# Usability Metrics for Mobile Map Applications

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#### Abstract

This investigation aimed to record some usability metrics for two mobile map applications as well as explore why these applications performed the way that they did. The two map applications examined were Google Maps [5] and Apple Maps  $^{\dagger}$ . Users that took part in this study were given iPhone devices and told to execute three concrete tasks with each application; measurements were taken throughout the execution. Usability metrics were then used in order to make a judgment call on which map application performed best.

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<sup>&</sup>lt;sup>†</sup>https://www.apple.com/ios/maps



Figure 1: This frog was uploaded to writeLaTeX via the project menu.

## 1 Introduction

When Apple Maps was first released as part of iOS6 in September 2012, they received a significant amount of negative feedback. The Google Maps mobile apps, on both iOS and Android, were used by roughly 81 million people in September 2012. However, Apple Maps slowly began gaining traction and by September 2013, the numer of users of Google Maps dropped to around 58.7 million. Interaction design is a field of study that has grown and matured a considerable amount in recent years. The current consensus of the field measures the performance of systems based on five distinct metrics: learnability, efficiency, errors, memorability, and satisfaction.[1]

## 2 The Model

Model for testing users.

#### 2.1 How to Include Figures

First you have to upload the image file (JPEG, PNG or PDF) from your computer to writeLaTeX using the upload link the project menu. Then use the includegraphics command to include it in your document. Use the figure environment and the caption command to add a number and a caption to your figure. See the code for Figure 1 in this section for an example.

#### 2.2 Results

blah blah blah

	Growth Media				
Strain	11	2	3	4	5
GDS1002	0.962	0.821	0.356	0.682	0.801
NWN652	0.981	0.891	0.527	0.574	0.984
PPD234	0.915	0.936	0.491	0.276	0.965
JSB126	0.828	0.827	0.528	0.518	0.926
JSB724	0.916	0.933	0.482	0.644	0.937
Average Rate	0.920	0.882	0.477	0.539	0.923

Table 1: Table caption text

Item	Quantity
Widgets	42
Gadgets	13

Table 2: An example table.

# 3 First Section

All human things are subject to decay. And when fate summons, Monarchs must obey.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there...

# References

- [1] Nielsen, Jakob, Usability Engineering, Boston: Academic, 1993.
- [2] Boney, L., Tewfik, A.H., and Hamdy, K.N., "Digital Watermarks for Audio Signals," *Proceedings of the Third IEEE International Conference on Multimedia*, pp. 473-480, June 1996.
- [3] Goossens, M., Mittelbach, F., Samarin, *A LaTeX Companion*, Addison-Wesley, Reading, MA, 1994.
- [4] Kopka, H., Daly P.W., A Guide to LaTeX, Addison-Wesley, Reading, MA, 1999.
- [5] Pan, D., "A Tutorial on MPEG/Audio Compression," *IEEE Multime-dia*, Vol.2, pp.60-74, Summer 1998.