

complex aspects of seemingly simple information needs

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- ▶ real scale real time distributional semantics

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- ▶ stylistics and genre in text and conversation

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- ▶ and as adjoint professor of language technology at KTH

gavagai

- ▶ research-based lexical learning back end
lexicon.gavagai.se

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lexicon.gavagai.se
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monitor.gavagai.se

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lexicon.gavagai.se
- ▶ media monitoring in >40 languages
monitor.gavagai.se
- ▶ highly interactive clustering and theme extraction from open answers to questionnaires etc
explorer.gavagai.se

complexity?

i will give you complexity

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1. human communicative ability is supremely adaptive to manifold of situational factors

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3. applications built on those models influence the usage they model in interesting ways (goto 1)

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2. models of content and intent of human communication are square
3. applications built on those models influence the usage they model in interesting ways (goto 1)

i will not talk (much) about these things (bc industry)

complexity in information access tasks

field study in industrial lab

- ▶ complexity because need is complex

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- ▶ complexity because formulation of need is complex

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- ▶ complexity because packaging what would fulfil need is complex
- ▶ complexity because establishing if need is fulfilled is complex
- ▶ complexity because a fulfilled need is not operational or actionable

typical seemingly simple information needs

- ▶ What are customers and potential customers saying about my brand / about us / about some concept of interest on line?

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- ▶ Are our customers happy?

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easy to pose, easy to act on answers if results are delivered as expected

complexity because need is complex

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- ▶ (or the complexity the customer worries about is often not what is complex)

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- ▶ (or the complexity the customer worries about is often not what is complex)
- ▶ our job: tell the customer another iteration over need is necessary

supermarkets and csr

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health products and nutrient labeling

supermarkets and csr

health products and nutrient labeling

vs

kitchen technology and cooking trends

supermarkets and csr

simple case: no signal → bad

health products and nutrient labeling

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complex case: plenty of signal → complex analysis

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vs

kitchen technology and cooking trends

complex case: plenty of signal → complex analysis

more complexity is good --- we encourage our customers to think about complexity in purchase path rather than follow literal mentions of their brand

complexity because formulation of need is complex

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complex dependencies in information are less a question for technology than for the human analyst at the receiving end of technology

complexity because the data to process for fulfilling need is complex

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big data: items not interesting but their occurrence pattern is

complexity because packaging what would
fulfil need is complex

we are getting better at this, but this is not really
the topic of this workshop

complexity because a fulfilled need is not operational or actionable

monitor media for mentions, but outsource customer care → indicates low attention for increased information in organisation
does anyone in the organisation act on information delivered to them?

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more information sources means more complex business, not less work

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depends crucially on previous point --- if no one on receiving end acts on delivery, no validation of effectiveness can be done

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provide that which makes user confident they have what they need

(cf. fizzy drink example)

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prioritising between activities with target notion based on quality of total product is key to successful devops process ...

... but devops loop does not usually include evaluation (in the way we think about it) ...

... although it does include systematic continuous component testing!

returning to the facets of complexity

i did not talk (enough) about all these aspects

- ▶ complexity because need is complex → we like this
- ▶ complexity because formulation of need is complex → we do not worry about this
- ▶ complexity because the data to process for fulfilling need is complex → what we do
- ▶ complexity because packaging what would fulfil need is complex → we are working on it
- ▶ complexity because establishing if need is fulfilled is complex → flying blind, hope recipient turns their attention on task eventually
- ▶ complexity because a fulfilled need is not operational or actionable → organisational and attentional issues cannot be resolved with technology