Digital Do It Yourself
Digital DIY Community Day, Barcelona, July 7th, 2016

International Research on Education
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Research questions and (some) objectives

A. What **transformations** is DiDIY producing in the European educational practices and structures?
B. What are the **effects** of these changes in terms of quality of education?
C. What **factors** are promoting these (positive and negative) effects?

1. WHERE & WHO - Define **space** and **actors**;

2. HOW - Define **explorative tools** to gather and analyse data;

3. WHAT - Gather and analyse **data**.

Space and Agents

1. Research on EU institutions and DiDIY cultural movements → map of current uses of DiDIY-related technologies

2. Select representative sample of different agents

3. Individual and group interviews to complement WP's background knowledge

Educational Context - beyond "schools"

	Formal education (from primary school to university and post-graduate)	Informal education (FabLabs, MakerSpaces, CoderDojos, …)	Mixed environments (contests such as RoboCup, First Lego League, Museums,…)
Learners	Students, post-graduate researchers	Trainees, coders, makers, hackers, ..	Players
Trainers	Professors, teachers and laboratory technicians	Trainers, researchers	DiDIY expers, trainers, researchers
Managers	School principals, pedagogues, officals from ministries or theri provincial/regional offices	Organisers, founders, networks	Managers of museums, organizers of contests, exhibitions, ..

HOW can we study this emerging phenomenon?

To define **specific explorative tools** to gather and analyse qualitative and quantitative data relevant to determine the transformative effects of DiDIY in European education and research

1. Identify pertinent dimensions (areas of investigation) of the research space to be explored:
2. Define and tailor appropriate explorative tools (the "Methodological plan"):
   a. **workshops;**
   b. **focus groups;**
   c. **questionnaires.**

Areas of investigation

The role of creativity

The role of sharing

The role of teachers

DiDIY and learning flows

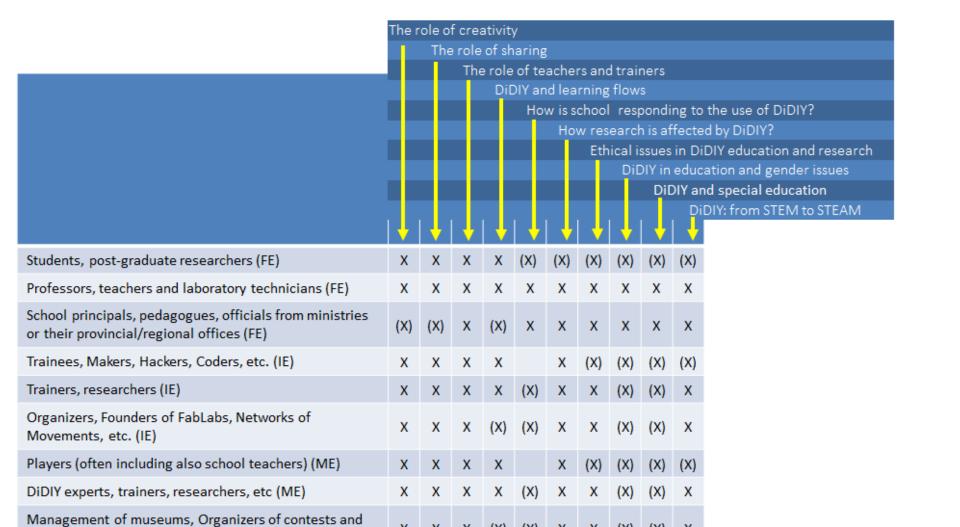How is school as institution responding to the use of DiDIY?

How is research affected by DiDIY?

Ethical issues in DiDIY education and research

DiDIY in education and gender issues

DiDIY and special education

DiDIY: from STEM to STEAM

	The role of creativity	The role of sharing	The role of teachers and trainers	DiDIY and learning flows	How is school responding to the use of DiDIY?	How research is affected by DiDIY?	Ethical issues in DiDIY education and research	DiDIY in education and gender issues	DiDIY and special education	DiDIY: from STEM to STEAM
Students, post-graduate researchers (FE)	X	X	X	X	(X)	(X)	(X)	(X)	(X)	(X)
Professors, teachers and laboratory technicians (FE)	X	X	X	X	X	X	X	X	X	X
School principals, pedagogues, officials from ministries or their provincial/regional offices (FE)	(X)	(X)	X	(X)	X	X	X	X	X	X
Trainees, Makers, Hackers, Coders, etc. (IE)	X	X	X	X		X	(X)	(X)	(X)	(X)
Trainers, researchers (IE)	X	X	X	X	(X)	X	X	(X)	(X)	X
Organizers, Founders of FabLabs, Networks of Movements, etc. (IE)	X	X	X	(X)	(X)	X	X	(X)	(X)	X
Players (often including also school teachers) (ME)	X	X	X	X		X	(X)	(X)	(X)	(X)
DiDIY experts, trainers, researchers, etc (ME)	X	X	X	X	(X)	X	X	(X)	(X)	X
Management of museums, Organizers of contests and exhibitions, etc. (ME)	X	X	X	(X)	(X)	X	X	(X)	(X)	X

	The role of creativity	The role of sharing	The role of teachers and trainers	DiDIY and learning flows	How is school responding to the use of DiDIY?	How research is affected by DiDIY?	Ethical issues in DiDIY education and research	DiDIY in education and gender issues	DiDIY and special education	DiDIY: from STEM to STEAM
Online survey	X	X	X	X						
Individual questionnaire		X		X						
Interview	X	X	X	X	X	X	X	X	X	X
Focus Group	X	X	X	X	X	X	X	X	X	X
Workshop	X	X	X	X						

Online questionnaire

- **Opinion** about:
    - Open questions
        - "**makers**"
    - Scalable questions
        - "**making**" (in general)
        - "**digital** making"
        - "**Internet of Things**"
        - DiDIY and **creativity**
        - DiDIY and flow of **communication**
        - DiDIY and role of **teachers** and trainers
        - DiDIY and role of **sharing**
- Personal details
    - Demographic (age, gender)
    - Educational background
    - Acquaintance with DiDIY instruments (scalable)

Anonymous

Implemented on Google modules

Language	No. of responses
Italian	41
English	14
Total	**55**

English version
Italian version

Interview

Selected interviewees based on online survey done and map of contact developed

No. of contact person identified: 166
No. of email sent so far: 56
No. of positive contact: 7
Countries covered: Belgium, Estonia, Germany, Hungary, Ireland, Italy, Spain

(Very!) Preliminary results

1. Too early to say something definitive!
2. However, a few similarities already across countries:
   a. Recognised phenomenon ("self-awareness")
   b. Relevance of topics (sharing, flow of info, etc. - validation)
   c. It's not about technology, it's about people:
      i. central role of actors: (deans, teachers, students)
      ii. Didactic approach
   d. Ethics!

Conclusions and moving forward

1. **Complete data gathering** with interviews, workshops, and online questionnaire
2. Data **analysis** - interpretation of results against reference framework
3. Generation of **strategies** to support positive progress

Online questionnaire – please contribute!

English version
Italian version

Thanks!

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DiDIY
DIGITAL
DO IT YOURSELF