Effects of Tutorials on End-User Programmer Feature Usage and Engagement in TouchDevelop** (temporary title)

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***Abstract*—As programming becomes an increasingly valuable skillset in the modern world, there are many methods available to learn how to program. One method gaining popularity with more complex web apps is that of the interactive tutorial. We examine users published scripts on the TouchDevelop platform and compare interactive tutorials to traditional, copy-and-paste tutorial methods in terms of user outcomes. To accomplish this, we build a tool to facilitate large-scale data capture and analysis of TouchDevelop users and scripts. This tool is also capable of facilitating a much broader scope of research questions concerning the TouchDevelop population.**

I. Introduction

Programming has, over the last 60 years, become an increasingly popular discipline, both as a primary profession and as a hobby or additional job skill. Traditionally most self-taught programmers learn from a book or a website that intersperses writing with code snippets that can be copied and pasted into a source code editor. However, in recent years the advent of rich web apps that are able to respond to the user dynamically have begun to change how programming is taught. The website Codecademy [4], for example, presents all its tutorials via a web app that also functions as an IDE, complete with progress indicators, hints, and tests to make sure the users code is correct. The site Code School [5] advertises by saying Enjoy an education in the comfort of your browser. Another new source of interactive programming tutorials is TouchDevelop [9]. This platform is intended to teach and enable end-user programmers on touch-based devices such as smartphones or tablets to create their own scripts. As both a new programming paradigm and a new programming language, it necessarily involves a large amount of teaching users new to programming, TouchDevelop, or both.

- What effect do tutorials have on end-user programmer feature usage?
- What effect do tutorials have on end-user programmer engagement?

II. Background

Analysis of end-user developer repositories [**?**], [**?**], [**?**], [**?**].

III. Method

We analyze data about TouchDevelop platform users and scripts. Data is publicly available via TouchDevelop API.

IV. Results

Our results are...

V. Conclusion

The conclusion goes here.

Acknowledgment

The authors would like to thank...

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