

# HEIDI

## O4A5: Impact report on digital skills

Author:	<b>Stefania Oikonomou, MA, Stavros Samiotis, MA, Katerina Zourou, PhD.</b>
Responsible Organisation	<b>Web2Learn</b>
Version Status	<b>v1.0</b>
Submission Date	<b>09/02/2023</b>
Dissemination Level	<b>PU</b>

## Deliverable Factsheet

Project Number:	2020-1-UK01-KA226-HE-094667
Project Acronym:	HEIDI
Project Title:	Digital action at HEIs as a catalyst for social change in the COVID-19 crisis
Output:	O4A5: Impact report on digital skills
Due date:	30/10/2022
Authors(s):	Stefania Oikonomou, Stavros Samiotis, Katerina Zourou
Reviewer(s):	<i>Eugenia Covernton, Heather Mcnamara</i>
Approved by:	All Partners
Abstract:	O4A5 Impact report on digital skills is the last component of Intellectual Output 4 (“Report on digital skills development by HE staff, HE students and community stakeholders through Digital Actions (DAs)”) of the HEIDI EU-funded project.
Keyword list:	competences; skills; ICT literacy; digital action; activism
Please cite as:	Oikonomou, S., Samiotis, S., Zourou, K. (2023). <i>O4A5: Impact report on digital skills</i> . HEIDI consortium.
Copyright	Creative Commons — Attribution 4.0 International — CC BY 4.0



## Partnership

	Name	Short Name	Country
1	University College London	UCL	UK
2	Citizens in Power	CIP	Cyprus
3	Web2Learn	W2L	Greece
4	University of Malta	UM	Malta
5	University of Paris	UP	France



CITIZENS  
IN POWER

Web2Learn  
Open, social learning



L-Università  
ta' Malta



Université  
de Paris

## Revision History

Version	Date	Revised by	Reason
v0.1	09.02.2023	Eugenia Covernton, Mcnamara Heather	

---

### Statement of originality:

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

---

### Disclaimer:



Co-funded by the  
Erasmus+ Programme  
of the European Union

This project has been funded with support from the European Commission. This deliverable reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

## Table of Contents

Deliverable Factsheet	2
Partnership	3
List of Abbreviations	6
Executive Summary	7
1 Introduction	7
2 The DigComp 2.2 Framework and the HEIDI O4 methodology	8
3 The O4A4 pilots: Impact assessment	9
University of Malta	9
Citizens in Power	9
Université Paris Cité	9
Synthesis of O4A4 evaluations	10
Synthesised responses to the survey from all O4A4 training pilots	10
Conclusion	27

## List of Abbreviations

The following table presents the acronyms used in the deliverable in alphabetical order.

### Abbreviations

DA

EU

HE

HEIs

ICT

IO

### Description

**Digital Action**

**European Union**

**Higher Education**

**Higher Education Institutions**

**Information Communication Technology**

**Intellectual Output**

## Executive Summary

The O4A5 Impact Report on digital skills provides a synthesis of the O4A4 pilots' evaluations. The report briefly examines the trajectory undertaken by Web2Learn and HEIDI partners throughout Intellectual Output 4 by presenting the relevant studies and methodologies based on which the O4A4 training pilots were carried out and assessed.

The Impact Report aspires to be a solid contribution to the broader discussion of connection between digital skills and digital competences inside and outside HEIs in Europe, especially in the era of the green and digital transition.

The analysis of the evaluations show a good level of digital skills in participants who were particularly interested in exploring how their digital competencies can be used to foster social participation and innovation in Europe after the COVID-19 pandemic.

## 1 Introduction

Digital technologies constitute a fundamental part of citizens' daily life and regular working activities. This trend is observed not only in highly professionalised contexts, such as academic institutions, but also in citizen communities who have access to online tools, apps and digital devices. In this context of rapid digitisation of societies, actions carried out by individuals to address social purposes, such as climate change or gender equality, are now running online through the use of digital means, thus leading to the emergence of the term "digital action" (DA).

The HEIDI project has brought its focus on types of digital actions organised by higher education institutions, academic staff and students as well as citizen communities, especially during the COVID-19 crisis. In particular, as part of Intellectual Output 4 (IO4), HEIDI partners were motivated to examine and understand the dynamics of digital skills development as a result of digital actions. Based on European frameworks on digital skills, such as DigComp 2.2., partners ran a series of upskilling and training activities aimed at helping them assess and evaluate the degree of digital skills development in individuals who took active part in these activities.

Specifically, the O4A5 impact report presents evaluations of the O4A4 training pilots for HE students, HE staff and community stakeholders. Prior to the presentation and analysis of the O4A4 evaluations, we briefly outline the O4 methodology based on which the O4A4 pilots were organised and digital skills development was evaluated. Finally, the report concludes with some reflections on digital competencies for social purposes and their importance for the renovation of European societies and economies.

## 2 The DigComp 2.2 Framework and the HEIDI O4 methodology

IO4 “Report on digital skills development by HE staff, HE students and community stakeholders through Digital Actions (DAs)” aims to create a pool of evidence based on solid, pan-European frameworks of digital skills that will help HE staff and students develop their digital skills through engagement in digital action. In this context, Web2Learn carried out an identification of European frameworks of digital skills (IO4A1, study available [here](#)) that resulted in the selection of specific frameworks as the most adequate for the upcoming HEIDI O4 activities. Thanks to a second screening of the selected frameworks, Web2Learn identified the one most suitable framework based on which the O4A4 methodology and pilots should have been structured and evaluated.

In June 2022, the HEIDI O4A4 Methodology was released (available [here](#)). The methodology identified DigComp 2.2 as a key framework to depict and monitor digital skills acquisition. For O4A4 pilot assessment purposes, the methodology adopted the DigComp Self Assessment Tool (DigCompSAT) as a means to monitor and evaluate digital skills gaps as well as development in the O4A4 participants. Specifically, for the O4A4 pilots, questions selected from the DigCompSAT self-assessment tool are directly related to the competence areas and the specific digital competences of DigComp 2.2 that have been identified, namely *Communication and collaboration*, *Digital content creation* and *Problem solving*.

In this context, Web2Learn produced the post-pilot evaluation survey in Google forms that was distributed by the three partners who conducted the O4A4 pilots, namely UP, UM and CIP, to participants. The analysis and results of the O4A4 pilots in terms of digital skills development are presented in the following section.



### 3 The O4A4 pilots: Impact assessment

The pilots were organised in the frame of O4A4, targeting HE students, HE staff and community stakeholders. The pilots were carried out by three HEIDI partners, namely UM, UP and CIP. In particular, there were six pilots in total, two conducted by each of the three partners. Even though all pilots were aiming to facilitate knowledge exchange and digital upskilling, partners were allowed to freely choose pilots' topics and themes.

#### University of Malta

UM conducted two pilots, the first one on September 6th, 2022 and the second one on October 22nd, 2022. The first pilot was followed by sixteen participants. The second pilot, named 'Walking Malta', combined Digital Action with Citizen Science and included an on-site activity during which participants collect data by taking pictures of local sites and rate their experience according to some criteria such as the existence of trees and benches or traffic. Overall, fifteen people attended UM's second pilot.

#### Citizens in Power

CIP also conducted two pilots; the first one was run on the 27th of September and the second one on the 16th of November, 2022. The first pilot was co-organised in association with another two Erasmus+ projects; namely PharmaVET and AGRiCharisma. In this pilot, there were eleven participants who attended a workshop during which they were informed on managerial skills and new digital tools and applications related to agricultural entrepreneurship. The second pilot was also co-organised with another Erasmus+ project; namely Code4SP. There were six participants who were informed on the needs for and the benefits of Digital Action. They also experimented with writing programming code and developing digital solutions.

#### Université Paris Cité

UP also ran two pilots; the first one was organised during the month of July 2022 and the second one on November 6, 2022. The first pilot took place during the SDG summer school hosted by the Learning Planet Institute, where there were forty seven participants. The aim of the summer school was to offer participants a framework for engagement and training in sustainability issues through prototyping digital solutions and applications on real-life

challenges. The second pilot was an online workshop with forty participants that touched upon issues related to digital action (DA).

## Synthesis of O4A4 evaluations

In order to assess the pilots' impact on participants' digital skills, partners distributed the O4A4 online survey to participants. All surveys were based on the European DigCompSAT tool that was selected thanks to its direct connection to the DigComp 2.2 framework.

Taking into account the results below, there seems to exist a general trend according to which the majority of the participants (above 50%) states that they have at least a good understanding of digital skills as well as that they possess certain digital competencies that they master themselves. Moreover, a significant portion of those participants declared their confidence and ability to assist others in dealing with digital issues by explaining and providing instructions.

Web2Learn presents the results of the O4A4 pilots in terms of evaluation of digital skills in the form of graphics below:

## Synthesised responses to the survey from all O4A4 training pilots

- A. I know how to apply for a job using a digital platform (e.g. fill in a form, upload my CV and photo)

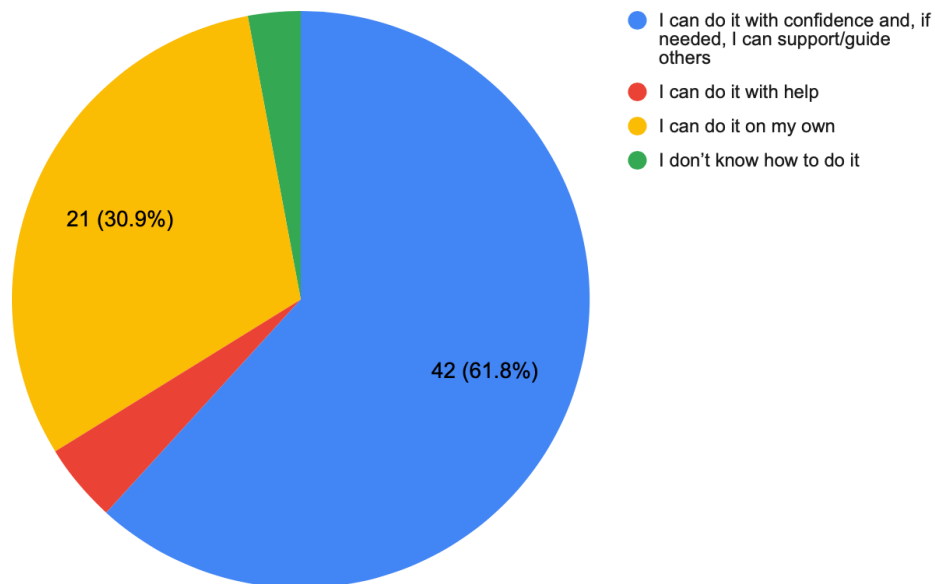


Figure 1

B. I know that many public services are available on the internet (e.g. booking a health visit, submitting tax declaration, requesting birth, marriage, residence and other certificates)

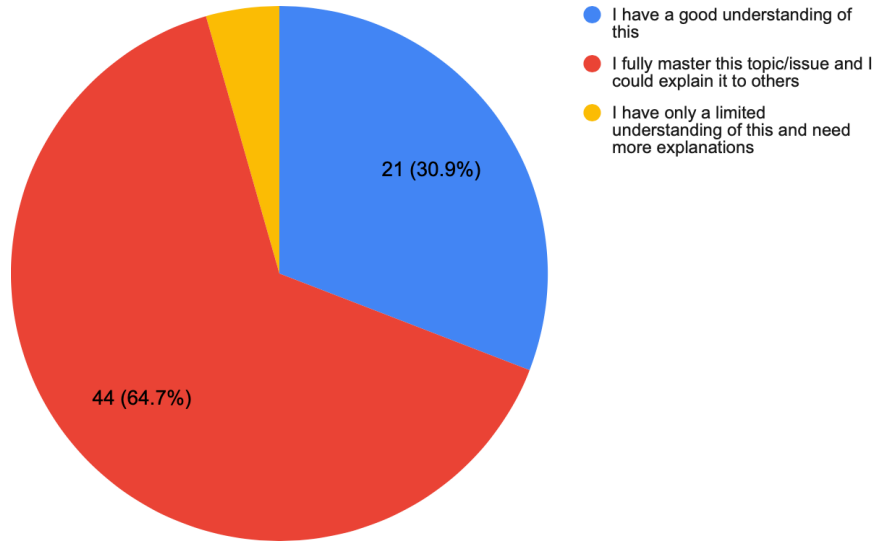


Figure 2

C. I know how to pay for goods and services that I buy online (e.g. using direct bank transfer, credit/debit cards and other online payment systems)

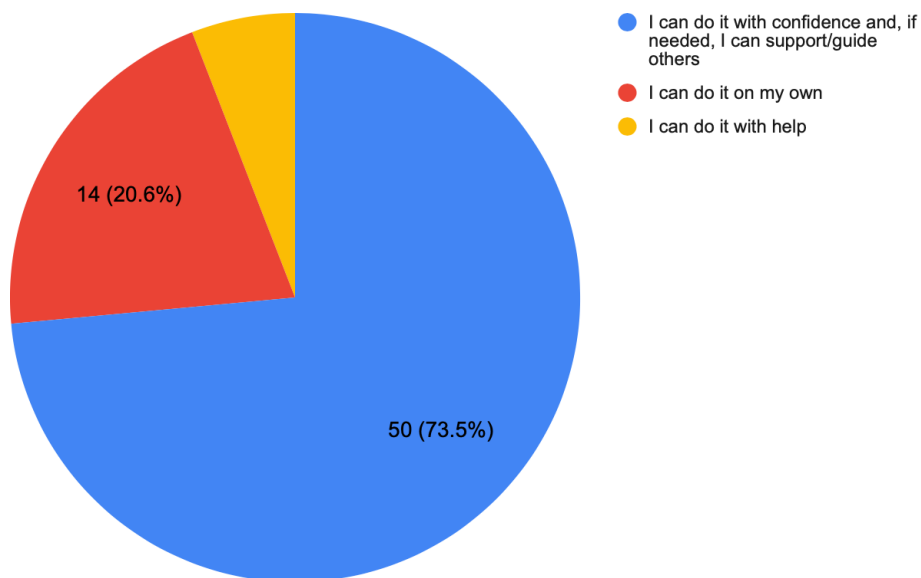


Figure 3

D. I know how to submit a complaint or suggestion online to a government body

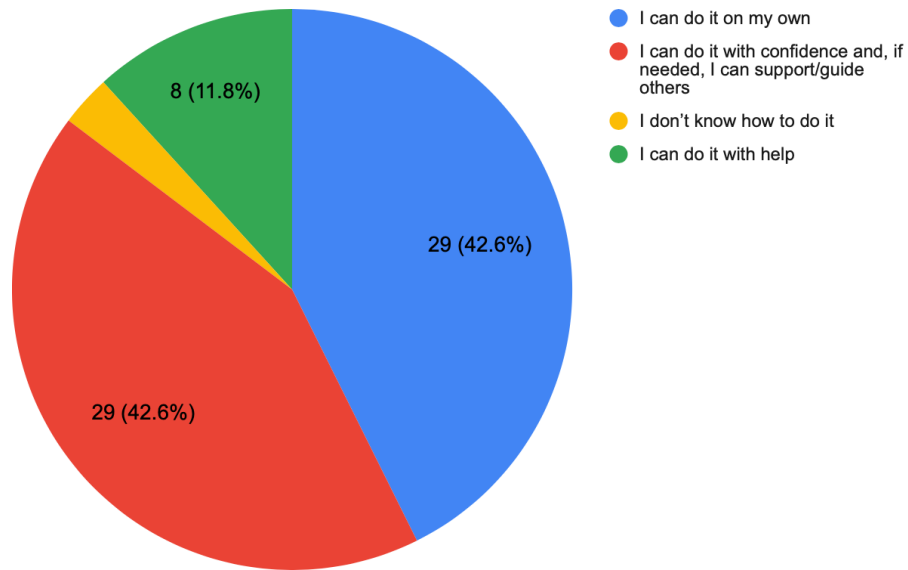


Figure 4

E. It matters to me to express opinions on social or political issues on discussion forums or in social media (e.g. Facebook, Twitter)

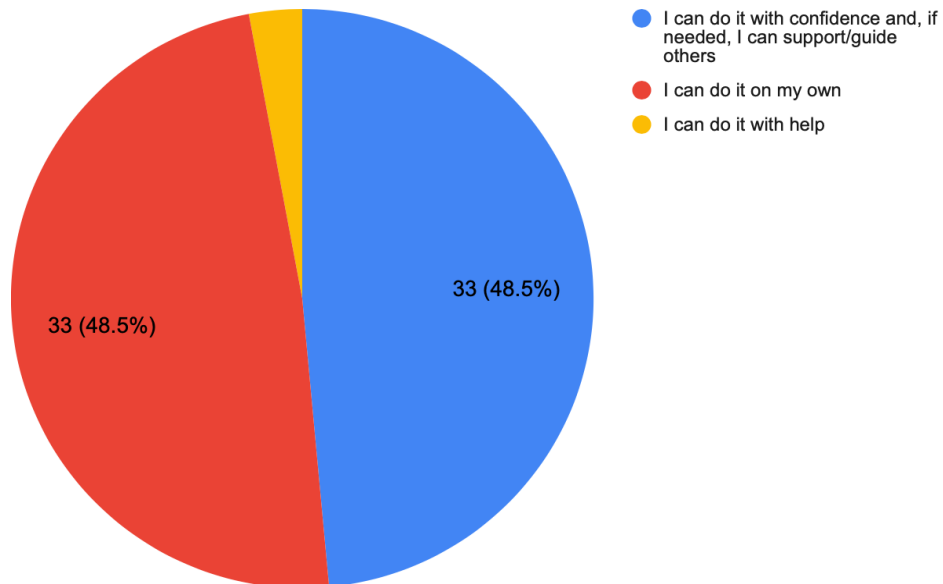


Figure 5

F. I know the benefits of using applications and digital platforms for remote collaboration

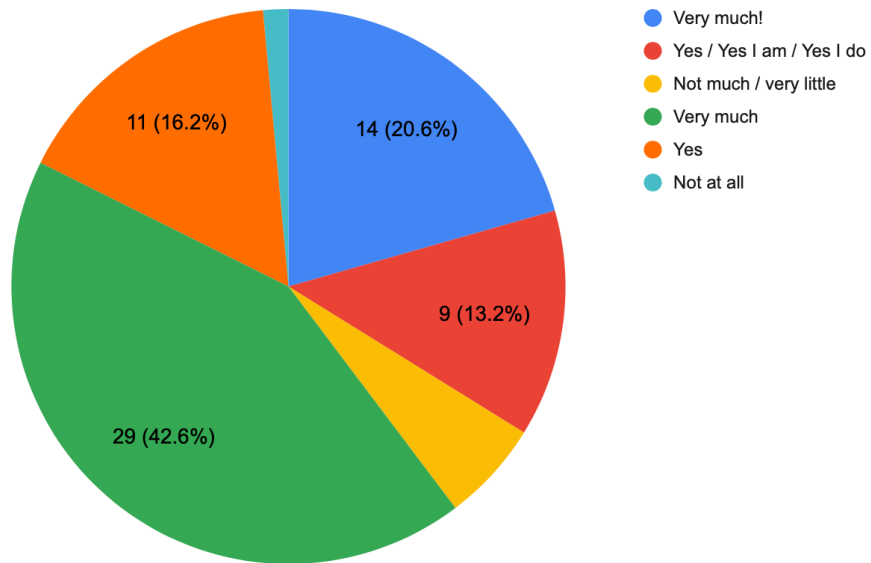


Figure 6

G. I know how to edit online a document shared with someone else

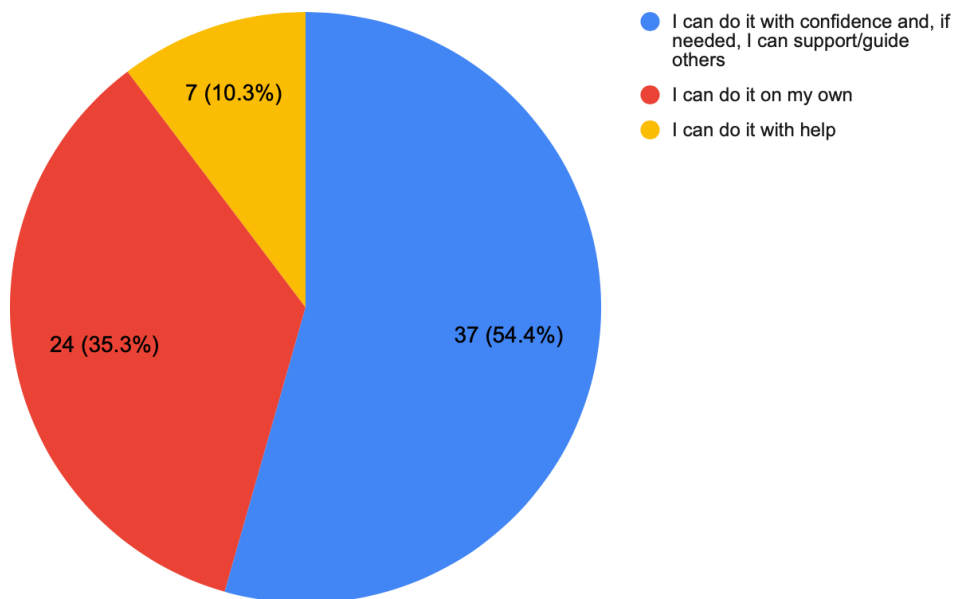


Figure 7

H. I know how to invite others and give appropriate permissions to collaborate on a shared document

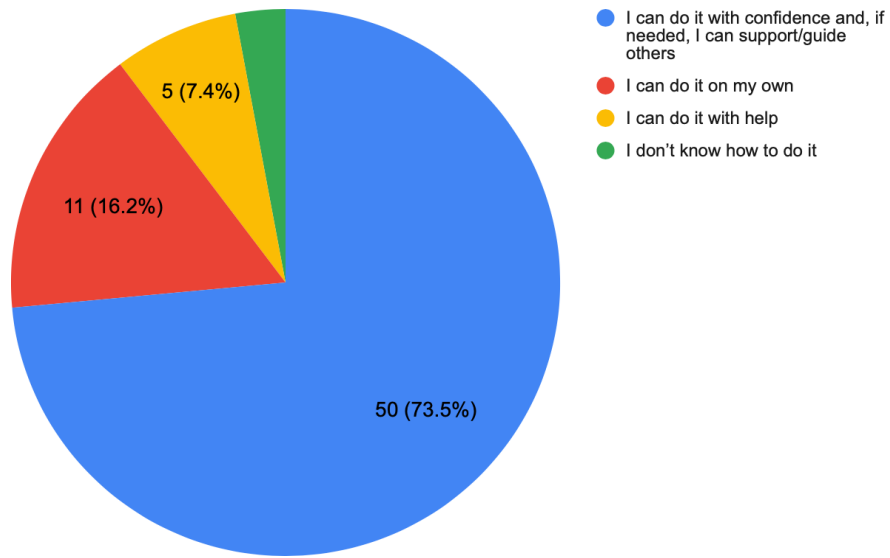


Figure 8

I. I know how to use a wiki platform to collaboratively work on content

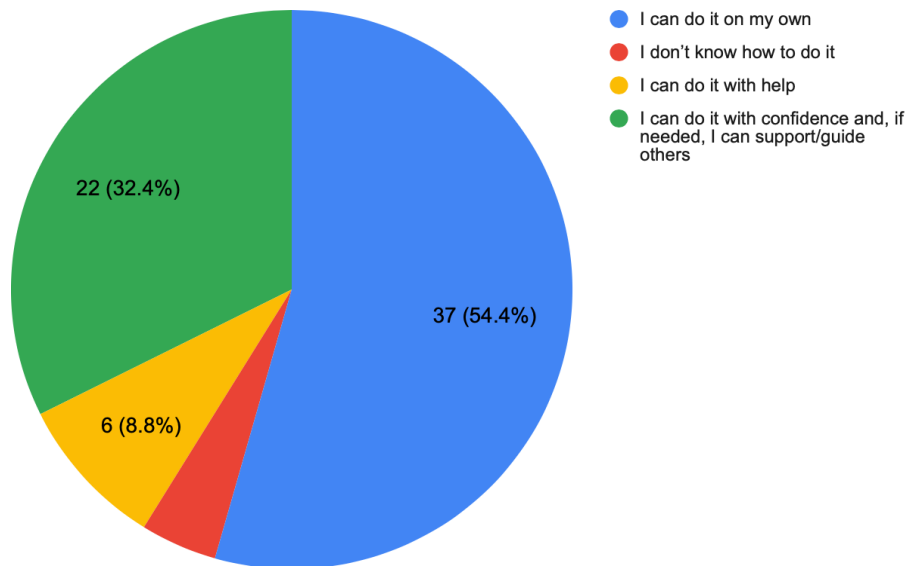


Figure 9

J. I know how to create and edit digital text documents

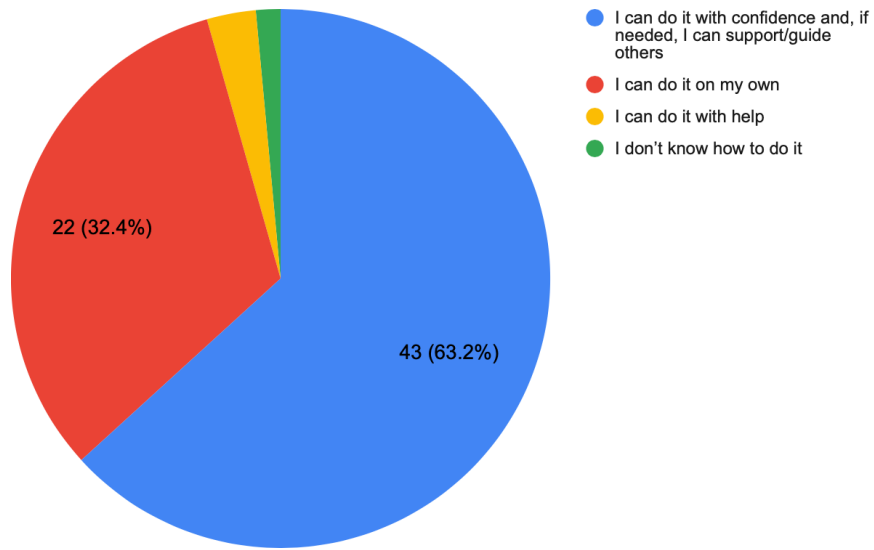


Figure 10

K. I know how to express myself by creating digital content on the internet (e.g. blog post, video on Youtube)

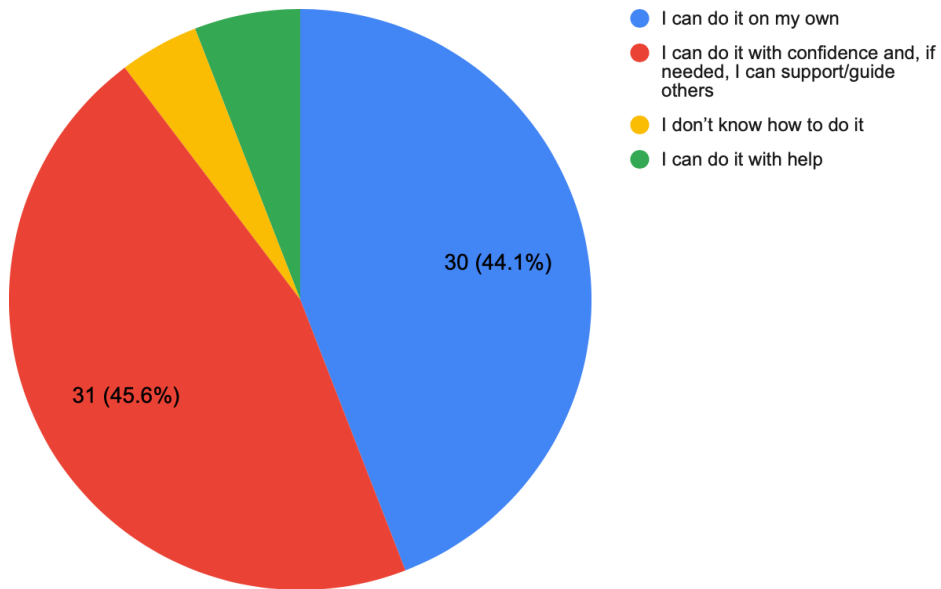


Figure 11

L. I know how to produce multimedia content using the right tool for the task

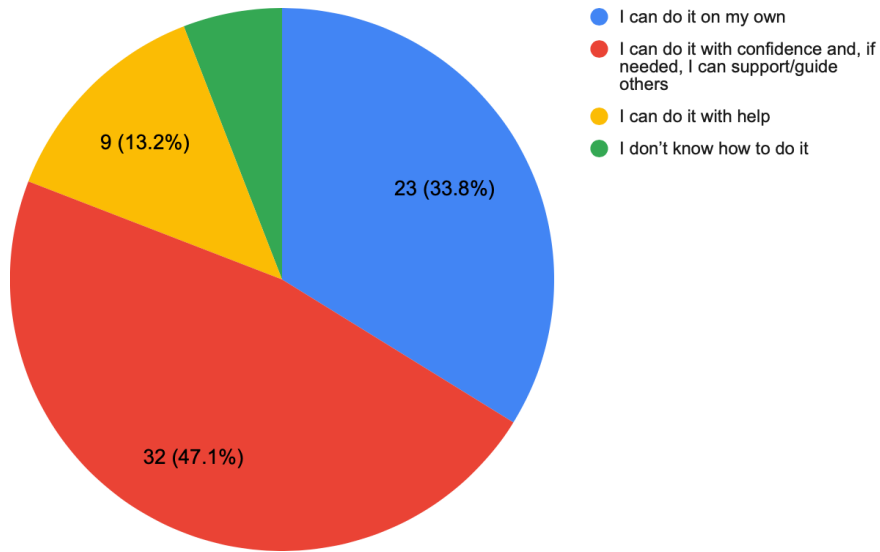


Figure 12

M. I think it is important to choose the right digital media to create and convey meaning for a given purpose (e.g. sometimes a photo can tell more than a thousand words)

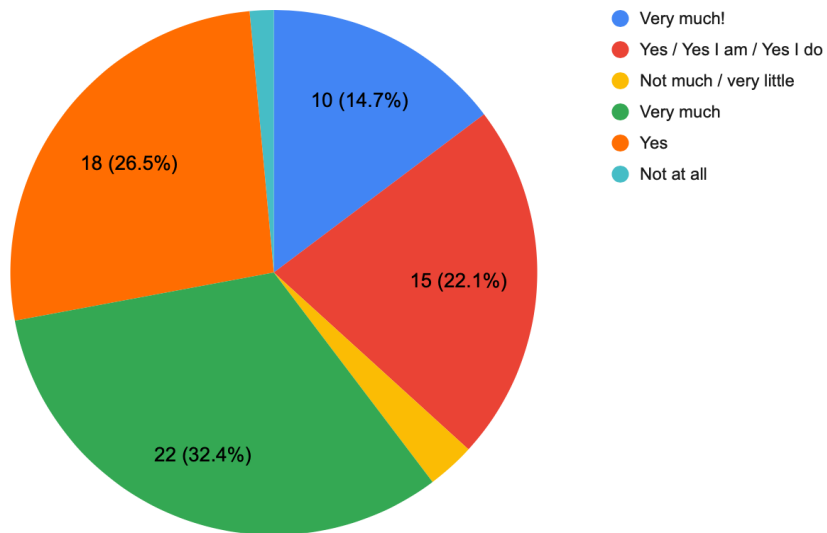


Figure 13



N. I am keen to explore digital resources that can be modified and integrated to generate new digital content

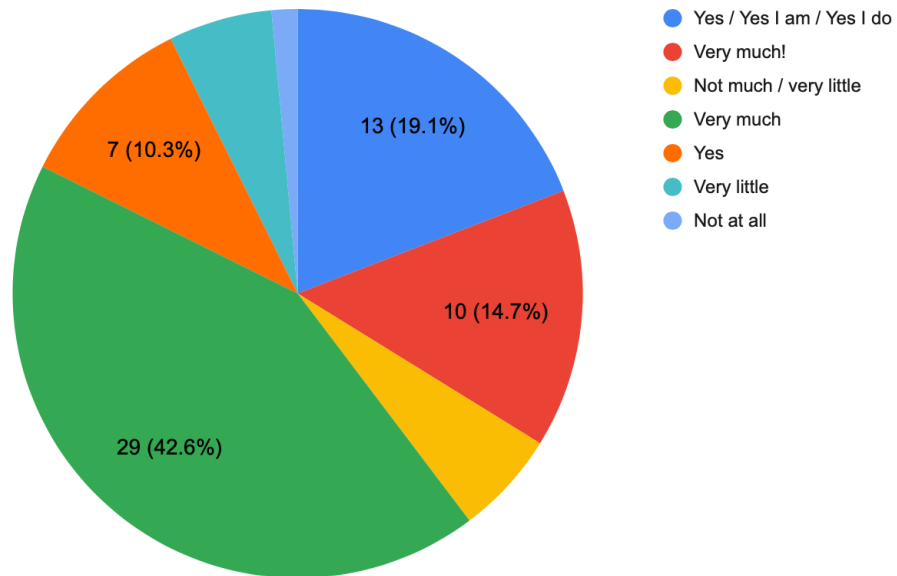


Figure 14

O. I am aware that some digital content can be reused and reworked legally (e.g. public domain or with Creative Commons licences)

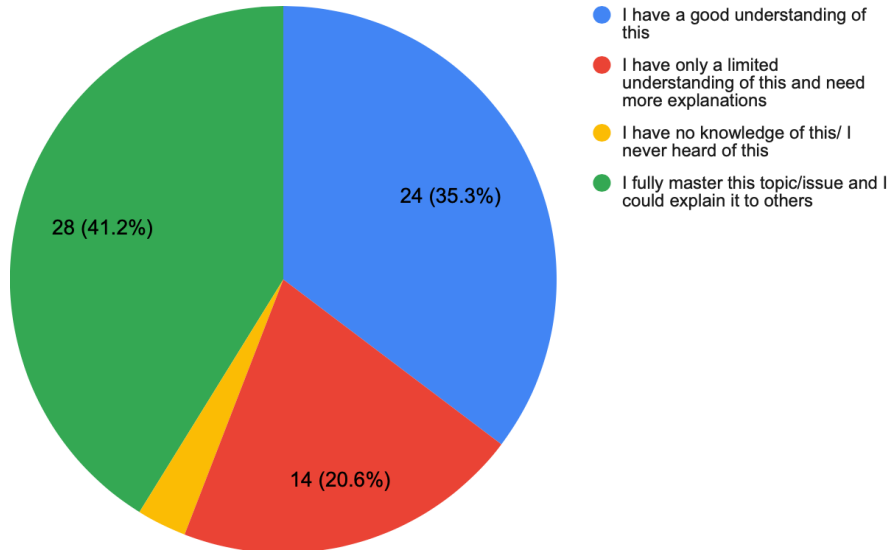


Figure 15

P. I know how to edit or improve digital content that other people have created (e.g. editing a wikipedia article)

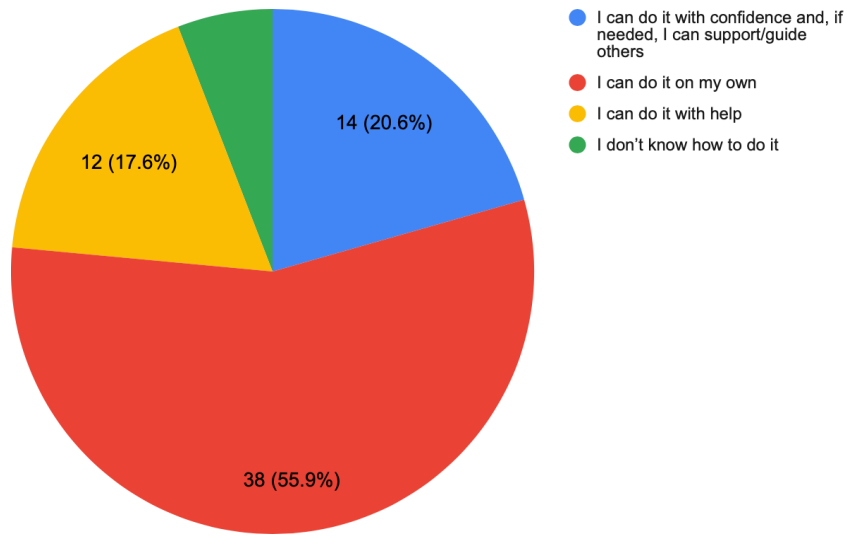


Figure 16

Q. I know how to create something new by mixing different types of content (e.g. video and music)

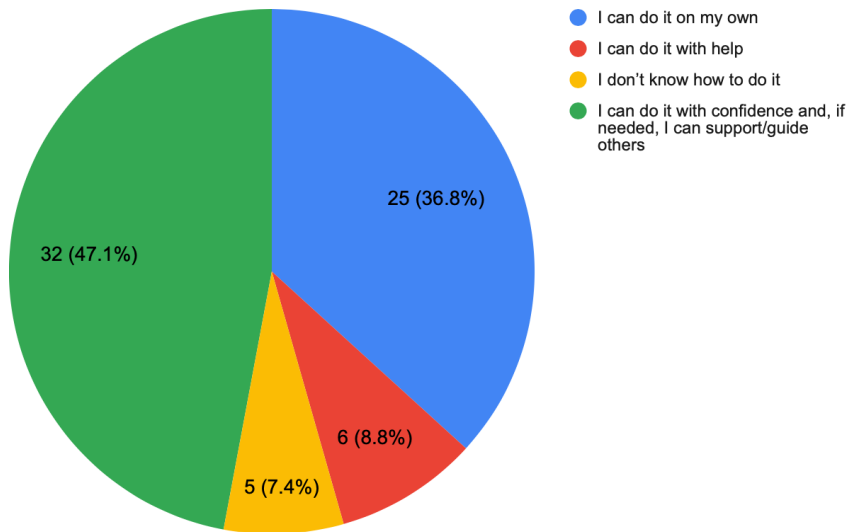


Figure 17

R. I proactively figure out how a task might be broken down into elementary steps so that it can be automated

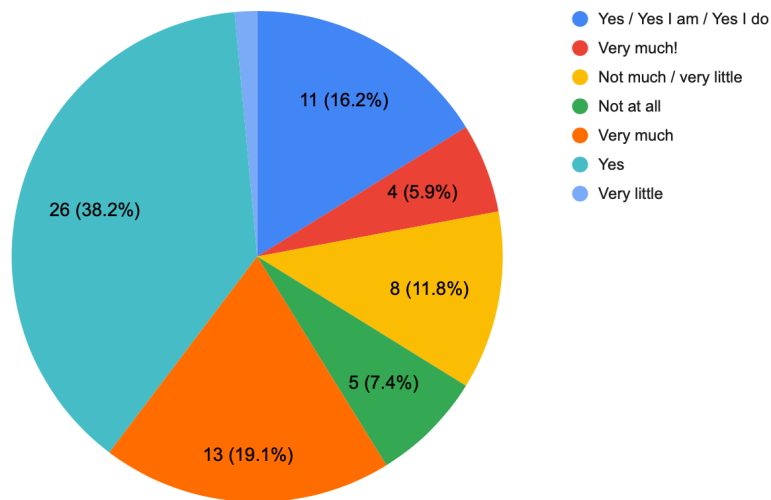


Figure 18

S. I understand the process that leads to the development of a sequence of understandable instructions that will be implemented in a given programming language

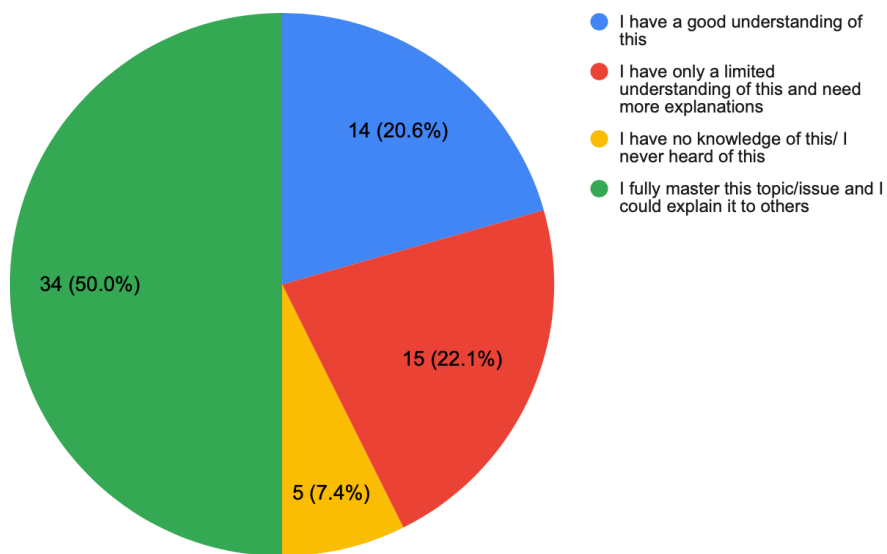


Figure 19.

T. I can write scripts, macros and simple stand-alone applications to automate the execution of a task

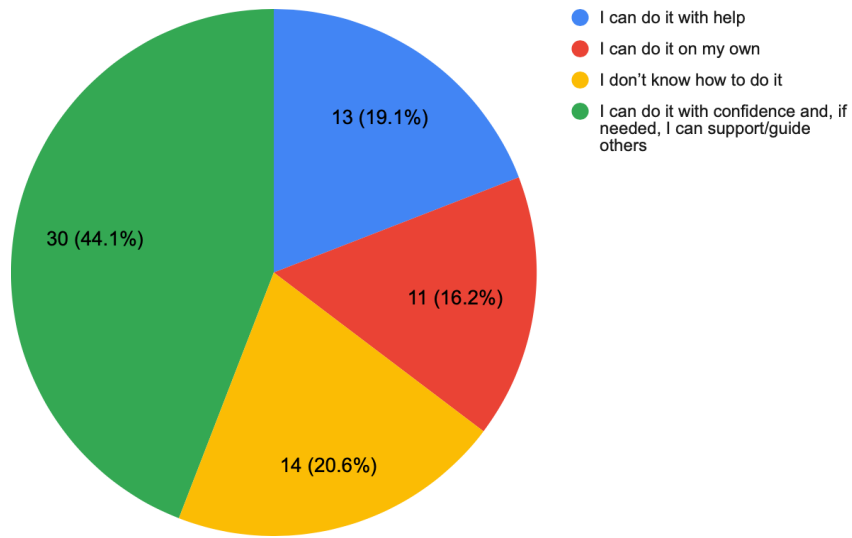


Figure 20

U. I know that there could be different algorithmic solutions to accomplish a specific computational task (e.g. sorting and searching)

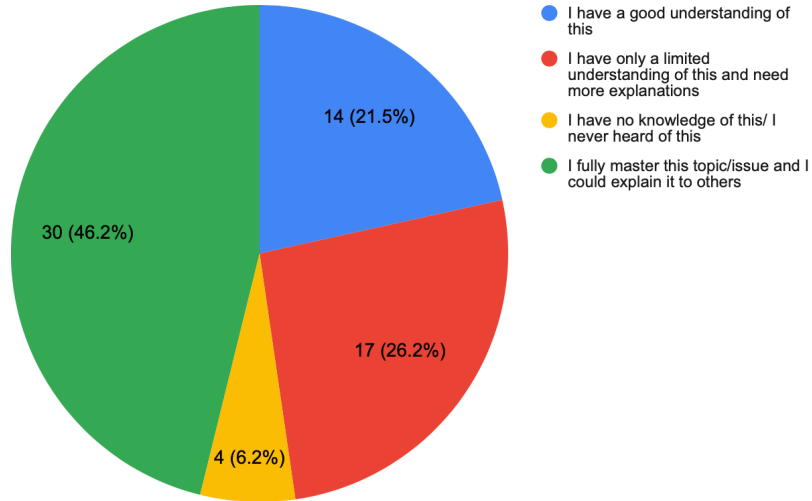


Figure 21

V. I usually try to find out if there is a technology solution that might help me address a personal or professional need

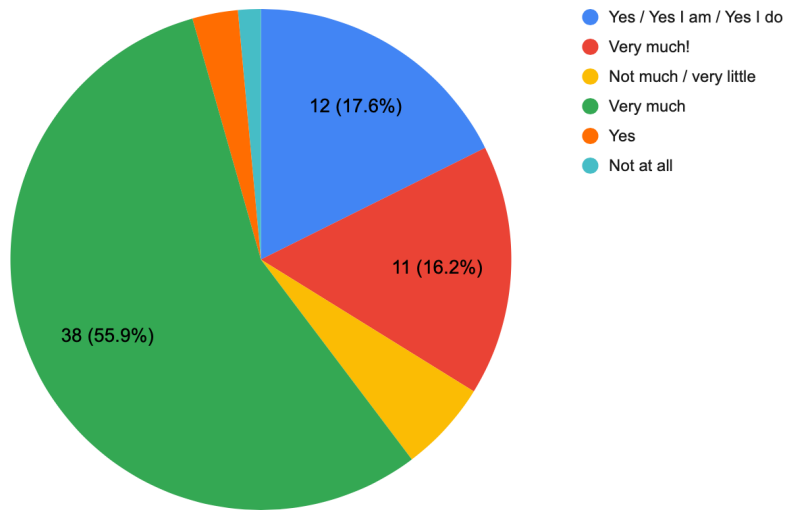


Figure 22

W. I can describe my needs when I buy digital devices, applications and services

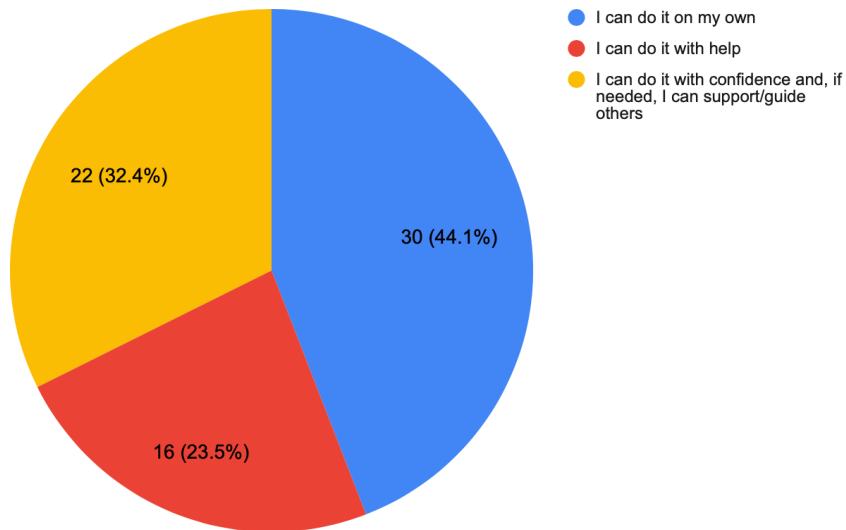


Figure 23

X. I know how to assess the pros and cons and choose the right tool, device or service to perform a new task

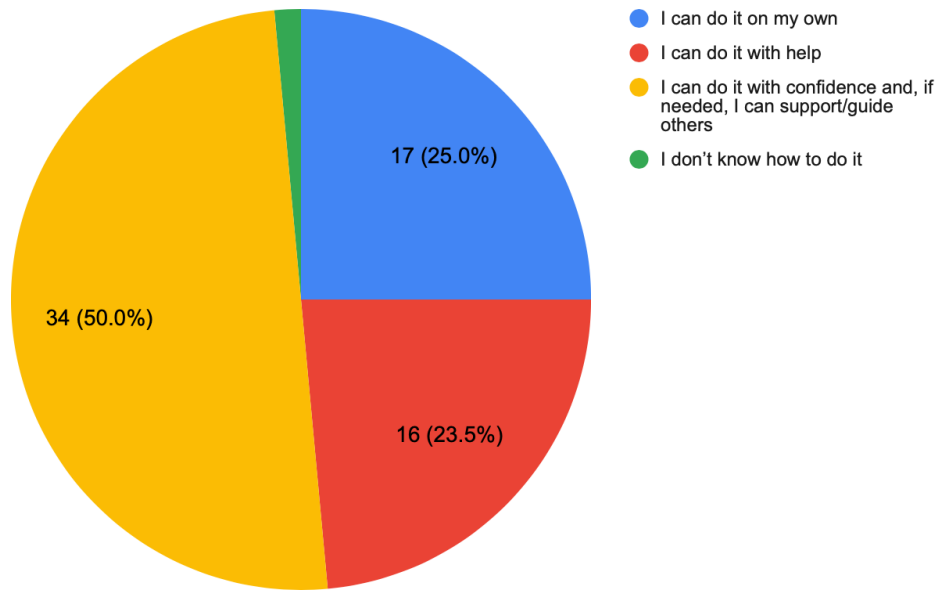


Figure 24

Y. I know technical solutions that can improve the access and use of digital tools such as language translation, magnification or zoom and text-to-voice functionality

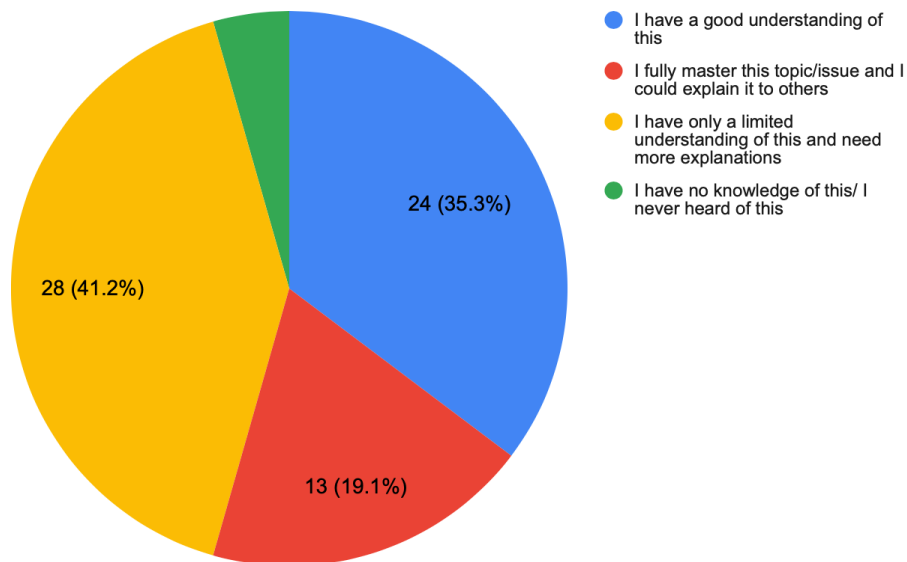


Figure 25

Z. I know that digital technology can be used as a powerful tool to innovate processes and products

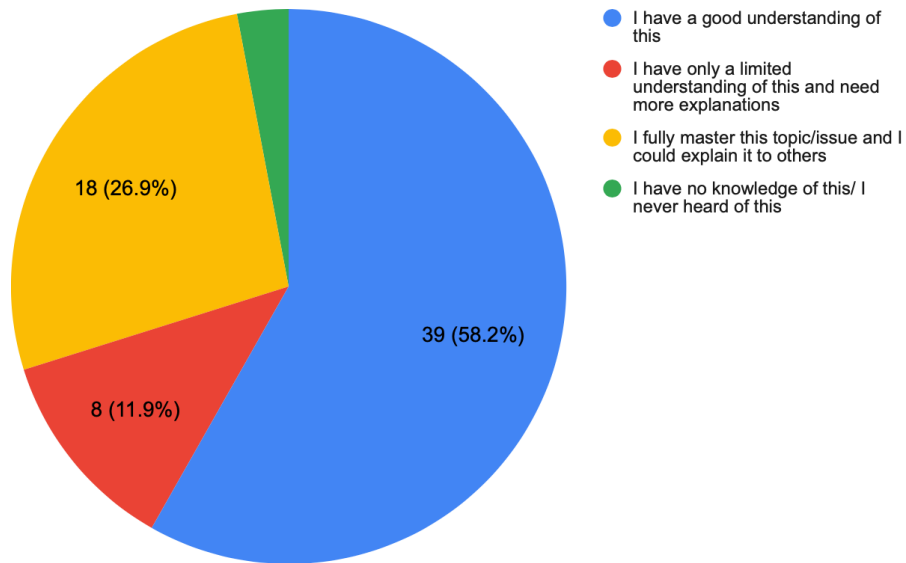


Figure 26

AA. I am aware that technologies can be used creatively (e.g. for tinkering and for prototyping new products like in the maker movement)

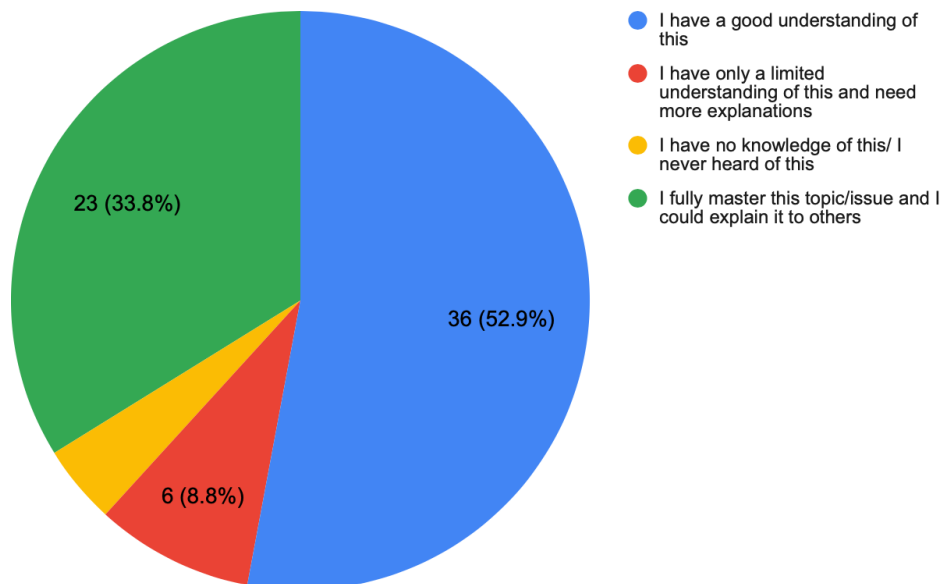


Figure 27

BB. I enjoy engaging in challenges and contests aimed at solving intellectual, social or practical problems with digital technologies

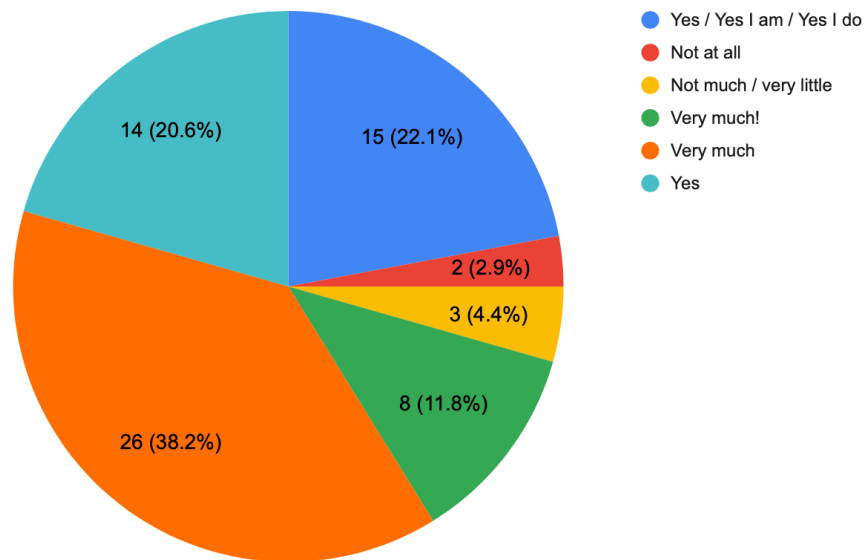


Figure 28

CC. I can use data tools that manage and organise complex information to make decisions and solve problems

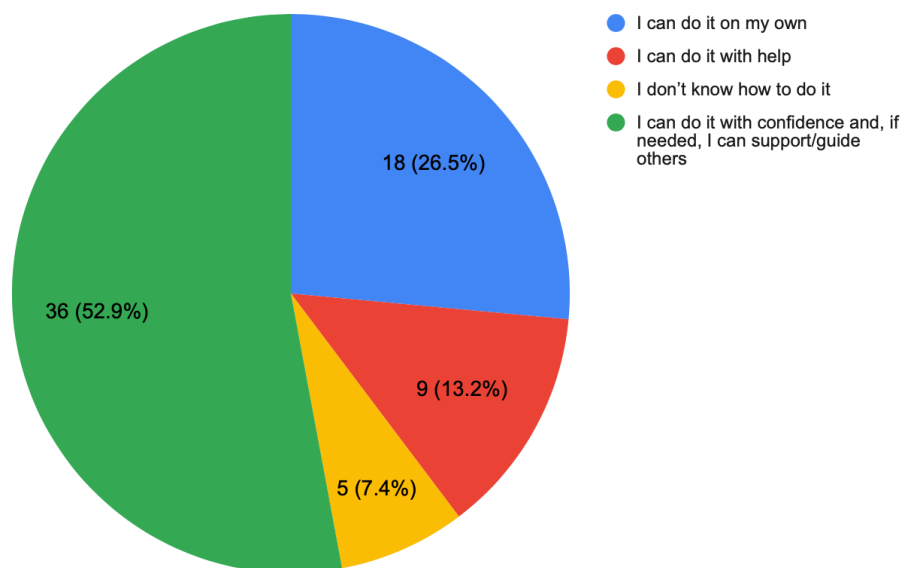


Figure 29



DD. I know why digital skills are essential for work and to fully participate in society

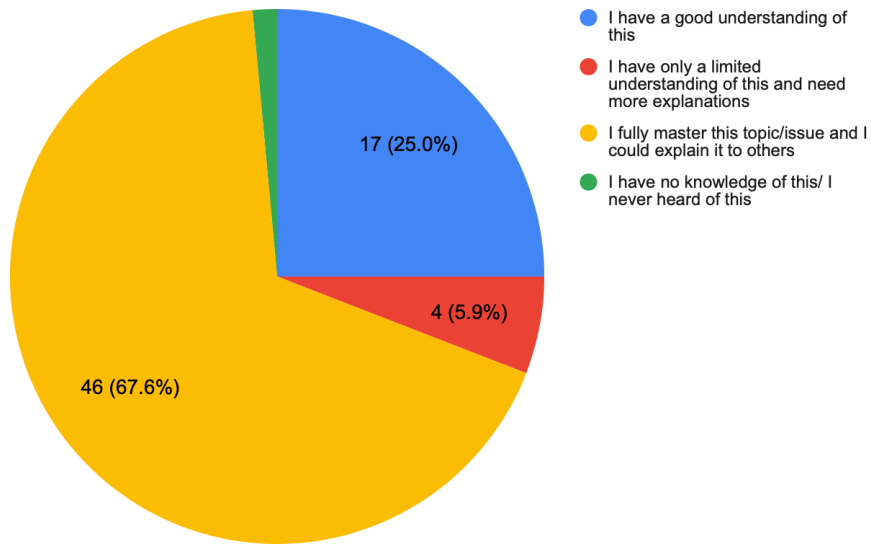


Figure 30

EE. I am able to help people in my community improve their digital skills

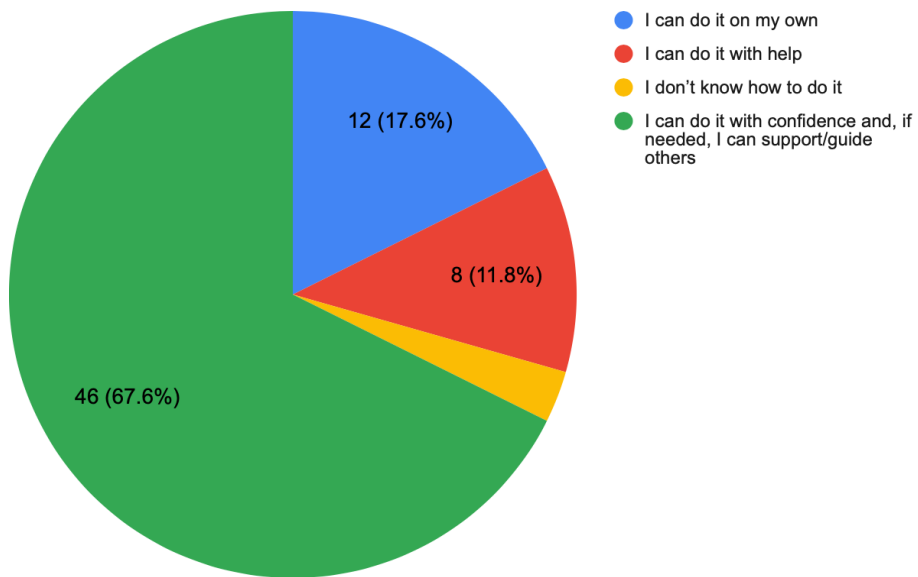


Figure 31

FF. I am curious about new digital devices and applications and like to experiment with them whenever I find the opportunity

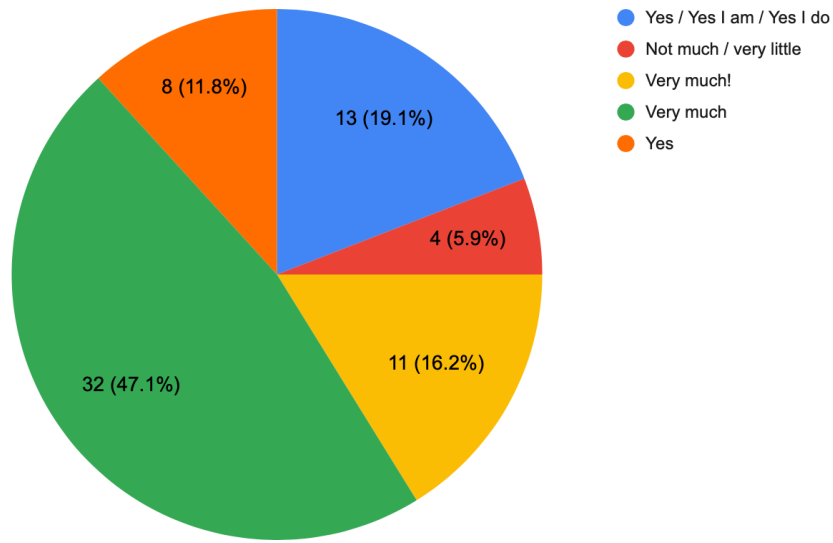


Figure 32

GG. I know how to use online learning platforms to assess and improve my digital skills

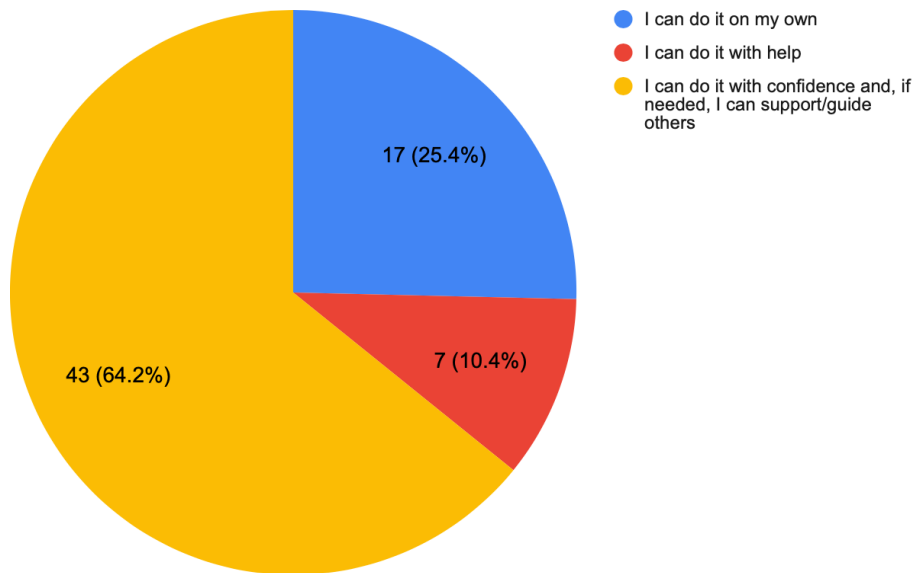


Figure 33

HH. I know about new trends in the digital world and how they impact on my personal or professional life

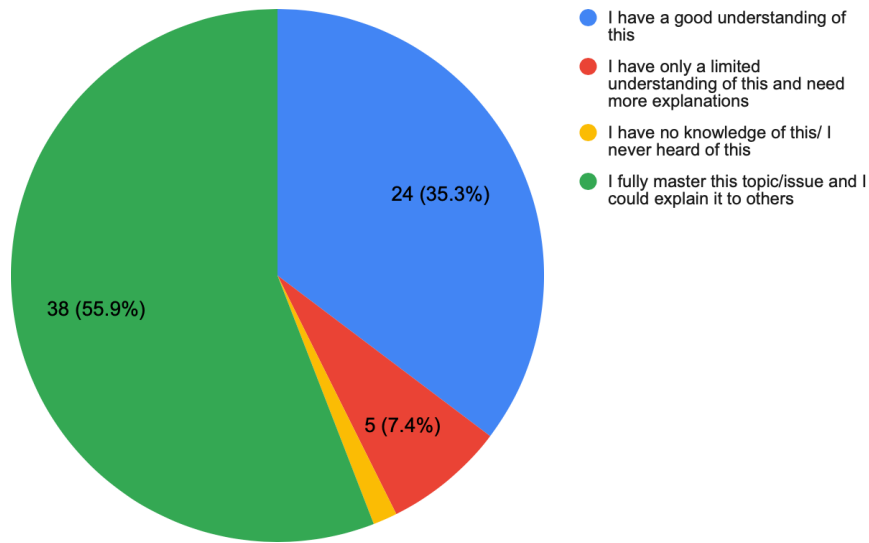


Figure 34

II. I actively try to keep up to date with the digital evolution, including its underlying business models, algorithms and data uses

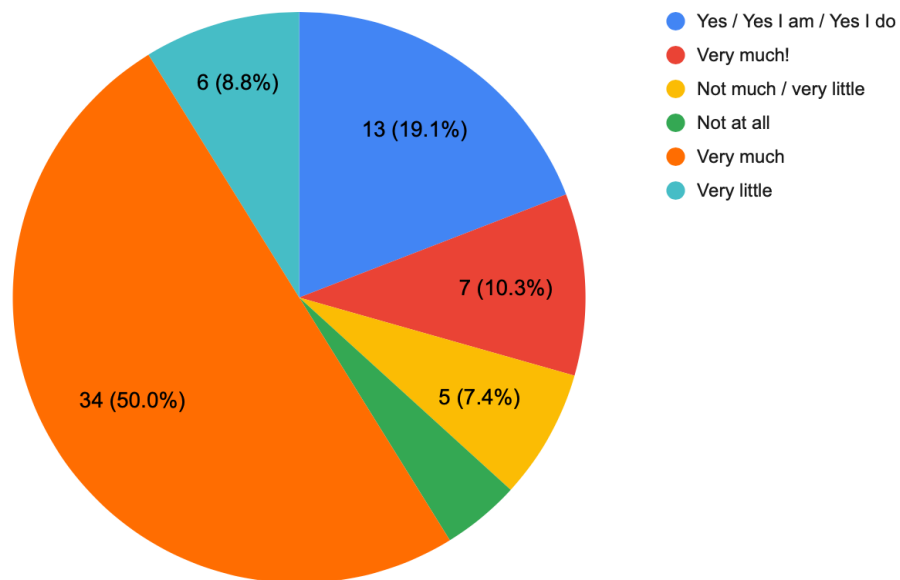


Figure 35

## Conclusion

Overall, 145 people participated in the HEIDI O4A4 pilots that took place from July to November 2022. Participants were actively engaged in discussions on digital skills and their acquisition through digital actions that were designed to address a social issue, while they themselves were involved in activities that aimed to enhance their digital skills. Based on the O4A4 evaluations, we observe that the majority of participants can be defined as digitally upskilled in terms of regular use of digital tools and technologies, while they show a vivid interest in understanding how their digital skills can be used to foster social change and innovation.

The O4A4 training pilots and their evaluation bring forward the need to expand research on digital skills acquisition in informal learning contexts, such as the ones provided through bottom-up digital actions. The O4A5 impact report aimed to leverage the potential of the European DigComp 2.2 framework and its assessment tool (DigCompSAT) in order to provide a unified and pan-European approach to digital skills evaluation, thus promoting its use in several audiences and target groups, from higher education professionals to students and community stakeholders.