Digital DIY Manifesto

DiDIY Project Final Conference

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www.didiy.eu/conference

Do It Yourself – DIY – happens when people and communities just go ahead and make something for themselves, without waiting for a professional or for permission. Digital DIY is the huge boost to this activity – and the associated 'can do' mindset – facilitated by digital technologies, through the sharing of designs, tools, support and inspiration. This can happen in physical locations, via the internet, or both. This combination of motivated people and engaging technologies results in a new dynamic that could change all of our lives.

Digital DIY is a relatively new and emerging phenomenon, but our research has found that it already brings many benefits to individuals, culture and society. This includes fostering creativity, empowering individuals to be inventive problem solvers and enhancing well-being. When people understand and have control over the technologies around them, they can be better citizens. Although Digital DIY is enabled by technology, it is primarily a social and psychological phenomenon, which can promote innovation, closer social interaction and community engagement.

For society to reap the full benefits of Digital DIY there is a need:

[*In the interests of sharing, learning and inspiration:*]
   ✔ To promote opportunities for a thriving circuit of sharing, learning and inspiration in all fields of Digital DIY making.
   ✔ To explore alternate forms of creative platform – online, offline, and interlinked – which offer new opportunities to make, share, connect, include and inspire.

[*In the interests of widening access:*]
   ✔ To support growth of community making in a diverse range of locations, and attract people of different backgrounds and interests.
   ✔ To diversify notions of 'making' to include a greater range of tools, practices and interests (and therefore more radically diverse 'makerspaces').
   ✔ To consider creating spaces and facilities for making in library, museum, school, and other civic developments.

[*In the interests of economy, business and entrepreneurship:*]
   ✔ To value the Digital DIY spirit of innovation, invention and entrepreneurship, and support grassroots and entrepreneurial initiatives.
   ✔ To support new business models based in sharing of knowledge, collaborative making and circular economy.
   ✔ To support education, learning and continuing professional development which will enhance collaborative and entrepreneurial traits in employees.

[*In the interests of well-being and sustainability:*]

- ✔ To enable more people to experience the enhanced well-being reported by makers, associated with close social interaction, creative problem-solving and greater creative confidence.
- ✔ To embrace and enhance the role of Digital DIY in realising sustainable futures.

[*In the interests of our rights and responsibilities:*]

- To use open standards to drive innovation, and ensure that regulations on product safety and intellectual property do not stifle creativity.
- To make responsible use of the power of Digital DIY, respecting other citizen's rights, increasing meaningful participation, and contributing to positive societal development.

Notes

In the interests of sharing, learning and inspiration:

1. To promote opportunities for a thriving circuit of sharing, learning and inspiration in all Digital DIY cultures.

Our research has found that Digital DIY creativity and sharing reinforce each other, creating a circular dynamic that has led to significant growth. As more people get involved in Digital DIY initiatives, more projects are begun and then shared, and more people become inspired to get involved themselves. This dynamic of sharing, learning and inspiration can, for example, be seen in the growth of Maker Faire and online creative platforms. Deliverable "Social impact of DiDIY" (D5.2, www.didiy.eu/public/deliverables/didiy-d5.2.pdf) examines a number of case studies that demonstrate how digital platforms enable and magnify this circular dynamic of creativity, sharing and inspiration.

2. To explore alternate forms of creative platform – online, offline, and interlinked – which offer new opportunities to make, share, connect, include and inspire.

Creative platforms are the basic building blocks of Digital DIY creativity. Good creative platforms, online or offline provide the collaborative support and help that people need to progress in knowledge and ability with the technologies, in confidence and skills and to stay engaged. The availability, quality and diversity of platforms that provide help, support and collaborative environments, online and offline, and how these are created, developed and sustained will be a big determinant of Digital DIY's long term success.

In the interests of widening access:

3. To support growth of community making in a diverse range of locations, and attract people of different backgrounds and interests.

Community making, such as in makerspaces, are a powerful way for Digital DIY to be taken forward. Makerspaces are rooted in local communities and have often grown-up in response to a particular vision deriving from the founders, the locality, and the membership. They have a wide variety of programmes and agendas and will attract a membership that feels comfortable in that particular community and environment. Scope therefore exists for many communities to develop their own versions of local community making, improving access and inclusivity across the spectrum. Deliverable 5.2 looks at some examples of makerspace facilities.

4. To diversify notions of 'making' to include a greater range of tools, practices and interests (and therefore more radically diverse 'makerspaces').

We believe that there is huge potential for makerspaces and other making facilities to attract the interest of a very wide range of people keen to take part in creative practice of all types. This could be art, craft or design, or perhaps engineering, new product development, community or environmental projects. Many makerspaces integrate elements of all of these, others specialise in particular types of practice. Re-thinking how creative opportunities can be provided that match people's wide ranging interests, aspirations and circumstances could enable greater access to the benefits of Digital DIY for individuals and society.

5. To consider creating spaces and facilities for making in library, museum, school, and other civic developments.

Facilities for making can enhance community engagement, the ability of a community to learn, and can foster skills ranging from specific work focused technical capabilities, to creative problem-solving and creative confidence building. Our research found that there is growing interest in making taking place within civic settings such as schools and libraries. In Deliverable "Relationship between DiDIY and social change" (D5.3, www.didiy.eu/public/deliverables/didiy-d5.3.pdf) we tested the appetite for making in public libraries through workshops with the general public.

In the interests of economy, business and entrepreneurship:

6. To value the Digital DIY spirit of innovation, invention and entrepreneurship, and support grassroots and entrepreneurial initiatives.

Digital DIY allows individuals and groups to pursue interests that may lead to new projects, employment opportunities or new businesses. It is an area of digital innovation that could provide more empowerment and more engagement for people at a time when our economy and society are changing rapidly, under pressure from trends including globalization, automation and robotics, which it is feared may lead to fewer employment opportunities. Digital DIY grassroots innovation

could provide mechanisms that help in these future challenges and economic adjustments. Deliverable "Social impact of DiDIY" (D5.2, www.didiy.eu/public/deliverables/didiy-d5.2.pdf) looks at some examples of new initiatives and businesses based on Digital DIY that have sprung up in the last few years.

7. To support new business models based in sharing of knowledge, collaborative making and circular economy.

Sharing knowledge openly allows for different ways of making projects economically viable; while digital works can be replicated and compete against the original work, at the same time this possibility forces the project to listen carefully to the needs of its users and present more socially aligned, sustainable models. Open business models combine shared knowledge (free and open licensing) with revenue and production models and networked or participatory governance. Deliverable "Dominant legal challenges and solutions practised" (D6.1, www.didiy.eu/public/deliverables/didiy-d6.1.pdf) looks at the legal challenges and solutions practised and Deliverable "Legal practices of DiDIY hardware technologies" (D6.3, www.didiy.eu/public/deliverables/didiy-d6.3.pdf) presents a series of cases studies of hardware technologies.

8. To support education, learning and continuing professional development which will enhance collaborative and entrepreneurial traits in workers.

With the advent of the Digital DIY phenomenon, organizations have the opportunity to direct the human resource management and the organizational development towards new practices. The interdependence between digital technologies and workers does not imply just the destruction of jobs due to automation. Applying Digital DIY in business contexts allows workers who use technology competently and autonomously, while taking care of new responsibilities, to experience job enrichment. HR managers should introduce new practices in the process of personnel selection and training to promote the development of an organization where individuals with the Digital DIY mindset are recognized and rewarded as a central engine of change. In Deliverable "Reviewed research model" (D3.6, www.didiy.eu/public/deliverables/didiy-d3.6.pdf) we identified a number of organizational roles that already exploit Digital DIY to improve their work in this sense.

In the interests of well-being and sustainability:

9. To enable more people to experience the enhanced well-being reported by makers, associated with close social interaction, creative problem-solving and greater creative confidence.

Our research has found that makers describe a range of personal benefits from their creative practice and experience a sense of enhanced well-being. Deliverable "Relationship between DiDIY and social change" (D5.3, www.didiy.eu/public/deliverables/didiy-d5.3.pdf) looks in detail at the benefits makers told us about including increased self-confidence, creative freedom, enjoyment and satisfaction, developing creative problem-solving skills and experiencing a sense of 'flow'.

Providing opportunities for positive social interaction is a key driver for many individuals and projects. Community connectedness is another key positive outcome.

10. To embrace and enhance the role of Digital DIY in realising sustainable futures.

Our research found that environmental issues were a key concern of many of the Digital DIY related organisations, companies and individuals we spoke to. Makers attending workshops were also keen to engage with issues such as efficient use of resources, reuse, recycling and upcycling in their making activities. Commentators expressed the need to consider outcomes that are environmentally, socially and economically beneficial. Digital DIY has the potential to become a key way that local and sustainable solutions to environmental problems are innovated, implemented and managed, through the combination of global knowledge and best practice with local resources and making.

In the interests of our rights and responsibilities:

11. To use open standards to drive innovation, and ensure that regulations on product safety and intellectual property do not stifle creativity.

Regulations are typically made with mass-production by corporations in mind, so they often do not fit individualised production, especially by small businesses or individuals. In Deliverable "Risks, synergies and education" (D8.11, www.didiy.eu/public/deliverables/didiy-d8.11.pdf) we have described how, and why, support of Digital DIY may enhance the opportunities to survive and prosper for both existing and *new* enterprises, but also increase the practical applications of innovation and creativity to protect consumer rights on one hand, and reduce waste and pollution on the other.

12. To make responsible use of Digital DIY, respecting other citizen's rights, increasing meaningful participation, and contributing to positive societal development.

Like any other societal activity, acting in Digital DIY should respect other people's rights and contribute to the overall positive development of humanity. We are not an island.