

Stuck in traffic? These pedometer apps think you're walking

December 8 2015, by Valerie Iancovich



Credit: AI-generated image ([disclaimer](#))

GPS navigator, recipe finder, camera, music player: the phones that most of us use today go well beyond voice-to-voice communication.

However, if you thought your smartphone could also serve as a pocket-sized personal trainer, newly-published research has found that three of

the most popular free apps designed to track fitness are seriously flawed.

The evaluation, led by Professor Guy Faulkner of the Faculty of Kinesiology & Physical Education and KPE master's student Krystn Orr, appears in the journal BMC Research Notes.

"We know that more and more Canadians want to take their health into their own hands and these apps seem like a good way to do just that," Orr says.

"Self-evaluation can be very effective in lifestyle change as well, so it's important that people are getting the most accurate information possible and using tools they can trust."

The work was inspired by Rise at Work, a larger project intended to evaluate workplace physical activity at the University of Toronto. Researchers looking for a cost-effective, accessible way to track steps noted that there had been few published research papers looking into commercial [smartphone](#) pedometer applications.

Accupedo, Moves and Runtastic were the most popular free pedometer apps, so researchers ran each through a series of tests to measure their accuracy. Each is compatible with Android and Apple smartphones and gathers step stats via the phones' built-in accelerometers, GPS navigation tools or a combination of both.

Subjects used the apps in a variety of scenarios. Most basic was a simple, 20-step test during which they wore a traditional pedometer on their hip and held the phone in their hand. In each instance, the pedometer was pretty much bang-on, but the phone apps were off by about five per cent. Similar results were found after a 40-step stair climb test, a treadmill test and three days of unstructured regular activity.

The team also found that the tools weren't quite as smart as they claimed. When one researcher found her [phone](#) tallied steps when she was actually stuck in traffic, the team was inspired to add a driving test. The researchers found that with each app, the GPS tool interpreted slow car motion as walking.

Their conclusion was that there is "an unacceptable error percentage in all of the applications when compared to the pedometer."

If you're looking for a tool to help keep your [fitness](#) goals on track and your New Year's resolutions in sight, Orr suggests investing in wearable technology designed specifically for tracking movement.

If these options seem pricey, there is always the old-fashioned route. "Really, there's no reason you can't just stick to a traditional [pedometer](#)," Orr says. "It's probably the most reliable and cost-effective tool for tracking your steps."

More information: Krystn Orr et al. Validity of smartphone pedometer applications, *BMC Research Notes* (2015). [DOI: 10.1186/s13104-015-1705-8](#)

Provided by University of Toronto

Citation: Stuck in traffic? These pedometer apps think you're walking (2015, December 8) retrieved 17 July 2024 from <https://phys.org/news/2015-12-stuck-traffic-pedometer-apps-youre.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.