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JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

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DESIGN AND IMPLEMENTATION OF EXAMPLE BASED ENGLISH-HINDI MACHINE TRANSLATION SYSTEM

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ABSTRACT

A Machine Translation (MT) is the fast automatic translating tool that a sentence of source language has been translated to sentence of target language with same meaning and similar construction. Normally, in every MT system there are preprocessing phase, core MT phase and post-processing phase. In the preprocessing phase, source sentence has been normalized, parsed and chunked into noun chunks and verb chunks. Using example based in core MT phase, tagged chunked source language has been matched, selected and extracted best generalized target example. In these phase grammar of source language has also been analyzed and grammar of target language using source language grammar has been extracted. In post-processing phase, chunked machine translated target sentences has been adapted using target language grammar and arranged according to target language structure. An Example-Based MT system has been designed and developed for English-Hindi language pair. Experimental results of proposed system have also been compared with popular MT such as Google MTS, TSS MTS and Anusaarka MTS and observed its quality is better than other available MT systems. In this paper, a road-map of implementation of English-Hindi Example-Based MTS has been described.

KEYWORDS

Sentence Segmentation, Chunking Sentence, Best Example Extractor, Retrieving Target Language, Adapting Target Language.

INTRODUCTION

Now a day, Machine Translation (MT) is growing to use in online chatting, email, translating e-books etc. MT is a system used to translate sentences written in one language to other language automatically (Jurafsky D. et al., 2009; Gupta D. 2005) for example Google Translate, SYSTRAN, Anusaarka, etc.

MT systems are usually implemented using either rule based (RBMT) (Jurafsky D. et al., 2009), statistical method based (SBMT) (Jurafsky D. et al., 2009; Ney et al., 2000; Knight, 1997; Brown et al., 1990), example based (EBMT) (Gupta D. 2005; Nagao M. 1981; Sadler V. 1989; Sato and Nagao 1990; Sumita E. and Iida H., 1991; Kitano H. 1993; Furuse et al. 1994; Watanabe H. and Maruyama H., 1994; Cranias et al. 1994; Jones 1996; Veale T. and Way A., 1997; Carl, M. 1999, Andriamanakasina T. et al. 1999, Brown, 2000) or hybrid based (HBMT) approach.

EBMT is popular (Nirenburg S. C. et al., 1994) and advantageous (Gupta D., 2001) than other MT approaches with respect to accuracy, flexibility and portability. Since EBMT uses examples, translator's skill has been involved and also examples have been updated and changed according to source language (SL) - target language (TL).

Normally in every approaches of MT, there are three phases: pre-processing, core-processing and post-processing. In pre-processing, input sentences are normalizing, tagging and chunking. Usually chunking is helpful in MT in cases compound and complex sentences. In core-processing, chunks are translated using example based (Bojar O. et al., 2010; Chunyu K. et al., 2002; Mostafa A. et al., 1995; Grishman et al., 1992. The order of subject (S), object (O) and verb (V) of SL is different than the TL. In post-processing, translated chunks are merged in order of target language.

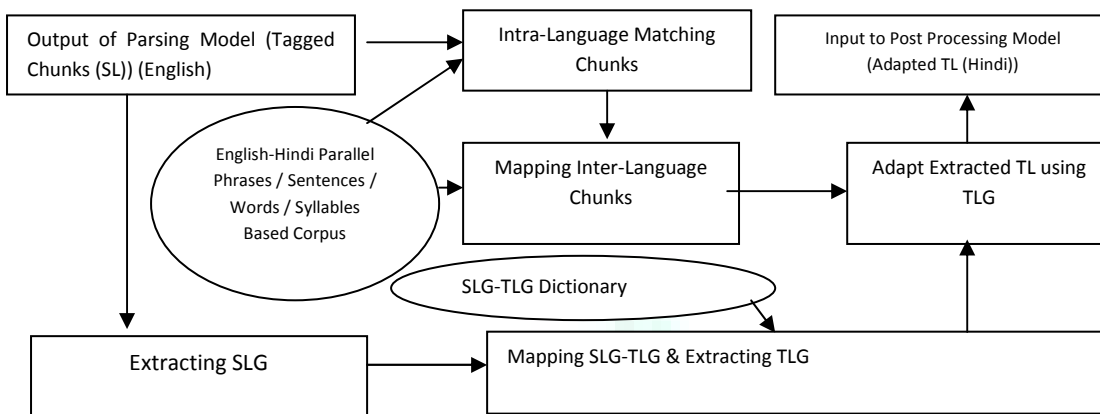
An proposed Example-Based MT system has been designed and developed for English-Hindi language pair. In this paper, core module of MT system has been described. Next sections brief the organization of core machine translation system, explore implementation & result and last section concludes the paper.

ORGANIZATION OF EXAMPLE BASED MACHINE TRANSLATION SYSTEM

In general, an example is a pair of text in English-Hindi language that is a translation of each other Eiichiro S. et al. (1991). Examples are in the form of chunks (Klein E., 2004) as sentences or phrases or words. There are basically three steps as shown in figure 1: Intra-Language Matching Chunks & Extraction of SL Grammar (Nirenburg S. C. et al., 1994), Mapping Inter-Language Chunks & Mapping SL-TL (Grammar Elita N. et al., 2005) and Rule-Driven Adaptation of TL (Takao D. et al., 2003; Guvenir H.A. et al., 1998; Nirenburg S.C., 1995).

Initially, intra-language matching chunks unit finds suitable matches for input tagged chunks using SL corpus and also fixes shortest best match of SL and simultaneously extraction of SL grammar unit extracts grammar of input tagged chunks called as source language grammar (SLG). Secondly, mapping inter-language chunks unit maps SL corpus to parallel aligned TL corpus and finds TL and simultaneously mapping SL-TL grammar maps SLG to TL grammar (TLG) and finds TLG. Lastly, rule-driven adaptation unit adapts TL using TLG (Takao D. et al., 2003).

FIGURE 1: ORGANIZATION OF CORE MACHINE TRANSLATION



IMPLEMENTATION AND RESULT

INTRA-LANGUAGE MATCHING CHUNKS UNIT: In this unit, there are two inputs: Tagged Chunks and English-Hindi parallel aligned corpus. There is an output as list of similar examples. There are three process steps: select examples, sort selected examples based on searched factor and extract best example. Similarly in this unit, grammar of input has also been extracted. The intra-language matching process has been illustrated in table 1-2 for input “I am going to school” and Retrieval of SL Grammar of Chunks has been illustrated in table 3

TABLE 1: ILLUSTRATION OF INTRA-LANGUAGE MATCHING PROCESS

SN / Wt	Retrieved Example Base						
s5/26	Ram	and	Rajesh	are	going	to	school
s1/18	I	am	a	Student	-	-	-
s3/17	She	is	going	to	college	-	-
s4/16	I	used	to	go	to	school	-
s2/7	He	loves	his	school	-	-	-

TABLE 2: INPUT-SL EXAMPLE MAPPED TABLE

Input (Word)	W1(I)	W2(am)	W3(going)	W4(to)	W5(school)
SL (Sentence Number)	S1	S1	S5	S5	S5
SL (Word Number)	1	2	5	6	7

TABLE 3: ILLUSTRATION OF RETRIEVAL OF SL GRAMMAR OF CHUNKS

Chunks	SL Grammar
NX→He/PRP	He
VX→He/PRP is/VBZ	He_VBZ
NX→a/DT student/NN	DT_NN
VX→He/PRP has/VBZ been/VBN working/VBG	He_has_been_VBG

MAPPING INTER-LANGUAGE CHUNKS UNIT: There are two inputs in this unit: Best Example and English-Hindi corpus. There is an output as chunked TL. Similarly in this unit, grammar of TL has also been extracted using SLG. The organization of English-Hindi Corpus has been shown in table 4 and SL-TL mapping process has been illustrated in table 5.

TABLE 4: ENGLISH-HINDI CORPUS

English Tagged Chunks	Hindi Chunks	Mapping Eng:Hin Words
She/PRP is/VBZ a/DT beautiful/JJ girl/NN	वह{स्त्री/लड़की}% + (एक) सुन्दर लड़की&	1:1 2:2 3:3 4:4 5:5 6:6
They/PRP are/VBP playing/VBG football/NN	वे% + <1>>~खेल+ फुटबॉल	1:1 2:2 3:3 4:4

TABLE 5: SL-TL MAPPED TABLE

Input (Word)	W1(I)	W2(am)	W3(going)	W4(to)	W5(school)
SL (Sentence Number)	S1	S1	S5	S5	S5
SL (Word Number)	1	2	5	6	7
TL (Word)	मैं	+	जा+	-	विद्यालय

RULE-DRIVEN ADAPTATION UNIT: In the last process rule-driven adaptation, there are two inputs: Target chunk and TLG. There is an output as adapted target chunk. The adaptation process has been illustrated in table 6.

TABLE 6: ILLUSTRATE ADAPTATION PROCESS

Translation Word	T1(I)	T2(am)	T3(going)	T4(to)	T5(school)
Sentence Number / word Number	S1/W1	S1/W2	S5/W5	S5/W6	S5/W7
SL	I	am	going	to	school
TL	मैं	+	जा+	-	विद्यालय
SL Grammar	-	-	I am VBG	-	-
TL grammar			+ रहा + हूँ		
Final TL	मैं	-	जा रहा हूँ		विद्यालय

CONCLUSION

In this paper, general and adaptable core processing phase of EBMT has been explained step-by-step using examples and experimentally explored units: Intra-language matching chunks unit, Mapping inter-language chunks unit and Rule-driven adaptation unit. However prototype is languages independent. It can be used for any pair of languages. Also prototype has been tested over 500 unknown sentences.

REFERENCES

- Andriamanakasina, T., Araki, K., Tochinai, T. (1999), "Example-based Machine Translation of Part-of-Speech Tagged sentences by recursive Division", Proceedings of MT SUMMIT VII, Singapore.
- Bojar O., Straňák P., Zeman D. (2010), "Data Issues in English-to-Hindi Machine Translation", Proceedings of the Seventh conference on International Language Resources and Evaluation (LREC'10).
- Brown, R. D. (2000), "Automated generalization of translation examples", Proceedings of the Eighteenth International Conference on Computational Linguistics, pp. 125-131.
- Brown, P. F., Cocke J., Pietra, S. A. D., Pietra, V. J. D., Jelinek, F., Lefferty, J. D., Mercer, R. L., Roossin P. S. (1990), "A Statistical Approach to Machine Translation", Computational Linguistics, 16, pp. 79-85.
- Carl M. (1999), "Inducing Translation Templates for Example-Based Machine Translation", Proc. of MT-Summit VII.
- Chunyu, K., Haihua, P., Jonathan J. W. (2002), "Example-Based Machine Translation: A New Paradigm", In S.W. Chan (ed.), Translation and Information Technology, pp.57-78.
- Cranias, L., Papageorgion, H. and Piperidis, S. (1994), "A Matching Technique in Example-Based Machine Translation", Institute for Language and Speech Processing, Greece. Paper Presented to Computation and Language.
- Eiichiro S., Hitoshi I. (1991), "Experiments and Prospects of Example-Based Machine Translation", Proc. of ACL-91, pp. 185-192.
- Furuse, O., Sumita, E., Iida, H. (1994), "Transfer-Driven Machine Translation Utilizing Empirical Knowledge", Translations of IPSJ, Vol. 35, No. 3, pp. 414-425
- Grishman, R., Kosaka, M. (1992), "Combining Ration list and Empiricist Approaches to MT", Proceedings of TMI-92, Monntreal, pp. 263-274.
- Gupta, D. (2005), "Contributions to English to Hindi Machine Translation using Example-Based Approach", Ph.D. Thesis, Dept. of Mathematics, IIT Delhi.
- Gupta, D., Chatterjee, N. (2001), "A Systematic Adaptation Scheme for English-Hindi Example-Based Machine Translation", Proc. STRANS-2001, IIT Kanpur, pp 132-140.
- Guvénir, H. A., Cicekli, (1998), "Learning Translation Templates from Examples", Elsevier Science Ltd.
- Jones, D. (1996), "Analogical Natural language Processing", UCL Press. London, pp. 155.
- Jurafsky D., Chang, Pi-Chuan, Christopher, D. (2009), "Manning: Disambiguating DE for Chinese-English Machine Translation", Proceedings of the Fourth Workshop on Statistical Machine Translation, Athens, Greece, 30-31 March 2009, pp. 215-223.
- Kitano H. (1993), "A Comprehensive and Practical Model of Memory-based machine Translation", Proc. of IJCAI-93. pp. 1276-1282.
- Klein, E. (2004), "Introduction to Computational Linguistics Chunking and Partial Parsing", ICL Week 5, Lecture 2, 21st October.
- Knight, K. (1997), "Automating Knowledge Acquisition for Machine Translation", AI Magazine, 18/4.
- Mostafa, A., Muhammed, A., Husni, A. (1995), "English To Arabic Machine Translation: A Critical Review and Suggestions For Development", The Fourth Saudi Engineering Conference, Nov. 1995, Volume III.
- Nagao, M. A. Elithorn and R. Banerji (1981), "A framework of a Mechanical Translation between Japanese and English by Analogy Principle, in Artificial and Human Intelligence", 9eds.) North-Holland, pp. 173-180.
- Ney, H., Och, F.J., Vogel, S. (2000), "Statistical Translation of Spoken Dialogues in the Vermobil System", MSC2000, pp. 69-74.
- Nirenburg, S., Beale, S. Domashnev, C. (1994), "A Full-Text Experiment in Example-Based Machine Translation", Int'l Conf. on New Methods in Language Processing, pp. 78-87, Manchester.
- Nirenburg, S.C. (1995), "The PANGLOSS Mark III Machine Translation System", (Tech. Rep. No. CMU-CMT-95-145), Pittsburgh: Carnegie Mellon University.
- Sadler, V. (1989), "Working with Analogical semantics", Foris Publications, pp. 256.
- Sato, S., Nagao, M. (1990), "Towards Memory-Based Translation", In the proceedings of the International Conference on Computational Linguistics, COLONG-90, Helsinki, Finland, August 1990.
- Sumita, E. and Iida, H. (1991), "Experiments and Prospects of Example-Based Machine Translation", Proceedings of the 29th Annual Meeting of the Association for Computational Linguistics, Berkeley, California, USA, pp. 85-192.
- Takao, D., Eiichiro, S., Hirofumi, Y. (2003), "Adaptation Using Out-of-Domain Corpus within EBMT", HLT-NAACL 2003.
- Veale, T., Way, A. (1997), "Gaijin: A template-driven bootstrapping approach to Example-Based Machine Translation", International Conference, Recent Advances in Natural Language Processing, Tzgov Chark, Bulgaria, pp. 239-244.
- Watanabe, H., Maruyama, H. (1994), "A transfer System Using Example-based Approach", IEICE Transactions on Information and Systems, Vol. E77-D, No.-2, pp. 247-257.

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