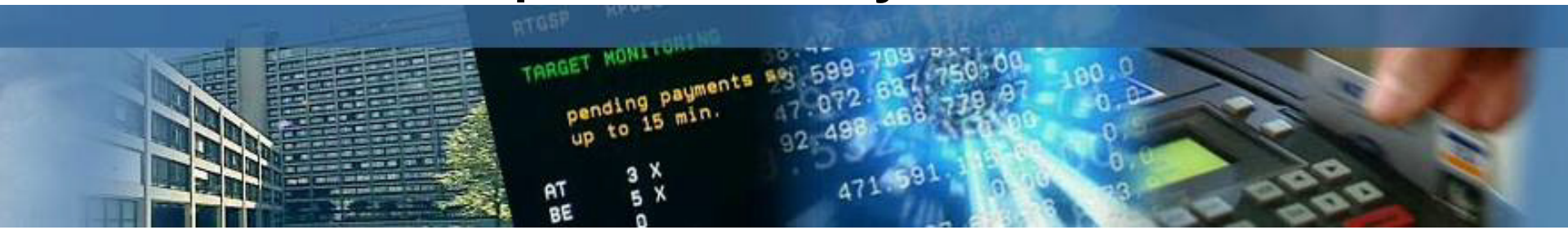
Visualizing Complex Financial Networks: A new understanding?
Discussion of a presentation by Soramäki & Soramäki



Martin Diehl

Discussion at the 9th Payment and Settlement System Simulation Seminar and Workshop
25 August 2011
Helsinki, Bank of Finland

Methods, Tools and Content

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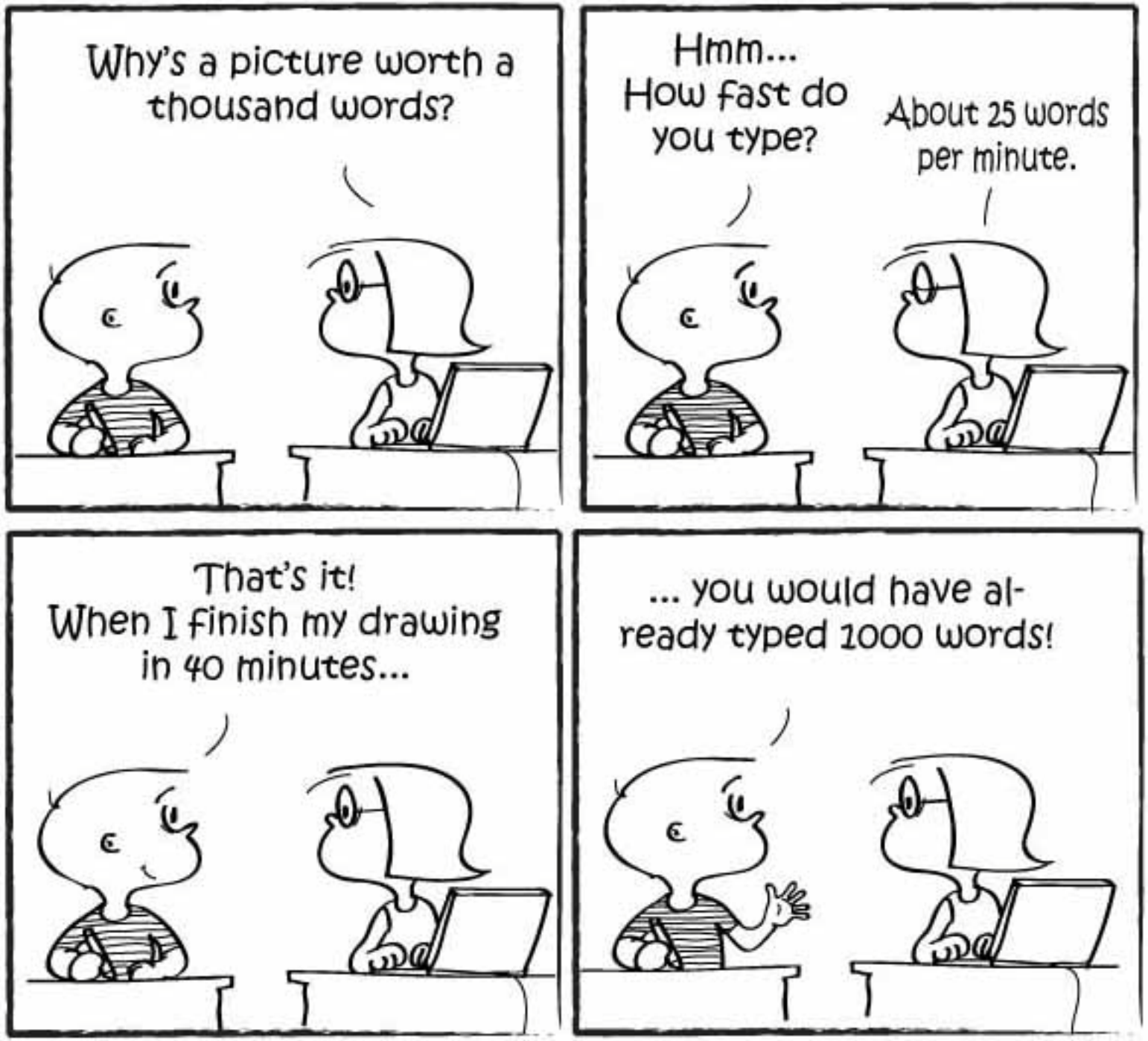
- **presentation of S&S is unusual for scientific conferences**
  - not an answer to a substantial question
  - not a proposal for analytical techniques
  - not a full scale methodolical discussion
  - kind of „commercial“ for own product
- **helpful though**
  - Simulator seminar has a significant focus on methods and techniques
  - FNA provides some helpful tools
  - worth considering the FNA as a complementary tool
- **critical**
  - introduction of FNA should have been done by someone neutral
  - broader comparison with other tools necessary
  - content (what to use for) is missing


Why's a picture worth a thousand words?
Hmm... How fast do you type?
About 25 words per minute.
That's it! When I finish my drawing in 40 minutes...
... you would have already typed 1000 words!

Visualizing – a new understanding?

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- **I appreciate the visualization tools of FNA**
- **I dislike the „new paradigm“ talk**
  - 一畫勝千言 (chinese proverb)
  - one picture is worth a thousand words (Barnard, 1921)
  - cave paintings and maps have been used before writing existed
- **writing developed out of painting**
  - not because it is inferior
- **verbal expression**
  - is more differenciated
  - contains abstract terms
  - is more precise
- **however, words are not as intuitively accessible as pictures**

  => demagogic potential of pictures is higher

problems of visualizing

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- **tell a story or show a presentation**
- **concentration on the available pictures**
  - means distraction from facts which are not depicted
- **simplification**
  - of dimensions
  - of modes
  - of transaction
- **hidden messages of pictures**
  - design theory (not only words do have connotations)
  - psychology of colors
- **illusion of objectivity**

advantages of FNA

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- combination of data exploration, manipulation, analysing and visualization
- with a focus on financial networks and payment systems
- intuitive user interface

- comparison to other tools is needed

content discussion needed

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- **which things to visualize?**
- **which network parameters are significant?**
  - network analysis is still insider-discussion
  - does „too connected to fail“ really matter?
  - Lehman‘s failure used as a universal argument – but with low power
- **descriptive statistics may have a distractive potential**
- **problems in LVPS**
  - disjunctive confidential data sets
  - limited comparability
  - complexity
- **that‘s why we simulate**
- **but keep in mind: simulation must support modelling; after successful modelling we know what to visualize**