



Impact of DiDIY on Organization and Work

This fact sheet provides the bases to discover DiDIY and its impacts on European society. It is part of a series of fact sheets produced by the European research Project DiDIY, aimed at providing inputs to find together answers to questions such as:

Is Europe really ready for DiDIY? Does Europe really want DiDIY? Does Europe really need DiDIY?

www.didiy.eu



Digital Do-It-Yourself (“DiDIY” for short) is a complex phenomenon, involving social, cultural, technological, economic, and psychological dimensions, stemming from the new ability to **mix physical and informational components** into simple and affordable systems such as 3D printers and Arduino boards.

We call it “Atoms-Bits Convergence”, to emphasise that what is happening could become a **new alphabet of knowledge**, hence a new ABC, that may ground and reshape our society thanks to the widespread availability of digital tools that are much cheaper and easier to use than they were just a few years ago, and to the increasing familiarity of many people with such tools. The emergence of the Internet of Things, as the world-wide inclusive ABC system, is further amplifying the potentialities of DiDIY.

But **where these changes are going to lead us is still to be determined**, and is at least partly dependent on the choices that the relevant actors (governments, industries, public administrations, schools and universities,...) are making and will make in the immediate future.

FACT

The “Yourself” in DiDIY can also be a company, not just an individual

The “Yourself” in DiDIY is originally meant to be an individual, but the widespread availability of networked digital information processors, the interest or the need to share knowledge and the current state of markets, in which adaptability and rapid innovation are keys for survival of any company, **have created new dimensions of DiDIY** and new reasons for companies to adopt, or let their employees adopt, DiDIY practices. In these dimensions, the “Yourself” can be a group, a class, a community of practice, a company, or an industrial cluster, and in perspective the whole society as such. Hence the digital tools are transforming the Do-It-Yourself into a Do-It-Together.

FACT

DiDIY makes it possible for professionals and companies to build their own tools

DiDIY can be used to build not only some products, but also the tools with which one may then build other products. For example, a cabinet maker may build by herself, with DiDIY techniques, the CNC router or lathe that she will then use in her professional activity. In similar fashion, a pottery maker or an orthodontist may 3D print the casts and tools they would then use in their job. In other words, the ability to produce an increasing diversity of objects means that DiDIY is not restricted to hobbies and non-professional activities. Thanks to DiDIY, single artisans, farmers, artists, fashion designers and, in general, small/medium enterprises in all sectors of the economy **have the possibility to build their own custom tools in-house**, with a much greater control on their capabilities than in the past, and often at much smaller costs.

FACT

DiDIY leads makers and enterprises to create new cluster-based business models

Leveraging on the Do-It-Together mindset, DiDIY **leads to new forms of aggregations**. At the individual level makers evolve from sharing knowledge into cooperating into organizations with different business models. At the enterprise level, the availability of knowledge sharing digital platforms enables companies to give life to collaborative practices that can evolve in structured finalized joined activities (research and development, internationalization, etc), which can then further develop into formalized clusters of enterprises.

FACT

DiDIY shakes organisational roles by enabling disintermediation of experts

By exploiting the availability and ease of use of DiDIY, organisational roles typically dependent on experts (internal or external to the organisation) **can carry out, autonomously, innovative practices**. With Arduino boards and sensors, workmen in the production plants can set up a pilot project to monitor the production flow without or limitedly asking support to the IT department; with 3D printers R&D employees can create prototypes of new products without requiring support from R&D consulting firms; marketing employees can set up a marketing campaign by creating a mobile app, without or limitedly asking support to the IT department.

FACT

DiDIY turns supply chains upside down by making it possible to produce spare parts locally

The rise of DiDIY may have a radical impact on supply chains: it will allow businesses to manufacture and customize spare parts locally that they previously would have had to ship from distant locations, thereby allowing them to cut down transportation costs and to respond faster to consumer demand. This **will carry benefits for consumers but also for the environment**, for example because of reduced harmful emissions due to transport of goods. However, it can also be a source of concern if jobs get lost in the process, and the re-training of workers is no straightforward matter, and if manufacturing gets shifted away from low-wage countries, with potentially damaging consequences for their economies.

To know more about Digital Do It Yourself...

The DiDIY project has ended in June 2017. All its results, however, are still available on the DiDIY website, in order to help everybody to understand what DiDIY is, the impacts it will have on the European society, and what to do about it. These results include, but are not limited to:

- More specific fact sheets on the impacts of DiDIY in work, creativity, intellectual property, etc;
- Foundational interpretation of DiDIY;
- A Knowledge Framework and a Vocabulary on DiDIY;
- A DiDIY Manifesto for Positive Social Change;
- A DiDIY Guidance Manual, and several DiDIY Policy Guidelines

All partners of the DiDIY Consortium continue to work in this field, and are interested in cooperating with other organisations, from joint research to training and evangelisation activities on DiDIY and related topics.

To contact them, please visit www.didiy.eu



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