REAPPRAISING TEACHING METHODS IN A DIGITAL WORLD

Impact of a digital strategy on employement and training

17th May 2017 - NAMUR

SUMMARY

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17th May - Palais des Congrès (NAMUR)

All conferences and workshops are presented in French and English
This programme is included in all packages of the General Assembly

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9:15 am	**Introduction by Mr Tommy HELLSTRÖM,** Interim President of WorldSkills Europe & Chairman of EuroSkills Gothenburg 2016
9:20 - 10:00 am	**Keynote speaker by Mr Karl ALFREDSSON, (Sweden)** LIN Education *The digital education of tomorrow*

10:00 - 10:30 am	Coffee break - 4th floor, "Plein Ciel" room

Ideas Forum

3 ROUND TABLES

Moderator: **Mr Pascal BALANCIER** (Belgium)

Digital Wallonia, the agency which promotes digital innovation
in and from Wallonia, will act as moderator for the conferences.

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WHERE ? FOYER - PALAIS DES CONGRÈS

	How to use skills competitions alongside training, coaching and the skills qualifications framework... ?
10:30 - 11:05 am	**Mrs Teija RIPATTILA** (Finland), Chief Training Manager at Skills Finland & Board Member of WorldSkills Europe **Mr Hervé DOCQ** (Belgium), Director Technobel **Mr Guibert DEBROUX** (Belgium), Director Forem & Vice-President WorldSkills Belgium
	Identifying needs to setting up a training programme: focus on the digital transition of skills.
11:05 - 11:40 am	**Mr Johannes FRAISS** (Austria), Skills Austria **Mr Jacques BOUNAMEAUX** (Belgium), General Manager IFAPME **Mr Jeroen FRANSSEN** (Belgium), Expert Talent & Labour Market AGORIA **Mr Georges SIRONVAL** (Belgium), Chairman Haute Ecole Schuman
	Train a trainer, the butterfly effect or how to keep moving in order to support the movement.
11:40 - 12:15 am	**Mr Jos VAN ZWIETEN** (Netherlands), WorldSkills Netherlands **Mrs Gaëlle BOULET** (Belgium), Director FormaForm **Mr Charles-Henri RUSSON** (Belgium), HEC Université de Liège - Collège Polytechnique International - IFEAS Labdec Montréal
12:15 - 12:45 pm	Conclusion by **Mr André BLAVIER** (Belgium), Digital Wallonia Communication Manager

12:45 - 1:30 pm	Lunch - 4th floor, "Plein Ciel" room

INTRODUCTION BY MRS ELIANE TILLIEUX, *MINISTER WALLONNE ON EMPLOYMENT AND TRAINING*

Gouvernement wallon

Intervention de Madame Eliane Tillieux, Ministre de l'Emploi et de la Formation

Introduction Leader's Forum – AG WorldSkills Europe
Namur, le mercredi 17 mai 2017

Mister the President,

Dear European WorldSkills Leaders,

Dear Education and Training actors,

Ladies and Gentlemen, in your titles and qualities,

I'm particularly glad, as Minister for Employment and Training in the Walloon Region, to welcome you to Namur, capital city of Wallonia, at WorldSkills Europe's General Assembly dedicated to education and training policies.

It's a fact that each EU country is responsible for its own education and training systems. However, the EU policy is designed to support national action and help address common challenges, such as ageing societies, skills deficits in the, technological developments and global competition. Education and training 2020 (ET 2020) is the European framework for cooperation in education and training. This work program was adopted by the European Commission in May 2009 and set four common EU objectives to address challenges in education and training systems by 2020:

- Making lifelong learning and mobility a reality
- Improving the quality and efficiency of education and training
- Promoting equity, social cohesion, and active citizenship
- Enhancing creativity and innovation, including entrepreneurship, at all levels of education and training.

The labour market is constantly evolving. Skills, competences, and abilities of people need to be upgraded over time. To deal with these changes people need to be equipped with a variety of basic skills, including literacy, numeracy, foreign languages, science and digital skills.

Transversal skills, such as ability to learn or initiative-taking, will help people to deal with today's varied and unpredictable careers. Entrepreneurial skills will contribute to the employability of young people in particular, and support new business creation.

It seems very important to better identify and manage the availability of required skills, competences, and qualifications, and to help preventing skills gaps and mismatches. Effective communication between the labour market and the education and training sector is vital.

I am convinced that the European WorldSkills network, by its values and its actions, contributes to foster advanced initiatives and to open mentalities. There is no longer any need to justify the added value of taking part in national, European and international competitions. Indeed, the aim of these skills competitions is to achieve excellence for young people and their Experts, through comparison with international standards. These events raise the profile and create a positive image of vocational skills among a wide audience. The competitions also offer a personal and professional experience to the young competitors and their Experts; - experience that is rewarding for themselves and their skills -.

In December 2016, I visited the EuroSkills competition which was held in Gothenburg, Sweden. Beyond the excellent results of the Belgian team (6 medals seems to be a good prize list for a small country as Belgium), I was able to note the degree to which European and WorldSkills competitions can also be an opportunity to promote the exchange of good professional and educational practices among experts in the different sectors, leaders of industry, experts in education and political representatives.

Motivated by that experience and by the fruitful nature of the exchanges initiated in Gothenburg, and notably impressed by the exchanged that I had with the managers of the Lin Education project – our guest of honour today –
This project is a true revolution based on a learning and training cloud: reverse classroom, media sharing, education and training portfolio, traceability of courses and curriculum.

I've then decided to dedicate the central theme / topic of this Leader's Forum to the impact of digital technology on skills, as well as on the "digital transition" in Education and Vocational training.

Because the world is evolving at a frenetic pace: uberization, digitization, automation, … so many changes in ways of working and of organizing businesses. In the same way, new skills are emerging, others are evolving at the same time as techniques or technologies.

Rapid digital change in our society and economy means more demand for digital skills and competences. Education and training must address these needs, which require investment, training for teachers, organizational change and the development of high quality educational resources, including apps and software. Technology, when used correctly, can also help us to better learn, more efficiently and creatively and to wider access up-to-dated knowledge.

This continuous digitization of businesses and their workers also compels vocational training to change. One of the key issues and factors in the success of digitization lies in the ability of the trainers of vocational education and training to appropriate the pedagogical uses, methods and new practices of the digital world.

This Leader's Forum of the General Assembly of the WorldSkills Europe network should, in a process of exchanges of good practices among professionals, prompt discussions and avenues

to be explored in order to make the most of the opportunities of digital technology, to improve skills and pedagogical approaches, notably through workshops and demonstration stands.

Different workshops will be moderated by our Walloon vocational training operators and will present a range of experiences and initiatives which use serious games or on-line media as new vehicles knowledge.

I am absolutely convinced that the discussions and exchanges of this Leader's Forum will be very rich and will encourage and bring to light, in turn, innovative and creative new projects to embed vocational training in the digital era.

Finally, I would like to thank WorldSkills Belgium, Francis Hourant and his Team, for their personal investment in the General Assembly leading forum's organization.

The participation of our young people in the national, European competitions or international of the network of WorldSkills allows us to valorize the talents of the competitors. The impact of success stories and the value of the example regarding raising awareness of technical and professional training has already been demonstrated. These young people subsequently become real ambassadors of the technical, technological and manual trades who contribute to the dynamics of economic redeployment of our Region.

The opportunity to welcome and to organize this event is inevitably an opportunity of demonstrating to European actors our Walloon operators' know-how regarding raising awareness, regarding promotion of the technical and technological jobs as well as the sectors of training which lead to it.

As Walloon Minister of employment and Training, I wish to view this welcome day of network WorldSkills Europe's representatives from the prism of promising fields, in the era of the digital technology, PM4.0 and Creative Wallonia.

Have a good Leader's Forum!!!

Eliane Tillieux

INTRODUCTION BY MR TOMMY HELLSTROM, *PRESIDENT F.F WORLDSKILLS EUROPE & CHAIRMAN OF WORLDSKILLS EUROPE GÖTEBORG 2016*

The Leaders Forum is a core event within WorldSkills Europe. Tommy Hellström expresses a big "Thank You" to Minister Tillieux and WorldSkills Belgium for hosting the Leaders Forum along with the General Assembly.

Bringing VET-stakeholders together creates an opportunity to share experiences and be inspired in order to further raise attraction in VET which is the mission of WorldSkills Europe. It is a common expression that we live in a period of change.

The driving force today is digitalization and it's impact on and opportunities to develop VET pedagogy and job design and content. The theme for the Leaders Forum 2017 has this approach which is challenging for the future.

WorldSkills Europe is a growing organisation and has for today reached 28 member countries and we expect another 4-5 to join in the coming years. The next big event is the Euroskills in Budapest in 2018.

PRESENTATION OF LIN EDUCATION, *TOMORROW'S DIGITAL EDUCATION*

THE COMPANY

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Started in 2008
Private company
100 employees
HQ: Gothenburg, but has also offices in Stockholm, Malmö, Umeå, and Karlstad.
Located in the old shipyard (old manufactory of engines torpedo boats), converted now into an IT industry hum.

BACKGROUND

15 years ago, the Swedish government decided to invest in digitalization.
Every person would receive a tax deduction (+/- 21%) when buying a computer for private use. Some people did a group purchase via their company and won even more.

The old government did not do much to promote digitalization afterwards. It changed with the new government, which decided to put in place a 1 to 1 policy: every child should have his own computer at school, from kinder garden (or at least from 7 years old) to gymnasium (16-19 years old), vocational training included. **Target is: 1 to 1 for everybody by 2020.**

Today :
- 13 – 19 years old: 80% of students have their own PC at school
- 7 – 13 years old: 30 – 40%.

In Sweden, the schools have to provide the students with everything they need to learn, it is illegal to ask students to bring the material from home / to pay on their own for it.

The school system depends on local municipalities. They decide who will get what kind of computer and at what age.

The founder of LIN Education (IT entrepreneur) started working with the regional government in Gothenburg, visiting the 13 municipalities of the province to convince them to make the digital switch.

ACTIVITIES

Help schools to equip students with IT/digital devices in the schools.
Once it was decided by the government to provide digital tools in the schools, the question was how to finance it.
LIN Education was originally set up to provide hardware to the class schools. The company came up with a program of **renting computers** to municipalities on a 3-year basis: easier to finance, cost is split in three, 20% cheaper, the schools give back the computer afterwards.

They have provided equipment to 250 000 Swedish students so far.

The company **also helps to reorganize the schools physically**, explaining:
- what kind of spaces are needed (students need short feed-back loops all the time when learning digitally, classrooms/spaces must be adapted accordingly),
- what else is needed (e.g. plugs for all the computers, an adequate EL infrastructure etc.).

Develop their own learning tools
Having the equipment is a first step, you need next to explain how to work and teach with the PC and ipads. LIN Education helps schools and teachers to define and choose what kind of programs to use.

They start with the core values: **What are your core values & how do you promote them in the digital world?**
- How do you promote democracy in the digital world?
- How do you become a member of the society, a responsible citizen in the digital world?
- How do you encourage civic behaviors? Gender equality?
- Ethic in social media / how to develop a critical mind regarding digital content?

How to educate students to grab the core values? The idea is: if you do not do it, you leave the floor to somebody else to do it for you. And it leads to Brexit or Trump election.

LIN Education:
- **develops its own applications**,
- but **also the future types of learning and teaching** (learning canvas, materials…) – see below.
- The company also develops **R&D on app. analysis** with local universities (Lund or Malmö (?)), to help select the best apps among all the ones available on the market.

Examples:
- Program-platform "**For Real / På Riktigt", a tool that helps teachers to develop content**. See in English : https://www.youtube.com/watch?v=90oB3b_gCvU
    o Either LIN does the content,
    o Or teachers paid by them,
    o Or everybody else but it is validated by LIN and posted in the library if good enough.
    o http://circletool.pariktigt.com (login required)
- **In vocational training**: A communication platform that helps teachers to give feed-back and grade the students while working in companies (currently in test). To solve the issue that students spend half their time at companies premises where the teachers cannot really help them.
- **Orientation** (collaboration with Worldskills): they develop the platform http://www.skillsworld.se/ : Where do you want to be in 5 years from now?
    o Goal: to help gymnasium students choosing a career.

- o 6 different vocational training areas, in Industrial techniques, Electricity & Energy, Vehicles & Transportation.
  - o Presented as a map: all job opportunities in a particular career, from technician to CEO.
  - o Works with Q&As, that the students have to answer. When they do, teachers gets a report.
  - o Each step has a video where people give feed-back about their job ('I thought I would do this when choosing that career, in reality it is more this').
  - o LIN also developed the tool to do the map, so that new maps can - easily!- be created.
- **Curriculum-driven design/agenda** : They start from a curriculum of an organization and develop the tools from there (while most of the time, people start with the tools and develop the curriculum from there).
  - o E.g. Kinder garden organization:
    - ▪ What is the digital agenda of school learning?
    - ▪ What did you do in the kinder garden today?
    - ▪ How does it fit in the curriculum /development path of the child that was at your agenda?
    - ▪ The tool also helps the teachers when meeting with the parents: at each step of the curriculum, you can see the notes, video of the kid during the year etc.
  - o E.g. Religion:
    - ▪ Among the agenda: Faithfulness and a study on ethics
    - ▪ From the student's perspective: rather than reading the Bible, the company will produce a video where you see a student wondering whether he should tell his best friend's girlfriend that he is cheating on her.

- NB1 : The videos produced by LIN are fun: they must have a certain appeal to the young generation (eg. Matrix or Star wars style videos to explain basic biology). But it also means that they are quickly outdated, there is an extra effort to be done to stay in phase with the mass culture. You cannot present a 20 years old video, as was done previously with books.
  - o All videos are produced in house. 3 levels: A grade: best videos, most of the time directly created by LIN Education. B grade (external creators). C grade: bad videos but produce by a teacher for its own purposes, students will have to watch it anyway.
  - o Sharing economy: the more a video is seen, the more money its creator will get from LIN.
- NB 2: LIN Education also helps with adult education. But not that much at universities, too far behind according to Karl.

LIN Education has helped 600 000 students so far, either with hardware or software. 35 000 (?) students use their tools right now, and 5000 employees in private companies such as Nordea or Tui. The company is **now one of the leading partners of Apple and Google in Sweden**.

Do change management in the schools.
LIN Education focuses on **strategic level: leaders, head of municipalities, schools principals**, explaining them how to challenge the teachers. So far they gave more than 1000 training days.

Karl has been an adviser to politicians in the Swedish government (not that much about whether the digitalization should happen but more how fast and when).

Maria focuses more on vocational training.

> Ex: Refugees have to learn Swedish very fast. They are digitalized (they use phones…) but the schools not that much. And they have to cope with a wide diversity of levels.

BUSINESS MODEL

LIN Education is a private company.
Income sources :
- Renting or selling computers to schools
- Insurance business linked to it: they fix the losses, broken equipment etc.
- Renting the softwares: Approx 20 euro/ student / year, includes an access to all books in the library.
- Consultancy.

LIN education gets paid by the municipalities but the contracts are awarded by public adjudications.
It is the only company in Sweden though to offer the full range of services[1]

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[1] Powerpoint presentation by Karl Alfredsson (LIN Education) in the annex

THE 3 ROUND TABLES

PANEL 1: JOBS COMPETITIONS: SKILLS EXCELLENCE THROUGH TRAINING AND COACHING IN A DIGITAL WORLD.

Moderator: Mr Pascal BALANCIER, Digital Wallonia - the platform for Digital Wallonia

> ➢ TEIJA RIPATTILA – CHIEF TRAINING MANAGER AT SKILLS FINLAND

Question 1: Is the skills competition a tool designed to develop professional training and vocational education?

As a former teacher, I have used skills competitions as an educational tool throughout my career. When I talk about skills competitions, you must understand that I am referring to more than just the competition itself. The most important thing is what happens before the competition. For example, there is training in preparation for the competition. What is more, when I refer to training, in Finland this means the everyday teaching of vocational education. Therefore, they are not one-off events which take place over a weekend or during the holidays, but part of everyday study within the vocational education system. In Finland, skills competitions also enhance our study programmes. As a result, everyone has the opportunity to develop their skills, regardless of whether or not they are going to compete.

Skills competitions are not only for the students. Indeed, they enable teachers to develop their skills, in order to act as a tutor rather than a traditional teacher. It is a new teaching method as it involves "learning by doing" and this also fosters dialogue between teachers and students.

Question 2: What are the benefits of taking part in skills competitions?

A few years ago, we carried out a study in Finland into the benefits of taking part in skills competitions. We put this question to teachers, students, educators and employees, but we also wanted to understand what they offered on a societal level. On an individual level, they are, first and foremost, a learning method which creates interaction between teachers and students. Taking part in skills competitions also enables links to be forged between schools and businesses, and fosters professional pride among teachers and students. In turn, this enhances the entire vocational education and training system in Finland.

Finally, on a societal level, they have the advantage of training students to become skilled workers. In Finland, we currently have a high school dropout rate, particularly among young men aged 16. However, if we manage to save just one of these young men through support from teachers, vocational tutors or skills competitions, society gets a skilled worker, and this represents a return on the money invested in this young person.

I believe that skills competitions are open to everyone. It doesn't matter if you are a student with special needs, whether you learn quicker than the rest, or whether you learn slower. People learn by doing, by reading and by writing. Therefore, they offer good value by enabling each and every student not only to find their own way of learning, but also to discover their passion in this world. Finally, they enable every student to develop a professional skill.

➢ GUIBERT DEBROUX – DIRECTOR OF FOREM & VP WORLDSKILLS BELGIUM

Question 1: As Vice-Président of WorldSkills Belgium, how does competition help to develop technical skills?

I believe that competitions are, without doubt, very important, but we need a more comprehensive system-wide approach. Competition for competition's sake only benefits the competitors. But what about everyone else? We have taken top-down and bottom-up approaches. This means that people at the basic level should also notice a slight shift in their frame of reference. In Belgium, we have noticed that without a comprehensive approach, competitions have little effect on the system as a whole. In other words, competitions should serve as an example. Furthermore, the reality on the ground is that there is a gap between the lowest and highest levels which must be bridged. We have made this our main goal.

Question 2: To what extent is it possible to promote the implementation of this beneficial competitive approach to learning in Wallonia?

I have no answers. Furthermore, one of the main problems we face today is the image of competition. In short, competitions and the those taking part in them are viewed as elites. In certain cases, competition is not seen as an example, but as something inaccessible, or at least less accessible, to certain people. There are several potential ways of bridging the gap I mentioned earlier, such as using compulsory teacher training days and including specific modules on competition and its benefits in terms of soft skills. Finally, the training in new teaching methods is another area which could be improved, as this would give teachers the skills to do more than they so now.

Question 3: Why do you think that skills competitions can change the world?

Evidently, competitions very between countries. At WorldSkills Belgium we are trying to build a VET community, because the focus of the media, journalists and sponsors is mainly on events. I believe that events are complex, and that is why we must build something stronger and more permanent.

➢ HERVÉ DOCQ – DIRECTOR AT TECHNOBEL

Question 1: *You have experienced many competitions.* You have compiled a series of *factors for ensuring the success of the operation from a pedagogical point of view. Can you tell us about these experiences and what you have taken on board as the key factors to adopt?*
We have three specific types of competition: NetRiders, Lego and Hackathon. Above all, competition is a tool. In educational terms, it generates enthusiasm among participants, which we must harness. We must also take advantage of this enthusiasm before and after the competition, because competition for competition's sake is pointless in my opinion. Support must be provided both to those who win and those who do not. Therefore, one of the most important factors is providing support before, during and after the competition, as the aim of these competitions is to create a personalised environment for each competitor. Therefore, while they are very rewarding there is a need for support during the competition.

Question 2: *Teja mentioned a series of learning benefits resulting from the use of this competitive approach. As you have experienced competitions involving young people and people in employment, what have been the unexpected concrete benefits, other than learning, in terms of confidence, well-being or soft skills?*
I have to mention one specific competition, the successful Hackathon on the subject of "the internet of things", which employees from my company took part in. Today, the employees who took part in this competition have a proactive approach to their roles, which is beneficial and could be developed on a larger scale. If I link this back to the competition, I could say that this is a result of doing something real and coming into contact with the world of business. The competition provides access to a wide range of experts with different backgrounds and perspectives. This generates enthusiasm and a desire to do, which lasts long after the competition ends. They have become spokespeople for innovation.

Question 3: *What should you do to make sure the focus is not only on one-off activities?*
On a strategic level, we are now looking at how to take on board the results of these competitions, the products of these events. Following the competitions mentioned above, we have launched several real projects. We try to make these elements part of our strategy. In concrete terms, this means developing a "maker space", which would enable all types of people- job seekers, young people, workers- to come together and take part in this experience. Consequently, cooperation and co-construction are the elements of strategy which we must focus on. We must bring this space to life and enrich the one-off competition aspect with other micro-events or other dynamics within the centre. In other words, it is a space which allows all sorts of people to take part in these experiences, and which is founded on co-construction and cooperation. This is part of our strategy and is something we are considering.

PANEL 2: FROM IDENTIFYING NEEDS TO DETERMINING TRAINING PROVISION: A FOCUS ON THE DIGITALISATION OF THE WORKPLACE.

Moderator: Mr Pascal BALANCIER, Digital Wallonia - the platform for Digital Wallonia

➢ JOHANNES FRAISS – OFFICIAL DELEGATE OF SKILLS AUSTRIA

Question 1: Does everyone need digital skills or should we only focus on those who specialise in IT? What do you think? What would you choose to prioritise?

Allow me to say a few words on the situation in Austria before answering the question. In Austria, we have a long tradition of vocational education and training. Indeed, 80% of young people between 15 and 19 are enrolled in VET programmes. Of this 80%, 40% of young people are on apprenticeship programmes, and the remaining 40% are on conventional VET courses. Since I first became involved in VET in Austria and in Skills Austria, I do not think I have found a single profession which does not require these skills as part of the training or everyday work of the young people concerned. The advantage of apprenticeships is that the young people are closely monitored and are faced with the reality on the ground, since they are in a company. Ultimately, no company can afford not to react to the needs of the market for fear of failure. Finally, I believe that in Austria we have a strong tradition of adapting to meet the everyday needs of the market and the everyday needs of companies.

Question 2: How does Skills Austria tackle challenges? Is the development of digital skills in young people and children the primary challenge? Is the digital transformation of work a secondary challenge?

Skills Austria is part of the Austrian Federal Economic Chamber. The VET sector is very broad and is a very important part of the Austrian education system. Among the various networks belonging to the Chamber, Skills Austria is strongly involved in the development of new study programmes and the transformation of existing ones. Modifying courses is a long and tiring process. For example, courses in retail have remained more or less unchanged over recent decades. However, we are faced with an economy which has undergone profound changes, such as e-commerce, which is becoming increasingly important. However, we continue to teach retail like we did in the 1970s. Our aim is to collect feedback from companies and involve them in the development of courses, while engaging in dialogue with social partners and Ministers, as well as representatives from the authorities. After a few years of discussion, we have managed to establish an e-commerce programme.

With regards to skills competitions, we try to react to them on a daily basis, and we aim to gather feedback from the companies almost immediately. The Austrian Chamber Network manages a large network of training facilities/equipment. As a result, we aim to reflect ongoing developments and the challenges to come. Finally, we have used skills competitions to react faster to changing study programmes, because the process for changing a programme in Austria is ordinarily very long.

Question 3: Is Austria experiencing new ways of working (teleworking, co-working)? Do these have an impact on skills development?

Although it is difficult to provide a comprehensive answer to this question, I believe the development we are seeing in Austria is largely similar. There are differences between professions and between skills. Evidently, we are faced with this great change in working practices on a daily basis, particularly in international companies. Consequently, there is a need to react, adapt and redefine our own ways of working. This not only means co-working within a company, but also co-working between companies. Overall, I believe that Austrian companies have generally been successful up to now. In the long term, good entrepreneurs are always those who react to new challenges and new demands.

Question 4: What pedagogical approach do you use?

In my opinion, there is a need for experts here, just like anywhere else. Tutors with practical experience in the industry are sometimes experienced in pedagogy, but sometimes they are not. Sometimes, experts are needed to reform a training programme, a way of thinking or even how we prepare for a competition. We also use these experts in Austria.

Question 5: Failure should be an option. Can you expand on this?

Absolutely, failure should be an option and I believe that failure is an option in the majority of our everyday work. Indeed, new products and new ideas always emerge through trial and error. If error was not an option, we would carry on producing the same ideas and the same products forever. In fact, I would go as far as to say that it is the core of the modern economy.

➢ JEROEN FRANSSEN – TALENT & LABOUR MARKET EXPERT AGORIA

Question 1: Does everyone need digital skills or should we only focus on those who specialise in IT? What do you think? What would you choose to prioritise? What are the needs of business?

Business leaders tell us they face a double challenge. The first is quantitative, as there are not enough applicants for IT positions. The second challenge, which leaders and businesses consider even greater, is qualitative. They are looking for specialists with in-depth knowledge of new subjects, but they also want soft skills. Therefore, young people must be capable of working within this economy, understanding the client (being close to the customer), and taking on board a new spirit (servitisation), as well as having analytical and problem-solving skills.

Tackling the quantitative challenge requires the horizontal and experimental integration of ethics and logic in education from the age of four. In this way, today's young people would automatically become accustomed to the impact of digital technologies on our everyday lives. In terms of the qualitative challenge, however, I believe the solution must include maximum interaction between the young person and the company, as early as possible, for as long as possible and in the most creative way possible. For us, the key words are "interdisciplinary projects".

In other words, there is a need to demonstrate, from the age of 4, the impact of digital technologies, let children experiment, show them that they can play a role in this digital world. The next step would be to develop their specialist skills, both in terms of technical specialisms and soft skills. The business themselves are willing to assume a great deal of the responsibility in this area.

Question 2: You have spoken to us about the "New Way of Working". Can you tell us more about this?

The way we work is changing rapidly. These days, we almost never talk about positions or contracts, instead referring to roles played in projects. We also speak about flexibility and employability. As a result, the skills which an individual need are no longer strictly associated with a single position, but rather with the ability to take on various roles in different projects within a company. These roles and this flexibility can also help us understand the significance of a wide range of skills.

Question 3: At Agoria, you developed a list of success factors for developing skills and performance in trainees, in particular young people, from a societal and professional point of view. Could you outline these 10 factors?

I will start by saying that the key element is experience, which leads to success and can also help guide career paths. I therefore believe that failure must be an option in education and VET programmes for young people. They need to feel comfortable with the idea of failing.

Now, I will list the 10 skills. However, I must stress that not every professional requires these 10 skills. Ideally, these 10 skills would be present within the team:

1. Critical thinking: because we are faced with a large amount of information from different sources.
2. Spirit of sharing: we must share our goals.
3. Empowerment: we can see that many young people lack self-confidence. It is therefore important to encourage them to take steps towards self-empowerment.
4. Rapid adaptation to change: we want young people and professionals to see change as an opportunity.
5. Solution mindedness – pragmatism: today, the economy demands that we find solutions as quickly as possible, while ensuring the quality of the solution. What is more, project work, problem solving and the struggle to resolve difficulties are also very important.
6. Free thinking and intelligent action: using innovation and curiosity to do something useful, such as drawing conclusions or taking action.
7. Communication without borders: not only languages, but also the ability to understand people from different cultures, and gauge what they expect from a potential collaboration.
8. Technological and digital literacy: beyond technological and digital literacy, there are many skills which must be developed.
9. Working together: not only with a team, but also with a virtual team or in joint business projects.
10. Care: paying attention to projects, the company, customers, and surroundings, as well as yourself.

➢ CORINNE STEPHENNE – DC INTERNATIONAL RELATIONS DEPARTMENT-IFAPME (WALLONIAN INSTITUTE FOR WORK/STUDY TRAINING FOR SMALL AND MEDIUM-SIZED ENTERPRISES)

Question 1: IFAPME has established a digital plan. What approach have you adopted in this plan? Sector by sector? Cross-sectional?

For the years 2017 and 2018, IFAPME is committed to continuing of all current investment in technological development. We are not starting from scratch. We have adopted an approach which is both cross-sectoral and specialised by profession, in which the whole team of IFAPME pedagogical consultants have analysed the changes to each sector in regard to the range of training courses on offer. The question which came to the fore was how to know what measures could be taken to develop a digital culture among young people, older people and workers. For young people, we have established a frame of reference for basic skills in terms of the use of IT and digital communication tools. This frame of reference includes 7 or 8 modules We have also extended these modules where the impact of digitisation on a profession is particularly significant.

Jobs in the IT sector were mentioned. It is true that a whole range of new jobs are emerging in the IT sector, creating employment opportunities for young people. Our range of courses must open up to new subjects while transforming the existing ones, and provide young people with fundamental digital skills. For example, in general French language classes, the decision was taken to use IT tools to revise grammar. In the initiatives which are currently being implemented, we have noticed that the use of digital teaching tools is a great motivator for young people. They enjoy learning using communication technologies. I believe that we should use this motivational tool to aid learning.

We collaborate with other organisations in Wallonia, including FormaForm, who we are currently working with to establishing a lifelong learning programme, as professional training courses are directly affected. This presents an opportunity for all of our tutors to renew their teaching methods and enhance their courses, while enabling young people to understand that manual jobs also require technology.

Question 2: Have you had to make changes to your courses and digital skills in line with these new ways of working at IFAMPE?

Yes, the main challenge is knowing how to implement this type of business model as the founder of a company. How does a business become digital? At IFAPME, our approach is mainly based on lifelong learning, and those who attend our courses are self-employed individuals or small business owners. We usually offer them training in how to draw up (or revise) a business plan, or training about running a business. In my opinion, there is another huge challenge to be tackled in terms of lifelong learning-how to organise training for the entire workforce within small businesses. In order to do so, we need to educate people, creating increased awareness. As a training provider, we act as a significant catalyst, along with other organisations. Furthermore, we must be aware of the huge scale of the challenge; for the year 2017 alone, it represents 13,000 additional hours of training. I also believe in the importance of drawing on a regional strategy, such as the regional digital plans which provide support for the expansion of a digital economy.

Question 3: I imagine that at IFAPME, you are faced with the issue of raising the self esteem of your trainees.

Of course, it is a daily challenge. Today, we are discussing technical skills, key skills and digital skills. We also offer supplementary modules such as entrepreneurial spirit and business spirit. Entrepreneurial spirit includes a whole series of behaviours: creativity, teamwork, a sense of responsibility, perseverance, independence, self-confidence. In a way, it means taking on practical projects. What is more, as an organisation we focus on work-based learning so young people learn by working, in other words "learning by doing". We are constantly working to promote this practical, project-based learning, in order to enable learners to take control of their own training programme and career plans and gives them the opportunity to work within a company in constant motion. I believe that integrating a 15-year-old into the team is a challenge both for the young person and for the company taking them on.

Question 4: You also mentioned the extremely positive impact of digital technologies as a motivating factor for your trainees. Do they also have a positive impact in terms of the various objectives which you mentioned, such as creativity and planning. How do you encourage and supervise this?

I refer back to one of the priorities for action in our digital plan, which is creating a digital culture. In order to do so, we must use the general sessions and introductory classes to try to put the young people in the project mindset. For example, we put them in a situation where they must solve a problem themselves using digital tools.

We must be aware that there is a need for great infrastructure investment in order to move forward in this direction.

PANEL 3: TEACHING THE TEACHERS, A BUTTERFLY EFFECT, OR HOW TO KEEP MOVING IN ORDER TO SUPPORT MOVEMENT.

Moderator: Mr Pascal BALANCIER, Digital Wallonia - the platform for Digital Wallonia

➤ JOS VAN ZWIETEN – WORLDSKILLS NETHERLANDS

Question 1: Your position at WorldSkills Netherlands leads you to favour the integration of skills competition methodology in professional training. In the Dutch education system, are conventional studies and professional norms required in order to practise as a licenced professional? Or is it more complex?

Firstly, let me explain the situation in the Netherlands. In 2015, The Minister for education launched a programme to encourage VET institutions to develop excellence. As a result, VET institutions had more money to develop programmes which aimed to help students get the best out of themselves. One of the methods used to achieve this was skills competitions. When developing the excellence programme, we also realised that there are many different ways of defining excellence. It has may facets. Initially, numerous discussions took place in an attempt to establish if it was worth dedicating so much attention and investment to institutions so that such a small number of students to take part in competitions.

The other factor is the professional behaviour of teachers. Indeed, as is so often the case during educational reforms, the question of teachers came up. They must "practice what they preach". This is why I am strongly in favour of the idea of developing a standard of excellence for teachers. By doing so, students are able to see their teachers developing and becoming the best in their field. In short, I believe that this goes far beyond traditional teacher training.

Question 2: You told me that there is still a lot of work to do in the Netherlands in order to promote skills competitions. The main point is training the tutors. How are you tackling this issue? Do you organise skills competitions for the tutors?

We are doing several things to tackle the problem and skills competitions are one tool. We are trying to reach out to as many teachers as possible in order to encourage them to use skills competitions as part of their teaching practice. For example, we encourage them to organise competitions within their class. Therefore, we must reach out to teachers from a teaching practice perspective, and not one which simply views competitions as an event.

Question 3: How should or could teachers develop their own skills in order to practice what they preach when educating young people? And how can we support them in achieving professional excellence?

One thing we could do is develop our own professional standards. I was involved in the creation of professional standards for teachers in the subject of "Butchery". The most important thing was for the professionals themselves to explain what is the highest level within their industry. I think that this may prove to be a challenge, as the teachers themselves have clear views on teaching standards. In the Netherlands, we have had numerous discussions about teacher training courses, and we have also

observed that there is no specific programme of study to become a VET teacher. What is more, becoming a VET teacher means that you must master both the trade and teaching skills.

Question 4: Is it important for teachers to collaborate, co-create and engage in dialogue? Is this one of the key points?
Yes, on the one hand among themselves and on the other with representatives from small businesses.

Question 5: We have spoken about monitoring, VET education and coaching. Do you have another word to add to this list?
The word which comes to mind is "expertise". For example, there is not a great deal of research into the use of the skills competition methodology in the classroom on an everyday basis. We have taken the initiative by launching a new Erasmus + project, in which we have used the results of the TOSCA project, focusing on the instruments used by the teachers. Therefore, putting teaching skills into practice requires expertise. Ultimately, these skills could be used by teachers to enable them to become better at their job. In other words, we must develop expertise on the basis of research.

> GAËLLE BOULET – DIRECTOR, FORMAFORM

Question 1: Today, vocational tutors and teachers are ambassadors for the training and learning strategies which we want to implement. They must also be trained and supported to become the practitioners we want to see. What is the current attitude of tutors at FormaForm?
The attitude of tutors has changed dramatically in recent years, and we are realising that we have come a long way from the schoolmaster who taught others and imparted their knowledge. Tutors today are far closer to their students and even learn from their trainees. At FormaForm, we aim to promote collective intelligence through our methodologies and our teaching approaches, by pushing each learner not only to share their knowledge and skills, but also to learn from each other. Thus, the tutor becomes more of a mentor, someone who provides students with the methods and tools for sharing, understanding, redeveloping and innovating; they are certainly no longer seen as the person who "knows it all".

Question 2: What measures have you put in place to support this approach?
Traditionally, at FormaForm, we have offered a range of lifelong learning courses, consisting of initial training courses called "core subjects" on the one hand, and other continuous training courses on the other. Within the continuous training courses, we aim to promote three types of approach: participative approaches, flipped classroom approaches and project-based learning approaches. Therefore, there is a whole series of different methods which we can use within our conventional training courses in order to enable the teacher to act as a mentor.

What is more, we are increasingly developing different learning methods such as knowledge sharing in the form of conferences, debates, mentoring, trips, observation tasks in pairs and practical exchange. Finally, we have established a learning support scheme, which offers tailored mentoring for trainees who find it hard to apply what they have learnt in the workplace, or those who want to develop a business idea. In this way, we are trying to diversify our range of learning methods, in addition to the training courses which remain our core business.

Question 3: Can you envisage competition also becoming a means of training and supporting teachers? Until now, we have spoken about strategies of dialogue, collaboration, co-construction and co-creation. Could these be placed into a Hackathon-style context?

Certainly, it is already a reality here; two weeks ago we took part in our first "Créathon" innovation competition. Part of the FormaForm team participated in the Créathon for the first time. It was a very rewarding experience for the team. We saw how in 12 hours we achieved what would ordinarily have taken 6 months of endless group work sessions. We have also made progress towards a virtual learning solution which we believe could have a significant impact in terms of motivating trainees.

We also hope to mobilise groups of tutors to devise teaching methods and pedagogical tools. We have seen that this was very rewarding and highly effective in terms of results (Team Building and concrete results).

In a short space of time, we were able to share practices, knowledge and support. It has been an opportunity for attendees to share a wide range of knowledge. There were 200 teams, and their international nature has opened participants' minds to new knowledge. I must also stress that the competitive element means there is a need for support before and after the event.

Question 4: This type of competition represents a transformative experience for those who take part, as the teachers develop their skills. Is this also the case for the organisation as a whole?

Of course, and it is a true opportunity to learn by doing. It is becoming increasingly clear to me that we learn most when we are working and casting a critical eye on our own work. In all of our courses, we aim to promote this kind of reflection, and to put people to work using shared tools and methods which each of them can adapt to their own situation, while always maintaining the critical approach which enables them to move forward.

Question 5: We have spoken about monitoring, VET education and coaching. Do you have another word to add to this list?

Yes, the word "game", which we have not yet mentioned, but which we believe to be fairly central. In this context, I am talking about the virtual and physical senses of the word game. These games have undergone rigorous tests and are very effective in terms of the professional development of tutors on the one hand, and when used by tutors with their trainees on the other.

What is more, managers also play a crucial role. Indeed, we often forget the manager in plans for the professional development of tutors, when the impact of our work to train teachers is neither relevant nor real unless the manager prepares, monitors and supports tutors before, during and after their training. Today, the tutors I meet at FormaForm do not have enough support and their training does not get enough recognition from their managers. In my opinion, this is an aspect which requires improvement, and is something for us to work on. In other words, we must support the manager in developing the skills of their teachers.

Question 6: In your opinion, are managers sometimes unaware of certain issues?

Yes, they are not sufficiently aware or sufficiently conscious of challenges, or simply do not have enough time as they are already involved in other important activities. There are also problems with organisational policy. We must decide on a focus. Managers must be supported in doing so, in order to offer genuine training pathways. When they send a tutor on a training course, they must be sure that it is part of a long-term training pathway, and that this course forms part of a wider development

plan. In this way, they can bring new skills to their team and, perhaps, reap the benefits of having a multidisciplinary team, through their choice of training options.

➢ ANNICK BERTRAND – LE FOREM

Question 1: Your role is to promote lifelong training by providing follow-up support, and you have implemented a whole series of initiatives for sharing and collaboration. Can you tell us more?

Of course, I am part of a team of learning coordinators. Our main objective is to support tutors, both during their training and when they return to the workplace. What is more, we support the tutors to help them to incorporate what they have learnt into their professional practice. We aim to work on three main levels. The first level is aimed at teachers who want to discover new techniques and new teaching methods, but prefer to do so gradually. Our role is to support them in person during their training, in order to remove technical barriers and barriers to innovation. We try to make this first experience a successful one which will leave them wanting to go further. This first level is all about trying out new teaching methods.

The second level is for tutors who have already tried various teaching approaches and who really want to incorporate these into their pedagogical approach. In this case, we support them by discussing practices and through knowledge communities. We give them the chance to visit other institutions and observe how other tutors incorporate these methods into their teaching.

Finally, the last level is aimed at tutors who use new teaching approaches on a habitual, everyday basis. However, they want to incorporate the trainees into their approach and adapt their new pedagogical style by working with their trainees. In such cases, our approach focuses more on project management: taking the training plan as a whole and rethinking it together, working not only with other tutors, but also with the trainees, in order to ensure that the entire training programme is coherent.

Question 2: In your experience, what factors motivate people to take action, in particular those who are at the beginning of their acculturation process?

One of the main factors the joy of doing and of trying new things. We everything runs smoothly and that placement students are happy to participate. There is also the technical side of things which is crucial- we must ensure that the technology is easy to use. Some tutors are scared of using certain tools for fear of technical difficulties. We therefore need to work with them to prepare. Generally, we try to meet in the classroom before the day of the lesson to ensure that everything is working properly and to reassure them about these tools. By doing so, we adopt a "one step at a time" approach, incorporating small elements in their lessons rather than transforming them. The goal is to ensure that the experience is a success, which will motivate them to go further.

Question 3: Do you carry our regular monitoring? In your opinion, what is the role of monitoring in the process of supporting the professional training of teachers? Central? Very marginal? Marginal?

Monitoring is already central. We would like to work to make it very central. We are also planning to implement collective monitoring, which is a priority for this year. At present, we have a number of individual monitoring processes at

FormaForm. As we have already mentioned, we are working hard to implement collective monitoring, in order to combine all of the benefits acquired through monitoring. This is especially important for level 3 teachers, as at this level we are supporting them. What is more, level 3 teachers aim to foster a capacity for adaptation in their trainees, so that they will be able to successfully adapt to changes in society. Monitoring is therefore a key factor in the ability to adapt to the changes which await us in the coming years. The Créathon, for example, is an opportunity for sharing ideas and joint discussion on the subject of monitoring. In concrete terms, we are working to develop more efficient, more relevant tools which will be more sustainable in the long term.

Question 4: We have spoken about monitoring, VET education and coaching. Do you have another word to add to this list?

Yes, sharing. At FormaForm we are working hard to develop and foster a culture of sharing. We would like to work on this concept, because it will be essential for our teachers in the years to come as they will have to teach many class hours. This means that the time they can devote to producing and designing courses is often limited. Therefore, the ability to share represents a very useful opportunity, meaning less planning, as well as mutual support. It represents a way of strengthening their desire to produce innovative material and offer training pathways and routes which dare to move towards greater individuality and personalisation, which dare to adapt. We are making great efforts to foster this sharing culture among our teachers.

Intervention by the moderator: Annick Bertrand is referring to plans for a shared platform based on a tripartite agreement signed by the Government of Wallonia and the Wallonia-Brussels Federation. This project aims to establish a cross-sectional shared platform for workers throughout the education and training sectors in the Walloon Region and the French Community.

CONCLUSION

➢ BENOIT HUCQ – DIRECTOR OF DIGITAL WALLONIA

In conclusion, I will summarise the points which emerged from the round tables. The first round table focused on skills competitions. The participants clearly stated that competition for competition's sake is not of great interest. It must form part of a learning process in which the participants are coached before and during the competition. What is more, the competition must be a crossroads where 4 elements come together: the development of participants; teachers who use competition as part of their educational approach in order to motivate students; companies who increase the appeal of competitions and, finally, society, since competitions are clearly used to connect students to an international network, enabling them to build on the work already done by students and teachers.

It is worth nothing that while competitions offer the possibility of winning a prize, they also bring together the 4 elements above in the same place and at the same time. I have noticed that in certain countries, such as Austria, competitions are incorporated into the education system. In Belgium, this is not yet the case.

The second round table focused on the shift towards digitisation in teaching programmes. We can recognise two distinct trends with regard to these programmes. The first entails developing pure IT skills and the second focuses on the development of skills for adapting to the transformation of professions by digital technology. Indeed, it is widely accepted that more and more professions are being transformed by digital technologies and that digital learning is becoming a core subject like language or mathematics. It is therefore referred to as digital literacy.

It was also noted that there is clearly still progress to be made, both in terms of pure IT skills and digital literacy, due to a lack of skills, as well as current levels of ability, which remain insufficiently developed. The participants demonstrated that many steps are already being taken with the aim of promoting digital literacy from a younger age. What is more, these questions of study programmes and of the transformation of professions by digital technology also present an opportunity to forge links between schools and businesses, as the latter can give clear examples of how digital technologies are transforming certain professions. Therefore, there is a clear need for strong links between schools and businesses, in regard to these changing professions, not only in lifelong learning and training programmes, but also in compulsory education. It was also noted that digital technology requires a high level of curricular flexibility. Finally, digital technology brings with it new ways of working, doing business and being an entrepreneur. This leads to the emergence of skills which will becoming increasingly important.

We also tackled the question of the pace at which startups adapt. Starting a business is a process in which the chance of failure is around 95%. Therefore, if they want to launch an innovative startup in this economy, young people must work to develop their ability to adapt quickly, as this is clearly the nature of a startup: failing and starting again.

The third-round table focused on teacher training. "Learning by doing" is also important for the tutors themselves. The latter, particularly those working in the fields of digital and skills-based learning, have a new role (interaction, shared learning, motivation, sharing best practices,

flipped classroom approaches, openness to innovation, monitoring, etc). Finally, we must effectively encourage tutors to strive for excellence, both in terms of their trade, that is to say the technical field that they teach, and also in terms of their educational approach and the way they use tools to teach this trade.

I would now like to introduce the Digital Wallonia Programme. In Wallonia, in cooperation with the government, we have created a regional strategy concerning the impact of digital technology on the field of education, as well as the wider economy and public services. This strategy, called Digital Wallonia, was established 2 years ago and has received 500 million euros of funding for 4 years. Under this strategy, a platform was created one and a half years ago, in order to share best practices in the field of digital technology in Wallonia, while highlighting the strengths of businesses in terms of delivering these digital products and services.

This strategy focuses on 5 elements. Firstly, it focuses on business (and not only the digital sector), with the aim of strengthening it by improving provision in the field of IT. The second element is the transformation of the economy. We are cooperating with various different industries in order to demonstrate the opportunities that digital technologies present to businesses. The third element is the territorial aspect, and the fourth element concerns public services. Finally, the last element is developing skills at all stages, developing jobs and, ultimately, developing the competitiveness of people within the job market.

Focusing on the topics of skills and employment, Digital Wallonia is founded on a clear rationale. The first element is understanding the starting point by gathering information about the facilities of a school (equipment, networks, etc.). The second element is teacher training. Indeed, it is essential that we have an impact on teaching methods and the way in which digital skills are used in teaching. The third element focuses on how to enhance practices in terms of digital learning skills with the help of new tools, sharing platforms, e-learning, etc. The fourth element is developing digital literacy throughout life, so that we can recognise how all professions are changing. What is more, vocational education must also adapt to the changes which digital technologies are causing to professions. These 5 elements form the basis for the plan we launched a year and a half ago.

The various measures laid out in our strategy are recognised in both areas of education: digital learning in what is commonly known as compulsory schooling (the traditional system), as well as in the vocational training sector. In addition to the "pooling of resources", there are other elements which deserve to be highlighted, such as "digital skills for all", in particular through operation Walcode. Essentially, there was a desire for structure, logic and coherence throughout core training, compulsory training and lifelong training.

In 2016 we launched a new digital equipment programme (WiFi and teaching tools), as well as launching operation Walcode. We have also relaunched our digital spaces with a focus on digital literacy for all and launched a Master's in cybersecurity.

I truly want to emphasise the fact that we have created coherence, not just in terms of equipment, but also with regard to teaching methods and the use of digital technologies in learning. In terms of our plans for 2017, the current key points are: funding applications for teaching tools (1200 schools applied and we must select 500 projects for 2017, but we will also fund 500 projects in 2018, 2019 and 2020).

As you can see, there is a high success rate! We are working with the administration team to decide which projects will be selected this year. We also have initiatives which provide support in terms of infrastructure for the use of digital technology in schools. Then there is operation Walcode. Finally, we are in the process of launching a barometer in schools this month, and we will receive the results after the summer. This will enable us to gauge the current situation on a practical level and in terms of best practice. Finally, we have a platform for sharing e-learning courses for continuing professional development.

In terms of events, we will be present at the *salon de l'éducation* event in October with the aim of sharing good teaching practices.

Finally, the focus should not only be on teaching and the use of digital technologies in education, but also on educating students about digital technology itself, which is part of digital literacy. The new core skills syllabus includes this aspect. Evidently, it must be incorporated into the study programme. Beyond these projects, there is a genuine desire to incorporate digital technology into teaching practice in a sustainable way, as well as focusing attention on educating students about the impact of digital technologies on various professions which have been effectively transformed.

WORKSHOPS

Conférences   De 13:30 à 16:30

Des formateurs professionnels spécialisés donnent des conférences de 30 minutes sur les 4 thèmes suivants :

13:30-14:10	**Formation de tuteurs en entreprise** Mme Corinne Stephenne (Belgique), DC International Relations Departement IFAPME
14:15-14:55	**Méthodologie d'apprentissage en alternance en lien avec le numérique** Mr Christophe LADURON (Belgique), Chercheur, coordinateur et formateur Haute École Albert Jacquard (HEAJ) & Université de Liège (ULg)
15:00-15:45	**Soft skills : savoirs-faire comportementaux** Mme Christine PIRET (Belgique), Coordinatrice éducation FormaForm
15:50-16:30	**Perspectives et pistes de développement pour la formation des formateurs** Mme Gaëlle BOULET (Belgique), Directrice FormaForm

16:30	Networking et réception - 4ᵉ étage salle "Plein Ciel"

CORINNE STEPHENNE – *DC INTERNATIONAL RELATIONS DEPARTMENT IFAPME*

From identifying needs to determining training provision: focus on the digitisation of the workplace.

Plan numérique IFAPME
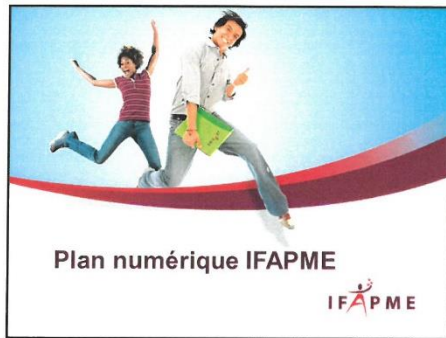
IFAPME

Contexte

Le Plan Numérique IFAPME s'inscrit dans **l'axe V du Plan Marshall 4.0** visant à soutenir l'innovation numérique et dans la stratégie numérique pour la Wallonie.

Plus concrètement, l'IFAPME a principalement élaboré son plan numérique en référence au thème « Compétences numériques et emplois » visant à :

- Doter les écoles et centres de formation équipements et en infrastructures de pointe.
- Assurer l'acquisition de compétences numériques chez tous les Wallons, à chaque étape de leur vie et de leur parcours.

PLAN MARSHALL 4.0

Plan numérique wallon: Digital Wallonia

- 5 cibles, 9 objectifs stratégiques, 23 axes et 50 mesures

1. Secteur du numériqueSec
2. Economie par le numérique
3. Administrations publiques
4. Territoire connecté et intelligent
5. Compétences numériques et emplois

Structure du plan numérique IFAPME

Six mesures principales structurent le plan numérique IFAPME. Elles sont déclinées comme suit:

- Formation Continue
- Projet Digital compétences
- Adaptation/ création de référentiels
- Projet DIGLEARNWALL
- Partenariats
- Projet apprenants sans alternance

PLAN MARSHALL 4.0

IFAPME

Objectifs & impact du Plan Numérique IFAPME

1) Faire évoluer catalogue de formations

2) Accompagner les formateurs

3) Développer les partenariats sur les axes numériques

4) Equiper les Centres du Réseau IFAPME en outils numériques

IFAPME

Gestion opérationnelle du PNUM IFAPME

- Budget en construction pour équipements hardware et software généraux et sectoriels avec priorisation des investissements dans chaque centre en 2017
- 8097 h de formations sont programmées au travers des offres PNUM de chaque centre pour l'année civile 2017
- 10871 h de formations seront à programmer pour l'année civile 2018

IFAPME

Actions du PNUM IFAPME

Formations:
Adaptation des référentiels visant des thématiques et l'usage d'outils numériques spécifiques principalement dans les secteurs de l'informatique, la vente, cours généraux, service aux personnes, alimentation.

Équipement:
- ✓ des labos spécifiques pour métiers à fort impacts numériques (Informatiques, Arts et Spectacles, Vente et Services aux entreprises, Alimentation, …)
- ✓ des labos informatiques pour cours généraux et de gestion et des terminaux numériques digitaux (TBI, rétroprojecteur HD réseau, …) pour une didactique innovante

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IFAPME

Trois grands projets organisant les actions du plan numérique IFAME

1° Projet **DIGCOMP**

Objectif :
Développer les « compétences digitales selon des modules visant l'acquisition des compétences de base de l'outil informatique et du Web.

Formation et public cible :
Formations sectorielles et pour les cours généraux/gestion pour l'année scolaire 2017-18
- Public : APP /APP sans patron/ CE / FC Salariés PME
- Continuité en 2018 avec évolution du référentiel DICOMP
- 6000 h

IFAPME

Trois grands projets organisant les actions du plan numérique IFAME

2° Projet DIGLEARNWALL

Objectif :

Utiliser des ressources digitales à distance à partir d'un centre de ressources informatiques en centre et aussi en privé pour remédiation en grammaire français , en dictée et langues étrangères, ...

- Accès à la plateforme Wallangues : nouveaux outils accessibles en septembre tel que ORTHALIA, ...
- Accès à des plateformes LMS (Learning Management System) existantes : MOODLE, Claroline Connect, ou sites de formation à distance (Sectoriels FFC, IFP, ...)

Formation et public cible

formateurs : sectorielles et pour les cours généraux/gestion pour l'année scolaire 2017-18

- Public : APP /APP sans patron/ CE / FC Salariés PME
- Continuité en 2018 avec découverte d'outils elearning
- 2100 h

PLAN MARSHALL 4.0

IFAPME

Trois grands projets organisant les actions du plan numérique IFAME

Projet TRANSNUM en étude et à mettre en œuvre en septembre avec FORMAFORM.

Objectif : développer la culture (ambiance didactique) numérique interne dans les centres et de garantir « l'Agilité Numérique » minimale des formateurs du Réseau IFAPME.

PLAN MARSHALL 4.0

3

CHRISTOPHE LADURON – *RESEARCHER, COORDINATOR AND LECTURER, HAUTE ECOLE ALBERT JACQUARD (HEAJ) & UNIVERSITÉ DE LIÈGE (ULG)*

Work-based learning methodologies using digital technologies

Méthodologie
d'apprentissage
en alternance
en lien avec le numérique

Worldskills Europe
17 mai 2017
Namur

world**skills**
Belgium

LADURON
Christophe

Pédagogie
Intégration des TICE à l'apprentissage

@CLaduron

LIÈGE
université

IFAPME
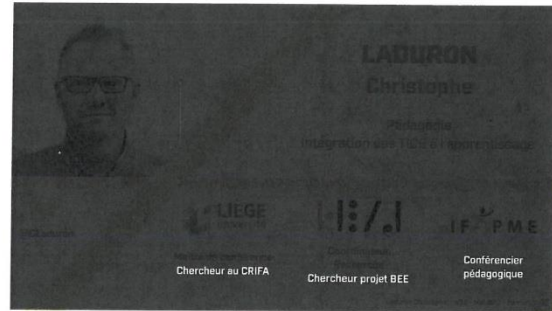
Maître de conférence
Chercheur au CRIFA

Coordinateur
Recherche
Chercheur projet BEE

Conférencier
pédagogique

Laduron Christophe - WSE - Mai 2017 - Namur   2

TBI

Laduron Christophe - WSE - Mai 2017 - Namur   3

Les **classes inversées** peuvent-elles être **efficaces** dans l'apprentissage en **alternance** ?

Qu'est-ce que la **classe inversée** ?

1. Historique
2. Effet de mode ?
3. Typologie des classes inversées

TIMELINE

Classes inversées ?

L'alternance

Les effets des CI
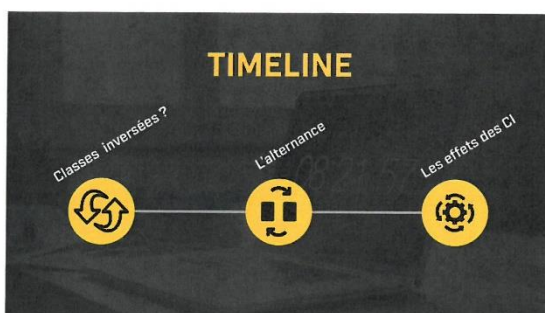
Historique

Vers quelle année situeriez-vous la naissance de la classe inversée ?

1972

Historique

· Tentatives similaires aux États-Unis dans les années 90 : peer instruction (Mazur, 97)

· Lage, Platt & Treglia : Inverting the Classroom : A Gateway to Creating an Inclusive Learning Environment (2000)

· « Classe inversée » en tant que telle dans les années 2000 (Bergmann & Sams, 2014)

· « Popularisé » en 2011 par Salman Khan et sa Khan Academy (Bissonette & Gauthier, 2012)

Effet de mode ?

· Démocratisation des outils numériques ==> facilitation de la réalisation (Blitman, 2014)

· Supposition : émergence en lien avec l'importance accordée aux TICE (Ecole Numérique - Digital Wallonia)

· 85 participants au CLIC 2012 ==> 860 en 2016…

Historique

· Bergmann & Sams - Flip your classroom (2014)

· Sont à l'origine du terme, la méthode ne peut être attribuée à une seule personne

· Idée reçue : classe inversée = « les élèves font la classe » / NON ==> Classe inversée = On inverse le fonctionnement de la classe (plusieurs possibilités)

· Les élèves font la classe = classe renversée

Effet de mode ?

· Point de rencontre entre diverses optiques pédagogiques actuelles (Lebrun, 2014) :
    -Approche par compétences
    -Pédagogie active
    -Dispositifs intégrant les TIC

· Rencontre un besoin de s'adresser à un nouveau type de public : les digital natives (Roland, 2016)

Typologie

Marcel Lebrun
Professeur UCL
Louvain Learning Lab

3 types
de classes inversées

@mlebrun2

Typologie

Niveau 2

Recherche ———▶ **Présentation**
A distance   *Présentiel*

Typologie

Niveau 1

Théorie ———▶ **Pratique**
A distance   *Présentiel*

Typologie   **Niveau 3**

Niveau 2   Niveau 1

Recherche —▶ **Présentation** **Théorie** —▶ **Pratique**
A distance   *Présentiel*   *A distance*   *Présentiel*

La formation en **alternance**

1. Définition (brève...)
2. Ses caractéristiques

IF A P M E

La formation en alternance

- Apprentissage nécessitant beaucoup d'autonomie et d'énergie de la part des apprenants

- Apprenants hétérogènes (origines, âges, profils de formation)

- Alternance perturbe le rythme des apprentissages, dans chaque contexte

---

La formation en alternance

- Formation alternée entre le centre de formation et l'entreprise

- 3 à 5 ans, suivant le but professionnel poursuivi

- équipe éducative hétérogène (formateurs, patrons, délégués, accompagnateurs)

- Formation « up to date » qui se calque sur l'évolution des métiers de terrain

- Pénétration forte du marché de l'emploi

Est-ce que ça **fonctionne** ?

1. Ce que l'on en pense...
2. Les premiers résultats
3. Limites

Les effets (20)

- Ça ne change rien...
- On ne réinvente rien !
- Et encore ?
- Il ne faut pas croire qu'ils seront plus motivés !
- Encore un truc de pédagogue...
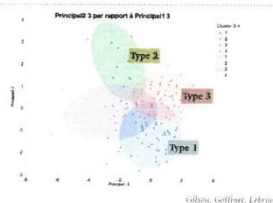
Les effets (22)

- Strayer (2012) : classe inversée favorise l'attitude face au cours et une meilleure appréciation des activités proposées
- Tucker (2012) : classe inversée améliorant la relation enseignant-élève, l'engagement des apprenants et la motivation
- Tune, Sturek & Basile (2013) : classe inversée amène une meilleure compréhension des concepts
- McLaughlin et al. (2014) : classe inversée favorisant l'attitude face au cours et l'apprentissage (auto-déclaré)

Les effets (21)

- C'est innovant !
- Ça permet d'aller plus loin dans la matière !
- Les élèves sont plus actifs.
- Les méthodes classiques sont archaïques...
- Ça favorise l'engagement des élèves !

Les effets (23)

EN COURS ... RECHERCHE SUR LES TYPES DE CLASSES INVERSÉES

Gilson, Goffinet, Lebrun

Dégager une typologie des classes inversées telles que pratiquées sur le terrain

Lebrun, Gilson & Goffinet, 2016

Les effets

Cette pratique vise l'acquisition de compétences disciplinaires (T1C)

Compétences majoritairement développées

Cette pratique développe des compétences transversales chez mes élèves (T2C)

Lebrun, Gilson & Goffinet, 2016

Les effets

Impact sur la différenciation des apprentissages

Lebrun, Gilson & Goffinet, 2016

Les effets

DES EFFETS ? DIFFÉRENTS EN FONCTION DES TYPES !

Ce que les enseignants pensent

Figure 17. Pourcentage d'accord avec les différents items relatif aux effets des classes inversées en fonction des types

Lebrun, Gilson & Goffinet, 2016

Les effets dans l'alternance (présumés)

Hypothèse d'efficience forte, parce que les classes inversées :

- favorisent l'autonomie d'apprentissage de l'alternant et développe l'autonomie dont il devra faire preuve durant sa carrière professionnelle (compétences transversales)

- respectent les rythmes d'apprentissage de chacun

- favorisent la différenciation des apprentissages dont a cruellement besoin le public de l'alternance

- ont un impact positif sur la motivation des apprenants et sur leur attitude face à la formation

(⚙) Les effets dans l'alternance (présumés)

Ces formateurs qui la
pratiquent sans le savoir...

Limites

Tentative en formation en alternance en France

Mais...

- Problème du transfert de la matière théorique aux pratiques de stage
  (cohérence curriculum), inhérent au contexte de formation

- Besoin de sens dans la formation et moins d'arrosage de connaissances

- Besoin de plus de latitudes pédagogiques au formateur...

Toute innovation...

Limites

Dispositif qui peut être discriminant
(matériel, connexion, environnement, support parental, compétences numériques, etc.)

Risque de dérive frontale
D'ailleurs, une capsule vidéo ne l'est-elle pas fortement ?

Nécessite une réelle coordination au sein de l'établissement
(sinon, la charge à distance deviendrait insurmontable)

**Attention à la loi de marché des entreprises numériques
(GAFAM)**

Limites   ASPI, 2005

Viens

Peraya

Les 7 indicateurs/facteurs d'innovation (plus value) pédagogique
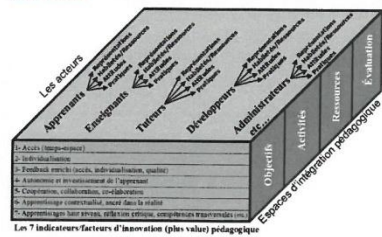
Faut-il dès lors abandonner l'idée des classes inversées ?

Non, pas a priori !

Aucune recherche ne montre une dévalorisation due à la classe inversée !

Une méthode parmi d'autres permettant de fonctionner en pédagogie active

Plus adaptée aux apprenants actuels ?
Certainement, à condition de les y préparer
et d'optimaliser le contexte d'apprentissage

OUI !

Avancer pas à pas... mais sûrement !

Les 1ères études montrent l'impact faible de l'intégration des TICE sur l'apprentissage du français, des maths ou des sciences...

Logique, ce sont les compétences transversales qu'elles développent prioritairement, celles dont ont besoin les citoyens de demain.

Le système ancestral de diffusion de l'information (top-down) est devenu obsolète en raison de l'externalisation des savoirs.

Se recentrer sur la finalité de l'éducation du 21ème siècle :
apprendre à apprendre

Merci pour votre attention !

@claduron
christophe.laduron@ulg.ac.be

CHRISTINE PIRET – *EDUCATION COORDINATOR, FORMAFORM*

Soft Skills: Behavioural know-how

Les savoir-faire comportementaux

STEP 4 : SFC

Christine Piret
Namur, le 17 mai 2017

LE FOREM — formaform — Erasmus+

Christine PIRET

Coordinatrice
pédagogique
@
Formaform
Le Forem

SKILLS

experience

Ingénierie de formation

Pilotage de projets

Management

Animation de formation

Coordinatrice pédagogique du projet européen Step4-SFC (savoir-faire comportementaux) depuis 2016 et au service du développement pédagogique depuis 2014
www.opc-sfc.eu

Formatrice de formateurs pour l'IFAPME, le Forem et Bruxelles Formation depuis 2013

Manager de 2 centres de formation professionnelle pour adultes en transport logistique et en bureautique gestion pendant 7 ans

Formatrice en communication et développeuse de produits de formation pour des demandeurs d'emploi et des travailleurs des secteurs de l'industrie, secrétariat, secrétariat médical, tourisme, transport, logistique, formation à distance.. pendant 15 ans

---

soft skills

sait faire la synthèse — flexible — créativité — mobilité — motivé — proactif — organiser — négocier — gérer des projets — prendre des décisions — engagement — implication — responsable — probité — écoute — orienté client — être force de proposition — affirmation de soi — esprit d'appartenance — esprit d'équipe — gérer les conflits — esprit d'initiative — adaptable — amélioration continue — mobilité de soi — coopératif — gérer l'imprévu — communiquant — fiable — affirmé — autonome — gérer le temps de travail

STEP 4 SFC

Erasmus+

LE FOREM — formaform

STEP 4 SFC

« Un pas de plus pour l'intégration des SFC en formation »

Step4-SFC

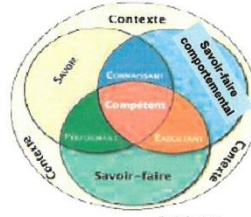**OPC-SFC**
www.opc-sfc.eu

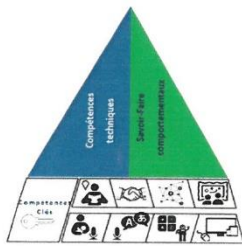LE FOREM — formaform — Erasmus+

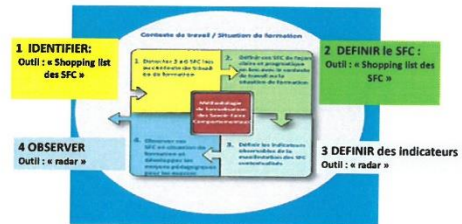## Un glossaire pour nous éclairer

Notre approche par métier ...

La fusée des compétences

Un méthodologie de co-construction en 4 étapes et 2 outils phares

Une « shopping list » des SFC

Erasmus+

Radar Electro-mécanicien

- Acquis
- Requis
- Etablis

Curiosité intellectuelle
« J'ai envie d'apprendre et de comprendre »
- Je récolte les informations
- Je synthétise
- Je développe et je vais au-delà

Autonomie
« Je me débrouille »
- Je cherche seul(e)
- J'agis et demande confirmation
- J'agis seul(e) et vérifie moi-même

Esprit d'analyse
« Je me pose et je réfléchis »
- J'observe
- J'ai une vue d'ensemble
- Je comprends

Esprit d'analyse
« Je me pose et je réfléchis »
- J'observe
- J'ai une vue d'ensemble
- Je comprends

Esprit d'équipe
« Je peux compter sur toi comme tu peux compter sur moi »
- Je communique avec les autres
- Je travaille avec les autres
- J'aide les autres

Une formation des formateurs

- Formation de formateurs aux SFC

Erasmus+

Merci de votre attention

Des questions?

Pour tout partage ou information complémentaire :

christine.piret@forem.be

Ou RV aux ateliers des Estivales de Formaform les 25 et 26 août

Erasmus+

GAËLLE BOULET – *DIRECTOR, FORMAFORM*

Perspectives and avenues for development in teacher training

FormaForm

Évolution et perspectives en formation de formateurs
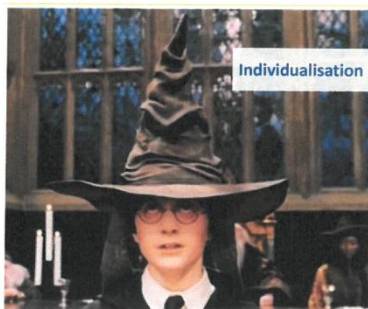
Gaëlle BOULET
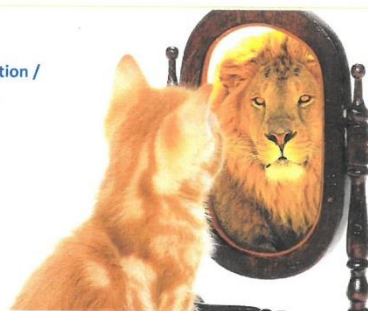Namur, le 17 mai 2017

ÉVOLUTION

MULTIMODAL

ÉVOLUTION

Individualisation

ÉVOLUTION

Responsabilisation / valorisation

ÉVOLUTION

« La vie, c'est comme une bicyclette : il faut avancer pour ne pas perdre l'équilibre. » Albert Einstein
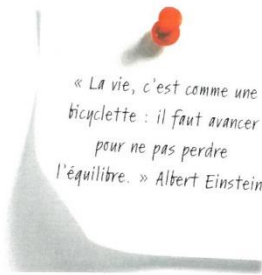
ÉVOLUTION

S'adapter aux évolutions...

De la carrière
Des métiers
Des outils et équipements
De l'environnement
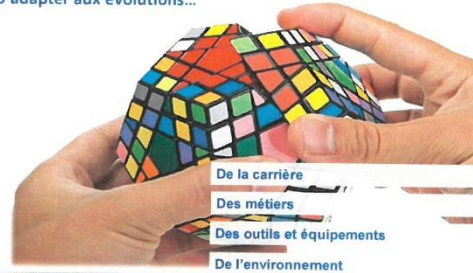
PERSPECTIVES ET PISTES DE DÉVELOPPEMENT

CO & CO

– Intelligence collective
– Co développement
– La gestion des connaissances
– Modes de pilotage participatifs

PERSPECTIVES ET PISTES DE DÉVELOPPEMENT

– **Formation sur le lieu de travail**
– **Apprentissage entre pairs**
– **Mooc**
– **Tutorat**
– **Classes inversées**
– **Communautés de pratiques**
– ...

PERSPECTIVES ET PISTES DE DÉVELOPPEMENT

- Organisation apprenante
- Apprendre en faisant
- Événementiel
  - Conférences, Créathon, Innovathon...
- Pédagogie par projet

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Conclusion

On apprend toujours seul mais jamais sans les autres!

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MERCI DE VOTRE ATTENTION !

Gaëlle Boulet
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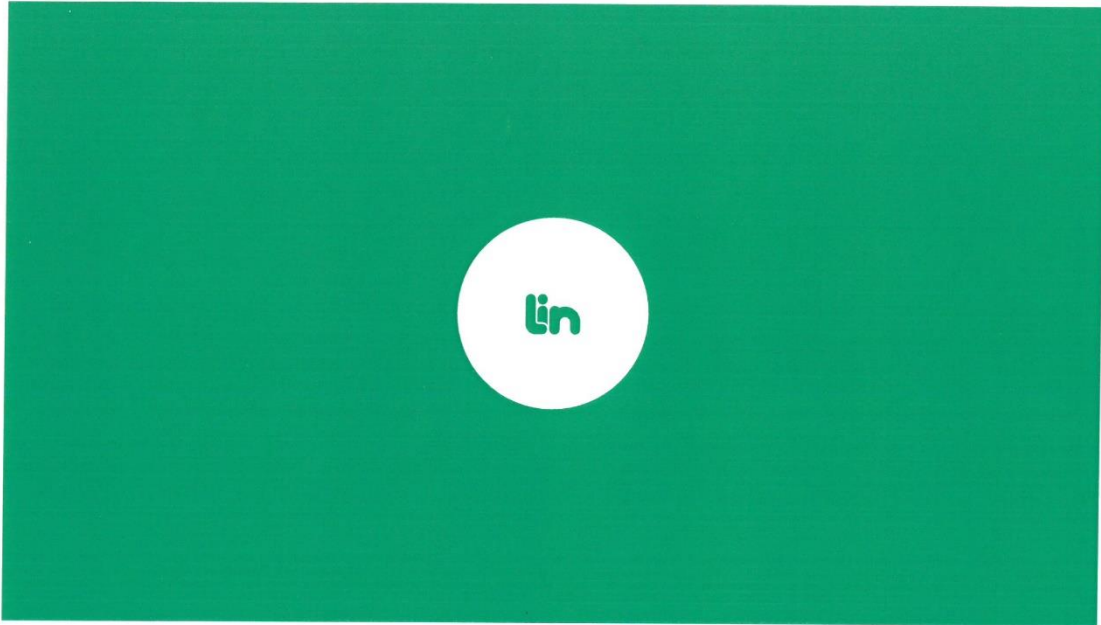Avenue Einstein 2a, B-1348 Louvain-la-Neuve

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DU 16 AU 31 AOÛT 2017
LOUVAIN-LA-NEUVE, MONS, LIEGE, BRUXELLES

LES ESTIVALES
DEFIONS L'ÉVOLUTION

FORMAFORM.BE

ANNEX

Karl Alfredsson - *The digital Education of tomorrow*

Karl Alfredsson
Vice CEO at Lin - Head of Learning and Innovation

Millennials: The Rise of New "Consumer" Talent

First generation of Digital natives desiring instant gratification & personalized products

Global Citizens
Travelling around the world, living in a borderless environment

Me-now
52% more likely than others to make impulsive purchases to pamper themselves

Values Driven
In search for meaning, desire to make a difference and to contribute to society

Digital Natives
100% digital and mobile, always on, seamless as a norm, quickly adopting new technologies

Social & connected
Ongoing two-way dialogue with their communities

Seeking Experience
49% would interact more if customer experience personalized

Topics from the NMC/CoSN Horizon Report: 2016 K-12 Edition

TRENDS, CHALLENGES, AND TECHNOLOGIES FOR SCHOOLS

TRENDS

SHORT-TERM
> Coding as a Literacy
> Students as Creators

MID-TERM
> Collaborative Learning
> Deeper Learning Approaches

LONG-TERM
> Redesigning Learning Spaces
> Rethinking How Schools Work

CHALLENGES

SOLVABLE
> Authentic Learning Experiences
> Rethinking the Roles of Teachers

DIFFICULT
> Advancing Digital Equity
> Scaling Teaching Innovations

WICKED
> Achievement Gap
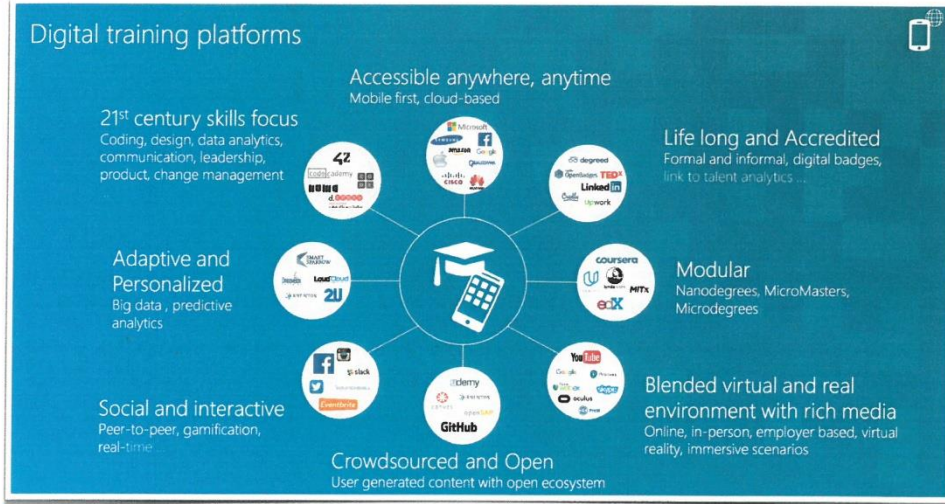> Personalizing Learning

NEAR-TERM
1 year or less
> Makerspaces
> Online Learning

MID-TERM
2-3 years
> Robotics
> Virtual Reality

FAR-TERM
4-5 years
> Artificial Intelligence
> Wearable Technology

DEVELOPMENTS IN TECHNOLOGY

We give you Loops!

Bakterieceller

Djurceller

Växtceller
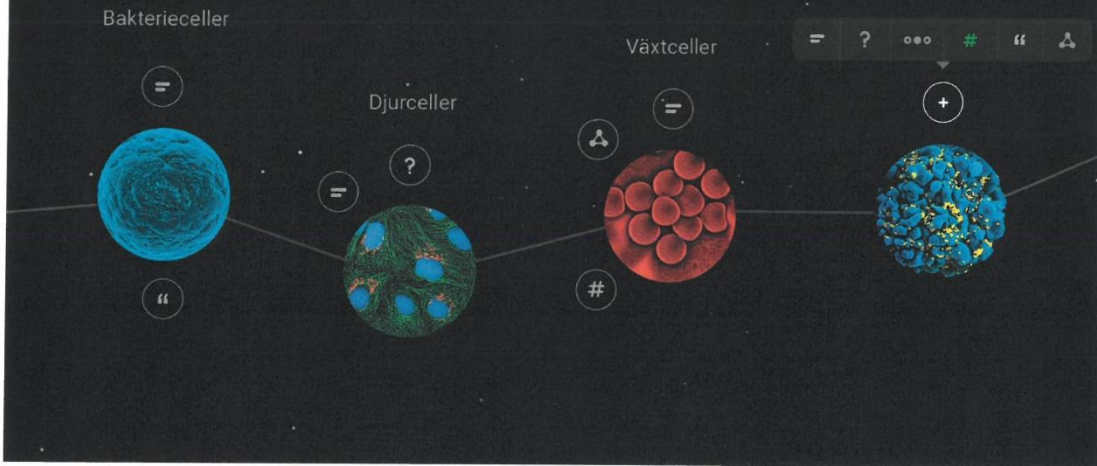
What is loops!

Infinite Library of loops

Built in Formative process

Editor and remixer

Thank you!

Karl Alfredsson
karl.alfredsson@lineducation.se

www.lineducation.se