# ABSTRACTS/要 約<sup>†</sup>

[総説]

情報知識学試論

藤原 讓

本誌, Vol.1, No.1, pp.3-10 (1990)

"A Review on Science of Information and Knowledge" (in Japanese)

Yuzuru Fujiwara

#### Abstract:

Science of information and knowledge deals with properties and theories concerning data, knowledge and information. This paper describes the back grounds of the discipline, the state of the art, theories and principles, issues as well as future perspectives.

## [Original Paper]

"Automatic Devanāgarī Character Recognition Using Structure Analysis" (in English)

Krishnamachari Jayanthi, Akihiro Suzuki, Hiroshi Kanai, Youko Akiyama, Yoshiyuki Kawazoe, Masayuki Kimura, Ken'iti Kido and Keisho Tsukamoto

J. of Japan Soc. of Information & Knowledge, Vol.1, No.1, pp.25-39 (1990)

構造解析法によるデーヴァナーガリー文字自動認識 (英語論文)

クリシュナマチャリ・ジャヤンティ, 鈴木昭浩, 金井浩, 秋山庸子, 川添良幸, 木村正行, 城戸健一, 塚本啓祥

## 和文要約:

本論文では、サンスクリット語および現代インドで使われているヒンズー語等の表記文字であるデヴァナーガリー文字を対象とした、構造解析法による新しい自動認識法を提案する。各文字の特徴をもとに、二進木を用いたトップダウン制御の高速な認識系を設計した。あわせて、デヴァナーガリー文字

の特徴を保存した細線化アルゴリズムも開発した. サンスクリット語で書かれた法華経校訂本から切り 出された 67 字種に対する認識実験を行い,95%以 上の認識率が得られた.

## [論文]

日本語―英語対照「源氏物語」のテキスト・データ ベースの作成に関する基礎的研究

### 長瀬真理

本誌, Vol.1, No.1, pp.40-53 (1990)

"Project to develop machine-readable texts of English and Japanese versions of "The Tale of Genji" (in Japanese)

Mari Nagase

Abstract:

The two year project to develop machine readable texts of Japanese Version of "The Tale of Genji" written by MURASAKI SHIKIBU and its English Version translated by E.G.Seidensticker has been recently completed. As the texts were edited to an international common standard (compatible with Oxford Concordance Program) which will be applied to the mainframes of the Computer Center of Tokyo University and Oxford University Computing Service. In this paper, architecture and method of constructing machine readable texts and whole process of this project are fully discribed. At the same time, service systems, copyrights and other relating problems are discussed.

## [論文]

わが国における海外データベース・サービスの現状 調査

梁瀬三千代

本誌, Vol.1, No.1, pp.54-65 (1990)

"An Investigation on the Present State of Foreign Database Services in Japan" (in Japanese) Michiyo Yanase

<sup>†</sup>論文と総説のアプストラクトないし要約を示す。本文が日本語のものについては英語のアプストラクトを、本文が英語のものについては日本語の要約を掲載した。

#### Abstract:

Although databases are serviced in various forms such as online, floppy disks, CD-ROMs, CD-Is, CD-Vs, IC cards, etc., the majority of databases are available through online services. The paper describes the latest developments in commercially available online services for foreign databases in Japan, with some considerations on the problems for Japanese users. Based on the author's experience of compiling a database directory, an investigation is made from the five viewpoints: (1) the recent trend of foreign database services in Japan, (2) subject areas and information sources, (3) the time coverage and updating, (4) service systems and the functions of Japanese agents, and (5) use charges.

### [論文]

経営管理を支援する対象駆動型シミュレーションの 構成法

桂 英史、奥野嘉展

本誌, Vol.1, No.1, pp.66-74 (1990)

"A Study on an Event-driven Simulation Method for Business Administration" (in Japanese)

Eishi Katsura and Yoshinobu Okuno

#### Abstract:

An event-driven simulation method based on an object oriented paradigm which assists business administration is described. In this paper, office action is characterized as the collection of events and interactions. It is a primary study that an event-driven simulation method shows the capabilities of office action analysis and indicates extentions which are needed to meet the conceptual analysis methodology such as "Action Research".

Our prototype system design for an event-driven simulation based on object oriented concepts is outlined, with focus on the object definitions and their behaviours. An conceptual flamework for business administration using information systems is also discussed. This approach to office action analysis will arise providing a potential for increasing in applications such as business

game which assists business administration.

## [論文]

材料データシステムの統合化 (1)—プロトタイプの 設計とデータ型の拡張

芦野俊宏, 岩田修一

本誌, Vol.1, No.1, pp.75-91 (1990)

"Integration of Materials Data System.(1)—Prototype System Design and Extension of Data Types" (in Japanese)

Toshihiro Ashino and Shuichi Iwata

Abstract:

To deal with sophisticated information, a system MDGEN(Materials Data System with Graphical user interface, Extended data types and Networking) is developed to integrate distributed data systems by a client-sever model in a LAN environment. Security, differences of access methods and differences of representation are managed by communication server, database server and metadata server respectively. Extension of data types to deal with semantics more effectively, namely, maximum, minimum, errors, images is achieved.