating the present document. This White Paper aims to promote a correct use of mobile phones and prevent mobile addictions adapted to young people aged 10 to 15 years old.

3. Analysis of best practices

This epigraph presents 4 examples of good practices from partners' countries, including. These practices are addressed briefly how this handbook could support teachers, educational professionals, and parents in promoting a correct use of mobile phones among youngsters (see full version).

Spain	
Name of the Best Practice	Action guide for parents and educators to prevent or solve mobile abuse in youngsters.
Entity (Type of entity implementing the initiative)	FEPAD (Fundació Per A L'Estudi, Prevencio I Assistencia A les Drogodependencies) y Generalitat Valenciana (Conselleria de Sanitat).
Purpose	Improve action strategies regarding the abusive use of mobile devices by youngsters.
Target groups	Parents, educators, teachers and professionals involved in the care of youngsters.
Type of intervention	1. Training and/or group workshops 2. Training for professionals 3. Activities and questionnaires.
Objectives	This guide aims to raise awareness among youngsters, parents, teachers, and professionals about consequences of mobile phone abuse and help detect the problematic consequences, put practical solutions, or know where to go in search of professional help.
Understanding the Deployment	- Training: training is carried out for parents, social educators and teachers on the detection, prevention and treatment of technological addiction to mobile devices (phones, tablets...)

	- Internal and external communications: Communication strategies both within the institution and through social media platforms. - Free access to FEPAD information and documentation.

Slovenia	
Name of the Best Practice	Awareness Centre Safe.si for raising awareness about safe and responsible use of the Internet and mobile devices.
Entity (Type of entity implementing the initiative)	The Awareness Centre Safe.si is part of the project Safer Internet Centre. The project runs a consortium of partners coordinated by the Faculty of Social Sciences at the University of Ljubljana (UL FDV). Academic and Research Network of Slovenia (ARNES), Slovenian Association of Friends of Youth (ZPMS), and Youth Information Counselling Centre of Slovenia (MISSS).
Purpose	Awareness Centre Safe.si aims to provide children, youngsters, parents, teachers, and social workers with knowledge and tools for guiding and empowering and helping children and youngsters in easier mastering the digital world.
Target groups	Children, youngsters, parents, teachers, and social workers.
Type of intervention	1. National campaigns 2. Training and workshops for target groups 3. Educational and promotional materials 4. Website 5. social media
Objectives	- Using online activities for spreading information about the complexity of the Internet and mobile devices use - Strengthening awareness at children and youngsters that the virtual world (Internet and mobile devices) needs to match with their physical world - Triggering active approach at children and youngsters regarding Internet and mobile devices use - Contributing towards the more proper use of the Internet and mobile devices for children and youngsters.
Understanding the Deployment	- Offering different kinds of advice on the Internet and mobile device use about issues such as identity and privacy, social networks, online and mobile harassment, excessive use of new technologies,

computer and mobile device protection, inappropriate and illegal online content, gaming and virtual worlds, behavior and communication online, safe use of mobile devices.
- Producing educational materials and videos on the internet and mobile advice use for youngsters, parents, and teachers
- Developing tools on the Internet and mobile devices use (guides, tests, applications, e-learning).
- Organizing educational events on the internet and mobile advice use as workshops, lecturers, annual events titled 'A Day of safe internet use', promoting these issues through competitions for youngsters and families.

Italy	
Name of the Best Practice	Digital well-being and responsible use of the Internet and mobile devices with families.
Entity (Type of entity implementing the initiative)	Compagnia degli asinelli. https://www.compagniadegliasinelli.it/ Compagnia degli Asinelli is a social promotion association that brings together people and families from Pordenone. (Italy) The various initiatives also include training activities on media education and digital well-being. In the past, they have already collaborated with us and have an exhaustive list of contacts with local families interested in digital detox activities. In the spring, they organize a training course on social media tailored to associations and non-profit organizations.
Purpose	"Together we rediscover low-speed life and the value of human relationships. Let us learn to apply the good practices of the solidarity economy to our daily lives. We rediscover the territory and improve our relationship with nature. We nurture our desire for knowledge. We help each other by sharing specializations."
Target groups	Children, youngsters, parents, teachers, and social workers.

Type of intervention	• Training and workshops for target groups • Educational and promotional materials • Website • Social media • Promoting the use of the Young Mob app
Objectives	- Using online activities for spreading information about the complexity of the Internet and mobile devices use. - Strengthening awareness at children and youngsters that the virtual world (Internet and mobile devices) needs to match with their physical world. - Triggering active approach at children and youngsters regarding Internet and mobile devices use.
Understanding the Deployment	- Organizing educational events on the internet and mobile advice use as workshops, lecturer. - Contributing towards the more proper use of the Internet and mobile devices for children and youngsters.

Portugal	
Name of the Best Practice	The Centre of Applied Research in Management and Economics (CARME), of the Polytechnic of Leiria.
Entity (Type of entity implementing the initiative)	The Centre of Applied Research in Management and Economics (CARME), is a Research Centres of the Polytechnic of Leiria.
Purpose	The purpose of CARME is to enhance regional development and innovation, through integration between basic and applied research in management and economics, strongly oriented towards professional practice and engaging researchers, students, industry and non-profit organizations in a collaborative manner. It attempts to play a central role as a platform of knowledge co-creation between R&D, higher education, industry and social partners, creating an inspiring environment for multidisciplinary research with impact on companies and non-profit organizations and a valuable benefit for society at large. Carme is very much engaged in building bridges with the educational sector, to conduct research that helps to better understand youngest behavior, mainly in the use of digital tools, guiding and empowering them with control over the digital tools.

Target groups	For the research carried out, the target involved were youngsters (10-15 years), parents, teachers, and social workers.
Type of intervention	1. National dissemination of the research project. 2. Educational and Promotional material. 3. Contacting experts towards an in-depth understanding of the youngest use of smartphone. 4. Contacting youngest. 5. Website content development. 6. Social media content development. 7. Email marketing aimed at institutions targeting the project's target audience, particularly secondary schools.
Objectives	- Make children and young people aware of the importance of balancing the time spent on online and offline activities with family and friends. - Raise awareness of parents and teachers for the good use of smartphone internet for the benefit of learning and personal development. - Disseminate online tips for the good use of the smartphone. - Disseminate strategies to prevent or correct smartphone overuse.

4. Analysis of toolkit piloting

Two pilots have been carried out throughout the project; the first pilot (Pilot 1) was conducted between the months of April and May 2021 and involved 58 users from the different countries participating in the project (19 users in Spain, 9 users in Italy, 15 users in Slovenia and 15 users in Portugal). The second pilot (Pilot 2) was carried out during the months of September and December 2021 and involved 34 participants from the different countries participating in the project (16 users in Spain, 4 users in Italy, 12 users in Slovenia and two users in Portugal). Regarding the users, in the pilots the users were largely different, although some users (a small part) also participated in Pilot 1.

Between Pilot 1 and Pilot 2, the YoungMob APP underwent a series of changes/modifications that may have affected the number of participating users, since, as can be seen in the pilots, Pilot 2 had 34 users while the number in Pilot 1 was 58 users. Some of the modifications made to the application are as follows:

➢ The efficiency of the application was improved.

➢ An Installation Manual was included in each language and the Video Tutorial.

➢ The criteria were modified so that users could access phase 3, even if they did not answer all the questions in phase 2 (Receiving Strategies).

➢ Updated settings to be able to track data when parental control applications allow the app to be installed.

➢ Updated so that when a user stopped sending data to the App they could reinstall it and continue to participate in the program.

➢ Updated the warning notifications when a user stops sending data to the database.

It is important to note that two blocks of data are used to define the user profile: 1. objective data obtained from monitoring the device use and 2. self-assessment data obtained from users' responses to 22 items.

This first objective block represents 50% of the analysis to define the user profile. It employs 7 variables (7 minimum and 21 maximum - from 7 to 11.66 green, from 11.67 to 16.33 yellow and from 16.34 to 21 red). This first block of the analysis will be complemented by a second block: the subjective part (questionnaire with 22 items). The items employed to monitor mobile phone use are described in table 1 and the self-report scales employed to measure self-assessment of smartphone addiction are presented in table 2.

Table 1. Objective data obtained from monitoring the use of the device

'MORE OBJECTIVE' CUT VALUES

<mark style="background-color: #00ff00">NO RISK OF ADDICTION</mark>

<mark style="background-color: #ffff00">POTENTIAL RISK OF ADDICTION</mark>

<mark style="background-color: #ff0000">HIGHT RISK OF ADDICTION</mark>

ITEMS MONITORIZED (Andrews et al., 2015; Nöe et al., 2019; Lin et al., 2017)

-Time (hours) spent daily using smartphone: <mark style="background-color: #00ff00">1-2,</mark> <mark style="background-color: #ffff00">>2-4</mark>, <mark style="background-color: #ff0000">>5.</mark>

-Time spent on social networks and games out of the total time spent daily with the smartphone: <mark style="background-color: #00ff00">< 25% time spent in social networks or videogames,</mark> <mark style="background-color: #ffff00">26-75</mark>, <mark style="background-color: #ff0000"><75% time spent in social networks or videogame</mark>

-Time used per application out of total time spent with the apps (entertaining apps, learning apps and social networks): <mark style="background-color: #00ff00">< 25% time spent in apps,</mark> <mark style="background-color: #ffff00">26-75</mark>, <mark style="background-color: #ff0000">>75% time spent in apps</mark>

-Touching screen/Check messages: <mark style="background-color: #00ff00"><50 times daily,</mark> <mark style="background-color: #ffff00">51-150 times daily,</mark> <mark style="background-color: #ff0000">>150 times daily</mark>

-Time (minutes) between the "no use" and "use" (any event) with the mobile (sleeping time is excluded from the non-use time): <<mark style="background-color: #ff0000">7min,</mark> <mark style="background-color: #00ff00">>7 min</mark>

-Use of smartphone: <mark style="background-color: #00ff00">no use/turn it off at night,</mark> <mark style="background-color: #ffff00">use some nights,</mark> <mark style="background-color: #ff0000">use every night</mark> (in Spain, it depends on the youngster's age, but 22h seems to be a maximum time).

-Is there a parental control app downloaded in the youngster's smartphone? <mark style="background-color: #00ff00">Yes</mark>/<mark style="background-color: #ff0000">No</mark>

Table 2. Self-assessment data obtained from the response given by users

Smartphone Addiction Scale (SAS) (Kwom et al., 2013) liket scale from 1 to 5: <mark>1 or 2</mark>, <mark>3</mark>, <mark>4 or 5</mark>.

- I don't do the work / tasks I have to do, due to using the smartphone.
- I have difficulty in concentrating in the classroom, taking tests or assignments, due to use or concern with the smartphone.
- I feel pain in my wrists or in the back of my head or neck from overuse of the smartphone
- I can't stand not having my smartphone with me
- I feel impatient and angry when I don't have my smartphone in my hands.
- I constantly think about my smartphone, even when I'm not using it.
- I will not decrease the time I spend on my smartphone even though my daily life is negatively affected by it.
- I constantly see my smartphone to not miss other people's conversations on social media.
- I use my smartphone for longer than I should.
- My parents and people around me tell me that I use my smartphone a lot.

Anxiety scale 1 to 5 (Lui et al., 2020, refined version of social anxiety long scale).

- I am worried about what other people think about me
- I think that others will not like what I am going to do
- I feel nervous when I am introduced to other unknow people.

Isolation/loneliness scale 1 to 5 (Hughes et al., 2004; short version of UCLA loneliness scale)

- "How often do you feel that you lack companionship?"
- "How often do you feel left out?"
- "How often do you feel isolated from others?"

Youngster-parent communication: from <mark>1-2 none</mark> to <mark>4-5 very fluid/frequent</mark>

Family and home life from 1 to 5 (Buctot et al. 2020 from The KIDSCREEN questionnaires):

- Do your parent(s) understand you?
- Are you happy at home?
- Do your parent(s) have time for you?
- Are you able to talk to your parent(s) when you want to?

Are there Smartphone use/control norms at home/by parents? <mark>None</mark>/ <mark>control of time spent with the smartphone</mark>/<mark>control of time and content spent with the smartphone</mark>

In order to assess the risk of mobile phone addiction among youngsters aged 10-15 years, a 22-item questionnaire was used, the responses to which were based on a five-point Likert scale. To calculate the user profile (green, yellow or red), a score of 1 (green user) was assigned to values 1 and 2 on the Likert scale, value 3 a score of 2 (yellow user) and values 4 and 5 a score of 3 (red user). All questions were equally weighted and the total score, after adding up all the answers, could vary between 22 and 66 points. These objective questions corresponded to 50% of the total score to be assigned to a profile. The objective monitoring part determined the other 50%.

Before completing the questions, monitoring data on mobile phone usage was obtained. Once the users/participants completed the questions that are in the YoungMob APP and the scoring was established, these users were classified into 3 different profiles: green profile (no risk of addiction/proactive attitude); yellow profile (potential risk of addiction/preventive attitude); and red profile (high risk of addiction/curative attitude) and 6 different strategies and approaches (based on the levels of the R. Dilts model) were applied. These strategies are as follows:

- ➢ STRATEGY 1: Strengthen young people's perception of the physical environment.
- ➢ STRATEGY 2: Strengthen young people's physical fitness and meet their basic physical needs.
- ➢ STRATEGY 3: Increase time without a smartphone.
- ➢ STRATEGY 4: Prioritize young people's intelligence over their dependence on smartphones.
- ➢ STRATEGY 5: Reinforce awareness of the importance of young people's value system.
- ➢ STRATEGY 6: Support young people's identity so that they build it on healthy pillars.

5. Conclusions

The following are the items in which the responses of youngsters participating in pilotings have determined that the risk profile of mobile phone addiction is high (red profile). These items are related to the image that others have of the youngster, the lack or loss of social skills and the need to use electronic devices for prolonged periods of time:

- **I can't stand not having my smartphone with me.**
- **I think that others will not like what I am going to do.**
- **I feel nervous when I am introduced to other unknow people.**
- **How often do you feel isolated from others?**
- **How often do you feel left out?**
- **I am worried about what other people think about me.**
- **I constantly see my smartphone to not miss other people's conversations on social media.**

In terms of social relationships, youngsters are increasing the use of electronic devices to the detriment of time spent with the family and peer groups, which can lead to a loss of social skills and, therefore, problems relating to other people; if smartphones are used abusively. Consequently, it is essential to help them develop adequate management of emotions and feelings and good social skills that allow them to create real social bonds and interact appropriately with others**.**

Another important point regarding youth communication is the hyperspecialization through electronic devices, which has generated the loss of valuable information transmitted physically through our body language or our voice. This cybernetic connection impoverishes the interpersonal communication of youngsters, rendering negative emotions when they have to communicate physically.

Regarding the need to be connected on social networks to keep abreast of the latest news of the peer group, these social networks offer immediacy as there is a quick response and immediate interactivity. In addition, they attract youngsters as they create the feeling of being in permanent social contact. The youngster needs to be checking

the news all day might cause isolation from the rest of the people around. Hence, it is necessary to work on the spaces and times they spend with their smartphone, especially before going to bed (to prevent them from losing hours of sleep due to using these devices) and during the rest of the day (school, home, etc.).

Therefore, parents and tutors of youngsters must teach them how to handle situations that cause them stress or tension and help them work on and improve problems related to social skills (shyness, isolation) to relate to others. It is also transcendental to reinforce the confidence and self-esteem of youngsters so that they feel prepared to relate physically with others, avoiding or reducing the isolation caused by the abusive use of electronic devices.

Regarding the items related to the family environment, it is important to highlight those whose responses have shown a high risk of addiction (red risk profile) in both pilots (Pilot 1 and Pilot 2). These items are the following:

- **Do your parents understand?**

- **I use my smartphone for a longer time than I should**

- **My parents and people around me tell me that I use my smartphone too much.**

- **Are there rules for smartphone use/control at home/by parents?**

After analyzing these items, the conclusions drawn from the analysis of the mobile phone addiction risk profile, the following conclusions are drawn concerning the family and the use of smartphones by youngsters:

It is vital to building a healthy relationship between youngsters and the different electronic devices concerning families. To do this, it is crucial that parents or tutors know how to make safe use of these devices, be aware of the latest updates, security and control options that can be applied, parental control tools, blocking, and monitor their use of the smartphone. These control and blocking options (applications that filter access to inappropriate or dangerous websites and content, especially for children) should be established based on dialogue with youngsters so that they are not imposed but agreed upon.

In order to ensure that families are trained and updated regarding new technologies and electronic devices, it is key to train families, teachers and other social agents by creating tools to prevent the abusive use of smartphones by youngsters, thus allowing these social agents (family, teachers, etc.) to emphasize the education of young people on the use of the Internet, especially about the personal information they publish (information is exposed to anyone), to prevent them from uploading personal data or inappropriate images.

Schools, educational centres, and other entities working in the field of education with youngsters must add to their academic curricula subjects on the proper use of smartphones as educational tools and how to use these electronic devices safely, responsibly, and useful.

Another important point related to the family is the need for parents or legal guardians to establish balanced strategies setting limits on time of use and non-use times, which will impact the development of healthy habits using smartphones, the Internet, social networks and the media. The people in charge of youngsters must impose clear, appropriate and consensual rules according to the child's age. In addition, parents should improve their communication with their children about how to use smartphones correctly; and share with family time and activities that generate new routines instead of using smartphones and thus promoting other forms of offline entertainment).

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