Ars Electronica Center

Opening of the New Kids' Research Laboratory

(Linz, January 26, 2015) "Play is the highest form of research." This quote from Albert Einstein succinctly encapsulates the basic principle of the Kids' Research Laboratory that just opened in the Ars Electronica Center. Didactically coupled to the "Device Art" exhibition set up immediately adjacent to it, seven installations give youngsters the opportunity to playfully experiment with analog and digital technologies. The Kids' Research Laboratory is being run as a pilot project. It's the successor to one of the AEC's most popular features, the Kids Experience Technology exhibition. In the coming weeks, all municipal kindergartens and after-school care groups will be invited to drop by. This installation is also the first phase of the development of a much more comprehensive scientific research lab and educational offerings custom-tailored to kids age 4-8. The collaborators on this long-term initiative—experts from the University of Linz, local teachers' colleges, OTELO–Open Technology Lab and the City of Linz's Department of Children and Youth Services—will convene for the first time in early February. Their initial findings are to be presented in March.

Research is Child's Play

The pedagogical principle underlying the AEC's latest attraction is that game playing is a very effective way to nurture kids' recognition and comprehension when they're confronted with new phenomena and information. Accordingly, the focus is on active experimentation and discovery at the Kids' Research Laboratory. The substantive point of departure of every visit to the lab is the "Device Art" exhibition immediately adjacent to it that opened in early September 2014 in conjunction with the Ars Electronica Festival. It's a collection of whimsical and sometimes tongue-in-cheek ways in which art, design and technology can be interwoven. Old and new technologies are constantly comingling, complementing one another and engendering something new, and this is exactly the approach the Kids' Research Laboratory takes. Youngsters are encouraged to take a behind-the-scenes look at high-tech and find out how various devices work. They behold what actually goes on inside analog gadgets, and get insights into the origins of the sounds we hear and images we see thanks to our digital devices.

Early Educational Enrichment in Linzer Kindergartens

Linz's kindergartens are educational institutions; as such, their mission is to support and foster juvenile motivation to learn. Thus, at more than 70% of the city's kindergartens, the approach is based on the learning workshop model. This progressive concept puts the accent on child-centered work—instead of strict organization in groups, children are free to use the available materials that most appeal to them. As a result, their immediate surroundings become a space in which to get hands-on experience in the natural sciences. In order to prepare all children as well as possible to master the challenges they'll face in elementary school and to ensure equality of educational opportunity, these facilities also offer a

With queries, please contact
Christopher Sonnleitner
Tel: +43.732.7272-38
christopher.sonnleitner@aec.at
www.aec.at/press

language enrichment program of up to 540 hours over the three years of kindergarten attendance. This is unique in Austria. Another special focus is on gender, the aim of which is for the encounter with science and technology to be conducive to equal educational and occupational opportunities for girls and boys. Carrying on the mission of the "KET – Kids Experience Technology" project means emphasizing science education at a very early age and thereby beginning to train the scientists of tomorrow.

Kids' Research Laboratory Pilot Project: Seven Installations that Playfully Encourage Experimentation and Discovery

BeeBot

BeeBot is a cute little black and yellow robot bee with tiny wheels attached to the bottom of its thorax and four directional buttons on top. Depending on which button is pushed and how many times, the robot moves a certain distance in a particular direction—forward, left or right. Lines affixed to the floor of the Kids' Research Laboratory demarcate a route that the BeeBot has to follow as precisely as possible. In order for children to be able to give navigation commands to the robot, they have to be able to comprehend spatial orientation and estimate distance.

Cubelets

Cubelets is a building-block system that enables users to assemble robots out of tiny cubes. The various types of cubes have different characteristics—some are equipped with sensors, some are batteries and some are just decorative elements. Kids have to use trial-and-error to figure out what cubes can and cannot do, and then consider how they have to be interlocked in order to create a robot that can move forwards or backwards, or rotate on its own axis.

Fire Fly (incident light microscope)

Since an object being studied under an incident light microscope is illuminated from above, it doesn't have to be sliced thin. Thus, without slides having to be prepared in advance, anything—a fiber from the sweater you're wearing, for instance, or one of your hairs—can be enlarged 50x, admired and examined in detail.

Light-and-Shadow Box

Every youngster is fascinated by the interplay of light and shadow. In this installation, kids can play with a "magic lantern" and cast all sorts of shadows on the space's wall. Plus, it's even possible to produce silhouettes in all the colors of the rainbow.

Sticker Modeler

This digital drawing board provides kids with a simple way to design stickers. All you have to do is draw a shape on one side of the axis positioned in the middle of the computer screen. When you're done, the shape is mirrored on the other side of the axis. This procedure results in totally symmetrical figures that can be cut out as plastic foil stickers. Kids thus experience

With queries, please contact
Christopher Sonnleitner
Tel: +43.732.7272-38
christopher.sonnleitner@aec.at
www.aec.at/press

a digital tool that functions as a drawing instrument, and produce analog stickers they can take home with them.

Disassembly Station

Here, you can take anything apart—literally. Kids can disassemble old computers, examine and name the components, and guess what function each one plays. An ancillary benefit is enabling young tinkerers to gain hands-on experience with tools like screwdrivers and pliers.

OTOTO

With OTOTO, anything can become a musical instrument—at least, anything that can be connected via a standard alligator clip cable to the installation's All-In-One Musical Invention Kit. The device has several keys—like those on a piano or synthesizer—that are depressed to produce a particular tone. Each key features a hook-up for the alligator clip cable, the other end of which is attached to any object the user selects. Once that's ready, all the user has to do is touch the object to produce the sound. This way, anything can serve as a musical instrument—a fruit or vegetable, a piece of wood, whatever!

Ars Electronica Center: http://www.aec.at/news/en/

With queries, please contact

Christopher Sonnleitner
Tel: +43.732.7272-38
christopher.sonnleitner@aec.at
www.aec.at/press