

## O1 - fun@science report

Working sheet – Collection of interesting practices

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### INTERESTING PRACTICE TITLE: FabLab Perugia

<b>Brief description</b>	<p>FabLab is a laboratory which offers personalized digital manufacturing services because it has at disposal some computerized tools able to realize a wide range of “custom made” and self-produced objects.</p> <p>The idea is that in this laboratory the people can rediscover manual skills and know-how to produce objects by handling with the material and breaking down the barriers related to the huge costs of production. So, in this place, it is possible to develop both single pieces and prototypes, improving also training and research, for realizing specializations and applications which involve several disciplines: from figurative arts to electronic engineering, from architecture to medicine.</p> <p>Into the laboratory there are numerical control machines (cutters, 3D printers, laser cutting) managed through open-source software. These ones offer the possibility to develop new forms of creativity to be shared within the lab network with a considerable potential not only for the single person but also for industry, craftsmanship and construction.</p>
<b>Education level</b>	<p><input type="checkbox"/> Infant school</p> <p><input type="checkbox"/> Primary School</p> <p><input type="checkbox"/> Secondary Junior School</p> <p><input type="checkbox"/> High School</p> <p><input checked="" type="checkbox"/> Other (University)_____</p>
<b>Reason behind the project/practice</b>	<p>FabLab was born from the collaboration between The Academy of Fine Arts “Pietro Vannucci” and “Fabula Animations”. It’s the first FabLab in Perugia.</p> <p>On one hand the Academy would like to begin a path for rethink and redesign courses so to allow students to be closer to technological revolution, on the other hand the Cooperative Society Fabula aims at developing contamination between arts and digital technology.</p> <p>So the idea of the project has been developed from a common passion in the partnership: innovation technology.</p> <p>Moreover, the local context needed the development of a new place where experts of different discipline can collaborate and share both ideas and projects to create something new, and also the students and professionals can be constant updated and learn by others’ experience.</p> <p>Those reasons led to the foundation of FabLab in Perugia.</p>
<b>Aims and objectives</b>	<p>FabLab in Perugia aims at building the space to create both hardware and software objects. Moreover this project intends to promote the University research and to stimulate students and professionals creativity, both at personal and at common level.</p>

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	<p>The space is directed to share knowledge and competence about the innovative universe of digital fabrication: this is why this network is based on Share, Learn and Make criteria. The mission is pursued through workshops which involve several fields and subjects, such as: design, architecture, information technology, engineering and several areas of local craftsmanship (leather, fabric, metals, wood and ceramics).</p> <p>FabLab offers the possibility of comparison and cooperation to several professionals who together might realize innovative ideas.</p>
<b>Implemented activities and final outcomes</b>	<p>FabLab develops several activities such:</p> <ul style="list-style-type: none"> <li>▪ 3D Print;</li> <li>▪ Graphic Design;</li> <li>▪ IT Consultancy and Services;</li> <li>▪ Laser cutting;</li> <li>▪ CNC milling;</li> <li>▪ Robotics;</li> <li>▪ Creative Workshops.</li> </ul> <p>In this laboratory the members experiment, produce and prototype innovative projects thanks to equipment, workbenches and meeting spaces that facilitate the aggregation, exchange of ideas and exchange of know-how among associates. The project allows to create a hub with specialized figures and individuals that together realize their projects, and also it gives the possibility to everyone to experiment and produce products at low price.</p> <p>Moreover, the team offers courses and workshops dedicated to design, printing, automation for all ages, as well as for specialists. In particular they organize specific training courses to enable them to acquire the basic skills in the Digital Manufacturing production chain.</p> <p>Finally FabLab organizes some dissemination events where the team presented both the project in general and the objects that have been made. These events help to raise awareness of the community and to share knowledge about innovative technologies with stakeholders.</p>
<b>Approach and methodologies</b>	<p>FabLab offers a venue to work where the members can express their ideas and creativity for realizing “custom made” objects through the methodology of learning by doing.</p> <p>The project offers also learning experiences aimed at improving competences by implementing workshops where the approach and the methodologies are defined according to target groups. However the common thread that every time they are focused on is the innovative approach that allows to realize objects thanks to an additive manufacturing process.</p> <p>The members of FabLab at the same time learn how to use the innovative technology and they become able to use a problem solving approach, due to the fact that they have to produce an object starting from the idea they have.</p> <p>In this laboratory students, designers or simple curious technophiles find a stimulating environment, equipped workbenches, high-performance machinery and activities ranging from rapid prototyping to electronics, from 3D modeling to the production of small series and training.</p>

<b>Target groups</b>	<p>FabLab is the right place for people who have an idea or a project to be implemented and for who want to deepen their knowledge or share experiences and knowledge with other members.</p> <p>So the FabLab is open to individuals and to creatives and artists and to entrepreneurs and companies.</p> <p>In fact, students can conduct research, develop their thesis and realize demos or prototypes.</p> <p>Creative and artists might have the opportunity to meet people that able to realize their ideas.</p> <p>Entrepreneurs and companies can have access to highly technological instruments and machines for the development of their business.</p> <p>So these projects involve a wide part of the local community.</p>
<b>Duration</b>	The project started from 2015 and now it's active.
<b>Main strength and weaknesses</b>	<p><b>Strenghts</b></p> <ul style="list-style-type: none"> <li>• FABLAB projects involve a wide part of the local community.</li> <li>• FabLab offers a venue to work where the members can express their ideas and creativity for realizing “custom made” objects through the methodology of learning by doing</li> <li>• FabLab offers the possibility of comparison and cooperation to several professionals who together might realize innovative ideas</li> <li>• In FABLAB laboratory students, designers or simple curious technophiles find a stimulating environment, equipped workbenches, high-performance machinery and activities ranging from rapid prototyping to electronics, from 3D modeling to the production of small series and training.</li> </ul> <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Services are not completely free.</li> <li>• People have to pay a members fee.</li> </ul>
<b>Lead organisation</b>	<p><i>Name of organization:</i> Accademia di belle arti “Pietro Vannucci”</p> <p><i>Type of organisation:</i> School/Institute/Educational centre (University)</p> <p><i>Mission:</i></p>
<b>Partner organisation</b>	<p><i>Name of organization:</i> Fabula Animations</p> <p><i>Type of organisation:</i> Cooperative Society</p> <p><i>Mission:</i> they have artistic intent aimed at animation and synergistic contamination between art and digital technologies.</p>
<b>Financing Body and Programme</b>	The company <i>Umbra Group</i> is institutional partner, so it supports the project.
<b>Project area intervention</b>	<p><input type="checkbox"/> International (specify the countries involved in the project)</p> <p><input type="checkbox"/> National</p> <p><input checked="" type="checkbox"/> Local</p>
<b>Webpage</b>	<a href="http://www.abafablab.it/">http://www.abafablab.it/</a>