

Implementing Standards

It takes a village

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Developing Implementable Standards

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Controlled Terminology Standard (SNOMED CT)

- What does it get us? (Hopefully review)
 - Interoperability & Aggregation of data from multiple sources
 - Make data “computer readable”
 - “Meaning” is explicit
 - Can use definitions for complex queries
 - No need to “mine” free text
 - Powerful for aggregation and enhanced retrieval
 - Decision support/expert systems
 - Hopefully encourages consistent data entry



Controlled Terminology Standard (SNOMED CT)

- But...It's hard...
 - SNOMED is big, complicated, and yes as a result powerful
 - NLM spends MILLIONS maintaining terminology for the “real doctors”
 - Very few in VetMed with expertise
 - Training takes time and money
 - Few tools to make it easier



The Solution?

Team Work!

The Players:

- Terminologists
- Data Producers (veterinarians, laboratories)
- Data Consumers (veterinarians, epidemiologists, researchers...)
- Software Developers
- Professional Organizations
- Government

NOTE: My categories overlap!!!



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Terminologist's Stake

- It's important to do it RIGHT
 - Terminologies done “wrong”, don't WORK
- It's what we do! It's our chosen career



Terminologist's Contribution

- Expertise in functional terminology development
 - Have established relationships with SDOs
 - Have experience in mapping and developing content
 - Know the pitfalls and problems
 - Have understanding of the underlying structures to advise on advanced querying
 - Use relationships NOT text field data mining



Terminologist's Contribution

- Provide central location for distribution
 - Distribution should come from those who are maintaining the terminology
 - Have systems set up for
 - Content requests
 - Distribution
 - Updates
 - Web services



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Data Producers

- *The people with the data*
 - Private practice
 - Veterinary Schools
 - Laboratories
 - Maybe even zoos, Wildlife refuges/parks, aquariums, etc



Data Producer's Stake

- Need to be able to document cases
 - Efficiently
 - Accurately
- Need to understand the medical information they're recording
- Want evidence-based medicine



Data Producer's Contribution

- THE DATA!!
- Have the medical expertise
 - They are the subject matter experts
 - Important in refining and judging the terminology



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Data Consumers

- Private practice
- Epidemiologists
- Researchers
- Government agencies
- Professional Organizations
- Insurance companies
- Maybe in the future...data “sales” as in Human medicine



Data Consumer's Stake

- Need to be able to retrieve, aggregate and analyze data
- Need to use data from multiple sources (interoperability of data)
- Disease surveillance & Biosecurity needs
- Working towards evidence-based medicine



Data Consumer's Contribution

- Contribute knowledge
 - May be subject matter experts
 - Help refine and judge the terminology based on retrieval/aggregation needs
- Help identify USES of data
 - Will help identify areas of need in terminology



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Software Developers

- Commercial vendors
 - Practice Software
 - LIMS
- Private developers
 - “home grown” software for their own practices or group of practices



Software Dev's Stake

- Want to facilitate patient care and advance veterinary medicine
- Need to keep their users happy
- Need to make a profit



Software Dev's Contribution

- Technical expertise for interface dev., database dev, etc...
- Hold the key to producing systems that:
 - Facilitate efficient info recording
 - Facilitate new content creation (post-coordination) &/or requests “on the fly”
 - Keep up with ongoing terminology expansion/maintenance



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Professional Organizations

- AVMA – American Veterinary Medical Assoc.
- AAHA – American Animal Hospital Assoc.
- AAEP – American Assoc. of Equine Practitioners
- AAVLD – Amer. Assoc. of Vet. Lab. Diagnosticians
- Specialty Colleges (E.g. ACVIM, ACVS...)
- Animal Health Institute (Vet. Pharmaceutical trade group)



Professional Org's Stake

- Need to support their members
 - Have the same stakes as their members
- Evidence-based medicine is a high priority to most



Professional Org's Contribution

- Exist to
 - Enhance the profession
 - Advance knowledge
 - Foster communication
- Have facilities to organize
- Have political connections to leverage
- Can procure funding
- In a position to “rally the troops”
 - Encourage, publicize



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Government Agencies

- USDA – Veterinary Services
- USDA – Wildlife Services
- FDA
- CDC
- Homeland Security
- Department of Defense
- USGS
- NOAA



Governmental Stake

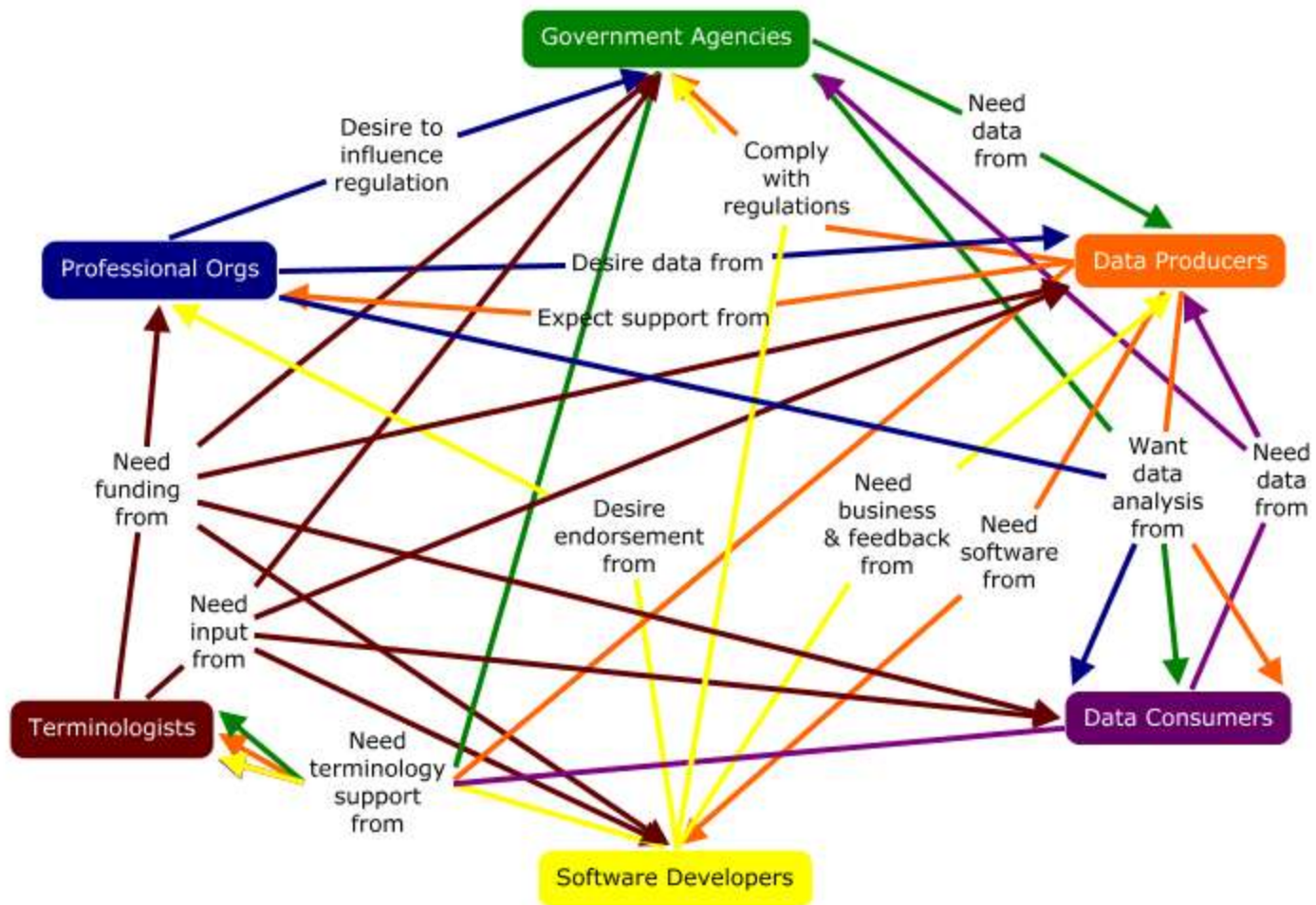
- Need to aggregate data from many sources
 - Reporting programs/networks
 - Structured Product Label (SPL)
 - drug companies required to submit marketing info, premise registration and more
- Need quick, efficient data communication
 - Biosecurity
 - Epidemic/pandemic response



Governmental Contributions

- Create guidelines (mandates?)
 - Surveillance and Data Standards for USDA APHIS Veterinary Services (CEAH July 2006)
 - Structured Product Label for FDA
- FUNDING!!!!
 - NLM is funding in the 7 digits to foster standard terminology in HUMAN medicine





Summary

“We’re all in this together...”

