Sustainability in the Finna Services

Susanna Eklund, National Library of Finland 2024

Content

- The Goal of Finna's sustainability work
- Materiality assessment reveals the core of the matter
- Main themes of Finna's sustainability work
- What do users want from Finna's sustainability work?
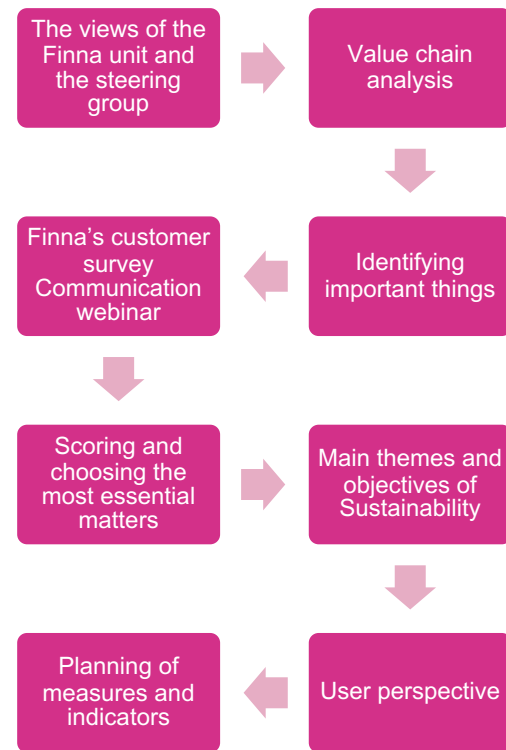 - Results of Finna's user survey 2023

- We want to develop things that are important to us, to the content providers and to users, and communicate their progress.

- We want to take forward the implementation of the National Library's sustainability programme with regard to Finna.

- Who do we serve?

  o Finna's users, the society and the content providing organisations

Sustainability work and reporting should focus on relevant themes.

The main themes of Finna's sustainability work were formed in cooperation with Finna organisations and other stakeholders in 2021-2022, and the users' wishes for concrete development measures were examined in 2023.
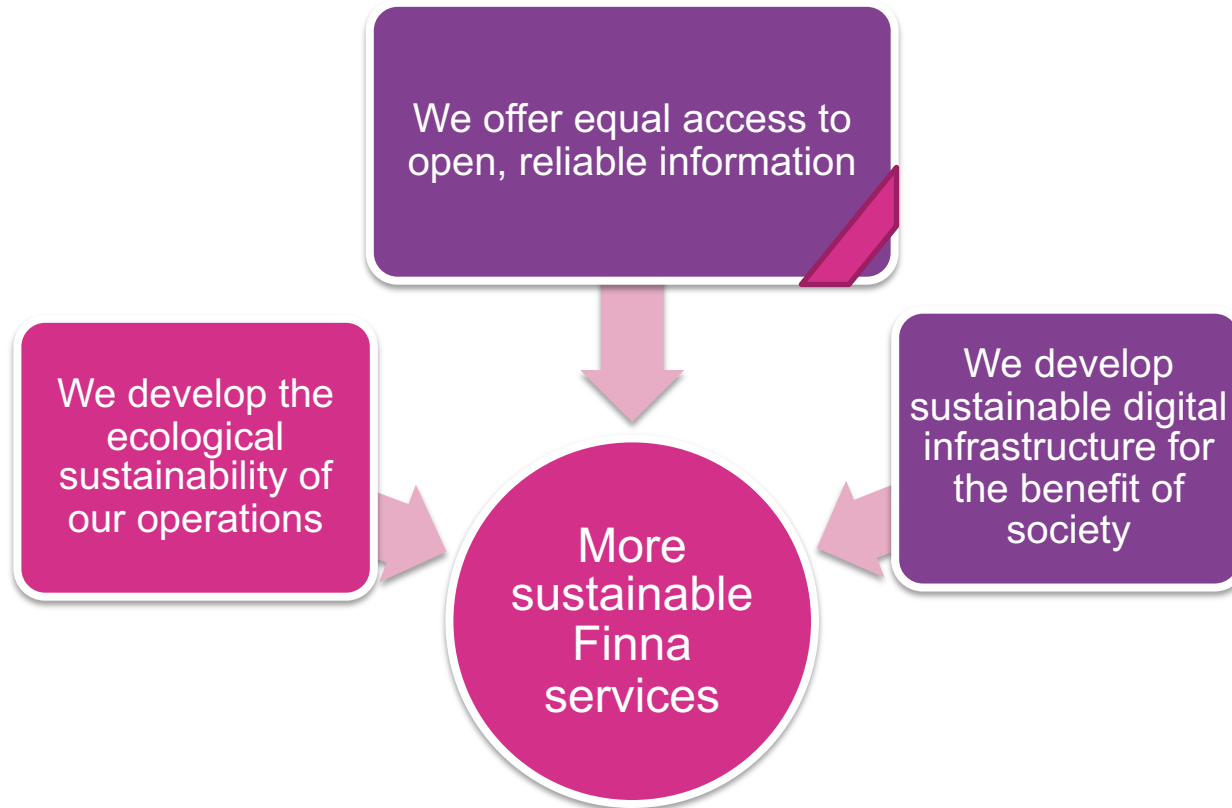
Next, we will refine and plan concrete measures and indicators and promote them as part of Finna's continuous development.

The views of the Finna unit and the steering group → Value chain analysis

Finna's customer survey Communication webinar ← Identifying important things

Scoring and choosing the most essential matters → Main themes and objectives of Sustainability

Planning of measures and indicators ← User perspective

Main themes of Finna's sustainability work

The 3 main themes of Finna's sustainability work

We offer equal access to open, reliable information

We develop the ecological sustainability of our operations

More sustainable Finna services

We develop sustainable digital infrastructure for the benefit of society

Finna supports the UN Sustainable Development Goals
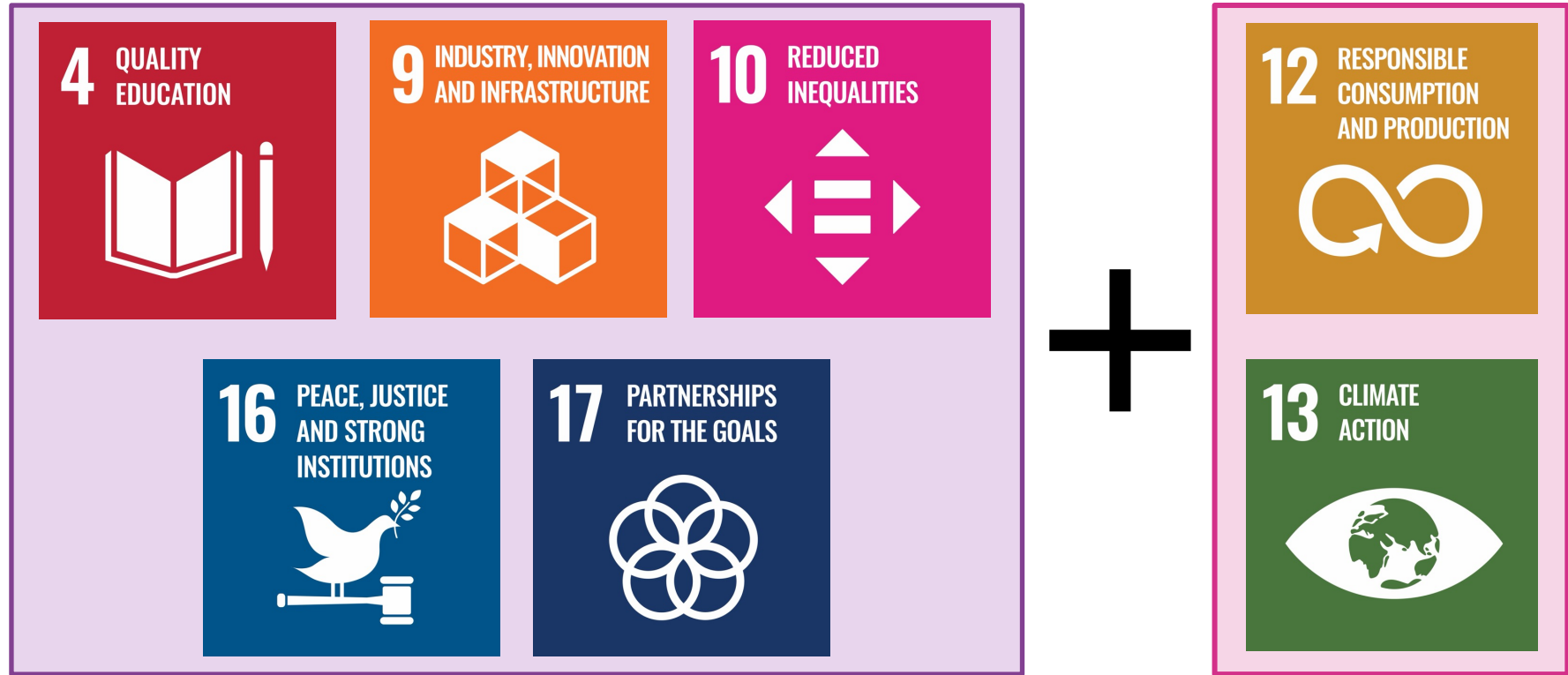
4 QUALITY EDUCATION

10 REDUCED INEQUALITIES

17 PARTNERSHIPS FOR THE GOALS

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

16 40 NATIONAL LIBRARY OF FINLAND

We offer equal access to open, reliable information

Objectives **of the National Library:** Strengthening our role in the mitigation social contrasts; equal access to information, transparency of information	Time interval	Responsible actor
Interoperability and findability of materials	Reviewed annually	Finna & organisations
Open access to the materials	Reviewed annually	Finna & organisations
Accessible online service	Reviewed annually	Finna
Multilingual web service and customer service	2022-26	Finna
Social coverage and fair promotion of the materials (also in communication)	2023-2030	Finna & organisations
Ethical aspects related to the use of materials • A Code of ethical use in cooperation with Stakeholders • (If necessary, UI-support for a labeling system that guides ethical use, e.g. Traditional Knowledge Label) • Awareness of the theme among users will improve	2023-2030	Finna & organisations

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	**We develop sustainable digital infrastructure for the benefit of society**		
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	**Objective of the National Library:** We provide services sustainably	**Time interval**	**Responsible actor**
	We develop a high-quality, reliable, safe and user-oriented digital customer experience • Responsibility in the use of users' data	Reviewed annually	Finna
	We take care of the resilience and security of key infrastructure • E.g. developing a safety culture	Reviewed annually	Finna

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Special theme of Finna's Sustainability work

We develop the ecological sustainability of our operations		
Objectives **of the National Library:** We provide services sustainably; Carbon neutrality 2030, ecology as a criterion in action	**Time interval**	**Responsible actor**

Provision of service
• Transparency:
   • The aim of calculating or knowingly assessing emissions from service provision
   • Finna UI provides information on the emissions from service production
• Reduction of emissions
   • Developing Green ICT and Sustainable Web Design competencies
   • Other targets depending on what constitutes the largest emission sources and from which we can reduce
	2023-2025	Finna

Use of the Service
• Transparency
   • Finna UI provides information on emissions from the use of the service
• Reduction
   • competence development
• Sustainable digital consumption
   • The perspective of sustainable digital consumption is presented in a communicative way
   • Awareness of the theme among users will improve
	2025-2030	Finna

13 CLIMATE ACTION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

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What do users want?

As a part of the Finna's user survey 2023, we examined the views of our end-users on how certain themes of Finna's Sustainability work should be developed.

Respondents commented

- accessibility
- reducing climate emissions
- multilingualism
- adding material on minorities;
- ethical use of materials

The answers provided diverse perspectives and suggestions to support the development work.

Sustainability in Finna's user survey 2023

We asked the users:

1) How important they regard in Finna (on a scale of 1 to 5)

- Minimising the climate emissions related to providing and using the service
- Information about the climate emissions related to providing and using the service
- Further development of multilingualism
- Development of accessibility functions
- Adding more materials concerning minority groups
- Instructions for how to use data ethically

2) How to develop these issues in a concrete way (open ended)

The analysis of the responses focused on Finna's proposals.
Reports on all the results of the user survey can be found in
Finna's customer wiki

Key figures for the whole survey

- Respondents 36327

Respondents from different Finna UI's

- Finna.fi 1907 (5 %)
- Archives 601 (2 %)
- Special Libraries 178 (1 %)
- Higher education libraries 5679 (16 %)
- Museums 427 (1 %)
- Public libraries 27329 (75 %)
- Others 207 (1 %)

Languages of reply

- Finland (34865)
- Sweden (1021)
- English (441)

Key figures for sustainability questions

- Quantitative answers 36327
- Open answers 7144
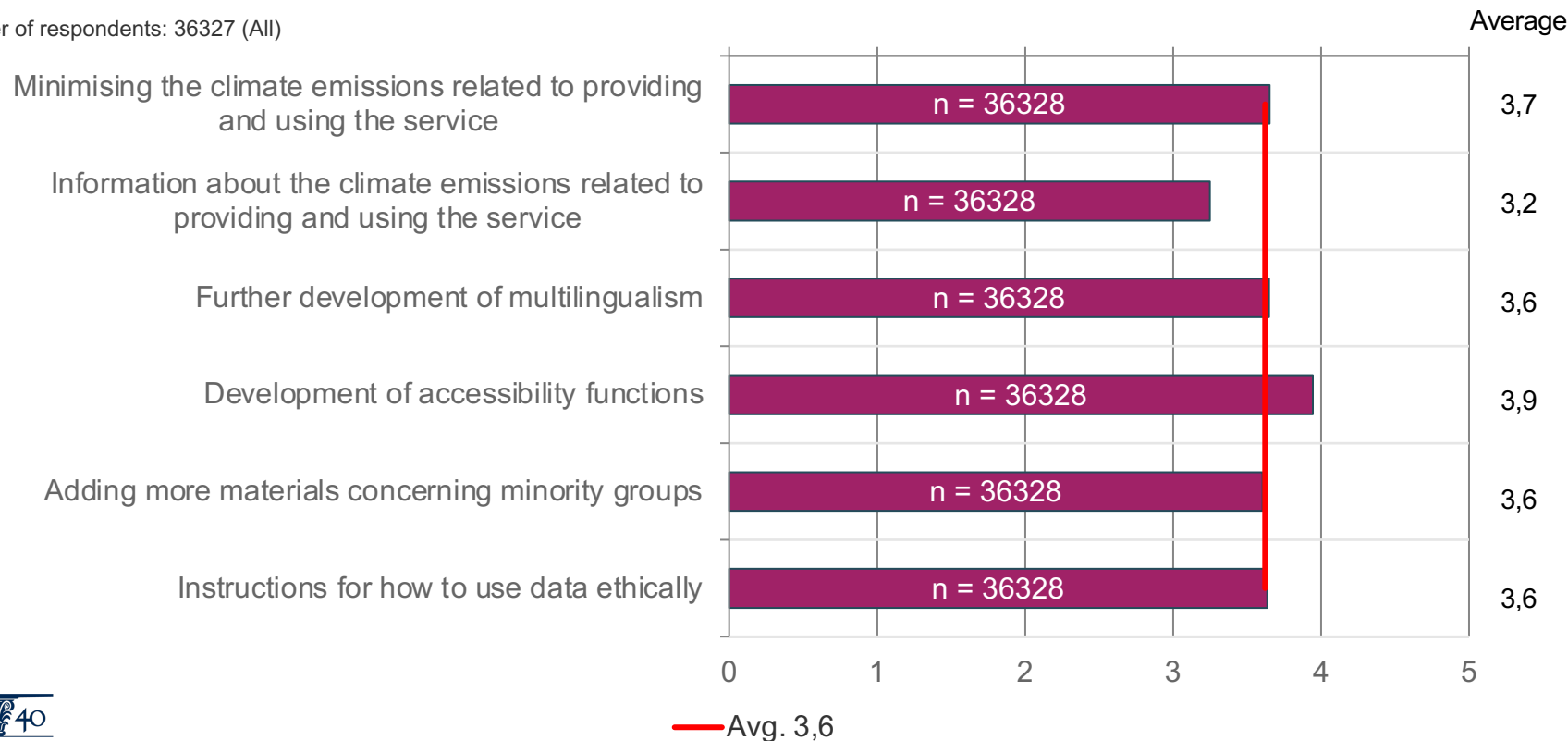
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Results

Question 1

Finna's user survey 2023: results 1/2

How important do you consider in Finna services: (scale 1 not important – 5 very important)

Number of respondents: 36327 (All)

Average

Question	n	Average
Minimising the climate emissions related to providing and using the service	n = 36328	3,7
Information about the climate emissions related to providing and using the service	n = 36328	3,2
Further development of multilingualism	n = 36328	3,6
Development of accessibility functions	n = 36328	3,9
Adding more materials concerning minority groups	n = 36328	3,6
Instructions for how to use data ethically	n = 36328	3,6

Avg. 3,6

Source: Eklund Susanna 2023(a)

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How does Finna.fi (n= 1907) differ from all answers?

- Accessibility functions the same: 1st place

- Instructions for ethical use of data in second place (differs from all responses)

How do the answers given in Finnish and in other languages differ?

- Among the respondents in Finnish (n=34 865), the development of accessibility functions (3.9) and minimising the emissions (3.7) were the most important ones.

- In Swedish and English answers (n=1462), the development of accessibility functions and multilingualism were most important (both 4.2).

Essential remarks:

- Largest number of respondents from public libraries (n=27329)

- Universities of applied sciences: development of multilingualism clearly in 1st place (4.8)

- Museum workers: ethical use of data in 1st place (4.4)

- People looking for entertainment (n=22563): minimising emissions in 2nd place

Source: Eklund Susanna 2023(a)

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Question 2 (open ended)

- Many respondents had not thought about these themes, but regarded developing them important
- Many were happy with the current state or the current way of development.
- Many wished
  - Developing sustainability from real needs, not as image uplifting
  - Concrete actions as part of normal processes
    - Involving users and stakeholders in development
    - Taking diversity into account when recruiting staff
  - Transparency & clear communication; communication was highlighted in the answers

"Sustainability and mitigating climate emissions are also important, but it is even more important to ensure free access to information."

Quote translated from Finnish

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- Critical points of view were also raised.
  - Focus on Finna's 'core', i.e. providing reliable information and search service, more essential than developing the asked sustainability themes
  - Some found the questions difficult to understand.
    - In particular, the ethical use of data in the context of public online libraries was confusing
  - Some felt the questions were useless, prescriptive or politically colored.
    - The service must be neutral and not take a position.
  - "Does not touch me"

Number of proposals analysed by UI group

Archives: 76 proposals

Special Libraries: 24 proposals

Finna.fi: 287 proposals

Higher education libraries: 788 proposals

Museums: 63 proposals

Public libraries: 2532 proposals

Thematic, regional, etc. UI's: 27 proposals

Source: Eklund, Susanna 2023 (b)

- Subtle, not increasing information overload
- Honest information, including challenges
- Concrete actions
  - More deeds, less talk
- Clarity and multilingualism in communication
  - Clarifying abstract issues, e.g. in instructions by reviewing different types of example cases and situations
- A clear sustainability programme
- Visible standardised metrics for promoting sustainability

"I would like concise but informative clear reading and key concepts in the implementation of sustainability and environmental aspects in service provision."

Quote translated from Finnish

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Source: Eklund, Susanna 2023 (b)

- Guidelines and more information for those who want it.
  - Videos
  - Info boxes on the front page of the service
  - Easy, short instructions
  - Training, webinars
  - User interface instructions
  - Newsletters
  - Content page about sustainability in Finna, users are also interested in safety
  - 'Certificate of ethical use'

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Emissions and the environment

Minimising emissions from service provision

- Lighter service
  - Evaluation of information architecture, code, user interface elements, images from the perspective of efficiency and necessity
  - Climate-friendly coding; there are differences in the use of resources in programming languages
- Optimising the flow of data
- Electricity used by servers to be zero-emission
- Focus on optimising the most used services and functions
- Transparency is important
- Provision of the service (including infrastructure) by using domestic operators
- Make emission compensation visible if there is any
- Take the life cycle environmental impacts of the used devices into account
- Avoid unnecessary travel by service providers

"It would be interesting if Finna pointed out its climate emissions, as many similar operators do not report these."

Quote translated from Finnish

Minimising emissions from the use of the service

- Reducing emissions must not affect the attractiveness of the service
- Information for the user
  - How data in the service is stored or transferred
  - What energy does the service use?
  - How can the user reduce emissions in a digital environment with their own actions? Make the emissions of user functions visible in the user interface, e.g.
    - How much does a search generate emissions
    - How much did the user save emissions?
      - How does the way of purchasing or borrowing a book (physical book own library/regional loan/reading room loan, e-book) influence the emissions of reading? Should you prefer an e-book or drive a car to the library? Is it better to borrow from the library or buy your own copy?
      - Is it better to send the receipt of lending to your e-mail instead of taking it out as a printout?
- Encouraging through positive feedback
  - *Psst. A good choice! Did you know that you just chose... Would you rather...*
- No streaming services to Finna

"As a user it is really difficult to understand and control the amount and significance of climate emissions, so this issue could be developed, for example, by adding a function/meter that allows you to track the climate impact of your search."

Quote translated from Finnish

- Information on the front page/user interface
  - How was the electricity used by the service produced?
  - How are emissions being minimised?
  - Calculator of climate impacts (own use, all use, impact of different actions)
    - Benchmark VR website which has information on annual train travel emissions and savings
  - Weekly or monthly updated data on service emissions
  - Tips on how the user can influence climate issues when using library services
  - Include an Emissions policy to the Info menu
  - Climate Reports

'Genom att låna på nätet sparade du x-% i klimatavtryck'.

"Your search produced XX kilograms of CO2 eq this time."

"This year, the use and maintenance of the service has had an impact on the climate, producing..."

"One search corresponds to xxx emissions"

"By searching like this* you save .."

Quotes (en) translated from Finnish

Source: Eklund, Susanna 2023 (b)

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- Research
  - Expert investigation of emissions
  - Participation in studies
- Access to information for users
  - By increasing scientific e-resources
  - Easy access to materials encourages the way to information
- Better visibility of climate benefits and development needs
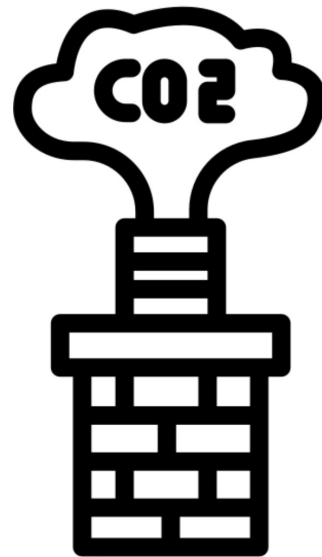
Accessibility

The development of accessibility functions was regarded the most important by the Finnish-speaking respondents of the Finna user survey (Jacksen et al. 2023). This was also evident in open responses. Even many of the otherwise critical respondents considered it important to invest in accessibility.

- For those who responded in Swedish or English, the development of multilingualism was as important as the development of accessibility functions (Eklund 2023:16).

- On the other hand, multilingualism was also seen as being part of accessibility.

The open answers included suggestions for various accessibility functions and for the development of communication (plain language).

"I am so grateful that the website is already accessible for the visually impaired!"

Quote translated from Finnish

Many respondents considered it important to involve people who benefit from accessibility already at the planning stage:

- Age groups: children, young, seniors
- Persons with disabilities (hearing, sight, physical, etc.)
- Sensory impairments, e.g. age vision, impaired hearing, colour blindness
- People with impaired coordination, e.g. tremor of hands
- Reading and concentration disorders, autism spectrum
- Mental health rehabilitees
- Temporary restrictions (e.g. dry eye/headache after long screen time)
- Foreign-language speakers
- Auditory learners

"... those on the autism spectrum need clear and precise instructions for use. Cooperation with the Autismiliitto is desirable.'

Quote translated from Finnish

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Development of accessibility functions

Possibility for users to customise the user interface and content to suit themselves

- Text-to-speech

  - *» For example, the text-to-speech function for reading books would be great. (Sometimes when studying gives you a headache, it would be nice to listen to the content when you can no longer stare at the screen)»*

- Adjust font size and style

- Adjust color contrast

- Voice search, voice control

- Dark mode of the user interface

- Adjust the size of the buttons
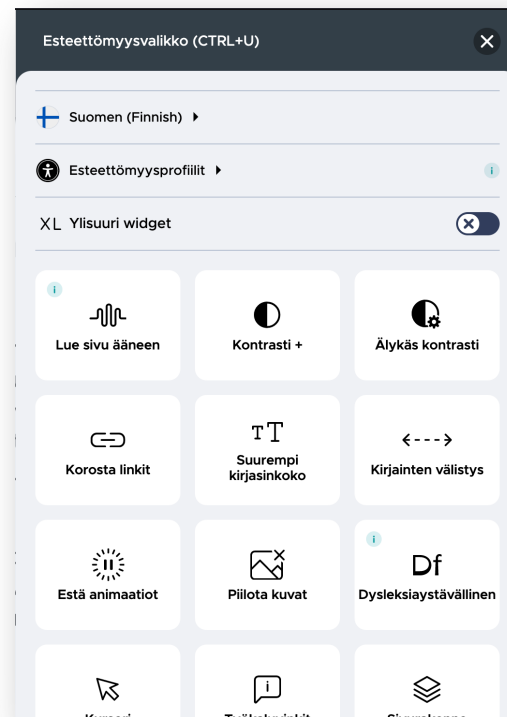
Benchmark: https://www.panadol.com/fi-fi/ (seen 24.3.2023)

- Attention to the contrasts of colors
- General clarification
  - Service path
  - Menu structure
- Bigger font
- Bigger buttons
- Even better usability with the screen reader
- Easier search for the visually impaired
- Voice guidance
- Easy-to-read interface, search and instructions
- Less text
- Minority languages in the user interfaces
- More clear indication if the material is available in several formats, e.g. e-book, audiobook, printed book

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FINNA

- Description-interpreted images
- Alt texts for visual materials
- Audiobooks, also for students!
- Podcasts
- Celia-material to be expanded
- E-books
- Easy-to-read material
- Touchbooks, Brailled Books

"Accessibility is also, in my view, making information available (for everyone). This should be considered when purchasing and limiting e-books to a specific "organisation" rather than to user groups. The policy of e-resources should be considered from this point of view, by opening materials or also by acquiring a paper copy of the relevant books. Even such a reading copy in a library would be a quicker solution than reading an e-book on site. Finna could examine, for example, through surveys in organisations, do e-resources actually increase accessibility?

Quote translated from Finnish

Source: Eklund, Susanna 2023 (b)

Other Remarks on Accessibility

- The EU Web Accessibility Directive guides
- Some users would like the feedback to be sent directly to the authority, not to the service provider
- Improvement of services, e.g. education on using Finna for the visually impaired or those with weakening eyesight
- A website that inspires for children and young people
- A clearer and easier to use version for seniors

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Multilingualism

More languages were requested

- user interfaces
- communication
- services
- materials

Suggested languages

- Swedish, English, Sami (North, Skolt, Inari)
- Arabic, Chinese,Estonian, French, German, Greek, Hungarian, Italian, Kurdish, Latin, Persian, Russian, Somalian, Spanish, Ukrainian
- Karelian, Romani (Kalo Finnish/kaalengo tšimb), Yiddish, Tatar
- Lydian, Veps, Ingrian, Vod/Votic, Liv/Livonian, Kven, Meänkieli, Övdalian, East Greenlandic (Tunumiit oraasiat), Northern Greenlandic (Inuktun), Frisian languages, Limburgish, Ripurian, Romani languages
- Finnish sign language
- Plain language
  - Clarity in both the user interface and the materials
  - Easy-to-read instructions for finding easy-to-read material

Other Remarks on Multilingualism

- Access to information in your own language is important
- More brailled materials available
- More english subtitles for finnish films, also finnish subtitles for domestic films
- Automatic AI-assisted translation function for search and user interface
- Interoperability with other similar European services
- Fennica and Viola's authority control back, making multilingualism meaningful even when searching for information

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Minorities

Involving minorities in the selection of materials and the development of multilingualism

> *We often think that we in the academic world know well what different minority groups need. I would like to see the approach in developing these issues, that the above groups and their experience will be taken as a starting point for the development work...”*

Minority groups mentioned in the replies

- Sámi, Romani, Karelians, Tatars, sexual minorities, people with disabilities, religious communities, immigrants
- Genders underrepresented in different contexts
  - for example, men as users of libraries

- Take into account the celebrations of minorities in communications and the presentation of content
- Material on minority groups could be made available in places and regions where they have been censored
- Increasing research on minorities by providing materials for students
- Promotion of material produced by minority groups themselves (studies, books, articles, art and culture, etc.)
- More material on minorities and geographical areas linking minorities, e.g. data on Eastern Karelia (Sweden/Finland, Novgorod and Russia)

Ethical use of data

The use of data may be subject to both legal restrictions (such as copyright) and ethical considerations.

Ethical use means different things in different contexts:

- In the context of cultural heritage, e.g. the moral right of indigenous peoples to define in what context and how material relating to that culture may be used;
- In a scientific context, e.g. ethical use of research conducted by another person, reference to sources or ethical treatment of research source data

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Finna's users wished for co-operation with representatives of minorities in the production of guidelines on ethical use:

- Record pages
  - Clear marking if the use of the material in question is subject to ethical restrictions;
  - Indication to old materials where the description is a product of its own time
    - *"... some kind of special mention in connection with material that represents the past world in a way that is no longer sustainable and/or where time, attitudes and updated knowledge have already passed."*
    - Users should also be given perspectives on how to review the data: how the unethical material was interpreted at the time.

- Easy-to-read Code of Ethics
  - Visual and clear 'ABC Quick Guide' and a more specific one for those who need more information
  - Unambiguous and easy to find instructions (to top navigation, home page, record page, also link to Terms of Use)
  - "This is how you refer to the material correctly" -guideline
    - General guidelines on quoting souces used in academic research in the UI's of higher education institutions
    - Guidelines on copyright also in the Finna UI's of public libraries
    - A link from Finna to the Finnish National Board on Research Integrity guidelines on conducting ethical research

Finna's users also wished

- An online test to see how well you are familiar with the principles of ethical use of materials.
- Ethical Principles to be accepted by the user before retrieval or use of material
- Targeted ethical guidance based on the user's profile
- User path that guides the use of the service and the ethical use of materials
  - There is also a need for information on the difference between legal and ethical use restrictions. The provider of the material can not necessarily restrict the use of copyright-free material; the consideration is the responsibility of the user.
- An easy way of contacting the party from which you can check the ethicality of the use if you do not find an answer.
- Presentation or seminar on the ethical use of materials
- Guidelines on the ethical use of materials should be part of basic education

Summary of the results of open responses

- We received a lot of development ideas and wishes.

- Some of the ideas require measures from content providing archives, libraries and museums.

- Users wanted transparency, clear communication and focus on the most important things.

- In particular, the development of accessibility was considered important.

  - Users identified several specific groups benefiting from accessibility functions and gave concrete suggestions for activities.

- Numerous languages and minority groups were mentioned in relation to multilingualism and minorities.

- Climate emissions of digital services were a new issue for many, which was seen both as important and interesting, and as secondary to Finna's core, i.e. open and reliable sharing of information.

- The ethical use of materials was understood in a wide sense, covering the rights of minorities, research ethics and copyright.

- Respondents considered it important that the relevant groups of people, whether in terms of accessibility, multilingualism, minorities or ethical use of materials, can participate in the development process already at the planning stage.

Eklund, Susanna 2023 (a): Mitä käyttäjät toivovat Finnan kestävyys- ja vastuullisuustyöltä? Finnan käyttäjäkyselyn 2023 avovastausten tuloksia. *(Available in Finnish: https://urn.fi/URN:NBN:fi-fe20231024141131)*

Eklund, Susanna 2023 (b): *Tietoisku: Tilannekatsaus kestävyys- ja vastuullisuustyöhön Finnassa (*Available in Finnish: https://urn.fi/URN:NBN:fi-fe2023071490643*)*

Jacksen, Saga, Isotalo, Julia and Kirichenko, Svetlana 2023: *Finnan käyttäjäkysely 2023, kvantitatiiviset vastaukset.* (Available in Finnish: https://urn.fi/URN:NBN:fi-fe2023062760511)
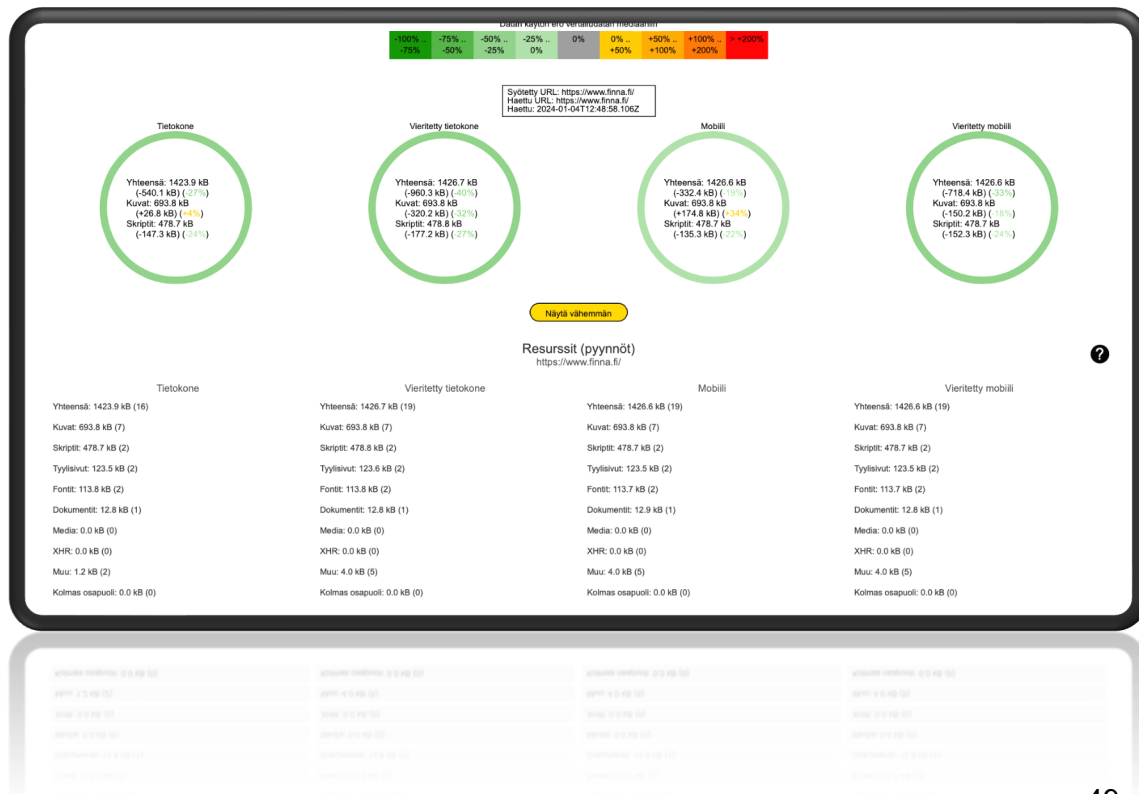
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https://greenpages.aalto.fi

A tool by Aalto University, that analyses

- the amount of data used by the website
- where does the page consume energy
- how to make it less consuming

Contact us

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