Cut Detection Survey and Analysis for Long Form Video Game Streams
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March 30, 2020

1 Abstract

Shot Boundary Detection, or simply Shot Detection, is a fundamental part of research in the broader field of video processing, used for essential video analysis tasks such as video indexing and content-based video retrieval. For professional video game live streamers, who create hours of continuous content with significant downtime, identifying cuts in their streams is an important first step for automatically generating condensed stream highlights. In this project, I have summarized the nomenclature and methodologies established in the academic canon for Shot Detection research, implemented a sample of the most common approaches, Colour Histogram comparison and Edge Change Ratio using Canny Edge Detection, and compared their effectiveness when used on video game live stream content, as well as establishing methodological challenges to this new content form.

2 Acknowledgements

Thank you to my project supervisor Professor Prosenjit Bose for his help and supervision throughout this project.

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3 Motivation

3.1 Why cut detection?

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 a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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And after the second paragraph follows the third paragraph. 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 a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

After this fourth paragraph, we start a new paragraph sequence. 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 a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of

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4 Methodology

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5 Results

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6 References

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