Snapshot of Machine Translation: Knowledge Base and Real-Time Chat

Honda Motor Europe – 2 Case Studies
About Yamagata Europe

• Translation Agency
• Number 13 worldwide / Top 2 in Asia (CSA)
• Human and Machine Translation technology
• Integrating translation technologies
• Document creation
• Printing
• High resolution scanning
• See also www.yamagata-europe.com
Honda Motor Europe and Yamagata Europe

• Cooperation since 1999
  • Translation of Service Manuals
  • Print of Owner Manuals
  • POD for Spare Parts

• Discussions MT projects started 2008
• First live project December 2010
Case 1: Warranty Claims

Worldwide objectives for Honda

- Reduce claims on parts that are still under warranty
- Reduce market recalls because of defects
- Improve products

Challenges

- Language barrier
- User generated content
- Big data
- Understandability Target 90%
- Low budget
- Integrate with Honda Information System
### Case 1: In numbers

<table>
<thead>
<tr>
<th>Criteria</th>
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Average claims per day: 960 (all languages)
Case 1: Proposal Yamagata Machine Translation

- *Semi-automated translation flow*
- *Processing on daily basis*
- *Live December 2010*
Case 1: WAT Flow

Dealers/Distributors

Factory UK: Quality Improvement Centre

Yamagata Europe

- Turn-around Time Translations: twice per day
- Volume: Daily about 600 claims / 6000 words (3 languages)
- Currently 3 languages: Russian, Italian, German
Case 1: Conclusion

- Fast
- Budget-friendly
- Constant improvement curve of translation quality through manual pre-editing
- Current understandability level between 85-90%
Case 2: Technical Support Communication

Worldwide objectives for Honda

- Reduce response time
- Reduce costs through centralization
- Raise general business efficiency

Challenge

- Language barrier
- Really, really, really fast
- User generated content
- Small data
- Understandability Target 100%
- Integrate with Honda Information System
Case 2: Proposal Yamagata Machine Translation

- Fully automated multilingual chat
- Turnaround time: 2 seconds
- Live February 2012
Case 2: TESS Flow

Dealers → Dealer Technical Support Center → Yamagata Auto Translation Engine

Technical Inquiry

Case solving answer

Turnaround time translations: 2 seconds

Automatic Translation

- Problem Reproduction
- Diagnosis
- Repair => Case Solving

- Automatic Translation
- Current Language pairs:
  - EN<>ES, EN<>IT, EN<>DE, EN<>RU, EN<>PT, EN<>PL, EN<>HU, EN<>NL, EN<>FR
- Language Pairs in development:
  - EN<>CS, EN<>SK,
Case 2: Conclusion

- Fast
- Budget-friendly
- Constant improvement
- terminology lists
- untranslated segments
- Understandability level hybrid engine languages between 70 and 90%.
- Understandability level statistical engine-only languages still under par
- “Human translation” button as workaround
Quality measurements

- **Identical evaluation by customer (SME’s) and Yamagata (linguists)**
- **50 sentences per language pair supplied by the customer**
- **Straight MT output and “normalized” MT output**
- **Simple rating system**
  - Perfectly understandable
  - Fully understandable
  - Barely understandable
  - Not understandable

**NOTE:** Yamagata consistently rates its translations lower than the customer reviewers do.
Yamagata’s “Translation Highway”

Two dedicated webservices:

Synchronous for instant feedback
A-Synchronous for delayed feedback

used for 3 types of translations & Quality improvement files

Y-MT application (based on Systran server)

Yamagata’s extensive pre-editing and QA function called “P.O.O.D.L.E”
Questions?

Thank you for your attention!