UNIVERSIDAD INTERNACIONAL DE LA RIOJA

Universidad Internacional de La Rioja
Máster universitario en Diseño y Gestión de Proyectos Tecnológicos

"Collective Awareness Platform to enhance Social Media education in parents, children and teenagers"

Tipo de proyecto: PROPUESTA DE FINANCIACIÓN

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Resumen

El TFM se basa en la redacción de una propuesta europea destinada a la creación de una plataforma de concienciación social para educar a padres e hijos en el buen uso de las redes sociales. La plataforma englobará un sistema capaz de monitorizar, capturar datos y procesas datos en tiempo real.Se ha tomado de referencia la convocatoria ICT-2013.5.5 CollectiveAwarenessPlatformforSustainability and Social Innovation. Se han aplicado las metodologías y conocimientos adquiridos en las distintas asignaturas del Master, con el fin de obtener una propuesta lo más real posible a la realidad y poderla utilizar en mi carrera profesional.

Palabras Clave: *Seguridad, protección, redes sociales, infancia, educación.*

Abstract

Final Master Project is based on writing a European proposalaimed at creating a collective awareness platform to educate parents and children on the correct use of social media.The platform includes a system capable of monitoring, capture and analyzes data in real time.

Reference has been made from theCall: ICT-2013.5.5 Collective Awareness Platform for Sustainability and Social Innovation. Writing this proposal has been a good opportunity to apply methodologies and knowledge acquired in the Master, in order to obtain a real proposal and useful for my professional career.

Keywords:*Security, protection, social media, childhood, education.*

Abstract:

The use of Social Media websites has become one of the most common activities of today's children and teenagers who access to a wide portal for entertainment and communication which has grown exponentially in recent years. As any other societal environment, when using Social Media sites it is important to be aware of content and identify possible hazardous behaviours given that not all of them are suitable, especially for children and adolescents. Problems like cyberbullying, sexting, cibergrooming, fishing, or even "Facebook depression" are just a few examples that illustrate the necessity to monitor content and use of Social Media.

European Commission has dealt with the matter through several initiatives to monitor the implementation of the Safer Social Networking Principles in the EU: Safer Internet Programme, EU Digital Agenda and the initiative "European Framework for the Safer Mobile Use by Younger Teenagers and Children" are just a few examples.

Nevertheless, there is no initiative that considers this monitoring and control with a pedagogic approach. In this sense, this proposal aims at the creation of a collective intelligence platform promoting the proper use of Social Media in children and teenagers, monitor users' activity in Social Media and provide real-time response to them (children and teenagers) according to content/behaviour with an innovative educational manner.

The platform will capture real-time information across Europe on the use of social networks from different devices (desktop computers, laptops, tablets and mobile devices) which will be managed and processed for extracting information and creating awareness of the risks but also of the opportunities for children using the internet.

This information will be of great use to children (educational approach), parents (awareness of online children behaviour), companies addressing such target population, scientists (studies) and society at large with best and worst practices identified.

Title of Proposal

"Collective Awareness Platform to enhance Social Media education in parents, children and teenagers"

List of participants

Participant No *	Participantorganisationname	Country
1.	TRI (Coordinator)	Spain
2.	SCANNETS	Norway
3.	TEAMNEW	Romania
4.	UNIR	Spain
5.	TU	Greece
6.	INNOVATION	Italy
7.	CRU	Czech Republic
8.	BSI	The Netherlands

* Please use the same participant numbering as that used in the administrative proposal forms.

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1. Section 1: Scientific & technical quality, relevant to the topics addressed by the call

1.1. Concept

Online Social Media networks are websites that allow users to build connections and relationships to other Internet users. Social networking can be used to keep in touch with friends, make new contacts and find people with similar interests and ideas. Because of the continued increase of young users on Social Media networks many people are starting to consider the idea of filtering or monitoring such sites in order to protect children's activities. The reason to monitor the online activities of children is ensure that children using Social Media sites are not targeted in any illegal online scams are not lured into danger by kidnappers and other people who wish to harm the children in question. Many times, Social Media sites can intervene before there are online or offline fights due to online disputes.(Ahlqvist & Bäck, 2008)(Social Media Policy and Procedure, 2014).

Nonetheless, this proposal aims at shaping an educational environment for children so that they can use Social Media in a safe and responsible way. Furthermore, we also present project CAPCHILD in order to learn about the behaviour of children (and teenagers) in Social Media which will help us to build this aforementioned environment whose objective is to harness the collective intelligence deriving from children's usage of Social Media. **The CAPCHILD system aims at guiding parents and children/teenagers on the Internet Society with the intention of getting instill proper habits in the use of Social Media.**

Since both parents and children need knowledge that demarcates them what is right from what is wrong on the Internet, CAPCHILD will capture information how the user behaves now in the Internet environment and will seek how to guide him to the proper use by simple , easy, unobtrusive, attractive and transparent proposals.

CAPCHILD is not aims to monitor children/teenagers and then inform parents about what they are doing. **CAPCHILD concept is not a parental control tool, neither filtering nor spyware**. CAPCHILD shall inform parents only in extreme situations. CAPCHILD will allow the end user to interact in a transparent way. Parents should learn to "trust" the good use that their children, learning, knowing and valuing the great advantages and improvements that provide and promote the growth of the education into the young.

CAPCHILD has an important support of professional and experts (sociologists, psychologists, pediatricians, guardians, educators, etc.) that define logical rules that mark the path between what is inside and outside the limits. CAPCHILD System should be able to gather data from many sources and in different forms (e.g. posts, pictures, videos) and to establish a listening grid to capture such data. Having established a listening grid that

captures data and posts around the topics the user is interested in, the next step is to analyze the data and produce actionable reports and insights for the user platform. The analysis is of particular importance as it encompasses the methods used to both filter the gathered data of unwanted information (e.g. spam, duplicates) and to process it (e.g. determine the language or sentiment) in a way that is meaningful for the parents.

The CAPCHILD project.

The aim of the project is to create the **"CAPCHILD System".** This is a whole process where there is a visible part for the end user called **"CAPCHILD Platform"** considered as Collective Awareness Platform; it will be a web 2.0 space and an expert social network. And also there is a hidden part for the users, which is a cyclic process that operates the "CAPCHILD System".

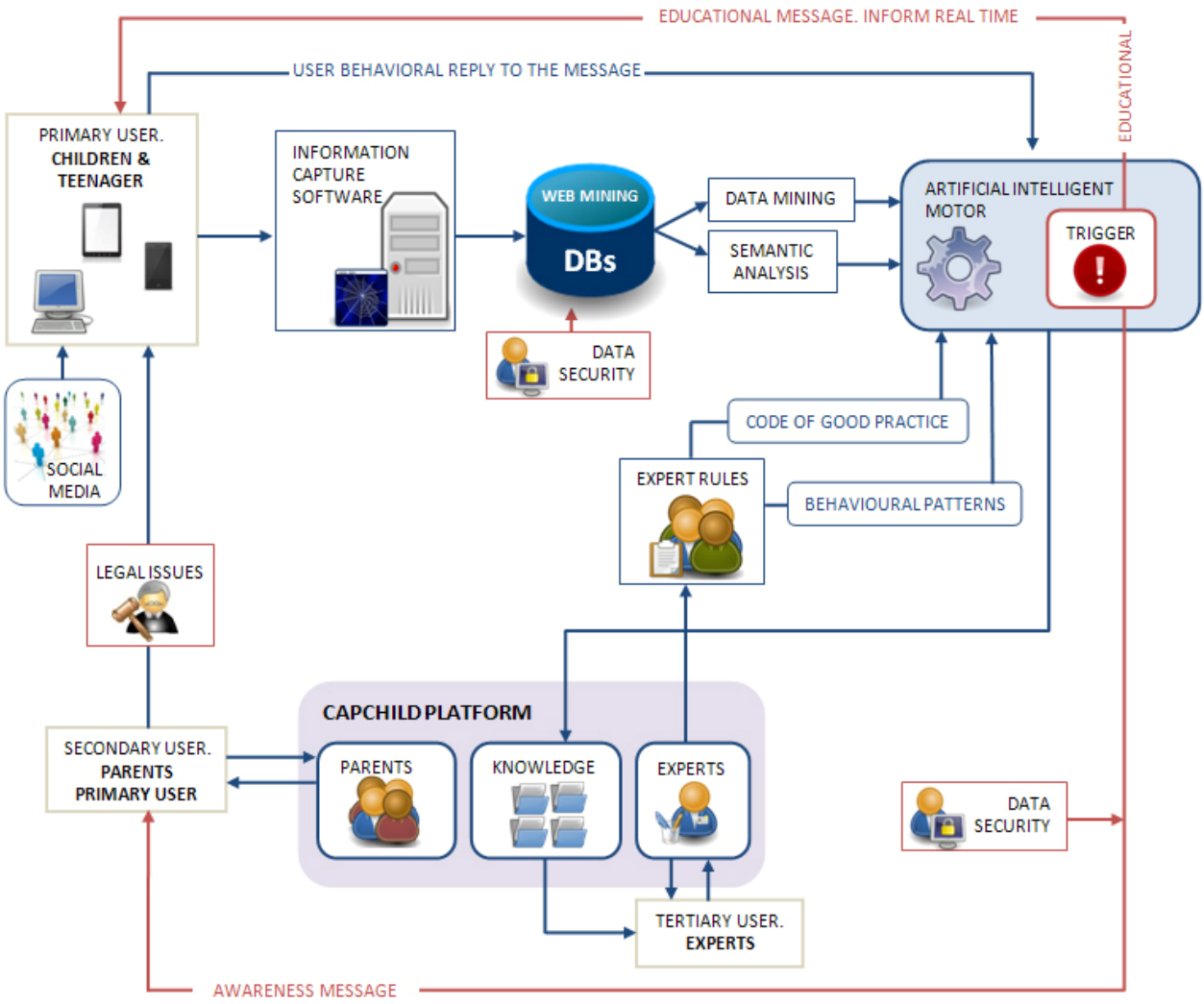

Figure 1."CAPCHILD system"

The “CAPCHILD Platform” will contain three major areas:

1. Parents (Secondary User). In this area, parents can find out in detail all the information related to the data CAPTURE Software, its configuration, with the legal aspects, with the use of the information collected from the children/teenagers (Primary Users) monitoring.
2. Knowledge (Secondary User and Tertiary User). This area will collect data in aggregate form in order to know behaviours patterns and statistical results. It is the area of knowledge and collective awareness.
3. Experts (Tertiary User). This area will be available to participate societal stakeholders (teachers, psychologists, sociologists, instructors, pediatricians, children industry, etc.) with an environment of 2.0 tools. This area is very important because it constitutes, together with the knowledge area, the space of dynamic collective intelligence. Since it is possible review rules, behaviour patterns, best practices and benchmarks for education of children and teenagers.

“CAPCHILD System” process:

Parents or Tutors should register on the “CAPCHILD Platform” and they have to accept legal condition.

The platform generates an ID-Code, at the end of the registration process. (For each Child/Teenager, Parents have one ID-Code).

Parents or Tutors will download two applications, one for monitoring and education of their Child/Teenager (CAPTURE Software) and another to receive informative messages(AWARENESS Software) about good practice on Social Media related to their children/teenagers. In both applications Parents must introduce the same ID-Code.

This ID-Code is used for data capture and it be maintained at all times in order to connect to the Primary User (Children/Teenagers) with the Secondary User (Parents/Tutors).

Using this system, never appear personal user data as name, last name, etc.

Probably Experts need to know parameters as age, male o female, geographical location, etc. But never reveal the users’ identity.

When Parents install and configure CAPTURE Software on Children/Teenagers’ media devices, it will be possible to begin capture information. This software works in second level and it cannot be detected by Primary Users (Children/Teenagers).

Data will be collected in a database which will offer two analyse: one in quantitative (data mining) and another at the semantic level (to detect inappropriate content). These two extraction results feed the Artificial Intelligence Motor (AIM).

This AIM will also be programmed from the rules that will dictate the experts in two ways:

1. good practice in the use of Social Media that will result in messages that allow to educate children/teenagers
2. todefine the patterns of behaviour that allow knowledge to parents.

The AIM according to programmed rules will have to be activated by triggers to give two types of messages:

1. to children and teenagers users in real-time in order to educational objective.
2. to parents users in order to know monitoring and also with appropriate advice for each case.

Moreover, the second case is also referred to inappropriate content, which will arise from semantic analysis, and will also be transferred to parents.

It will also be necessary to collect and analyze the feedback of educational messages being thrown to children and teenagers users.

In aggregate form and according to the defined behaviour patterns, the AIM will keep up to date information of knowledge area in “CAPCHILD Platform”.

“CAPCHILD System” will be considered as a cyclic system. Every input in the process for example, if there a change in legislation, behavioural pattern... or the experts needs to analyze a particular parameter, all of this can modify and revise the whole system cycle.

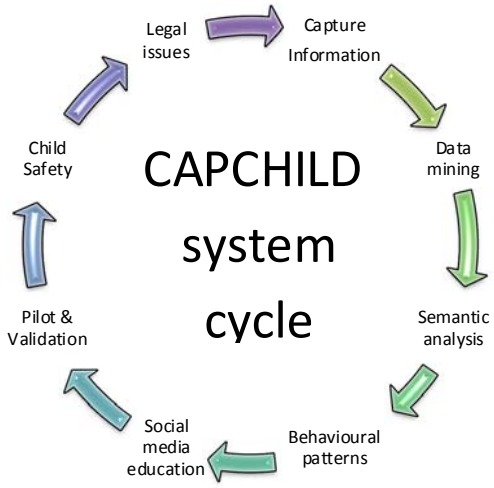

Figure 2. Visual explanation of CAPCHILD System cycle

1.2. Objectives

The specific scientific and social objectives in the project are as follows:

1. Identify a range of key variables relating the using of Social Media in children and teenagers.
2. Suggest system as a model of collective intelligence and awareness on the use and benefits of Social Media.
3. Give pedagogic response and information to users creating an educational context to behave properly with the environment.
4. Returning real-time education to primary users (children and teenagers)
5. Give knowledge to parents (and also teachers …) on the proper way to react to the use of Social Media by their children/teenagers.
6. Reducing the digital divide between parents (and also teachers,...) and children/teenagers.
7. Establishing behavioural patterns in Europe and setting particular alarms in comparison with users in the same category.
8. Large source of data for pedagogical experts to obtain a great amount of field data on social behaviour and carry out studies.
9. To offer to experts the use of advanced knowledge as additional services.
10. The platform should become a tool for mass use by society and reduce cybercrimes on children.

The technical objectives are as follows:

1. Develop and integrate standalone software for capture data in multiplatform devices.
2. Create a database for collecting data and offer two analyzes: one in quantitative (data mining) and another at the semantic level.
3. Create a specific ontology for proper development of semantic analysis.
4. Develop the Artificial Intelligent motor.
5. Create Data Mining for Intelligent Artificial Motor.
6. A great self-learning neural network system that continuously adapts to environment (as captured new information arrives).

1.3. Progress beyond the state of the art

New technologies along with Internet are new tools for citizens in terms of communication, information and entertainment.(Dubose, 2011).

Web 2.0, which includes Social Media are the latest wave of technologies into young people. They can communicate with friends and have access entertainment.

The misuse of Internet or new technologies can present a potential online risk to children and young people. These risks can be such as “Illegal content”, “Age-inappropriate content”, “Contact” and “Conduct”. In addition young people can be victims or partipate in dangerous activities.(OECD Digital Economy Papers, No. 179).

Parents are an important piece to avoid risks in children and young people. They have a responsibility to evaluate websites for potential risks and promote dialogue with their children, in order to do a good use of internet.

According to the above writings, the main objective is to create a platform that will capture real-time information on the use of social networks from different devices that will allow parents monitor user’s activity in Social Media and provide responses to them according to content / behaviour.

By means of this project, parents have tools and technologies to help children and young people in the proper use of internet, managing their experience, in special with regards to inappropriate content.

- **Internet risks.**

An important role is to help children to understand the concepts of risk and safety online, which will allow them, make independent informed decisions.(Safeguarding Children, 2014).

Internet safety education is critical in protecting young people against online threats; both external threats, such as ‘inappropriate’ content and activities or contact with the ‘wrong’ people, and internal threats, such as disclosure of too much personal information.

It is important to work together with children, and listening to their needs and learning from their experience, in order to make the most of the opportunities that the Internet offers, in a safe and responsible way. “Parents are encouraged to establish a family home use plan for all media. Media influences on children and teenagers should be recognized by schools, policymakers, product advertisers, and entertainment producers” (Strasburger, 2004).

When it comes to child safety online, legislating and regulating might, at the end, be counterproductive. It is impossible to ban every single activity that potentially exposes children to dangers in the Internet. Instead to forbid, to consider education as the tools that will enable parents, educators or the state to address such issues relating to the safety of children in the Internet.(Convention on the Rights of the Child, 2014).

- **Potential threats**

Children and young people face multiple risks when surfing the Internet. “It is important that parents become aware of the nature of social media sites, given that not all of them are healthy environments for children and adolescents”(O'Keeffe, 2011).

Some are threats to their safety or privacy; these can also have serious consequences:

- Exposure to inappropriate content, sometimes intentionally and other by mistake.
- Conversations with sexual predators in chat, email, social media, etc.
- Online bullying.
- Data theft about personal information, information sharing and privacy, (Acquisti, 2006)
- Spyware, viruses and malicious software.
- Scams and frauds.
- Excessive commercialism: advertising and product-related websites.
- The consequences of engaging in piracy of software, music or video.

Children and young is the fastest growing age group using the Internet; yet where they lack awareness and have limited ability to assess risk and make decisions, they are vulnerable(Council of Europe, 2014).

- **Approaches to controlling access to undesirable content.**

Children are not homogenous, depends of the ages, education, language, culture, level of maturity, experiences … each one is different.

Parents and tutors are the best people to determine which content is appropriate for each child.In spite of, current research suggests that parents help their children lie to Facebook about age. (Boyd, 2011).

In order to control Internet content, many countries have developed regulations and filters.

Nowadays there are three common techniques for blocking access to websites: IP blocking, DNS filtering, and URL blocking using a proxy. The more popular technique that numerous

countries are employing is to block access to websites based on the words found in requested URLs, or blocks searches based on a list of blacklisted terms.

The different filtering techniques consisting of block or restrict access to websites(Internet Society, 2012):

- “Proxies and software that can allow or block specific sites and protocols (including anti-virus protection, email spam filters, pop-up blockers, anti-spyware, cookie deletion software, etc.)”
- “Content filtering software that finds and blocks specific content or websites”
- “Configuration options to set site privacy and monitoring features (e.g., Google SafeSearch filter, Privolock)”

Although obviously, filtering can never be effective, because under-blocking and/or over-blocking.Sometimes blacklists classify wrongly websites and their filtering methods do not remove the illegal content from the Internet.

In other way, smartphones, tablets and gaming are devices that children and young people use to access to Internet. This means that, they be able to access the Internet without filter. It is, therefore, important to educate children and young about how to behave on Internet. Also is very important that they learn how to resolve problems they may encounter online.

To sum, Current technologies are unable to identify inappropriate content on websites, chats, email or social networks.Even the best filtering software may become the substitute for the advice of parents.(Internet Society, 2011).

- **Technical Description and Advances of the state-of-the-art of the CAPCHILD project.**

An important component of the platform is the Reasoning. After incorporating all data to the system and interconnecting the procedures and knowledge, an objective of the project is to provide end-users with intelligent services over the interconnected data. Several state-of-the-art modern reasoning services, like taxonomic classification, concept subsumption, explanation (justification) extraction and abductive reasoning will be investigated and incorporated into the platform. Such services can further help experts in performing intelligent tasks in a more systematic way. Abductive reasoning is a reasoning service by which one attempts to hypothesize the cause of an observed result, even though the result itself is not supported (actually it is contradicted) by the available data. This could be a very valuable tool in such cases in order to reassess the existing procedures, knowledge and also attempt to relate existing knowledge with unknown new findings.

Another important component of the proposed platform is the Knowledge Extraction. This component will use extrapolation and machine learning techniques over the data that will be inserted to the system with the objective of possibly generating new knowledge. It is clear that such a task is very difficult and highly ambitious. It may be that automatically extracted knowledge is highly superfluous or wrong. In order to reduce the size of such extracted knowledge we will again attempt to refer to standard reasoning techniques. The extracted knowledge that is judged as consistent would finally be evaluated and inspected by experts and possibly inserted into the system as novel knowledge.

The functionalities and services that will be supported in this framework are the following:

- Data description: Integrate and manage sets of data and describe the relevant constraints, thus constructing the data repository.
- Procedure description: Formally describe, through a rule editing service, the strategies and procedures that can be used.
- Knowledge representation: Capture (through a literature search service) and formally describe (through a knowledge representation and management tool) the existing knowledge concerning the different cases, the relevant terminology, etc.
- Mapping representation: Define (through a semantic mapping service) the set of connections and mappings between the data descriptions and the relevant knowledge that is available or will be generated.

- Taxonomic classification: Taxonomically classify the concepts and relations of the knowledge and discover subsumptions between its terms and the relevant procedure and data descriptions through automated reasoning algorithms.
- Semantic explanation: Ensure knowledge consistency and provide formal justification and explanations services in order to discover the implicit knowledge and understand associations between the terms of the knowledge.
- Non-standard reasoning (abduction, explanation, argumentation) and model validation: Combination of symbolic reasoning services providing possible causes or explanations of facts of interest or mismatches.
- Data analysis and rule extraction: Based on non-standard reasoning and machine learning, generate new rules and associations.

- **CAPCHILD Knowledge Construction and Reasoning Technologies**

The Web Ontology Language (OWL) has already demonstrated its value in formally capturing the semantics of domain knowledge in many applications. So far, most approaches have focused on using very expressive ontology languages, like OWL 2 DL. However, it is well-known that tasks such as testing the consistency of knowledge specified in OWL 2 DL exhibit very high computational complexities. Therefore, most of the aforementioned ontologies are very hard to reason with even with modern state-of-the-art OWL. Present project aims to investigate the use of new (tractable) languages for representing the knowledge to be generated, searched in CAPCHILD. Such languages have been investigated theoretically and are well-established. Actually, many of them have been standardized by W3C, like the languages OWL 2 EL, OWL 2 QL, and OWL 2 RL. These languages can be used to provide efficient knowledge and data related reasoning with specific performance guarantees.

In this framework we will investigate new available non-standard reasoning services, like explanation services through justification extraction and abductive reasoning services. We will further investigate technologies for assisting the knowledge extraction task.

In addition, efficient reasoning algorithms for other standard reasoning services, like taxonomic classification and concept subsumption and consistency checking, also will be implement in the platform.

Concept subsumption can help experts compare heterogeneous data models. Apart from the standard reasoning services mentioned so far, in the current project we will attempt to investigate and support the use of other non-standard reasoning services, like explanation

and justification extraction and abductive reasoning. As a consequence, explanation services can make the platform more users friendly for parents and other experts.

An additional goal of the CAPCHILD project is to also use Knowledge representation and reasoning (KR) for assisting the task of knowledge extraction. More precisely, consistency checking and taxonomic classification can be used to check consistency of the newly extracted knowledge in comparison with the pre-existing or already generated knowledge. Moreover, deductive reasoning algorithms, like taxonomic classification, can be used over the newly extracted knowledge to obtain new information. This information can be investigated by experts.

Finally, an important issue when using semantic and knowledge oriented technologies is that it is usually very difficult for non-experts to fully utilize and exploit their capabilities. More precisely, users are familiar with keyword based simple search languages, however, this does not fully exploit the capabilities of such systems. For this reason, semi-automatic techniques have been proposed for assisting the task of generating semantic queries by non-experts. Most of the proposed approaches provide step-by-step incremental algorithms for assisting the user construct the query he/she had in mind but which complies with the structure and terminology used by the intelligent system.

- **Data analysis and knowledge extraction**

In the proposed project, we will start from data analysis and non-standard reasoning towards rule extraction and model validation. The main purpose of the work will be to assess relationships among a set of variables.

The *data analysis* phase concerns pure statistical methods (mean, standard deviation, median-mode statistics, histogram distributions etc.) in an attempt to summarize and statistically describe the data. These methods concern nominal (e.g. mode, Chi-Squared), ordinal (e.g. median, percentile), interval data (e.g. mean, deviation, correlation, regression) and combinations of them, as such kind of data are available to the consortium.

Machine learning (ML) methods, which are related to the rule extraction still draw heavily from statistics and probability, but they are fundamentally more powerful because they allow inferences or decisions to be made that could not otherwise be made using conventional statistical methodologies. Overall, it seems that there is a trend towards using mixed data and relying more on ML methods rather than standard statistical ones. This trend is strongly related to the ability of those methods to cope well with conditionally dependent variables and non-linearities of the system. These methods are broadly divided into supervised, unsupervised, semi-supervised and reinforcement learning methods. In supervised

learningthe goal is to learn a mapping from the data to a set of labels given a training set. The goal of unsupervised learning is to find interesting structures in the data that can be exploited further for classification or mining methods. On the other hand, reinforcement learning is related to how an artificial network can learn to optimize its behaviour in the face of rewards and punishments. Reinforcement learning algorithms have been developed that are closely related to methods of dynamic programming, which is a general approach to optimal control.

In the CAPCHILD project we will promote the synergy between symbolic and ML methods towards efficient data analysis and knowledge extraction. For example, KR reasoning techniques can be used to validate the outputs of machine learning techniques with the existing CAPCHILD knowledge and discard results that are inconsistent. Furthermore, the system can also attempt to reason with the extracted valid rules in order to extract new knowledge.

- **Contribution of CAPCHILD to State of the Art.**

The Internet is an increasing part of today's culture, especially for children and youth,it is important to be alert to the potential risks involved in it, but also itis important to keep things in perspective. Education, common sense and clear guidelines are the best place to start.

While much work has been done on how best to protect children, the aims of CAPCHILD project believes more can be done to empower children and young people in order to protect them from potentially harmful material on the Internet and, at the same time, allow them to make full use of the Internet's capabilities and values.

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1.4. Methodology and associated work plan

The CAPCHILD System approach is to create a project culture around a project vision, 3 key generic strategies and operational components designed to implement strategy in pursuit if the CAPCHILD System vision. The partners refer to this approach as the CAPCHILD “pyramid model” which is illustrated in the following

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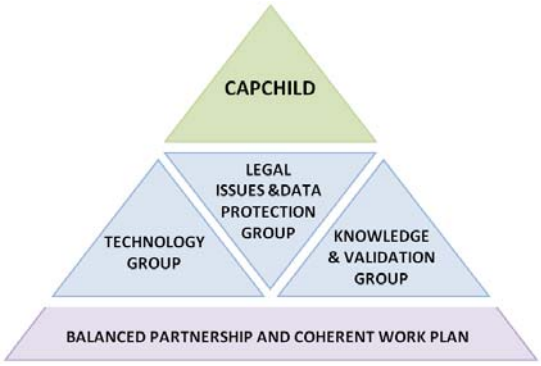


Figure 3. CAPCHILD System Pyramid Model

The main objective of this project is monitoring and control with an educational approach. In this sense, this proposal aims at the creation of a collective intelligence platform that will allow:

- Promote the proper use of Social Media in children and teenagers in Parents,
- Monitor children's and teenagers' activity in Social Media and provide them a real-time educational response according theirbehaviour.
- Access to Knowledge to social experts (teachers, psychologists, sociologists, instructors, pediatricians, children industry, etc.).

This real-time response will be structured in such a way that ensures proper education of Social Media users and will not be developed as a merely control tool.

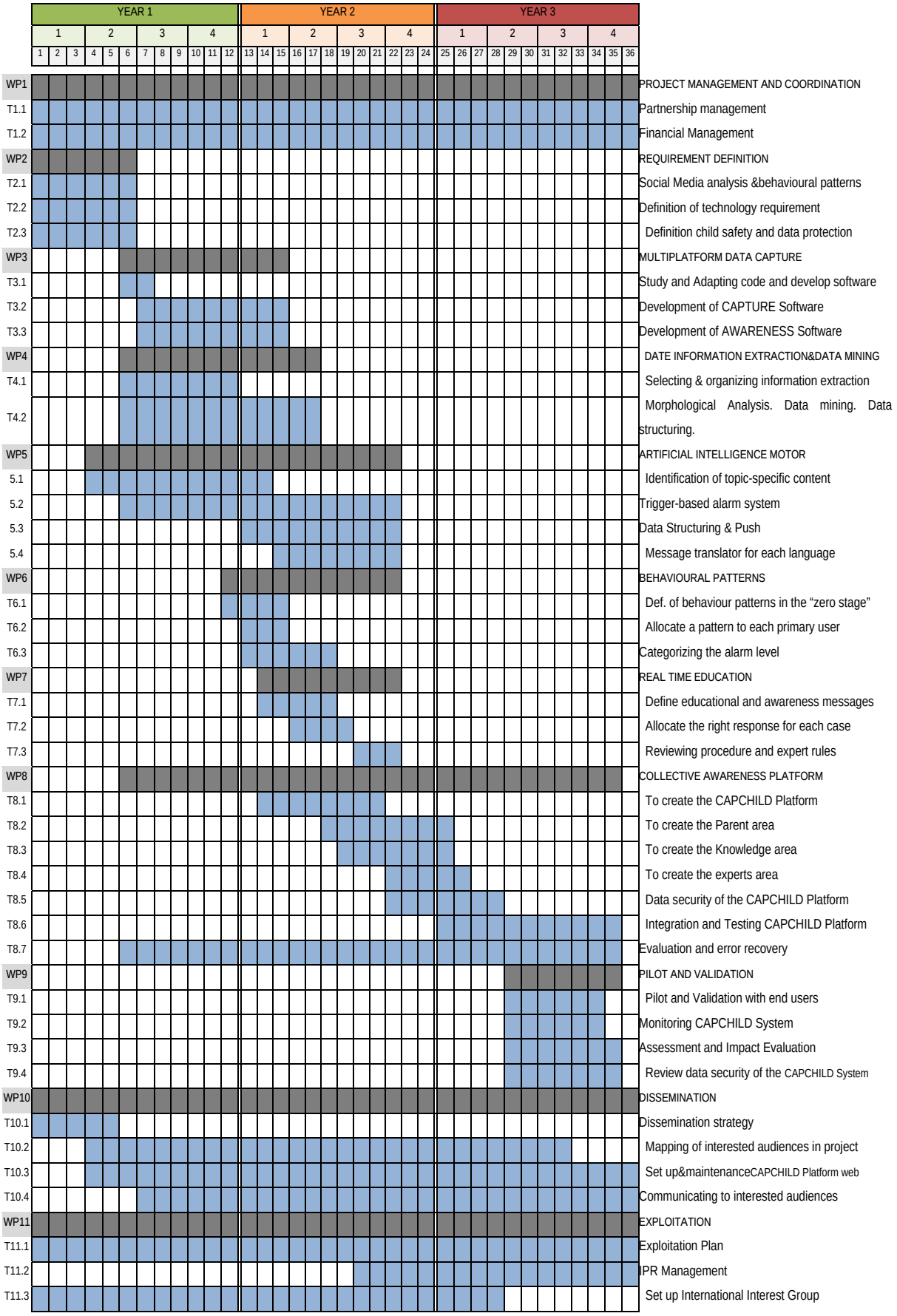
In order to achieve this vision, the Consortium is organized in 3 key and well-balanced groups:

Technology group: This group is responsible to evaluate the technological possibilities and limitations. And define all technological requirements of CAPCHILD Platform.

Knowledge & Validation group: This group of experts will define the behavioural patterns and will be able to identify key parameters to associate target group. In the same way this group will analyze and evaluate the impact of the CAPCHILD system on end user.

Legal Issues & Data protection: Experts of this group will be responsible to ensure the users privacy and how will define the security measures of data in CAPCHILD Platform.

1.4.1. Gantt Chart



1.4.2. Work package list

Work package No[1]	Work package title	Type of activity[2]	Lead partic no.[3]	Lead partic. short name	Person-months[4]	Start month[5]	End month[5]
WP1	Project Management and Coordination	MGT	1	TRI	14	1	36
WP2	Requirements Definition	RTD	4	UNIR	28	1	6
WP3	Multiplatform Data Capture	RTD	3	TeamNew	23	6	15
WP4	Date Information Extraction & Data Mining	RTD	5	TU	25	6	17
WP5	Artificial Intelligence Motor	RTD	2	ScanNets	22	4	22
WP6	Behavioural Patterns	RTD	7	CRU	24	12	22
WP7	Real Time Education	RTD	8	BSI	20	14	22
WP8	Collective Awareness Platform	RTD	1	TRI	22	6	35
WP9	Pilot and Validation	RTD	1	TRI	18	29	35
WP10	Dissemination	MGT	6	INNOVATION	20	1	36
WP11	Exploitation	MGT	2	ScanNets	11	1	36
	TOTAL				227		

Table 1:Work package list

1 Workpackage number: WP 1 – WP n.
2 Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium
3 Number of the participant leading the work in this work package.
4 The total number of person-months allocated to each work package.
5 Measured in months from the project start date (month 1).

1.4.3. Work package description

WP No.	WP1		**Start date:**	M1		**End Date:**	M36
WP Title	**Project Management and Coordination**						
Activitytype[6]	MGT						
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	12	2	0	0	0	0	0	0

Objectives

The principle objective of this Work Package is to ensure the project is managed efficiently throughout the project life cycle. Specifically, theobjectives are as follows:

- Efficient project management and project organization, including the development of a project handbook with guidelines for deliverables, presentation standards, time targets, information flow, etc.
- Co-ordination of the contacts to the EC.
- Controlling of project results at each milestone based on determined performance indicators, as well as establishing and maintaining the technical plans of the project and the organization of official meetings and reviews.
- Co-ordination and controlling of the dissemination actions of the project partners on basis of determined milestones for dissemination actions, as well as the development of the project's business & exploitation plan.
- Financial co-ordination.

To set up a quality assurance methodology that includes a clear set of general and specific objectives for the whole project and for each work package.

Description of work

This work package will be developed through the followings stages:

Task 1.1.-**Partnership management. (M1-M36).**

Task 1.2.-**Financial Management. (M1-M36).**

Deliverables	**Milestones**
D1.1.-Annual Progress Report 1. (M12) D1.2.-Annual Progress Report 3. (M24) D1.3.-Final Report. (M36)	M1.1.-Monitoring reports and communication established among partners and with the EC.

[6] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP2		Start date:	M1		End Date:		M6
WP Title	**RequirementsDefinition**							
Activitytype[7]	RTD							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	3	1	1	15	2	2	2	2

Objectives

The aim of this work package is confront the knowledge requirements with the technological ones and it would be necessary to delimit the CAPCHILD system. To do this the objectives are: To define the scope of Social Media to analyze; To define which information will be captured and the aims of processing to ensure user privacy; To define the key behavioural parameters; To evaluate technological possibilities and limitations; To define technical requirements for data capture and treatment; Define security measures of data and to ensure compliance with applicable law.

Description of work

Task 2.1. Social Media analysis and behavioural patterns. (M1-M6).

Task 2.2. Definition of technology requirements. (M1-M6).

Task 2.3. Definition child safety and data protection. (M1-M6).

Deliverables (brief description) and month of delivery	**Milestones**
D2.1 Human Needed Report. (M7). D2.2 Technological Issues Report. (M7). D2.3 Memory of legal, privacy and data protection. (M7).	M2.1 Platform Requirements Definition. (M6).

[7] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP3		Start date:	M6		End Date:		M15
WP Title	**Multiplatform Data Capture**							
Activitytype[8]	RTD							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	2	1	18	0	1	0	0	1

Objectives

The aim of this work package is to develop multiplatform software which will capture the data and receive messages. The objectives are:

Select the open source code to adapt and develop the multiplatform capture software.

To develop a CAPTURE Software in order to monitoring key parameters needed for analyzed.

To develop of pop-up message system for primary and secondary user.

Description of work (possibly broken down into tasks) and role of partners

Task 3.1. Study and Adapting code and develop software. (M6-M7).

Task 3.2. Development of CAPTURE Software. (M7-M15).

Task 3.3. Development of AWARENESS Software. (M7-M15).

Deliverables	**Milestones**
D3.1 Report about selected and adapting the code. (M11). D 3.2 Report of CAPTURE Software. (M15). D.3.3. Report of AWARENESS Software. (M15).	M3.1 Data CAPTURE Software. (M15).

[8] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP4		**Start date:**		M6	**End Date:**		M17
WP Title	**Data Information Extraction & Data mining**							
Activitytype[9]								
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	2	8	1	1	12	1	0	0

Objectives

Once the software has been established to capture information and, once has been defined the systematic of sending personalized messages in real-time, at this phase it will be define the methodology to manage, manipulate and filter information captured once have been collected and stored.

Description of work

Task 4.1. Selecting and organizing information extraction. (M6-M12).

Task 4.2. Morphological Analysis: Data mining. Data structuring. (M6-M17).

Deliverables (brief description) and month of delivery	**Milestones**
D4.1. Report of semantic analysis, data mining and structuring. (M17).	M.4.1. Established semantic analysis and data mining. (M17).

[9] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP5		**Start date:**	M4		**End Date:**		M22
WP Title	**Artificial Intelligence Motor**							
Activitytype[10]	RTD							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	2	9	1	0	6	1	2	1

Objectives

Main objective for this task is developing the AIM of the CAPCHILD platform.

In the CAPCHILD project we will promote the synergy between symbolic and ML methods towards efficient data analysis and knowledge extraction.

Description of work

Task 5.1. Identification of topic-specific content. (M4-M14).

Task 5.2. Trigger-based alarm system. **(M6-M22).**

Task 5.3. Data Structuring & Push.**(M13-M22).**

Task 5.4.Message translator for each language. **(M15-M22).**

Deliverables (brief description) and month of delivery	**Milestones**
D5.1. Data structuring and data push. (M23). D5.2. AIM operation memory. (M23).	M5.1. Artificial Intelligence Motor. (M22).

[10] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP6		**Start date:**	M12		**End Date:**		M22
WP Title	**BehaviouralPatterns**							
Activitytype[11]	RTD							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	4	1	0	0	0	3	12	4

Objectives

Definition of behaviour patterns of primary user in order to compare in each case. These patterns are the "zero stage" of the CAPCHILD system. Other objective is to categorize deviations from behavioural pattern for each case.

Description of work

Task 6.1. Definition of behaviour patterns in the “zero stage”. (M12-M15).

Task 6.2. Allocate a pattern to each primary user. (M13-M15).

Task 6.3. Categorizingthealarm level. (M13-M18).

Deliverables (brief description) and month of delivery	**Milestones**
D6.1. Report of behaviour patterns in "zero stage". (M16). D6.2. Parameters to allocate primary users. (M16). D6.3. Report on alarm level categories. (M19).	M6.1.Definition behaviour patterns in "zero stage". (M22).

[11] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP7		Start date:		M14	End Date:		M22
WP Title	**Real Time Education**							
Activitytype[12]	RTD							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	4	1	0	0	0	3	5	7

Objectives

The aim is provide information in three aspects:

- to primary users in real-time in order to educational objective.
- to secondary users with an appropriate advice in order to know how to deal each case.
- to secondary and tertiary users to update information in Knowledge area in CAPCHILD platform.

Description of work

Task 7.1. Define educational and awareness messages. **(M14-M18).**

Task 7.2 Allocate the right response for each case. (M16-M19).

Task 7.3. Reviewing procedure and expert rules. (M20-M22).

Deliverables	**Milestones**
D7.1.Report on educational and awareness messages. (M19).	M7.1. Educational &awareness messages. (M22).

[12] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP8		Start date:	M6		End Date:		M35
WP Title	**CollectiveAwarenessPlatform**							
Activitytype[13]	RTD							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	12	2	0	1	0	3	2	2

Objectives

Create CAPCHILD Social Media Platform which contains three areas: Parent area, Knowledge area and Expert area.

Description of work

Task 8.1. To create the CAPCHILD Platform. (M14-M21).
Task 8.2. To create the Parent area. (M18-M25).
Task 8.3. To create the Knowledge area. (M19-M25).
Task 8.4. To create the experts area. (M22-M26).
Task 8.5. Data security of the CAPCHILD Platform. (M22-M28).
Task 8.6. Integration and Testing CAPCHILD Platform. (M25-M35).
Task 8.7. Evaluation and error recovery. (M6-M35)

Deliverables (brief description) and month of delivery	**Milestones**
D8.1. Report on CAPCHILD platform areas. (M28).	M8.1 CAPCHILD platform running ("zero stage"). (M29).

[13] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP9		**Start date:**	M29		**End Date:**		M35
WP Title	**Pilot and Validation**							
Activitytype[14]	RTD							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	5	1	1	1	1	3	4	2

Objectives

The aim is to improve the "zero stage" by running of CAPCHILD system. To do this:

A minimum of 100 pilot users will be registered on the platform.

The system will be monitored and updated to become the "initial stage".

Analyze and evaluate the impact of the CAPCHILD system on end user.

Description of work

Task 9.1. Pilot and Validation with end users. (M29-M34).

Task 9.2. Monitoring CAPCHILD System. (M29-M34).

Task 9.3. Assessment and Impact Evaluation. (M29-M35).

Task 9.4. Review data security of the CAPCHILD System. (M29-M35).

Deliverables	**Milestones**
D9.1. CAPCHILD system "initial stage". (M35). D9.2. Report on assessment and impact. (M35).	M9.1.CAPCHILD system validated ("initial stage"). (M35).

[14] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP10		Start date:	M1		End Date:		M36
WP Title	**Dissemination**							
Activitytype[15]	MGT							
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	4	1	1	0	1	8	4	1

Objectives

The overall aim of this WP will be to ensure that CAPCHILD concepts, findings and outcomes are communicated clearly and effectively to the relevant audience. This task will involve identifying and prioritising relevant actions in order to: Maximize impact effects; Avoid duplications and explore possible synergies with other ongoing comparable initiatives; Take into account of the overall EU institutional calendar.

Description of work

Task 10.1. Dissemination strategy. (M1-M5).

Task 10.2 Mapping of interested audiences in project. (M4-M32).

Task 10.3 – Setting up and maintenance of the CAPCHILD Platform website. (M4-M36).

Task 10.4 – Communicating to interested audiences. (M7-M36).

Deliverables	**Milestones**
D10.1. Dissemination Strategy (M3). D10.2. CAPCHILD Platform website (M6). D10.3. Dissemination Report (M18). D10.4. Final Dissemination Report. (M36).	M10.1 CAPCHILD platform website. (M6).

[15] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

WP No.	WP11		**Start date:**	M1		**End Date:**	M36
WP Title	**Exploitation**						
Activitytype[16]	MGT						
Participant No.	1	2	3	4	5	6	7	8
Short name	TRI	ScanNets	TeamNew	UNIR	TU	INNOVATION	CRU	BSI
Person-months	2	3	1	1	1	1	1	1

Objectives

The overall objective of this Work Package is to exploit the CAPCHILD research results and to transform them into sustainable, valuable and marketable services. Furthermore the objective is to ensure proper and effective handling of Intellectual Property Rights to manage effectively exploitation of project results.

Description of work

Task 11.1. Exploitation Plan. (M1-M36).

Task 11.2. IPR Management. (M20-M36).

Task 11.3. Set up International Interest Group. (M1-M28).

Deliverables	**Milestones**
D11.1. Intermediate Exploitation plan. (M18). D11.2. Final IPR Agreement. (M25). D11.3. Final Consolidated Exploitation plan. (M36).	M11.1. IPR Agreement. (M25). M11.2. Consolidated Exploitation Plan. (M36).

[16] Please indicate one activity (main or only activity) per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

1.4.4. List of Deliverables

Del. no.[17]	Deliverablename	WP no.	Nature [18]	Dissemi-nation level [19]	Delivery date[20] (proj. month)
D1.1	PeriodicProgressReport 2	1	R	PP	M12
D1.2	PeriodicProgressReport 4	1	R	PP	M24
D1.3	Final Report	1	R	PP	M36
D2.1	Human NeededReport	2	R	PP	M7
D2.2	TechnologicalIssuesReport	2	R	PP	M7
D2.3	Memory of legal, privacy and data protection	2	R	PU	M7
D3.1	Report about selected and adapting the code	3	R	CO	M11
D3.2	Report of Capture software	3	R	CO	M15
D3.3	Report of AWARENESS Software	3	R	CO	M15
D4.1	Report of semantic analysis, data mining and structuring	4	R	PP	M17
D5.1	Data structuring and data push	5	P	CO	M23
D5.2	AIM operationmemory	5	P	CO	M23
D6.1	Report of behaviour patterns in “zero stage”	6	R	PP	M16
D6.2	Parameters to allocate primary users	6	R	RE	M16
D6.3	Report on alarm level categories	6	R	RE	M19
D7.1	Report on educational and awareness messages	7	R	PP	M19
D8.1	Report on CAPCHILD Platform areas	8	R	PP	M28
D9.1	CAPCHILD System “initialstage”	9	P	PU	M35
D9.2	Report on assessment and impact	9	R	PU	M35
D10.1.	DisseminationStrategy	10	R	PP	M3
D10.2	CAPCHILD Platformwebsite	10	P	PU	M6
D10.3	DisseminationReport	10	R	PU	M18
D10.4	Final DisseminationReport	10	R	PU	M36
D11.1	IntermediateExploitation plan	11	R	CO	M18
D11.2	Final IPR Agreement	11	R	CO	M25
D11.3	Final ConsolidatedExploitation plan	11	R	CO	M36

Table2. List of Deliverables.

[17]Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>. For example, deliverable 4.2 would be the second deliverable from work package 4.
[18]Please indicate the nature of the deliverable using the following codes: **R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other
[19]Please indicate the dissemination level using one of the following codes: **PU** = Public. **PP** = Restricted to other programme participants (including the Commission Services).**RE** = Restricted to a group specified by the consortium (including the Commission Services).**CO** = Confidential, only for members of the consortium (including the Commission Services).
[20]Measured in months from the project start date (month 1).

1.4.5. Summary of effort

Partic. no.	Partic. short name	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP10	WP11	Total personmonths
1	TRI	12	3	2	2	2	4	4	12	5	4	2	**52**
2	ScanNets	2	1	1	8	9	1	1	2	1	1	3	**30**
3	TeamNew	0	1	18	1	1	0	0	0	1	1	1	**24**
4	UNIR	0	15	0	1	0	0	0	1	1	0	1	**19**
5	TU	0	2	1	12	6	0	0	0	1	1	1	**24**
6	INNOVATION	0	2	0	1	1	3	3	3	3	8	1	**25**
7	CRU	0	2	0	0	2	12	5	2	4	4	1	**32**
8	BSI	0	2	1	0	1	4	7	2	2	1	1	**21**
Total		**14**	**28**	**23**	**25**	**22**	**24**	**20**	**22**	**18**	**20**	**11**	**227**

Table3. Summary of effort.

1.4.6. List of Milestone

Milestone number	Milestone name	Work package(s) involved	Expected date [21]	Means of verification[22]
M1.1	Monitoring report and communication established among partners and with the EC	WP1	-	Report
M2.1	Platform Requirements Definition	WP2	M6	Report
M3.1	Data Capture Software	WP3	M15	Software Prototype
M4.1	Established semantic analysis and data mining	WP4	M17	Report
M5.1	Artificial Intelligence Motor	WP5	M22	Software Prototype
M6.1	Definition behavioural patterns in “zero stage”	WP6	M22	Report
M7.1	Educational & awareness messages	WP7	M22	Report
M8.1	CAPCHILD Platform running (“zero stage”)	WP8	M29	Website environment prototype
M9.1	CAPCHILD System validated (“initial stage”)	WP9	M35	Website environment end user validated
M10.1	CAPCHILD Platform website	WP10	M6	Website
M11.1	IPR Agreement	WP11	M25	Report
M11.2	Consolidated Exploitation Plan.	WP11	M36	Report

Table4. List of Milestone

[21] Measured in months from the project start date (month 1).

[22] Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype completed and running flawlessly; software released and validated by a user group; field survey complete and data quality validated.

2. Section 2: Implementation

2.1. Management structure and procedures

Overview

The project management structure in CAPCHILD is illustrated in **¡Error! No se encuentra el origen de la referencia.**:

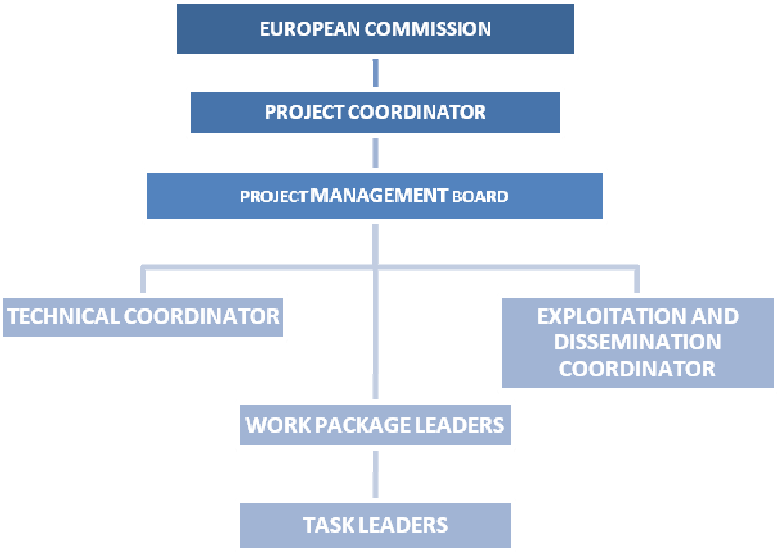


Figure 4. CAPCHILD Project Management Structure

Project coordinator

The Project Coordinator (PC) has the responsibility of ensuring that all the project's requirements are fulfilled and that the project runs smoothly from commencement to completion. As such, the PC will act as the coordinator of all project activities, thus ensuringthat the overall project schedule is adhered to and objectives are met. The PC, will act as the point of contact between the project and the European Commission.

The PC will coordinate all activities and ensure the project progresses according to plan.

Project Management Board

The Project Management Board (PMB) has the overall responsibility for the success of the project and in relation to the Commission. It will meet at least twice per year (unless more frequent meetings become necessary) during the course of the project and will be chaired by the Project Coordinator. Any and all conflicts in the project are resolved by the PMB.

Each contracting partner will nominate a senior representative to the PMB who will represent the interest of his organisation and will ensure that its duties in regard to the project (technical, administrative or financial) are properly fulfilled.

The PMB decisions will be taken by consensus. If such consensus cannot be reached, decisions will be taken by majority vote, where each partner has one vote.

Technical Coordinator

The Technical Coordinator will be responsible for overseeing all technical developments during the course of the project.

Exploitation and Dissemination Coordinator

The Exploitation and Dissemination Coordinator (EDC), is responsible for coordinating the activities related to the definition and implementation of the exploitation and dissemination strategy for the project results. The EDC will also coordinate the establishment of an international interest group and develop initiatives to create cohesion within the group and update members on project progress. The EDC will also coordinate the establishment of the IPR agreement among the consortium members.

Work Package Leader

Each Work Package Leader is responsible for the co-ordination of all activities and tasks within the work package for which he/she is responsible. This includes keeping the PC informed of all technical problems, which may arise within the WP, and preparing all deliverables planned for the WP.

Task Leader

The task leader will ensure that the task for which he/she is responsible is completed to specification and standard as detailed in the project plan. Any deviations or problems which may arise will be notified to the WP leader.

It is worth noting that although the various roles outlined above have been defined and the differences between each made clear, given the size of the project and the size of the consortium involved, it is possible that an individual may hold more than one role simultaneously. For example, it is conceivable that an individual may be appointed a work package leader and task leader simultaneously.

2.2. Individual Participants

The main role of each organization for the development of the project:

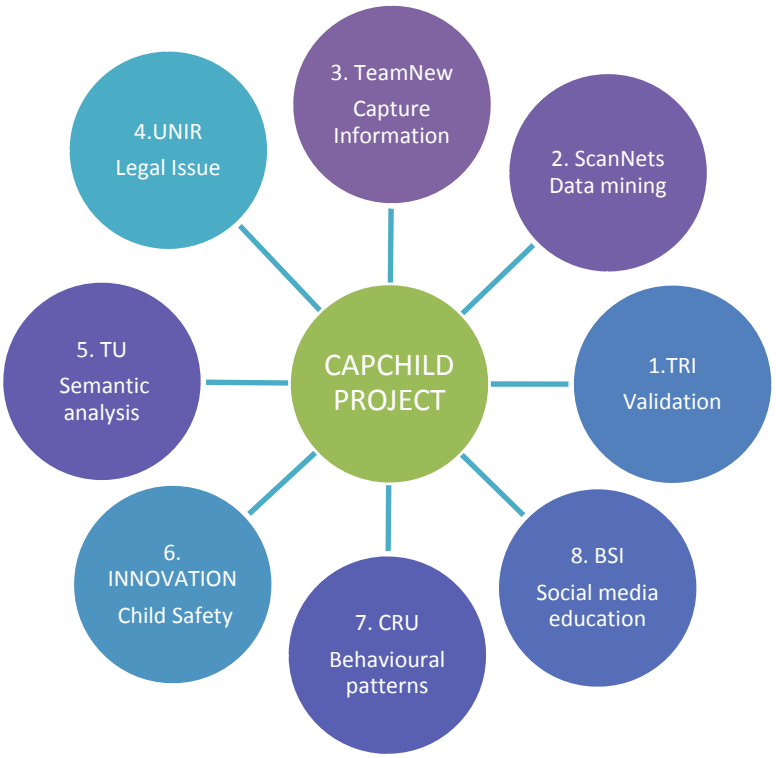


Figure 5.Role Partners CAPCHILD Project.

Participant Nº1	Name	Partner 1. Toy Research Institute	Country	Spain
Role in the Project				
TRI will actively participate in the CAPCHILD project acting as Coordinator. Partner 1 will actively participate in the research and in the supervision of development of platform, in demonstration activities to beneficiaries groups and in the dissemination of CAPCHILD project.				
Main Skills and Expertise				
TRI has carried out several R+D+i European projects ranging from past FP4 to present FP7 as well as any other programmes (CIP, Life+, Eurostars, JTI iniciaties, etc.) related to validation activities and pilots with end-users.				

Participant Nº2	Name	Partner 2. ScanNets	Country	Norway
Role in the Project				
ScanNetsleads the Technological Group of the project and takes part in the development of the Artificial Intelligence Motor (AIM).				
Main Skills and Expertise				
ScanNets has well competence and experience in utilizing the technology. The company integrates technology mentioned above in one common user interface for information gathering, information extracting and information sharing in a web2.0 based knowledge sharing community.				

Participant Nº3	Name	Partner 3: TeamNew	Country	Romania
Role in the Project				
TeamNewis actively involved in the Technological Group; it will take part in the development of capture information software.				
Main Skills and Expertise				
TeamNew has experience in developing integrated IT systems: Complex databases; Maximum data security; Flexible reporting in various formats; Complex communication systems linking individual beneficiaries through a secure platform, ensuring their efficient interconnection; Cloud computing.				

Participant Nº4	Name	Partner 4: UNIR	Country	Spain
Role in the Project				
The mail role of **Universidad Internacional de la Rioja** is to define requirements and specifications of child safety and data protection. It will act within the Legal Issues & Data Protection Group.				
Main Skills and Expertise				
The University they are both legal and IT matters, which facilitates the composition of multidisciplinary teams for this project. In this sense, they are too some research teams related to matters as Robotics, free software, decision theory or similar. So, the interest for the technological and legal is justified. UNIR has participated in numerous European projects on data protection and information security.				

Participant Nº5	Name	Partner 5: Technical University	Country	Greece
Role in the Project				
As a part of the Technological Group, Partner 5 will be mainly involved in the development of semantic analysis and extreme programming of ontology.				
Main Skills and Expertise				
The Technical University has been also a key role in recent developments of the field of Digital Libraries and contributing with content aggregation, semantic analysis and access.				

Participant Nº6	Name	INNOVATION	Country	Italy
Role in the Project				
Partner 6 will act within the Legal Issues & Data Protection Group. It has an important role in dissemination activities and will support define child safety and data protection.				
Main Skills and Expertise				
INNOVATION has considerable experience in conducting evaluations and impact projects. It also has extensive expertise in policy analysis and research related to EU, international and national innovation policies, notably related to SMEs, gained in European projects and studies.				

Participant Nº7	**Name**	Partner 7. CR University	**Country**	Czech Republic
Role in the Project				
Partner 7 will act within the Knowledge & Validation Group. The main role is to define behavioural patterns and to contribute in creating taxonomy.				
Main Skills and Expertise				
CRU carries out research related to the social-psychological and developmental implications of the use of information and communication technologies, including the study of virtual identities, online communication, online relationships and sexuality in the virtual environment, cyberbullying and online harassment, online addictive behavior, online gaming, etc.				

Participant Nº8	**Name**	Partner 8: Behavioural Science Institute	**Country**	The Netherlands
Role in the Project				
Behavioural Science Institutewill act within the Knowledge & Validation Group. BSI has an important role to define educational and awareness messages.				
Main Skills and Expertise				
BSI has experience in human behaviour research, especially focuses on the role of advertising literacy in children's processing of the commercialized media environment.				

2.3. Consortium as a whole

The Consortium has been grouped together into three main working groups which comprise those appropriate partners according to their capabilities:

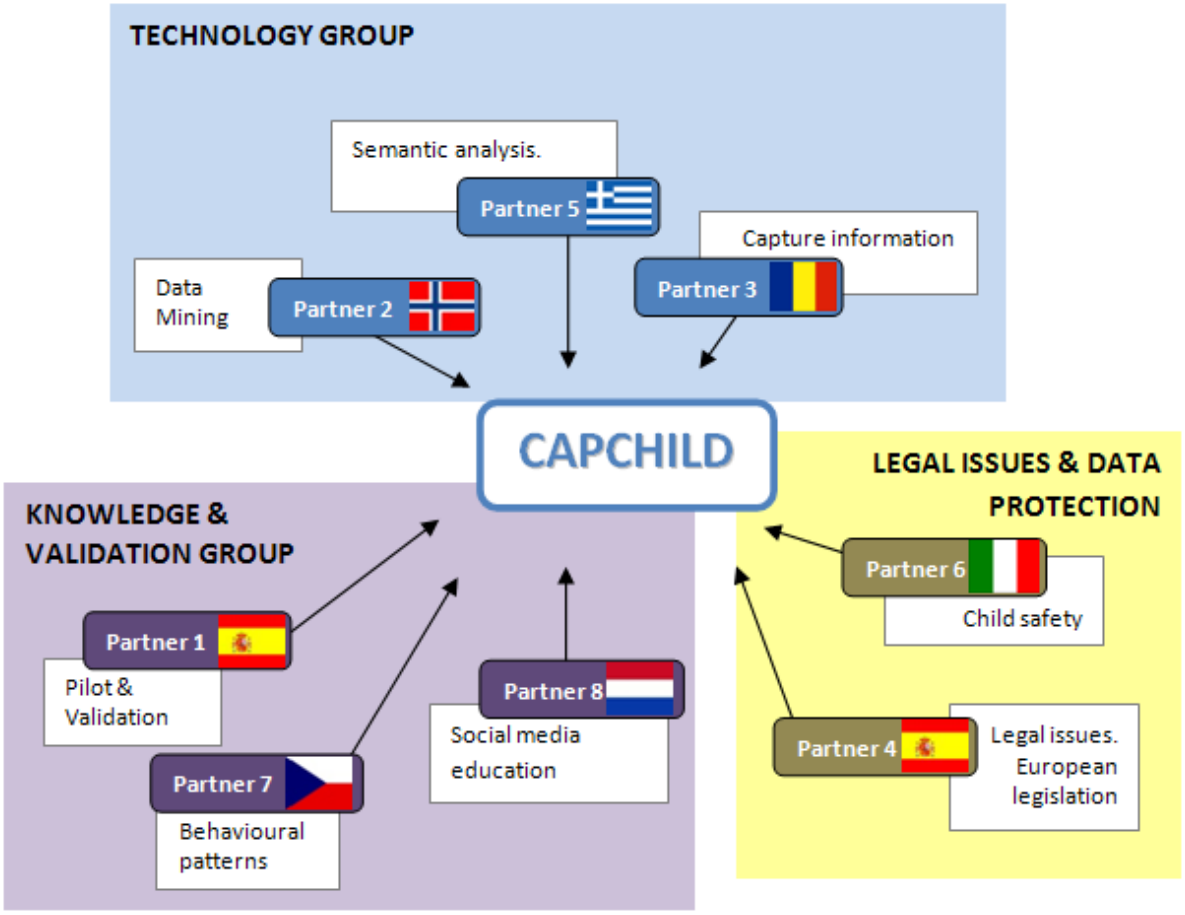


Figure 6.CAPCHILD Project Consortium

Each partner brings specific expertise and the Consortium covers all fields of expertise required to develop the CAPCHILD system as an innovative, user driven approach for addressing what has become a new collective awareness high importance across European society today. For CAPCHILD project and research teams with rich experience in European projects.

2.4. Resources to be committed

The personnel cost has been calculated taking into account the monthly rate and the effort estimated for the project. The distribution of total effort among consortium is distributed according to the table below:

No.	Partic. short name	Total person months	Cost PM (€)
1	TRI	52	4.150
2	ScanNets	30	8.700
3	TeamNew	24	6.800
4	UNIR	19	3.500
5	TU	24	4.500
6	INNOVATION	25	4.500
7	CRU	32	2.701
8	BSI	21	5.891

Table 5.Distribution of total effort among consortium.

The distribution of effort per partner in project CAPCHILD is:

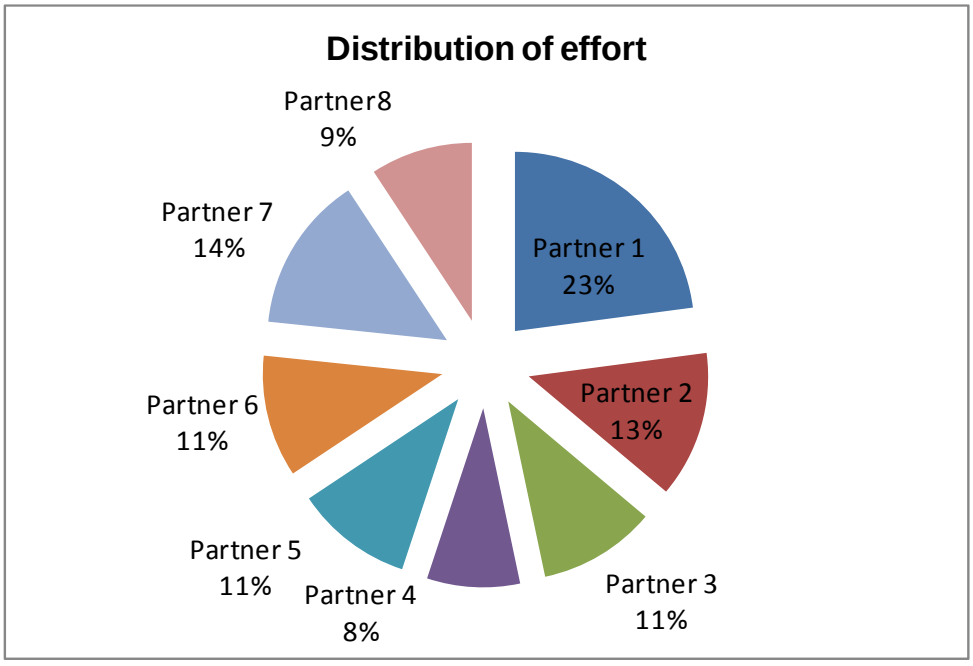


Figure 7.Distribution of effort.

This effort is allocated among the Work Packages as follows:

Nº.	Name	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP10	WP11	Total P/M
1	TRI	12	3	2	2	2	4	4	12	5	4	2	52
2	ScanNets	2	1	1	8	9	1	1	2	1	1	3	30
3	TeamNew	0	1	18	1	1	0	0	0	1	1	1	24
4	UNIR	0	15	0	1	0	0	0	1	1	0	1	19
5	TU	0	2	1	12	6	0	0	0	1	1	1	24
6	INNOVATION	0	2	0	1	1	3	3	3	3	8	1	25
7	CRU	0	2	0	0	2	12	5	2	4	4	1	32
8	BSI	0	2	1	0	1	4	7	2	2	1	1	21
Total		14	28	23	25	22	24	20	22	18	20	11	**227**

Table6. DistributionWorkPackages.

Furthermore, project CAPCHILD presents the following cost breakdown:

Personal	Subcontracting	Other	Indirect Cost
1.137.143€	9.000€	115.500€	735.835€

Table7. CAPCHILD Project cost.

As a result, the total budget assigned to each partner is:

Partic. no.	Partic. short name	BUDGET	Funding
1	TRI	379.880,00 €	316.390,00 €
2	ScanNets	440.800,00 €	352.480,00 €
3	TeamNew	281.920,00 €	217.280,00 €
4	UNIR	127.200,00 €	97.200,00 €
5	TU	193.600,00 €	149.200,00 €
6	INNOVATION	188.250,00 €	158.030,00 €
7	CRU	167.091,20 €	132.720,40 €
8	BSI	218.737,60 €	169.166,00 €
	TOTAL	1.997.478,80 €	1.592.466,40 €

Table 8. Total budget assigned to each partner.

2.5. Risk and contingencies

Risk Management in CAPCHILD project is based on the following risk management process and cross-partner risk awareness.

Figure 8: Risk management cycle

Risk Planning is concerned with identifying risk management procedures and responsibilities. Risk Management Planning occurs as part of the proposal and negotiation phase.

Risk Identification is about uncovering risks before they turn into problems. Like risk planning, risk identification is an iterative process. Participants in risk identification include subject-matter experts, WP leads, and project management and team members. Risk identification techniques used comprise pre-existing checklists and brain storming activities. A risk statement involves the conditions that are causing concern for a potential loss to the project, followed by a brief description of the potential consequences of these conditions. Unless a risk is written down, there is a good chance that it will not be managed. Project specific risks that can be identified at this stage are therefore detailed below. In CAPCHILD project risk are classified in two major types: (M) for management area and (T) for technical area.

Risk Analysis involves evaluating the risk attributes, and prioritizing them. Evaluating the attributes of a risk involves establishing values for probability (the likelihood the risk will occur) and the impact (in terms of significance for the project). The table shows the three-level scoring used for a detailed analysis of CAPCHILD risks.

Probability (P)	Qualitative Impact (I)
Low = Remote	Low = Insignificant
Medium = Likely	Medium = Moderate
High = Highly Likely	High = Major

Table 9.Levels of scoring risks.

Risk Response is the process of deciding what should be done with a risk. Risk Response responds to two key questions: (1) who owns the risk (responsibility), and (2) what can/should be done (scope and actions). The range of response actions for CAPCHILD is as follows:

- **Delegate:** Risk is internal to project.
- **Research:** Means investigating the risk until knowing enough to be able to decide what to do.
- **Transfer:** Risk is external to CAPCHILD. Resources and knowledge outside of CAPCHILD are better able to manage the risk.
- **Accept:** Do nothing. Handle the risk as an issue if it occurs. No further resources are expended in managing the risk. These are usually risks that are not significant enough to justify any expenditure.
- **Mitigate:** Eliminate or reduce the risk by reducing the impact, reducing the probability, or shifting the timeframe when action must be taken.
- **Watch:** Monitor the risks and their attributes for early warning of critical changes in impact, probability, timeframe or other aspects.

Risk Monitoring is the process of keeping track of the risks and evaluating the effectiveness of the response actions. Monitoring may also provide a basis for developing additional response actions and identifying new risks. This will also take place continuously throughout the project. The following table lists major risks, their possibilities and impact, and mitigation approaches.

Type	Description	P	I	Mitigation	Contingency
M	Change of strategy among partners due to partners leave the consortium	L	H	A close contact with WPs leaders; Very frequent communication between partners in order to avoid frustration and misunderstanding;.	The workload will be redistributed among RTD partners with similar base skills.
M	Deviations from the work plan, Delay in WP produce delays in subsequent WPs	M	H	There is some slack in the time plan which allows for flexibility. The Work Breakdown structure defined core WPs as independent project packages, each one with design, development and integration activities in order to limited the sequentiality of the work and increase their parallelism	The consortium has defined a coherent and comprehensive approach to project management, complete with communication policies and conflict resolution procedures.
M	Lack of coordination between interdependent activities	L	H	A complete description of the project management structure has been prepared as well as communication plan. Will be set up specific technical meeting in addition coordination meeting	Ad-Hoc meeting (via web conference too) will be set up in order to fill the gap and the communication plan will be re-planned if needed
M	Insufficient resources for particular task	L	H	A detailed budget and description of work has been prepared based on well known costs and official partners' rates.	The Cost Variance Response Process will be applied as defined during project management planning in order to apply contingency resources.
T	Privacy and data security issue	M	H	Data security and privacy frameworks about social/personal information will be designed based on European and national legal and regulatory requirements, and the requirements of the stakeholders	During validation phase of the project end-user feedback on issues of data security and privacy will be solicited.
T	Unproductive end-user validation and dissemination	L	M	The project consortium if formed by different partners as Project User Case	Dissemination and validation will be supported by Partners too and it could be continue during exploitation period
T	The results of the project will not be exploited optimally by all project partners.	M	M	An exploitation strategy and plan will be developed with all partners providing input according to their respect areas of expertise and individual business plans	An IPR agreement will be negotiated once the CAPCHILD begins to take shape.

Table 10.Identification and classification risks.

3. Section 3: Impact

3.1. Expected impact

The application area which project CAPCHILD aims to address involves issues and challenges which are common to all regions and communities across the European Union. As such, it makes sense to launch an initiative whereby experiences and lessons learned can be exchanged in a European context, input which will prove invaluable to the development of the CAPCHILD System. The strategy in this respect is to try and develop something that can prove useful across cultures.

This transfer of knowledge is only possible on a European level. To produce a viable CAPCHILD system, a blend of specific knowledge and expertise is required. This balance of practical user-driven input, technological development, assessment and incorporating relevant psycho-social perspectives is possible at a European level. It is crucial that new tools be created in order to obtain the greatest benefit from enriching multicultural situation in several geographic areas.

3.1.1. Generic impact

European Commission has identified and recommended eight key Competences for lifelong learning(Official Journal of the European Union, 2006). One of these eight competencies is Digital Competence which involves the confident and critical use of information society technology (IST) and thus basic skills in information and communication technology (ICT).

European schools are changing step by step, following the European guidelines. Therefore, we are witnessing the use of new cutting-edge technologies and new approaches in learning. Students' motivations for informal learning through Social Media make a potential scenario to improve learning. Researchers on the psychology of learning have identified that social factors are essential for learning. In fact, use of social networks in schools is emerging thanks to free tools as Kidblog, Edublogs or Edmodo which are specific for pupils and are ready to use by any technology-friendly teacher.

As a result of the work carried out in this research, society in general will obtain advantages in the field of advanced technology through using CAPCHILD as applied to children and teenagers, not only because of the monitored and control approach, but also to educate in use of Social Media.

We now that our proposal is in the way to guide and educate children, teenagers and parents around the easy road to integrate Internet and Social Media Networks in a friendly environment where both parts are comfortable in the new environment that is generating Internet.

Parents and educators need to guide their children/teenagers in the way of their personal development, but digital society has grown rapidly in a short time, causing the parents do not have a clear reference of what is the best way to integrate into their lives this new environment.

Moreover children have more information and knowledge about new digital society than their parents. For parents this is a cause of fear and disorient.

3.1.2. Specific impact

Impacts in the Work Programme	CAPCHILD Contribution	Stepsto be taken
Catalyzing and enabling new production and consumption patterns, lifestyles, and socio-economic processes based on commons, sharing, exchange, and participation at local and global scales.	The aim of CAPCHILD is enabling a new lifestyle by integrating Social Media in an orderly, with awareness of its usefulness, preventing their risks, enhancing its benefits and shortening the existing digital divide between parents and children.	- Raising awareness and educating about the proper use of Social Media for young people. - Shortening the introduction of Social Media in learning (enhance digital competence). - Promoting the proper use by society showing the key benefits. - To counsel parents in each specific situation about using Social Media.
Definition of new concrete mechanisms increasing society's resilience, enabled by a more accurate understanding and management of social and environmental problems.	CAPCHILD system is proposed as a platform for understanding between adults and our youth, providing a meeting place to avoid social problems related to the privacy and security of Internet by youth.	- Refine risks by detecting potential threats through Social Media uses. - The use of semantics provides a powerful tool to prevent possible problems in the misuse of Social Media.
Strengthened evidence of social innovation based on collective knowledge, which can also make possible new forms of foresight in society (by	CAPCHILD platform is presented as a public space for collective knowledge on the real use of social networks as a platform for collective intelligence that will improve the	- Provide a specific area for parents, experts and a public awareness campaign. - Provide real-time information to children / teenagers with an educational approach.

public bodies, organisations as well as by citizens).	use and promote the benefits of social networks for collective learning.	- Provide knowledge and assurance to parents about appropriate behaviour of their children in the use of Social Media.
Providing advanced concepts and tools enabling people and communities to share, collaborate, and make use of data/information generated, empowering future social entrepreneurs and innovators to engage in innovative service creation and delivery.	CAPCHILD will use standards for development and presentation of knowledge and provide an area of knowledge in open data in a way that will be available for future research on Social Media and youth.	- Providing a specific ontology and a data set linked to Linked Data - Provide information in the area of knowledge in open data format so that it will be available for future research on Social Media and youth. Could be extended to other fields.
Contributing to the emergence of new forms of political expression, "selfregulation", innovative business and economic models and social entrepreneurship.	CAPCHILD will contribute to knowledge in the proper use of Social Media and will allow user self-regulation. It also will open new business prospects through education and maturity that can reach the general public on the use of Social Media as a way to knowledge, safe and appropriate to do business.	- Establish collective knowledge evolves according to behavioural patterns from data capture, data mining and artificial intelligence engine. - Assist the society in its maturity in the use of Social Media, as a proper way to have a greater degree of relationships among business and customers.

Table11. SpecificImpact.

3.2. Measures of the Return on investment (ROI)

It is appropriate to consider measures of the return on investment (ROI). That allows to assess how efficient the spending we are doing or plan to make in the project.

The return on investment in this develop, we can measure in medium and long term. The advantages will see reflected in brand perception and purchase intention by customers.

In other hand, if considered an immediate return on investment, the fastest way to get is to apply pay per download model. We can choose to set lower prices for each download. In these cases, the price per download is lower than one euro, so for users the payout is not very high. Even so, ROI of development has to wait in a long term.

Consortium expects to recover as a general project return on investment for 5 years, if considered ROI = (profit that we expect to obtain - investment) / investment.

Obtained value is a ratio, so it is expressed in percentage. In our case, given 5 years ROI estimations CAPCHILD ROI = (1000000 - 600.000) / 600000 = 0,67.

CAPCHILD expect to obtain a ROI of 67 %

Consortium expects to obtain a ROI of 200 % in 5 years following to end of project.

Additional revenue can be generated by offering services ad-hoc to the product that are using the tool in order to cover additional needs for customized interactive services or even training services. To this end we will explore also the possibility of offering the tool for free under GPL with a basic library of resources and generate revenue from training and support and by designing and preparing resources to populate the library upon specific requests by those running the free version.

3.3. Dissemination Plan

Dissemination Plan

In order to guarantee an adequate and successful dissemination of project and the progress and results achieved, the Consortium will establish the means for achieving market awareness, particularly across the children and teenagers experts sector. The development of dissemination strategy and implementation of related plans will be the focus in Work Package 10.

As a general strategy, the dissemination of CAPCHILD project will be executed by means of the following:

- A dynamic web site with high quality content including the results of the research and validation and testing sessions.
- Academic papers will be published and presented at the main European conferences on education, Social Media and children interests.
- The publication of multimedia material with examples of the applications developed, the results obtained, and demo versions.
- Organisation of seminars and workshops to disseminate knowledge on the methodology and technology used in CAPCHILD Project.
- Printing of flyers and mailing to the most relevant bodies internationally.
- Making available the results to the Commission Information Services and Publications (Cordis, The IST Result Service...).
- Setting up an International Interest Group.

3.4. Exploitation Plan

IPR Management

The consortium is sensitive to the importance of issues relating to intellectual property rights (IPR) and such issues have been the subject of preliminary discussions during the development of the proposal.

With any research and development initiative it is difficult to generate a detailed IPR agreement before it is known precisely what will be the object of such an agreement. This is to be expected and so the partners have planned a formal and binding agreement to be finalised at month 25, as part of the work to be carried out in work package 11. In advance of completing that formal agreement, the partners have reached some informal conclusions to their discussions on the issue.

The partners make the distinction between IPR issues during the course of the project, i.e. while the project is running, and IPR issues once the project has been completed.

IPR Issues during the course of the project

With respect to the protection of knowledge during the course of the project, the partners have reached an informal agreement as follows:

If, in the course of carrying out work on the project, a joint invention, design or work is made (and one or more Partners are contributors to it), and if the features of such joint invention, design or work are such that it is not possible to separate them for the purpose of applying for, obtaining and/or maintaining the relevant patent protection or any other intellectual property right, the partners concerned agree that they may jointly apply to obtain and/or maintain the relevant right together with any other partners concerned.

The partners concerned shall seek to agree between them, and the other partners concerned, arrangements for applying for, obtaining and/or maintaining such right on a case-by-case basis. Where the partners concerned are sole partners, so long as any such right is in force, the partners concerned shall be entitled to use and to license such right without any financial compensation to or the consent of the other partners concerned.

In respect of a country either specified by the Commission or agreed by the partners, a partner shall notify the other partners (via the coordinator if practical) if it does not intend to seek adequate and effective protection of its knowledge from the project or if that partner intends to waive such protection. If another partner (or partners) informs the notifying partner in writing within one calendar month of such notice that it wishes to obtain or maintain such protection, the notifying partner shall assign to such other partner(s) all necessary rights which it owns. Such assignment shall ensure the Access Rights of all partners will be unaffected except that the partner(s) shall not enforce the resultant rights acquired pursuant to the assignment against the partner which assigned its rights, nor against such partner's affiliates or licensees under the assigned rights. For the avoid doubts, the partner, which assigned its rights shall have at least the same Access Rights as the non-involved partners. All Access Rights for carrying out of the Project and for Use are granted on a non-exclusive basis.

Subject to the terms and conditions contained within the consortium agreement which will be concluded should the consortium enter into a contract for funding, Access Rights to Pre-Existing Know-How needed for carrying out the Project shall be deemed granted, as of the date set out in the contract for funding, (should it be granted), on a royalty-free basis to and by all Partners.

For the avoidance of doubt, Software will be available only insofar as, and in the form, which it is, needed for carrying out the Project. The supplying Partner shall have no obligation to port the Software to any particular equipment or to change it from the form in which the supplying Partner has it. This generic agreement is the result of preliminary discussions which have taken place during proposal development and is intended to provide a foundation upon which the process of a coherent IPR agreement can be built.

IPR Issues following project completion

Following preliminary discussions with respect to IPR issues following project completion, the partners have agreed that once decisions relating to exploitation strategy and planning have been taken and the CAPCHILD proposition has become more robust, an IPR agreement will be negotiated and agreed to by all partners. As mentioned above, this is planned for month 25.At this early stage, discussions on IPR during proposal development have focused on reaching an informal agreement as to a mechanism by which the rights to intellectual property of each partner should be commensurate with the amount of effort each partner will contribute to the development of exploitable outcomes. As such, the IPR agreement will be considered as a process of refinement during the first 25 months of the project.

4. Ethical Issues

ETHICAL ISSUES TABLE	YES
InformedConsent	
Does the proposal involve children?	X
Does the proposal involve patients?	
Does the proposal involve persons not able to give consent?	
Does the proposal involve adult healthy volunteers?	
Biologicalresearch	
Does the proposal involve human genetic material?	
Does the proposal involve human biological samples?	
Does the proposal involve human biological data collection?	
Does the proposal involve human embryos?	
Does the proposal involve human foetal tissue or cells?	
Does the proposal involve human embryonic stem cells?	
Privacy	
Does the proposal involve processing of genetic information or personal data (e.g. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)	X
Does the proposal involve tracking the location or observation of people without their knowledge?	X
ResearchonAnimals	
Does the proposal involve research on animals?	
Are those animals transgenic small laboratory animals?	
Are those animals transgenic farm animals?	
Are those animals cloned farm animals?	
Are those animals non-human primates?	
ResearchInvolvingThirdCountries	
Is any part of the research carried out in countries outside of the European Union and FP7 Associated states?	
Dual Use	
Does the research have direct military application	
Does the research have the potential for terrorist abuse	
ICT Implants	
Does the proposal involve clinical trials of ICT implants?	
(IF NONE) I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	

Table12. EthicalIssuesTable.

5. Bibliography

Convention on the Rights of the Child. (2014, May 19). Retrieved from http://www.unicef.org/crc/index_protocols.html

Council of Europe. (2014). Retrieved from http://www.coe.int/t/dg3/children/1in5/default_en.asp

Acquisti, A. &. (2006). Imagined communities: Awareness, information sharing, and privacy on the facebook. *Lecture Notes in Computer Science. Vol. 4258.*, 36-58.

Ahlqvist, T., & Bäck, A. H. (2008). "Social media roadmaps exploring the futures triggered by social media". *VTT Tiedotteita - Valtion Teknillinen Tutkimuskeskus (2454)*, 13.

Boyd, D. H. (2011). Why parents help their children lie to Facebook about age: Unintended consequences of the “Children”s Online Privacy Protection Act. . *First Monday, 16*, 11.

Dubose, C. (2011). The social media revolution. *Radiologic technology, 83(2)*, 112-9.

Internet Society. (2011). *Perspectivas de Internet Society sobre el filtrado de sistemas de nombres de dominios (DNS).*Retrieved from http://www.internetsociety.org/sites/default/files/pdf/dns-filtering-es_20110915.pdf

Internet Society. (2012). *Internet Society paper on Children and the Internet.* Retrieved from http://www.internetsociety.org/sites/default/files/bp-childrenandtheinternet-20129017-en.pdf

OECD Digital Economy Papers. (No. 179). *The Protection of Children Online: Risks Faced by Children Online and Policies to ProtectThem.* Retrieved from http://dx.doi.org/10.1787/5kgcjf71pl28-en

Official Journal of the European Union. (2006, 12 30). *RECOMMENDATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL.* Retrieved from on key competences for lifelong learning (2006/962/EC): /http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:EN:PDF

O'Keeffe, G. S.-P. (2011). The impact of social media on children, adolescents, and families. *Pediatrics, 127(4)*, 800-804.

Safeguarding Children. (2014). *Get Safe Online Free expert advice*. Retrieved from https://www.getsafeonline.org/safeguarding-children/

Social Media Policy and Procedure. (2014, Julio). *Kingston Training and Employment Pty Ltd. Vol:2 0714SM SL.* Retrieved from http://www.dnakingstontraining.com.au/download/Social%20Media%20Policy%20and%20Procedure%202014.pdf

Strasburger, V. C. (2004). Children, adolescents, and the media. *Current Problems in Pediatric and Adolescent Health Care*.