Towards the Enrichment of Contents Circulation

—Extended Abstract—

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I. INTRODUCTION

In recent years, AI technology, especially in the field of pattern recognition, has come to rival, and sometimes even surpass, human capabilities. While these technologies are extremely useful, some social problems have been pointed out, such as the possibility that they take away human jobs and that they my degenerate human abilities. In response to these problems, I believe that AI technology should be used to support human beings so that they can perform creative activities.

On the other hand, with the spread of content-sharing services and social network services (SNS) on the Web, the infrastructure for easily publishing contents has become widespread, but the production of such contents is basically left to the user. As a result, the quality of these contents is not necessarily high. However, if the quality of the material is low to begin with, the quality of the recompiled contents will naturally be limited. Therefore, I believe that it is necessary to raise the overall quality of contents on the Web and SNS to create a positive "Content circulation". In order to achieve this, as illustrated in Fig. 1, three kinds of support are necessary: 1) Support for human activities, 2) Support for gathering new materials, and 3) Support for authoring new contents.

In this talk, I will briefly introduce an example of our work on each of the three kinds of support.

II. EXAMPLE OF ACTIVITY SUPPORT
—MEASURING THE SIMILARITY OF GEOGRAPHIC REGIONS—

As an example of activity support, aiming at recommending local places-of-interest for travellers, we have proposed a method to measure the similarity of geographic regions in each season of the year, based on the distribution of concepts that appear in SNS photographs taken at different regions [1].

III. EXAMPLE OF MATERIAL GATHERING SUPPORT
—MEASURING THE ATTRACTIVENESS OF FOOD PHOTOS—

As an example of material gathering support, aiming at supporting users to take "Instagenic" food photos, we have proposed a method to measure the attractiveness of food photos [2]. We have also publicly released the dataset named "NU Food 360x10"[1] used in this work.

IV. EXAMPLE OF AUTHORING SUPPORT
—VIDEO STORY-TELLING—

As an example of authoring support, aiming at supporting users to generate an explanatory video on current topics, we have proposed a method to automatically recompile video clips on a specific politician (Prime Minister) from a broadcast news archive [3].

REFERENCES

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[2] K. Takahashi, T. Hattori, K. Doman, Y. Kawanishi, T. Hirayama, I. Ide, D. Deguchi, and H. Murase: "Estimation of the attractiveness of food photography based on image features", *IEICE Transactions on Information and Systems*, vol. E102-D, no. 8, pp. 1590–1593, August 2019. [DOI] 10.1587/transinf.2018EDL8219

[3] I. Ide and F. Nack: "Explain this to me! —A study on automatic recompilation of broadcast news video—", *ITE Transactions on Media Technology and Applications*, vol. 1, no. 2, pp. 101–117, April 2013. [DOI] 10.3169/mta.1.101

Fig. 1. AI-supported contents creation and circulation.

[1]https://www.cs.is.i.nagoya-u.ac.jp/opensource/nufood/