eTwinning Professional Development Workshop
„Digital Competences & IT Didactics“ December 11-13, 2019
Courtyard by Marriott Vienna
Prater/Messe
Kari Kivinen
The mission of the Intellectual Property in Education Network is to encourage and enhance creativity, innovation and entrepreneurship of young Europeans.
IPR-intensive industries in the EU

- They generate 42% of EU GDP
- They create 38% of all employment
- They pay a wage premium of 46%
- They account for 90% of EU trade with the rest of the world
- Trade surplus of EUR 96 billion

EUR 5.7 trillion
60 million jobs
“Creativity is the process of having original ideas that have value.”

There are two other concepts to keep in mind: imagination and innovation. Imagination is the root of creativity. It is the ability to bring to mind things that aren’t present to our senses.”

Sir Ken Robinson
Group work 1: Creativity

• Take a pair of stockings! (or any other simple everyday object).
• Spend 5 minutes to think of as many different uses for the object as possible.
• Write them down
• Share your ideas with other groups
  • Which group has thought of the most?
  • Which group has got the most crazy idea?

• Quantity is more important than quality in this exercise!
Some Finnish ideas to re-use stockings

• We used to lose our TV remote control all the time. Now we have placed it inside the stocking, which is fixed in the sofa – and our remote control is always nearby.

• I use broken stockings to clean my bathroom. After use, I can throw them away.

• In the countryside I use stockings to keep our drinks cool. I place tins and bottles inside of the stocking and I put it in the cold lake. It is easy to pick them up, when needed.

• Stockings are just wonderful to stock onions.

• I have repaired my car using stockings.

• I use stockings when changing earth to our cactus. You just round up stockings around cactus and you can lift it easily.

• I use stockings in the garden to support trees. Stockings keep softly the support-stick in a right position. They are nearly invisible in the nature.

• I use stockings as extra filter in our hoover. Stockings are really good in collecting dirt.

• I am a single. It would be impossible to spread sun cream to my back without stockings.

• When working in the higher places (e.g. close to ceiling), I use stockings as a tool-belt to have all the tools at hand.

• I store our toilet paper rolls in the toilet in the stocking.

• We wash all our socks inside of stockings in the washing machine. We have never ever lost a pair.

Niksi-Pirkka
Teachers and Intellectual Property

• Teachers work with creative minds
• Teachers produce themselves plenty of creative materials
• Curriculum competences
EU key competences for lifelong learning (2018)
<table>
<thead>
<tr>
<th>knowledge</th>
<th>is composed of the facts and figures, concepts, ideas and theories which are already established and support the understanding of a certain area or subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>skills</td>
<td>are defined as the ability and capacity to carry out processes and use the existing knowledge to achieve results</td>
</tr>
<tr>
<td>attitudes</td>
<td>describe the disposition and mind-sets to act or react to ideas, persons or situations</td>
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**Key Competences for Lifelong Learning**
DIGITAL COMPETENCE

• Digital competence involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society.

• It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions and problem solving.
DigComp 2.0 & education

• The Digital Competence Framework can help policymakers to monitor citizens' digital skills and to support curricula development.

• DigComp Framework can be used at all levels in education and training.

• The digital competence should start being developed at school, as it contributes to educational achievements and the wellbeing of children and youngsters, and then becomes important for employment.
The European Commission has published the DigComp into Action guide.
ENTREPRENEURSHIP COMPETENCE

• Entrepreneurship competence refers to the capacity to act upon opportunities and ideas, and to transform them into values for others.

• It is founded upon creativity, critical thinking and problem solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or commercial value.
• EntreComp is a comprehensive, flexible and multi-purpose reference framework designed to help you understand what is meant by entrepreneurship as a key competence for lifelong learning and to be able to use this in your work.

• It is intended to support and inspire actions to improve the entrepreneurial capacity of European citizens and organisations, and was launched in 2016 as part of the New Skills Agenda for Europe. into social, cultural, or financial value or others.
## An example from EntreComp

<table>
<thead>
<tr>
<th>SKILL LEVEL 6 - INNOVATION (EntreComp: <em>creativity, valuing ideas, vision</em>)</th>
<th>Primary</th>
<th>Lower Secondary</th>
<th>Upper secondary / Vocational</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Producing your own ideas</strong> and the courage to share ideas with others. Evaluating the usefulness of ideas through constructive feedback.</td>
<td></td>
<td>Combining ideas and further developing them with constructive feedback and utilizing tools developed for brainstorming. <strong>Protecting one's own creative work and respecting the creative work of others.</strong></td>
<td>Co-development and systematic utilization of development work as part of business operations, eg. to clarify and refine the business idea. <strong>Utilizing innovation-related IPR in business.</strong></td>
</tr>
</tbody>
</table>

EntreComp into Action
GET INSPIRED
MAKE IT HAPPEN

A user guide to the European Entrepreneurship Competence Framework
Creativity can be learned

- Learn how to transform ideas into action
- Awareness of the value of own creations
- Awareness leads to respect for those of others
What can teachers do in class to foster creativity?

- Creativity as a skill is one that can be learned as children grow and develop, hence it can also be encouraged and fostered in the school environment, and here are some tips to help incorporate more creative practices into the classroom.

<table>
<thead>
<tr>
<th>Make creativity a daily goal</th>
<th>Replace hierarchy with collaborative learning spaces</th>
<th>See creativity in a positive light.</th>
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<td>Keep your classroom layout flexible</td>
<td>Introduce unconventional learning materials</td>
<td>Visualise goals with timelines</td>
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<tr>
<td>Encourage discussion</td>
<td>Integrate more hands-on learning</td>
<td>Rewards &amp; recognition are key to motivating your students</td>
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<td>Encourage more colour</td>
<td>Make room for visual reflection</td>
<td>Don’t limit assignments to one format</td>
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<tr>
<td>Pin up motivational posters</td>
<td>Explore different cultures</td>
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- Replace hierarchy with collaborative learning spaces
- See creativity in a positive light.
- Introduce unconventional learning materials
- Visualise goals with timelines
- Integrate more hands-on learning
- Rewards & recognition are key to motivating your students
- Don’t limit assignments to one format
- Explore different cultures
Group work 2: Innovation

• Innovate a new brilliant business idea. It could be
  • A new innovative object/tool/food/software/application
  • Something missing in your country/region (import)
  • Something special from your country/region (export)
  • A new service, which might have potential

• Give a name and create a logo to your business idea
• Prepare a pitch to sell your idea to others (max 2 min).
• Collect carefully the feedback received from the customers (other groups).
<table>
<thead>
<tr>
<th>Intellectual Property summary</th>
<th>Patents</th>
<th>Trade marks</th>
<th>Industrial Designs</th>
<th>Copyright</th>
<th>Trade Secrets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Protects new technological innovations. This could be a physical invention or an industrial process</td>
<td>Protects an element of a company’s brand that can separate them from someone else doing something similar</td>
<td>Protects the physical appearance of a product that is new and has individual character</td>
<td>Protects original creative works such books, songs, pictures and software. It protects the expression of an idea but not the idea itself.</td>
<td>Protects any information that is of commercial value to a business and they have taken steps to keep it a secret.</td>
</tr>
<tr>
<td></td>
<td>Petrol Engine LCD screen Bluetooth</td>
<td>Coca Cola Nike McDonalds</td>
<td>iMac Egg chair</td>
<td>Movie Song Software Book</td>
<td>Google’s Searching algorithm Coca Cola Recipe KFC recipe</td>
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Patents

Patents protect new technological innovations. They are an agreement between the inventor and a national government that means the inventor/owner can have exclusive rights to their invention for a maximum of 20 years. This allows the inventor to control their innovations manufacture, sale and use.

Patents are not automatic so need to be registered. All applications will be checked to make sure they meet set criteria. The main criteria are:

• **It must be new.**
  • This means not in public anywhere in world before the date of application.

• **It must have a non-obvious inventive step.**
  • This means it cannot be a simple change; it must have required effort and thought to develop.

• **It must have a technical effect**
  • This means it must do something that is applicable in industry

Registration

• A business can choose to apply for a patent within specific country/countries or alternatively it can apply via the European Patent Office (EPO) and select the European countries it wants protection in or finally, internationally via the World Intellectual Property Office (WIPO).
Trademark

A trade mark is a representation of a business that tells people who they are so that they will know what they can expect. It acts as a badge of origin and is a way for customers to identify a business.

Trade marks can be in a number of forms, these include:
- **Words, Personal Names, Logos, Numbers, Shape/Packaging of Goods, Colours, Sounds**
- Once protected a company has the right to stop others using signs that are similar and might cause confusion with customers.
- Trade marks must be distinctive. They cannot solely describe all or a part of the businesses products. Descriptive marks would not separate one business from any other offering similar products or services.

Registration
- A trade mark is not guaranteed and needs to be registered for strong protection. As well as being distinctive there are a number of other criteria that must be met. Although many are common, each national and regional register can have its own. If it is accepted the mark will be protected for 10 years. This can then be renewed every 10 years for as long as it is still in use.
Design

**Designs**

- The appearance of a product can dramatically change its appeal and value. If a business invests time in creating products that are more visually attractive they can protect them through Registered Designs.

- A Registered Design protects the aesthetic appearance of a product. It can be the product as a whole or a specific part of the product.

**Registration**

- To register a design it must be new and have individual character. Once registered, protection can last for up to 25 years so long as it is renewed every 5 years.

- If a business only wants protection in their own country they can register through their national intellectual property office. If they plan to trade internationally then there are two main routes available to them.

- They can apply for a Community Registered Design through the European Union Intellectual Property Office. If granted the design will be protected throughout the European Union with one application.

- They can make an international application through the World Intellectual Property Office. This is not a worldwide design, but rather an easier way to get protection in multiple countries with one application.
Examples of designs

Almost any industrial or handicraft item can be eligible for design protection (except for computer programs)

- Packaging of products
  RCD 002710731-0001

- A product / set of products
  RCD 002490193-0001

- Composite products
  RCD 000408166-0001

- Parts of products
  RCD 229752-0001

- Logos
  RCD 000754098-0001

- Computer icons
  RCD 003001494-0002

- Typefaces
  RCD 004007441-0016

- Graphic designs
  RCD 004547370-0002
We all create intellectual property, most of the time without realising it. We all create works of art by taking photographs or writing essays, reports or notes.

Copyright is an automatic right that protects original literary, dramatic, musical or artistic works as soon as they are created. To qualify the works must contain some skill, effort or labour to create.

It is usually the author or creator of the work that owns the copyright. If can often be transferred however if there is a contract to say otherwise. This can be through an employment contract or a separate agreement.

Works that copyright protect include:
- Photographs, Books, poems & screenplays, Manuals & Reports, Film, Music, Software
- It is important to note that Copyright does not protect ideas. It protects the expression of an idea but not the idea itself.

Gaining protection
- Although copyright is automatic some countries have a voluntary register for protected works. This can help with proving ownership of a work. Without a register ownership can sometimes be difficult to prove.
- A common method to help verify ownership is the sending of the work in a sealed envelope. This does not prove ownership but shows the date when the person was in possession of it. This is often done unofficially, but there are also official repository systems available.
Creative Commons licenses help creators retain copyright while allowing others to copy, distribute, and make some uses of their work — at least non-commercially.

see: [https://creativecommons.org/](https://creativecommons.org/)
Powerful idea

• Invite an artist to visit your school.
• Ask him/her to tell about his/her work.
• Ask him/her explain, that s/he could not continue his/her creation, if s/he would not get paid of his/her work.
MORE INFORMATION ABOUT IP BASICS

Group work 3: Create a business plan

• **Opportunity**
  • What is your unique selling point?
  • Take account the customer research feedback you received earlier

• **Problem & Solutions**
  • Give a brief summary of the problem your ideas will solve for the clients
  • What will your company do to solve this problem?
  • Briefly describe your market, who is you customer?
  • Which companies or organisations are you competing with?
  • Describe the team behind the venture, explain why you have the best mix of talent

• **Risks**
  • What might be the risks and how to mitigate them?

• **Intellectual property rights**
  • How would you protect your trademark, innovation, business idea, design..?

• **Marketing & Sales**
  • What is your marketing plan and expectations?

• **ROLEPLAY: PITCH YOUR BUSINESS PLAN TO DRAGON’S DEN’S TEAM**
IP in Education Network has collected and shared some examples of good practice such as positive and effective projects, materials, and campaigns. (see ideaspowered.eu)
GROUP WORK 4: Online resources

• Choose any online resource material or Creative Diary
• Explore it for 15 minutes
• What is your impression?
  • Target age group?
  • Usefulness?
  • Fun to work with?
  • When could it be used?
  • Could your recommend it?
• Share your views with others

https://ideaspowered.eu/en/our-projects/ideaspowered@school/resources
Photos in the slides 1, and 2
by Julie de Bellaing
References

- Ideas Powered site: [www.ideaspowered.eu](http://www.ideaspowered.eu)

- Interviews with Young European Entrepreneurs: We did it, You can do it! [https://www.youtube.com/watch?v=uhkKiVN3fEw](https://www.youtube.com/watch?v=uhkKiVN3fEw)