Tools and Techniques
for Translatable Content

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Association for Machine Translation in the Americas, 2006   Cambridge, MA

Translatability

- Who cares?

- How translation works

- Three dimensions of Translatability
  - Content
  - Form
  - Processes

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Who cares?

- Businesses who want to:
  - Increase customer satisfaction
  - Increase sales
  - Increase documentation quality
  - Increase brand consistency

  - Decrease stress, headaches, attrition, extra hours
  - Decrease costs
  - Decrease time to market
  - Decrease exposure to liability

  - Cope with acquisitions/mergers/outsourcing

Who cares?

- The ROI story
  - [ROI calculator]

How translation works

- ❶ Documentation Department sends material for translation
- ❷ Localization Department filters out incoming sentences that have already been translated
- ❸ Translation Vendor produces draft translations
- ❹ Translators revise draft translations
- ❺ Documentation department assembles and distributes translations

- This is part of the *Content Supply Chain*
  - See: http://contentsupplychain.blogspot.com

How translation works
Send material out

❶ Documentation Department sends material for translation [e.g., User Manual]
- What size chunks of material? Paragraphs? Chapters? Books?
- What else does the translation package include?
- When is the translation due?
- Does Marketing use the same process?

How translation works
Filter out already-translated sentences

❷ Localization Department filters out incoming sentences that have already been translated

- Translation memory tools
  - 100% matches :)
    - But still not free
  - Fuzzy matches
    - Alternative formulations of the same content
    - Translation memory is very sensitive to any kind of variation

How translation works
Filter out already-translated sentences

- Fuzzy matches
  - *This dialog box is available in more than one application.*
  - *This dialog box is available in more than one contract application.*

  - *Click OK to save changes and return to the application tab .*
  - *Click OK to save the record and return to the application tab .*

How translation works
Produce draft translations

❸ Translation Vendor produces draft translations

- Distribute *parts* of the project to different translators
- By hand or (increasingly) by machine

- a) Translators read and understand the original text in English
- b) Translators draft "the same information" in L2
- c) Translators revise (with an L2 mindset) so that the result is normal L2 text

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How translation works
Produce draft translations

- a) Translators read and understand the original text in English
  - Translators understand, as possible, given:
    - unknown words,
    - unknown sentence structures,
    - unfamiliar topics,
    - etc.
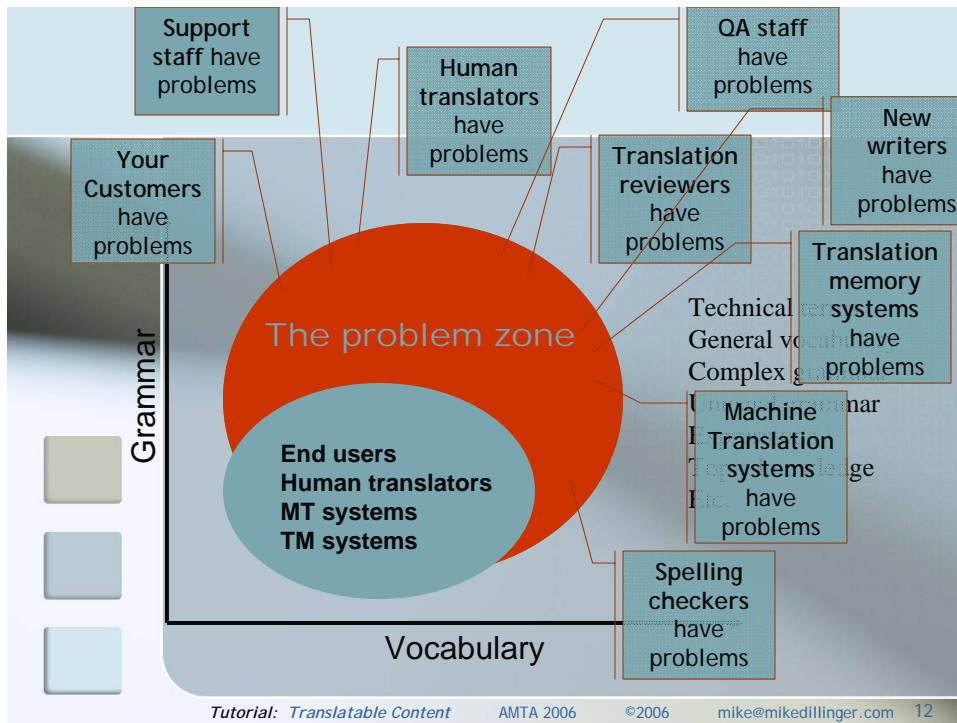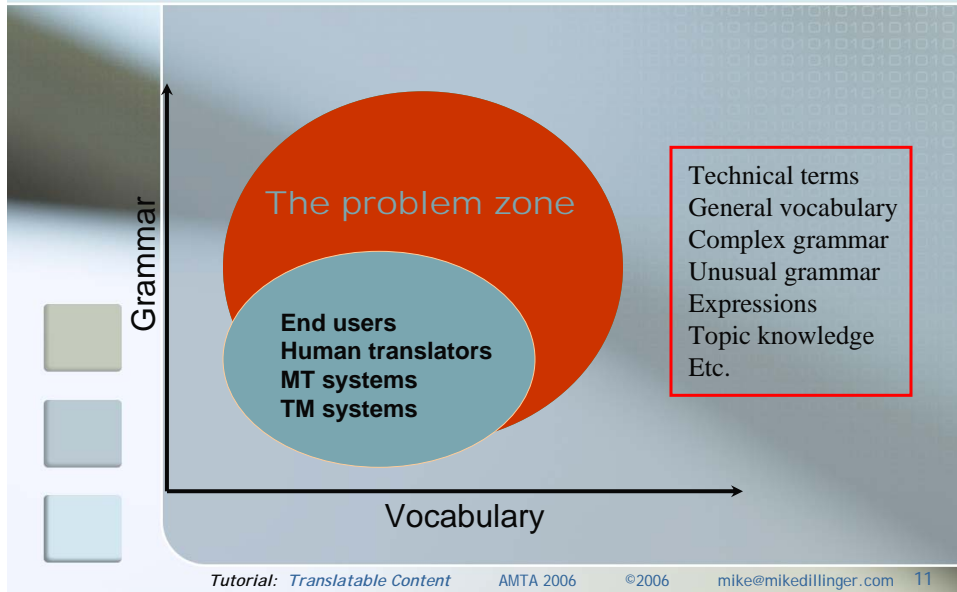 - Think of how bad it can get for interpreters!

  Heads up!
  - Even proficient speakers of English as a Second Language read English at about a 7th **grade** level
  - User Manuals are often written at an 11th **grade** level

  - "Pre-editing" is needed both for human and for machine translation

How translation works
The problem zone

The problem zone

Grammar

End users
Human translators
MT systems
TM systems

Technical terms
General vocabulary
Complex grammar
Unusual grammar
Expressions
Topic knowledge
Etc.

Vocabulary

Support staff have problems

Human translators have problems

QA staff have problems

New writers have problems

Your Customers have problems

Translation reviewers have problems

The problem zone

Grammar

End users
Human translators
MT systems
TM systems

Technical terms
General vocabulary
Complex grammar
Unusual grammar
Expressions
Topic knowledge
Etc.

Translation memory systems have problems

Machine Translation systems have problems

Spelling checkers have problems

Vocabulary

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How translation works
Produce draft translations

- b) Translators draft "the same information" in L2
  - Adjust for inexistent sentence structures
    - *"Someone was given a watch."*
    - In Mandarin: *"A watch was given to someone."*

  - Adjust for translations that have more common but irrelevant meanings
    - *"The manager has personally passed all the water served here."* (In an Acapulco hotel)
    - Teacher > *profesor* or *profesora* (Sp)
    - Eat > *essen* or *fressen* (Ger)

How translation works
Produce draft translations

- c) Translators revise (with an L2 mindset) so that the result is normal L2 text
  - Systematic use of terminology is difficult for humans
  - Conformity to style guides is difficult for humans

  Heads up!

    - When time and/or training are insufficient, this step suffers most.

    - "Post-editing" is needed both for human and for machine translation

How translation works
Produce draft translations

- Some vendors and companies are doing many of the draft translations with Machine Translation technology
  - MT is *much* faster
  - MT is *much* cheaper
  - MT is *much* more consistent

- Machine Translation is both viable and cost effective for draft translations.
  - Quality of the output depends more on writers' conformance to style guides than to limitations of the technology
  - **Microsoft** is using a writer-direct-to-multilingual-web system for support KB
  - **Océ** implemented tight integration between writers and translation technologies, cutting localization costs by 60% and translation time by months. Now they've spun the technology off into a new company.
  - **SAP**, **ATT**, etc.

How translation works
Revise draft translations

❹ Translators revise draft translations
("post-editing")
  - *Translation errors*
    - *Due to lack of linguistic knowledge*
    - *Due to lack of topic knowledge*
    - *Due to unclear input*

  - Familiar words from one language interfere with understanding similar words from the other
    - *realize ~ realizar* (Ptg) [accomplish]
    - *wish [want] ~* ??? (Jap)
    - Source-text writers simply can't keep track of these things

  - Synonyms
    - Same or different meanings?
    - *Have, are made up of, are composed of, contain*

  - Word lists
    - Guessing the intended meanings is difficult
    - *File*

How translation works
More is going on

- *More* is going on:
  - Localization (by hand) of screen shots and figures
  - Localization of software: menus, button labels, error messages, etc.
  - Adjustment of page layout

- The Localization Department then
  - Checks that returned translations are complete
  - Samples the translations for quality
  - Discovers that the source text has already changed
  - Organizes files into manuals or help directories
  - Checks functionality of help systems
  - Sends translations out for in-country testing

- The Documentation Department then
  - Assembles and distributes the documents

All too often, you get back just what you sent out:

Ladies, leave your clothes here and spend the afternoon having a good time. (In a Rome laundry)

Ladies are requested not to have children in the bar. (In a Norwegian cocktail lounge)

Specialist in women and other diseases. (In the office of a Roman doctor)

Daily plate -- shrimp in spit. (In a Brazilian restaurant)

These are *human* translations, eh?

Visitors are expected to complain at the office between the hours of 9 and 11 A.M. daily. (In a hotel in Athens)

Please do not feed the animals. If you have any suitable food, give it to the guard on duty. (at a Budapest zoo)

Cooles and Heates: If you want just condition of warm in your room, please control yourself. (from a Japanese information booklet about using a hotel air conditioner)

To stop the drip, turn cock to right. (In a Finnish washroom)

Example

Translatability
Three dimensions

- Three dimensions of Translatability
  - *Translatable Content*
    - How to make the *information* more translatable?
  - *Translatable Form*
    - How to make the *sentences* more translatable?
  - *Process*
    - How to deploy processes that facilitate translation?

Translatable Content

- Translatable Content *is understandable content*
  - Control writers' assumptions about readers' background knowledge
    - a) Background knowledge of culture
      - Avoid culture-specific language and examples
      - Avoid humor, sarcasm, irony, idioms, metaphors
      - Avoid political, religious, or local geographic references
      - Avoid acronyms – AMTA
        - Massage therapy or Machine translation?

Translatable Content

- b) Background knowledge of the product
  - Assume that the reader knows *nothing* about the product
    - By definition, translators are NOT familiar with your product

  - Use specific examples as often as practical

  - Make the text understandable even if the translator can't see the screen
    - Most often, translators don't have a copy of the product

- c) Background knowledge of technology
  - It's extremely easy for people who are familiar with technology to assume that other people are equally familiar with it.

  - Tech Support people can very easily supply dozens of examples where this assumption is false.
    - Translators are very often not very familiar with technology

    - There's a great collection of unusual assumptions at:
      - http://rinkworks.com/stupid/

Example

Customer: "Hello, is this Tech Support?"
Tech Support: "Yes, it is. How may I help you?"

Customer: "The **cup holder on my PC is broken** and I am within my warranty period. How do I go about getting that fixed?"

Tech Support: "I'm sorry, but did you say a cup holder?"
Customer: "Yes, it's attached to the front of my computer."

Tech Support: "Please excuse me if I seem a bit stumped, it's because I am. Did you receive this as part of a promotional, at a trade show? How did you get this cup holder? Does it have any trademark on it?"

Customer: "It came with my computer, I don't know anything about a promotion. **It just has '4X' on it**."

The caller had been using the load drawer of the CDROM drive as a cup holder and snapped it off the drive.

*This is how your documentation sounds to **translators** and **users**:*

Is this caused by problems with
   Spelling?
   Punctuation?
   Grammar?
   Terminology?
   Sentence length?
   Formatting?

The writing here follows most style guides.

If the balloons popped, the sound wouldn't be able to carry since everything would be too far away from the correct floor. A closed window would also prevent the sound from carrying, since most buildings tend to be well insulated. Since the whole operation depends upon a steady flow of electricity, a break in the middle of the wire would also cause problems. Of course, he could shout, but the human voice is not loud enough to carry that far. An additional problem is that a string could break. Then there could be no accompaniment to the message. It is clear that the best situation would involve less distance. Then there would be fewer potential problems. With face-to-face contact, the least number of things could go wrong.

Next steps

- Tools for Translatable Content
  - None for monitoring content explicitly yet
  - Content type checking in XML
  - BUT term and style checking help catch unplanned terms and sentence types

- Techniques
  - Training
  - Audits
  - Know your clients
    - Build *empirical* (not intuitive) reader profiles
    - FAQ hit rates from support staff and support pages
    - Sales, Marketing, Product Managers
    - Direct feedback and suggestions
    - User conferences
    - Feedback from translation vendors
  - Foster community-driven documentation

- Further reading
  - Sun Microsystems (2003). *Read me first!*, Chapter 7

Translatable Form

- *Form*
  - How to make the sentences more translatable?
    - Use translatable vocabulary and terminology
    - Use translatable sentence structure
    - Writing "for MT"?
    - Other

Translatable Form
Vocabulary and terminology

- Translatable vocabulary and terminology
  - Use a word in the same way throughout your documents
    - Same part of speech, same meaning
      - Rècord, recórd
      - Your work, to work
      - Especially in the same sentence
    - Do not use synonyms
      - Translators assume that synonyms are different words with different technical senses

  - Avoid unusual (for the reader) word usage
    - *To select a labor, select Select Record .*
    - Do not invent new words or word senses
    - Be careful with technical terms that are also common everyday words
      - *Class, pool, windows, labor*, etc.

Translatable Form
Vocabulary and terminology

- Translatable Vocabulary and terminology (2)
  - Avoid colloquial and regional expressions
    - Especially two- and three-word verbs
      - *If you get hung up on the details, …*
  - Avoid or document word ambiguity
    - Bundle glossaries with texts for translation
    - Bundle preferred translations of terms with texts for translation
  - Provide example sentences for word lists
    - *File* as in…
  - Manage your terminology
    - Technical and non-technical words, as well
    - Know which terms are most frequent
      - These are the ones that need close revision
      - Reduce the number of words used only once or twice

Next steps

- Tools for Terminology Management
  - MultiTerm
  - Wordsmith
  - Spreadsheet on the intranet, at least
  - *Integrated* term and style checking
    - acrocheck, CLAT, Boeing / HyperSTE

- Techniques
  - Training
  - Terminology committee
  - Audit: key-terms analysis

- Further reading
  - Wright, SE & Budin, G. 1997. *Handbook of Terminology Management* (2 vols). Amsterdam: John Benjamins.

Translatable Form
Sentence structure

- Translatable Sentence structure
  - "Readability plus"

  - Avoid unusual or complex sentence structures
    - Aim for 7th- or 8th-grade reading level
    - Much current documentation is at an 11th-grade level
    - As much for translators as for translation memory systems

  - Adverbs
    - Avoid directional adverbs
      - *Drag your cursor across the screen.*
        - *>Make your cursor cross the screen by dragging it.*
      - *Override, underachieve*

Translatable Form
Sentence structure

- Translatable Sentence structure
  - "Readability plus"

  - Prepositions
    - Use prepositions only for spatial and temporal meanings
    - 90% of all prepositions:
      of, in, to, for, on, with, at, by, from, as, into, about, after

    - Put prepositional phrases next to the item that they complement
      - *Remove the filler panel from the slot with the pliers*
      - *Use pliers to remove the filler panel from the slot*

Translatable Form
Sentence structure

- Translatable Sentence structure
  - "Readability plus"

  - Conjunctions
    - Take extra care with *and* and *or*
      - *Parallelism is essential*
    - *Sorry, only one conjunction per sentence*

  - Verbs
    - Do not omit "that" for verb complements
    - Do not use passive sentences
    - Do not use two- or three-word verbs
    - Do not change commonly used transitivity
      - *Based on the current item, one of the following applications* launches*: If the item is a valve, the Valves application* launches*.*

Translatable Form
Sentence structure

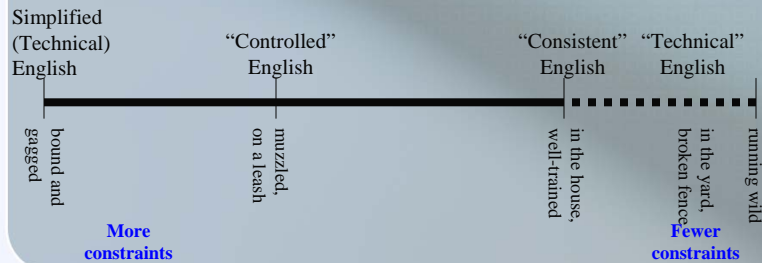- Translatable Sentence structure
  - "Readability plus"

  - Nouns
    - Do not use noun stacks with more than 2 elements
      - Each route stop may have its own job plan, which the system copies to the *child route stop work order*
    - Avoid *-ing* nouns
      - [Drinking water] is good for you.
      - Cooking rocks! (Rebecca Ray cookbook)
        - ~how to cook rocks
        - ~rocks for cooking
        - ~cooking is cool

Translatable Form
Writing "for MT"?

- Writing "for" *machine* translation?
  - The myth: MT requires special writing
  - The reality: *People* require special writing
  - *Reuther (2003)*
    - *The rules are pretty much the same for human translators and for machine translation systems [and for end users]*

Simplified (Technical) English   "Controlled" English   "Consistent" English   "Technical" English

bound and gagged   muzzled, on a leash   in the house, well-trained   in the yard, broken fence   running wild

More constraints   **Fewer constraints**

Translatable Form
Writing "for MT"?

- Seven Rules shared by at least four controlled-language specifications (O'Brien, 2003):
  - *Use only approved words from dictionary*
  - *When appropriate, use an article or demonstrative adjective before a noun*
  - *Do not make noun clusters longer than three nouns*
  - *Avoid the gerund (-ing)*
  - *Do not omit relative pronouns such as "who", "which" or "that"*
  - *Use only active voice*
  - *Make instructions as specific as possible*

Next steps

- Tools for Translatability Management
  - *Integrated* term and style checking
    - acrocheck, CLAT, Boeing / HyperSTE

- Techniques
  - Training: authors don't know about this
  - Training: improve style guides
  - Audit: Translatability analysis
  - Audit: Reuse analysis
  - Planning: identify and prioritize issues

- Further reading
  - Kohl, J. (1999). "Improving translatability and readability with syntactic cues" <u>Technical Communication</u>, vol. 46, no. 2, pp. 149-166

Translatable Form
Other topics

- Lay out the text to permit different text lengths, different paper sizes
  - To avoid DTP in the target language

- Be careful with text variables
  - In some contexts, they have to be capitalized or not

- Programmers HAVE TO put all strings in resource files, not in the code
  - Who revises *their* English?
  - Improve Development Environments for better string management

Translatable Processes

- *Processes*
  - How to make processes that facilitate translation?

  - a) Reduce the amount of text for translation
  - b) Make translation itself easier
  - c) Improve the processes that support translation

Translatable Processes
Reduce the amount of text for translation

- Reduce the amount of text for translation
  - Write less
    - Write *only* what the clients need
      - Reassess relevance
    - Content on demand?
      - Content inventory vs. JIT

  - Reuse more
    - Cross-departmental reuse
    - Topic reuse
    - Sentence reuse
    - "Single-sourcing"
    - Simplify updates

Next steps

- Tools for Content Reduction
  - Single-sourcing
    - Ex: AuthorIT, Documentum, Idiom

- Techniques
  - Use Machine Translation!
  - Planning: Develop a reuse map
  - Training: Do a content-lifecycle analysis
  - Training: Writing for reuse
  - Audit: Reuse analysis
  - Know your clients

- Further reading
  - Ament, K. (2003). *Single Sourcing: Building modular documentation*. Norwich, NY: William Andrew.
  - Rockley, A. (2002). *Managing Enterprise Content: A unified content strategy*. New York: New Riders.

Translatable Processes
Make translation itself easier

- Make translation itself easier
  - Write for translatability
    - Mine translator feedback
    - Wrest control of interface strings from engineering

  - Include multilingual glossaries
    - Part of the translation package

  - Standardize tools and file formats

  - Keep translation memories up to date
    - Maintain hit-rate data

  - Anticipate translation problems
    - Cut down on screen shots
    - Lay out for translations that are 30% longer
    - Make updates easier

Next steps

- Tools for Translatability Management
  - *Integrated* term and style checking
    - acrocheck, CLAT, Boeing / HyperSTE

- Techniques
  - Training: authors don't know
  - Training: improve style guides
  - Audit: Translatability analysis
  - Audit: Reuse analysis

- Further reading
  - Kohl, J. (1999). "Improving translatability and readability with syntactic cues" *Technical Communication*, vol. 46, no. 2, pp. 149-166

Translatable Processes
Improve the processes that support translation

- Improve the processes that support translation
  - Adopt a supply-chain mentality!
    - Communicate & Coordinate
    - Know your suppliers upstream
    - Know your clients downstream
    - Anticipate their needs systematically
      - Success means things are easier for *everyone*

  - Automate the Content Supply Chain
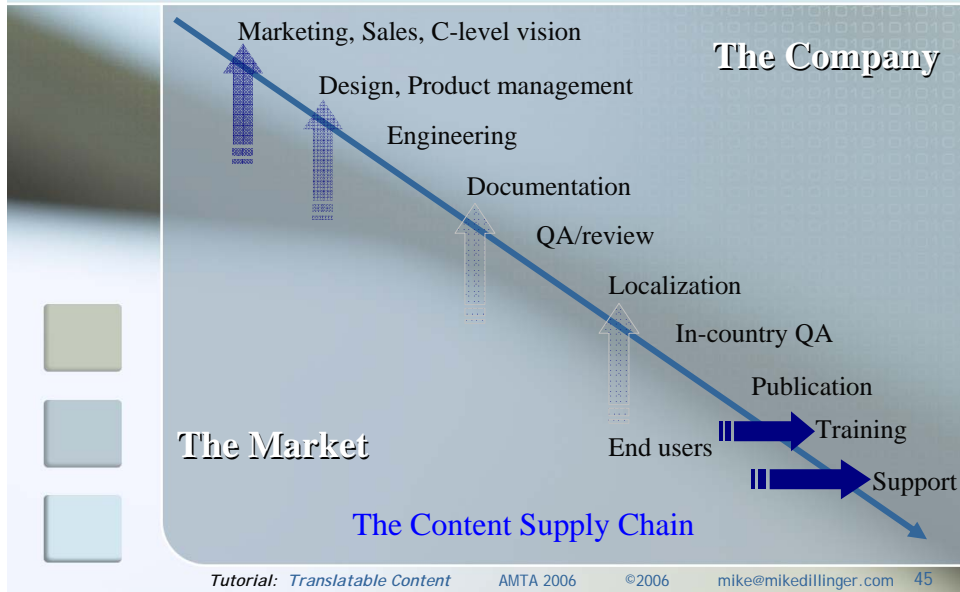   - Workflow software is essential

  - *Simplify* the Content Supply Chain
    - <insert controversial discussion here>

Translatable Processes
Improve the processes that support translation

Marketing, Sales, C-level vision

The Company

Design, Product management

Engineering

Documentation

QA/review

Localization

In-country QA

Publication

Training

The Market

End users

Support

The Content Supply Chain

Translatable Processes
Improve the processes that support translation

The Company

Engineering

QA/review

Design

Documentation

In-country QA

Localization

Product management

Marketing

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End users

Support

The Market

The Content *Forum*

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Next steps

- Tools for optimizing processes
  - Content Mgmt Systems, Globalization Mgmt Solutions, Enterprise Content Mgmt, etc.
  - Wikis, a blackboard approach

- Techniques
  - C-level involvement
  - Six Sigma, ISO 9000, etc.
  - Access engineers' development environment
  - Access support's data on FAQs

- Further reading
  - Friedman, T. (2006). *The World is Flat.* New York: Farrar, Straus & Giroux.

Summing up

- Who cares about translatability?

- How translation works

- Three dimensions of Translatability
  - *Translatable Content*
    - How to make the *information* more translatable?
  - *Translatable Form*
    - How to make the *sentences* more translatable?
  - *Process*
    - How to deploy processes that facilitate translation?

Thanks

- Thanks for your attention

- More questions?