

Hello Everyone,

****SLIDE 1:** We are very happy to attend the 1st European Summit for STEAM Educators. I will do my best to use the time efficiently. First of all, I would like to introduce myself. My name is Arda. I am the founder of Dijital Çağ Atölyesi.

Now let me start introducing our Makerspace.

We are a social enterprise that has been organizing workshops for children for 5 years in Ankara, the capital of Turkey. We operate within TOBB University of Economics and Technology. We are one of the best makerspaces in Turkey and the numbers we are about to show you prove it. Our main mission is to teach children the culture of production in the digital world and turn them into "makers".

****SLIDE 2:** Officially, we are the first and only organization in Turkey that has the features of Makerspace, Hackerspace and FabLab together. We are a social enterprise with international identity. We are a FabLabs.io approved Fablab. You can see this from the map I will show you now. (Map is shown) Unfortunately, the number of FabLabs in our country is not very high. But we have a FabLabTurkey project that will soon gather all FabLabs under one roof. As we are pioneering in many issues in the country, we will be the flag bearer in this regard.

When you look at the international Makerspace and Hackerspace maps (maps are shown), you can also find our workshop. I don't think you will have any difficulty in finding us since there are few of these in our country. We are a team that tries to spread the production culture in the digital world in the country in waves and we are successful in this regard. If you wish, let me tell you about these achievements;

****SLIDE 3:** Actually, it would be best to describe our achievements in 2 parts. Our educational achievements and our software awards. First of all, I would like to talk about our educational achievements as the Dijital Çağ Atölyesi team;

- In total, we organized maker programs for over 900 students and successfully graduated them.
- We were able to reach more than 7,000 students through the fairs, festivals and competitions we organized.
- As I mentioned in the previous slides, we have an international network.
- With a visionary perspective, we have always organized workshops that were the first in Turkey. Such as Metaverse, NFT, Web 3.0 workshops.
- Thanks to all these things, we were selected as the best social enterprise of the year by school associations in Turkey in 2019.
- In 2021, we collaborated with Microsoft MakeCode Team on the contest for children.
- In 2022, we were nominated for Education 2.0's Outstanding Leadership Award in Dubai.

What about software?

As you can imagine, it would be a deficiency for a team that tries to teach maker culture to children not

to produce their own products. For this reason, we developed 2 softwares that we use in our classes. Actually, both of them are very new softwares, but we are proud of both of them. These are Aktrus (formerly known as VR for Kids) and of course ArfBot! Let's take a closer look at what they mean;

-VR for Kids (now Aktrus) is a virtual reality content production platform. Children upload their own 3D content to this platform and then start walking around in that world. It is currently in closed beta test and only the kids in our workshop are trying it out.

-ArfBot is a safe Turkish search engine for kids, just like **Kiddle.co**! But in Turkish and much more free ;) ArfBot has its own game, blog and contest subdomains. Children can use the blog section like an encyclopedia, while in the game section they can play safe games created by their peers. The last subdomain is competition. That's what we're here to talk about today, but first let's take a look at the awards that ArfBot and Aktrus received;

-Finalist in Vestel VENUS Competition, Bilkent CyberPark Office Award, Ankara Development Agency's 100 Best Projects Award of Turkey, Istanbul Aydın University's Imagine Tomorrow Finalist and Turkey Informatics Foundation Coding Awards. But we think the most important thing is that ArfBot.com is now used as a home page in the computer labs of 204 schools. This number will continue exponentially. This is precisely why the competition, which we will organize for the second time this year, is of great importance.

Now let's go to our topic. So I am going to explain the difference between makerspace, fablab and hackerspace to you.

****SLIDE 4:** First of all, Dijital Çağ is a makerspace at TOBB University of Economics and Technology. But, What is makerspace? Shortly, it is about exploring and discovering new ideas and creating and building. It is about trying something new. And when you fail, trying it again. Most of all, it is about finding your passions. And then sharing them with others.

A makerspace is a collaborative work space inside a school, library, university or separate public/private facility for making, learning, exploring and sharing that uses high tech to no tech tools. These spaces are open to kids, adults and entrepreneurs and have a variety of maker equipment including 3D printers, laser cutters, robotic kits, soldering irons and even sewing machines. A makerspace however doesn't need to include all of these machines or even any of them to be considered a makerspace. If you have cardboard, legos and art supplies you're in business.

These spaces are also helping to prepare those who need the critical 21st century skills in the fields of science, technology, engineering, art and math (STEAM). They provide hands on learning, help with critical thinking skills and even boost self-confidence. Some of the skills that are learned in a makerspace pertain to electronics, 3D printing, 3D modeling, coding, robotics and even woodworking. Makerspaces are also fostering entrepreneurship and are being utilized as incubators and accelerators for business startups.

Now that you have the birdseye view of a makerspace, lets dig a little deeper.

****SLIDE 5:** Makerspaces have been called everything from a FabLab to a Techshop to a Hackerspace. Is there a difference between these names? Yes and no. At the core, they are all places for making, collaborating, learning and sharing. Although these spaces have a lot in common, they are also

different in a few ways.

Dijital Çağ Atölyesi is also a FabLab. But wait, what is FabLab? Fab Labs were started by Professor of Massachusetts Institute of Technology Neil Gershenfeld at the Center for Bits and Atoms in MIT's Media Lab. A FabLab is a small-scale workshop offering digital fabrication. They define a FabLab in their own words as “a technical prototyping platform for innovation and invention, providing stimulus for local entrepreneurship. It is also a platform for learning and innovation: a place to play, to create, to learn, to mentor, to invent.” So that’s why Dijital Çağ Atölyesi has been an MIT-approved FabLab since 2020.

****SLIDE 6:** Dijital Çağ Atölyesi is also a Hackerspace. Ok but, What is the difference between a hackerspace and others? In order to understand the differences between a hackerspace and a makerspace, we need to do a short history lesson. The beginning of hackerspaces can be traced back to 1995 Berlin when the world’s first hackerspace called C-Base was launched. The concept of a hackerspace started as places in the community where a group of computer programmers could collectively meet, work, and share infrastructure. They would “hack” technology and try to make it do something it wasn’t meant to do. This term of “hacking” or “hacker” in the computer sense soon progressed and expanded into the hacking of physical objects as we know it today. Over the years, the price of maker tools such as 3D printers, desktop laser cutters and CNC routers became more affordable and hackerspaces naturally evolved into makerspaces. Wikipedia defines a hackerspace “as a community-operated workspace where people with common interests, often in computers, technology, science and digital art can meet, socialize and collaborate.” Those are also the same characteristics you will find in a makerspace. The problem with the term hackerspace is the unfortunate negative image people have of a hacker.

****SLIDE 7:** Thank you very much for your interest. You can follow us on social media for more things we forgot to tell you. Have a nice event! Good bye.