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Raising Ethical Awareness to Combat Dark Patterns

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Where are the Terms of Service?

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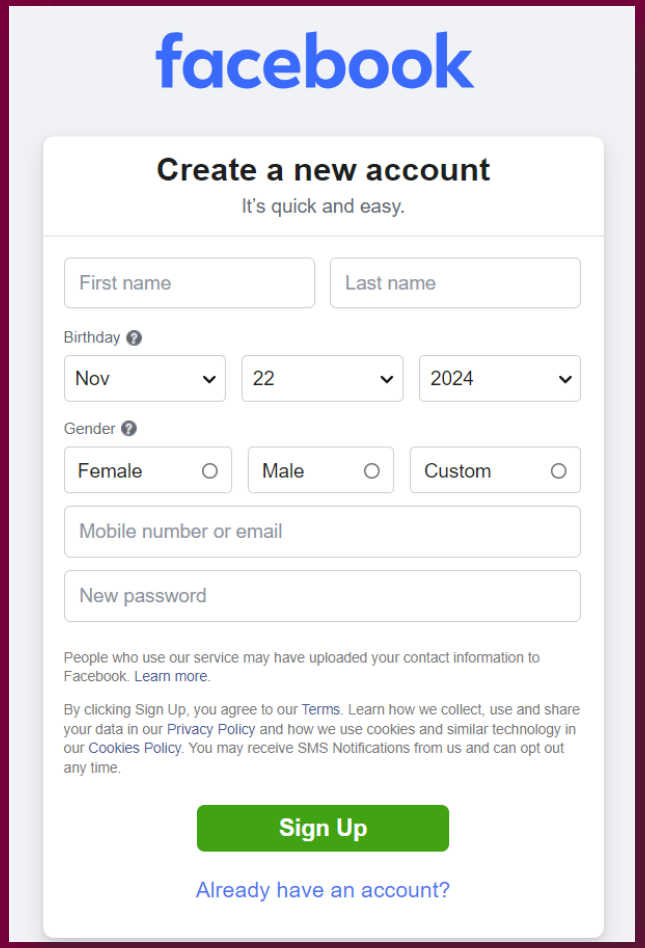
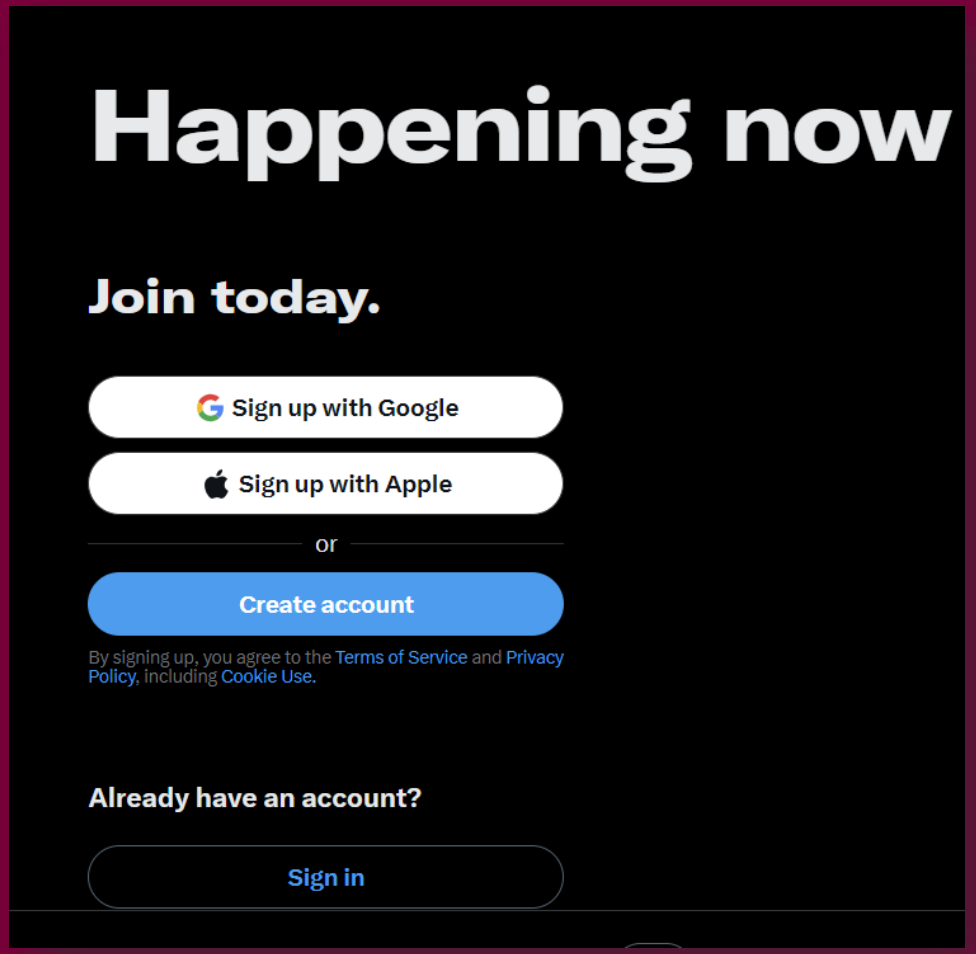
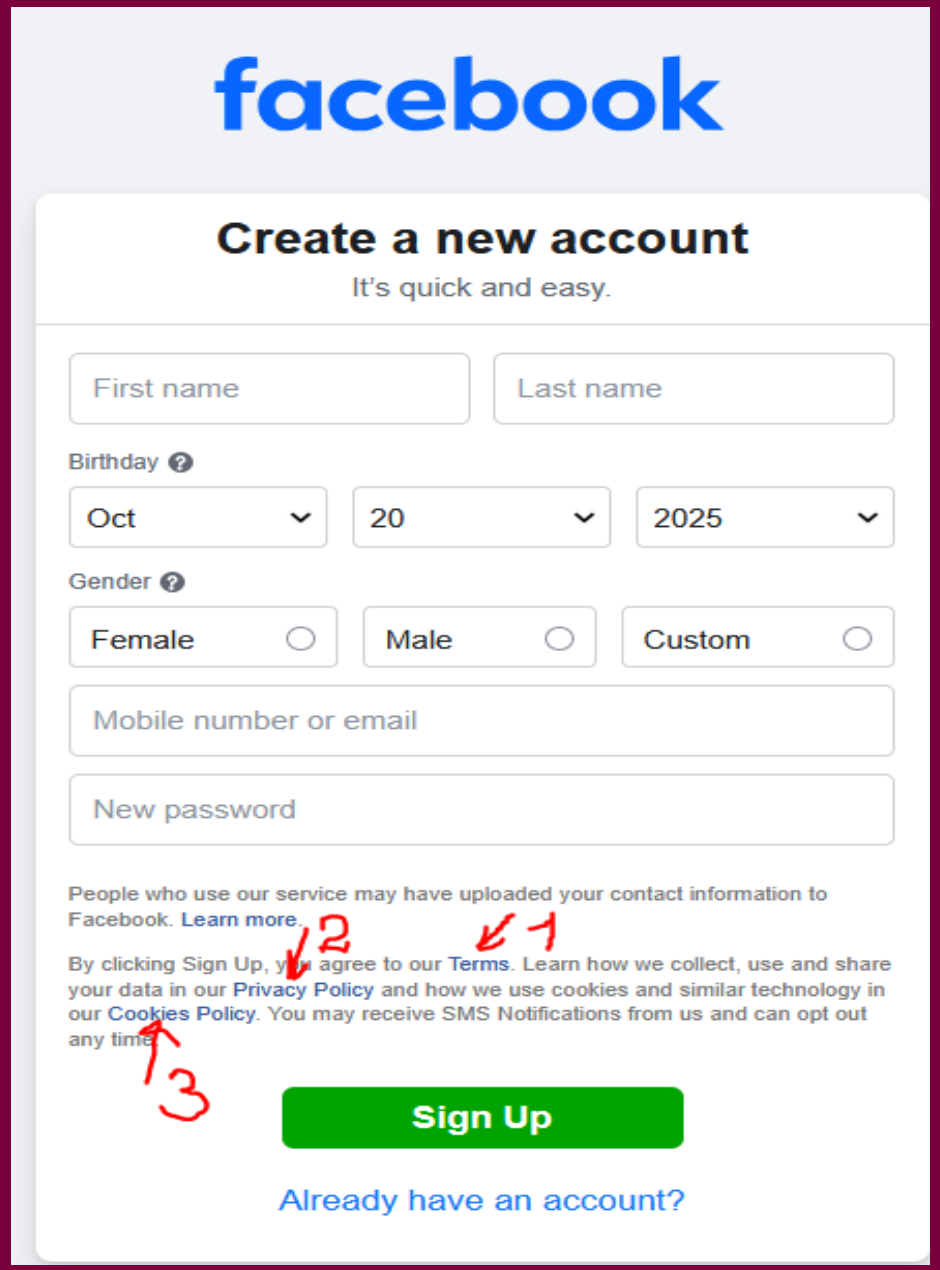
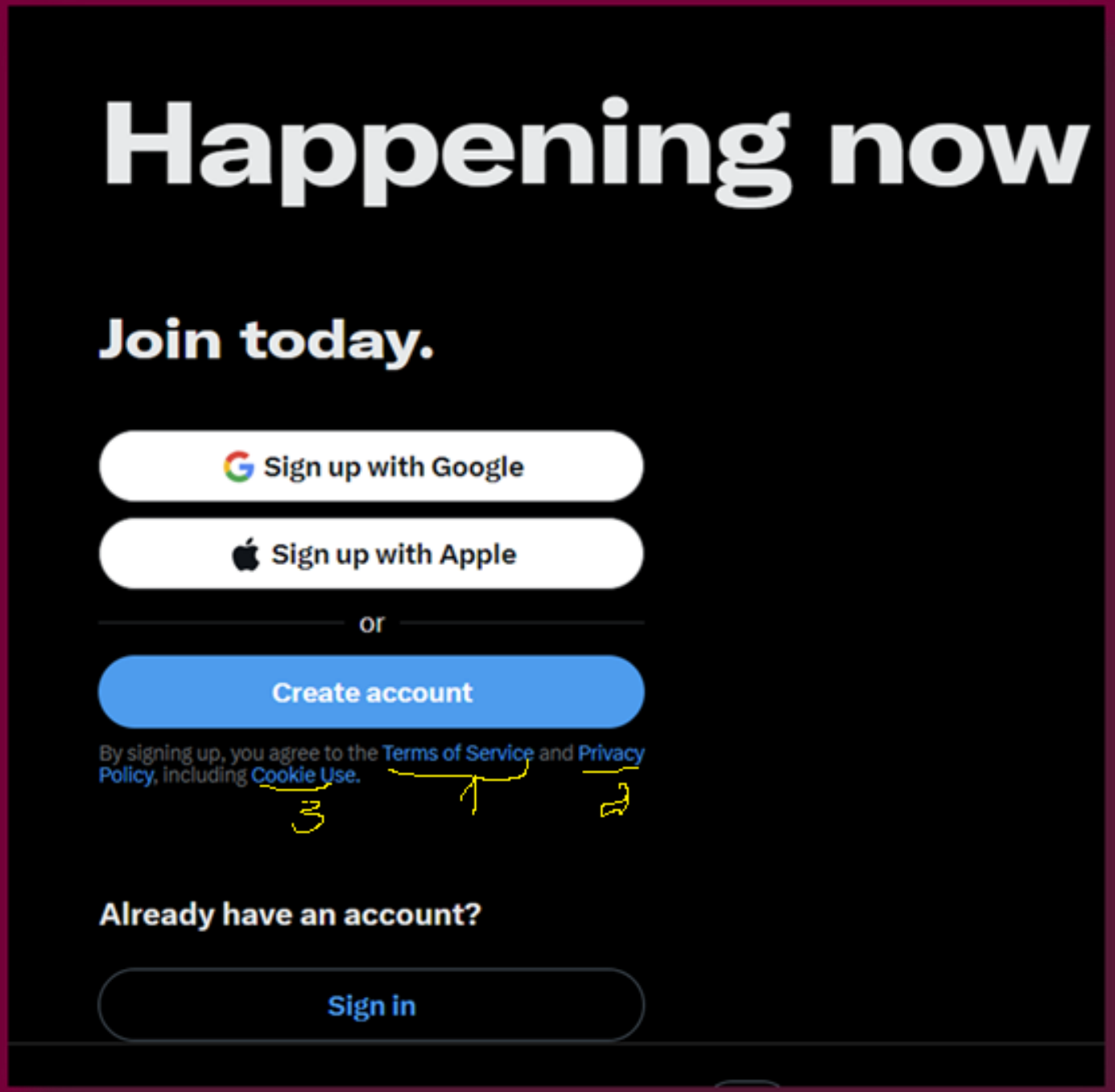





facebook
Create a new account
It's quick and easy.
First name
Last name
Birthday
Oct
20
2025
Gender
Female
Male
Custom
Mobile number or email
New password
People who use our service may have uploaded your contact information to Facebook. Learn more.
By clicking Sign Up, you agree to our Terms. Learn how we collect, use and share your data in our Privacy Policy and how we use cookies and similar technology in our Cookies Policy. You may receive SMS Notifications from us and can opt out any time.
2
1
3
Sign Up
Already have an account?


Happening now
Join today.
Sign up with Google
Sign up with Apple
or
Create account
By signing up, you agree to the Terms of Service and Privacy Policy, including Cookie Use.
3
1
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Already have an account?
Sign in

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Outline

- Requirements for presentation on legal provisions.
- Educating software engineers and developers
  - Courses in Vilnius University
  - Student developed guidelines to design the terms of service..
  - Examples of coursework topics.
- Challenges in informing users
- Ideas for further activities for the workgroup p

EU regulation on ensuring users' privacy

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1. Privacy Policy and Terms of Service must be separate documents.
2. Consent is freely given.
3. Consent for each purpose.
4. Understandable, not ambiguous
5. Clear affirmative action.
6. Separate consent request.
7. Right to revoke at any time.
8. Do not interfere with the use of service.
9. Clearly defines purposes.
10. Minimum collected data.
11. Consent for each purpose.
12. Data is deleted when no longer needed.
13. Design of Privacy Policy and Terms of Service must be consistent

	1	2	3	4	5	6	7	8	9	10	11	12	13
FB	■							■	■				
X	■						■	■	■				■

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Dark patterns in requests for consent to use cookies

- **Consent walls** – pop-up windows that block access to the website
- **Tracking walls** – enable users only accept the use of cookies or leave the site
- **Reduced service** is provided when the users do not accept the privacy settings
- **Manipulation of configurations** encourages users to accept the use of cookies

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Educating future software engineers

Ethics topics in VU Computer Science and Software Engineering study programmes

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- Bachelor subjects (compulsory for SE, elective for CS)
  - Communication Skills and Ethics in IT Team
  - Human-Computer Interaction – Research and design ethics
- Master subjects
  - Leadership – compulsory
  - User Experience Engineering – research ethics, dark patterns (elective)
  - Cyber Security Technologies – Dark patterns, social engineering (elective)
  - Cyber law and Ethics. Consent and Privacy (compulsory in International Management of Cybersecurity)

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Ethics topics in diploma works

- Master diploma topics
  - Dark patterns in persuasive computing
- Bachelor's diploma works
  - Identification of deceptive patterns in Lithuanian user interfaces
  - Users' protection against phishing attacks
  - Dark patterns avoidance in designing cookie consent requests
  - Terms of service usability using information visualization principles

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Privacy and security requirements for consent requests

1. Given free will
2. Concrete: expressed by clear affirmative action
3. Accurate information about purposes of data processing
4. Consent given for each purpose
5. Consent request must be separated for other matters
6. Clear, concise and not unnecessarily interrupt the use of the service.
7. Opting out as easy as agreeing
8. User must be able to refuse the use of cookies

Design guidelines

- Consent must be given by a clear approval, for example, by **ticking a checkbox or the touch of a button**.
- Request for **consent must stand out and draw the user's attention** to facilitate making an informed decision by accepting the Terms.
- The information about the data collected must be accurate, clear, and **linked with the processing goals**.
- The information should be supplemented by visualizations, which would facilitate and speed up the perception of the complex text. **For example, Using charts, graphs, and illustrations.**

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Informing users of deceptive patterns and phishing

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Ensuring the users‘ privacy

- Users‘ devices and their information are recognized as personal space in the EU law
- Service providers must
  - inform the users about the methods of data processing
  - obtain the users‘ consent for the use of cookies
- Users usually do not understand what they are agreeing to
- Misleading designs (aka dark patterns) are observed in the requests for consent to use cookies
- Designers need the usability guidelines to improve the usability of consent requests

Identification of dark patterns using tools

- **Anthropic's Claude AI** platform recognizes the design that features an "Accept" button
- **Open source tools,** such as Ariadne or Hawk Detector**,** recognize manipulative elements
  - Not easy to understand how to use
  - Do not present the definitions of the dark patterns
  - Do not enable the choice of what dark patterns must be identified
  - Some highlight suspicious elements, thus destroying the visual design

Tools for identificating phishing attacks

	PK.1	PK.2	PK.3	PK.4	PK.5	PK.6	PK.7	PK.8	PK.9
„McAfee Web Advisor“	◒	ⓘ	○	●	○	○	ⓘ	●	○
„Netcraft“	○	●	○	●	○	○	ⓘ	●	○
„Bitdefender Traffic Light“	◒	●	○	●	○	○	ⓘ	●	○
„SpoofGuard“	○	○	○	ⓘ	ⓘ	○	ⓘ	●	○
„Netscape Browser 8.1“	○	ⓘ	○	ⓘ	ⓘ	○	ⓘ	◒	ⓘ
„Microsoft Internet Explorer 7“	○	ⓘ	○	ⓘ	ⓘ	○	ⓘ	●	ⓘ
„GeoTrust TrustWatch“	○	○	N/A	ⓘ	ⓘ	○	ⓘ	●	ⓘ
„Firefox 2“	○	ⓘ	○	ⓘ	ⓘ	◒	ⓘ	●	ⓘ
„Ebay“	○	ⓘ	○	ⓘ	ⓘ	○	ⓘ	●	ⓘ
„EarthLink“	○	ⓘ	○	ⓘ	ⓘ	○	ⓘ	●	ⓘ
„Cloudmark AntiFraud“	○	○	N/A	ⓘ	ⓘ	○	N/A	●	ⓘ
„CallingID“	○	○	N/A	ⓘ	ⓘ	○	N/A	●	ⓘ

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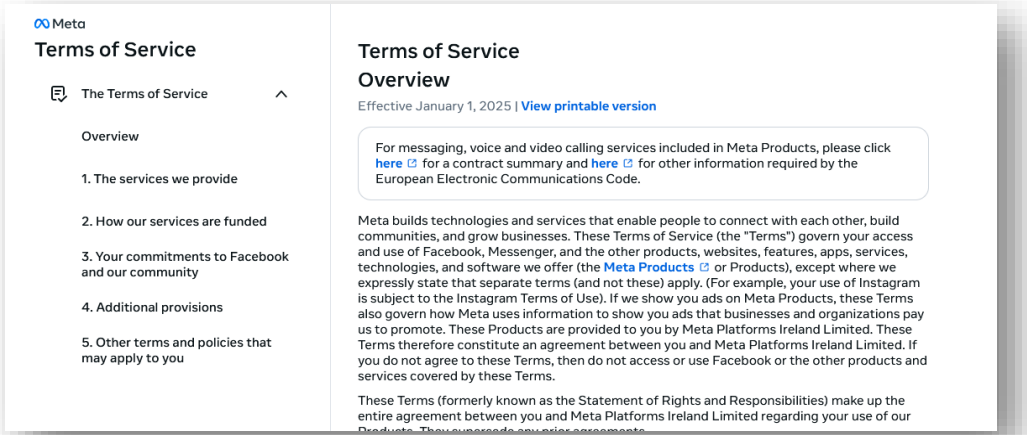
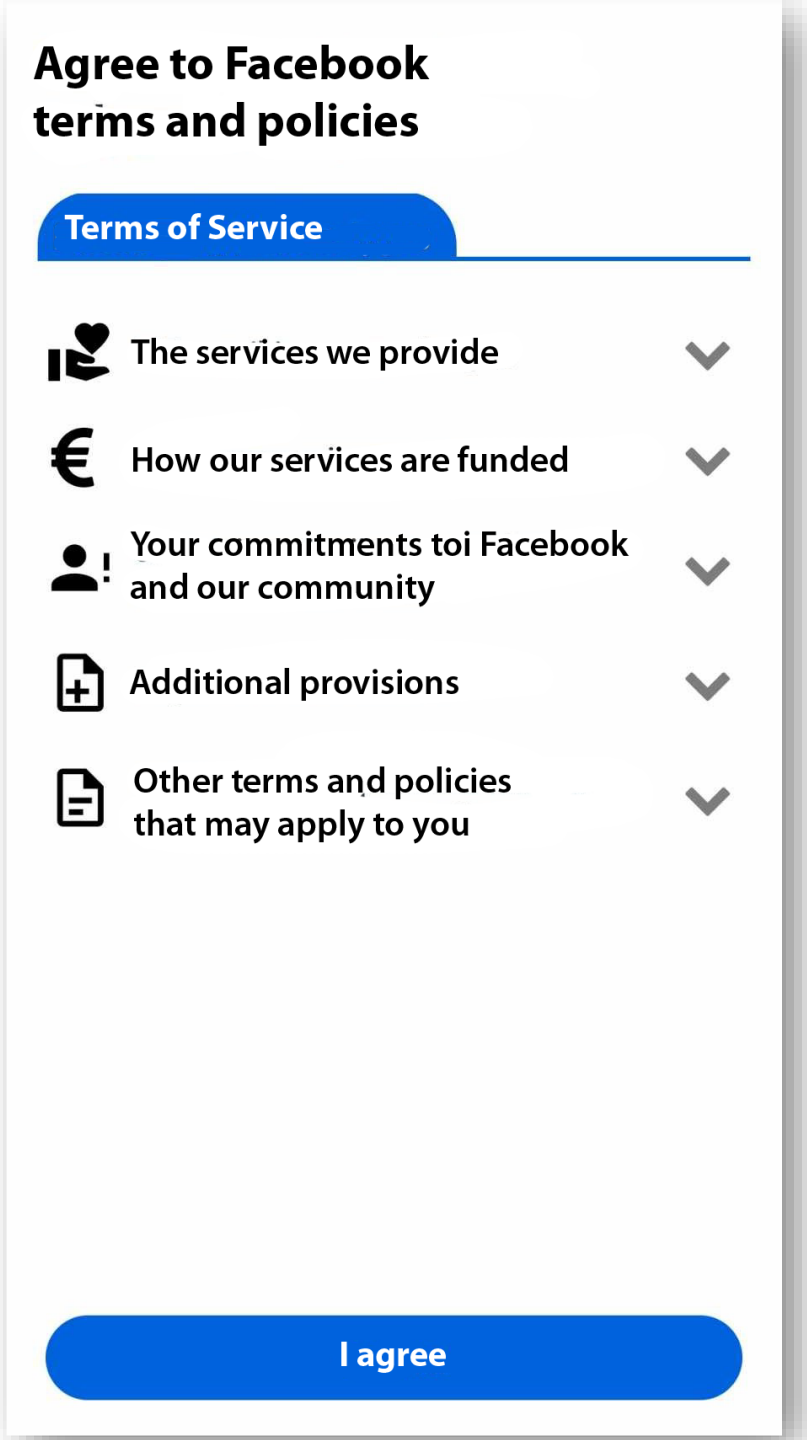
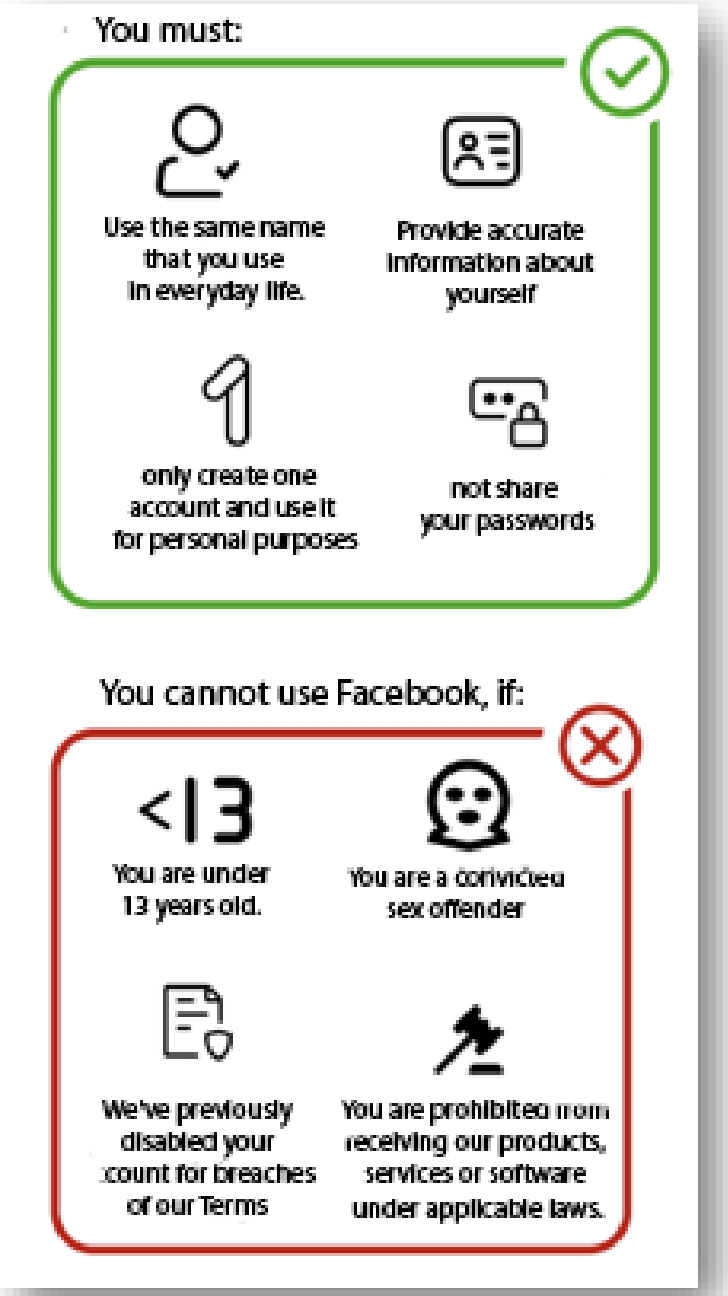
User challenges by accepting the terms of service and privacy policy

- Lawyers formulate policies and resolve disputes
- Internet users glance and scan the screen and expect to perceive the content
- Expectations of the user group are omitted
- The adapted legal provisions for fast learning should became a standard



Redesigned Facebook‘s Terms of Service





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Ideas for further activities

- As the Ethics Working Group, we could:
  - continue to collect data about covering the ethics topics in CS study programs
  - disseminate prepared teaching materials from the Ethics4EU project
  - stress the need for usable tools that inform users about dark patterns on the sites they visit
  - emphasize the importance of user-centered online contracts

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Thank You!

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