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Association for Machine Translation in the Americas

User Program Track
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***The Added Value of Free Online MT Services:
Confidence Boosters for Linguistically-challenged
Internet Users, a Case Study for the Language
Pair Italian-English***

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Overview of the Talk

- Introduction: background and rationale + aims
- Experiment design and setup
- Results and discussion
- Conclusions and future work
- Discussion: questions & answers + feedback

Introduction

- Background and rationale
 - free online MT is a well-established resource
 - used by research community (multilingual NLP)
- Aims of the study
 - users' level of confidence in free online MT?
 - users' perception, confidence and trust?

Experiment Design and Setup

- Preliminary decisions regarding monol. websites
- Selection of candidate websites in Italian
- Pilot study to remove any bias (17 people)
- Keywords (max. 3) in English to describe content

Monolingual Italian Websites



Una scuola aperta, un incontro formativo per conoscere, comunicare, scegliere, crescere.
Una scuola per il mondo d'oggi: progetti formativi e modelli didattici.

Aree speciali: [Snodo H zone 6 e 7](#) | [Rete Octopus](#) | [Polo L2](#)

Liceo Scientifico Statale G. Marconi - Milano

Home page

<p>Ultime notizie e circolari</p> <p>OnLine i risultati provinciali delle Olimpiadi di Matematica (scarica il file pdf da 86KB)</p> <p>Consigli di classe di marzo 2005</p> <p>Colloqui pomeridiani con i docenti</p> <p>Sportello help 2004/2005</p> <p>Colloqui 2004/2005</p>	 <p>Liceo Marconi di Milano Sede di via del Giardini</p> <p>Legge Stanca (04/2004) per i siti della Pubblica Amministrazione.</p>	<p>Il nuovo sito</p> <p>A partire dall'a.s. 2004/2005 il sito del Marconi ha cambiato radicalmente volto ed è diventato accessibile a tutti i navigatori Internet, indipendentemente dalla loro dotazione hardware e software, come vuole la</p>	<p>Info generali</p> <p>Dov'è il Liceo [d]</p> <p>I numeri [n]</p> <p>Strutture e servizi [s]</p> <p>A.S. 2004/2005 [a]</p> <p>PAA 2004/2005 [y]</p> <p>Il POF 2004/2005 [p]</p> <p>Colloqui coi docenti [c]</p> <p>Mailing list [l]</p> <p>Orientamento terza media [k]</p> <p>Supporto alla didattica</p> <p>Scuola aperta [f]</p> <p>Sportello Help [h]</p>
		<p>Le novità</p>	

<http://www.marconionline.it>

Keyword: **school**

Monolingual Italian Websites



Radio Missione Franciscana - RMF



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Buona Pasqua

Segnaliamo

Sabato 24.4.2004 E' stato nostro ospite **Carlo Lucchina** direttore generale della sanità lombarda. Si è parlato di sanità in Lombardia. E' disponibile il [file audio](#) della trasmissione condotta da **Carlo**.



Lunedì 19.1.2004 E' stato ospite **Silvano Colombo**. Si è parlato di Santa Maria del Monte - Sacro Monte di Varese. E' disponibile il [file audio](#) della trasmissione condotta da **Miriam**.



Nuovi programmi:

Lunedì 17.01. è cominciato "Missione a Varese" (2004-2006), nuovo programma che vi terrà informati sulla missione in corso nella zona pastorale di Varese. In onda alle ore 19:15 e in replica mercoledì alle 10:15. Conduce: Cesare.

Domenica 09.01. è cominciato "Torpedo blu", nuovo programma che ricorda avvenimenti di costume e società per conoscere e ricordare cinema, tv, radio, musica... In onda alle ore 17:00. Conducono: Paolo e Antonio.

Da sabato 13.11.2004. è cominciato un nuovo programma "Media e rimedia" in onda alle ore 12:15.

Hosting by 

Hosting by 

<http://www.rmf.it>

Keyword: **radio station**

Monolingual Italian Websites

SIRIOGATTO.IT 

Il Collezionismo On-Line!

ShinyStat
Visite tot. 24033
Online 1

Categorie Principali e Servizi

<u>BANCONOTE</u> 	<u>CARTOLINE</u> 	<u>SANTINI</u> 	<u>TESSERE</u> 
<u>STORIA POSTALE</u>	<u>MONETE</u>	<u>LISTINO MONETINE E SERIE EURO</u>	<u>CATALOGHI NUOVI</u>

<http://www.siriogatto.it>

Keyword: **collectors' items**

Experiment Design and Setup

- Participants in the experiment
 - 101 English-speaking students (250 in total)
 - 77 main experimental group (used online MT)
 - 24 control group (only browsed Italian sites)
 - 3:1 ration experimental/control group

Experiment Design and Setup

- Free online MT services used for translation from Italian into English
 - Babelfish (27 users)
 - FreeTranslation (15 users)
 - Google Language Tools (26 users)
 - Voila (9 users)

Experiment Design and Setup

- Evaluation method: questionnaire
 - in English
 - collected personal details + MT experience
 - focused on basic info. in the 3 monoling. sites
 - same questionnaire for exp. and contr. groups

Experiment Design and Setup

- Evaluation method: questionnaire (*cont'd*)
 - best description of each website (15 options):
tourist information - political party - city council - sports centre
ethnic food - oriental art - astronomy & astrophysics - school
radio station - photo club - collectors' items - online newspaper
pets & animals - company/corporate – scientist's profile
 - identify contact telephone number (2nd level)
 - rate confidence in correctness of answers (7)

Results and Discussion

- Finding basic information correctly
 - keyword-based description of website

School's site <code>www.marconionline.it</code>			
<i>Gussed correctly</i>		<i>Gussed incorrectly</i>	
<i>MT</i>	<i>Control</i>	<i>MT</i>	<i>Control</i>
N = 73	N = 18	N = 4	N = 6
94.8%	75%	5.2%	25%
+19.8% accuracy when using free online MT			

Radio station's site <code>www.rmfi.it</code>			
<i>Gussed correctly</i>		<i>Gussed incorrectly</i>	
<i>MT</i>	<i>Control</i>	<i>MT</i>	<i>Control</i>
N = 75	N = 20	N = 2	N = 4
97.4%	83.3%	2.6%	16.7%
+14.1% accuracy when using free online MT			

Collectors' items' site <code>www.siriogatto.it</code>			
<i>Gussed correctly</i>		<i>Gussed incorrectly</i>	
<i>MT</i>	<i>Control</i>	<i>MT</i>	<i>Control</i>
N = 68	N = 21	N = 9	N = 3
88.3%	87.5%	11.7%	12.5%
+0.8% accuracy when using free online MT			

Results and Discussion

- Finding basic information correctly
 - contact telephone number

School's site: contact phone number					
<i>Correct</i>		<i>Incorrect</i>		<i>Don't know</i>	
<i>MT</i>	<i>Contr.</i>	<i>MT</i>	<i>Contr.</i>	<i>MT</i>	<i>Contr.</i>
N=62	N=19	N=0	N=1	N=15	N=4
80.5%	79.2%	0%	4.2%	19.5%	16.7%
+ 1.3% accuracy when using free online MT					

Radio station's site: contact phone number					
<i>Correct</i>		<i>Incorrect</i>		<i>Don't know</i>	
<i>MT</i>	<i>Contr.</i>	<i>MT</i>	<i>Contr.</i>	<i>MT</i>	<i>Contr.</i>
N=70	N=20	N=1	N=0	N=6	N=4
90.9%	83.3%	1.3%	0%	7.8%	16.7%
+ 7.6% accuracy when using free online MT					

Collectors' items' site: contact phone number					
<i>Correct</i>		<i>Incorrect</i>		<i>Don't know</i>	
<i>MT</i>	<i>Contr.</i>	<i>MT</i>	<i>Contr.</i>	<i>MT</i>	<i>Contr.</i>
N=48	N=14	N=0	N=0	N=29	N=10
62.3%	58.3%	0%	0%	37.7%	41.7%
+ 4% accuracy when using free online MT					

Results and Discussion

- Confidence ratings in the answers
 - perceived reliability of the information

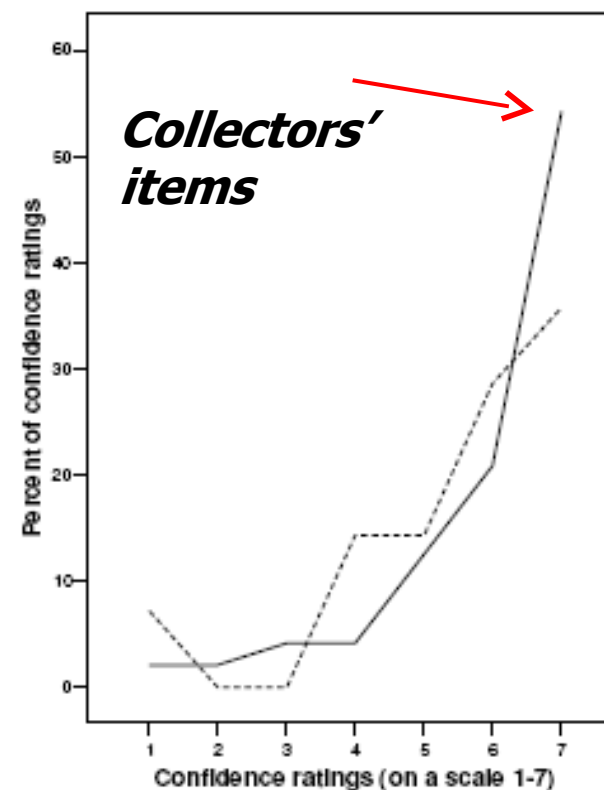
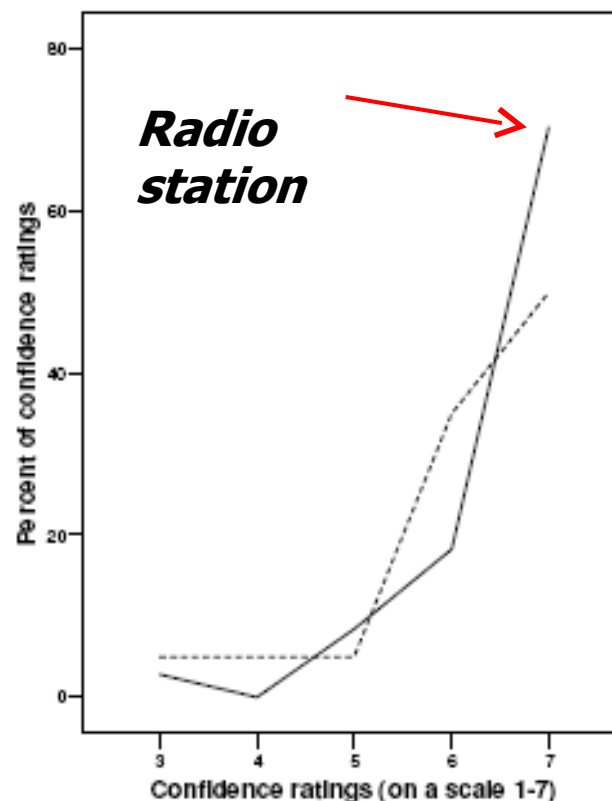
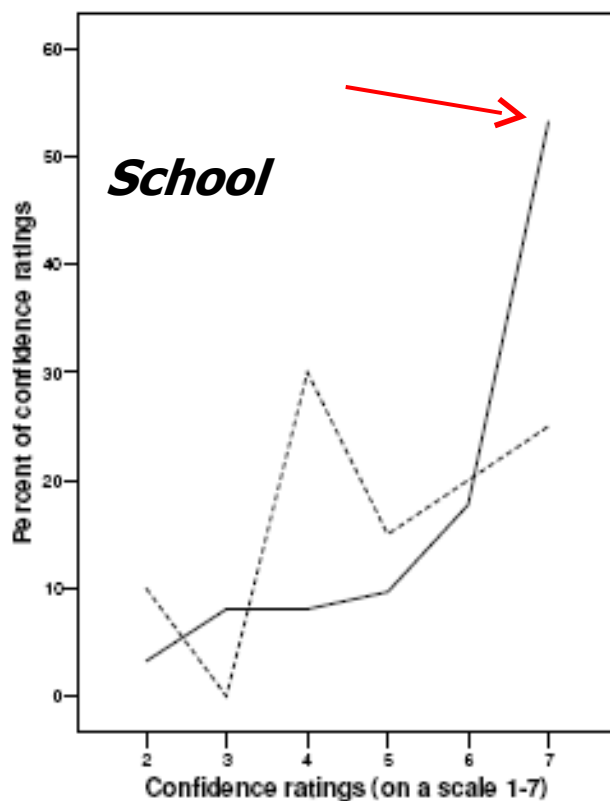
Confidence ratings school's phone no.				
<i>Group</i>	<i>N</i>	<i>Mean confi- dence rating</i>	<i>Std. deviat ion</i>	<i>Std. Error Mean</i>
<i>MT</i>	62	5.90	1.490	.189
<i>Control</i>	20	5.10	1.586	.355
+.80 (i.e. +11%) mean confidence using MT				

Confidence ratings radio station's phone no.				
<i>Group</i>	<i>N</i>	<i>Mean confi- dence rating</i>	<i>Std. deviat ion</i>	<i>Std. Error Mean</i>
<i>MT</i>	71	6.54	.876	.104
<i>Control</i>	20	6.20	1.105	.247
+.34 (i.e. +5%) mean confidence using MT				

Confidence ratings collectors' items phone no.				
<i>Group</i>	<i>N</i>	<i>Mean confi- dence rating</i>	<i>Std. deviat ion</i>	<i>Std. Error Mean</i>
<i>MT</i>	48	6.02	1.451	.209
<i>Control</i>	14	5.57	1.697	.453
+.45 (i.e. +6%) mean confidence using MT				

Results and Discussion

- Confidence ratings in the answers
 - perceived reliability of the information



— Experimental group using free online MT

..... Control group

Conclusions

- Added value of free online MT
 - 1) helps users find information more accurately
 - 2) boosts users' confidence in reliability of info.
- Users have positive perception of free online MT
- But... is it the website design or free online MT?

Future Work

- More empirical research is needed
- Other language combinations and OLMT services
- Involve users with knowledge of source language
- Users' confidence in online MT for dissemination?
- Users' confidence in online MT to make decisions?

Thank you!

Questions?

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