

## *Invited User Presentation: What's Driving Machine Translation and Why Should We Care?*

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### What's Driving Machine Translation?



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Yesterday's translation processes won't solve today's challenges.

<http://www.youtube.com/watch?v=sIFYPQjYhv8>






The environment is changing.



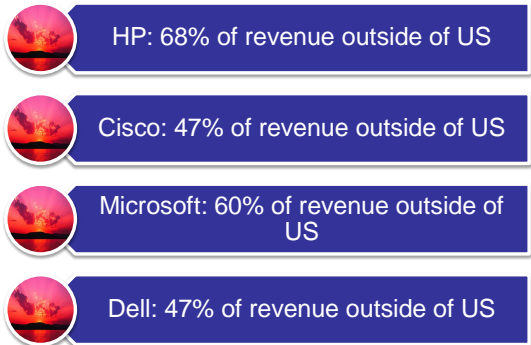
Exploding content is creating new needs.

-  A week's worth of *The New York Times* contains more information than an 18<sup>th</sup> century person encountered in a lifetime
-  More unique information will be generated this year than in the previous 5000 years.
-  Gartner predicts content processed by companies between 2007 and 2012 will grow 15 fold
-  More internet messages are sent in one day than the population of the world
-  Symantec created more content last year than in the previous decade

More capacity is upping the ante.

-  Moore's law: computing power doubles every eighteen months
-  Gilder's law: network bandwidth triples every eighteen months.
-  Cloud computing to decrease costs, increase scale, be more agile
-  Software as a Service
-  Crowdsourcing: But What Crowd?

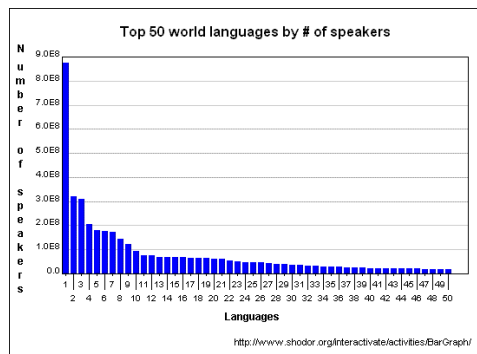
The bottom line is “over there”.



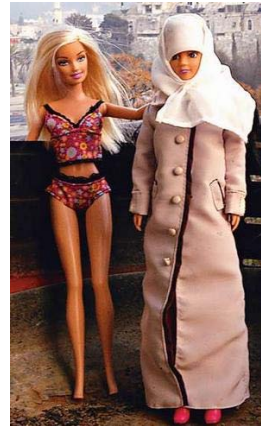
Huge potential in emerging economies.



The long tail of languages.








Products need to be both global and local (“glocal”).



International customers are being supported (finally).

-  Fusion of localization and customer support
-  Fusion of social media and customer support
-  LinkedIn, Facebook, Twitter for sales and support
-  Company Blogs, FAQs
-  Anywhere, anytime

Customers want self service.

-  Information that was push is now pull
-  A help desk addresses around 1% of the problems
-  Online KB, FAQs, etc. can help 10 times more
-  Forums, Blogs, etc. can help 30 times more
-  The business case is clear: \$.25 vs \$100



Agile just isn't fast enough.

- From On Time to Just-In-Time to Real Time
- Release cycles are no longer measured in months or years but weeks
- Simship
- Streaming translation for daily updates
- Where they want it when they want it



We have to do more with less.



Quality has been defined by the technology available to translators.











Good enough is good enough.








**You** 

**Human translation alone can't meet today's needs:**

-  Translate more content
-  Into more languages
-  On more platforms
-  Coming from multiple sources
-  Faster
-  Cheaper

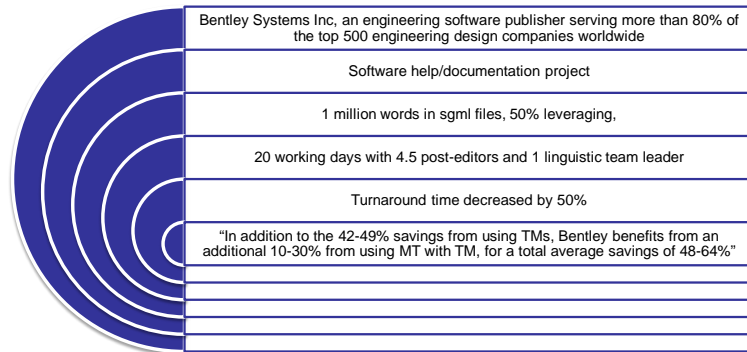
**Machine translation gives us a solution for:**

-  Leveraging human translators
-  Translating new content types
-  Giving more people access to more information
-  ... in real time
-  ... for significantly lower costs

**MT for leveraging human translators.**

-  Needs to be customized
-  Integrated with memories
-  Post-Edited to the quality needed
-  Human not MT quality metrics
-  A productivity tool like CAT





User Study: **Bentley Systems.**



**MT for customer support.**

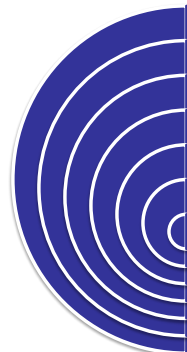
-  Increased sales
-  More markets
-  10% to 20% call deflection
-  Higher customer satisfaction
-  Nearly as effective as HT for 5% of cost

**How effective is MT for support?**

-  Customers report greater satisfaction for MT vs ZT (zero translation)
-  Microsoft: 23% found machine-translated articles to be useful vs. 29% for human translation.
-  Intel: raw MT content was only 3% less successful in answering customer questions (44% vs. 47%)
-  Customized MT can cost 95% less than HT









User Study: **Software Publisher.**







Leading software publisher (household name)
Online FAQs for customer support
Pilot of 160,000 source words, xml
3 million words total, never translated
Customized engine
Light post-edit in French and Spanish
Turnaround in 2 weeks

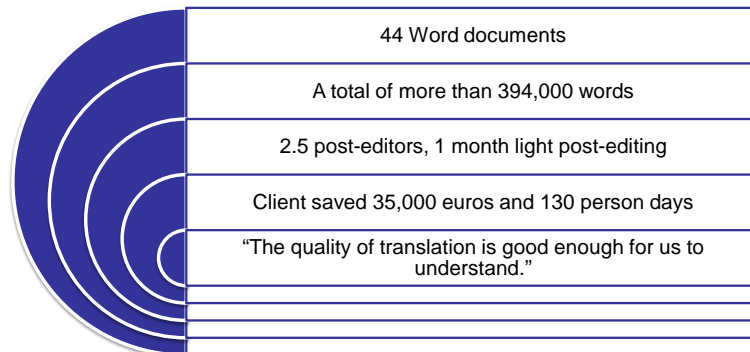
**MT for increasing speed**

-  Post-editors are relieved of the "grunt" work
-  7000+ words per day for human quality, 10,000+ for comprehensibility
-  Updates in real time with customization
-  Twice as fast to post-edit MT output than translate from scratch
-  6.28 seconds to translate no match segment; 2.44 seconds to translate fuzzy match; 3.40 seconds to post-edit MT (Siemens)
-  Automatic post-editing

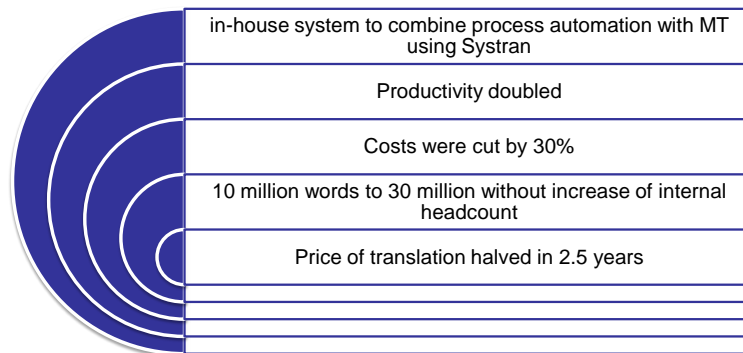
**MT for decreasing costs.**

-  Since it's faster to post-edit translators charge less (but earn the same)
-  Can manage more words without an increase in internal headcounts
-  Average 30% productivity gain
-  Can double productivity with authoring, process automation, automatic post-editing






User Study: **Veolia Environment.**




User Study: **Symantec.**



**MT for improving quality and consistency.**

-  Once terminology is defined, a trained engine will provide consistent terminology across all documents
-  Of terminology errors, 100% came from the client TM; 80% of style errors came from MT segments
-  MT erases stylistic and terminology differences among multiple translators
-  Post-editors perform a full edit (source visible)
-  Virtuous circle of feedback improves the engine in real-time

**A final word on MT quality.**



“Contrary to all expectations, using MT in Bentley has improved the translation quality in the pilot projects”
French OLH reviewer: “I give a 9...I find this translation very good...I found it better than the translations I used to see before”
German courseware reviewer: “It was the best translation of courseware I ever read.”