## The Hindi to Dogri Machine Translation System

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## Abstract

The Hindi to Dogri Machine translation system is a rule-based MT developed and copyrighted by GoI in 2014. It is the first system developed to convert Hindi text into Dogri (the regional language of Jammu). The system is developed using ASP.Net and the databases are in MS-Access. This Machine Translation system accepts Hindi text as input and provides Dogri text as output in Unicode.

Working of the System: The brief working of the system is discussed in this section. The system has a very easy to use and simple interface. The Hindi text to be converted into Dogri is placed in a textbox and the user needs to click on the translate button to get the output in another text box as shown below in Fig1:

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Fig1: shows a screenshot of the Hindi to Dogri Machine Translation System

The overall accuracy of Hindi to Dogri Machine Translation system is found to be approximately 98 %. In case of technical text and news, the output accuracy is tested to be 98% and above whereas incase of stories the accuracy level falls due to use of ambiguous words in stories. The system handles ambiguity of the hindi words " $\exists R$ " and " $\exists R$ ". The system performance can be improved by incorporating word sense disambiguation of more ambiguous words.

Some Text translated using this system is shown below in Table 1 :

S.No	Hindi Input	Dogri Output
1.	दिल्ली सरकार ने प्रदर्शन कर रहे किसानों को टॉयलेट, पानी और टेंट की सुविधा दी है. लेकिन किसान ट्रैक्टर ट्रॉली में ही रह रहे हैं.	दिल्ली सरकार नै प्रदर्शन करादे किसानें गी टायलेट , पानी ते टेंट दी सुबधा दित्ती ऐ . पर करसान ट्रैक्टर ट्राली च गै रेहा दे दे
2.	न हो रहे रहे है. डॉ.भीमराव आंबेडकर ने एक इंटरव्यू में कहा था कि महात्मा गांधी सिर्फ इतिहास का हिस्सा हैं, युग निर्माण करने वाले नहीं.	डा भीमराव आंबेडियै नै इक इंटरव्यू च आखेआ हा जे महात्मा गांधी सिर्फ इतिहास दा हिस्सा न , जुग निरमान करने आह्ले नेईं .
3.	संसद भवन की नई बिल्डिंग का भूमि पूजन 10 दिसंबर को होने वाला है.	संसद भवन दी नमीं बिल्डिंग दा जमीन पूजन 10 दिसंबर गी होने आह्ला ऐ

Table1: shows text translated using the Hindi to Dogri Machine Translation System

The incorrect translations in each text are kept bold. The accuracy of the system is clearly visible in the above translated text to be above 98%. More text translations will be discussed during the demonstration of the system.