

F Education and digital skills

Data on **numbers of computers at schools** per 100 pupils/students or 1 teacher of respective school grades, as well as on school equipment with other ICTs in the Czech Republic come from data sources of the **Ministry of Education, Youth and Sports**. The Ministry collect these data at nursery, primary, secondary, and higher professional schools within the annual questionnaire called Report of Schools Headquarters (R 13-01). The data are as at **30 September of the reference year**.

More information on these fields can be found at:

https://www.czso.cz/csu/czso/information_technologies_in_schools

The independent annual statistical survey called **Sample Survey on the ICT Use in Households and by Individuals** (for details see Chapter C) has been a valuable source of information on how **students aged 16+ years** use information technologies.

The **Sample Survey on the ICT Use in Households and by Individuals** is also a source of data on **online learning activities** over the internet. Within the survey, respondents were asked if they attended an online course, used online learning material or communicated with instructors using educational portals within **the last 3 months** prior the survey.

The indicators on **computer (digital) skills** of people in Czechia are also based on results from the above-mentioned Sample Survey on the ICT Use in Households and by Individuals. Within the survey, respondents were asked if they used selected digital skills in **the last 3 months**.

Definitions (sorted alphabetically)

- **Copying or moving files** between folders or between two computers (e.g. via USB flash drive) or between computers and other devices (e.g. from/to mobile phone via Bluetooth)
- **Editing photos** means using photo editing software e.g. Adobe Photoshop or GIMP. The software for editing allows to add effects, filters, overlays and use other tools.
- **Presentation software** e.g. Powerpoint or Prezi is used to create slides for presentation integrating text, pictures, tables or charts.
- **Programming** shall include the use of programming languages as Java, C, Python, Pascal, for instance, writing of scripts in PHP or JavaScript, for instance, writing of source codes, formatting and generating of tools, binary tools for compatibility analyses, tools for code checking, generators of documentation, generators of interfaces, etc.
- **School Intranet** uses most of the same technology as the internet but it is restricted only to a limited group of users within an organization, typically to students and staff of given school. The access by outsiders is excluded.
- **School Wireless Network** (school WiFi network) enables students and school staff using portable devices in a school to connect to the school computer network. An example is international roaming service Eduroam.
- **Spreadsheet software** e.g. MS Excel is used to organise and analyse data, such as sorting, filtering, using formulas or creating charts.

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- **The participation in an online course** shall include a participation in course attended over the internet. Students communicate with lecturers over the internet, study materials are also sent online. Online courses may include language courses, personal development courses, computer courses and more. It also includes courses made through the applications such as Duolingo.
- **Using online learning material** includes using audio-visual materials, online learning software or electronic textbooks. Excludes downloading such material for offline use at a later point of time.
- **Word processing software** e.g. MS Word or OpenOffice Writer is used to create a document with text.

More information on these fields can be found at:

https://www.czso.cz/csu/czso/vyuzivani_informacnich_tehnologii_studenty

(in the Czech language only)

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Table F1 Schools in Czechia with wireless network and school intranet; 2022

	Percentage		
	Basic schools - first stage	Basic schools - second stage	Secondary schools
School intranet, total	69,4	83,0	87,9
available to parents	58,5	74,1	82,5
School wireless network	97,9	98,5	97,7

Figure F1 Schools with school intranet

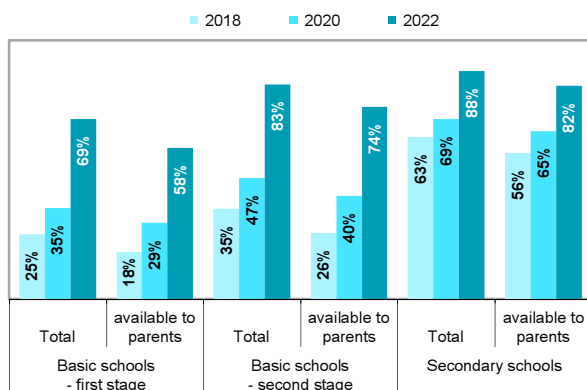
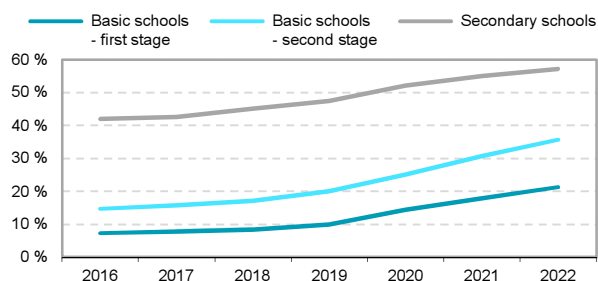


Table F2 Schools in Czechia permitting students to use their personally owned devices during classes

	Percentage		
	2020	2021	2022
Basic schools - first stage	14,4	17,9	21,2
Basic schools - second stage	25,0	30,8	35,7
Secondary schools	52,1	55,0	57,2

Figure F2 Schools permitting students to use their personally owned devices during classes



Source: Ministry of Education, Youth and Sports and CZSO own calculations

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Table F3 Computers available to students in schools in Czechia; 2022

Number of devices per 100 students in a given school type

	Basic schools - first stage	Basic schools - second stage	Secondary schools
Computers, total	32,9	40,6	28,1
of which up to 2 years old	12,1	15,4	8,1
Portable computers	18,7	22,0	8,5
of which up to 2 years old	9,0	10,9	3,7
Desktops	14,2	18,6	19,6
of which up to 2 years old	3,1	4,5	4,4

Figure F3 Computers available to students in schools (thous.)

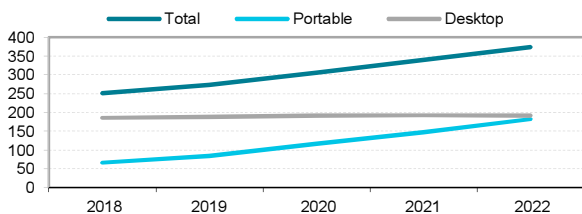


Figure F4 Type of computers available to students in schools (per 100 students in a given school type)

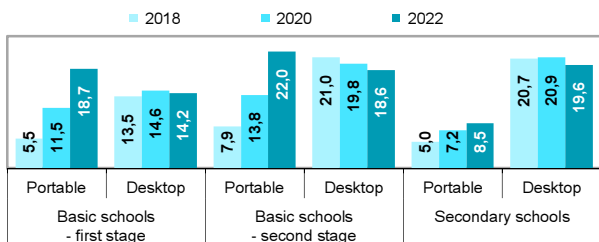
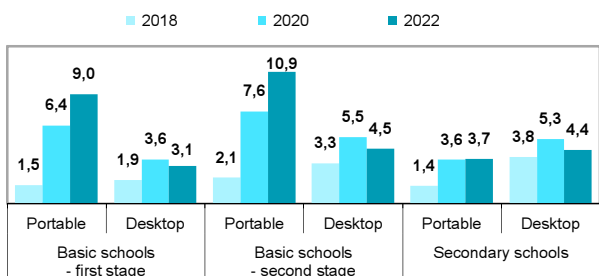


Figure F5 Computers up to age of two years available to students in schools (per 100 students in a given school type)



Source: Ministry of Education, Youth and Sports and CZSO own calculations

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Table F4 Computers available to teachers in schools in Czechia; 2022

Number of devices per 1 teacher in a given school type

	Basic schools - first stage	Basic schools - second stage	Secondary schools
Computers, total	2,0	2,1	1,9
for individual use (not shared)	1,2	1,3	1,2
Portable computers	1,3	1,4	0,9
for individual use (not shared)	1,0	1,1	0,8
Desktops	0,7	0,8	0,9
for individual use (not shared)	0,1	0,2	0,4

Figure F6 Computers for teachers in schools (thousand)

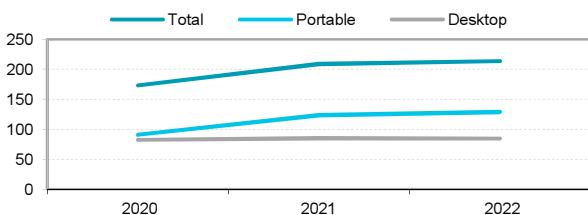


Figure F7 Computers available to teachers in schools (per 1 teacher in a given school type)

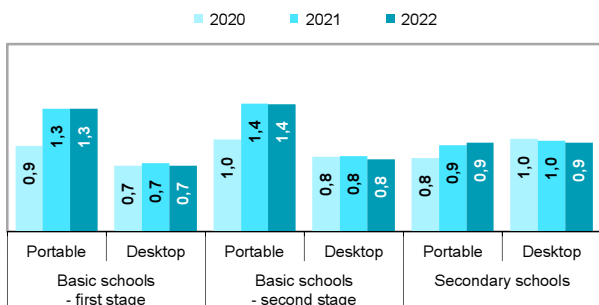
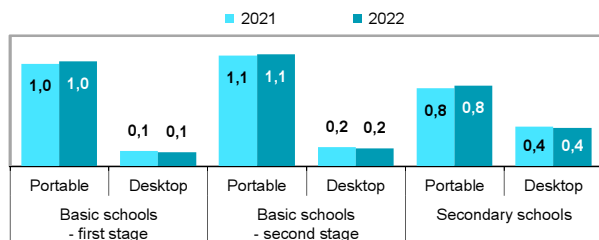


Figure F8 Computers intended for individual use by teachers (per 1 teacher in a given school type)



Source: Ministry of Education, Youth and Sports and CZSO own calculations

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Table F5 Persons in Czechia using the internet for selected learning activities; 2022

	Percentage	
	Doing an online course	Using online learning materials
Total (aged 16+)	15,3	14,7
Men	14,8	15,5
Women	15,8	14,0
Age group (years)		
16–24	34,3	41,0
25–34	20,8	20,7
35–44	21,5	18,8
45–54	17,8	14,0
55–64	8,8	7,6
65–74	2,8	3,2
75+	0,5	1,1
Education attainment (aged 25–64)		
Secondary without A-level exam. and lower	2,3	3,5
Secondary with A-level examination	19,6	16,0
Tertiary	37,5	32,6

Figure F9 Persons aged 16+ doing an online course

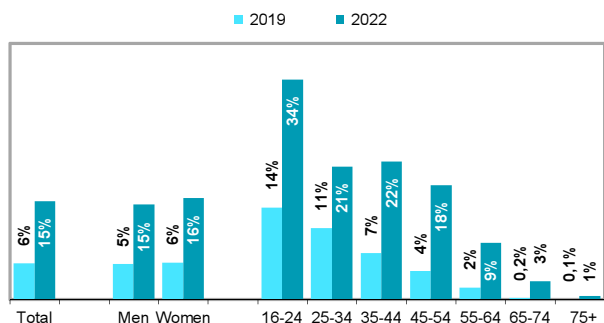
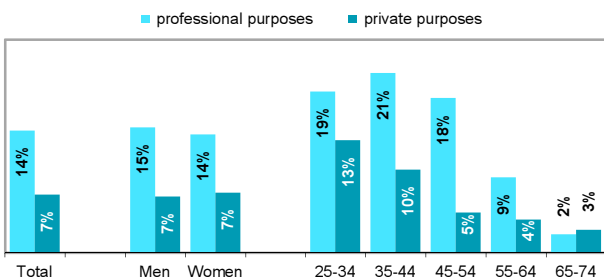


Figure F10 Persons aged 16–74 years who attended an online course by purposes of learning activities; 2022



as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households

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Figure F11 Persons aged 16–74 years in EU countries who attended an online course; 2022

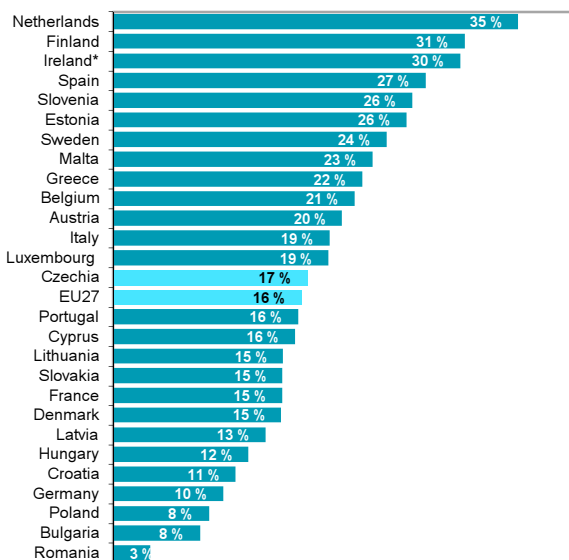
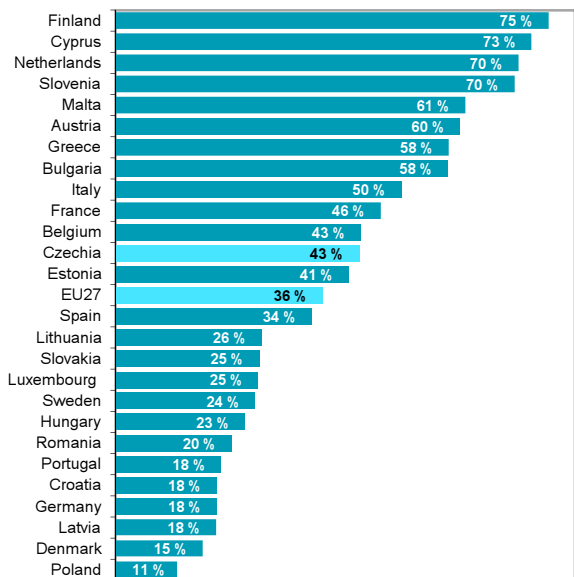


Figure F12 Students aged 16+ in EU countries who attended an online course; 2022



* data for 2021

Source: Eurostat

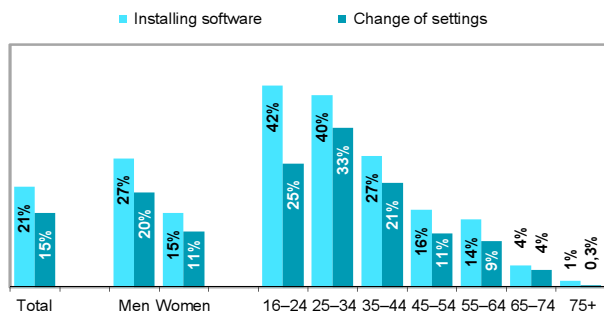
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Table F6 Persons in Czechia using selected digital skills; 2021

Percentage

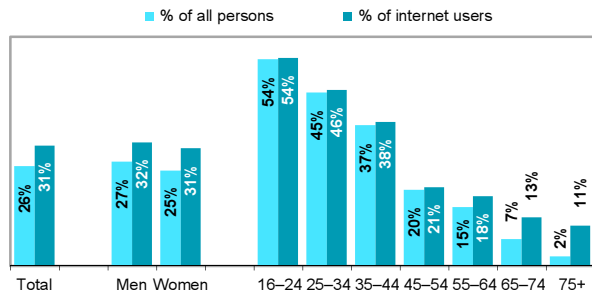
	Copying files	Editing photos	Program-ming
Total (aged 16+)	52,2	26,0	4,9
Men	54,7	27,2	7,8
Women	49,9	24,9	2,1
Age group (years)			
16–24	84,2	54,1	11,9
25–34	76,2	45,4	10,7
35–44	67,5	36,8	6,8
45–54	58,0	19,8	3,0
55–64	43,5	15,3	1,5
65–74	18,1	7,0	0,4
75+	5,2	2,4	
Education attainment (aged 25–64)			
Secondary without A-level exam. and lower	35,6	15,7	0,8
Secondary with A-level examination	70,4	31,0	5,2
Tertiary	90,9	49,5	13,7

Figure F13 Installing software and change of settings by gender and age; 2021



as a percentage of all persons in a given socio-demographic group

Figure F14 Using photo editing software or apps by gender and age; 2021



Source: Czech Statistical Office, ICT use survey in households

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Figure F15 Persons aged 16–74 years in EU countries who used photo or video editing software; 2021

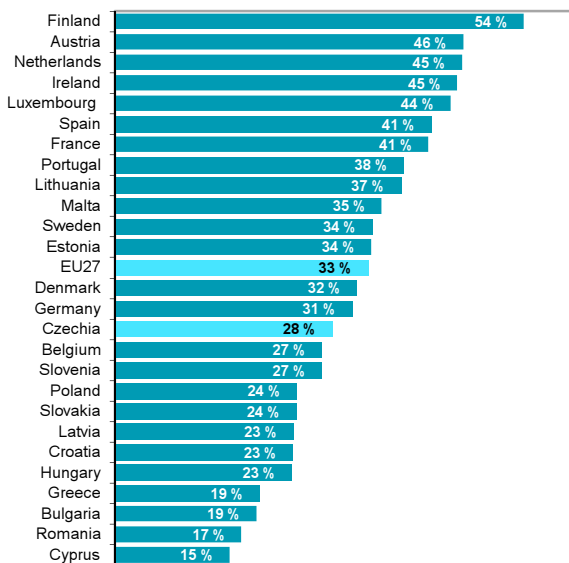
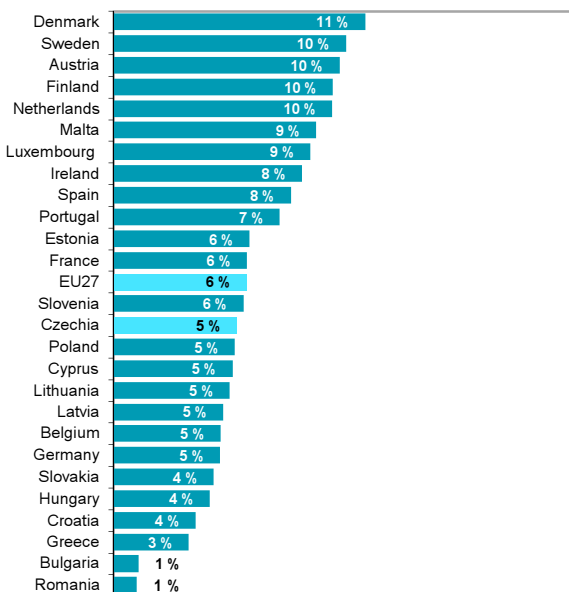


Figure F16 Persons aged 16–74 years in EU countries who do programming; 2021



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Table F7 Persons in Czechia using office software; 2021

	Percentage		
	Word processing software	Spreadsheet software	Presentation software
Total (aged 16+)	48,9	36,8	16,5
Men	49,9	38,8	18,3
Women	47,9	34,9	14,9
Age group (years)			
16–24	80,1	67,5	55,6
25–34	66,4	52,6	22,9
35–44	64,0	48,4	21,8
45–54	53,9	40,2	12,4
55–64	43,5	30,4	7,0
65–74	17,0	8,8	1,7
75+	5,8	2,9	0,3
Education attainment (aged 25–64)			
Secondary without A-level examination and lower	28,0	15,2	3,6
Secondary with A-level examination	67,9	51,7	14,5
Tertiary	89,3	76,2	39,9

Figure F17 Using word processing software; 2021

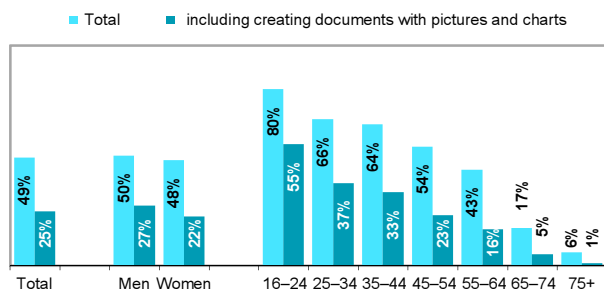
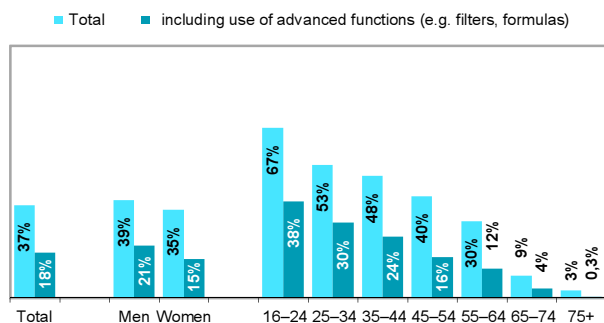


Figure F18 Using spreadsheet software; 2021



as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households

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Figure F19 Persons aged 16–74 years in EU countries who used word processing software; 2021

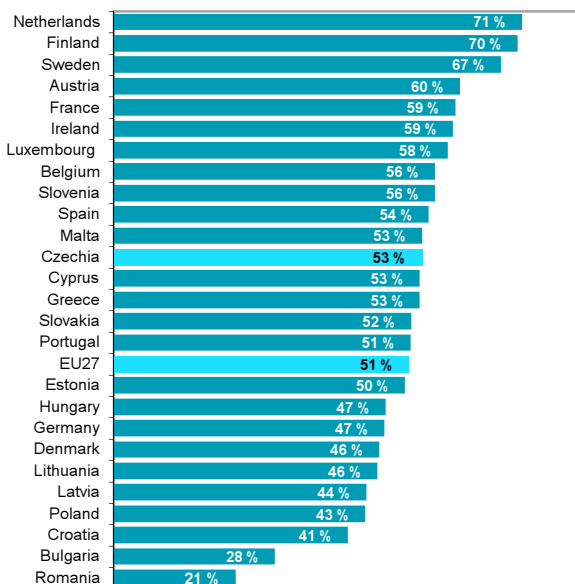
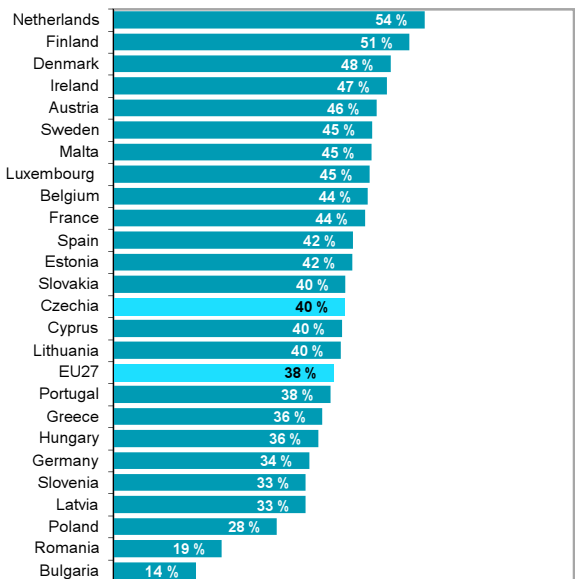


Figure F20 Persons aged 16–74 years in EU countries who used spreadsheet software; 2021



Source: Eurostat

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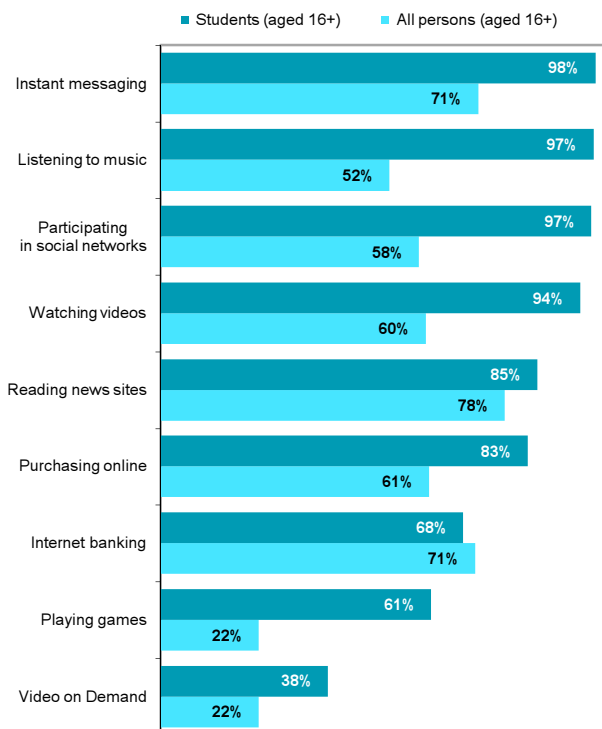
Table F8 Students aged 16+ in Czechia using the internet; 2022

Percentage

	Total	Men	Women
Total	100,0	100,0	100,0
Using the internet on a mobile phone	99,4	100,0	98,9
For selected activities			
Instant messaging	97,9	99,4	96,3
Participating in social networks	96,9	98,3	95,5
Reading news sites	84,8	84,8	84,9
Listening to music, total	97,4	97,8	97,1
Listening to music on Demand	25,7	23,6	27,8
Watching videos, total	94,4	96,4	92,4
Watching Video on Demand	37,7	39,7	35,7
Purchasing online	82,7	80,3	85,1
Internet banking	68,1	67,7	68,6
Playing games, total	60,9	76,6	45,1
Playing games on Demand	16,4	25,5	7,1

as a percentage of all students (men/women) aged 16+

Figure F21 Students and persons aged 16+ using the internet for selected activities; 2022



Source: Czech Statistical Office, ICT use survey in households

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Figure F22 Students aged 16+ in Czechia and EU countries using the internet for selected activities; 2022

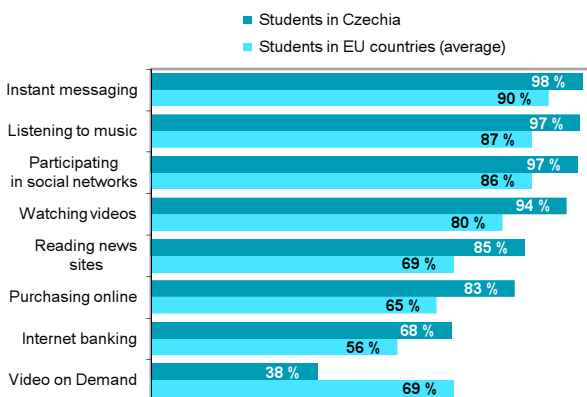
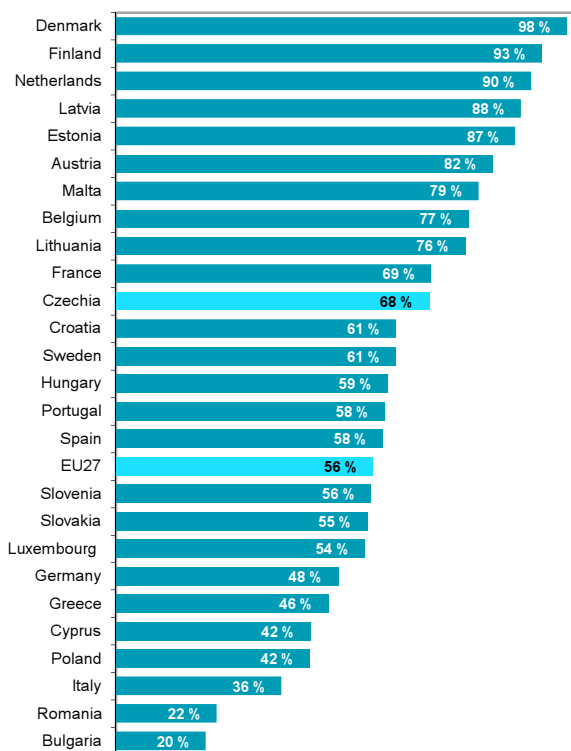


Figure F23 Students aged 16+ in EU countries using internet banking; 2022



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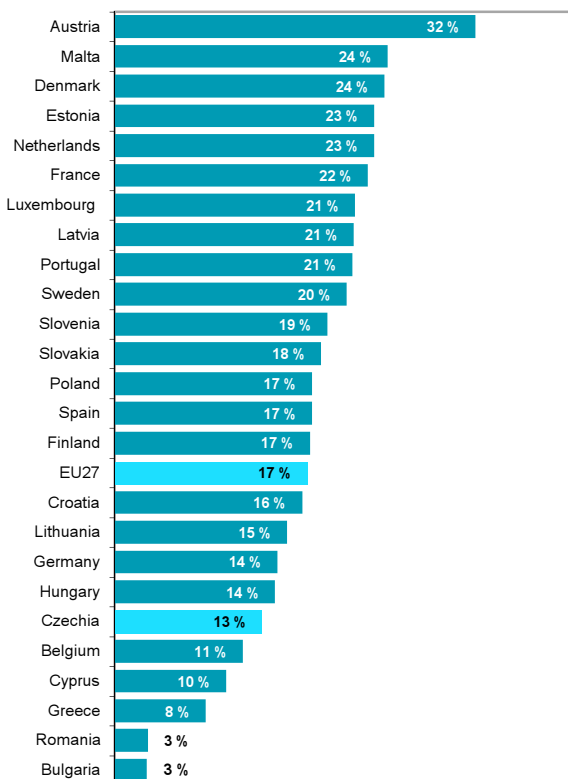
Table F9 Students aged 16+ in Czechia using selected software; 2021

	Percentage		
	Celkem	Men	Women
Word processing software, total	91,0	90,7	91,3
advanced functions (e.g. inserting pictures or charts)	66,0	65,9	66,2
Spreadsheet software, total	79,5	80,6	78,5
advanced functions (e.g. filtering, formulas usage)	47,7	47,7	47,6
Presentation software	67,2	70,7	63,8
Photo/ video editing software and apps	59,9	56,3	63,5
Programming	12,9	17,2	8,5

as a percentage of all students (men/women) aged 16+

Source: Czech Statistical Office, ICT use survey in households

Figure F24 Students aged 16+ in EU countries who do programming; 2021



Source: Eurostat