



PLA▶PAL

— Telecommunication device for kids

MFA Advanced Product Design
Umeå Institute of Design
Umeå University 2021

Jovan Vulic
Laurenz Simonis



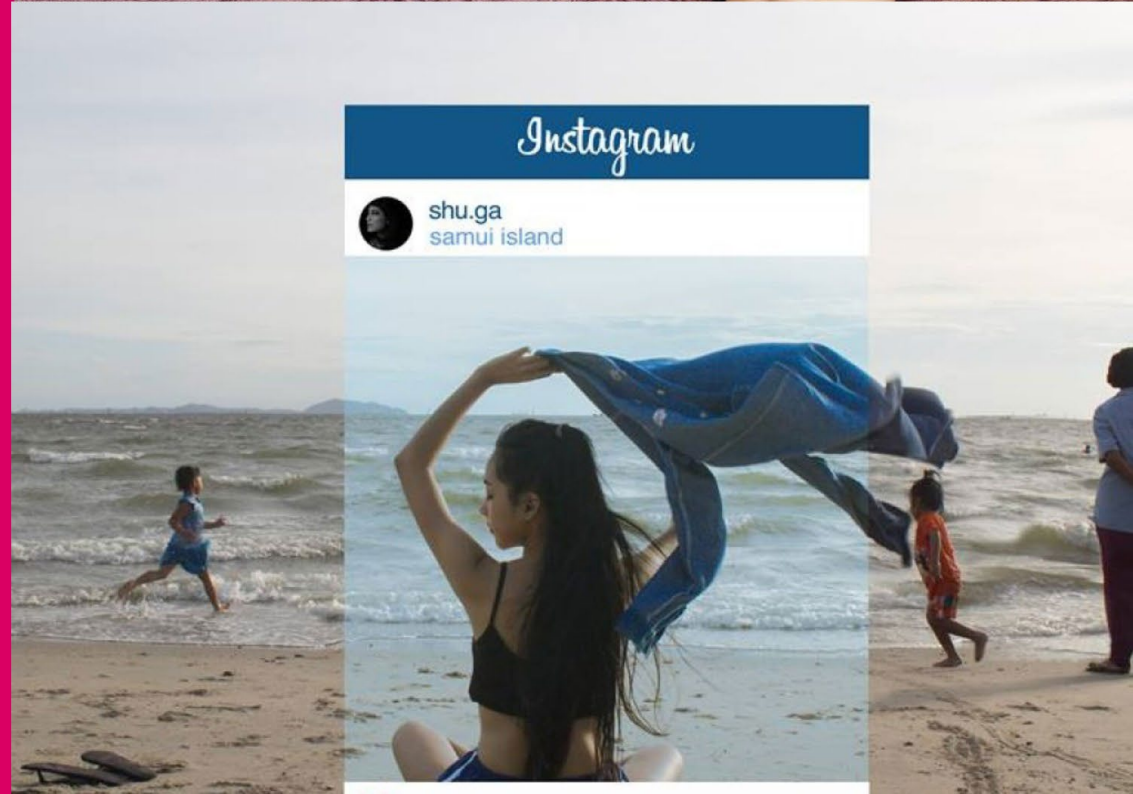
UMEÅ INSTITUTE OF DESIGN
UMEÅ UNIVERSITY

WE ARE IN A MIDST OF A MENTAL HEALTH CRISIS.

We're in the midst of a mental health crisis, heavily **affecting teenagers and young adults**. The rise of digital technology has brought a lot of positives to the world, such as connecting people all over the globe and bringing humanity closer together. However, growing up in a generation that has **information ready on hand** at any time, **brings new problems to the table.**

IMPACT OF SOCIAL MEDIA HAS TAKEN ITS TOLL.

The need for showing a **seemingly perfect life** has become a **burden** for many. And a long side **instant gratification** social media has been **pushing the limits** to what a person is capable of going through for **attention and sense of belonging.**



**80 % of parents think,
that owning a smartphone
under age 12 is NOT OK.¹**

When asked about what age is appropriate for kids to own a smartphone, a majority of parents agree that children should be at least 12 years old. This is often topped by the fact that **parents need to be able to get a hold of their children.**²

**Yet as of 2019, more than 50
percent of children at age 11
already own a smartphone,
60 percent more than in 2015.³**

In reality, smartphone ownership among kids has risen dramatically over the past years. As of **2019**, more than **50 percent of children at age 11** already **own a smartphone, 60 percent more than in 2015.**⁴

1: Pew Research Center: Parenting Children In The Age Of Screen (2020)

2: Nielsen: MOBILE KIDS: THE PARENT, THE CHILD AND THE SMARTPHONE (2017)

3,4: The Common Sense Census: Media Use by Tweens and Teens (2019)



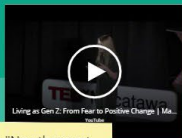
Research Conclusion

KIDS ARE ON THEIR PHONES TO SOON!

Our research has found that the **age from which kids have access to the internet is getting lower**. As a consequence, kids are being **exposed to content** that is **not appropriate** for their age (**violence, news casts, sex...**). The result of this is a generation that is **"growing up" to soon** and is becoming **increasingly depressed and anti social**.



Exposure to "adult content" (news etc.):



"No other past generation has had access to the amount of knowledge that we do right now."

However, internet use is not without risks for children, the report notes:

- More than half the children and young people surveyed in South Africa said that they were exposed to sexual content online.
- 22 per cent of those surveyed in Italy and Uruguay say they were exposed to content on self-harm.
- 35 per cent of children surveyed in Italy and Uruguay said they were exposed to hate speech.
- Only 2 out of 5 Facebook users aged 10-14 in Bulgaria keep their accounts public.
- Across the 11 countries surveyed, between 30 per cent and 75 per cent of children say that they may be unable to verify the truth of online information.

To help minimize children's exposure to the risks of the digital world and maximize their exposure to its benefits, addressing problematic online content or environments is critical. UNICEF urges tech companies to do more to actively monitor and remove content that is harmful for younger children, and to provide tools that can help parents and educators support children to make the most out of online opportunities.

Potential physical and mental health issues:



Children aged five and under at risk of internet addiction -

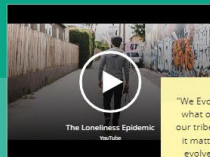
"We can effect real world behaviour and emotions, without ever triggering the user's awareness" Shoshana Zuboff, Harvard Business School

2020 has ruined generation Z's mental health

A study of stress levels in America shows that 13-23 year olds have been hit the hardest by the coronavirus pandemic.

"A whole generation is more fragile more anxious more depressed. They are much less comfortable taking risks." Johnathon Haidt, NYU Stern, School of Business

Weakened social capabilities:



"We Evolved to care about what other people from our tribe think of us (Cause it matters), but we've evolved to be aware of what 10,000 think of us?" Tristan Harris, Former Google

Cheng sees it's not the technology itself that's disconnected them from basic needs such as sleep, nutrition, **fresh air and physical activity**, as well as higher needs such as a sense of belonging and meaning in life.

"If kids get used to screens at an early age, the brain loses its ability to work for its dopamine," cautions Cheng. "Why would you want to go outside to get your dopamine when you could just get it from a screen?"

Social skills we also learned in person. "Kids should be interacting face to face, looking into the eyes of another human being so that they can learn to develop empathy and read facial expressions—what makes another child happy or sad," says Cheng.

When it comes to social media for this age group, Arora is emphatic. "It's absolutely not recommended," she says, explaining that kids at this age don't understand the permanence of posting (though adults, because those critical thinking skills don't kick in until age 15, often also points to other pitfalls, such as cyberbullying. "It's an added stress in their lives that isn't age appropriate," says Arora. The MediaSmarts report notes that, of those kids in grade four who have mobile phones, about one-fifth use social media networks like Facebook and Snapchat.

"The number of who have ever gone out on a date or has had any romantic interaction is dropping rapidly."



1 How may we allow parents to get hold of their children easily while protecting the kids from early exposure to the internet?

2 How may we help kids to ease into smartphone use and establish a healthy relationship with technology?

Process Stake holders

The chosen **focus group of this project** are **Kids** aged between 7 and 10, as they are only making their first steps into the digital world. The secondary user group are the **Parents**.

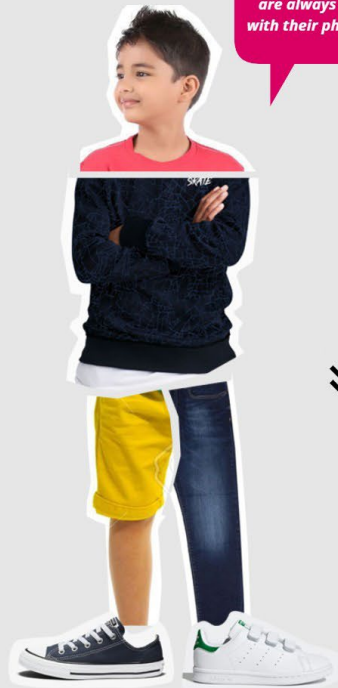
"I didn't use my phone much, but a friend told me about Instagram and it's kinda cool."



Amelie, 8y/o

Amelie and Eric know each other from school, where they attend the same classes. They both are eager students. Amelie has got her **first phone** a year ago. She primarily uses it to check with her parents, but recently created an **instagram** account. Eric's parents are still **hesitant**. He feels **excluded**, when his friends talk about things they saw on the internet.

"I want to play with football with my friends, but they are always busy with their phones."



Eric, 7y/o



Highly social, striving for social acceptance



Creative



Energetic, competitive spirit



Eager



Curious

Primary emotional environment: **Parents**

Secondary emotional environment: **Friends**

"All I need to hear is: 'I am alright mom, everything is fine'."



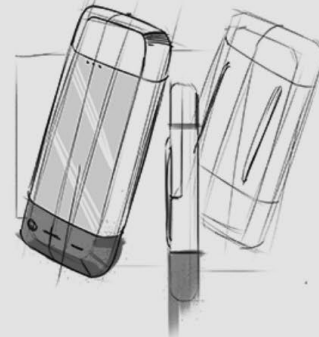
Karen, 32y/o

Karen is Eric's mother. She's a **nurse** at the local hospital and has to work **long shifts**. Because she's not at home much, she wants to **get a hold of Eric**. She's still debating to buy him a phone or not.



Process Product Development

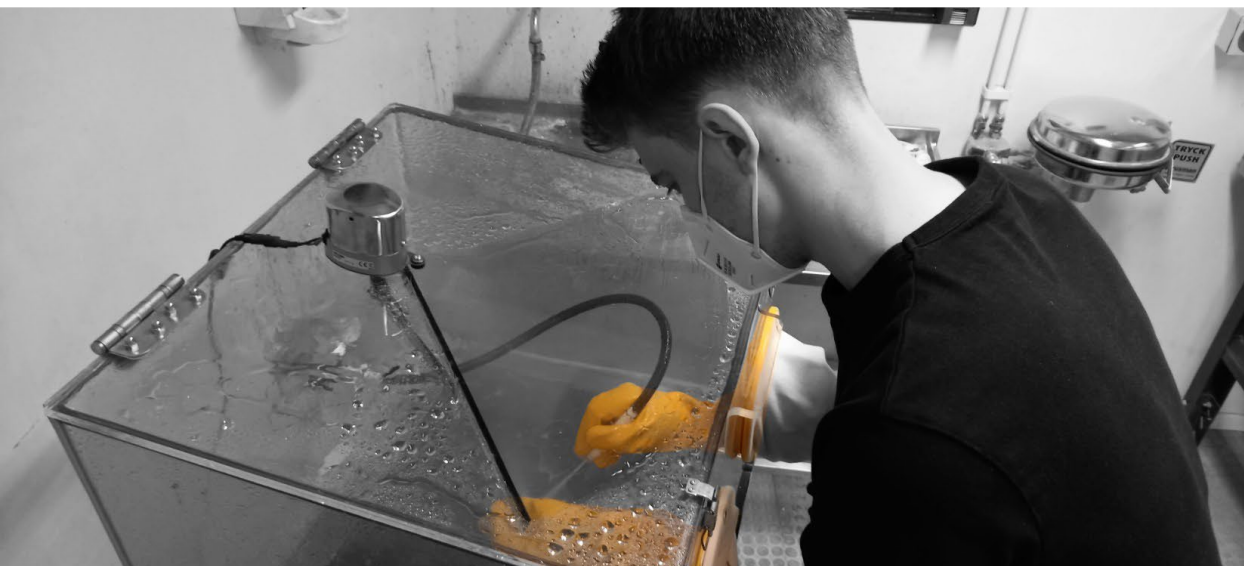
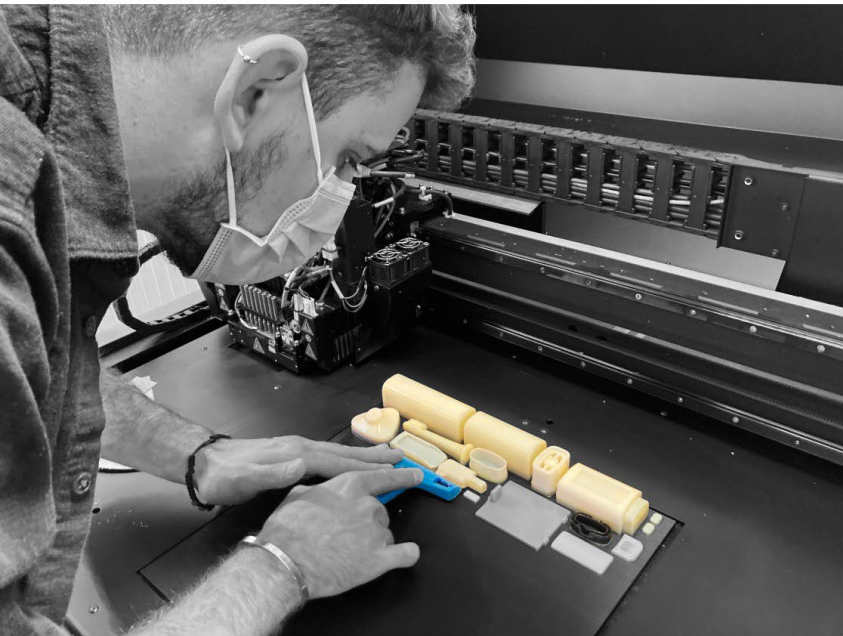
During the development we tried to put ourselves into kids heads and come up with the most fun and joyful device we possibly could.



Process Product Development



Process
Product Development



Process
Final Design

The final design is a **telecommunication device** designed around the **physical and social needs of kids**. Catering to and enhancing their daily activity's, whilst keeping them in contact with their parents. Also, PlayPal aims to support a **healthier relationship with technology**.



Final Design This is PlayPal!

The main body holds all the functionality need for telecommunication, but the modules is where the fun starts. Allowing to personalize the experience depending on each child's preference, they form the heart of the concept. We also imagine these modules to be traded among friends or used in collaboration to create an even greater experience when bringing more than one Playpal to the party.



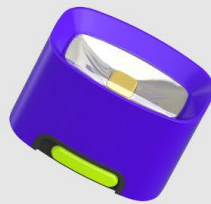
The attachments and modules slide and click smoothly into place and are detached via designated release button.

The action button changes its purpose depending on the module/setting.

Scrolling through the different options is just pure fun using the joystick!



Exploration: Capture all the interesting things around you! Double the fun with added lenses and tools!



Sight: Suddenly that that nearby forest doesn't seem so scary anymore! Also - ever tried morse?



Sound: Jam along with your friends, record and playback voices and maybe distort them?

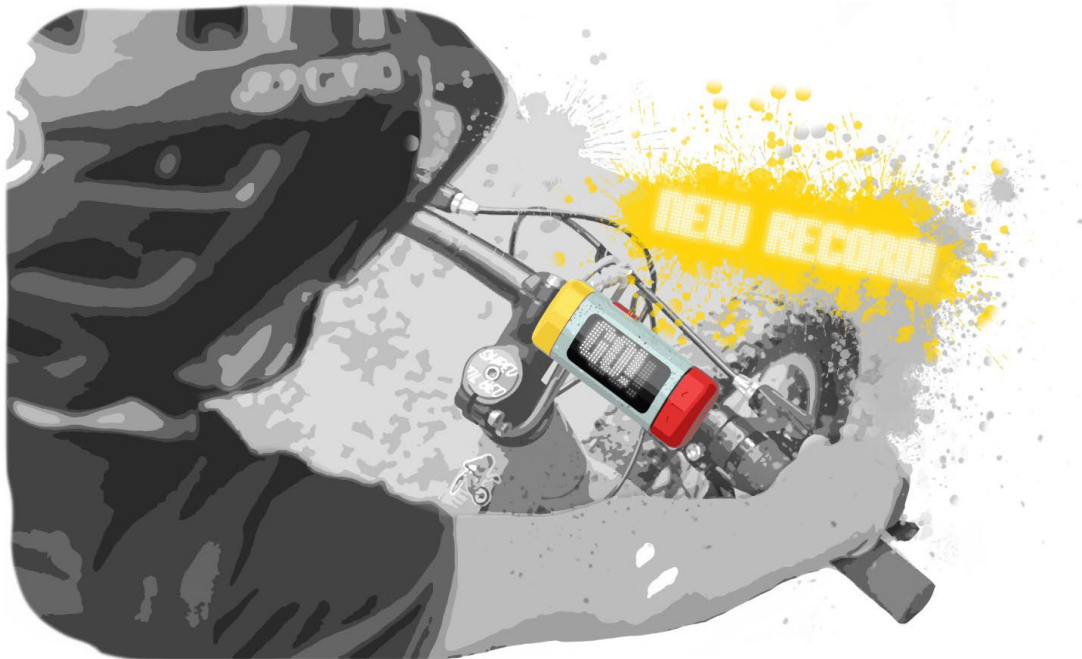


Connect: Stay in touch with your friends on your explorations in walkie-talkie mode!

Final Design

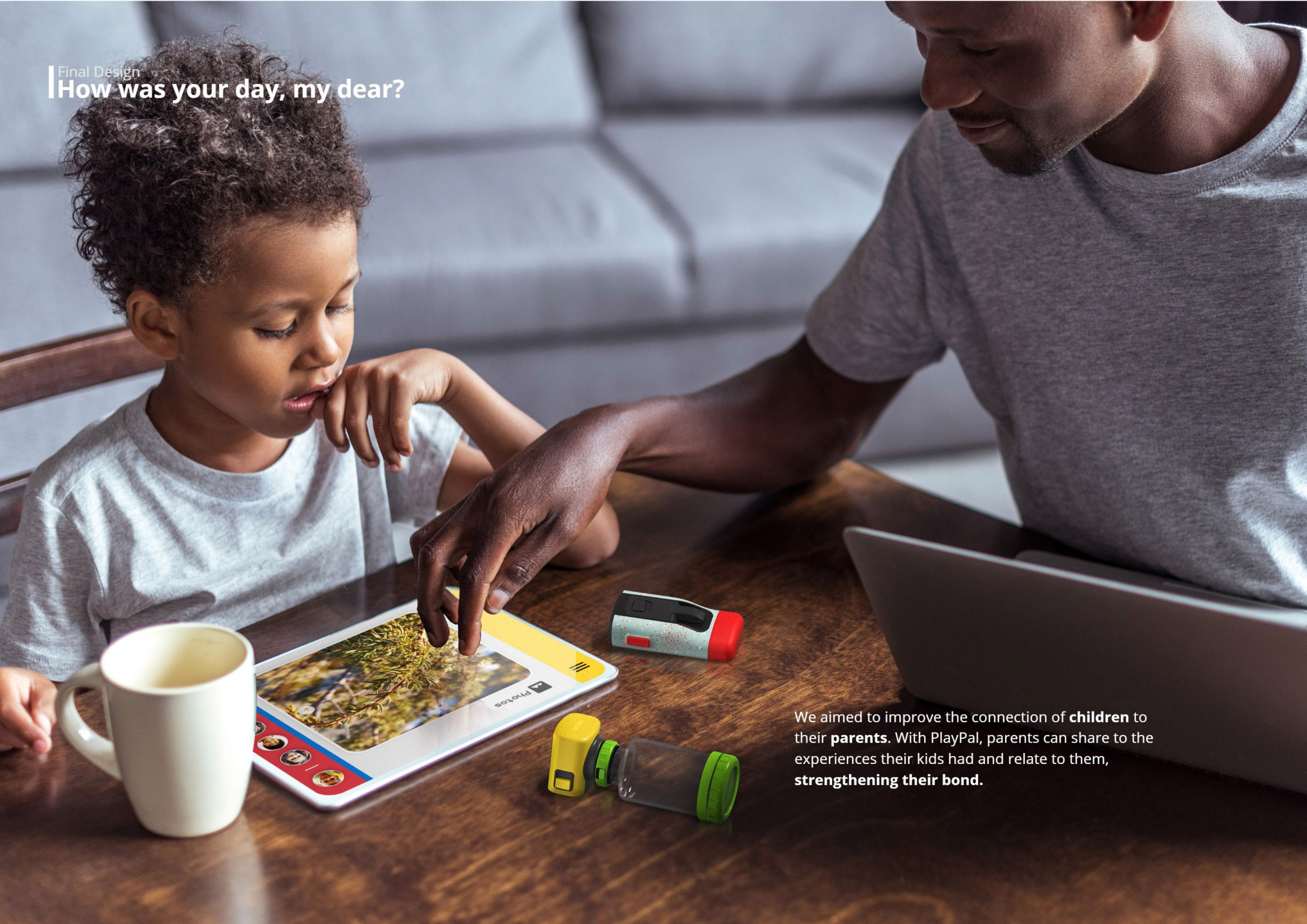
Get the kids out of their rooms!

Depending on the mode and modules, PlayPal enables you to **Explore on their own**, **Connect with other kids** or, for example, play an **Enhanced game of hide and seek!**



Final Design

How was your day, my dear?



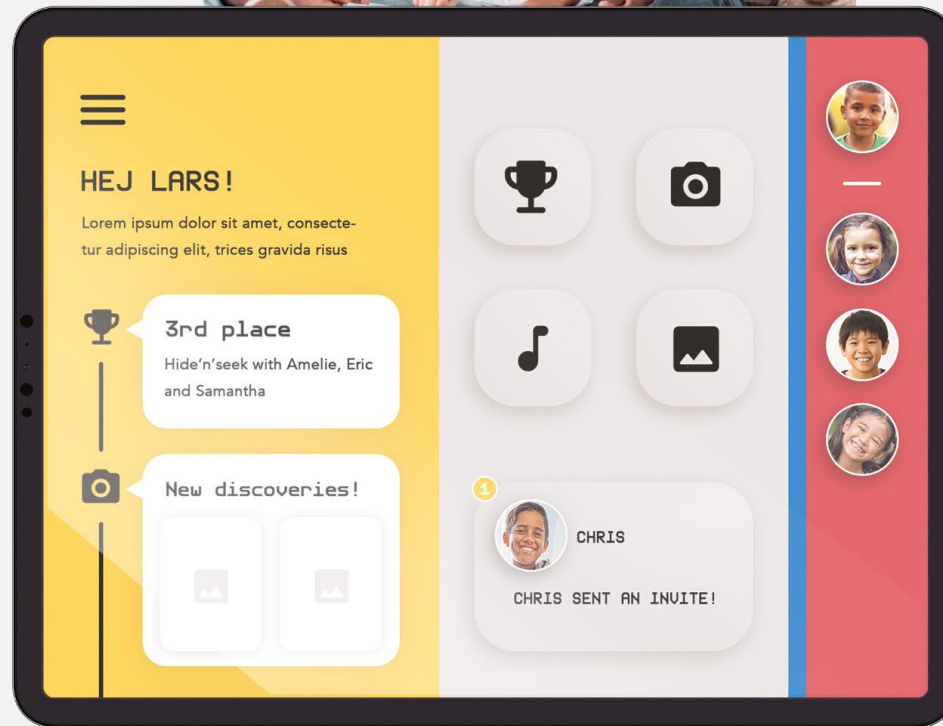
We aimed to improve the connection of **children** to their **parents**. With PlayPal, parents can share to the experiences their kids had and relate to them, **strengthening their bond**.

Final Design Product Ecosystem

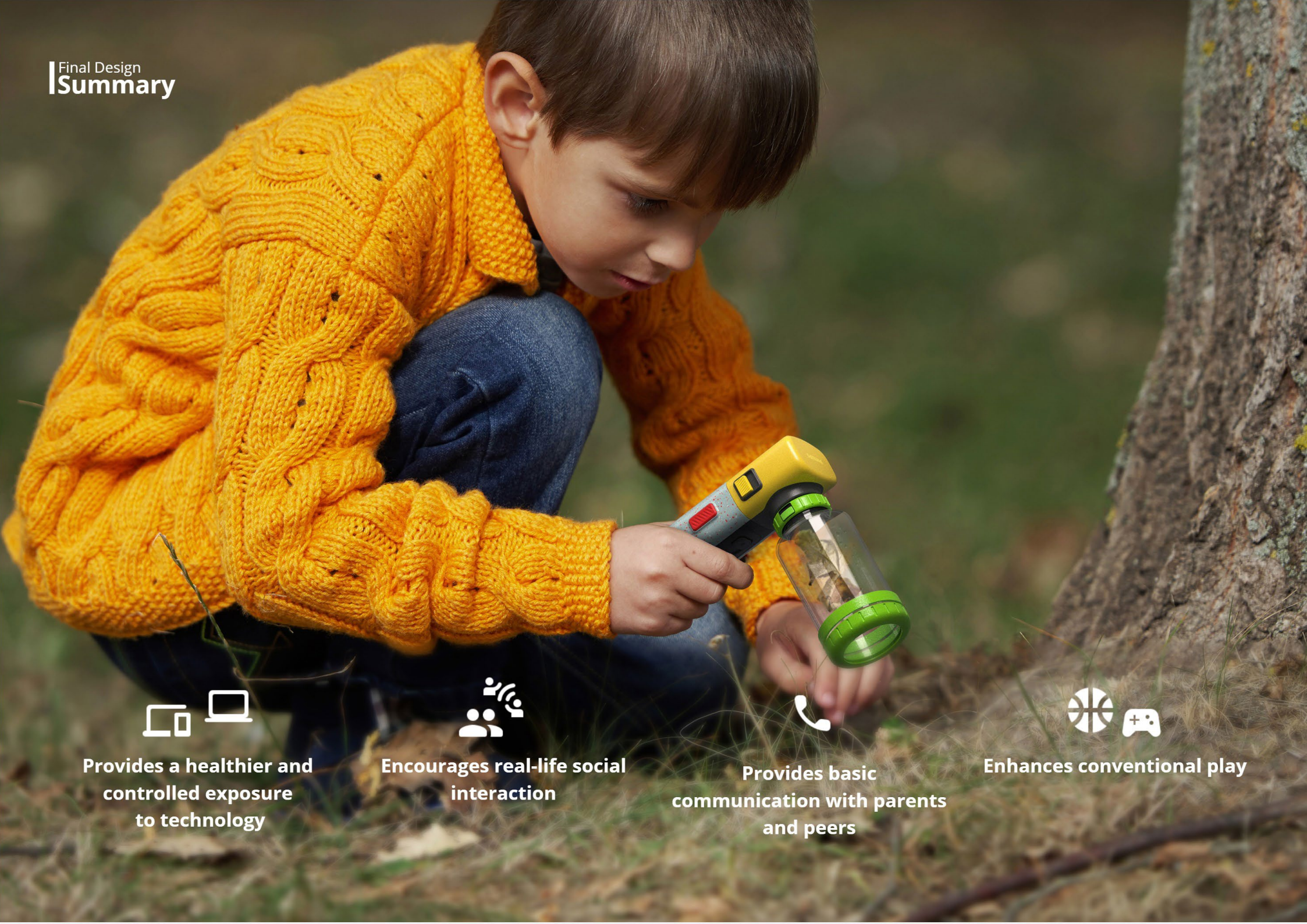
We're aiming to design the PlayPal as a **3-way experience**. Both stakeholders involved get their own dedicated features and all the information they need, but when they come together **is when the magic happens**.



Children: Enhancing your (real life) experiences with custom functionalities!



Parents: Allowing to get a hold of their child at any time, possibility to track physical activity to ensure a healthy routine.



Provides a healthier and controlled exposure to technology



Encourages real-life social interaction



Provides basic communication with parents and peers



Enhances conventional play