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A HEALTHIER RELATIONSHIP WITH TECHNOLOGY STARTING FROM CHILDREN'S OPINION ON IT. A CASE STUDY FROM THE PHILOSOPHY FOR CHILDREN WORKSHOPS IN THE LOCAL LIBRARY

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ABSTRACT. A Healthier Relationship with Technology Starting from Children's Opinion on it. A Case Study from the Philosophy for Children Workshops in the Local Library. One of the most discussed problems in parenting is children's relationship with technology. The article analyses a few of parents' fears that drives their attitude and some of the skills developed while using technology, mirrored by the skills of the future work. Also includes a study case from our philosophy for children workshops on technology held in the local libraries in 2019. Children are prepared to understand the arguments of a parent in a real dialogue. In order to create one, parents should consider the opposite of the truth they know as well as children's opinion. Due to the attractiveness of technology, every child needs help from adults in order to create a strategy for a healthy relationship with technology.

Keywords *: philosophy workshop, argument, dialogue, parents-children*

RÉSUMÉ . Une relation plus saine avec la technologie à partir de l'opinion des enfants à ce sujet. Une étude de cas tirée des ateliers de Philosophie avec les enfants dans une bibliothèque locale. L'un des problèmes les plus discutés en matière de parentalité est la relation des enfants avec la technologie. L'article analyse quelques-unes des craintes des parents qui motivent leur attitude et certaines des compétences développées en utilisant la technologie, reflétées par les compétences du futur travail. Comprend également un cas d'étude de nos ateliers de philosophie pour enfants sur la technologie organisés dans les bibliothèques locales en 2019. Les enfants sont prêts à comprendre les arguments d'un parent dans un véritable dialogue. Pour en créer un, les parents doivent considérer l'opposé de la vérité qu'ils connaissent ainsi que l'opinion des enfants. En raison de l'attrait de la technologie, chaque enfant a besoin de l'aide d'adultes pour créer une stratégie pour une relation saine avec la technologie.

Mots-clé *: atelier de philosophie, argument, dialogue, parents-enfants*

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Introduction

One of the most discussed problems in parenting is children's relationship with technology. Growing up in an era without too much technology, spending their childhood mostly outdoor, nowadays parents seem to have the expectations that their children will grow up in similar conditions, far from technology hoping they will start to use technology at adulthood, like their parents. Their experience proved it's possible and now they might feel entitled to pressure their offspring to live the same.

On the other side of the war are the nowadays children. Seduced by technology and loosing contact with reality when they have a device in front of them, low social skills, no respect for family's rituals, suffering from one of the most dangerous addictions, as their parents would sometimes describe them.

Despite their expectations, parents often lose control of their input in the offspring's education concerning the relationship with technology. Parents who usually use participatory methods, involving their kids in the decision making process, find themselves imposing restrictions in order to regulate the time spent in front of the screens (computers, mobile phones, tablets, TV + consoles with games, etc.). This relationship can be improved if children's opinion is considered.

The Technology. Parents and Children. Fears and Skills

One cause for this generations gap is due to parents' nostalgic wish that their children live the good childhood they had. Another cause, more important in my opinion, is related to the parents' fears to fail in the process of education. In this part of the paper I will analyse the fears of the parents as described by Jordan Shapiro in his book "The New Childhood. Raising Kids to Thrive in a Connected World". One thing that could be helpful to reduce the fears is the awareness that during the process of playing games, children develop certain skills, useful for different aspects of their life. My focus is in this part of the paper to emphasize these skills. In the next part I will discuss about crucial skills for the jobs of the future that are developed in games and interaction with technology.

For identifying the perception on the skills gained from the use of technology, I analysed a research study carried out over a decade in the early 2000's identifying positions of the parents, educators and media, both for and against children's use of technology. The research involved a series of case studies with more than fifty children (aged 3 and 4) and their families. Research methods like observations, child-led home tours, and shared discussions with parents and

children during repeated visits in the families over a year or more lead to "multifaceted pictures of children's everyday lives, how parents and children think and feel about a range of issues, and the role of digital media in supporting learning"[2].

The fear of violence

One thing parents are afraid of is the contact of their children with violence in the game playing and the effects this could have on the children. The fear is probably that exposure to violence encourages violence.

> Kids who play first-person shooter games like *Call of Duty*, so the theory goes, will get used to watching graphic visualizations of murder and homicide. They become accustomed to engaging in gruesome, unethical simulations of killing. Then, because they are desensitized to violence in the game world, they become desensitized to violence in the life world. They lack the wherewithal to behave ethically, to stop themselves from committing random violent crimes, such as mass shootings.[3]

There is no evidence of correlation between playing violent games and increased violence. The fear of exposure to violence started before video games, with cartoons and movies and other forms of arts. Nowadays parents used to be exposed, as children, at the violence from cartoons and movies, and that gave the fear of violence to their parents. There were a lot of discussions and restrictions for them too. In some parts of the world, due to the access to fire guns, the fear of the violence should be higher.

From a different perspective, the violent games, if not increasing the number of violent behaviours of the child, do increase some skills of the child.

> From a neuroscience perspective, the research suggests that first-person shooters cultivate "more accurate attention allocation, higher spatial resolution in visual processing, and enhanced mental rotation abilities." These are all complex ways of describing the cognitive functions we use to identify, track, and hit a moving target.[4]

Well, the last one could be a very good skill for people who lived thousands of years ago when they hunted. The attention allocation is a very important skill

[2] Plowman, Lydia, McPake, Joanna, "Seven Myths about Young Children and Technology", in Childhood Education 89 (1), 2013, 27-33, p.1

[3] Jordan Shapiro, The New Childhood. Raising Kids to Thrive in a Connected World, Little, Brown Spark, New York, 2018, Chapter 1

[4] ibid., Chapter 1

that used to be developed mostly in school through the exposure of the child to increasing periods of time for a task. In games, to be successful and to win some points (or any type of achievements) requires sharp attentions for long pieces of time[5] to the game, to the rules, to the feedback received in the game.[6] The skills developed during playing games could be used in different other non-violent life situations like focus on a task at school, at work or in personal life (attention allocation), interpreting the stimuli received with the eyes (spatial resolution), recognizing an object as itself from multiple perspectives (mental rotation) "Just through repetition, gamers hone the neural pathways involved in using these cognitive skills."[7] These skills are useful in all children activities, including school and relationships.

The fear of addiction

The usage of technology is often associated with addiction, as children and adults can't stop using technology at the point they or other would like to, they can't respect the limits they or others propose. As the games require a lot of attention for a long time it's easy to talk about an addiction. There are many discussions about the addiction related to digital media, and it is just normal that this omnipresence increases the fear. But there is not enough conclusive research on this.

> For example, you've probably heard about the way social media platforms hack the brain's dopamine reward system. This is called "persuasive tech," and it draws its inspiration from early-twentieth-century psychologist B. F. Skinner's research on behavioral conditioning.
>
> App developers and video-game designers do everything they can to make their products desirable and to keep us coming back for more. And from a neuroscientific perspective, the reason we return again and again is because we receive lots of little random "dopamine hits."[8]

[5] Sometimes until you die. Due to the games, kids will say this with ease. A very normal answer of a child playing a games to his parent asking him/her to come to dinner is: "Let me die first!"

[6] Jack Shonkoff, the director of the Center for the Developing Child at Harvard University, in Shapiro, 2018

[7] Jordan Shapiro, The New Childhood. Raising Kids to Thrive in a Connected World, Little, Brown Spark, New York, 2018, Chapter 1

[8] ibid., Chapter 6

Besides the correlation with pleasure and addiction, the chemical neurotransmitter dopamine is also correlated with "executive function, regulated attention, physical movement, and ambition"[9]. There are also discussions about dopamine being responsible for children's motivation to get good grades or achieve athletic success, as they crave the dopamine release associated with these successes.[10]

> We're not helping them transition into a connected adulthood. Instead, we're seeding unnecessary anxiety. Now they're confronted with conflicting messages about what it means to conform to the expectations of the external world—hearth and agora are out of alignment. And children will suffer through the neurotic struggle to mediate the tension between these two realms of experience[11].

The education provided by the parents is often associated with establishing limits, so limits is a possible solution in this field too. The only change we propose with this paper is that the limits should be established by both parts: children and parents. And parents should be patient and accept possible different limits than those they wish, because this is a consequence of a dialogue or a negotiation. Also the parents should accept the fact that having limits doesn't mean following the limits all the time. As it happens also with other limits than those related to technology, like the rules regarding using inappropriate language or the limits regarding food, especially sweet products. Children are aware about the limits, it represents a guideline for them and they will start to create their own limits in time.

The fear of a big change: end of family

The parents are afraid that the concept of the family will fade out and eventually disappear. The children seem to lose interest on the family traditions such as family dinner, barbeques and summer vacations. Values and principles that anchor individuals used to be discovered inside the family, and now will be replaced by values discovered by the children in a wide world accessible from the devices. The old family values were suitable for the past, making a clear difference between home time and work time, but "the current world requires us to interact with a very different tool set. And while work life has changed many times to accommodate new technologies, home life remains stuck in the distant past.[12]

[9] ibid., Chapter 6
[10] ibid., Chapter 6
[11] ibid., Chapter 6
[12] Jordan Shapiro, The New Childhood. Raising Kids to Thrive in a Connected World, Little, Brown Spark, New York, 2018, Chapter 4

The family values are sometimes affected by the parent's lifestyle, their focus on their career and a certain level of exhaustion that leads to "make electronic babysitting an attractive option at the end of the day"[13].

Spending time together watching TV increases the interest of the children that sometimes develop the skill of focusing on their favorite TV shows and ignoring a TV switched on most of the time.[14] Playing video games with the children and creating this way a common language and shared vocabulary makes it easier to discuss difficult topics when in need.

> With the right support, digital media can open up the means of communicating over time and distance and provide new and intriguing possibilities for the development of young children's communicative skills. This suggests that, used thoughtfully, technology can enhance rather than hinder social interaction.[15]

Accepting that some values and traditions might die because they are irrelevant for the children and considering alternative family traditions could be an option that gain children' trust. This is an option that keeps the value of the family even if in a new form.

> Still, there is something about home and family that is essential, that transcends the vicissitudes of time. I call it the hearth, a universal element of the human experience that was once represented by the Greek god Hestia and her Roman counterpart Vesta. The hearth is what provides us with a sense of stability. It anchors us to something greater than the individual self. It provides a thread that roots us to a shared past.[16]

The new skill is here rather on the side of the parents, open to change a working in the past system with one that hopefully works in the future. Changing their habits in order to keep alive their educational input in the life of their children.

The fear of antisocial

Parents are afraid that children become antisocial through playing games and offering too much interest to the devices. When using a device, children are often connected to a community or a group of people playing the same game, using the same social network or doing something in common. When children seem

[13] Plowman, Lydia, McPake, Joanna, "Seven Myths about Young Children and Technology", in Childhood Education 89 (1), 2013, 27-33, p.3

[14] ibid., p.3

[15] ibid., p.3

[16] Jordan Shapiro, The New Childhood. Raising Kids to Thrive in a Connected World, Little, Brown Spark, New York, 2018, Chapter 5

isolated, they might be, in fact focused. While using technology children prepare for a digital world, full of emails, text messages, video chats, Slack, skype and WhatsApp discussions, and many other future technologies that don't even exist yet. Remote work and communication from a distance will probably no longer be considered insufficient compared with face to face communication.

> How else will they learn the appropriate behaviors, habits, and customs? Every online game represents a chance to try out new ways of being with digital tools. That's a good thing, because the future is already here. We're all living in a connected world. And today's kids will need to be prepared to participate in a global economy that mediates transactions and communications through microchips and fiber-optic cable.[17]

Games and technology in general help the children to develop the ability to understand and improve the communities they work/live on might be needed to collaborate with a diverse group of people, to do more tasks in the same required in a globally networked world like they might have at adulthood.

The fear of too much time spent indoor

This is related to the previous fear, as it breaks a tradition. As they grew up mostly outdoor, parents are terrified by the lack of need of outdoor spaces manifested by their children. By using technology, children access a lot of different worlds[18], very diverse experiences are all accessible on a small device. The law and the conditions have changed in a few developed or developing countries and going outdoor alone is not legal or not safe. Therefore, going outdoor is not necessarily a form of freedom, a sudden decision: "I exit the house and I'll be outdoor meeting other children at play." It's a process that needs to be planned, parents may need to drive the children to an interesting/safe outdoor place and they have to be present sometimes.

I didn't find a skill related to this one but there are many other skills developed in the interaction with technology. Starting with the social negotiations of playing turns when sharing a device. And learning English for the children with a different mother tongue. And practicing self-regulation and executive function skills, accommodating for one another, being flexible, doing many things in the same time, as one does in a game.

[17] Jordan Shapiro, The New Childhood. Raising Kids to Thrive in a Connected World, Little, Brown Spark, New York, 2018, Chapter 3

[18] Worlds of Minecraft for instance. The game Minecraft is related with different worlds and the possibility of the player to change the world he/she's playing in when he/she wants to.

Even grown-ups need to follow the rules, acknowledge that other people have perspectives different from their own, and interact constructively with others in order to keep the peace. Whether on the school playground or on an online server, kids receive their first lessons about how to live in community through the games they play.[19]

Overcoming the fears

Another perspective of the skills gained by children while using technology is revealed by the studies conducted by Plowman, Steveson, Stephen and McPake in 2012, which suggested that interaction with technologies could support four main areas of learning at home: learning how to use technology (operational learning), finding out about people, places, and the world (extending knowledge and understanding of the world), increased focus and higher self-esteem through becoming competent users of technology (dispositions to learn), observing adults using technology in everyday life (the role of technology in everyday life).[20] We don't have yet a clear view on the relationship between learning and play in terms of specific learning outcomes.

Being aware that other experimental studies, at a larger scale and a longer period of time would be needed to supplement this case-study data, Plowman and McPake did not find in their study "evidence from parents to support the notion that children's experiences with technology were having a detrimental effect on their behavior, their health or on their learning".[21]

A very interesting outcome from the study of Plowman and McPake is the idea that being influenced by the news and media, parents are aware by the danger, but they see it sometimes far from their own family/children:

> Parents were aware of the reported dangers of too much technological play but they felt that this was more of a problem for children from other families rather than their own. Similarly, Takeuchi (2011) found that few parents believe their own children are at risk and Funk, Brouwer, Curtiss & McBroom (2009) comment that media researchers seem to be more worried about this than parents.[22]

[19] Jordan Shapiro, The New Childhood. Raising Kids to Thrive in a Connected World, Little, Brown Spark, New York, 2018, Chapter 2

[20] Plowman, Lydia, McPake, Joanna, "Seven Myths about Young Children and Technology", in Childhood Education 89 (1), 2013, 27-33, p.4

[21] ibid., p.2

[22] ibid., p.4

Children using technology excessively, might lose some important skills (the ability to reflect and be introspective, being a good conversationalist, constructively resolving everyday conflicts instead of logging off, trying to repair something instead of restarting the life). On one hand, parent's position could be that of providing their children with other opportunities to gain the specified skills. On the other hand, overcoming the fears and reflecting upon the many skills are gained during the interaction with technology could help the parents. It could help them realize that some of the skills gained are the skills predicted to be needed in the future.

The skills of the future

The research "Future of Work Skills 2020" developed by Institute for the Future for the University of Phoenix Research Institute in 2011 presents the most important skills considered in 2011 to be needed in the future, or as the study says "critical for success in the workforce"[23]. It starts with the analysis of the disruptive forces that will represent the most important drivers of change:

1. Extreme longevity: Increasing global lifespans change the nature of careers and learning
2. Rise of smart machines and systems: Workplace automation nudges human workers out of rote, repetitive tasks
3. Computational world: Massive increases in sensors and processing power make the world a programmable system
4. New media ecology: New communication tools require new media literacies beyond text
5. Superstructed organizations: Social technologies drive new forms of production and value creation
6. Globally connected world: Increased global interconnectivity puts diversity and adaptability at the center of organizational operations[24]

The ten skills for the future workforce are: sense-making, social intelligence, novel and adaptive thinking, cross-cultural competency, computational thinking, new-media literacy, transdisciplinarity, design mindset, cognitive load management and virtual collaboration.

[23] "Future of Work Skills 2020", Institute for the Future for the University of Phoenix Research Institute, 2011, p. 6
[24] ibid., pp. 3-5

Computational thinking is the "ability to translate vast amounts of data into abstract concepts and to understand data-based reasoning"[25]. Many roles in the future and in present (2019) require computational thinking skills. If now applicants for not IT jobs are required to know basic computer skills like, Microsoft Office suite and internet searches, in the future applicants will be required to know technologies that teach us the fundamentals of programming virtual and physical worlds, will be require to be able to manipulate our environments and enhance our interactions.

> The use of simulations will become a core expertise as they begin to feature regularly in discourse and decision-making. (…) In addition to developing computational thinking skills, workers will need to be aware of its limitations. This requires an understanding that models are only as good as the data feeding them—even the best models are approximations of reality and not reality itself. And second, workers must remain able to act in the absence of data and not become paralyzed when lacking an algorithm for every system to guide decision making.[26]

New-media literacy defined as the "ability to critically assess and develop content that uses new media forms, and to leverage these media for persuasive communication"[27] is also an important skill for the future according to the study. If now user generated media like videos, blogs or podcasts are more often use for personal purposes like persona development for instance, in the future these features will be used in workplaces. All the programs used now will become commonplace, and the workers of the future will need to be fluent in video creation and editing, able to create their own visual information, they will need to assess videos in the way currently we asses a paper or a presentation, they will need to be able to use the fonts and layouts features.

> Similarly, user-friendly production editing tools will make video language—concepts such as frame, depth of field etc—part of the common vernacular. As immersive and visually stimulating presentation of information becomes the norm, workers will need more sophisticated skills to use these tools to engage and persuade their audiences.[28]

[25] ibid., p. 10
[26] ibid., p. 10
[27] ibid., p. 10
[28] ibid., p. 10

The need for virtual collaboration defined as "ability to work productively, drive engagement, and demonstrate presence as a member of a virtual team."[29] is more and more important in today's jobs and even more in tomorrow's jobs. Physical separation is no longer considered a problem due to connective technologies. Virtual team can easily work efficiently, exchange ideas and have results. The leaders of these teams need to find ideas and strategies for engaging and motivating the members of the team without necessarily having a face to face meeting with them. Techniques used in gaming, like collaborative platforms, typical gaming features such as immediate feedback, clear objectives and staged series of challenges will help these leaders, especially when we speak about large communities. The feeling of isolation due to the lack of access to a central, social workplace for work communities will be solved by "ambient sociability" from gaming. Online streams from microblogging and social networking sites (like Yammer) will serve as virtual watercoolers, giving the team members a feeling of socialisation.

> Researchers at Stanford's Virtual Human Interaction Lab exploring the real-world social benefits of inhabiting virtual worlds such as Second Life report that the collective experience of a virtual environment, especially one with 3D avatars, provides significant social-emotional benefits. Players experience the others as co-present and available, but they are able to concentrate on their own in-world work.[30]

These are only a few of the critical skills needed for performing in jobs of the future. These are all skills that are lacked by the older generations spending less time with technology and that are easily developing by the young generation while using technology, even in the games.

Children Speaking about Technology

As I mentioned before, one very important thing to resolve the conflict parents-children in the field of technology would be, besides searching and analysing different points of view, including those who support the importance of the time spent on devices by children, to try to find out the point of view of one very important stakeholder: the children. To drop the fear that addiction and young age and the lack of critical thinking biases their point of view. To start a real dialogue on this and to try to get to a common ground. This study could help them dropping the fear and planning a real dialogue. We consider to organize a session with parents or a session with parents and children at Biblioteca Județeană Octavian Goga Cluj-Napoca.

[29] ibid., p. 12
[30] ibid., p. 12

Methods

In the philosophy for children (P4C) workshops held in the local libraries in 2019, we proposed to study children's relationship with technology. Starting from a series of stories about robots written by Peter Worley, we develop discussions with children on various topics related to technology such as "can a robot be our true friend?", "can we identify from the answer to a certain question if the answer was given by a robot or by a human being?". Our objective is here to develop the critical thinking of the children in the discussions about the relationship with technology.

Children practice their critical thinking skills in the P4C workshops, where the method we use is the community of enquire, proposed by Matthew Lipman. They are encouraged to have a position regarding the question that is launched, to vote, to bring arguments, to listen actively, to understand the concepts and the arguments of other children, to ask for more arguments from them when necessary, to be open to change their opinion when they discover better arguments, to vote differently in the end when there's a new round of vote[31]. For children, problematizing is associated with using critical thinking instruments such as: make deductions, questioning for counter-examples, identify the week deductions.[32] The community of enquire creates in the group of philosophising children a space of freedom, of creativity and of critical thinking.[33]

> When doing philosophy, we have to evaluate ideas and arguments, analyse concepts, make distinctions, understand inferences. Without the critical element we can easily fall into merely agreeing or disagreeing with one another based on opinion sharing, and this is not enough for a community of enquiry to become philosophical.[34]

Peter Worley's Ceebie stories are a series of connected tales design to explore issues related to artificial intelligence. Each story is treated as a stimulus for one session, and sometimes we expect to be developed in 2-3 sessions. In Peter Worley's experience "children invest a great deal in the character of Ceebie and this is a wonderful hook to capture their interest in the issues that are contained in the

[31] Matthew Lipman, Thinking in Education, Cambridge (2007; 1st edition 1991).
[32] Peter Worley,100 Ideas for Primary Teachers. Questioning, Bloomsbury 2019
[33] Mihaela Frunză, "De unde începe filosofia pentru copii? Repere ale operei lui Matthew Lipman/ Where does Philosophy for Children begin? Some landmarks of Matthew Lipman's work", în Revista de Filosofie Aplicată, nr. 2, Martie 2019, filosofieaplicata.ro
[34] Emma Worley, "Teaching Critical Thinking Skills Through Philosophical Enquiry", A study conducting by The Philosophy Foundation with Kings College London", 2019

stories." The most important question that infuses all the Ceebie stories is "Can machine think?"[35] In this paper I will analyse 2 sessions developed on Ceebie stories, that took place in 2019, moderated by me, with 14, respectively 9 children from Cluj-Napoca at Biblioteca Județeană Octavian Goga, Filiala Grigorescu.

Session 1: "Friends": Can a robot be a true friend?

The session starts from a stimulus written by Peter Worley, the first Ceebie story called "Friends". The friendship topic is a very important and has been discussed starting with philosophers like Plato and Aristotle. The story analyses the relationship to objects or things and compares it with the relationship with human beings. "Interestingly, children will often include inanimate objects within the concept of friendship, which contrasts sharply with an adult view of friendship."[36]

The session "Friends" took place at Biblioteca Județeană Octavian Goga, Filiana Grigorescu on 14th of March 2019 and included 14 children. The group proved to be too big for the room available and for the topic, so we didn't have the best coherence during the session. We don't have a selection process / criteria and we include all the children that subscribe for these sessions, as the number was acceptable in the previous sessions. The session was recorded and transcripted and I will use some of the passages.

It's a story of a boy, Jack who doesn't have many friends and claims that books are his friends. His father owns a robots' company and has the idea to build a robot that could be Jack's friend, along with the books. Jack is pleasantly surprised by his father's present and spends good time with Ceebie, his robot friend, which can download from internet anything and is able to have any discussion with Jack. Meanwhile, Jack becomes friend with Tony, a colleague (human) which makes him laugh all the time. When Tony meets Ceebie, he is jealous and says that Ceebie can't be a true friend because he is "made of plastic and metal and nuts and bolts"[37].

After reading out loud the story, taking turns, the question "can a robot be a true friend?" was launched in the room. Children were asked to vote. At the beginning, we had 7 "Yes", 2 "No", 5 "Not sure", and the preferences changed during the session, due to discussions and new arguments brought by the children.

[35] Peter Worley, The If Machine. Philosophical Enquiry in the Classroom, Continuum International Publishing Group, 2011, p.143
[36] ibid., p.144
[37] ibid., p.145

Here you find some of the children's arguments for the "Yes, a robot can be a true friend":

> Why do you think the robot can be a true friend for the child or for any person?
>
> Because… robots and people, even if they are different, they still can play together.
>
> I was thinking… The boy can learn a lot from the robot and the robot can learn from the boy, so they can be good friends. (…)
>
> Me? I have a LEGO robot… actually I want to build one and I think it's very cool to play with little robots, especially because some of them can do things or take things and you can use them for different stuff. (…)
>
> Me? …I guess it's cool to have a little robot. Whatever is it made of, LEGO or anything else, 'cause you can use is for many different stuff.[38]
>
> The next example opened up an interesting topic: the common sense.
>
> I think robots, even if they aren't human inside, they still can be friends.
>
> You think they can be friends. Why do you think that?
>
> Because… A robot, even if it has now heart, it has a common sense. …[39]

It worth mentioning that in Romanian it's not clear from children' sentences if they meant to call a robot "he", "she" or "it" as one can use only the verb, and it's the same verb for all 3 forms. I used "it" because I feel it's a bit more neutral, but I'm aware I could be wrong and they could mean "she". We continued with defining common sense for a robot.

> What do you think it's common sense for a robot?
>
> I know!
>
> Tell us if you know!
>
> Common sense means to be good with what you have.
>
> Thank you!
>
> Common sense means to be respectful with others[40] …

For robots, common sense or respect for other means to respect a set of rules that you have in your database.

> So common sense means to respect a set of rules that everybody expects you to respect? Right?[41]

[38] Transcript of Session 1: "Friends": Can a robot be a true friend?"
[39] ibid.
[40] In Romanian, the expression "common sense" means that too
[41] ibid.

The definition of common sense for humans and robots and the differences between them could be a topic for a separate whole meeting. But it's very much related to our topic, for some children it means to have a good behaviour dictated by human norms, for other it means a set of commands from the programming language. Still, any discussion about the common sense, translated from Romanian to English would suffer some alterations as the meanings do not overlap.
The children sustaining the "No, a robot cannot be a true friend" started with bringing arguments for their option.

> Robots are friends only because they are programmed to be, they don't choose to be friends (…) Therefore you are never sure they can be friends, therefore they are not quite true friends, 'cause it's programmed.[42]

Trying to break the chaotic part of argumentation that followed, and trying to make things more simple, I continued with more focused questions. The first argument for someone to be called their friend according to the children was to play with them / to be able to play with them. Some of them considered it's important to be able to play outside. We even discussed the idea of going swimming, which was obviously not suitable for a robot. A big majority of the children voted for the idea that a true friend must be able to go playing with a child. The next argument discussed was Tony's opinion that creations made of plastic and metal, nuts and bolts can't be true friends of the children. The arguments here were different: from "Nevertheless, it's metal, and metal hardly brakes." to "metal could become rusted and the bolts would loosen up, and it wouldn't be …".[43] Solutions were proposed, like:

> Well, you could go to a mechanic and have it repaired before it totally brakes.
>
> The same as metal becomes rusted, people could become ill.
>
> And children could become ill, then they stay at home and can't go outside in the park with you.
>
> Well, in this case you could take the robot!
>
> Hahahah
>
> Or you could stay in the house.[44]

[42] ibid.
[43] ibid.
[44] ibid.

Then we moved forward with discussion about children's friendship with books. According to the children, books cold go outside / be taken outside, but they won't play, as it was the case of the robot. "They won't play ping-pong or football…"[45] We continued with finding more details for a definition of a trues friend as follows:

> What else do you have in mind, other than what Tony said, when you think about a friend? What's a friend?
>
> It means you know a person, and that person plays with you and you don't get bored. …
>
> It makes you feel better when you're sad.
>
> It cheers you up. …
>
> It helps you.
>
> It behaves nicely. …
>
> It loves you. It helps you forget when you miss someone. …
>
> It is civilized."
>
> What else? …
>
> We should like it!
>
> It should be about the same age.
>
> It should help us when we need.[46]

This was a set of criteria established by children as criteria to prove someone is a true friend of a child. I wrote the criteria on the whiteboard and continued to discussed different friendship through these criteria. The first one was the friendship between children and pets: pets play with children, children don't get bored with them, they love children, they are civilised if you train them, children like them, they are not the same age, but this doesn't matter for the children.

The next filter applied was for the book, we started with the book before, but now we continued by analysing the friendship with the book considering all the criteria. The book doesn't play with the children, some children are bored with the books, some are not, the book doesn't love the children and can't be good to them. The book is civilised because writing is civilised.

[45] ibid.
[46] ibid.

So, analysing the criteria can we say that book is our true friend?

No!

Yes, some books help us develop!

So, once again, can we say books are our true friend?

No.[47]

The last part of the discussion was about Ceebie and the criteria chosen by children to verify if a friendship is true. Ceebie play with the children, children are not bored with it, it helps the children a lot, it cheers them up, it loves the children, it is good with them, it is civilised, and could be the same age "if he is programmed to say I am 10-year-old."[48] One can see that for this group of children there is a difference between books or pets and Ceebie. They tend to give more credit to the friendship with Ceebie.

At the end of the session we went to a new round of votes for the question "Can a robot be a true friend?" Children were asked to vote. We had 5 "Yes", 0 "No", 5 "Not sure". Not all the children voted, not all the children were still in the room. In order to have the children bring more arguments for one or the other opinion, I asked "for those who voted "Not sure", if you really really need to choose between "Yes" or "No" and most of them went for "Yes". Thus the conclusion of the meeting was "a robot can be a true friend". Children were let to think at home about how we sometimes neglect other friends when we focus on one particular friend, be it a human being or a computer.

Session 2: "The Tony Test"

The session starts from a stimulus written by Peter Worley, the second Ceebie story called "The Tony Test". The is inspired by the famous mathematician and computer scientist Alan Turing.

> If one can not tell the difference between a human and a computer converser, this would be sufficient to demonstrate intelligence is an artificial converser. The test is very influencial and has been highly criticised but as a result of this influence and criticism it has produces a huge amount of the work done with regard with artificial intelligence.[49]

[47] ibid.

[48] ibid.

[49] Peter Worley, The If Machine. Philosophical Enquiry in the Classroom, Continuum International Publishing Group, 2011, p.149.

The session "The Tony Test" took place at Biblioteca Județeană Octavian Goga, Filiana Grigorescu on 18th of April 2019 and included 9 children. The session was recorded and transcripted and I will use some of the passages.

The story continues, and Tony proposes to Jack a test to see if Ceebie is a true friend. Ceebie and another human being will be connected to a computer in a different room. Jack will have conversations with them and will have to guess with whom has he discussed, with a robot or with a human being. Tony considers that if Jack can't feel the difference, that would prove Ceebie can think, if he can think, he can be a real person, if he can be a real person, he can be a true friend.

We started by reading out loud the story, except from the dialogues which was recommended to be read by each of the children, in order not to create a bias of how the reader will interpret them. After children read each of the 3 dialogues we started to discuss about it.

> Test 1
>
> Jack: Will you be my friend?
>
> ?: I will be your friend.
>
> Jack: Why will you be my friend?
>
> ?: because I am familiar and helpful and because we have a bond with mutual affection[50]

The discussion after Test 1 was centered on the words used in the test. Being questioned what they think, who answered, a robot or a human, children started to answer:

> Ceebie, 'cause the answer is too automatized, like from a dictionary. …
>
> I also believe it's Ceebie, because of the robotic answers and because he knows Jack and he probably realized it's Jack (in the other room). …
>
> I believe it's a robot, because it says we know each other, but Jack doesn't know who's there. No human would say 'Because I'm familiar and helpful and because we have a bond of mutual affection.' And how could Jack know whose there and why does it like him.[51]

[50] ibid., p.151
[51] Transcript of Session 2: "The Tony Test"

Other arguments brought by children are below:

> No child would answer 'I'll be your friend', instead he/she would say 'Yes', or 'OK'.
>
> For Ceebie it's normal, 'cause he's programmed.
>
> Or it could mean 'I'll continue to be your friend'.
>
> Anyone wants to plead for a human answer?
>
> Only for the next test.
>
> You've already read the next test?
>
> Yes.[52]

We continued with a discussion about the affection for people and the possibility for a robot to have it. The answers were, again, diverse, from a clear "Yes", to "mmmmmmmm, not very personal" or "Not really, 'cause the robots don't have feelings" and even more: "Not the same feelings like humans do." And "If he's programmed, he can imagine how it would be to have feelings for a person".[53]

The next part of the discussion was about robots wishing to be human. Children had examples from Wall-e and from real life (Sophia, the famous robot activated in 2016). We continued with the question "what does it mean to have feelings?"

> To feel something for someone.
>
> What exactly, can you detail?
>
> Love, jealousy, hate…
>
> I don't know, when you like something it's happiness.
>
> When someone hits you it's sadness, pain, when you don't like something it's disgust. …
>
> When someone is made for you.
>
> OK, so we saw what are the feelings. Can a robot have feelings?
>
> Well, Ceebie was made for Jack.
>
> Haha, good catch!
>
> Only if it's programmed.[54]

[52] ibid.
[53] ibid.
[54] ibid.

We continued with the second test.

Test 2

"Jack: What do you like to talk about?

?: Computer games are my favorite thing – I really love them. But I like playing them more.

Jack: why?

?: Because playing the games is more fun than talking about them."[55]

Some children think it doesn't make sense for a robot to play games.

I think it's a human being, 'cause a robot can't have personal interest or some preference. It's a robot, it doesn't have free time. It shuts downs when Jack is not there and it turns on and speak to him when he's back. Therefore, it makes no sense to be a robot, and if you compare the answer with the previous one, the other one sounded very robotic, like an answer of an adult. …

It doesn't make sense to be a robot because a robot wouldn't compare playing with speaking, because they can't really play. [56]

Also, children dismissed the idea the answer can be given by a robot, because of the words use: "I adore them!" Interestingly, these were not the exacts words used in the test, this was a citation made by a child from the memory, memory who possibly distorted things in order to help the child prove his/her argument. The discussion about playing against a computer was very interesting:

Have you ever played games?

Every day!

Sometimes you play against a friend, sometimes against the computer, right? … That proves a computer can play, right?

Yes!

No, it's programmed, it's not because it chooses to play, and it's not a robot, it's part of the game.

Yes, because a robot playing a game would probably mean a robot, with a console in his hands, looking at the screen and playing.

[55] Peter Worley, The If Machine. Philosophical Enquiry in the Classroom, Continuum International Publishing Group, 2011, p.151

[56] Transcript of Session 2: "The Tony Test"

A robot your think very strategic and would never leave the players win.

Do you thinks so? You've never won against the computer?

Oh yes![57]

We continued with the third test bringing in the discussion different interesting topics like: homework and helping other children, ethics, learning happily, violence on TV.

Test 3

Jack: I am having troubles with my math homework

?: would you like help with your homework?

Jack: Yes please, I don't get it.

?: Please explain what it is you don't understand, then I will see if I can help you.

Jack: Cool, thanks![58]

In this test children identified the answer I will see if I can help" and discussed a lot about it, considering it's a human answer, as a robot just knows if it can help. Other children considered it must be a robot, because children don't help other children at homework. In the discussion they realized there are children who help other children at homework, because there were some examples in the room. Other considered the answer might be given by a teacher, as it's too grammatically correct for a child.

We continued with the discussion and got to a point where analyzing the knowledge of the robot. The first opinion said out loud was that a robot knows everything, but then, another child said a robot only knows as much as the person who programmed it knows. If connected to the internet, the robot has access to more knowledge. The children brought back the discussion about feelings, first one said that the robot can be programmed to have feelings. The contradiction started again and we compared the robot with humans: can humans program their feelings. Children discussed the idea of starting to like someone, because we program this to us. And we can do that through thinking about his/her good parts and qualities. Also we can program ourselves to learn for an exam because we know that a good grade will make us happy, so we learn even when we don't feel like. Sometimes, external help is good in the cases we try to teach our mind to like someone. We might ask a friend about all the qualities of the person we are trying to like.

[57] ibid.

[58] Peter Worley, The If Machine. Philosophical Enquiry in the Classroom, Continuum International Publishing Group, 2011, p.151

Conclusions and future plans

One can see in these examples that children can have a critical perspective about technology and their relationship with technology, but also that they are very attracted with it. They easily understand the counterarguments of their peers about problems with technology as children's remarks are not condescending. They are prepared to understand the arguments of a parent if it's a real dialogue and all parts are considered able to understand the topic. In contexts like this, the parents can easily bring examples of consequences for staying too long in a game, consequences that were not seen by children; parents could easily create motivation for the children to reduce the usage of technology and to establish together the limits. How could the parents create a real dialogue? Firstly, before any direct discussions with children, they should consider the opposite of the truth they know. They could actively search for books, studies, articles that do not confirm their theory about technology, but present, in fact the opposite of their theory. And they should read them with an open mind. They could start to be aware about their fears of the influence of technology that influence their decisions and behaviors.

This paper could be of help for parents searching for different versions of the truth. In the case study from the P4C meetings, the dialogue with the children is only meant to find out what's the opinion of the children, to dig deeper in their beliefs using questions, to help them challenge some ideas of their peers. The dialogue doesn't propose to convince the children that they might have a problematic relationship with technology and they should change their habits and this help it to be closer to a real dialogue. This paper could offer the parents some examples of children's critical view on the topic.

Once they prepared, parents could initiate a real dialogue with children, being prepared, as in any real dialogue to get to new ideas, very different from the ideas they have at the beginning.

As a future plans I want to read more about the skills that children fail to develop while using technology, this paper only focused on the skills that do develop. I would like to know more about the need of humanities in a world dominated by computers.[59] I would like to know more about the influence in the

[59] "computer science reduces the world to numbers. The humanities teach us how much those numbers fail to capture. Perhaps if computer scientists looked up from their screens of code they might see the vast vibrant diverse world around them and once again understand why the humanities are ever more important in a world increasingly defined by code." (Kalev Leetaru) https://www.forbes.com/sites/kalevleetaru/2019/08/06/why-computer-science-needs-the-humanities/?fbclid=IwAR34QJPU6Q14-QceL1o94-QXSELT29sbL9V0atU3Zjf5TQysZYjQSS91eFY#78b150df7f45

relationships or on eating habits, on doing things that are not virtual. I consider organizing meetings with children and parents for discussing the relationship with technology and to have follow-up discussions with parents and children to see the progress in the communication regarding technology between parents and children after these meetings.

Due to the attractiveness of technology, probably every child needs a strategy of creating a healthy relationship with technology, and for creating a strategy he/she needs the help of adults. Parents will hopefully use their critical thinking by including children's opinion when creating this strategy.

REFERENCES

Davies, Anna, Devin Fidler, and Marina Gorbis. "Future work skills 2020", Institute for the Future for University of Phoenix Research Institute 540, 2011

Frunză, Mihaela, "De unde începe filosofia pentru copii? Repere ale operei lui Matthew Lipman/ Where does Philosophy for Children begin? Some landmarks of Matthew Lipman's work", în Revista de Filosofie Aplicată, nr. 2, Martie 2019, filosofieaplicata.ro

https://www.researchgate.net/publication/331951973_De_unde_incepe_filosofia_pentru_copii_Repere_ale_operei_lui_Matthew_Lipman_Where_does_Philosophy_for_Children_begin_Some_landmarks_of_Matthew_Lipman's_work

Lipman, Matthew, Thinking in Education, Cambridge, 2007 (1st edition 1991)

Plowman, Lydia, McPake, Joanna, "Seven Myths about Young Children and Technology", in Childhood Education 89 (1), 2013, 27-33

Worley, Emma, "Teaching Critical Thinking Skills Through Philosophical Enquiry", A study conducting by The Philosophy Foundation with Kings College London, 2019

Worley, Peter, 100 Ideas for Primary Teachers. Questioning, Bloomsbury, 2019

Worley, Peter, The If Machine. Philosophical Enquiry in the Classroom, Continuum International Publishing Group, 2011

Shapiro Jordan, The New Childhood. Raising Kids to Thrive in a Connected World, Little, Brown Spark, New York, 2018