

Learning about programming through play



*Pictured: Diana Blas, "The Ifs" with Reinhard Mayr, COPA-DATA
Photo: Matthias Rauch*

Finding the right talent for a particular job is one of the greatest challenges facing recruiters today – especially in the IT and software industry, which has been struggling with a skills shortage for years. COPA-DATA has been working with local educational institutions for over 15 years and is actively involved in training the next generation of IT experts. Now, we are also dedicating resources to mentoring through the innovative European Youth Awards (EYA) community.



THE IFS

“The Ifs” is a project created by a team of four Spanish developers and tech company founders. “The Ifs” family is made up of four members – small robots that can communicate with each other. Each member features its own behavior and action options. As the name suggests, each of the Ifs can be programmed with an “If - Then” instruction in order to interact with the other three Ifs. For example, the robots can vibrate, play music, or send flashing signals. Children can choose from a wide range of options and find out for themselves how the robots communicate with each other. At the same time, the children can playfully become familiar with the logical thought patterns required for programming.

CONTACT

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SPARKING ENTHUSIASM FOR TECHNICAL CAREERS

As potential employers, COPA-DATA and our partner companies are actively engaged in encouraging young people to embark on technical careers. Alongside schools, we help extracurricular institutions to design and run events, project weeks, and taster days. Our Lego Mindstorms events, which are run in conjunction with school classes and Salzburg University of Applied Sciences, are a particular highlight. With our support, participants are able to build robots for all kinds of tasks and even program them via zenon Logic.

A NETWORK OF INNOVATION

Through our work in training, research, and support for start-ups, COPA-DATA has built up an extensive network of partners.

In 2018, this led to the company establishing contact with the EYA Festival (<https://eu-youthaward.org>). The EYA community, which receives funding from the EU Commission, brings together young innovators from all over Europe. The community shares a goal to improve the world we live in through the creative use of existing IT technologies. The competition takes place every year, and projects and teams from all over Europe can enter. At the big closing event, companies can volunteer to mentor one of the winning teams. This allows companies like us to meet lots of talented young people and is an opportunity that we relish.

The highlight of the EYA year is the closing festival, where the winners are named in front of a large audience. The 2018 event took place in Graz, Austria. For over 360 participants from 40 nations and the numerous representatives from local and international companies, the festival served as a perfect networking opportunity.

We quickly identified our favorite among the winning teams: “The Ifs” (<http://www.theifs.cc/>).

“We want children to stop being simple technology users and to become creators of the future that is to come.”

ESTHER BORAO,
COFOUNDER AT “THE IFS”

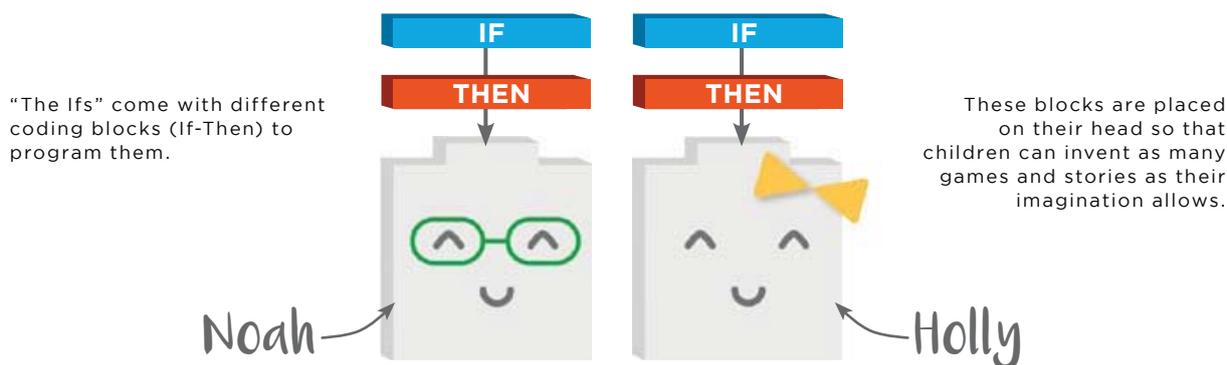
PROGRAMMING FOR LITTLE ONES

“The Ifs” won us over straightaway – with both their approach to getting young people interested in technology and programming, and the technical execution of their idea. Up to now, our collaborations have focused primarily on pupils who were about to leave primary education or who had already expressed an interest in courses of study.

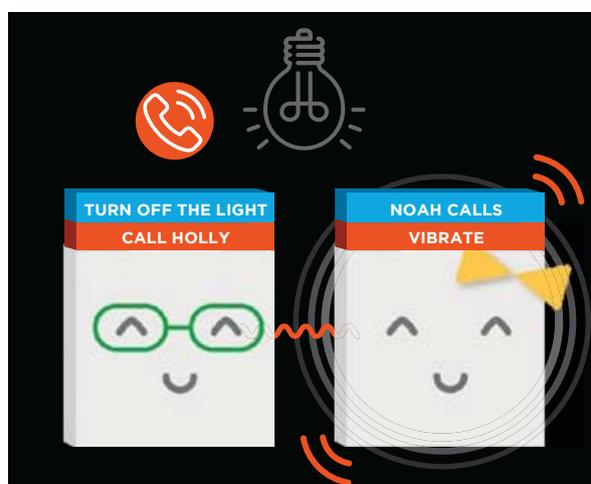
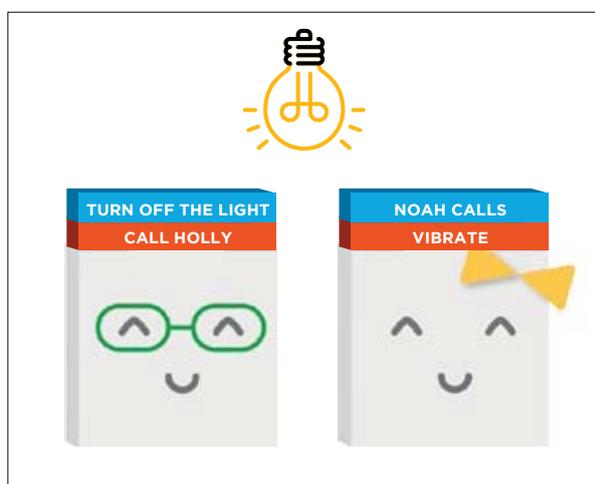
“The Ifs”, on the other hand, have developed an educational toy for children aged three and over. The children are introduced to the principles of programming through play (simple “If - Then” conditions), without a screen or PC, using a method known as “tangible programming”.

“THE IFS”: CREATIVE AND INVENTIVE

When they play with the four members of the If family (further information provided in the info box), children are not only using technology but inventing new worlds as well. “The Ifs” show how even preschool children can be given a basic understanding of programming by playing with mini robots. They don’t even need to be able to read.



ONE EXAMPLE:



"The Ifs" allow children to express their creativity – they can invent and play out their own stories and discover the world of technology in their own way at the same time. Months after the award ceremony, the first practical trials continue to deliver impressive results. The feedback from parents has been very positive too. Even those who were skeptical about software and programming at the start of the project are now keen to encourage their children to engage with these topics.

CONSIDERING ERGONOMICS FROM THE OUTSET

Projects such as "The Ifs" clearly demonstrate how important it is to think about ergonomics when designing (software) products. By taking into account the needs of a particular target group, very complex content can be conveyed in a simple manner – an approach that has long been one of our top priorities when it comes to our software platform as well.

We are therefore delighted to be part of the EYA community. Lively exchanges with other members of the community help to reaffirm a COPA-DATA principle: If used responsibly and effectively, software and technology can make our lives easier and more exciting – whether that is at work, in our free time, or even when our children are playing. This project has come up with a fun way of teaching young children the basics of programming and we are very excited about it – bravo!

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