

Welcome, this is the report we created for your project.

We analysed the reviews that have been merged in the last year, focusing on which changes were applied to the code under review.

We found out that you successfully merged **477** reviews!

(please, note that we restricted the scope of our tool only to the Java files in your project)

ID: 17

Text / Instructions

Code changes happening during code review in your project

How does your code change thanks to the work your team puts during the reviews? The code changes that happen during the review process are, substantially, one of the main outcomes of the code review process. We call them *review changes*. How do these review changes look like in your project?

We could classify the review changes that happened during your code review process in two main categories:

- 1. **Functional** changes
- 2. **Evolvability** changes

1. Functional changes impact how the program functions. A reviewer may require a functional change to the code, for instance, to check how the variables or resources are used, as well as to improve an algorithm.

Here an example from your project:

```
183 synchronized (fEntries) {
184     entries = ImmutableList.copyOf(fEntries.values());
185 }
186 zoomEntries(entries, start, end, resolution, monitor);
187 }
```

```
183 synchronized (fEntries) {
184     entries = ImmutableList.copyOf(fEntries.values());
185 }
186 if (start > 0) {
187     zoomEntries(entries, start, end, resolution, monitor);
188 }
189 }
190 }
```

[Link to review](#)

2. Evolvability changes do not directly impact the functionality of a program, but make the software more maintainable and easier to evolve.

Examples of evolvability changes are reorganising the code, removing dead lines, and adding a comment.

ID: 19

Text / Instructions

Most of the changes that happen during the reviews in your projects are evolvability changes. For this reason, we further divided the **Evolvability** changes in **3 groups**:

2.1 Documentation: Changes that tackle any issue in the documentation of the code. They include changes to comments and names in the program.

An example from your project:

```
2012  * Gets the list of marker event sources for a given trace.
2013  *
2014  * @param trace
2015  *      The trace
2016  * @return The list of marker event sources
2017  * @since 2.0
2018  */
```

```
2038  * Gets the list of marker event sources for a given trace.
2039  *
2040  * @param trace
2041  *      The trace
2042  * @return The list of marker event sources
2043  * @since 5.1
2044  */
```

Link to review

2.2 Visual Representation: Changes that modify the layout of the code. In other words, any formatting that does not impact the compilation result.

An example from your project:

```
32  */
33  public final class TmfFileDialogFactory {
34  private static @Nullable String[] fOverridePaths = null;
35
36  }
```

```
32  */
33  public final class TmfFileDialogFactory {
34  private static @Nullable String[] fOverridePaths = null;
35  }
```

Link to review

2.3 Structure: Changes to the organisation of the code itself or how a particular solution is implemented (without having an effect on the functionality of the code).

```
24  /**
25  * Constructor
26  *
27  * @param elements
28  *      The list of element representing this expression
29  *
30  */
31  public FilterExpressionNot(Queue<Object> elements) {
32      super(elements);
33  }
```

```
24  /**
25  * Constructor
26  *
27  * @param elements
28  *      The list of element representing this expression
29  *
30  */
31  public FilterExpressionNot(List<Object> elements) {
32      super(elements);
33  }
```

Link to review

Visualising Review Changes Stats

This is a mock-up of our tool interface. Please take into account the space limitation; the following figure is meant to just give a general overview of the data. Our tool interface adds three new visualization on the bottom of the page.

The single graphs will be shown again with more details later in the report.

The graph in the bottom left shows the number of reviews merged per month.

The graph in the middle shows the amount of review changes according to the types we have presented before: Documentation (2.1), Visual representation (2.2), Structure (2.3) and Functional (1).

The graph in the bottom right shows the distribution of the review changes over the last year.



AIProjectsDocumentation

OpenMergedAbandoned

project:tracecompass/org.eclipse.tracecompass

ChangesSearchCreate accountSign In

ECLIPSEFOUNDATION

Search for project:tracecompass/org.eclipse.tracecompass

Subject	Status	Owner	Project	Branch	Updated	Size	CR	V
tmf.ui: Fix NPE in StateSystemPresentationProvider		Simon Delisle	tracecompass/org.eclipse.tracecompass	master	10:24 PM			
Fetch annotation for data provider		Simon Delisle	tracecompass/org.eclipse.tracecompass	master	6:07 PM			
Base time graph presentation provider based on data provider fetchStyle	Merge Conflict	Simon Delisle	tracecompass/org.eclipse.tracecompass	master	Aug 20		-1	
Add fetchStyle to data provider API		Simon Delisle	tracecompass/org.eclipse.tracecompass	master	Aug 20			
[datapreview] Changes ITimeGraphState and ITimeGraphEntryModel metadata	Merge Conflict	Simon Delisle	tracecompass/org.eclipse.tracecompass	master	Aug 20			
profiling.core: add custom Tooltips to Flame Chart	Merge Conflict	Matthew Khouzam	tracecompass/org.eclipse.tracecompass	master	Aug 19			
profiling.core: Introduce Callstack Function Entry/Exit Object functions		Matthew Khouzam	tracecompass/org.eclipse.tracecompass	master	Aug 19			
profiling.core: Allow callstacks to update if depth is set.	Merge Conflict	Matthew Khouzam	tracecompass/org.eclipse.tracecompass	master	Aug 19			
Adds private constructors to utility classes	Merged	David Piché	tracecompass/org.eclipse.tracecompass	master	Aug 19			
Support fetching view markers from output annotation provider	Merge Conflict	Patrick Tasse	tracecompass/org.eclipse.tracecompass	master	Aug 17			
tmf: fix NullPointerException in TmfStateSystemExplorer		Bernd Hufmann	tracecompass/org.eclipse.tracecompass	master	Aug 16			
tmf: Fix java heap exhaustion in base data provider		Bernd Hufmann	tracecompass/org.eclipse.tracecompass	master	Aug 16			
releng: Update eStaging target to 2019-09 M2		Patrick Tasse	tracecompass/org.eclipse.tracecompass	master	Aug 16			

Reviews over time

Total review changes per group

Group	Count
Documentation	5489
Visual Representation	360
Structure	3349
Functional	223

Review changes groups over the last year

Please note, that this chart uses two scales, one for functional changes (left) one for evolutionary changes (right)

ID: 55Text / Instructions

1. After you have looked at this interface for your project, it would be great if you could let us know what you think about it:

Space Cell

The information is clear and easy to understand

This summary is useful for my project and contains relevant information

This information can be useful for a developer

This information can be useful for a project manager

This information reflects my expectations of the code review process of the project

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

No Answer

The information is clear and easy to understand: Strongly Disagree

The information is clear and easy to understand: Disagree

The information is clear and easy to understand: Neutral

The information is clear and easy to understand: Agree

The information is clear and easy to understand: Strongly Agree

The information is clear and easy to understand: No Answer

This summary is useful for my project and contains relevant information: Strongly Disagree

This summary is useful for my project and contains relevant information: Disagree

This summary is useful for my project and contains relevant information: Neutral

This summary is useful for my project and contains relevant information: Agree

This summary is useful for my project and contains relevant information: Strongly Agree

This summary is useful for my project and contains relevant information: No Answer

This information can be useful for a developer: Strongly Disagree

This information can be useful for a developer: Disagree

This information can be useful for a developer: Neutral

This information can be useful for a developer: Agree

This information can be useful for a developer: Strongly Agree

This information can be useful for a developer: No Answer

This information can be useful for a project manager: Strongly Disagree

This information can be useful for a project manager: Disagree

This information can be useful for a project manager: Neutral

This information can be useful for a project manager: Agree

This information can be useful for a project manager: Strongly Agree

This information can be useful for a project manager: No Answer

This information reflects my expectations of the code review process of the project: Strongly Disagree

This information reflects my expectations of the code review process of the project: Disagree

This information reflects my expectations of the code review process of the project: Neutral

This information reflects my expectations of the code review process of the project: Agree

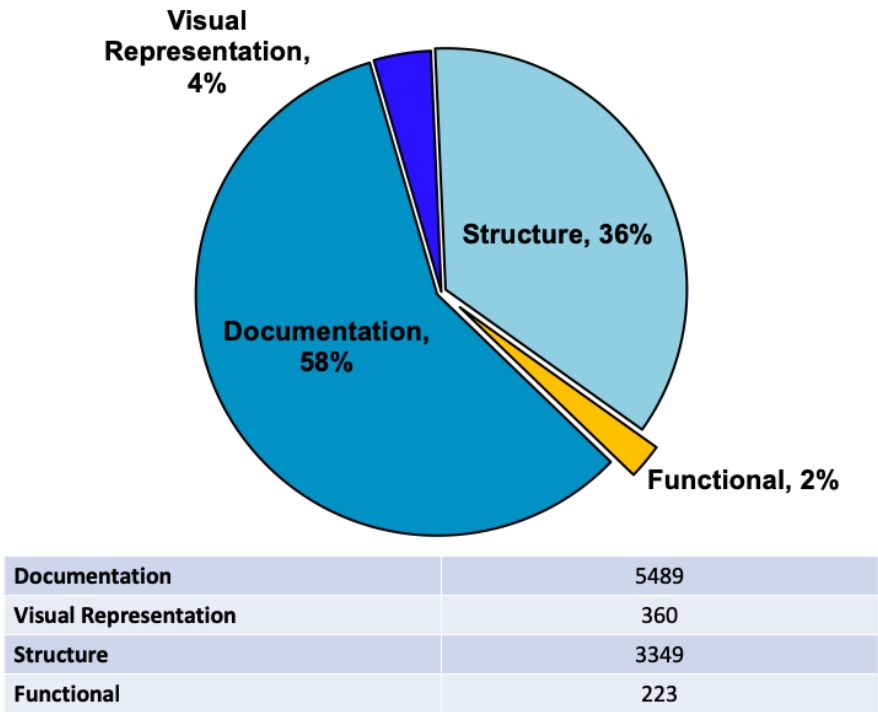
This information reflects my expectations of the code review process of the project: Strongly Agree

This information reflects my expectations of the code review process of the project: No Answer

ID: 22Radio Button Grid

2. Feel free to add any further comments about your answers above or the information:

This graph shows the amount of changes per group happened in your code review process from August 2019 to September 2018.



ID: 29

Text / Instructions

3. After you have looked at this visualization, it would be great if you could let us know what you think about it:

Space Cell	<div>Strongly Disagree</div> <div><input type="radio"/></div>	<div>Disagree</div> <div><input type="radio"/></div>	<div>Neutral</div> <div><input type="radio"/></div>	<div>Agree</div> <div><input type="radio"/></div>	<div>Strongly Agree</div> <div><input type="radio"/></div>	<div>No Answer</div> <div><input type="radio"/></div>
The graph is clear and easy to understand	<div><input type="radio"/></div> <div>The graph is clear and easy to understand: Strongly Disagree</div>	<div><input type="radio"/></div> <div>The graph is clear and easy to understand: Disagree</div>	<div><input type="radio"/></div> <div>The graph is clear and easy to understand: Neutral</div>	<div><input type="radio"/></div> <div>The graph is clear and easy to understand: Agree</div>	<div><input type="radio"/></div> <div>The graph is clear and easy to understand: Strongly Agree</div>	<div><input type="radio"/></div> <div>The graph is clear and easy to understand: No Answer</div>
This summary is useful for my project and contains relevant information	<div><input type="radio"/></div> <div>This summary is useful for my project and contains relevant information: Strongly Disagree</div>	<div><input type="radio"/></div> <div>This summary is useful for my project and contains relevant information: Disagree</div>	<div><input type="radio"/></div> <div>This summary is useful for my project and contains relevant information: Neutral</div>	<div><input type="radio"/></div> <div>This summary is useful for my project and contains relevant information: Agree</div>	<div><input type="radio"/></div> <div>This summary is useful for my project and contains relevant information: Strongly Agree</div>	<div><input type="radio"/></div> <div>This summary is useful for my project and contains relevant information: No Answer</div>
This information cab be useful for a developer	<div><input type="radio"/></div> <div>This information cab be useful for a developer: Strongly Disagree</div>	<div><input type="radio"/></div> <div>This information cab be useful for a developer: Disagree</div>	<div><input type="radio"/></div> <div>This information cab be useful for a developer: Neutral</div>	<div><input type="radio"/></div> <div>This information cab be useful for a developer: Agree</div>	<div><input type="radio"/></div> <div>This information cab be useful for a developer: Strongly Agree</div>	<div><input type="radio"/></div> <div>This information cab be useful for a developer: No Answer</div>
This information can be useful for a project manager	<div><input type="radio"/></div> <div>This information can be useful for a project manager: Strongly Disagree</div>	<div><input type="radio"/></div> <div>This information can be useful for a project manager: Disagree</div>	<div><input type="radio"/></div> <div>This information can be useful for a project manager: Neutral</div>	<div><input type="radio"/></div> <div>This information can be useful for a project manager: Agree</div>	<div><input type="radio"/></div> <div>This information can be useful for a project manager: Strongly Agree</div>	<div><input type="radio"/></div> <div>This information can be useful for a project manager: No Answer</div>
This information reflects my expectations of the code review process of the project	<div><input type="radio"/></div> <div>This information reflects my expectations of the code review process of the project: Strongly Disagree</div>	<div><input type="radio"/></div> <div>This information reflects my expectations of the code review process of the project: Disagree</div>	<div><input type="radio"/></div> <div>This information reflects my expectations of the code review process of the project: Neutral</div>	<div><input type="radio"/></div> <div>This information reflects my expectations of the code review process of the project: Agree</div>	<div><input type="radio"/></div> <div>This information reflects my expectations of the code review process of the project: Strongly Agree</div>	<div><input type="radio"/></div> <div>This information reflects my expectations of the code review process of the project: No Answer</div>

ID: 37

Radio Button Grid

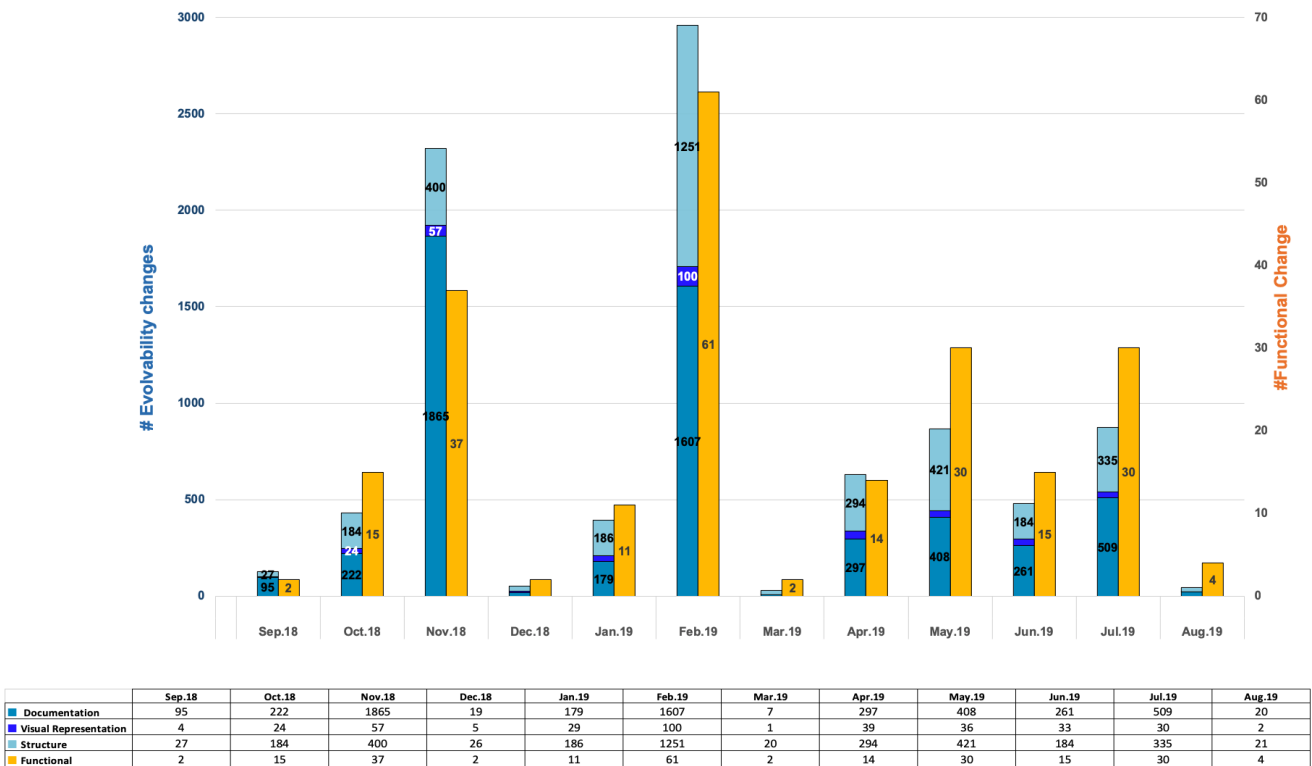
4. Feel free to add any further comments about your answers above or the visualization:



Details - Chart 2

This visualisation shows the amount of code review changes per group during last year.

Please take note that this chart uses two scales: one for functional changes (right), one for evolvability changes (left).



5. After you have looked at this visualization for your project, it would be great if you could let us know what you think about it:

Space Cell

The graph is clear and easy to understand

☐

Strongly Disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly Agree

☐

No Answer

The graph is clear and easy to understand

☐

The graph is clear and easy to understand: Strongly Disagree

☐

The graph is clear and easy to understand: Disagree

☐

The graph is clear and easy to understand: Neutral

☐

The graph is clear and easy to understand: Agree

☐

The graph is clear and easy to understand: Strongly Agree

☐

The graph is clear and easy to understand: No Answer

This summary is useful for my project and contains relevant information

☐

Strongly Disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly Agree

☐

No Answer

This summary is useful for my project and contains relevant information

☐

This summary is useful for my project and contains relevant information: Strongly Disagree

☐

This summary is useful for my project and contains relevant information: Disagree

☐

This summary is useful for my project and contains relevant information: Neutral

☐

This summary is useful for my project and contains relevant information: Agree

☐

This summary is useful for my project and contains relevant information: Strongly Agree

☐

This summary is useful for my project and contains relevant information: No Answer

This information can be useful for a developer

☐

Strongly Disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly Agree

☐

No Answer

This information can be useful for a developer

☐

This information can be useful for a developer: Strongly Disagree

☐

This information can be useful for a developer: Disagree

☐

This information can be useful for a developer: Neutral

☐

This information can be useful for a developer: Agree

☐

This information can be useful for a developer: Strongly Agree

☐

This information can be useful for a developer: No Answer

This information can be useful for a project manager

☐

Strongly Disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly Agree

☐

No Answer

This information can be useful for a project manager

☐

This information can be useful for a project manager: Strongly Disagree

☐

This information can be useful for a project manager: Disagree

☐

This information can be useful for a project manager: Neutral

☐

This information can be useful for a project manager: Agree

☐

This information can be useful for a project manager: Strongly Agree

☐

This information can be useful for a project manager: No Answer

know.

Strongly Disagree Disagree Neutral Agree Strongly Agree No Answer

☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree ☐No Answer

ID: 15 Rating (Likert Scale)

13. Having this kind of information at ready would have a positive influence over the Code Review process of my team.

Strongly Disagree Disagree Neutral Agree Strongly Agree No Answer


☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree ☐No Answer

ID: 16 Rating (Likert Scale)

14. Based on the information you have seen in this report, I would change something in the code review practices of my project:

Space Cell	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Answer
Code review policies (e.g., mandatory review after each commit)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Code review policies (e.g., mandatory review after each commit): Strongly Disagree		Code review policies (e.g., mandatory review after each commit): Disagree	Code review policies (e.g., mandatory review after each commit): Neutral	Code review policies (e.g., mandatory review after each commit): Agree	Code review policies (e.g., mandatory review after each commit): Strongly Agree	Code review policies (e.g., mandatory review after each commit): No Answer
Use of tools (e.g., static analysis tools like Check style or FINDBUGS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of tools (e.g., static analysis tools like Check style or FINDBUGS): Strongly Disagree		Use of tools (e.g., static analysis tools like Check style or FINDBUGS): Disagree	Use of tools (e.g., static analysis tools like Check style or FINDBUGS): Neutral	Use of tools (e.g., static analysis tools like Check style or FINDBUGS): Agree	Use of tools (e.g., static analysis tools like Check style or FINDBUGS): Strongly Agree	Use of tools (e.g., static analysis tools like Check style or FINDBUGS): No Answer
Reviewers assignment (e.g., by finding specific reviewers for specific defects)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewers assignment (e.g., by finding specific reviewers for specific defects): Strongly Disagree		Reviewers assignment (e.g., by finding specific reviewers for specific defects): Disagree	Reviewers assignment (e.g., by finding specific reviewers for specific defects): Neutral	Reviewers assignment (e.g., by finding specific reviewers for specific defects): Agree	Reviewers assignment (e.g., by finding specific reviewers for specific defects): Strongly Agree	Reviewers assignment (e.g., by finding specific reviewers for specific defects): No Answer

ID: 57Radio Button Grid

 This question has display logic

View Conditions ▼


15. Please, give us further details on this:

ID: 64Essay / Long Answer

16. I think that the information of this report might help with ...

Space Cell	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Answer
To understand how resources are spent on our project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To understand how resources are spent on our project: Strongly Disagree		To understand how resources are spent on our project: Disagree	To understand how resources are spent on our project: Neutral	To understand how resources are spent on our project: Agree	To understand how resources are spent on our project: Strongly Agree	To understand how resources are spent on our project: No Answer
To avoid performing the same mistakes again	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To avoid performing the same mistakes again: Strongly Disagree		To avoid performing the same mistakes again: Disagree	To avoid performing the same mistakes again: Neutral	To avoid performing the same mistakes again: Agree	To avoid performing the same mistakes again: Strongly Agree	To avoid performing the same mistakes again: No Answer

ID: 66Radio Button Grid

 This question has display logic

View Conditions ▼

17. Please, give us further details on this (optional):

ID: 75Essay / Long Answer

18. If you want, please give further feedback on our report. (Optional)



Background

To improve the scientific validity of your feedback, It would be great if you could answer to the following demographic questions too.

Role in OSS project



19. What is your involvement with the development of the project analyzed in this report?

- ☐ I am a core developer
- ☐ I have committing/merging rights
- ☐ I am an external contributor (no merge rights)
- ☐ I am an active user (e.g., I open issue reports, but do not develop any code in it)
- ☐ I am an external user (I am not involved in the development at all)
- ☐ Other - Write In Please enter an 'other' value for this selection.

20. What is your current job?

- ☐ Professional Developer
- ☐ Academic Researcher
- ☐ Industrial Researcher
- ☐ Project Manager
- ☐ Spare-time Developer
- ☐ Student
- ☐ Other - Write In Please enter an 'other' value for this selection.

21. How many years have you developed software in a professional setting?

I have no experience in software development in a professional setting

☐

I have no experience in software development in a professional setting

☐

1 year or less

☐

2 years

☐

3-5 years

☐

6-10 years

☐

11 years or more

☐

ID: 13

Radio Buttons

22. How often do you currently program software?

✕

Not at all

☐

About once a year

☐

About once a month

☐

About once a week

☐

Daily or more often

☐

ID: 14

Rating (Likert Scale)

23. How many years have you performed code reviews?

I have never done code review

☐

1 year or less

☐

2 years

☐

3-5 years

☐

6-10 years

☐

11 years or more

☐

ID: 51

Radio Buttons

24. How often do you currently perform code reviews?

Not at allAbout once a yearAbout once a monthAbout once a weekDaily or more often

☐Not at all☐About once a year☐About once a month☐About once a week☐Daily or more often

ID: 52Rating (Likert Scale)

Publicly share answers

In addition to analyzing your data in an anonymous form, can we also share your answers (in an anonymous form) in a publicly available dataset? ***This question is required.**

(Selecting "yes" allows other researchers and the public to benefit from your answers and effort)

-- Please Select --

ID: 77Dropdown Menu

25. If you have any comments on the report or on the topic, please add them here.

ID: 79Essay / Long Answer

Thank you very much for reading our report. We hope it gave you useful insights!
Also, we thank you for the time you spent giving us feedback.

You are awesome!

If you are interested in the detailed data that we used to create this report, don't
hesitate to contact us at: fregnan@ifi.uzh.ch

ID: 1Text / Instructions