

Study on User Feedback in the context of Software Engineering

This study aims to investigate how software organizations capture and use user feedback.

User feedback refers to information provided by users about their experience with a system. It can be explicit, such as opinions expressed directly through questionnaires and evaluations, or implicit, inferred from user behavior during interaction with the system.

This study is related to a doctoral research carried out at the Center for Studies in Conceptual Modeling and Ontologies - NEMO (<https://nemo.inf.ufes.br/>), of the Postgraduate Program in Computer Science - PPGI (<https://informatica.ufes.br/pt-br/pos-graduacao/PPGI>) of the Federal University of Espírito Santo - UFES (<https://informatica.ufes.br/pt-br>).

The study is based on the work of JOHANSEN, et al., entitled "How do practitioners capture and utilize user feedback during continuous software engineering?", published in 2019 in the proceedings of the 27th IEEE International Requirements Engineering Conference.

The questionnaire consists of questions about the profile of the participant, the organization, and questions related to user feedback, totaling 22 questions.

The estimated time to answer the questionnaire is 10-15 minutes.

ANONYMITY IS GUARANTEED and the data collected will be used exclusively for ACADEMIC PURPOSES.

By clicking "Next", you agree to participate in this study voluntarily.

We thank you in advance for your collaboration.

Kind regards,

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* Indica uma pergunta obrigatória

Section 1 - Profile of the organization

The following questions refer to the organization in which you work.

1. 1.1 - What is the name of your organization (this information is not mandatory, but if you can provide it, it will help us identify if more than one person from the same organization has answered the questionnaire)?

2. 1.2 - In which Brazilian state is the organization located? If the organization has * units in different states, indicate the state of the unit in which you operate.

3. 1.3 - What is the size of the organization? *

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- ☐ 1 - 9 employees
- ☐ 10 - 49 employees
- ☐ 50 a 99 employees
- ☐ More than 99 employees

4. 1.4 - What option best represents the type of organization for which you work? *

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- ☐ Software Factory (i.e., organization whose purpose is to develop software)
- ☐ Startup
- ☐ Private Organization with Software Development Department
- ☐ Public Organization with Software Development Department
- ☐ Organization in which a single software product represents the business (e.g., PicPay, Airbnb, Uber)
- ☐ Outro: _____

5. 1.5 - Regarding the development approach adopted in your organization, which one is predominant? *

Marque todas que se aplicam.

- ☐ Development carried out in a sequential and planning-oriented manner (e.g., waterfall)
- ☐ Use of agile methods (e.g., Scrum, XP)
- ☐ Use of Agile and Continuous Software Engineering methods (e.g. DevOps, Lean Thinking)
- ☐ Hybrid development, which combines practices from sequential and planning-oriented methods with agile or Continuous Software Engineering practices.
- ☐ Outro: _____

Section 2 - Participant profile

The following questions concern the person answering the questionnaire.

6. 2.1 - What is your highest degree? *

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- ☐ High School
- ☐ Technical Education
- ☐ Secondary and Technical Education
- ☐ Undergraduate / Bachelor's Degree
- ☐ Specialization
- ☐ Master's Degree
- ☐ Doctoral Degree
- ☐ Outro (especificar)

7. 2.2 - What is the status of your highest degree? *

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- ☐ Completed
- ☐ Not completed

8. 2.3 - What is your main role in the organization? *

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- ☐ Project Manager
- ☐ Scrum Master
- ☐ Product Owner
- ☐ Developer
- ☐ Technical Leader
- ☐ Director
- ☐ Outro: _____

9. 2.4 - How many years' experience do you have in software development? *

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- ☐ 0 - 2 years
- ☐ 3 - 5 years
- ☐ 6 - 10 years
- ☐ 11 - 15 years
- ☐ 16 or more years

Section 3 - User feedback

The questions in this section address different aspects of user feedback. Answer them based on the projects you are involved in or the practices of your organization.

10. 3.1 - What types of explicit feedback are collected from users? *

Explicit feedback refers to the direct and clearly articulated responses provided by users, which can be easily interpreted and quantified. It can be classified into:

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- ☐ Quantitative (e.g. star ratings, scale scores, answers to multiple choice questionnaires, or specific statistics provided in surveys, etc.)
- ☐ Qualitative (e.g. open comments in surveys, interviews, focus groups, or other forms of communication in which users describe their experiences, feelings, opinions, etc.)
- ☐ Both
- ☐ I don't collect explicit user feedback

11. 3.2 - What types of implicit feedback are collected from users? *

Implicit feedback refers to information inferred from user behavior, rather than obtained from direct responses. This type of feedback is obtained from the user's interaction with the application. It can be classified as:

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- ☐ Quantitative (e.g. user behavior metrics such as time spent on a page, bounce rate, number of clicks, number of scrolls, or frequency of use of an application, etc.)
- ☐ Qualitative (e.g. analysis of browsing patterns that indicate content preferences, sentiment analysis of texts written by users on forums or social networks, used in searches that reflect interests or concerns, etc.)
- ☐ Both
- ☐ I don't collect implicit user feedback

12. 3.3 - To what is the user feedback collected related? *

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- ☐ The entire application (user feedback refers to the entire application, without detailed distinctions about specific parts or functionalities. For example, feedback can be collected on the user experience of an application as a whole, including overall user satisfaction with the application, its performance, its usability, etc.)
- ☐ Specific functionality or component (user feedback is directly related to specific features within the application. For example, feedback can be collected on a specific feature or screen, etc.)
- ☐ Both

13. 3.4 - How often is user feedback collected? *

Check all the options that apply.

Marque todas que se aplicam.

- ☐ Continuously (feedback is collected constantly. This usually involves automated systems that capture users' opinions, comments and behavioral data as they interact with the application)
- ☐ Event-based (feedback is collected in response to specific events, such as when significant changes are made to the application, after new features are released, or when the user completes a specific task using the application)
- ☐ Periodically (feedback is collected on a regular schedule, e.g. daily, weekly, monthly, etc.)
- ☐ Frequency undetermined (feedback is collected sporadically)
- ☐ Outro: _____

14. 3.5 - What are the main sources of user feedback that are collected? *

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- ☐ Internal source (e.g. members of the organization itself - e.g. testers, members of the quality assurance team provide feedback).
- ☐ External source (e.g. customers, users and other stakeholders provide feedback)
- ☐ Both

15. 3.6 - When collecting user feedback, what other information is also captured? *

Marque todas que se aplicam.

- ☐ Time (time or moment of the day when the user used the application and the feedback was captured)
- ☐ Location (where the user was when they used the application and the feedback was captured)
- ☐ Device (type of device - e.g. tablet, smartphone, notebook - on which the user used the application and provided feedback)
- ☐ Specific circumstances (specific context information such as whether the internet connection was unstable while using the application and capturing feedback)
- ☐ Outro: _____

16. 3.7 - What software tools are used to help collect feedback from users? *

Marque todas que se aplicam.

- ☐ App Stores (e.g. ratings and comments left by users)
- ☐ In-App Surveys (short questionnaires sent directly within the application)
- ☐ Email Surveys (surveys sent by email to users registered in the application)
- ☐ Social networks (comments and discussions)
- ☐ Heatmaps (tools that show which areas of the application users interact with the most)
- ☐ Feedback buttons (e.g. tool like Canny)
- ☐ Feedback pop-ups (e.g. Wootric, Usabilla)
- ☐ Online survey tools (e.g. SurveyMonkey, Google Forms, etc.)
- ☐ Internal tool(s) developed by the organization
- ☐ I don't use tools to collect user feedback
- ☐ Outro: _____

17. 3.8 - What software tools are used to help organize and analyze user feedback? *

Marque todas que se aplicam.

- ☐ Online survey tools (e.g. SurveyMonkey, Google Forms, etc.)
- ☐ Data analysis tools (e.g. Google Analytics, Mixpanel, etc.)
- ☐ Feedback management systems (e.g. UserVoice, Zendesk, etc.)
- ☐ Artificial intelligence solutions
- ☐ Tools for analyzing unstructured data (e.g. NVivo, Atlas.ti, etc.)
- ☐ Internal tool(s) developed by the organization
- ☐ I don't use tools to support the analysis of user feedback
- ☐ Outro: _____

18. 3.9 - What is the reason for collecting feedback from users (select all that apply)? *

Marque todas que se aplicam.

- ☐ Support product evolution planning
- ☐ Improve existing functionalities
- ☐ Providing better customer support
- ☐ Validate product requirements
- ☐ Prioritize bug fixes
- ☐ Influencing strategic decisions about the product
- ☐ Developing new features
- ☐ Improving product quality
- ☐ Optimizing performance
- ☐ Improving security
- ☐ Evaluate the effectiveness of newly implemented updates
- ☐ Outro: _____

19. 3.10 - How do you monitor changes in user feedback over time? *

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- ☐ I follow up manually (e.g. by analyzing feedback periodically, comparing responses and data for different periods)
- ☐ I use automated tools (e.g. feedback analysis systems that show trends and variations over time)
- ☐ I don't monitor
- ☐ Outro: _____

20. 3.11 - What types of user feedback are combined to better understand user needs and behaviors? *

Note: the definitions of the types of feedback can be found in questions 3.1 and 3.2.

Marque todas que se aplicam.

- ☐ Implicit
- ☐ Explicit
- ☐ Qualitative
- ☐ Quantitative
- ☐ I don't combine different types of feedback

21. 3.12 - Based on your experience in capturing, analyzing, and using user feedback, what practices tend to work well and which ones often present challenges? *

22. General comments

Use the space below to share information you think is relevant to user feedback (e.g. aspects that were not covered in the questionnaire and that you think are pertinent to record, general comments on the topic considering your experience in the area, etc.). Please also feel free to indicate if you had any difficulties answering the questionnaire, if you have any criticisms or suggestions for improvement.

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