



# Study of the Internet Use Issues in War-Time

2023. Analytical Report

Developed by Factum Group for iNGO European Media Platform

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# Study Design

# Study Design

## Internet user telephone survey



### Target audience

- **Men and women**
- **Age 18 to 65**
- **Internet users**



### Geography

**Ukraine, urban and rural population**  
(except for area of combat operations and temporarily occupied territories)



### Method

**CATI** (Computer Assisted Telephone Interview)

**Interview duration:** 10 minutes



### Sample

**2000** surveyed

Representative sampling. Screener quotes:  
Gender/age; region/locality type



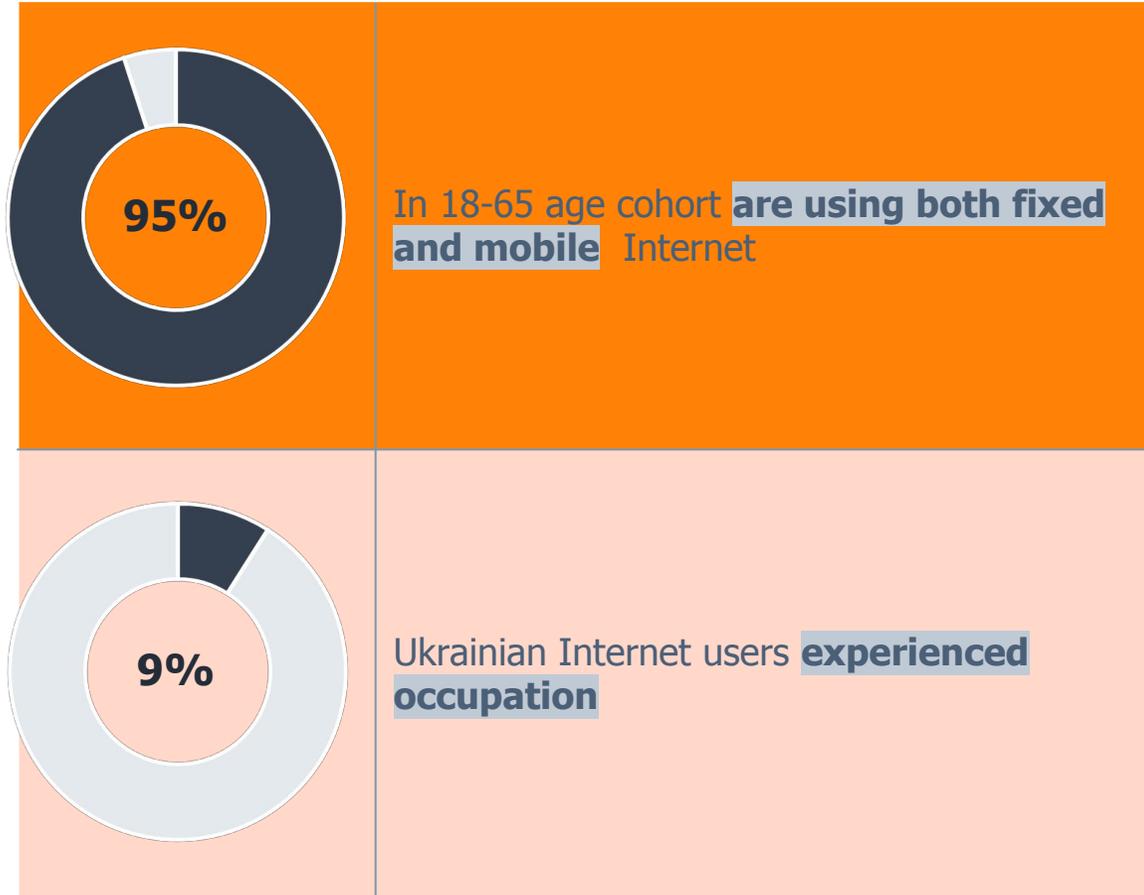
### Field terms

**03.02.2023 – 20.02.2023**

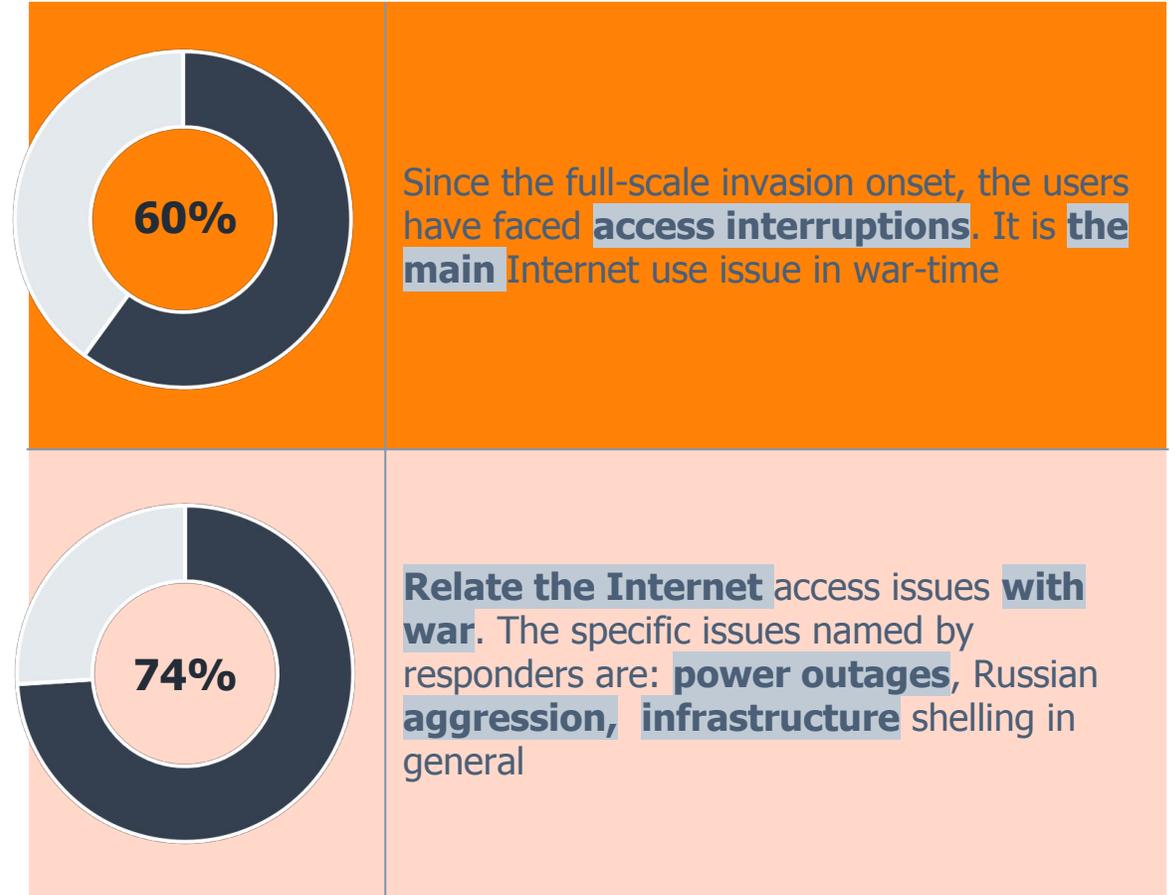
# Key Findings

# Key Findings: Internet Penetration and Main Issues

## Internet Penetration and Users Under Occupation



## Internet Access Issues



# Key Findings: Internet Use Profile and Changes

## Internet Use Profile

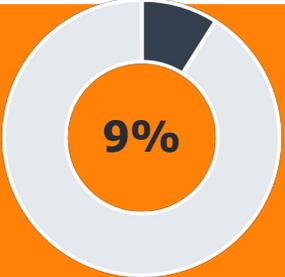
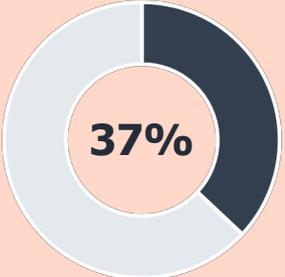
A donut chart with a dark grey outer ring and a light grey inner circle. The number '75%' is displayed in the center.	<p><b>Combine</b> the use of fixed and mobile Internet. <b>Connect mostly from home</b>, also outside and in the office</p>
A donut chart with a dark grey outer ring and a light grey inner circle. The number '96%' is displayed in the center.	<p>Use smartphone <b>to connect</b>. Over one third connect also from <b>laptop or Smart TV</b></p>
<p><b>Top 3 ISP Choice Criteria</b></p>	<ul style="list-style-type: none"><li>• Connection bandwidth <b>(68%)</b></li><li>• Backup power supply availability <b>(54%)</b></li><li>• Subscription fee <b>(48%)</b></li></ul>

## Changes in the Internet Use

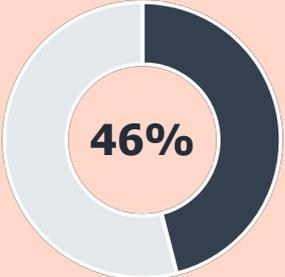
A donut chart with a dark grey outer ring and a light grey inner circle. The number '21%' is displayed in the center.	<p>Work or study <b>remotely</b>. <b>13% switched</b> to distant learning or remote work <b>after full-scale invasion onset</b></p>
A donut chart with a dark grey outer ring and a light grey inner circle. The number '15%' is displayed in the center.	<p><b>Switched ISP</b> during the war. The changes are mostly caused by <b>resettlement</b> or <b>previous ISP's</b> service interruptions</p>

# Key Findings: Internet Under Occupation and Threats

## Internet Under Occupation

 <p>9%</p>	<b>Internet users experienced occupation</b>
 <p>37%</p>	On occupied territory <b>had no Internet connection</b> throughout occupation.
<b>Top 3 Issues Faced Under Occupation</b>	<ul style="list-style-type: none"><li>• Long-lasting unavailability (<b>56%</b>)</li><li>• Personal communication limitations (<b>44%</b>)</li><li>• Access restriction to certain resources/sites (<b>34%</b>)</li></ul>

## Threats to Ukrainian Internet

 <p><b>Operation During the Power Outages</b></p>	The worst <b>pain</b> for users in the Ukrainian ISPs operation at this point. <b>Only 27% are happy</b> with this ISP operation aspect
 <p>46%</p>	<b>Do not foresee any threats</b> to the Internet use in Ukraine in the nearest future
<b>Top 3 Perceived Threats to the Ukrainian Internet</b>	<ul style="list-style-type: none"><li>• Fake news (<b>9%</b>)</li><li>• Lack of personal data protection (<b>8%</b>)</li><li>• Network unavailability (<b>8%</b>)</li></ul>

## Internet Use Profile

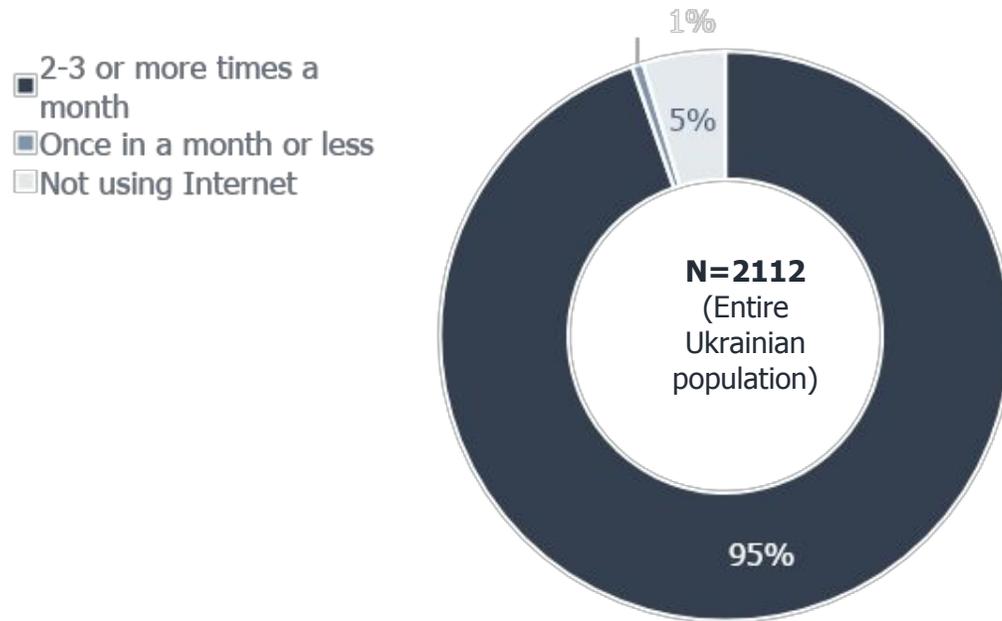
[\(More\)](#)



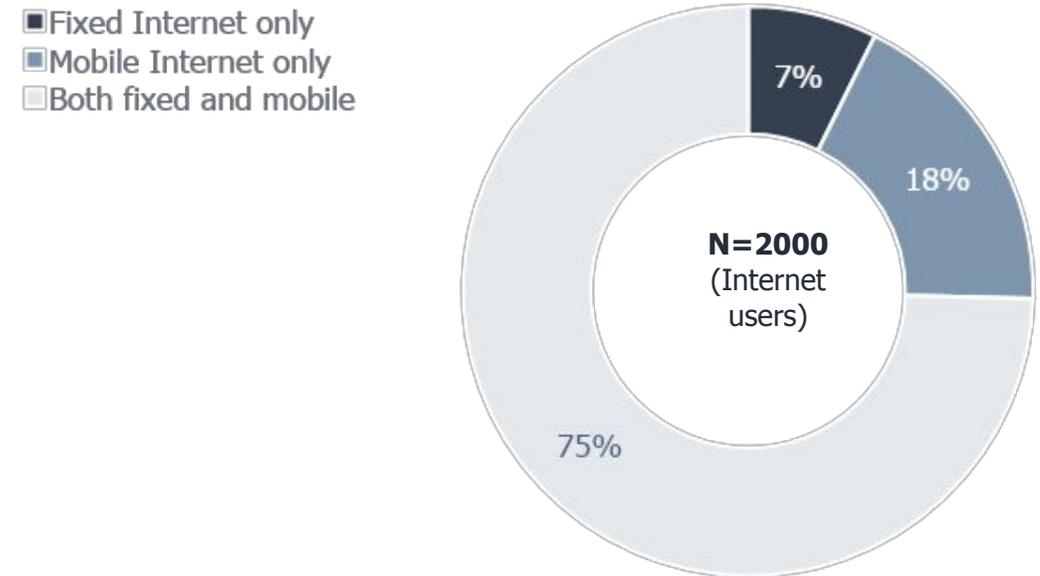
# Internet Penetration and Connection Type [\(More\)](#)

95% Ukrainians staying in Ukraine are Internet users. 3 of every 4 use both fixed and mobile ISPs.

## Internet Use Penetration



## Type of Internet Used



How often do you use Internet for any purpose? What connection type do you use?

## Internet Use Patterns [\(More\)](#)

Internet users connect mostly from smartphone.

They connect mostly from home. Over 50% connect also outside and at workplace.

### Internet Connection Device

	Smartphone	96%
	Laptop	41%
	Smart TV	36%
	Desktop with monitor	27%
	Tablet	19%
	Other	1%
	Not sure	0.05%

### Internet Connection Location

	Home	97%
	Outside	58%
	Workplace/office	56%
	Transport	45%
	Public space	41%
	Co-working space	13%
	Other	3%
	Not sure	0.1%

## ISP Choice Criteria [\(More\)](#)

The main ISP choice criterion is bandwidth (both open-ended and multiple choice)  
Then uninterrupted operation, availability during the power outages, subscription fee.

### ISP Choice Criteria (open-ended question)

Price/subscription fee (20%)

Prompt repair

**Connection bandwidth  
(45%)**

Technical support

Fiber optic availability

Good references

**Continuity, uninterrupted  
operation (40%)**

Unlimited Internet

Operation during the power  
outages

Communication/service quality (18%)

### ISP Choice Criteria (multiple choice question)

Bandwidth	68%
Backup power supply availability availability	54%
Subscription fee	48%
ISP's social responsibility, Ukrainian armed forces support	27%
Promotions, discounts	18%
Satellite Internet availability	10%
Bundled TV availability	10%
Other	5%
Not sure	2%

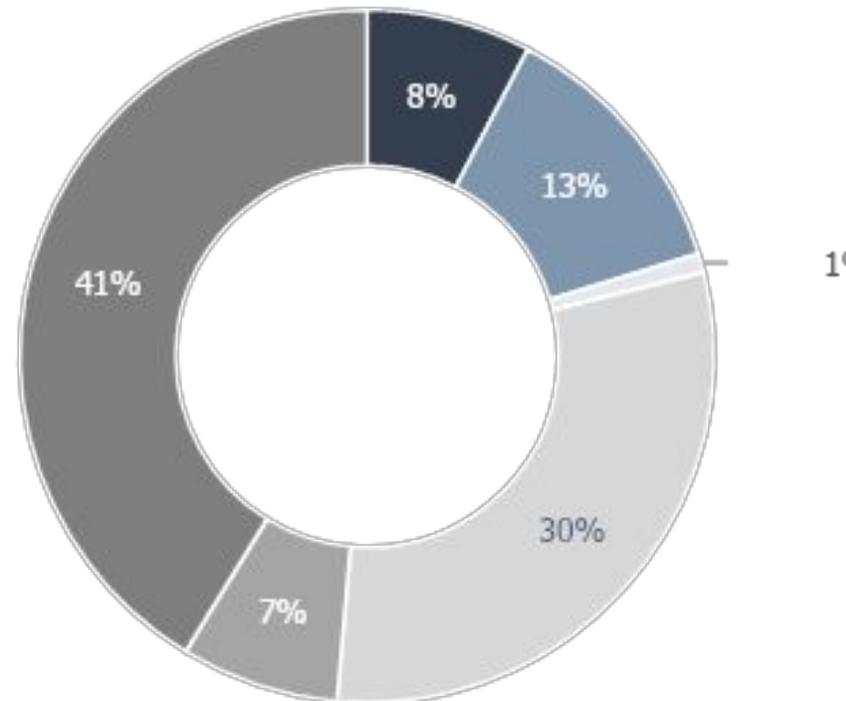
## Changes in the Internet Use

[\(More\)](#)



## Operation Format Changes [\(More\)](#)

- Worked remotely before February 24, 2022
- Started working remotely because of war
- Started working remotely for other reasons
- Did not switch to remote work
- Cannot switch to remote work
- Unemployed



- 21% of Internet users in Ukraine work remotely
- 13% switched to remote work after February 24, 2022
- Over a third (38%) of Ukrainians did not switch to remote work including 7% whose work specifics did not allowed it
- 24% of Ukrainians do not work precisely because of the war. 37% of those say that their company stopped its operations (Source: YouKraina Study by Factum Group, <http://surl.li/fcdyl>)

N=2000

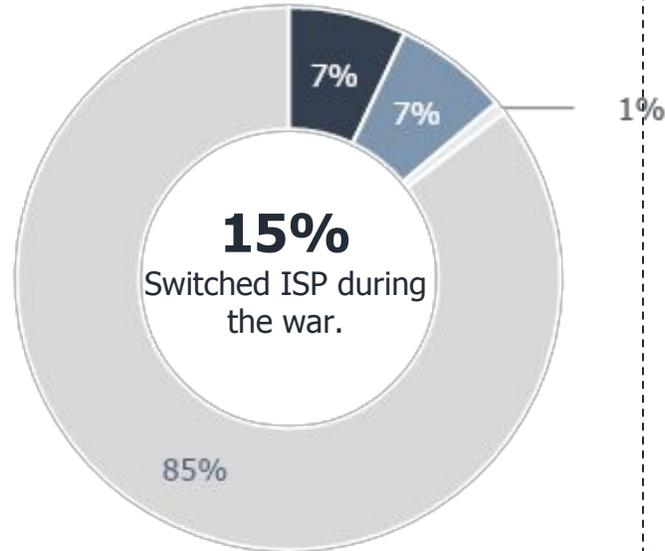
Did you feel the need to switch to remote work/distant learning after February 24, 2022?

# ISP Service Use Changes

15% Internet users switched their ISP during the war. Main reasons: resettlement and previous ISP service interruptions

## ISP Switch

- Connected to a new ISP without disconnecting from the previous
- Connected to a new ISP and disconnected from the previous
- Disconnected from the old ISP without connecting to a new one
- Did not switch ISPs



## ISP Change Reason

(switched ISP: N=292)

Resettlement	28%
Previous ISP's service interruptions	27%
Found an ISP with backup power supply available	17%
Found a less expensive/more convenient ISP	10%
Found a higher bandwidth ISP	10%
Previous ISP suspended its services	6%
Previous ISP provided poor services	1%
Other	5%
Not sure	4%

## Internet Use Issues Faced During the War [\(More\)](#)

The main Internet use issue faced during the war was network access unavailability. Most often it was caused by a power outage. Almost one in every five Internet users could not name any issues faced during the war.

### Issues Faced (open-ended question)

Internet/communication  
unavailability (20%)  
**Power  
outages (49 %)**

Cable break/theft  
Poor mobile Internet connection  
Hardware crash

**Internet connection interruptions  
(26%)**

High or increased Internet subscription  
fee

**Did not experienced any issues (12%)**

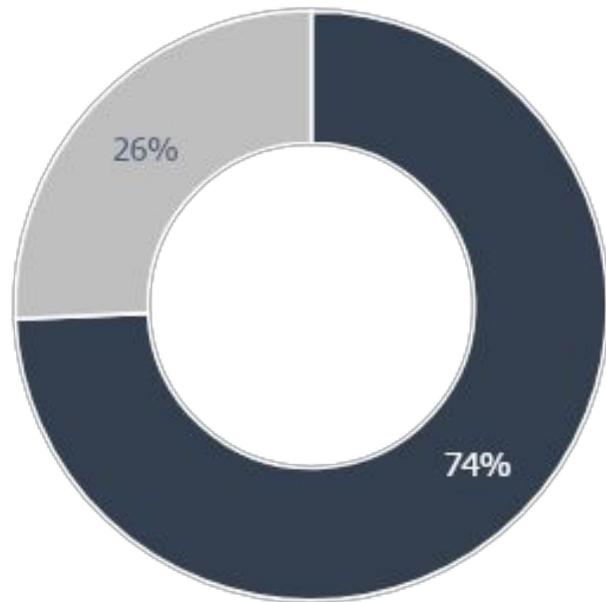
### Issues Faced (multiple choice question)

Network access unavailability	60%
Inability to pay with card	29%
Inability to withdraw cash	22%
Work/business/study problems	19%
Inability to send e-documents	14%
Inability to call a taxi	9%
Lack of personal data protection	5%
Other	8%
Not sure	21%

# Perceived Root Causes of the Internet Access Issues

3 of any 4 users relate the Internet access issues to the war naming mostly power outages, Russian aggression and shelling as root causes

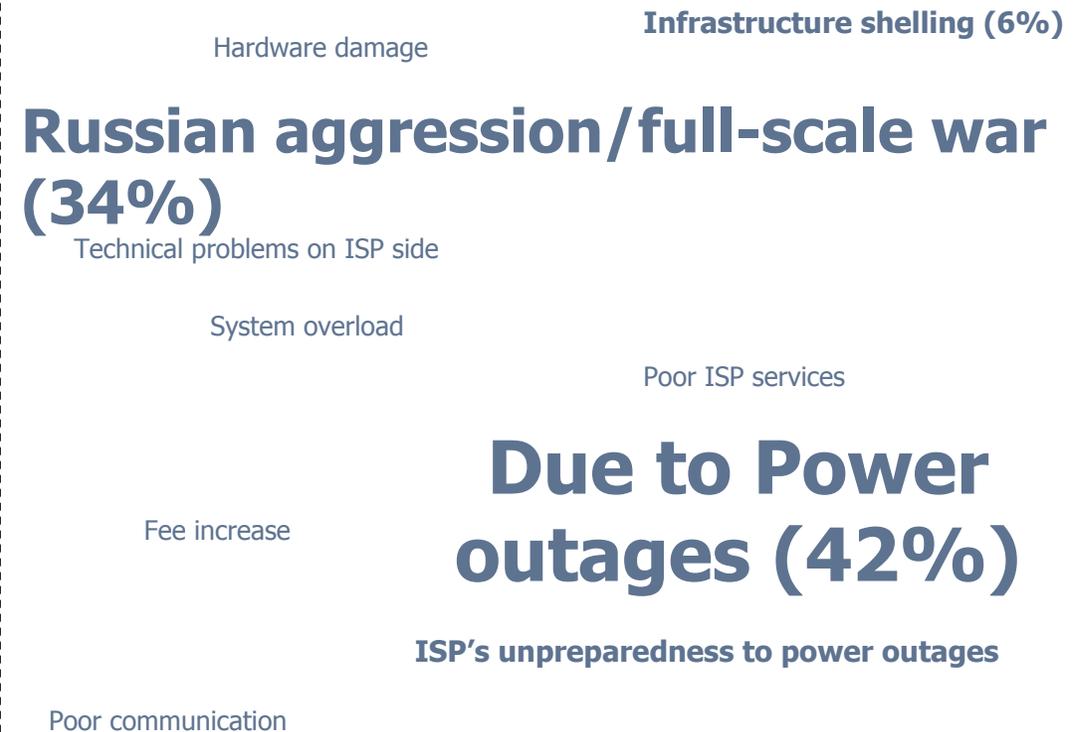
## Relate Internet Access Issues to the War



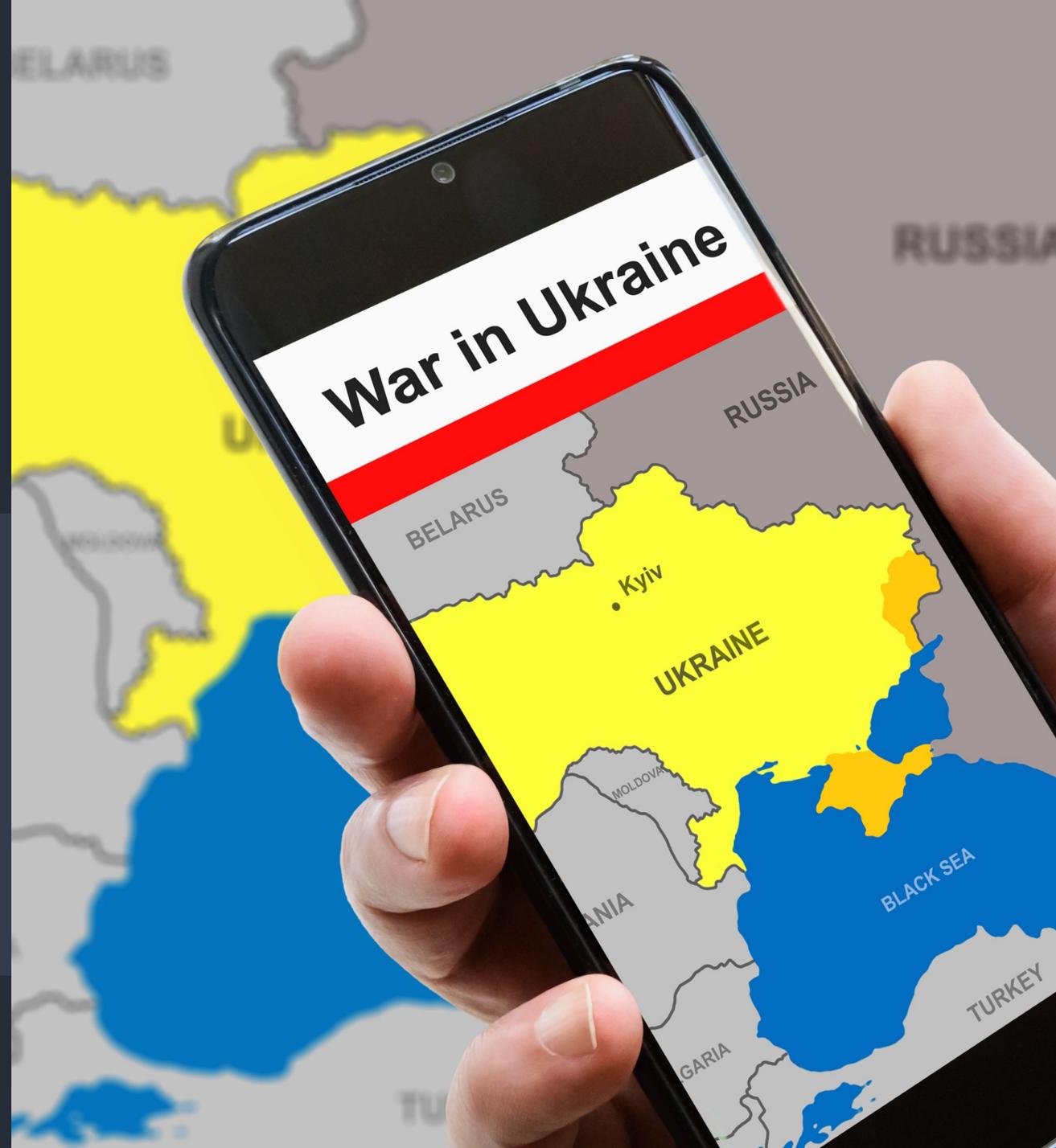
■ Відмітили причини, пов'язані з війною ■ Відмітили інші причини

## Perceived Root Causes

(answers without hints)



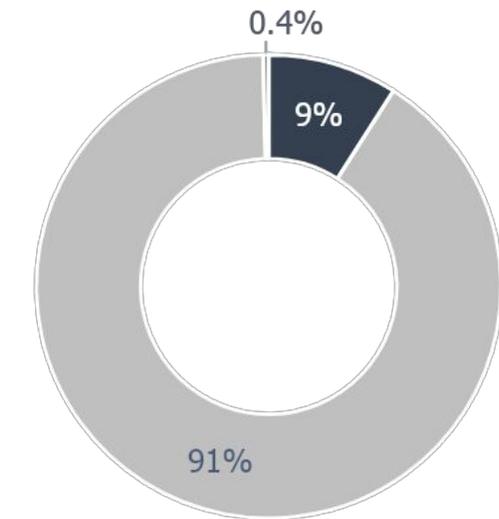
# Internet Under Occupation



# Internet Access in Occupied Territories

Up to 10% of Ukrainians have experienced occupation. Over 50% of those had the Internet access at least sometime, mostly from Ukrainian ISPs.

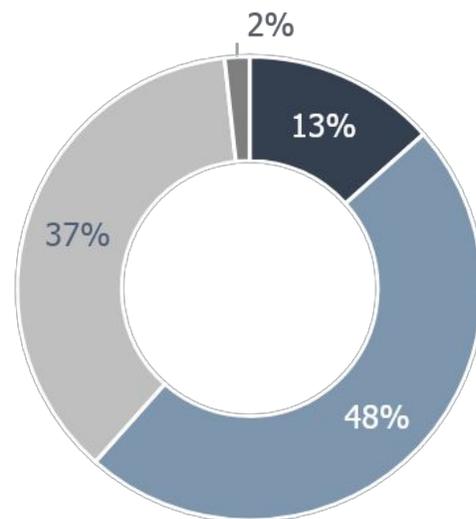
## Did you stay in occupied territories?



■ Yes ■ No ■ Rather do not answer

N=2000  
Entire sample

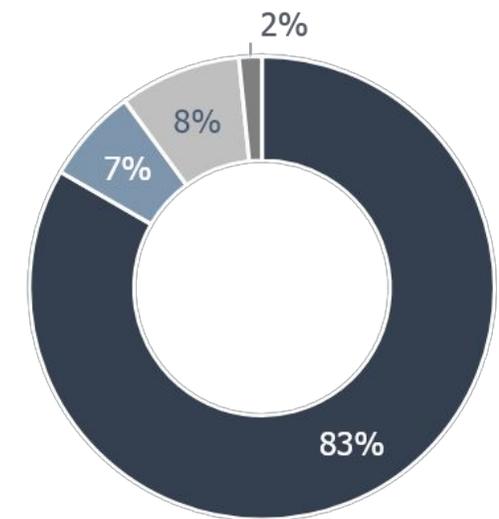
## Did you have Internet access under occupation?



■ Yes, all the time  
■ Yes, sometime  
■ No access  
■ Rather do not answer

N=180  
Stayed under occupation

## Through which ISP(s)?



■ Ukrainian ■ Russian ■ Both ■ Rather do not answer

N=111  
Had Internet access under occupation

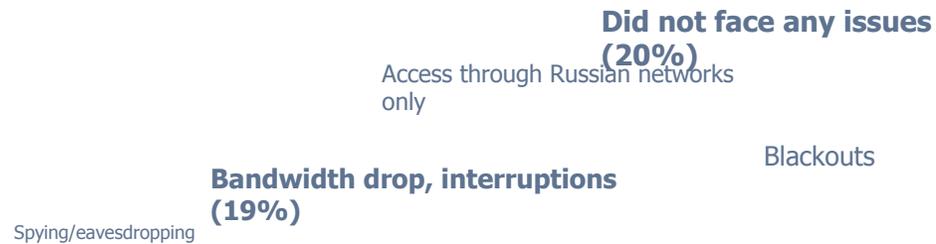
Did you stay in occupied territories of Ukraine? Did you have Internet access in occupied territories? Through which ISPs did you have Internet access in occupied territories?

# Internet Under Occupation Issues

The main issue faced in occupied territories was network access interruptions and communication restrictions. A third of respondents who stayed under occupation note that they faced resource blocking, and one in every five encountered control by occupational government.

## Internet Under Occupation Issues

(open-ended question)



**Long-lasting  
Unavailability  
(55%)**

## Internet Under Occupation Issues

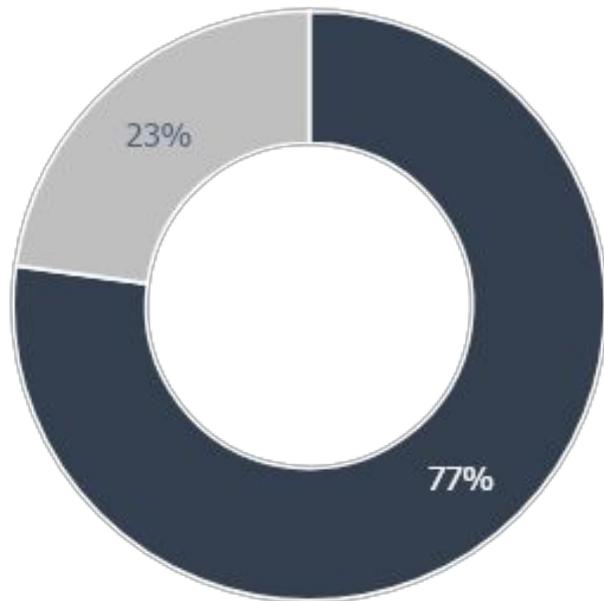
(multiple choice question)

Internet access interruptions	56%
Limitations in communications with relatives via Internet	44%
Access restriction to certain resources/sites (34%)	34%
Work/business/study problems	33%
Internet use control by occupational government	23%
Freedom of speech restrictions	20%
Lack of personal data protection	19%
Other	4%
Not sure	11%

## В чому вбачають причини проблем з доступом до інтернету в окупації

The users who experienced the occupation relate the Internet access issues with the aggressor's actions. Besides the Russian aggression, the responders mention spying on users by the occupants, infrastructure damage, and power outages.

### Relate Internet Access Issues to the War



■ Mentioned war-related causes ■ Mentioned other causes

### Perceived Root Causes

(answers without hints)

Blackouts (12%)

**Russian aggression, war (46%)**

Absence of Ukrainian administration

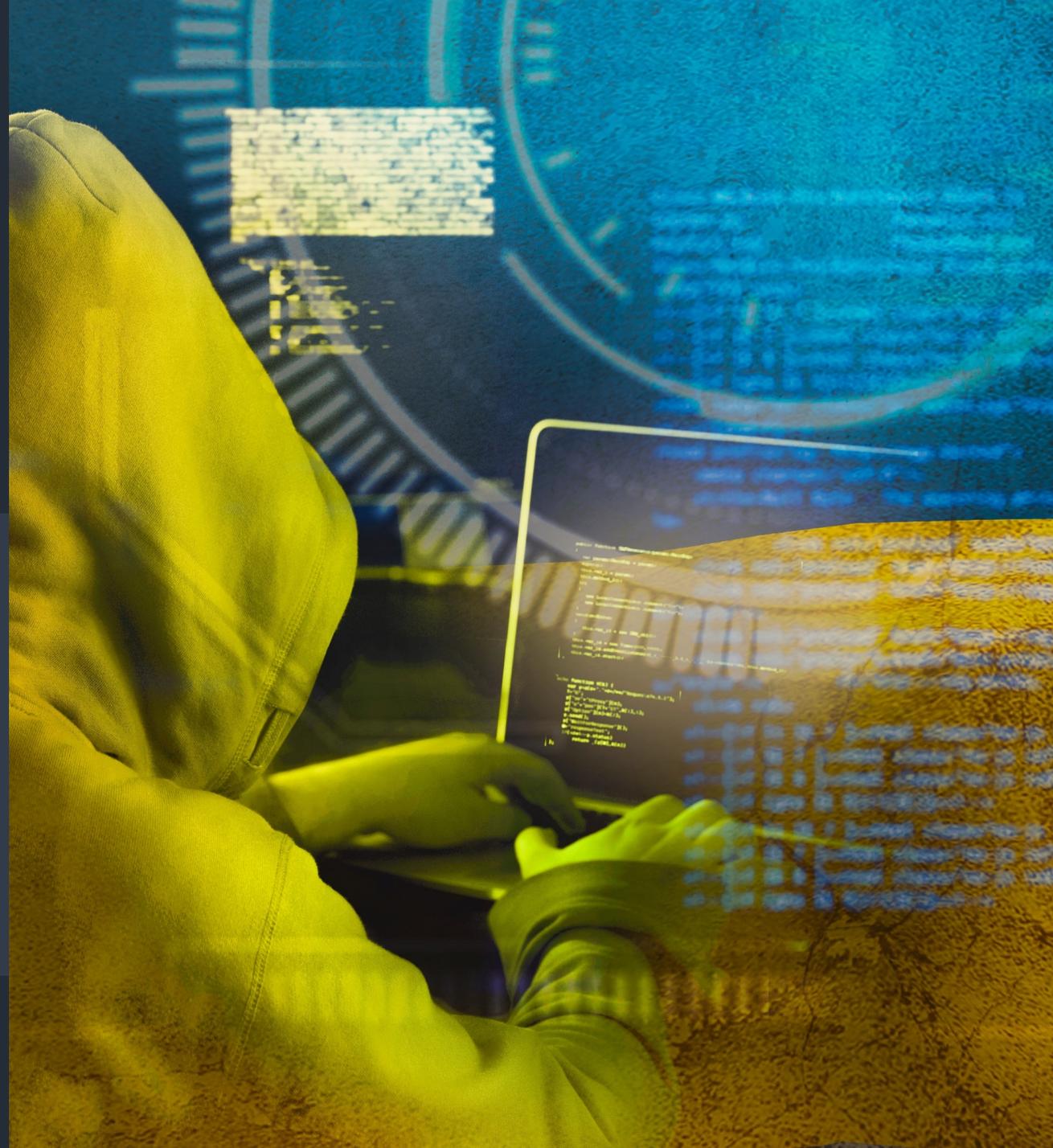
Poor ISP equipment

**Spying on users, resource blocking**

Technical problems

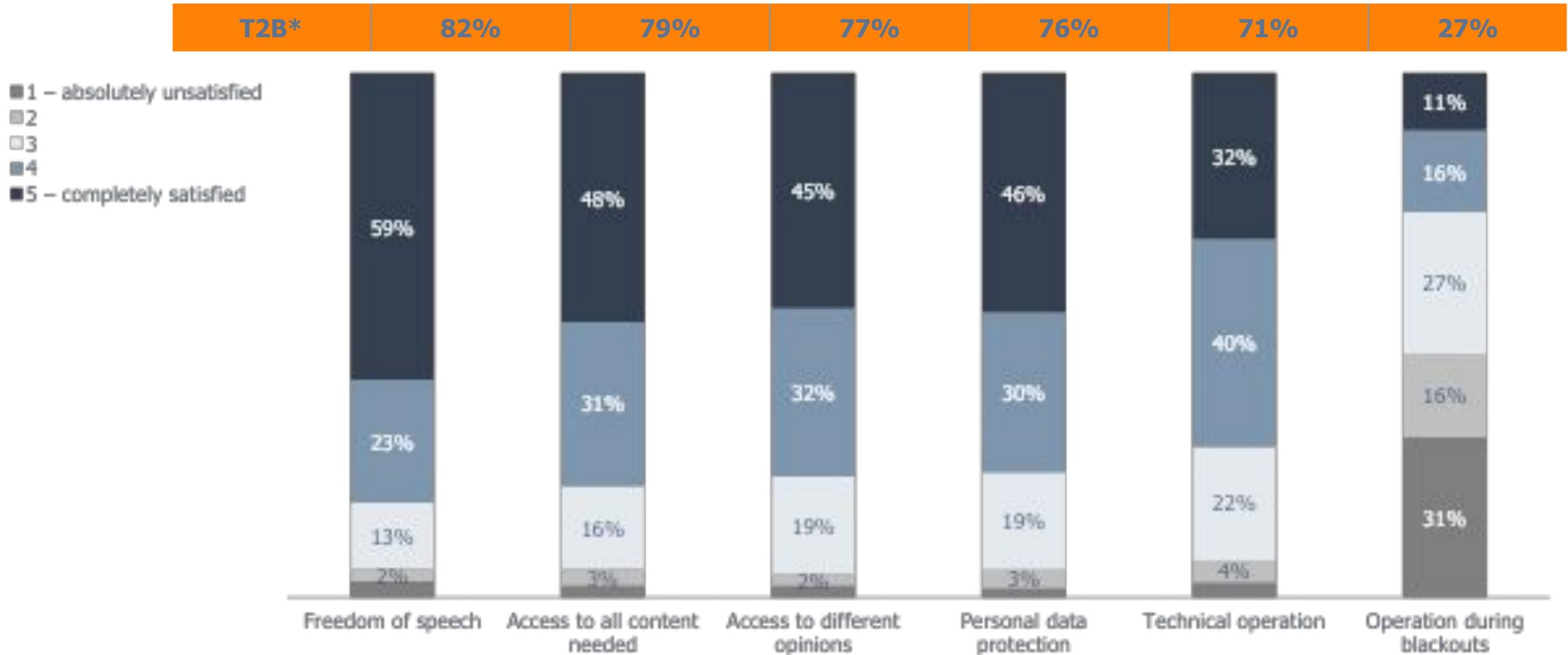
**Damage, shelling (14%)**

## Threats to Ukrainian Internet



# Current Internet Access Satisfaction Level

The Internet users are satisfied with the most ISP and network operation aspects. The less satisfactory is the ISPs operation during the power outages. Only 27% of users were happy with that.



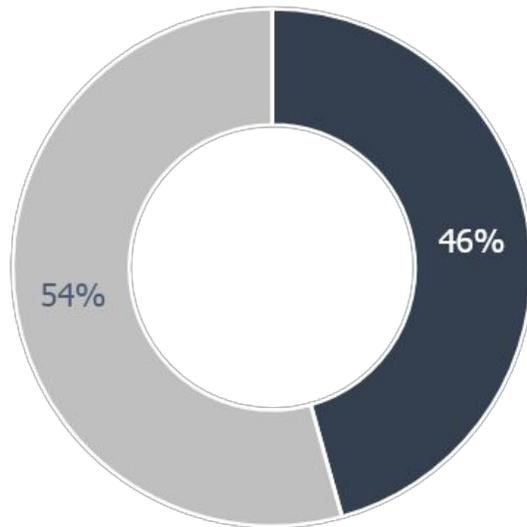
N=2000  
 \*Sum of two extreme positive scores by 1 to 5 scale

How do you assess the Ukrainian internet by the following aspects?

## Future threats

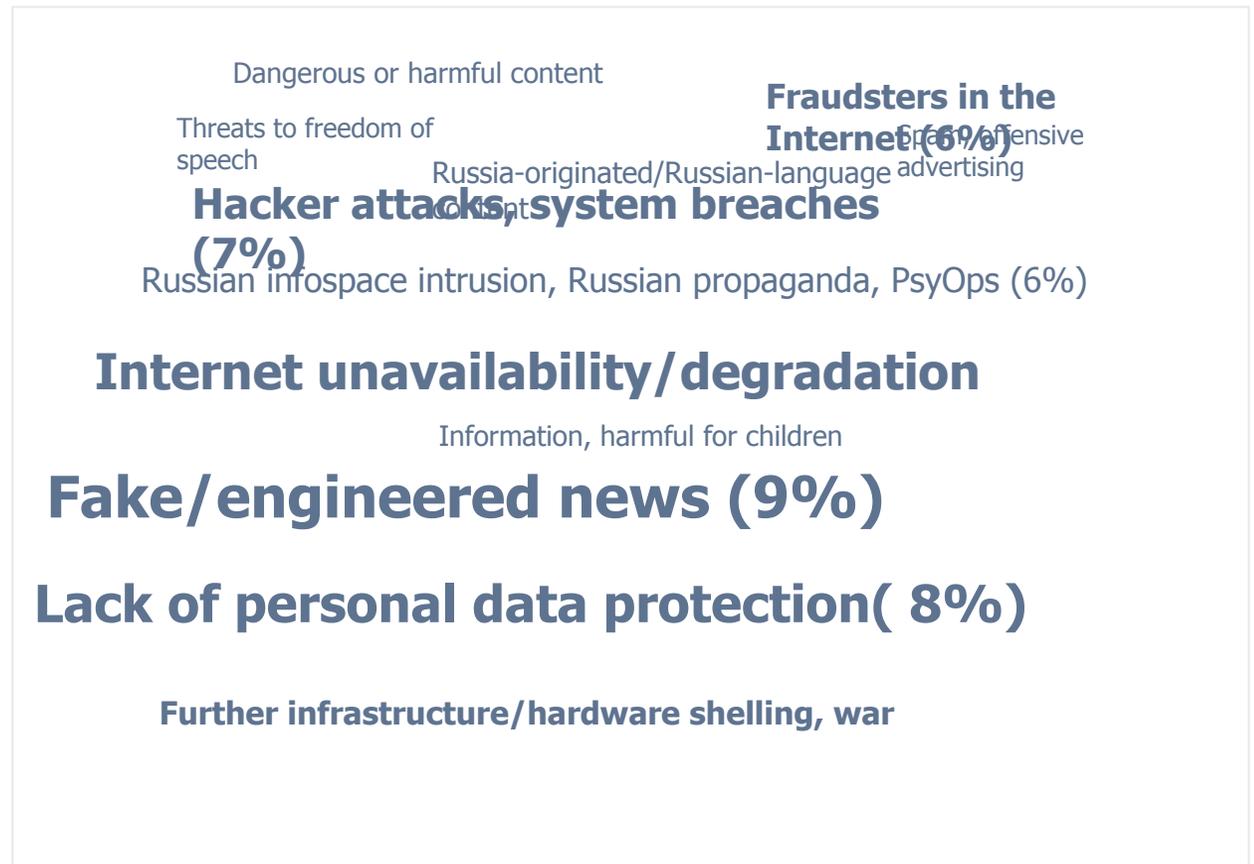
Almost every other Internet user does not foresee any treats in the future. The most common concerns about the Internet space are fake news, lack of personal data protection, blackouts and hacker attacks.

### Are There Any Perceived Threats for Ukrainian Internet



Do not foresee future threats
  Foresee future threats

### Future threats



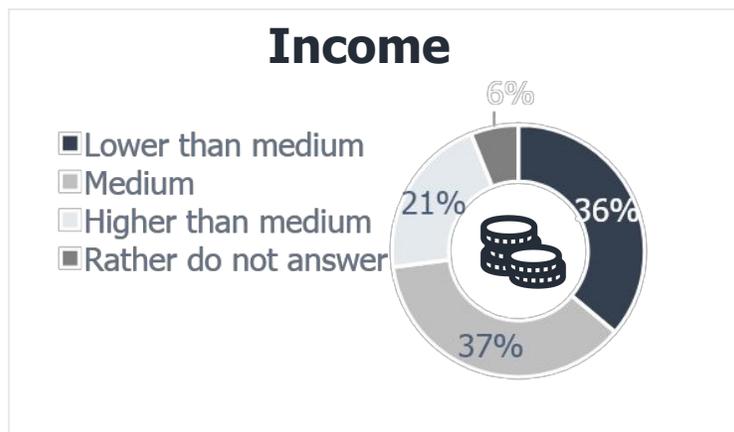
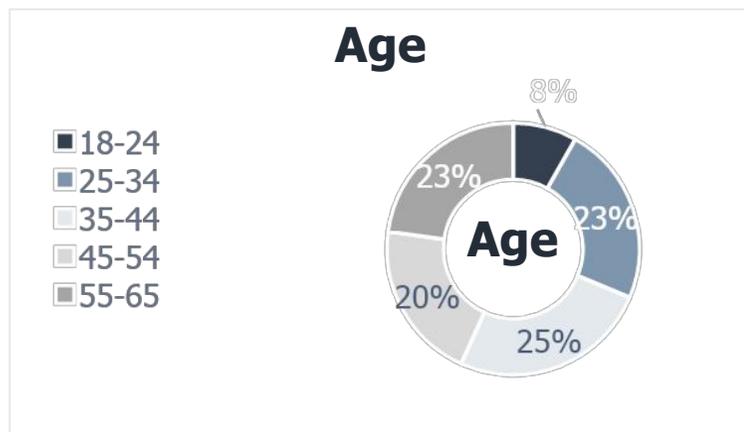
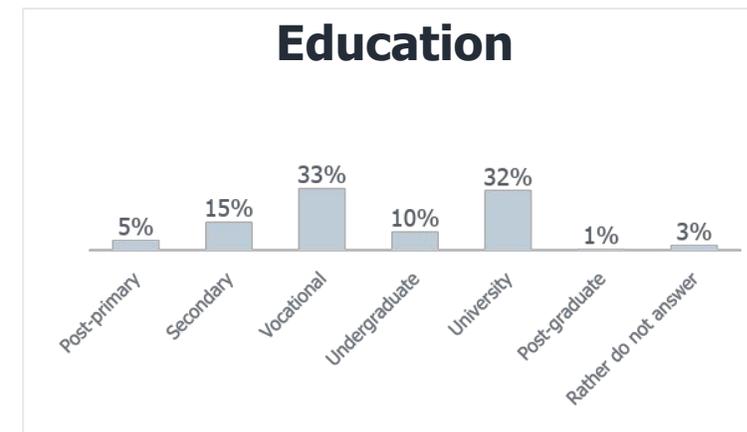
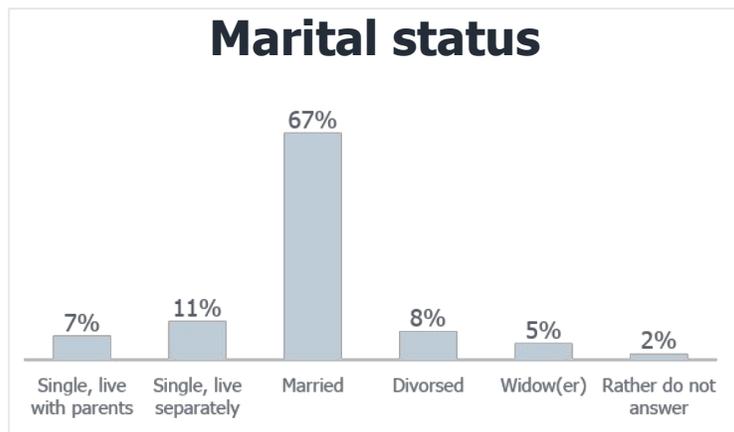
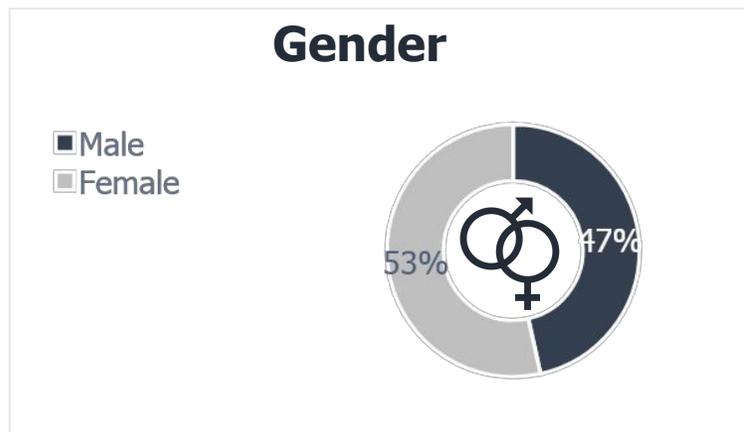
What threats for the Ukrainian Internet do you see at this point?

## Socio-Demographic Profile



# Ukrainian Internet Users Socio-Demographic Profile

The Internet users are mostly married and having medium or below-medium income. One third have a University degree, on third have vocational secondary education Over one third are employed full time.

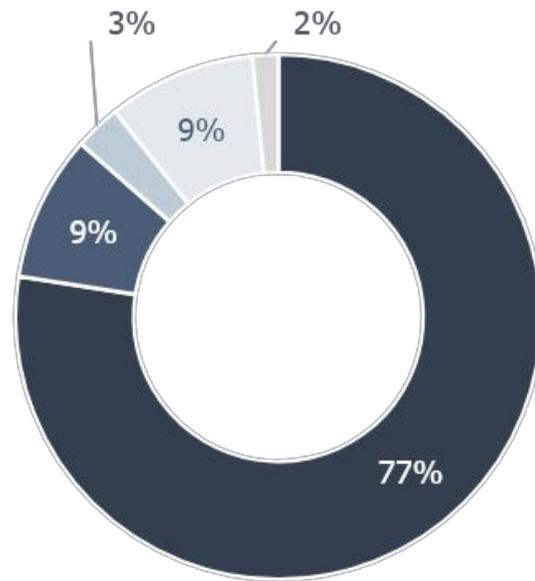


# Resettlement

One in every five Ukrainian Internet users were forced to leave their homes because of war. 2% were resettled due to causes not related to the war

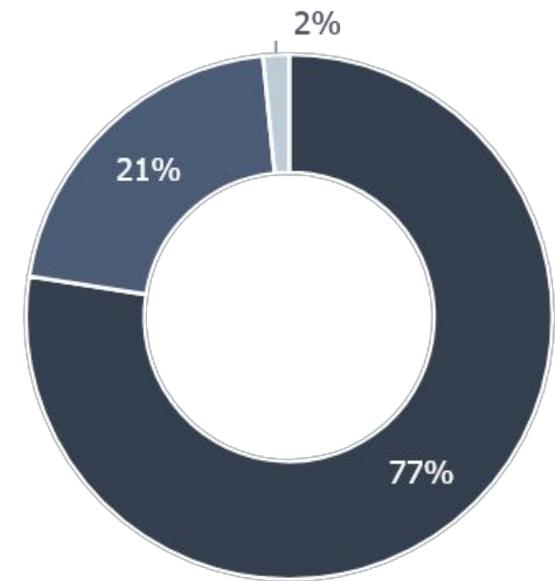
## Resettlement Within Ukraine (breakdown)

- Did not move
- Moved because of war, already came back
- Moved within the region because of war
- Moved within Ukraine because of war
- Moved within Ukraine for other reasons



## Resettlement Within Ukraine (total)

- Did not move
- Moved because of war
- Moved for other reasons

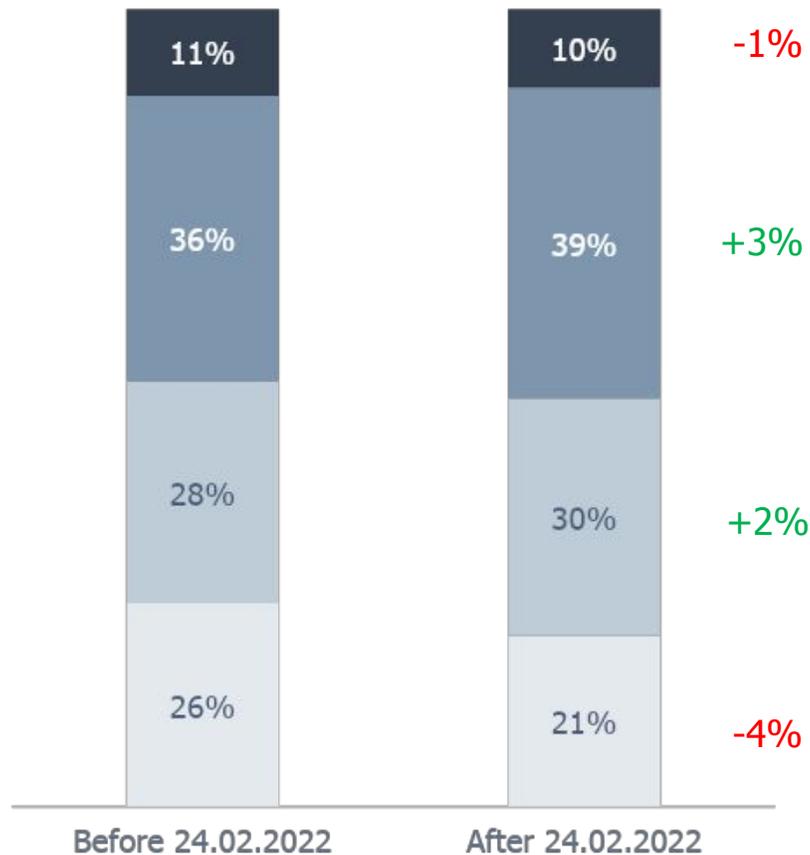


# Region/Town Change

Predictable, the highest population outflow was from the Eastern and Southern regions of Ukraine. People moved mostly to Central, Northern and Western regions.

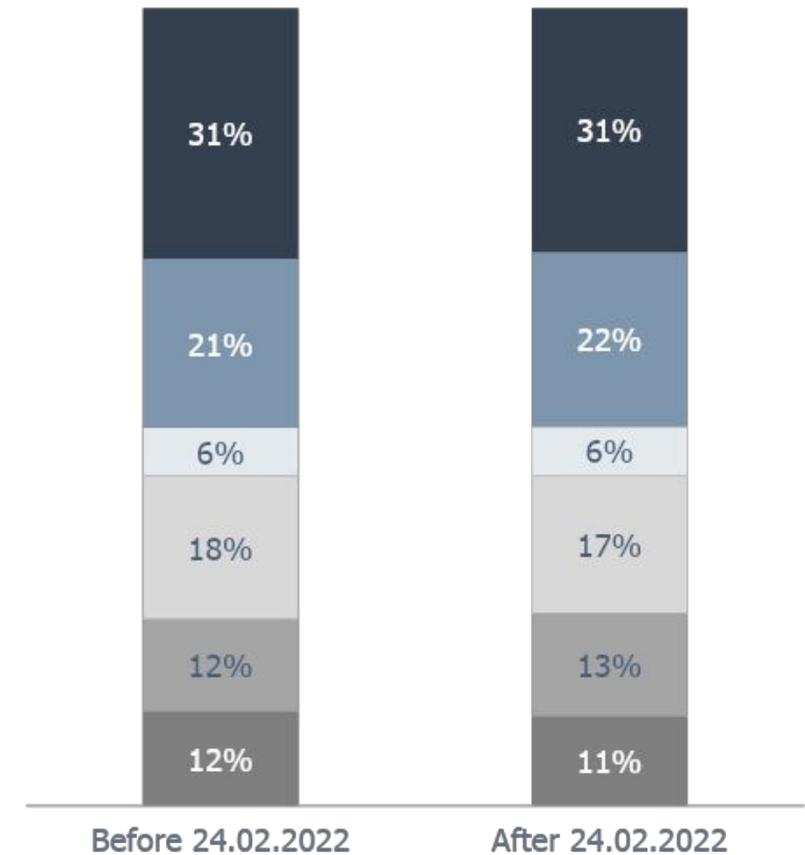
## Region Change

- East
- West
- Centre/North
- South



## Locality Type Change

- > 1 MIO
- > 500 thou.
- > 100 thou.
- > 50 thou.
- < 50 thou.
- Village



## Appendices



# Internet Use Profile: Breakdown by Age and Locality Type

## Internet Penetration and Use Profile: Breakdown by Age and Locality Type [\(Back\)](#)

The Internet penetration is higher in the cities and among young people. Young people use only one Internet access type less than the sample as a whole, and more often combine more than one. A similar trend is seen in the cities.

Internet Use Penetration												
	Total N=2112	Age 18-24 N=169	Age 25-34 N=465	Age 35-44 N=521	Age 45-54 N=434	Age 55-65 N=524	Population >1 MIO N=230	Population >500 thou. N=263	Population >100 thou. N=354	Population >50 thou. N=130	Population <50 thou. N=454	Villages N=682
2-3 times a month	95%	97%	<b>100%</b>	<b>98%</b>	94%	<b>87%</b>	<b>98%</b>	<b>98%</b>	<b>98%</b>	94%	96%	<b>90%</b>
Once in a month or less	1%	0%	0%	1%	1%	1%	0%	0%	0%	2%	1%	1%
Not a user	5%	2%	0%	<b>1%</b>	5%	<b>12%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	4%	<b>3%</b>	<b>9%</b>
Type of Internet Used												
	Total N=2000	Age 18-24 N=164	Age 25-34 N=462	Age 35-44 N=509	Age 45-54 N=409	Age 55-65 N=456	Population >1 MIO N=224	Population >500 thou. N=257	Population >100 thou. N=347	Population >50 thou. N=122	Population <50 thou. N=437	Villages N=612
Fixed	7%	6%	<b>3%</b>	6%	8%	<b>13%</b>	5%	<b>4%</b>	<b>4%</b>	<b>2%</b>	7%	<b>13%</b>
Mobile	18%	16%	<b>14%</b>	16%	18%	<b>25%</b>	14%	16%	18%	20%	19%	20%
Fixed+Mobile	75%	78%	<b>83%</b>	78%	74%	<b>62%</b>	<b>81%</b>	<b>80%</b>	78%	78%	74%	<b>67%</b>

**%/%** : significantly higher/lower than Total

How often do you use Internet for any purpose?  
What connection type do you use?

## Internet Use Patterns: Breakdown by Age and Locality [\(Back\)](#)

Young people and city residents have more Internet connection devices than the Internet user sample as a whole. These groups are using Internet in more numerous situations.

Internet Connection Device												
	Total N=2000	Age 18-24 N=164	Age 25-34 N=462	Age 35-44 N=509	Age 45-54 N=409	Age 55-65 N=456	Population >1 MIO N=224	Population >500 thou. N=257	Population> 100 thou. N=347	Population >50 thou. N=122	Population <50 thou. N=437	Villages N=612
Smartphone	96%	98%	<b>99%</b>	<b>98%</b>	94%	<b>92%</b>	94%	96%	97%	<b>99%</b>	97%	96%
Laptop	41%	<b>49%</b>	43%	44%	41%	<b>31%</b>	<b>55%</b>	46%	<b>47%</b>	41%	36%	<b>33%</b>
TV	36%	33%	<b>42%</b>	<b>42%</b>	34%	<b>25%</b>	42%	37%	37%	37%	34%	33%
Desktop	27%	33%	26%	30%	25%	25%	<b>40%</b>	<b>35%</b>	31%	22%	26%	<b>19%</b>
Tablet	19%	17%	23%	<b>24%</b>	17%	<b>13%</b>	<b>32%</b>	23%	20%	21%	18%	<b>14%</b>
Internet Use Location												
	Total N=2000	Age 18-24 N=164	Age 25-34 N=462	Age 35-44 N=509	Age 45-54 N=409	Age 55-65 N=456	Population >1 MIO N=224	Population >500 thou. N=257	Population> 100 thou. N=347	Population >50 thou. N=122	Population <50 thou. N=437	Villages N=612
Home	97%	97%	98%	96%	97%	98%	97%	97%	98%	99%	97%	97%
Outside	58%	<b>74%</b>	<b>73%</b>	61%	<b>51%</b>	<b>39%</b>	62%	63%	<b>64%</b>	63%	58%	<b>48%</b>
Workplace	56%	54%	<b>65%</b>	<b>62%</b>	58%	<b>40%</b>	<b>67%</b>	<b>66%</b>	<b>64%</b>	52%	55%	<b>46%</b>
Transport	45%	<b>57%</b>	<b>58%</b>	49%	42%	<b>26%</b>	<b>61%</b>	<b>54%</b>	<b>55%</b>	40%	<b>40%</b>	<b>35%</b>
Public space	41%	<b>62%</b>	<b>59%</b>	44%	<b>34%</b>	<b>17%</b>	<b>49%</b>	<b>49%</b>	<b>48%</b>	45%	42%	<b>28%</b>
Co-working	13%	<b>20%</b>	<b>22%</b>	12%	<b>9%</b>	<b>5%</b>	15%	17%	<b>20%</b>	11%	12%	<b>7%</b>

N=2000

What kind of a device you mostly use to connect to the Internet? Where do you connect?

**%/%** : significantly higher/lower than Total

## ISP Choice Criteria: Breakdown by Age and Locality [\(Back\)](#)

When choosing an ISP, the younger people consider more often the ISP's support to the Armed Forces, then the bandwidth and backup power supply availability. In the countryside, the Internet user pay less attention to backup power source availability.

ISP Choice Criteria												
	Total N=2000	Age 18-24 N=164	Age 25-34 N=462	Age 35-44 N=509	Age 45-54 N=409	Age 55-65 N=456	Population >1 MIO N=224	Population >500 thou. N=257	Population> 100 thou. N=347	Population >50 thou. N=122	Population <50 thou. N=437	Villages N=612
Bandwidth	68%	<b>77%</b>	70%	72%	68%	<b>58%</b>	72%	70%	<b>73%</b>	68%	67%	64%
Backup Power Supply	54%	60%	<b>65%</b>	56%	53%	<b>40%</b>	<b>66%</b>	55%	55%	57%	54%	<b>48%</b>
Subscription fee	48%	51%	49%	48%	47%	47%	47%	50%	47%	41%	47%	50%
Support to Armed Forces	27%	<b>37%</b>	<b>33%</b>	25%	25%	<b>20%</b>	30%	27%	29%	23%	24%	26%
Promotions, discounts	18%	17%	19%	<b>23%</b>	<b>14%</b>	17%	<b>12%</b>	19%	18%	23%	18%	19%
Satellite connection	10%	8%	8%	8%	12%	12%	8%	13%	8%	11%	12%	8%
Bundled TV	10%	<b>6%</b>	10%	9%	11%	11%	10%	10%	8%	8%	9%	11%
Other	5%	<b>1%</b>	<b>3%</b>	6%	6%	7%	4%	4%	4%	3%	8%	5%
Not sure	2%	0%	<b>1%</b>	2%	3%	<b>4%</b>	1%	1%	2%	2%	2%	3%

# Internet Use Change: Breakdown by Age and Locality

# Work Format Change: Breakdown by Age and Locality [\(Back\)](#)

Younger Internet users switched to remote work format more often.

Зміни у форматі роботи												
	Total N=2000	Age 18-24 N=164	Age 25-34 N=462	Age 35-44 N=509	Age 45-54 N=409	Age 55-65 N=456	Population >1 MIO N=224	Population >500 thou. N=257	Population >100 thou. N=347	Population >50 thou. N=122	Population <50 thou. N=437	Villages N=612
Працювали дистанційно до війни	8%	<b>18%</b>	6%	8%	8%	<b>4%</b>	11%	<b>13%</b>	7%	9%	6%	<b>5%</b>
Дистанційно через війну	13%	<b>28%</b>	13%	16%	<b>9%</b>	<b>6%</b>	17%	14%	14%	8%	11%	11%
Дистанційно з інших причин	1%	2%	1%	1%	1%	0%	1%	2%	0%	0%	1%	1%
Не перейшли на дистанційну роботу	30%	<b>16%</b>	33%	30%	<b>38%</b>	26%	28%	28%	31%	<b>41%</b>	33%	27%
Не мають можливості працювати дистанційно	7%	<b>4%</b>	9%	10%	8%	<b>4%</b>	9%	6%	<b>11%</b>	<b>3%</b>	8%	6%
Не працюють	41%	<b>31%</b>	37%	<b>36%</b>	<b>36%</b>	<b>60%</b>	<b>34%</b>	37%	36%	38%	41%	<b>49%</b>

## Internet Use Issues: Breakdown by Age and Locality [\(Back\)](#)

Older users faced the Internet access issues less often than the younger. However, the issues related to the network access unavailability were encountered equally in all cohorts.

Internet Use Issues												
	Total N=2000	Age 18-24 N=164	Age 25-34 N=462	Age 35-44 N=509	Age 45-54 N=409	Age 55-65 N=456	Population >1 MIO N=224	Population >500 thou. N=257	Population >100 thou. N=347	Population >50 thou. N=122	Population <50 thou. N=437	Villages N=612
Unavailability	60%	65%	58%	59%	63%	58%	58%	64%	59%	<b>69%</b>	58%	58%
Card Payment	29%	29%	29%	<b>34%</b>	31%	<b>21%</b>	25%	<b>35%</b>	27%	34%	28%	28%
Cash Withdrawal	22%	23%	25%	25%	22%	<b>16%</b>	18%	23%	20%	29%	23%	22%
Operation-Related Issues	19%	<b>30%</b>	22%	<b>23%</b>	19%	<b>8%</b>	17%	<b>29%</b>	19%	23%	<b>15%</b>	17%
Sending e-documents	14%	<b>7%</b>	14%	<b>18%</b>	15%	<b>10%</b>	13%	<b>22%</b>	13%	15%	12%	12%
Call for Taxi	9%	13%	<b>12%</b>	9%	6%	<b>6%</b>	12%	<b>14%</b>	9%	11%	7%	<b>6%</b>
Lack of Data Protection	5%	8%	4%	6%	6%	4%	4%	8%	6%	6%	5%	4%
Other	8%	8%	6%	8%	6%	<b>11%</b>	11%	6%	7%	7%	9%	8%
Not sure	21%	<b>13%</b>	21%	21%	19%	24%	20%	19%	21%	17%	22%	21%

**Thank you for your attention!**

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