



Case Sharing and Ontology Structuring in an Online Oral Medicine Community

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Overview

- Oral medicine in Sweden: SOMNet and SOMWeb
- Studying participants' use and perceptions
- Opinions about case entry
- Towards community ontology editing and structuring, and incentives for user contributions

The Swedish Oral Medicine Network (SOMNet)

- Functions as a **community of practice** within oral medicine in Sweden since mid 90's.
- Promotes the **collection of diverse and numerous cases** for subsequent analysis and **harmonization** within the field.
- Provides means for **distance consultations** and **learning** for a broader audience.
- **Teleconference meetings** are held regularly 9 times a year, with 10–16 clinics participating each time with 1–10 clinicians each.
- SOMWeb: 101 members late September 2008.

SOMWeb

Read **news**

Browse and administer **meetings**

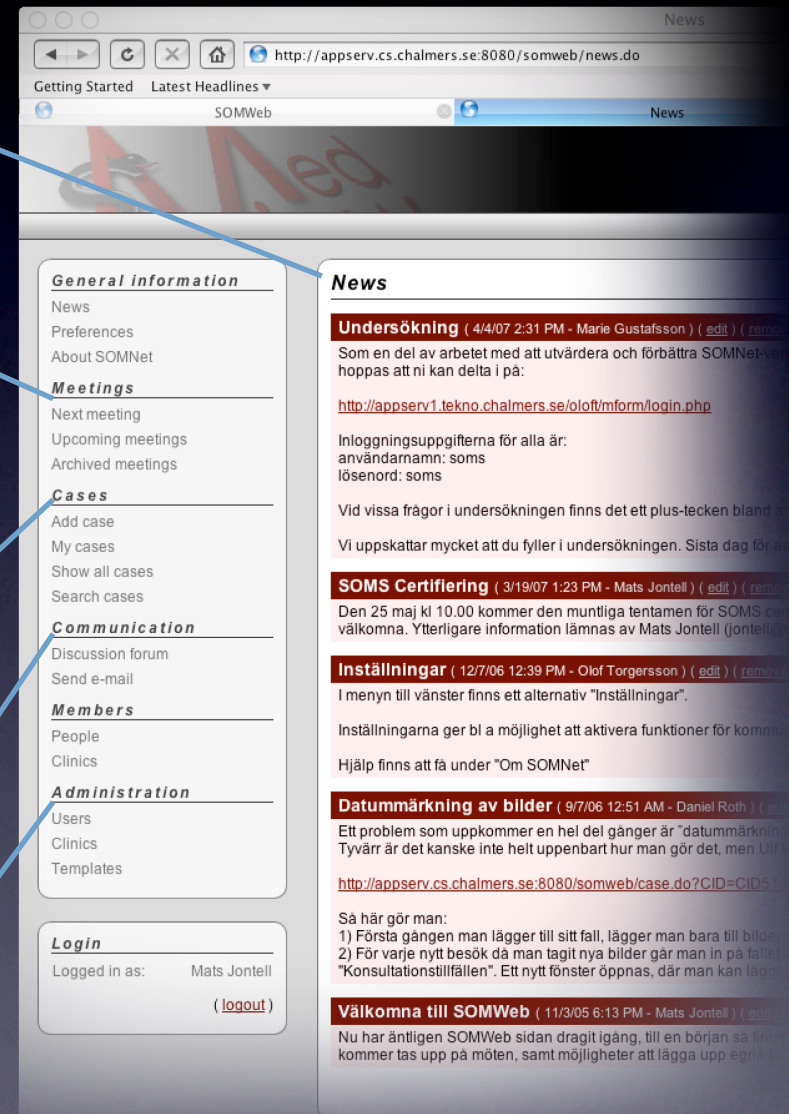
Look at presentations
of individual meetings

Browse and administer **cases**

Look at presentations
of individual cases

Using the **discussion forums**

Browsing **members and clinics**



Adding a Case

- A form generated from **an OWL description** (template) determining types of questions posed and allowed values.
- Templates for **different types of consultation occasions**, e.g., first time and follow-up.
- Templates are developed by the community.

“Has anyone
seen this
before?”

“I’ve had
several patients
with...”

“How about... ?”

Fall CID79939409 ([starta diskussion om detta fall](#))

Administrativt


Beskrivning:	Erytema multiforme ?
Klinik:	Sjukhustandvården Falun
Tandläkare:	Lars Grundström
Primärmöte:	2008-05-07
Uppföljningsmöte:	Ej satt
Inledande kommentar:	Ingen kommentar given

Personlig kommentar: ([lägg till personlig kommentar](#))

Lägg till information om detta fall: ([nytt konsultationstillfälle](#))
Lägg till stödmaterial för detta fall: ([nytt relaterat material](#)) ([ny relaterad artikel](#))


Konsultationstillfällen

Undersökning - 2008-04-29 Skapad av Lars Grundström



12-årig man.
Födelseort: Sverige.
Medicinering: Nej.
Sjukdomar: Nej.
Tidigare allvarliga sjukdomar: Nej.
Rökning: Nej.
Alkohol: Nej.
Högsta symptomintensitet under innevarande sjukdomsförloppet: 99.
Debut: 5 dagar.
Tentativ diagnos: Erytema multiforme exudativum L519.
Pat remitterad akut till oss från ÖNH för konsultation. Har för några veckor sedan haft influensa. ÖNH har har haft aftös stomatit som diagnos. Pat fick intravenös vätska och näring. Jag undersökte pat och tyckte att detta liknade erytema multiforme och kontaktade remitterande öronläkare och jag ordinerade steroider och antiviralt medel. Han blev insatt på Zovirax samt Prednisolon. Prednisolon 15 mg under 5 dgr, Mixtur Zovirax 80mg/ml 2,5 ml i 5 dgr. Efter 2 dagar kunde patienten skrivas ut. Rätt behandling ?

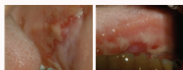
Undersökning - 2008-05-02 Skapad av Lars Grundström



Pat fick lämna öronavdelningen två dagar efter insatt medicinering. Kunde nutriera sig själv. Nya bilderna tagna 1 vecka efter insatt behandling.

Relaterat material

Relaterat material - 2008-05-07 Skapad av Mats Jontell



Erytema multiforme

Relaterad artikel - 2008-05-07 Skapad av Mats Jontell

Titel: Erythema multiforme and related disorders.
[http://www.ncbi.nlm.nih.gov/pubmed/17344075?](http://www.ncbi.nlm.nih.gov/pubmed/17344075?ordinalpos=1&tool=EntrezSystem2.PEntrez.Pubmed.ResultsPanel.Pubmed.RVDocSum)
[ordinalpos=1&tool=EntrezSystem2.PEntrez.Pubmed.ResultsPanel.Pubmed.RVDocSum](http://www.ncbi.nlm.nih.gov/pubmed/17344075?ordinalpos=1&tool=EntrezSystem2.PEntrez.Pubmed.ResultsPanel.Pubmed.RVDocSum)
Tidskrift: Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2007 May;103(5):642-54. Epub 2007 Mar 6
Författare: Al-Johani KA, Fedele S, Porter SR.

“Should we
continue with... ? ”

“Have you
tried... ?”

“Come back in
6 months and tell
us...”

Studying Participants' Use and Perceptions

- Interviews (9 members)
- Observations (10 meetings at 5 clinics)
- Questionnaire (24 responses/60 members)

Case Entry

- Questionnaire: 87 % found adding cases better in SOMWeb, 13 % were neutral.
- Interviews (6/9 had added cases):
 - 4 found case entry very easy.
 - 2 preferred narrative/disliked entry form.
 - 1 voiced concerns over misspelled entries & duplicates.

Case Submissions

- About 25 % of the members have submitted at least one case.
- Of the 105 cases in the repository, five people have submitted about 50 %.
- One person has submitted 20 cases.

Ontology Structuring

- The current value list ontology contains no subclasses of e.g., Diagnosis.
- Need more structure for improved case browsing.
- Tool needed to provide such structure, but **who will do it and when?**

mVisualizer & Aggregates

- Previous work of the research group: a data analysis tool called mVisualizer.
- User can create **aggregates of values** to be used in grouping data, e.g., diagnosis categories.
- Aggregates are taken as a **starting point** for a more fine grained ontology.
- Not all aggregates are useful and they do not cover the whole set of value list classes.

Incentives

- Possibly provide ontology structuring tool where members can “scratch their own itch” in case browsing.
- E.g., provide grouping of values (subclassing) for a set of diagnoses.
- Can then choose to make the grouping public.

Discussion

- Trade-off between **completeness** and **complexity** in case entry.
- Lessons from case entry that may be carried over to ontology structuring:
 - 25 % of users have submitted cases.
 - Differences in needs/personality/neatness.
 - Insecurity about exposing gaps in knowledge.

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