Themis usage and technical debt - Developer profile

We are Matthieu Foucault, Margaret-Anne Storey, and Xavier Blanc, Computer Science researchers from the University of Victoria and the University of Bordeaux. Our team is investigating how the Themis tool's game-like features help manage technical debt. We'd be grateful if you could help us understand this further by completing the survey below. It should take approximately 20 minutes of your time.

We will openly publish the results so everyone can benefit from them, but will anonymize everything before doing so. Your responses will be handled confidentially.

Please note that you are not obligated to participate in this survey. If at some point during the survey you want to stop, you are free to do so without any negative consequences---the survey data is not saved until you click the Submit button.

Thanks for participating! Please read the following to understand the nature of this research and how we'll manage your data.

Participant Selection
You are being asked to participate in this study because you are a developer and an active user of Themis.

Risks
There are no known or anticipated risks to you by participating in this research.

Benefits
Your participation in this research will help us understand the effect of gamification on software development processes.

Voluntary Participation
Your participation in this research is completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study (do not click the Submit button), your data will not be submitted, saved or used in any form. Click the Submit button only if you agree to voluntarily participate.

Anonymity
The survey is completely anonymous and we do not require your email address. If you choose to provide your email address, we will use it to contact you for a potential interview and send you the results of our study. Your email address will be removed from the survey data and replaced with anonymous identifiers before the results of this study are published.

Confidentiality
The survey data and your identify will be protected by restricted and secure computers located in our research lab at the University of Victoria. Only the research investigators will be able to access the data once it is downloaded from the server that hosts the survey.

Please be advised that this survey may use tools that store data in the U.S. As such, there is a possibility that information about you that is gathered for this research study may be accessed without your knowledge or consent by the U.S. government in compliance with the U.S. Patriot Act.

Dissemination of Results
It is anticipated that the results of this study will be shared with others in the following ways: theses, dissertations, published articles or books, presentations at scholarly meetings, on the Internet, and directly to the participants involved (if requested to be notified of results).

Disposal of Data
Data collected will be disposed of 5 years after the beginning of the study. All survey data collected and backups will be electronically deleted.

Contacts
If you have any questions or concerns about this research, please feel free to contact any of the members of our research team: Xavier Blanc (xblanc@labri.fr), Matthieu Foucault (mfoucault@uvic.ca) and Margaret-Anne Storey (mstorey@uvic.ca). In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (+1 250-472-4545 or ethics@uvic.ca).

By completing and submitting the survey, YOUR FREE AND INFORMED CONSENT IS IMPLIED and indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

*Required

Opening questions

1. **What do you expect from using Themis? ***

   ....

   ....

   ....

   ....

2. **On average, how many hours a week do you spend using Themis? ***

   ....

Usage of Themis: Home dashboard

The Home dashboard is the first screen shown when logging in Themis. It displays the following information in different widgets: news feed, leaderboard, current goals, and main actions report.

3. **What information do you find useful in the Home dashboard? Please elaborate why. ***

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....

4. **What steps do you take based on information from the Home dashboard? ***

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....
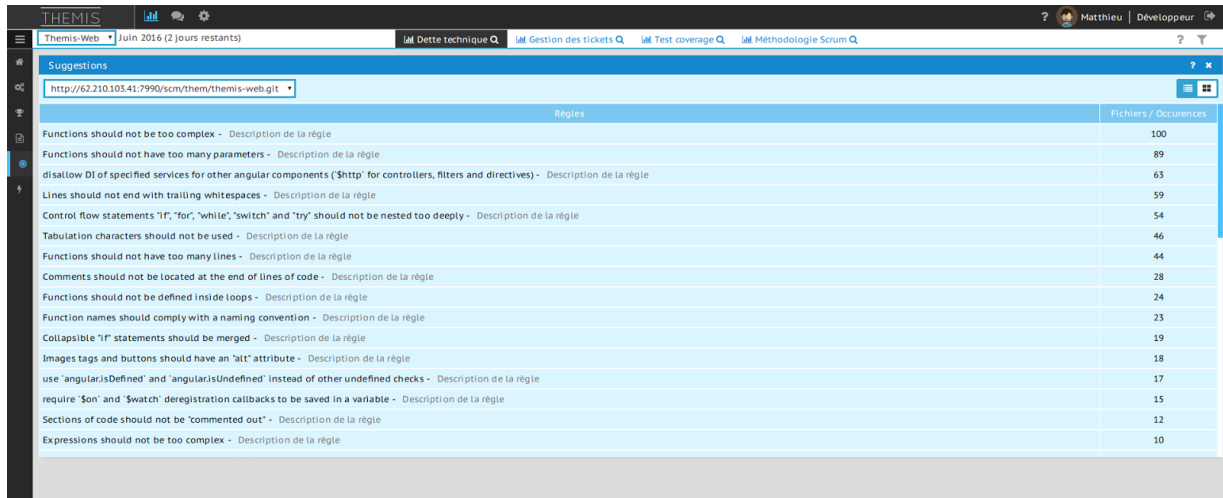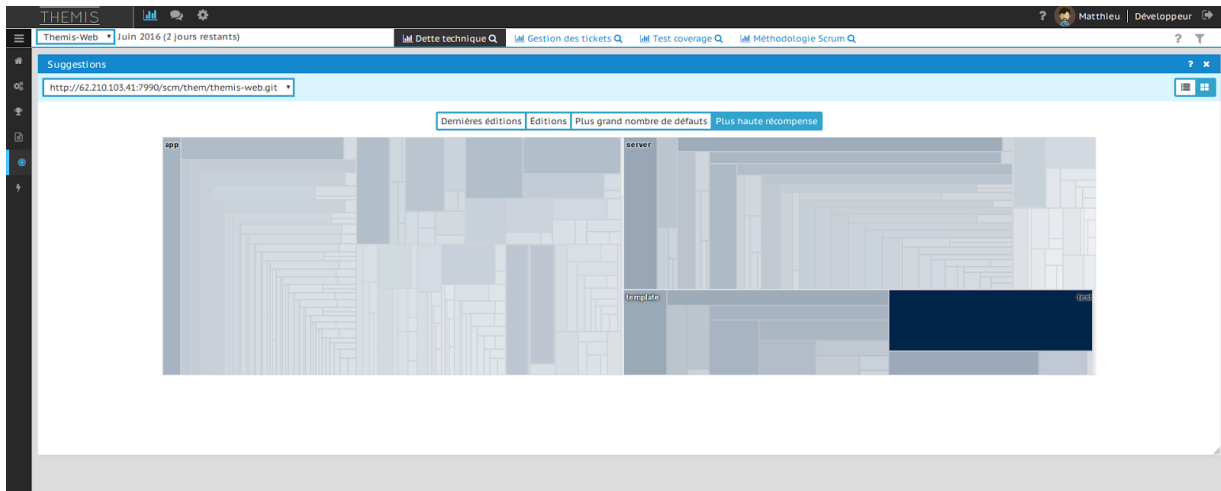
Suggestions view

The Suggestions view provides information about which files contain broken rules that should be fixed. This information can be viewed either as a list or a treemap.

Suggestions - list

Suggestions - treemap

5. **On average, how many times a week do you use the suggestions view?** *

_____

6. **In the suggestion view, do you use the list or the tree map?** *

   Mark only one oval.

   ◯ Only the list

   ◯ Mainly the list

   ◯ Both

   ◯ Mainly the treemap

   ◯ Only the treemap

7. **Explain why** *

_____

_____

_____

_____

Points in Themis

8. **How do you think your score correlates with the technical debt you are generating and removing?** *

   Mark only one oval.

   ◯ Not correlated

   ◯ Slightly correlated

   ◯ Moderately correlated

   ◯ Highly correlated

   ◯ Don't know

9. **Explain why** *

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10. **How important to you is your score in Themis?** *
Mark only one oval.

	1	2	3	4	5	6	7	
Not important at all	◯	◯	◯	◯	◯	◯	◯	Extremely important

11. **Explain why** *

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12. **What steps do you take to improve your score in Themis?** *

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13. **What would you consider is the most important part of your score?** *
Mark only one oval.

	1	2	3	4	5	6	7	
Having a high amount of positive points	◯	◯	◯	◯	◯	◯	◯	Having a low amount of negative points

14. **Explain why.** *

Other questions

15. **Did you perceive a change to your motivation to work on reducing technical debt since the introduction of Themis? If so, how did that change?** *

16. **How do you think managers are using the information provided by Themis?** *

17. **How do you feel about the fact that managers are monitoring your actions in Themis?** *

18. **What instructions did you receive from your managers regarding the usage of the tool?** *

19. **Do you agree or disagree with the fact that other developers' actions are anonymized?** *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

20. **Explain why.** *

_____

_____

_____

_____

21. **How often do you think your score should be reset?** *

Mark only one oval.

◯ Never

◯ Every six months

◯ Every three months

◯ Every month

◯ Every two weeks

◯ Every week

◯ Every day

◯ Other: _____

22. **Explain why** *

_____

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_____

23. **Do you think the participation of developers to the leaderboard should be voluntary? Explain why/why not.** *

_____

_____

_____

Closing Questions

24. **Do you think that Themis had an impact on your project's technical debt? If yes what was this impact (positive or negative)? ***

25. **What are the main challenges you experienced using Themis, if any? ***

26. **Before using Themis, how did you manage your project's technical debt? ***

27. **Does the use of Themis affect other tasks in your daily work? If so, how? ***

28. **Describe any changes you would like to see made to the tool. ***

29. **What is your age** *

Mark only one oval.

○ 18-24

○ 25-34

○ 35-44

○ 44-54

○ 55-64

○ 65 or more

30. **What is your gender** *

Mark only one oval.

○ Male

○ Female

○ Other: ....

31. **For how long have you been working on the project that uses Themis?** *

Mark only one oval.

○ Less than six months

○ Between six months and one year

○ Between one and two years

○ Between two and four years

○ More than four years

Optional questions

32. **If you have any additional comments, questions, or concerns that you would like to share with us, please add them below.**

....

....

....

33. **Are you willing to participate in an eventual follow-up interview?**

Mark only one oval.

○ Yes

○ No

34. **Are you willing to answer follow-up questions via email?**

Mark only one oval.

( ) Yes

( ) No

35. **Would you like to be informed about the outcome of this study and any potential publications?**

Mark only one oval.

( ) Yes

( ) No

36. **If you answered yes to one of the previous three questions, please leave a contact email address.**

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Thanks for making it all the way down here, you only have to click on the "Submit" button now.