A general framework for evaluating interactive image segmentation algorithms

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Abstract. The abstract should summarize the contents of the paper and should contain at least 70 and at most 150 words. It should be written using the *abstract* environment.

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1 Introduction

Interactive image segmentation has been extensively studied in the latest decade. Many state-of-the-art algorithms in this field have been proposed, starting from Boycov et. al[2],followed by Grabcut[5],Random Walker[3],Bai and Sapiro [1] and [4]. However, when it comes to the evaluation of these algorithms, the comparison can hardly be objective due to different human interferences. As is often the case, interactive image segmentation algorithms are tested upon user scribbles provided by the specific author. In this way, the performance of segmentation result could heavily depend on certain batch of seeds selection, rendering the result not convincing enough when compared with other algorithms.

This paper deals with the problem of evaluating interactive segmentation algorithms in an objective and comprehensive way. The contribution of this paper includes:

The remainder of this paper is organized as follows:

2 Related Work

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3 Dataset design

The dataset contains 96 images from publicly available Berkeley Segmentation Dataset [23]

4 User-interaction differences

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