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あらまし , , Web
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キーワード , , ,

A Study on Tastes Estimation of Food Based on Food Images and Ingredients

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Abstract In recent years, consumer generated cooking recipe portal sites like “Rakuten Recipe” have spread, and the number of cooking recipes on the Web is increasing. Users search from a large number of recipe, that suits their requirments by keywords such as recipe title or ingredients. Although taste is an important factor when searching food, since the information on taste is usually not included in a recipe, it is necessary to add the information on taste to recipes. Therefore, we have been attempting to estimate the taste of a food by analyzing the information in a cooking recipe. In this report, we propose a method that focuses on the correlation of taste and both ingredients and a food image, to estimate its taste from cooking recipes. By learning using as a teacher signal descriptions of taste in comments regarding each cooking recipe, the proposed method for estimating the taste of food. Through an experiment, compared with the method based only on ingredients, the effectiveness of the proposed method was confirmed.

Key words Cooking recipe, taste estimation, food image, ingredient

1. はじめに

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6. .

2. コメント付き料理レシピ

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1: [1]

2: [1]

3. 提案手法

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3.1 学習段階

3(a) , ,
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, Bayes .
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3.1.1

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. 4 .
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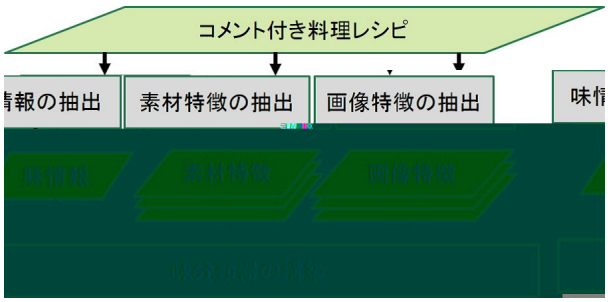
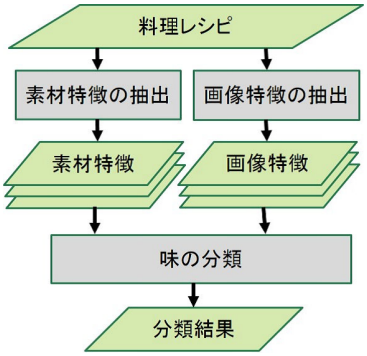
, . MeCab [3] .

1 , “ ”, http://recipe.rakuten.co.jp/
2 , “COOKPAD”, http://cookpad.com/
3 –



(a)



(b)

3: (a) (b)

4:

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3.1.2

[3] ,

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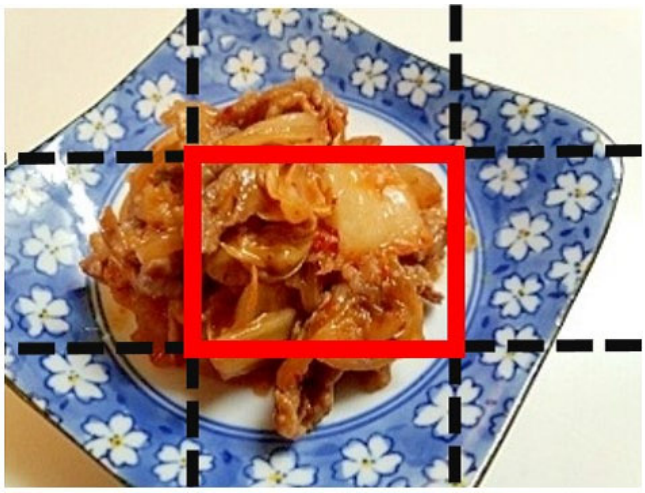
(a) (b)

5: [1]



6:

3.1.3

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, 5(b)

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3.1.4

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Bayes . , Bayes

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3.2 識別段階

. 3(b) ,

[1] , “MeCab”, https://code.google.com/p/mecab/

1:

	4,397 62.8%	451
	980 14.0%	113
	834 11.9%	83
	461 6.6%	34
	328 4.7%	34

2:

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	0.730	0.860	0.790

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3.2.1

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3.2.2

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3.2.3

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4. 実 験

4.1 実験条件

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4.1.1

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4.1.2

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4.1.3

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$$= \frac{2 \quad \text{precision} \quad \text{recall}}{\text{precision} \quad \text{recall}} \qquad (1)$$

4.2 実験結果

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6. ま と め

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, Bayes ,

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謝辞

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(a)

(b)

(c)

(d)

(e)

7: