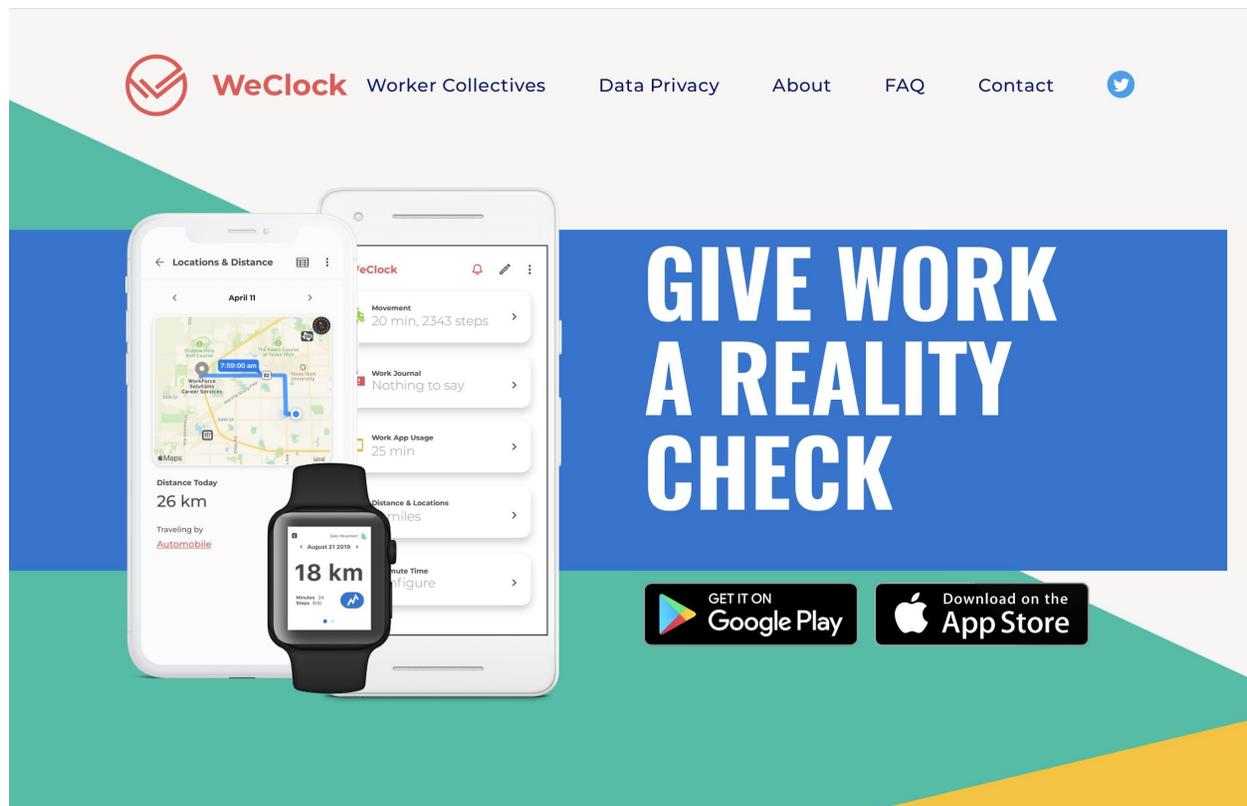


April 2022

## Clean Insights Implementation with WeClock



The image shows a promotional banner for the WeClock app. At the top left is the WeClock logo, a red circle with a white checkmark, followed by the text "WeClock Worker Collectives". To the right are navigation links: "Data Privacy", "About", "FAQ", and "Contact", along with a Twitter icon. The main visual is a smartphone and a smartwatch displaying the app's interface. The smartphone screen shows a "Locations & Distance" screen for "April 11" with a map, "Distance Today 26 km", and "Travelling by Automobile". The smartwatch shows "18 km" and "August 21 2019". To the right of the devices is a large blue banner with the text "GIVE WORK A REALITY CHECK" in white. Below the banner are two buttons: "GET IT ON Google Play" and "Download on the App Store".

### Why Clean Insights?

[WeClock](#) is a self-tracking app designed to help people understand how much of their time and wellbeing is spent on work. For many the landscape of work has shifted. The line between work and personal life is blurry and many are feeling burnt out. Understanding where our time is spent and how, can be hard to track. WeClock offers a way for users to track their daily movement, steps, app and screen usage and more - when and how they want. The beauty of WeClock is that the user (the worker!) is in control. They choose what to track, when and for how long. Data gathered, either by one worker or a collective, can then be pooled together for analysis, organizing and empowered activism against workplace harms.

Workers are already under increased surveillance and scrutiny in the workplace, and so WeClock was designed with a privacy-mindset from the outset. WeClock was also funded and designed to fully comply with the European General Data Privacy Regulations (GDPR) model. It established itself as an app that has “no third-party data sharing”. This means only the user themselves has access to their data, and there is no default server-side storage, interaction or analytics. Any dilution of this approach to privacy would need to be carefully considered and implemented. However, throughout the development and launch process, the WeClock team

wanted to have some kind of way of knowing “is it working?”. Would it be possible for them to remain true to their covenant with their community while finding an acceptable solution for understanding how well they are serving them?

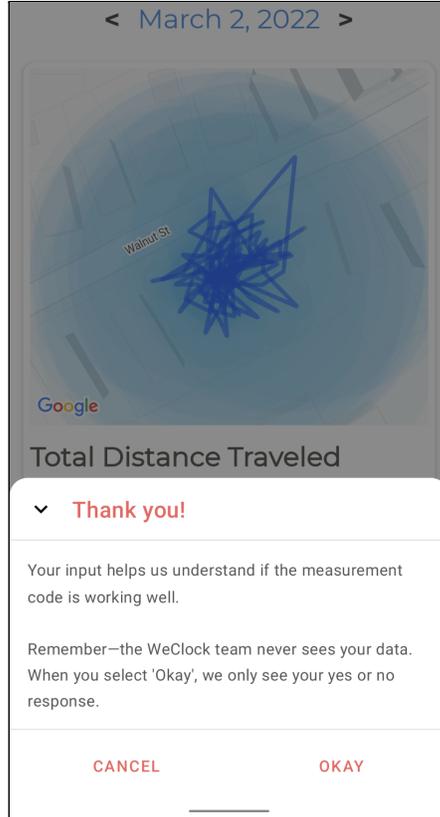
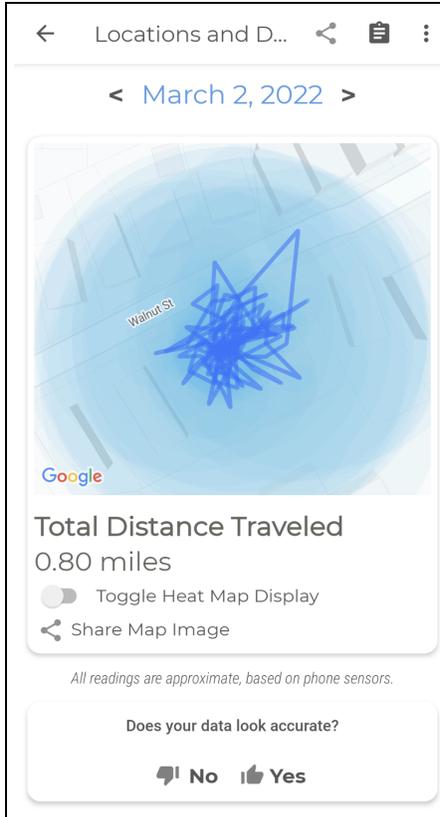
The answer was yes, if implemented correctly with the right privacy-preserving measurement solution, and an opt-in user experience. WeClock chose to implement [Clean Insights](#) as the answer to staying true, while expanding understanding. They specifically wanted to understand the accuracy of the app's work sensor capabilities—if the app was collecting the right data points at the right time.

## What questions did the team ask?

- Is the collection of sensor data and display of analysis to the user working in a way that seems accurate to their intuition?
- More specifically, is location tracking accurate within the app?

## The Measurement Campaign

Other analytics tools often collect passive, invisible measurements of users and their behaviors. The measurement campaign for WeClock is designed to prompt the user to be engaged in the process. If someone using the app is tracking their location and distance, the app collects and displays their distance and routes. After which, there is a simple question asking the users if the measurement looks accurate. The user can quickly respond by tapping a thumbs up or down. Based on the response the user sees one of two popups. First, it responds with positive gratitude for their interest in participating, and then reiterates the reason WeClock is asking for it, who sees the data and what is collected. The second popup is designed to help the user troubleshoot. If they have chosen that the data looks inaccurate, the popup helps guide the user on what to change within the app to help fix the problem.



Images: Example of Clean Insights Measurement Campaign within WeClock App

Since WeClock operates using a variety of things to detect location, such as GPS, cell tower location and Wi-Fi, locations are approximate and can sometimes be wrong. It is important for WeClock to understand the accuracy of the app's ability to measure location and distance because it is fundamental in understanding one's day—where time is spent and how. Which in turn impacts how much the workers, unions, and collectives trust the app to accurately reflect their workday without adding more work and hassle to their lives.

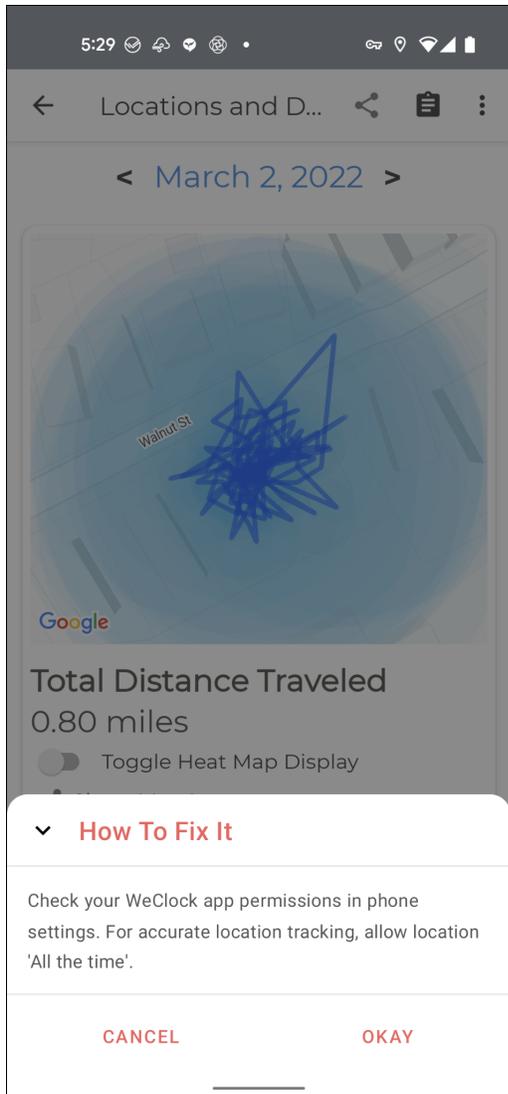


Image: Example of Clean Insights Measurement Campaign within WeClock App

## The Impact

The implementation of Clean Insights into WeClock revealed some useful insights regarding the collected data. Initially the team was only gathering readings if the user selected false—the location measurement was inaccurate, thus collecting only one side of the metrics. By reviewing the collected data, the team realized they couldn't delineate the reason for the accuracy trend falling (are people not sending in reports or is accuracy actually failing?). The team decided, of people who opt-in, the campaign should capture 'yes' and 'no' metrics. Therefore, the implementation needed tweaking.

Based on the early implementation into WeClock, the Clean Insights team adapted the campaign to include both yes and no in the metrics collected. Now the team can see data

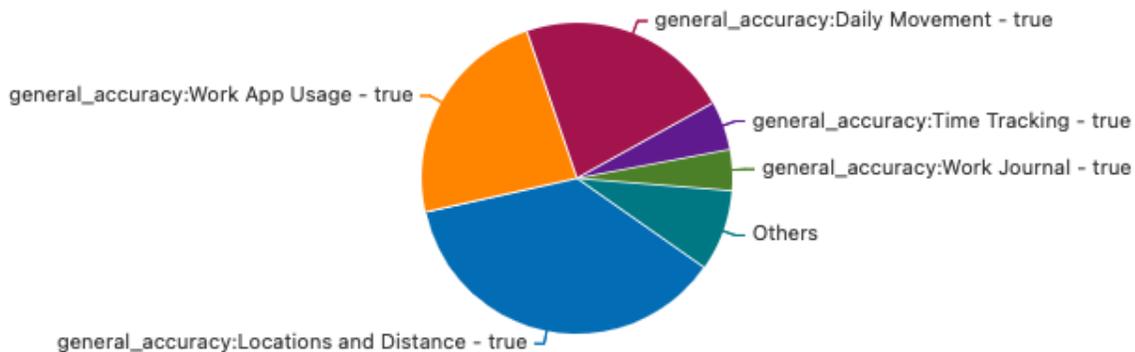
regarding the general accuracy of the app's ability to track location and distance, as well as the number of people engaging with the feedback mechanism.

EVENT CATEGORY - EVENT ACTION	VISITS	EVENTS	EVENT VALUE	AVERAGE VALUE	MINIMUM EVENT VALUE	MAXIMUM EVENT VALUE
general_accuracy:Locations and Distance - true	33% 37	174	-	-	-	-
general_accuracy:Daily Movement - true	21.4% 24	105	-	-	-	-
general_accuracy:Work App Usage - true	19.6% 22	110	-	-	-	-
general_accuracy:Time Tracking - true	8.9% 10	24	-	-	-	-
general_accuracy:Work Journal - true	5.4% 6	20	-	-	-	-
general_accuracy:Locations and Distance - false	4.5% 5	12	-	-	-	-
general_accuracy - false	2.7% 3	3	-	-	-	-
general_accuracy - true	1.8% 2	12	-	-	-	-
feedback - good but might have missed a few points in th...	0.9% 1	11	-	-	-	-
feedback - uffiffi	0.9% 1	1	-	-	-	-

Images: WeClock Insights Displayed on Guardian Project's Matomo Dashboard

In the table above, we can see that users of WeClock responded 37 times that the measured location and distance data in the app looked accurate or “true”. We can also see that 5 “No’s” responded to the prompt “Does it look accurate?” Thus, of the total responses we have nearly a 7:1 ratio of accurate to inaccurate.

Below, using the alternate pie chart view of the data, we can get a sense of how feedback was given across different kinds of data, which could give insight to where in the app users are spending most of their time.



Images: WeClock Insights from Guardian Project's Matomo Dashboard

Tweaking the initial implementation assisted in providing more data and a better picture of the app's general accuracy in measuring distance and location. Which is vital for the user's well-being and collective action against workplace injustices.

## Ah Ha Moments

"This is more important than just knowing you had 10,000 steps. The specifics of how far you travel in a day for work, and if the readings are accurate, could end up in a contract negotiation." *WeClock team member*

## What's Next?

Next, the WeClock team will review the aggregated data, listen to feedback from the users and determine if WeClock is fulfilling the needs of workers, collectives and unions. The team is excited to gather more feedback regarding the Clean Insights implementation and discover what other questions they might answer as a result of Clean Insights.

## Impact on Clean Insights Project (Learned Insights)

Tweaking the initial implementation assisted in providing a more accurate reflection of the user's experience and app's accuracy, however, more refinement may be desired. A question still remains as to whether the team should average the outcomes vs. aggregate them. Also, because 'visits' can provide a general feeling of traffic (volume of measurement) week to week or month to month, a 'visit' can produce multiple 'events' which can mean only one very active user is driving the measurements rather than 100, or 1,000. Therefore, filtering the dashboard view to only see 'events' might be a good customization for the WeClock team.

## Have an idea for what you'd like to see WeClock measure next?

Share it with the team on Twitter at <https://twitter.com/weclockit> or contact them at <https://weclock.it/contact/>.

You can also participate in the WeClock open-source project at <https://gitlab.com/weclock>

## Let the learning begin. Try it out for yourself.

Interested in implementing the Clean Insights methodology in one of your apps? Guardian Project is hard at work documenting aspects of the methodology that help make it more accessible for tool teams to implement. Learn how to **Get Started** at <https://cleaninsights.org/getstarted>