Overview of the Seventh NTCIR Workshop

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Abstract

This paper outlines the seventh NTCIR Workshop, which is the latest in a series. It briefly describes the background, tasks, participants, and test collections of the workshop. The purpose of this paper is to serve as an introduction to the research described in detail in the rest of the proceedings of the seventh NTCIR Workshop.

Keywords: *evaluation, information access, information retrieval, complex question answering, test collections, cross-lingual information retrieval, cross-lingual question answering, multilingual opinion analysis, patent translation, patent mining, trend analysis, visualization*

1. Introduction

The *NTCIR* Workshop [1] is a series of evaluation workshops designed to enhance research in information access (IA) technologies including information retrieval (IR), cross-lingual information retrieval (CLIR), question answering (QA), automatic text summarization, text mining and so on by providing large-scale test collections and a forum for researchers. It has been done as a collaborative community-based effort to build research infrastructure for testing and evaluation.

The aims of the *NTCIR* project are:

1. Encourage research in information access technologies by providing research infrastructures for evaluation and testing;
2. Provide a forum for researchers interested in exchanging research ideas in an informal atmosphere; and
3. Investigate methodologies to evaluate information access technologies.

By providing infrastructure for large-scale experiment and evaluations, NTCIR has encouraged the researches on the selected tasks in IA and then speed the research and technology transfer. The importance of such infrastructure in IA research has been widely recognized. Fundamental text processing procedures for IA, such as indexing includes language-dependent procedures. The *NTCIR* project therefore started in late 1997 with emphasis on, but not limited to, Japanese or other East Asian languages, and its workshop series has attracted international participation.

In *NTCIR*, a unit of activity is one and a half years, *i.e.* eighteen months. Because we respect the interaction between participants, we consider the whole process from call-for-task-participation to the final meeting to be a "workshop". Each workshop selects several research areas called "*tasks*". Each task has been organized by the researchers of the domain and a task may consist of more than one subtask.

In addition to the tasks, NTCIR-7 introduced "cluster structure" of tasks, so that we can conduct a module-based evaluation as well as investigate the best combination of modules from different parties to search toward a "dream system".

1.1 Information Access

The term "information access" (IA) refers the whole process from when a user realizes his/her information needs, through the activity of searching for and finding relevant documents, and then utilizing information in them. We have looked at IA technologies to help users utilize the information in large-scale document collections. IR, summarization and QA are part of a "family" of the technologies aiming at the same target, although each of them has been investigated by rather different communities

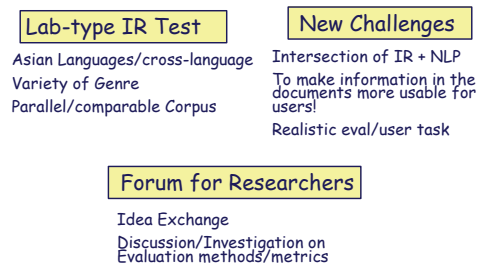

Figure 1. Focus of *NTCIR Workshops*

1.2 Focus of *NTCIR*

From the beginning of the project, we have looked at both traditional laboratory-type IR system testing and the evaluation of challenging technologies, as shown in Figure 1. For the former, we have placed emphasis on text retrieval and CLIR with Japanese or other Asian languages and testing on various document genres.

For the challenging issues, the target is to shift from document retrieval to technologies that utilize "information" in documents, and investigation of methodologies and metrics for more realistic and reliable evaluation. For the former, technologies and social environments are kept improving and enhancing and then an appropriate research infrastructure for these new technologies must be continuously built and maintained by the research community. NTCIR thus have to continue the activity as a community-based collaborative effort. These two directions have been supported by a forum of researchers who are interested in cross-system comparison and by their discussions.

2. Tasks at NTCIR-7

2.1 Overview

For the *Seventh NTCIR Workshop* (NTCIR-7) [2-3], the process started from the call-for-task-participation in September 2007 and the meeting is held on 16-19 December 2008 [4], at National Institute of Informatics (NII) in Tokyo. It is sponsored by NII.

As shown in Figure 2, *NTCIR-7* selected six "tasks" grouped into four clusters:

Cluster 1: Advanced Cross-Lingual Information Access (ACLIA)
+ Complex Cross-Lingual Question Answering (CCLQA) task
+ Information Retrieval for Question Answering (IR4QA) task

Cluster 2: User Generated Contents
+ Multilingual Opinion Analysis Task (MOAT)

Cluster 3: Focused Domain : Patent
+ Patent Mining (PAT MN) task
+ Patent Translation (PAT MT) task

Cluster 4: Multimodal Summarization of Trend (MuST)

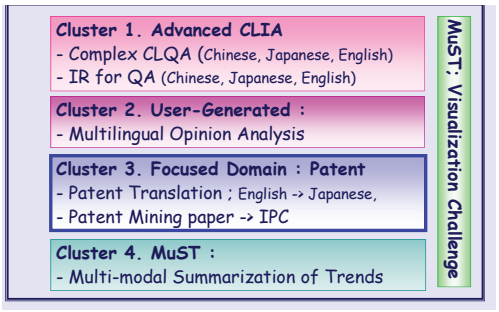

Figure 2. NTCIR-7 Task Clusters

MOAT is the continuation of NTCIR-6's *Opinion Analysis (OPINION) Pilot Task* and added a new language, Simplified Chinese. *MuST* is also the continuation of NTCIR-5 and -6's Pilot Workshops of *MuST*, which was originally held as domestic events, and added evaluation subtask called "T2N" in addition to the Free subtask.

Cluster 1 and 3 at NTCIR-7 are the extension of the tasks well investigated in past NTCIRs with largely changing the focuses of the investigation. *Cluster 1,* or *ACLIA,* at NTCIR-7 is a module-based evaluation combining "Complex CLQA" and "IR for QA" and it is an extension of *CLIR, Question answering Challenge (QAC)* and *CLQA* which have been held in NTCIR-3 to -6. And *Cluster 3* proposed new research tasks upon the prolonged experiences of "Patent Retrieval" and "Patent Classification targeting text mining for automatic patent map creation" at NTCIR-3 to -6. (Figure 3)

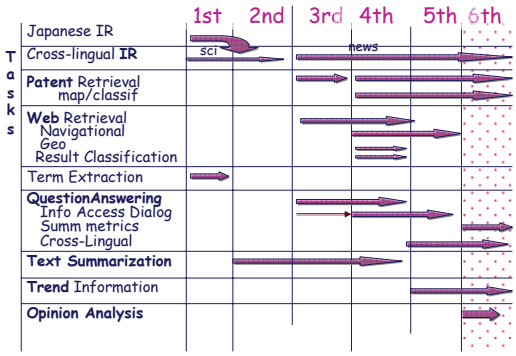

Figure 3. Tasks at Past *NTCIRs*

2.2 Advanced Cross-Lingual Information Access (ACLIA) Cluster [5][6]

It is a module-based evaluation combining "Complex CLQA" and "IR for QA" as shown in Figure 4.

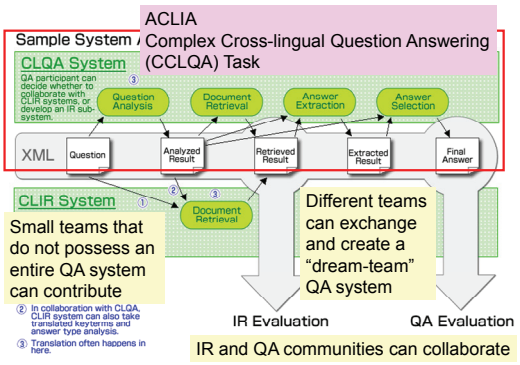

Figure 4. Structure of ACLIA

The basic ideas to propose a module-based evaluation are:

- Advanced IA systems for any types of Questions and returning answers in relevant formats.
- Glass-box evaluation
- Build a "dream system" by merging QA and IR communities
- Extended research infrastructure not only traditional "test collections" but also API or modules, and
- Provide opportunity that a small research group can make significant contribution

This target to complex QA including any types of questions in QA-viewpoints, and it is a kind of focused retrieval for particular question types in IR viewpoints.

As shown in Figure 3, *QAC* started from NTCIR-3, and investigated factoid for two cycles, Evaluation of *Series of Questions* was started from NTCIR-3 but the design was drastically modified into the evaluation of *Information Access Dialog (IAD)* in NTCIR-4 and NTCIR-5. Cross-language started in NTCIR-5. In NTCIR-6, it started a new QA experimental design to cover every kinds of questions including complex questions like definition, how and why as well as factoid, and evaluate using a metric called *BE*, Basic Element, which was originally proposed as which will be used in n automatic evaluation of summarization. This was done only on Japanese documents. Then we extended it to cross-lingual in NTCIR-7

Detailed module-based analysis of the results of Cross-lingual Question Answering (CLQA) tasks at NTCIR-5 and -6 revealed that the one of the major problems in CLQA between Asian languages and English was "retrieval" module, and the acute performance drops were occurred in retrieval modules. CLQA systems generally worked well on "question type analysis" and "answer extraction and formatting" once the candidate documents were properly retrieved. However, in many cases, CLQA system failed to retrieve the appropriate document subsets containing potential answers from the whole document collection especially for the queries including proper names or any named entities which are often not included in ordinary translation dictionaries or machine translation systems.

On the other hand, CLIR however has been investigated for long from NTCIR-1 with shifting focuses of the research until NTCIR-6. One of the major problems that all the participants have tackled is the solution of Out-of-Vocabulary (OOV) problems. In CLIR between the languages using completely different alphabets, cognate matching cannot be used and searching proper names is one of the most challenging tasks although proper names and named entities are often used in queries issued by the users in ordinary life setting. Various methodologies for OOV have been proposed and tested through past NTCIRs.

It seems promising if we can combine the technologies investigated in QA community and the better retrieval functionalities including OOV solutions tested in the past CLIR tasks, we could see a "dream system". Although CLQA, QAC and CLIR have been organized in NTCIR series for long, the research communities for QA and IR are rather separate each other, and a few groups participated in both QA- and IR-oriented tasks. The organizers then proposed a module-based evaluation aiming combine the best QA and the best IR systems. We also expected that such environment encourage the participants to try other part of the whole IA mechanisms.

CCLQA is highly complicated tasks consisting of many modules. When we conduct an end-to-end evaluation, it is not easy for the researchers to identify which parts are problematic in their highly complicated systems. If we can provide a module-based evaluation environment, it is rather easier to identify the problems and to learn which part of their systems need the improvement and revisions. This module-based environment also encourages the participation from small research groups or new comers who can work on only part of the whole process of CLQA, but can work better on a focused module.

2.2.1. EPAN

ACLIA provide an evaluation environment called *EPAN, Evaluation Platform for ACLIA and NTCIR*. It enable

1) Module-based evaluation by uploading and downloading interim results from each module of any participating systems, and
2) Community-based test collection creation

To sharing actual modules from each system needs extra burden of significant engineering effort of integration and documentation of the functionality and usage. ACLIA then choose to

achieve it by exchanging the interim results from each of the modules in CCLQA by a fixed XML format. Using EPAN, anybody can contribute the data creation. In NTCIR-7 CCLQA at ACLIA, dry run datasets were constructed by the participating research groups and some of the participants volunteered to contribute the judgments in formal runs as well. Evaluation is critical for the researchers themselves. This is a kind of healty cycle that the researchers community work collaboratively to build a research infrastructure of evaluation with some coorination. I do appreciate all the contribution, and expect to see such efforts shall make NTCIR or any other evaluation campaign sustainable.

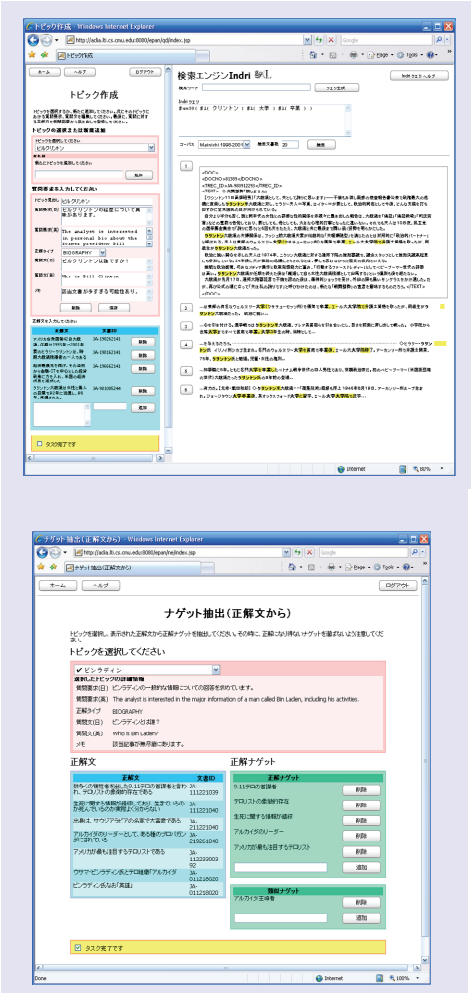

Figure 5. Sample Displays of EPAN

2.3 Multilingual Opinion Analysis Task (MOAT) [7]

The roadmap for the task is shown in Figure 6. Though it was originally proposed to use Chinese monolingual corpus, but extended into multilingual ones at the first pilot task at NTCIR-6. It means that we started from very complicated task from the beginning.

Genre	Subjectivity	Holder	Polarity	Strength
News	NTCIR-6	NTCIR-6	NTCIR-6	
Review	NTCIR-7	NTCIR-7	NTCIR-7	NTCIR-7
Blog	NTCIR-8	NTCIR-8	NTCIR-8	NTCIR-8
Stakeholde	**Temporal**	**Language**	**Granuality**	**Application**
		C,J,E	single-sent	Summarization
NTCIR-7		Cs,Ct,J,E	clause	QA
NTCIR-8	NTCIR-8		multi-sent	Opinion tracking
		Cs,Ct,J,E	document	Consistency checking
				Trend

Figure 6. Roadmpap for Opinion Analysis at NTCIR

At NTCIR-7, it was originally porposed to use multilingual blog corpus, but with various reasons, we gave up to deliver the new corpus from NII and change the corpus to news. But we could added a new language, Simplified Chinese.

"Continuing for two cycles" is one of our basic policies for task selection and it is expected to effective to initiate a new task for the first, and enhance the researches in the second. We therefore tried to keep the same task design as much as possible with minor changes of the problematic parts. At the previous OPINION task at NTCIR-6, the evaluation metrics were slightly changed across the language subtasks, but then the unified metrics were applied at NTCIR-7. A new opinion-related element, Opinion Target, was added at NTCIR-7.

NTCIR-6 OPINION test collection was built top upon the past NTCIR's CLIR topics which were completely translated into four languages and their relevant documents in each language. MOAT at NTCIR-7 utilized some of the topics from NTCIR-7 ACLIA and added some topics and did own relevance judgments to select the documents to be annotated at MOAT.

2.4 Patent Machine Translation [8]

After four cycles of Patent Retrieval evaluation both in monolingual and cross-lingual and Patent Classification targeting to automatic patent map creation, NTCIR decided to go into a new technological domains related to patent information processing: Statistical machine translation of patents and patents mining.

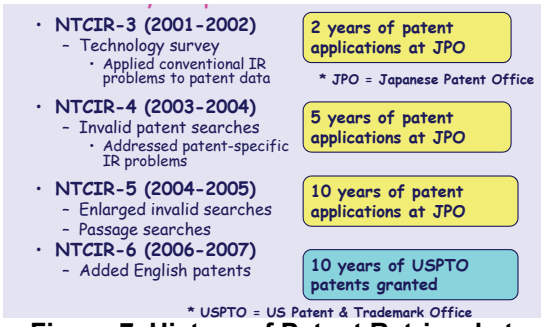

Figure 7. History of Patent Retrieval at NTCIR

Patent Machine Translation (MT) is realistic as parallel corpora can potentially be produced from 10 years Japanese and USPTO's patent fulltext from NTCIR-5 and -6 collections using patent family relationship. Decoders for statistical MT (SMT) are also now available. At the PATMT task at NTCIR-7, both statistical machine translation (SMT) and rule-based MT can participate and be tested.

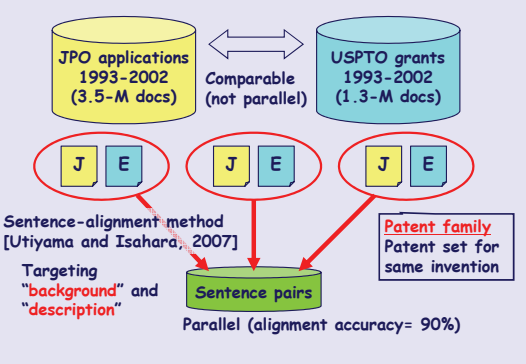

Figure 8. Producing Parallel Corpora

Intellectual property (IP) activities are global. IP experts have to investigate to the patents published in other countries in various languages including the ones cannot understand. CLIR and MT are inevitable to support such practice. CLIR must be strong support for pre-selection of the candidates to be translated for further investigation. MT has been already used in the real world and usable for some extent. But the quality is not sufficient for human comprehension in details. And there are still various positive reasons to provide a research infrastructure for large-scale evaluation for patent MT both in scientifically and for the value in real-world applications:

- MT is necessary for relevance judgments of the CLIR results by the users when the users are not familiar with the target languages.
- Resources for SMT is usable for CLIR
- SMT is especially effective for CLIR
- Bi-directorial approach (combination of query-translation and document translation) for CLIR has been known effective.

Especially SMT has promises in applicability to any language pairs as far as parallel corpora will be available without labour-intensive efforts to maintain dictionaries and rules up-to-date. And for Patents, there is high possibility to obtain large-scale parallel corpora using patent family relationship in various language pairs.

The scale and quality of the parallel corpora are the key element for SMT. NTCIR-7 PAT MT provided 1.8 M sentences exact sentence-level aligned corpus, and it is the largest one between Japanese and English to our knowledge.

Evaluation was done by both intrinsic using BLEU and readability by human assessor, and extrinsic evaluation in CLIR task.

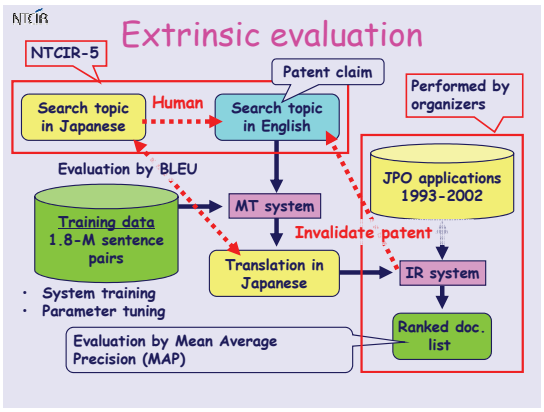

Figure 9. Extrinsic Evaluation at PAT MT using CLIR Task.

The results demonstrated:

- SMT is much better for CLIR
- Rule-based MT is good for human evaluations
- Human evaluations and creation of reference translations must be carefully done (in the real world, professional patent translators do use MT).

2.5 Patent Mining [9]

Patent classification and mining has been investigated from NTCIR-4. The goal is automatic generation of patent map like Figure 10. The scenario is -- A topic is given, and a set of relevant documents are retrieved and provided to the mining system. It shall automatically analyze the documents to find a set of "problems to be solved" and the "solutions", and make a table and allocate relevant patents to each column automatically.

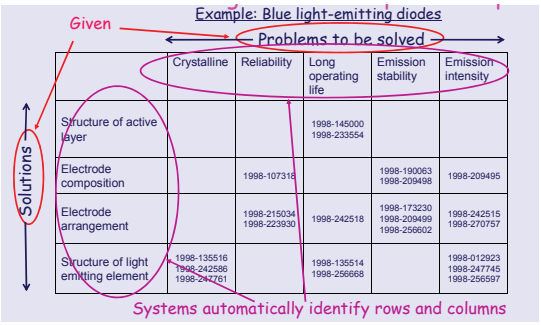

Figure 10. Automatic Patent Map Creation

The history of the patent classification and mining tasks at NTCIR is as following:

NTCIR-4 (2003-2004): Patent-map-creation subtask:

- Direct approach to creation of patent maps
- Hard tasks and insufficient evaluation

NTCIR-5 (2004-2005): Classification subtask:

- Categorize patents to pre-defined categories called F-terms (multi-faceted and structured)
- Relatively small number of test documents
- Evaluate only strict matches in F-term hierarchy

NTCIR-6 (2006-2007): Classification subtask:

- Increased the number of documents and topics (108 topics)
- Evaluate partial matches in F-term hierarchy

A facet in the F-term is selected at NTCIR-5 as a target since the granularity is relevant for the classes for the patent map. As an extension of the past classification and mining task, NTCIR-7 PAT MN test the effectiveness of the mining patents and scientific papers into a same classification scheme, so that the patent map can be created using both scientific papers and patents, and mapping patents and scientific papers are realistic task in IP practice.

The task structure of PAT MN at NTCIR-7 is shown in Figure 11. It can be conducted as a classification of scientific papers into IPC Patent Classification scheme, or it can be conducted as a Cross-lingual document retrieval of patents, and find related scientific papers using citation relationship between them. Twelve groups completed the experiments and submitted the results.

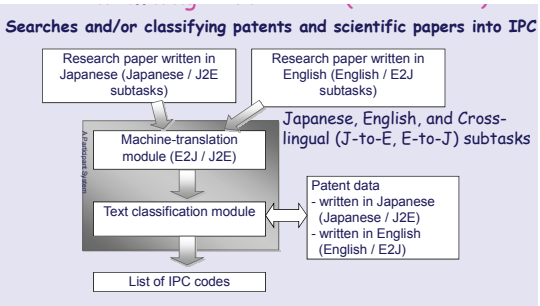

Figure 11. Structure of PAT MN

The results showed the promise in n-KNN and other machine learning techniques.

2.6 Multimodal Summarization for Trend Information [10]

Multimodal Summarization for Trend Information (MuST) was organized as a pilot workshop of the NTCIR-5 and -6, and became an ordinary task at NTCIR-7. It investigates the task to extract numeric expressions from a set of documents, summarize, and visualize so that the users easily understand the tendencies among the set of documents. The examples of the topics are the stock market price, amount of import/export of a particular products, etc. Thirteen groups participated and completed the experiments in MuST at NTCIR-7. This is an interesting mixture of different communities, IR, NLP, Web intelligence, Fuzzy, etc. A sample result was shown in Figure 12.

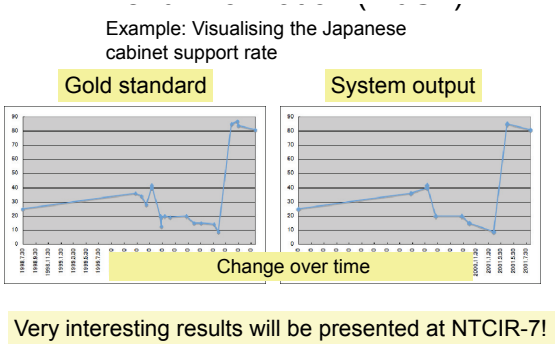

Figure 12. A Sample Results of MuST

The major achievements are, that we had established an infrastructure for the investigation of the technologies for trend analysis. It includes, a community of researcher consisting of a mixture of related technological domains, a set of tags to describe the trend-related information including time and geographical relationship, a set of tagged corpus usable for the experiments, a platform system for visualization. The platform software for visualization has been prepared as a software can be used by researchers and is expected to serve as one of the common basis for further evaluation of the trend analysis including usability or user-involved evaluation for exploratory. A sample display was shown in Figure 13.

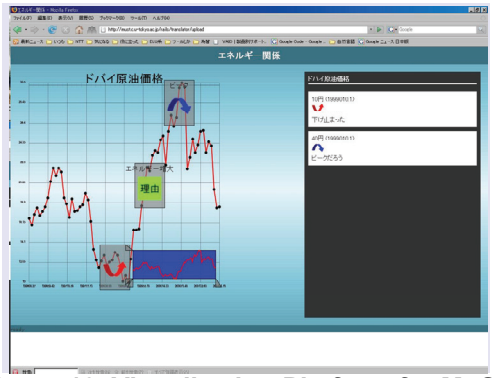

Figure 13. Visualization Platform for MuST

3. Test Collections

Test collections and data set built in the past NTCIRs are listed in Table 1. Most of them are available for research purpose for non-participants. All the test collections constructed through NTCIR-7 will be available for research purpose for outside the NTCIR's task participants after the NTCIR-7 Meeting.

Table 1. Test collections constructed by *NTCIR*

Class	Collection	Task	Documents						Task data		
									Topic/ Question		Relevance judge
			Genre	Filename	Lang.	Year	# of docs	Size	Lang	#	
CLIR on Scientific	NTCIR-1	IR	Sci. abstract	ntc1-je ++	JE	1988-1997	339,483	577MB	J	83	3 grades
				ntc1-j ++	J		332,918	312MB			
				ntc1-e ++	E		187,080	218MB		60	
		TE*5		ntc1-tmrc ++	J		2,000	-		-	-
	NTCIR-2	IR	Sci. abstract	ntc2-j ++	J	1986-1999**	400,248	600MB	JE	49	4 grades
				ntc2-e ++	E		134,978	200MB			
CLIR on News	CIRB010	IR	News	CIRB010	C_t	1998-1999	132,173	132MB	C_tE	50	4 grades
	NTCIR-3 CLIR	IR	News	KEIB010	K	1994	66,146	74MB	C_tKJ	30	4 grades
				CIRB011	C_t	1998-1999	132,173	870MB	C_tKJE	50	4 grades
				CIRB020 ++			249,508				
				Mainichi +&	J		220,078				
				EIRB010	E		10,204				
				Mainichi Daily ++			12,723				
	NTCIR-4 CLIR	IR	News	CIRB011	Ct	1998-1999	132,173	ca.3GB	CtKJE	60	4 grades
				CIRB020 ++			249,203				
				Hankookilbo ++	K		149,921				
				Chosenilbo ++			104,517				
				Mainichi +&	J		220,078				
				Yomiuri +&			373,558				
				EIRB010	E		10,204				
				Mainichi Daily ++			12,723				
				Korea Times ++			19,599				
				Hong Kong Standard			96,683				
				Xinhua +&			208,167				
	NTCIR-5 CLIR	IR	News	CIRB040r ++	Ct	2000-2001	901,446		CtKJE	50	4 grades
				Hankookilbo ++	K		85,250				
				Chosenilbo ++			135,124				
				Mainichi +&	J		199,681				
				Yomiuri +&			658,719				
				Mainichi Daily ++	E		12,155				
				Korea Times ++			30,530				
				Daily Yomiuri +&			17,741				
				Xinhua +&			198,624				
	NTCIR-6 CLIR	IR	News	CIRB040r ++	Ct	2000-2001	901,446		CtKJE	50 (selected from NTCIR-3,4)	4 grades
				Hankookilbo ++	K		85,250				
				Chosenilbo ++			135,124				
				Mainichi +&	J		199,681				
				Yomiuri +&			658,719				
CLQA	NTCIR-5 CLQA	QA	News	CIRB040r ++	C	2000-2001	901,446		CJE	smpl:300, test:200	3 grades *7
				Yomiuri +&	J		658,719				
				Daily Yomiuri +&	E		17,741				
	NTCIR-6 CLQA	QA	News	CIRB020 ++	Ct	1998-1999	249,203		CJE	J-E/J-J/E-J: 200, C-E/C-C/E-C/E-E: 150	3 grades *7
				Mainichi +&	J		220,078				
				EIRB010	E		10,204				
				Mainichi Daily ++			12,723				
				Korea Times ++			19,599				
				Hong Kong Standard			96,683				
OPINION	NTCIR-6 OPINION	IE/analysis	News	CIRB020 ++	Ct	1998-2001	249,203	32, 30, 28 doc sets for C, J, E, respectively, were selected from those described	CtKJE	32 (selected from NTCIR-3,-4,-5 CLIR)	2 types, 3 metrics
				CIRB040r ++			901,446				
				Mainichi +&	J		419,759				
				Yomiuri +&			1,032,277				
				EIRB010	E		10,204				
				Mainichi Daily ++			242,878				
				Korea Times ++			50,129				
				Hong Kong Standard			96,683				
				Xinhua +&			409,971				
Patent	NTCIR-3 PATENT	IR	Patent	kkh *3 ++	J	1998-1999	697,262	18GB	C_tC_sKJE	31	3 grades
			Abstract	jsh *3 ++	J	1995-1999	1,706,154	1,883MB			
			Abstract	paj *3 ++	E	1995-1999	1,701,339	2,711MB			
	NTCIR-4 PATENT	IR	patent full	Publication of unexamined patent	J	1993-1997	ca. 1,700,000	ca.27GB	E	Main: 34, Add: 69	3 grades
			Abstract	Patent Abstracts of Japan (PAJ) ++	E	1993-1997	ca. 1,700,000	ca.5GB			
	NTCIR-5 PATENT	IR	patent full	Publication of unexamined patent application++	J	1993-2002	3,496,252	ca.45GB	JE	34+1189 in NTCIR-5, added 349+1681 in NTCIR-6	3 grades
			Abstract	Patent Abstracts of Japan (PAJ) ++	E	1993-2002	3,496,252	ca.10GB			
	NTCIR-6 PATENT	IR	patent full	Patent grant data published from USPTO++	E	1993-2000	981,948		E	3221	3 grades
QA	NTCIR-3 QA	QA	News	Mainichi +&	J	1998-1999	220,078	260MB	J*	1200	exact answer
	NTCIR-4 QA	QA	News	Mainichi +&	J	1998-1999	220,078	ca.776MB	J*	197	exact answer
				Yomiuri +&			373,558			199	
										251	
	NTCIR-5 QA	QA	News	Mainichi +&	J	2000-2001	199,681	260MB	J*	50 series	graded
	NTCIR-6 QA	QA	News	Mainichi +&	J	1998-2001	419,759	535MB	J	100 Q (any kind of Q)	graded (3 types, 4 levels)
WEB	NTCIR-3 WEB	IR	Web (html/text	NW100G-01++	multiple*4	crawled in 2001	11,038,720	100GB	J*	47	4 grades + relative
				NW10G-01++			1,445,466	10GB			
	NTCIR-4 WEB	IR	Web (html/text)	NW100G-01++	multiple*4	crawled in 2001	11,038,720	100GB	J*		3 grades
	NTCIR-5 WEB	IR	Web (html/text)	NW1000G-04++	multiple*4	crawled in 2004	98,870,352	1.36TB	J*	269 + 847	3 grades
OTHERs	available for future task		QA site on Web	Yahoo! Q&A corpus (Chiebukuro) ++	J	Apr.2004 to Oct.2005					
			News	Singpore Press ++	Cs	1998-2001					

J:Japanese, E:English, C:Chinese (C_t:Traditional Chinese, C_s: Simplified Chinese), K:Korean;
All the topics/questions and relevance judgements/answers are available for research purpose for free
"++" indicates the document collections available from NII for research purpose
"+&" indicates the document collections available for task participants for free, and available for research purpose use from research purpose other than NTCIR participation from other party with fee
* English translation is available
** gakkai subfiles: 1997-1999, kaken subfiles: 1986-1997
*3: kkh : Publication of unexamined patent application, jsh: Japanese abstract, paj: English translation of jsh
*4: almost Japanese or English (some in other languages)
*5: Term extraction/ role analysis
*6: 300+200 questions for C documents, and 300+200 questions for JE documents
*7: Right, Unsupported, Wrong

4. Participants

Table 2 is a list of the active participating research groups in the *NTCIR-7*. A hundred and Eitgty-seven groups registered, and eighty-two from fifteen different countries and areas were remained as active participants to the final meeting.

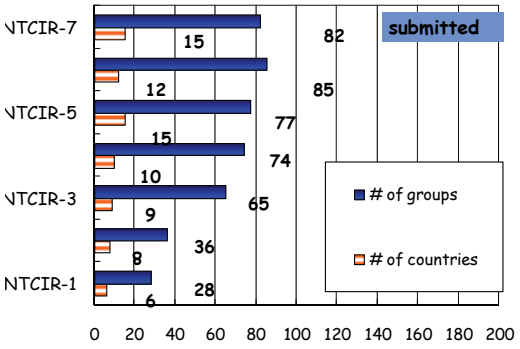

Figure 14. Number of Participating Groups

As shown in **Figures 14** the numbers of participants who completed the tasks have been almost stable in these NTCIRs. Different tasks attracted different research groups. Many international participants enrolled in *ACLIA, MOST, and PATMN*. One piece of good news for NTICIR-7 was large number of new comers joing NTCIR. We plan to investigate the reasons why such a large number of participants could not complete the experiments in time, and learn to improve the future NTCIR organization. Categorization.

5. Summary

A brief overview of the *Seventh NTCIR Workshop* is reported here. The details of the achievements from each task and those of each participant are reported by the papers in this volume [3].

The test collections used in the tasks of the NTCIR-7 and the archives of the system produced submission raw data will be available for research purpose. We expect that many of the research groups involved in the larger NTCIR community

Table 2. Active Participating Groups of the *Seventh* NTCIR Workshop

[CCLQA]
•Academia Sinica
•Beijing Univ of Posts & Telecoms, China
•Carnegie Mellon Univ
•NICT
•NTT Corporation
•Shenyang Institute of Aeronautical Engineering
•Wuhan Univ
•Yokohama National Univ

[IR4QA]
•Carnegie Mellon Univ
•Chaoyang Univ of Technology
•Chinese Academy of Sciences(ICT)
•Harbin Institute of Technology + Heilongjiang Institute of Technology
•National Taiwan Univ
•Open Text Corporation
•Shenyang Institute of Aeronautical Engineering
•Toyohashi Unive of Technology
•Univ of California, Berkeley
•Univ of Montreal
•Wuhan Univ
•Wuhan Univ of Science and Technology

[MOAT]
•Beijing univ
•Chinese Academy of Sciences(NLPR-IACAS)
•Chinese Univ of Hong Kong + Hong Kong Polythechnic Univ+ Tsinghua Univ
•DAEDALUS, S.A.
•Hiroshima City Univ
•Information and Communications Univ
•Chinese Academy of Sciences(ISCAS)
•Keio Univ
•City Univ of Hong Kong
•National Taiwan Univ
•NEC
•Northeastern Univ
•Peking Univ
•Pohang Univ of Science and Technology
•Swedish Institute of Computer Science
•Technical Univ of Darmstadt
•Graduate Univ for Advanced
•Tornado Technologies Co., Ltd.,
•Toyohashi Univ of Technology
•Univ of Neuchatel
•Univ of Sussex

[Must]
•Hiroshima City Univ
•Keio Univ
•Mie Univ
•NICT
•NEC
•Ochanomizu Univ (2 Groups)
•Okayama Univ
•Osaka Prefecture Univ
•Otaru Univ of Commerce
•Tokyo Metropolitan Univ
•Tokyo Denki Univ
•Univ of Sheffield
•Yokohama National Univ

[PAT MIN]
•Hiroshima City Univ
•Hitachi, Ltd.,
•Huafan Univ
•Nagaoka Univ of Technology
•Northeastern Univ
•NTT Corporation
•Peking Univ
•Shenyang Institute of Aeronautical Engineering
•Toyohashi Univ of Technology
•Univ of California, Berkeley
•Univ of Montreal
•Xerox

[PAT MT]
•Fudan Univ
•Harbin Institute of Technology + Heilongjiang Institute of Technology
•Hitachi,Ltd.,
•Japan Patent Information Organization
•Kyoto Univ
•Massachusetts Institue of Technology
•Nara Institute of Science and Technology + NTT
•NICT
•National Taiwan Normal Univ
•NTT Corporation
•Pohang Univ of Science and Technology
•TOSHIBA
•Tottori Univ
•Toyohashi Univ of Technology + Hosei University
•Univ of Tsukuba

will work collaboratively to investigate the system mechanisms and to analyze the further results, and then learn each other from each other's experience.

WEB was not conducted at NTCIR-7. It was not because of no interest. In opposite, we are interested in evaluating information access on WEB in various aspects. WEB has been incredibly changed in many ways both in quality and quantity of the information access in the real world, and technologies required to support them. Such tendencies include, for example, credibility, quality, balance or skewedness of the retrieval results, interaction and exploratory, social networking and connectivities, and users satisfaction with various tasks, etc. We then had a break for better planning for the future tasks investigating various aspects on the WEB as well as those with other traditional document genres for various usage and information seeking tasks behind.

There are some large-scale research funding programs on the research on WEB under multiple government agencies in Japan, and each of them proposes to provide to the granted research groups with large-scale shared infrastructures of research and experiments, such as computing facilities like large-scale PC clusters or large-scale document collections. But none of them provides Evaluation infrastructures. Collaboration with these programs shall be expected to be mutually beneficial.

Evaluation must adapt to technological evolution and the change in social needs. We are working towards this goal together with research community as a collaborative community-based effort. Any leads and suggestions are always welcome.

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