SNOMED International Updates

Engagement

Content

Technical

Engagement Updates
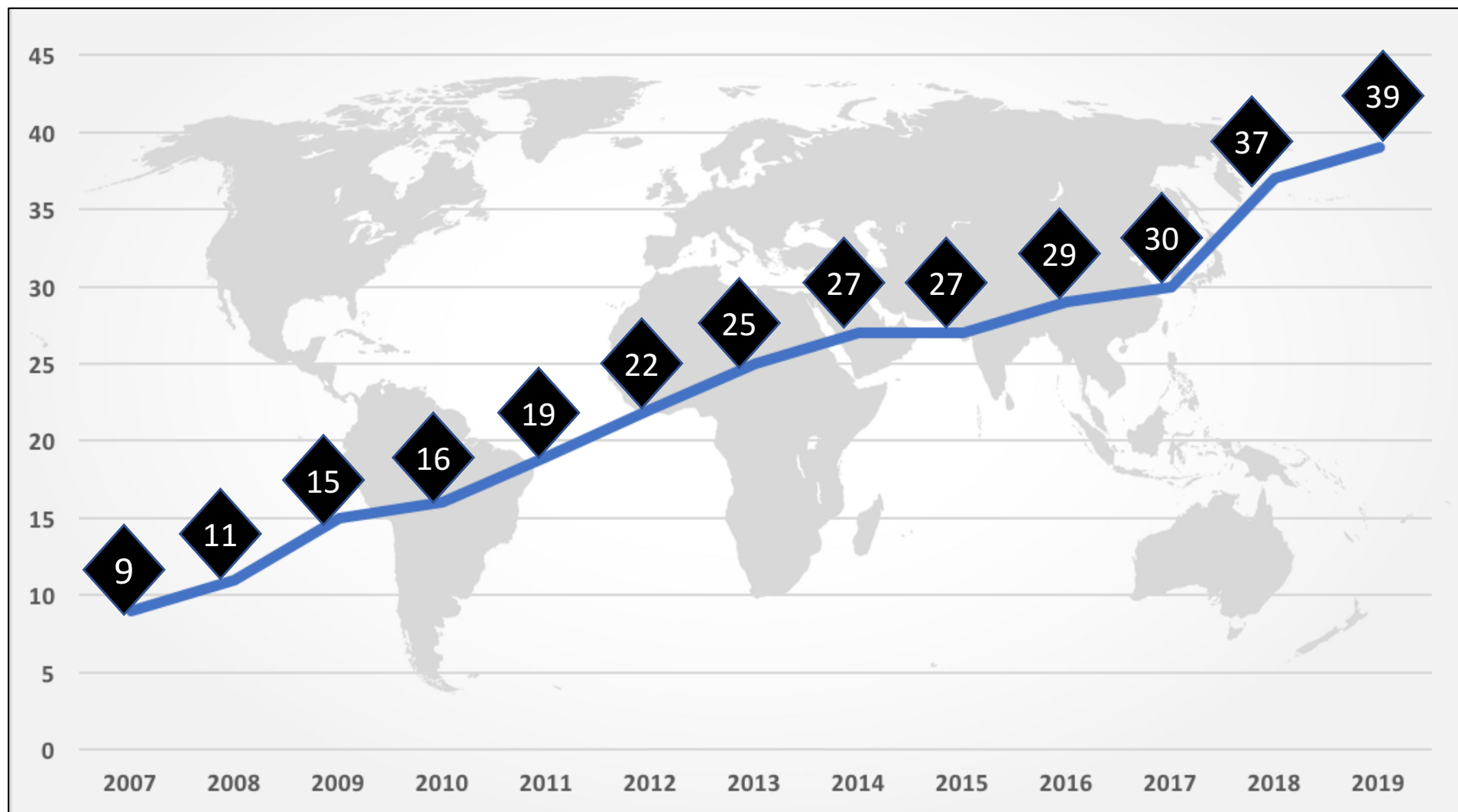
**Shelley Lipon**
GLOBAL REPORT

Member Growth: 2007-2019

2018 Overview of Key Achievements

- SI grew to a 37 member organisations and seven new countries joined in 2018 - Argentina, Austria, Brazil, Cyprus, Finland, Jordan and Luxembourg

- Successful stakeholder engagements at HIMSS 2018, HIC 2018, HIMSS AsiaPac 2018, AeHIN 2018, eHealth Week Europe and others

- EXPO 2018 successfully delivered in Vancouver, Canada

- Meetings held with senior leadership & MOHs in China, Germany etc.

- Significant on boarding activities with various new members

- CMT agreement executed
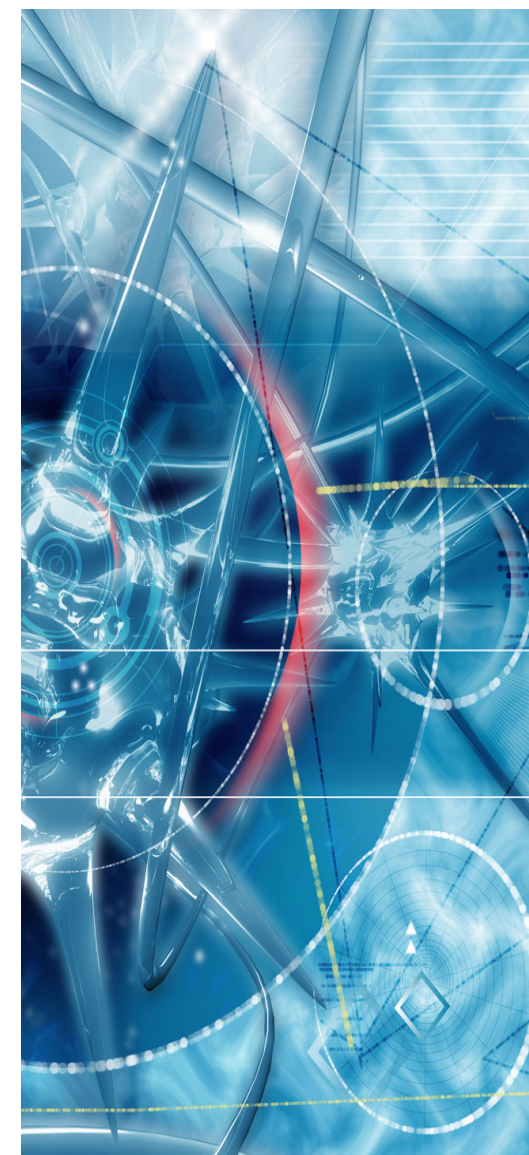
2019 Q1 Achievements

- New member countries – Kazakhstan and Saudi Arabia

- Launched the User Support Reference Group to promote and support SNOMED CT implementation globally.

- Meetings held with AMA to further discuss collaboration.

- HIMSS 2019 attended and meetings conducted.

- Completed the analysis of two annual customer surveys results – the 2018 Member survey and Stakeholder survey.

- Key relationship developed with Amazon and other AI vendors

- Identified three advanced SCT users for potential collaborations.

- Setting up a partnership for delivery of SNOMED CT education services in Spanish with a key partner

- EXPO 2019 planning work progressing well and gaining momentum.
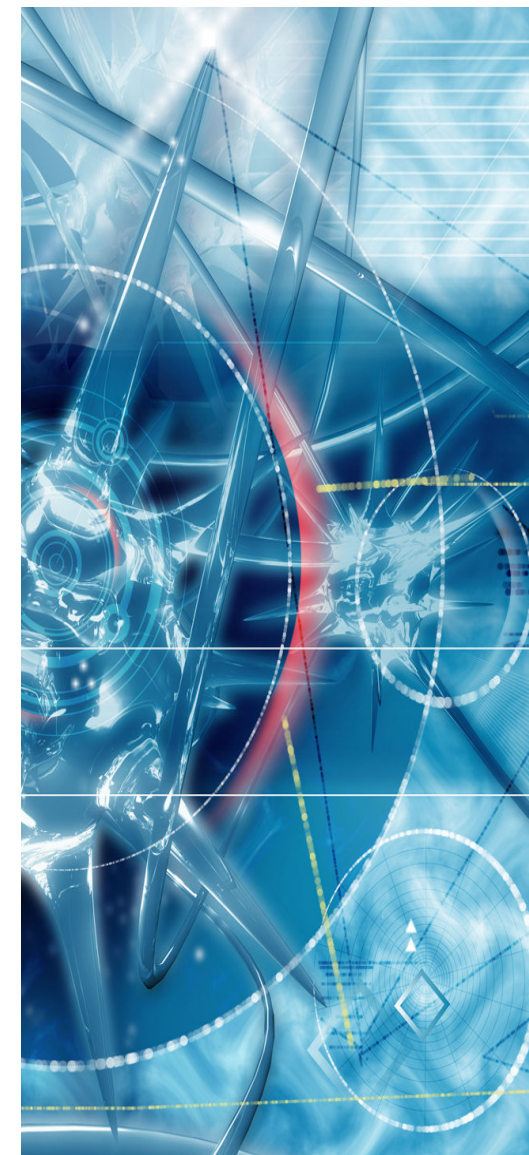
2019 Q1 Key Regional Activities

Americas

- Membership discussions with Costa Rica ongoing.

- Onboarding planning of Brazil and Argentina ongoing

- Extension of Phillips Global license

Asia and Pacific

- Kazakhstan joins as a Member in January 2019.

- Onboarding of Kazakhstan completed in February 2019.

Europe and Middle East

- Saudi Arabia joins as a Member in March 2019.

- Onboarding of Austria and Finland ongoing.
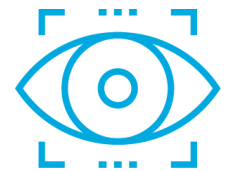
Vendor Engagement

- HIMSS Orlando 2019 – engagement with vendors

    - Numerous vendor meetings were held including Amazon, Nuance, Elsevier, Philips, IBM, HLI, Siemens, Langate, GE, FDB etc.

    - Discussions with Artificial Intelligence vendors – have lead to significant partnership opportunities

    - Discussion with UAE delegates.

- Engagement with Amazon established and discussions underway.

- Discussions continuing with Semantic MD (AI benefits analysis)

- Discussions with Nuance (AI) in progress.
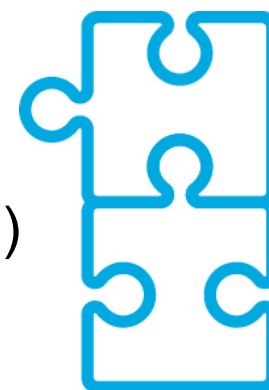
Looking ahead

- Complete the regional vendor maturity assessment.
- Finalize Google collaboration scope.
- Finalize Semantic MD benefits evaluation project.
- Deliver workshop for Amazon
- Continue discussions with Nuance.
- Engage with stakeholders and develop processes around Global Patient set.
- Recruit vendors for exhibit floor at EXPO in Malaysia.
- Continue business development work and membership discussions with Costa Rica, Germany, Qatar, Philippines and China.
- On boarding with Saudi Arabia planning

Jane Millar

COLLABORATION

Collaboration/Partnership overview

- Summary of key activities since October 2018, including:
  - Collaboration activities
  - License agreements
    - Development licenses
    - Free sets
    - License arrangements for specific activities
  - Other specific arrangements

- Overview of some pipeline areas of business over next 6 months

Approach for Collaborations/Partnerships

Key focus of partnership arrangements, based on requirements of SNOMED International and its stakeholder groups:

- **Collaboration Agreements** with agreed activity and deliverables to meet requirements of product and service strategies, as part of SNOMED International work plan
- **SNOMED CT Licensing Agreements – free sets:** for specific sets of SNOMED CT for use against specific Use Cases – defining maintenance and updating processes - built in to SNOMED International work plan
- **SNOMED CT Licensing Agreements – projects:** for particular projects, defining conditions, timelines and contribution to continuous updating and improvement of SNOMED CT
- **Licensing Statements:** with international bodies to protect SNOMED International IP and licensing for unspecified usage of SNOMED CT in products and also to use other organisations products in SNOMED CT e.g. CDISC
- **SNOMED CT Development licenses** – to enable the development of defined products using an agreed set of SNOMED CT for specific Use cases e.g. HL7 Affiliates in non-SNOMED international member countries

Standards Organisations

Organisation	Focus of activity
WHO	- Input to development of a WHO mapping white paper – terminologies to WHO classifications
HL7 International	- Licence agreement announced for SNOMED CT free set for HL7 International Patient Summary - Work on a free set to support FHIR core terminology
DICOM	- Free set for use in DICOM standards maintained and updated in line with releases and to meet requirements of DICOM
GMDN	- Authoring work continues based on monthly feeds from GMDNA - Updated editorial guidance - 6 monthly release of SNOMED CT to GMDN map continues
ISO	- Continued review of ballots and responses where appropriate - Content Author involvement in WG6 Pharmacy to ensure alignment with SNOMED International work

Standards Organisations

Organisation	Focus of activity
IHE	- Set agreed and Licence agreement announced for SNOMED CT free set supporting 36 IHE clinical profiles
MedDRA MSSO/ICH	-EU project (WEB RADR 2) includes SNOMED CT to MedDRA and MedDRA to SNOMED CT maps (priority set) - Discussions started on agreement to cover long term maintenance and updating, IP etc
openEHR	- License statement in place in openEHR Archetypes - Started discussions about other ways of working with SNOMED International
JIC	- Ongoing membership and participation

Clinical professional bodies

Organisation	Focus of activity
ICN	- Agreement to start discussing better integration between SNOMED CT and ICNP - Professional input to increase through Nursing CRG
Wonca	- Agreement to deprecate map to ICPC-2 - Ongoing discussions about how SNOMED CT and ICPC-3 may link together
ADA	- Maintenance and updating of General Dentistry refset - Alignment with SNODENT where appropriate
ERA-EDTA	- Maintenance of Free set for Causes of Death, in line with SNOMED CT releases
INSERM (Orphanet)	- Completion of priority set of Orphanet content in SNOMED CT for July 2019 - Work started on map between SNOMED CT and Orphanet of priority set

Clinical professional bodies

Organisation	Focus of activity
ISNPCHD	- International Society for Nomenclature of Paediatric an Congenital Heart Disease - Discussions about updating SNOMED CT in line with IPCCC (International Paediatric and Congenital Cardiac Codes) via a CRG pulling in global experts
AND	- Academy of Nutrition and Dietetics - Incorporation of NCPT terminology in to SNOMED CT and updating of existing content (SNOMED International Project Group)

Pipeline

Organisation	Focus of activity
HPO	- Ongoing discussions to agree linkage between SNOMED CT and HPO content
NANDA-I	- The International Nursing Knowledge Association - Discussions for including NANDA content in SNOMED CT – Nursing Diagnoses
OHDSI	- Managing the Licensing of use of SNOMED CT in OHSDI data base globally - Content team exploring how to include OHSDI findings in QI work on SNOMED CT

Other partnerships for information

European project work

- WEB RADR 2 – Sept 18 to March 20. Mapping SNOMED CT and MedDRA – priority set

- UNICOM - proposal against H2020, "Scaling up the univocal Identification of Medicinal Products". Defining SNOMED International involvement. Submission April 24, 2019

- European Project - SC1-DTH-11. PreDiab – care for those with Diabetes. Request to participate in proposal against H2020, submission April 24, 2019

AMA partnership

- Discussions have been ongoing for collaboration in a number of areas including access to clinical expertise and content development areas such as social determinants of health

Linda Bird
EDUCATION

SNOMED CT education http://snomed.org

SNOMED International   SNOMED CT   Our stakeholders

SNOMED CT: a five-step briefing	SNOMED CT worldwide
Why SNOMED CT?	SNOMED in Action
Get SNOMED CT	Education
Software and tools	

Education

EDUCATION

Information about SNOMED CT E-Learning services ❯

SNOMED CT education
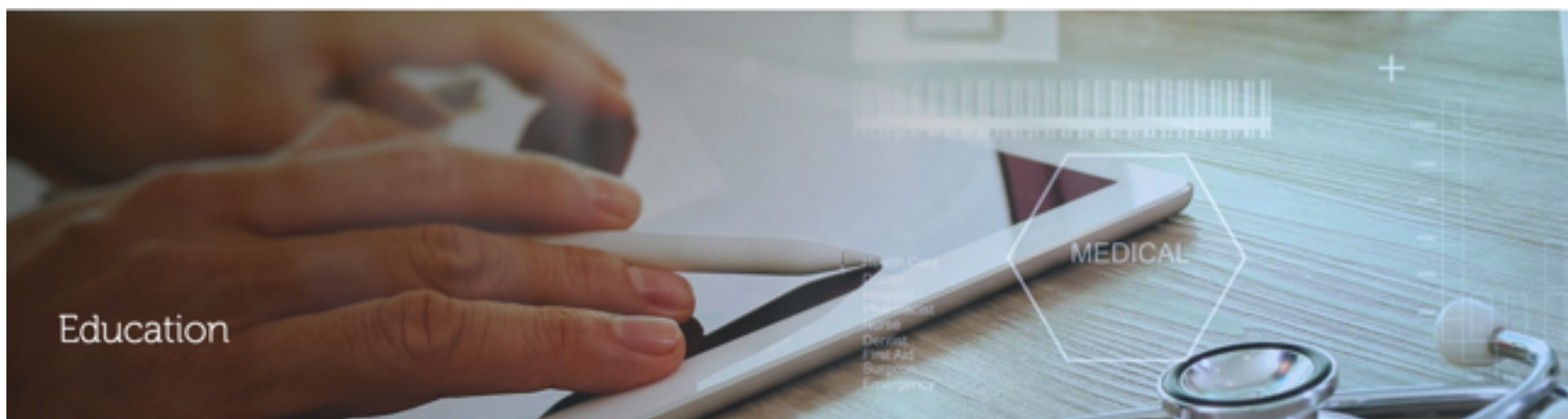
Education

- SNOMED CT courses and certification
- SNOMED CT eLearning services
- SNOMED CT starter tutorials
- SNOMED CT presentation library
- SNOMED CT document library

SNOMED CT course catalogue

The SNOMED CT course catalogue offers education courses and certification exams for beginners through to advanced users of SNOMED CT.

https://courses.ihtsdotools.org
or http://snomed.org/courses

SNOMED CT course catalogue

SNOMED CT Foundation Course	Curso de Fundamentos de SNOMED CT
SNOMED CT Implementation Course	SNOMED CT Authoring Level 1 Course
SNOMED CT for Developers	SNOMED CT for Data Analysts

SNOMED CT foundation course

Provides an introduction to a broad range of SNOMED CT topics, including the why, what and how

- 3 online modules to complete within 4 months
- Presentations and quizzes
- Starts immediately upon enrollment
- Fees
  - Members: FREE
  - Non-Members: 400 or 200 USD

SNOMED CT foundation course

Provides an introduction to a broad range of SNOMED CT topics, including the why, what and how

Course available in both English and Spanish
Over 2,000 students have successfully completed!

SNOMED CT implementation course

Provides an in depth understanding of the stages in implementing a SNOMED CT enabled system

- 6 online modules over 7 months
- Presentations, webinars, assignments, quizzes
- Starts **July** and **January**
- Fees
  - Members: 500, 250 or 50 USD
  - Non-Members: 1000, 500, 100 USD

SNOMED CT implementation course

Provides an in depth understanding of the stages in implementing a SNOMED CT enabled system

Enrolments in July 2019 course **now open!**
(Relaunched with updated course materials)

SNOMED CT authoring level 1 course

Teaches knowledge and skills to perform basic authoring tasks and prepares for certification exam

- 5 online modules over 5 months
- Presentations, webinars, practice exercises, assignments, quizzes
- Starts **March** and **September**
- Fees
  - Members: 500, 250 or 50 USD
  - Non-Members: 1000, 500, 100 USD

SNOMED CT authoring level 1 course

Teaches knowledge and skills to perform basic authoring tasks and prepares for certification exam

13 students completed pilot
34 students enrolled in March
September enrollments
now open!

SNOMED CT authoring level 1 course

Teaches knowledge and skills to perform basic authoring tasks and prepares for certification exam

Example pilot feedback

"It was indeed a great learning experience"
"It was practical and I learnt a lot about SNOMED CT"
"I really enjoyed the opportunity to practice authoring
on the authoring platform"
"My congratulations to you and your colleagues
in developing such a good course!"

SNOMED CT authoring L1 certification

Recognises your competence in performing basic SNOMED CT authoring tasks

- Must pass a proctored online certification exam
- Exam tests a range of knowledge and skills
- Fees
  - Members: 200 USD
  - Non-Members: 400 USD
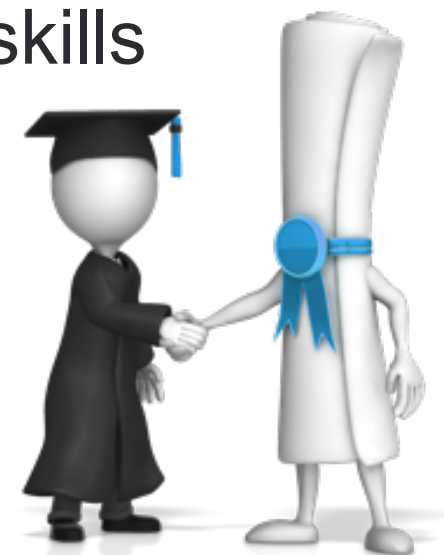
SNOMED CT authoring L1 certification

Recognises your competence in performing basic SNOMED CT authoring tasks

Currently being waitlisted
Exam available mid 2019
http://snomed.org/certification

SNOMED CT learning pathways

SNOMED CT for developers

Designed to teach how to leverage the capabilities of SNOMED CT in software applications

SNOMED CT for data analysts

Designed to teach how SNOMED CT can support clinical data analytics requirements

Enhanced member benefits

Each Member is entitled to

- Free Foundation Course for all students
- Membership discount for all education courses
- NRC access to 1 FREE enrolment in each course per year
- NRC access to 1 FREE enrolment in each certification per year

Claiming member benefits

Member discounts are offered automatically on login

To claim FREE NRC enrolment in education courses

- MF representative emails **elearning@snomed.org**
- Requests 'member free' voucher
- Includes name and email of student
- Includes planned course and intake
- Voucher will be provided for use in course catalogue

Ian Green
CLINICAL ENGAGEMENT

Clinical Engagement

Clinical Reference Groups (CRG's) and Project Groups

- Continue to grow slowly in members

- New groups – Diabetes Project group

Subsumption testing demonstrator

- Three new scenarios developed

- Refinement of presenters script

- Training of additional clinical engagement staff to deliver subsumption education

OHDSI

- Working with Christian Reich's and ODHSI team to specify SNOMED CT content improvements

- Clarifying and implementing licensing model for ODHSI use of SNOMED CT

- Ongoing discussions regarding the possibility of using ODHSI to author suggested changes into SNOMED CT

Clinical Engagement

Education

- Delivery of YouTube video of SNOMED CT Subsumption demonstrator

- Extremely positive feedback from clinicians and clinical groups, and SNOMED International partners

Clinical Engagement Team Outreach

- Identification of high value SNOMED CT implementations to be targeted for analytics/subsumption training an support

Clinical contacts database

- Continued development of clinical contacts database to support authoring team on content development activities, also to act as a resource for setting up new CRG's

Genomics

Genomic Pilots

- Two pilots now up and running with the Australian Genomics Health Alliance and the Queensland Genomic Health Alliance

- Delivery of report from the first pilot (retrospective analysis) – July 2019 (Genetic Kidney Disease)

- Delivery of report from second pilot (live data collection) – early 2020 (Cardiac disease)

GA4GH

- Continued input into clinical and phenotypic work stream

- Ongoing discussions regarding phenotypic mapping between SNOMED and other Genomic terminologies

XSDO group

- Agreement with other SDO's regarding setting up a formal ISO sub-committee of TC215 to focus on delivery of Genomic standards.

- Group to be formally recognized at the April ISO meeting in Sweden

Genomics

Catalogue Of Somatic Mutations In Cancer (COSMIC)

- Discussions with the COSMIC team to use SNOMED CT within their internal database for the management of their catalogue, and also exploring arrangements for using SNOMED CT as the foundation to publish the catalogue globally

- Discussions with the COSMIC team regarding supplying content requirements for the representation of cancer within SNOMED CT

HiMSS 2019

- Delivery of joint presentation from SNOMED International, HL7 and GA4GH

- Positive feedback and a number of contacts for future joint working

Human Phenotype Ontology (HPO)

- Lack of progress and responsiveness form HPO currently

- Alternatives are being investigated

Content Updates

Jim Case

QUALITY CONTENT

Background

The SNOMED CT quality improvement (QI) initiative was launched in 2017 to improve internal structural consistency of SNOMED CT content through:

- *Improved* adherence to the Machine Readable Concept Model (MRCM)
- *Improved* adherence to editorial policy
- *Application* of a consistent modeling philosophy to current and new content
- *Reduction* of the number of intermediate primitives/Maximized number of sufficiently defined concepts
- *Application* of defined templates to content to reduce the introduction of new modeling errors
- *Leveraging* the use of automated processes to batch refine content
- *Updating* the editorial guide to reflect the more streamlined authoring principles

Quality improvement justification and rationale

Over the past two decades, the approach to adding new content has been inconsistent:

- Multiple modeling patterns used for similar content
- Incomplete modeling of content resulting in intermediate primitives
- Changes to content to fix identified errors were not applied to existing related content
- Lack of tooling to apply batch changes
- Editorial guidance sometimes missing or incomplete

Quality improvement process

A systematic approach to improve the structural consistency of SNOMED CT was developed:

- The Clinical findings hierarchy was chosen as the initial focus
- This hierarchy was subdivided into multiple sub-hierarchies for manageability
- A four stage process is applied to each sub-hierarchy
  - Stage 1 - Identify and where possible, sufficiently define all intermediate primitives
  - Stage 2 - Based on identified patterns, create one or more standard modeling templates
  - Stage 3 - Identify and revise content within the hierarchy that does not conform to the template
  - Stage 4 - Normalize the content by transforming to the "Zero-based proximal primitive parent" pattern

Quality improvement process

Workflow for addressing intermediate primitives

Identified primitive concepts

Is it possible to define a concept by the attributes used for this hierarchy?

Yes → Mark as 1 in the report and make changes in the SCA to define the concept

No ↓

Would a new target value or updating to an existing concept enable us to define a primitive concept? (spend less than 20 minutes)

Yes → Mark as 1 in the report and make changes in the SCA to define the concept

No ↓

Has the issue been covered by any existing JIRA tickets?

No → Create a new JIRA ticket and mark as 0 in the report

No → Mark as 0 and note as an exception in the report

Yes ↓

Record the concept and the JIRA ticket in the follow-up Google sheet

Quality improvement process

Definition of standard template

Fracture of [bone structure] (disorder) - In PROD

Created by Yongsheng Gao, last modified on 2018-Nov-22

Descriptions:

| Term	description type	Language/acceptability	Langauge/acceptability	Case significance
[Periods of life] [Fracture morphology] of [bone structure] (disorder)	FSN	us:P	gb:P	ci
[Periods of life] [Fracture morphology] of [bone structure]	SYN	us:P	gb:P	ci

Concept model:

Attribute Cardinality	Attribute	Value	role group number	Attribute Group Cardianality
1..1	116680003 |Is a (attribute)|	64572001 |Disease (disorder)|	0	N/A
1..1	116676008 |Associated morphology (attribute)|	[Fracture morphology] << 72704001 |Fracture (morphologic abnormality)|	1	
1..1	363698007 |Finding site (attribute)|	[bone structure] << 272673000 |Bone structure (body structure)|	1	
0..1	246454002 |Occurrence (attribute)|	[Periods of life] << 282032007 |Periods of life (qualifier value)|	1	1..*

Quality improvement process

**Revise concepts to align to template**
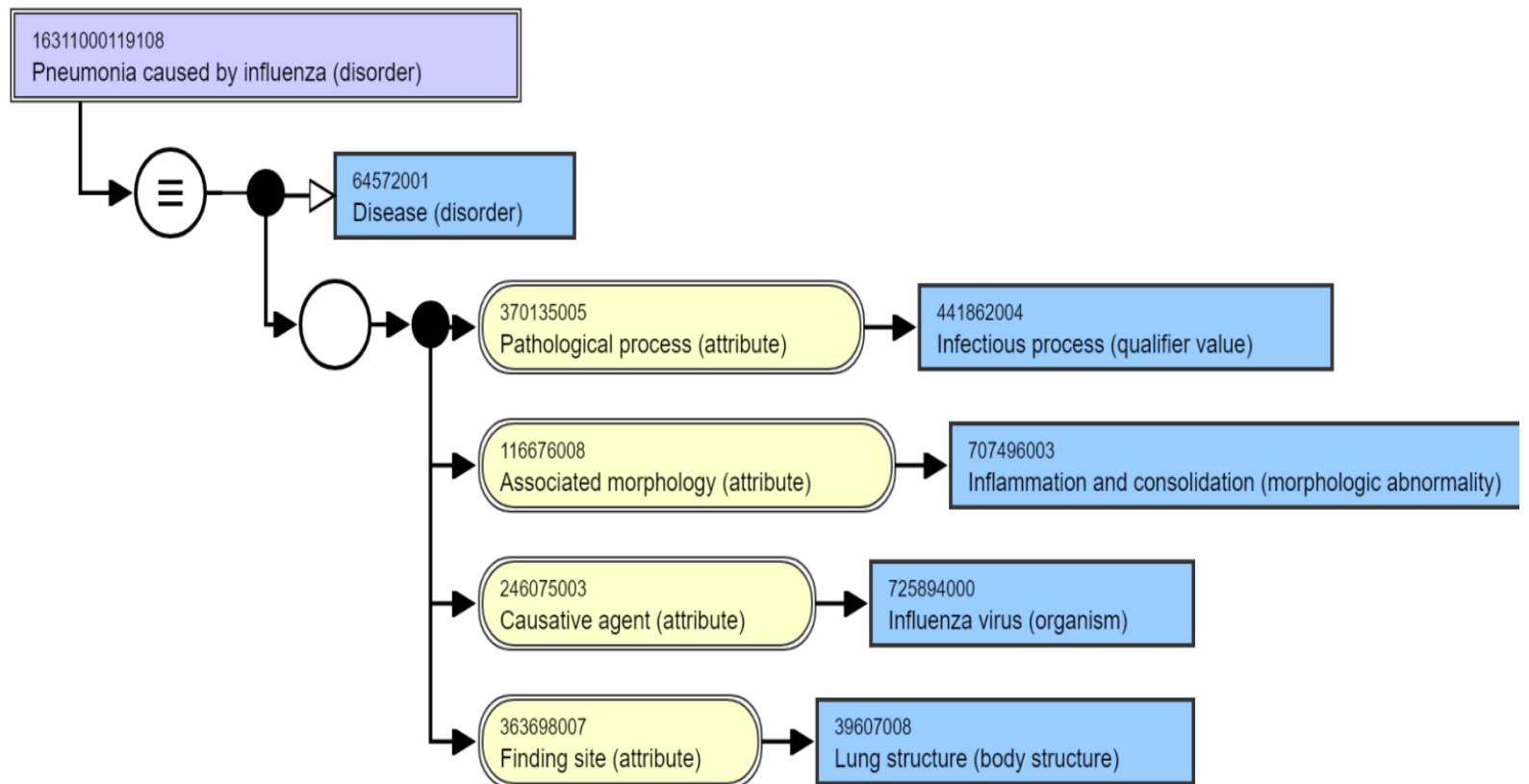
QI project scope

SNOMED CT content in scope for overall quality review
(Jan 2019 release)

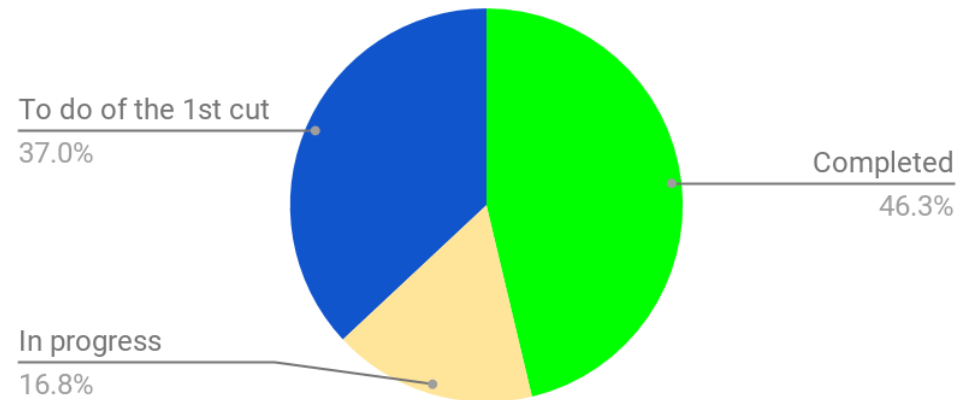| Content Scope	Count
Total number of active concepts	349,513
Out of scope (No model or non-clinical concepts, metadata, etc)	150,738
In Scope ("should" conform to a template)	198,775
Percent in scope	56.9%

Quality improvement process scope - phase 1

Initial focus on Clinical findings

67448 SIMPLE Clinical findings in scope

- Completed 22.8%
- In progress 8.3%
- To do of the 1st cut 18.2%
- Remaining Clinical 50.8%
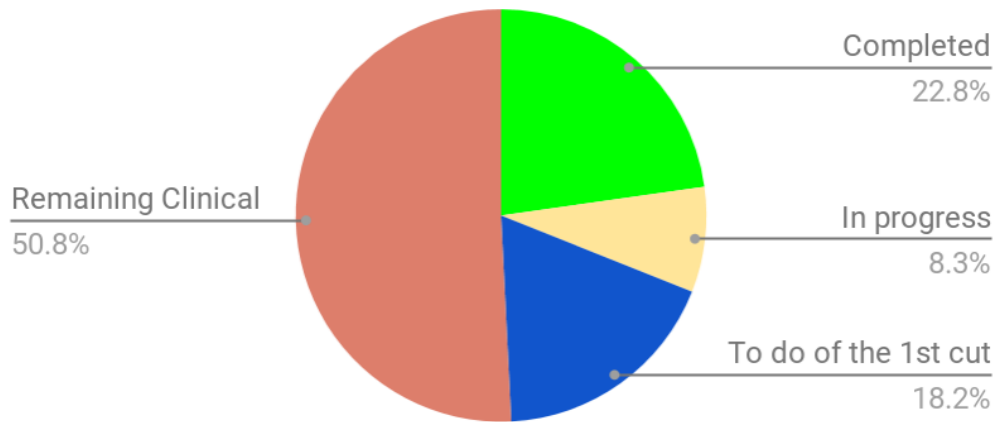
33127 Clinical findings in sub-hierarchies

- To do of the 1st cut 37.0%
- Completed 46.3%
- In progress 16.8%

QI project progress

Structural improvements are quantified by a number of measurable indicators:

Indicator	July 2017 Release	Jan 2019 release	April 2019 status
Number of role group crossovers	3457	3119 (-9.8%)	2580 (-17.3)
Role group inconsistencies	2401	1363 (-43.2%)	856 (-31.2%)
Number of intermediate primitives	5444	5810* (6.7%)	5775 (-0.6%)
Percent sufficiently defined	24.3%	30.4%	31.6%

*Increase due to the creation of sufficiently defined subtypes

QI templates and template conformance

Templates are in various stages of development and implementation

Template status	Number
Under development	30
Ready for implementation	35
In production	22

Template conformance (production templates only)

Template status	Number
Eligible concepts	198,775
Conforming concepts	19,705
Percent conformance	9.91%

Editorial Advisory Group Agenda

Topics under discussion at the EAG meeting

- Sources of truth for clinical content
- Historical relationships improvements
- Updates from project groups
  - Event, condition, episode
  - Drug project
  - Devices project
- Options for resolution of the finding/disease conundrum
- Identification of the Clinical Core of SNOMED CT
  - Scope
  - Use cases

Monica Harry
CONTENT & MAPPING

Content and Mapping Team

- Jim Case

- Monica Harry

- Penni Hernandez

- Toni Morrison

- Suzanne Santamaria

- Farzaneh Ashrafi

- Maria Braithwaite

- Paul Amos

- Yongsheng Gao

- Nicki Ingram

- Krista Lilly

- Donna Morgan

- Cathy Richardson

A day in the life…

Terminologist – not as my colleague's granny thought:

" **a person who terminates things!"**

- We get the "foot out of the pelvis!"

We try to answer the big questions:

Such as…

If you have a chest wheeze, is it bronchitis or is it asthma…?

Is a "vaper", a person who smokes ecigarettes or a rare venomous snake?

Seriously…

- Content Requests July 2019 release:

  - 1001 submitted

  - 601 Ready for Release

  - Any marked urgent are prioritised for assignment to an author

Ongoing Content projects …

Not already mentioned elsewhere

KP donation of CMT content

Anatomy - Review of 12K + revised anatomy concepts

Orphanet

Substances

GMDN monthly content additions

Publication assorted Free sets and derivatives e.g. Nursing, GP/FP.

Ongoing Mapping projects …

Maintenance mode:

ICD-O;

ICD-10;

ICD-11;

ICPC-2;
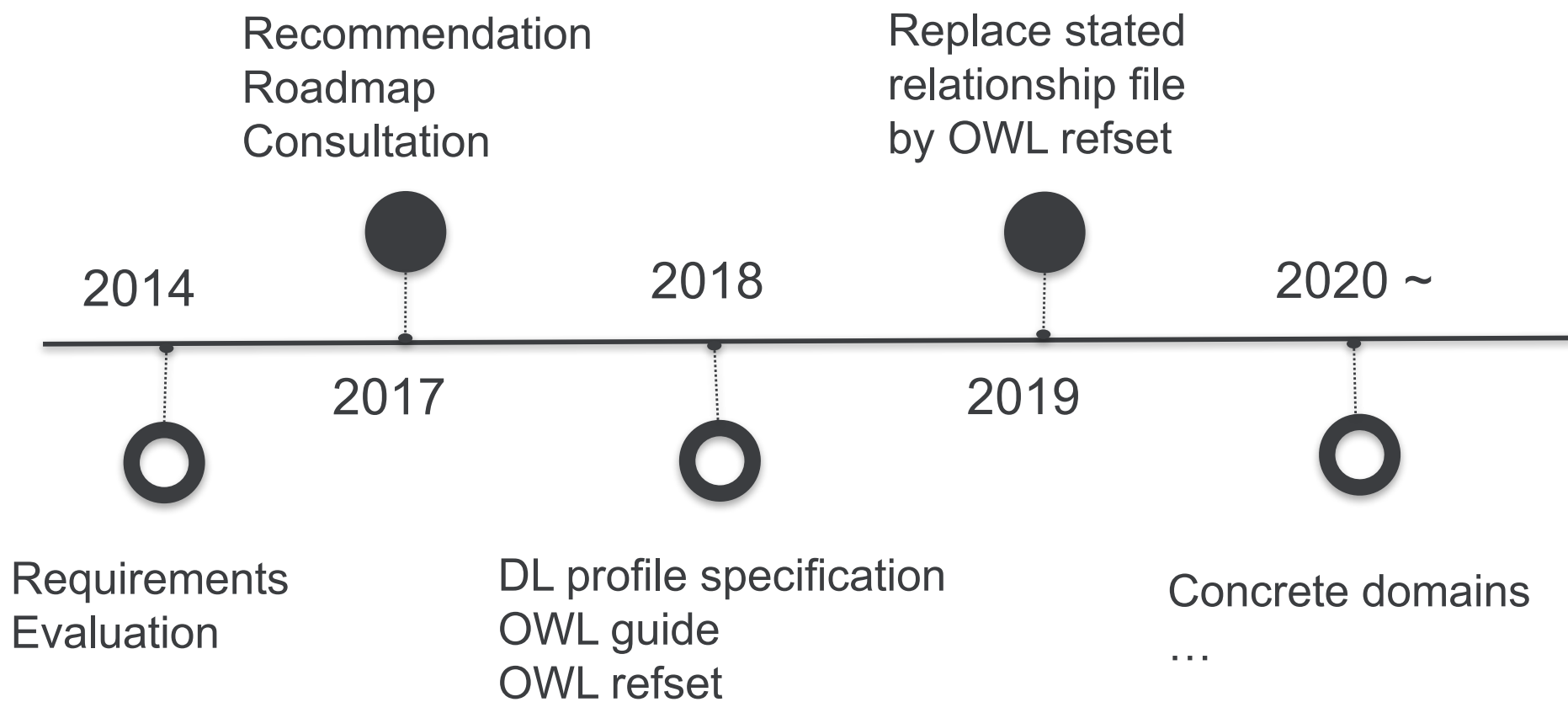
GMDN

Additionally… Team

- Mapping - QA Medra Pilot set 700

- Whole team is undertaking Description Logic Training in prep. For tooling upgrades

- Prepared for Devices meeting

- Review of education material

Yongsheng Gao
DESCRIPTION LOGIC

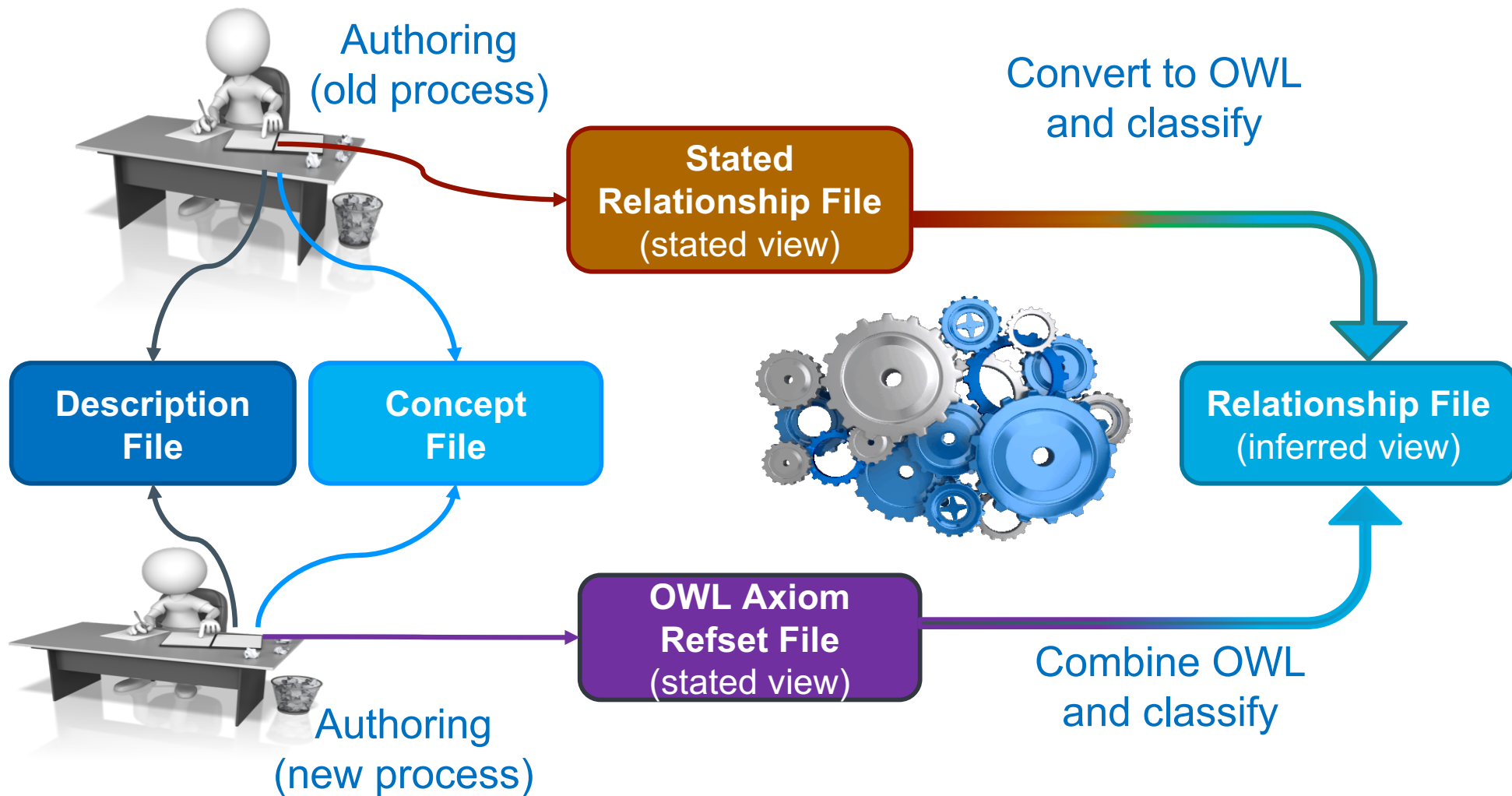# Timeline for the Description Logic profile enhancements

Recommendation
Roadmap
Consultation

Replace stated
relationship file
by OWL refset

2014

2018

2020 ~

2017

2019

Requirements
Evaluation

DL profile specification
OWL guide
OWL refset

Concrete domains
…

SNOMED logic profile

SNOMED CT

- Class hierarchy
- Equivalent Classes
- Object Property hierarchy
- Existential restrictions
- Object Intersection

- Disjoint Classes
- Data Property
- Equivalent Properties
- Property Chain
- Transitive Property
- Reflexive Property

EL profile

- Property Domain
- Property Range

OWL DL

- Disjunction
- Universal restrictions
- Negation

Change to authoring process

Authoring (old process)

Convert to OWL and classify

Stated Relationship File (stated view)

Description File

Concept File

Relationship File (inferred view)

OWL Axiom Refset File (stated view)

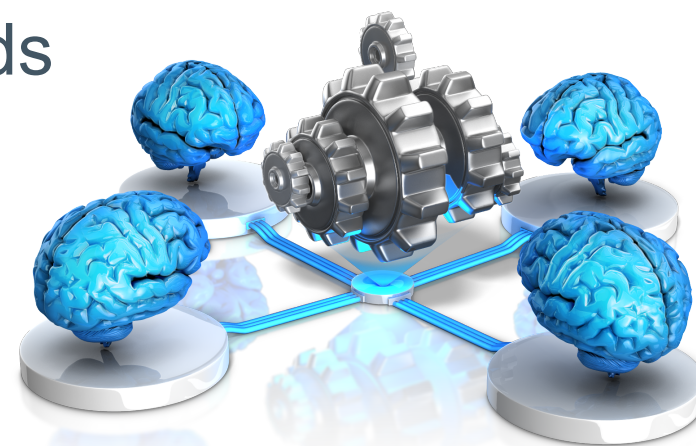Authoring (new process)

Combine OWL and classify

Benefits of logic profile enhancements

Significant improvement of content quality

A more complete and consistent product

Systematical modeling

Conforming to international standards

Topics for the MAG meeting

Updates on logic profile enhancements and the OWL guide
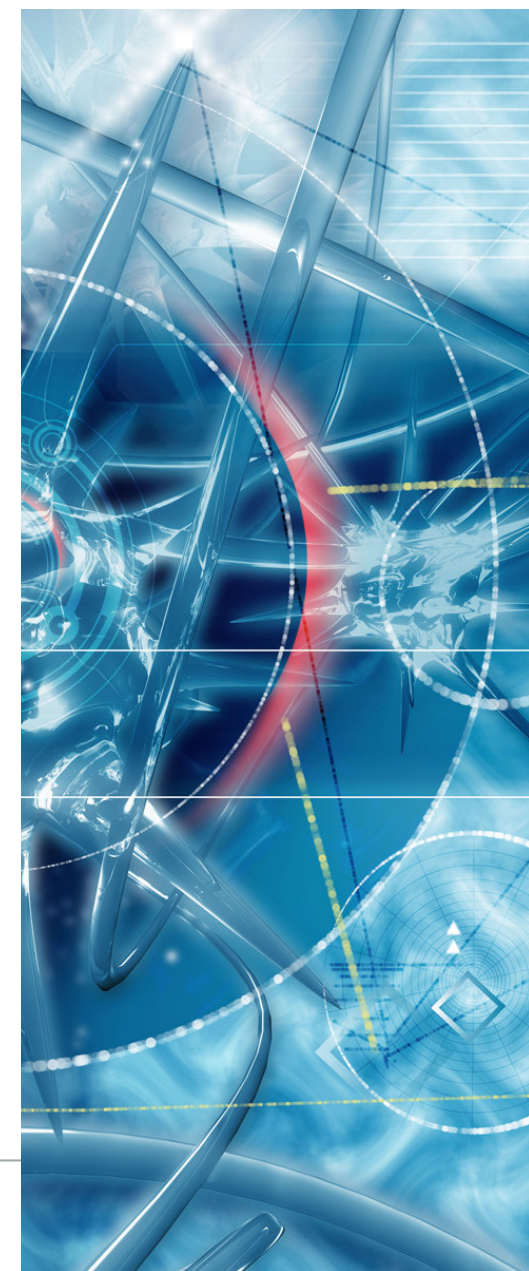
Roadmap for supporting concrete domains

Relationship grouping

Requirements and specification for stand-alone OWL file of SNOMED CT

Updates on Classification service and SNOMED OWL Toolkit

Drug model and produce role

Refset metadata

Cathy Richardson

CONTENT MANAGERS ADVISORY UPDATE

Content Managers Advisory Group

- Camilla Wiberg Danielsen - Denmark

- Daniel Karlsson - Sweden

- Elze de Groot - Netherlands

- Jostein Ven - Norway

- Karina Revirol - Argentina

- Linda Parisien - Canada

- Matt Cordell - Australia

- Olivier Bodenreider - USA

- Sheree Hemingway - UK

- Theresa Barry – Ireland

- Cathy Richardson and Monica Harry (SNOMED International co-chairs)

Achievements since October 2018

Provision of national perspectives to assist with work item progression

- Modeling of existing concepts in the Observable Entity hierarchy

- Implantation procedures

- Ethnic groups concepts including "other" in the meaning

Commencement of the review of administrative content

2019 work plan items

- Provision of national perspectives on content topics and projects

- Provision of national input on user impact of SNOMED CT Editorial Advisory Group work items

- Provision of national input to assist with the content alignment with the Standards and Terminologies report

- Development of international definitions for SNOMED CT context values for actions concepts

- Review of SNOMED CT International Edition administrative concepts

Toni Morrison
DRUG UPDATE

SNOMED
International

Concept Models and Content Updates

- Medicinal product Hierarchy

  - ≈ 21,000 concepts with 98% sufficiently defined

  - >91,000 attributes

- Pharmaceutical dose form Hierarchy

  - ≈ 325 concepts with >90% sufficiently defined

  - >1500 attributes

National Extension Model

- Concept model proposed as extension of International Release

- Editorial Guidelines published

- Attributes to support extension model created in International Release

- Questions and issues reconciled and refinements made as needed

Quality Improvement in International Release

- Consistent modeling and terming of concepts in the Medicinal product and Pharmaceutical dose form hierarchies

- Leveraging, not duplicating, the Substance hierarchy modeling in Medicinal product hierarchy

- Implementing automated quality improvement reports for Medicinal product and Pharmaceutical dose form hierarchies

- Resolving equivalent, ambiguous, or out of scope concepts

- Ability to extend model in International Release or National Extension for future needs

Standards and Regulatory

- IDMP compatible concept types

  - Medicinal product containing only

  - Clinical drug

  - IDMP compatible Pharmaceutical dose form concept model

- UNICOM implementation of IDMP in national competent authorities and cross-border healthcare (including e-prescriptions and dispensing) and improving patient safety by having trusted medication information

  - WP1 – SDOs, WP8 – Clinical Care and Pharmacovigilence, WP9 – Medicinal Product Dictionaries

Member Countries

- Argentina

    - Aligning national drug dictionary with links to the SNOMED CT clinical drug model (for dose forms, units, and substances)

    - Anticipate publishing national drug extension based on SNOMED CT clinical drug model in next few months

- Ireland

    - Irish Pharmacy Union - mapping at definitional attribute level (e.g. dose form, substance) and resolving to clinical drug concept

Member Countries

- United States

  - Translation of RxNorm into OWL and expect this will support maintenance of Medicinal product hierarchy by allowing SNOMED CT to "ingest" RxNorm content

- Uruguay

  - Aligning national drug dictionary with links to the SNOMED CT clinical drug model (for dose forms, units, substances, and Medicinal product containing only concepts)

  - Anticipate publishing national drug extension based on SNOMED CT clinical drug model in next few months

Links to further information

- Contact Toni Morrison
    - tmo@snomed.org
- Drug Project Confluence Space
    - https://confluence.ihtsdotools.org/display/IAP/Drugs+Project

Technical Updates

Rory Davidson
TECHNICAL SERVICES

2016	2019
41,161	54,359
US, UK, Russia, Canada	US, India, UK, Sweden
106289002 |Dentist (occupation)|	372705002 |Desipramine (substance)|
28	39
2	7
744	527
2,920	16,311
1,131	4,415

2019 = steady year

Axioms, Description Logic, OWL, OWL and more OWL

Snowstorm

Refactoring

Incoming this year

MRCM maintenance
More templates
Better role based access control

Innovation Framework

ICD-11 Map generation
Real time classification
SNOMED CT in the UI

Reaching Out

FHIR Developer Days
SNOMED CT Developer Training Days

Andrew Atkinson
RELEASES

New product releases (cont'd)

In the latest cycle new Freesets have also been released for the first time:

- the SNOMED CT IHE Set
- the SNOMED CT HL7 International IPS Set

c) We are also planning initial releases in 2019 for the following new products:

- Orphanet (in collaboration with INSERM)

*** We will be discussing further improvements to our catalog of Freeset and Refset products during this April Business Meeting, so please stay posted for more announcements and discussions over the next few days....

New product releases

We are working with the following new Managed Service customers, in order to publish the first SNOMED CT Managed Service Extension releases this year:

- Ireland
- Norway

There will also be several new customers joining shortly, please speak to Terance Shird if you have any questions regarding the current memberships.

New derivative product release schedule

You will have seen a recent announcement to confirm that we are now migrating our derivative products to an Annual release schedule, in order to better tailor them towards the observed requirements of the users. This will also help to improve the focus of our finite content and release resources.

In considering this decision, SNOMED International underwent significant analysis and stakeholder engagement with the community. The organization's governance bodies were also consulted, as were those parties known to have used our derivative products via the Member Licensing & Distribution Service.

From 2019 onwards then, we will be publishing the derivative products with the following schedule, in line with the relevant 6 monthly International Edition releases...

New product release schedule (cont'd)

Derivative products aligned with the January International Edition cycle:

- GP/FP Reasons for Encounter/Health Issues refset
- ICPC-2 map (Jan 2019 proposed final release before deprecation)
- ICNP Diagnoses
- ICNP Interventions
- SNOMED to GMDN map

Derivative products aligned with the July International Edition cycle:

- Nursing Activities refset
- Nursing Health Issues refset
- Odontogram refset
- General Dentistry refset
- SNOMED to GMDN map

Terminology Release Advisory Group

Meetings this week:

- Today 1:30pm - 5:00pm (*Room: Adelphi 1*)

    - PLUS an additional Spanish Edition process presentation from 5:10pm onwards

- Tomorrow 9:00am - 12:00am (*Room: Mackenzie*)

Amongst other topics we will be discussing the following:

Web Ontology Language (OWL) changes

Most if not all of you will have been involved in the discussions for these changes, which are set to replace the Stated Relationship files with an OWLExpression file from the July 2019 International Edition onwards.

These changes will have an impact across nearly all Release products, changing both the format of the packages and the way in which they are built. The inferred relationships will remain, but the way in which they are classified will change to be based on the OWL content instead of stated relationships.

We have successfully trialled the OWL content, introducing it gradually over the past few Release cycles, plus publishing demonstration releases for the Complete OWL file, and are now ready to implement it fully in line with the published plan.

OWL file changes (cont'd)

In January 2019 we implemented the first stage of the plan:

- The International Edition package (packageA) included both active Stated Relationships plus a partial OWL file containing a subset of the OWLAxioms plus the OWLOntology refset.
- We also published a separate optional package (packageB) containing a complete set of OWL records as if this was the July 2019 release. This package contained all stated relationships from the previous release (July 2018) marked as inactive.
- packageB therefore acted as a second Demonstration release, allowing everyone to thoroughly trial using it in practice.
- packageB was published in MLDS alongside the International Edition, available to everyone with access to the International Edition, so that they could choose whether to download it.
- Release Notes were updated to clearly explain all of the above.

OWL file changes (cont'd)

In July 2019 we will implement the following:

- The International Edition package (packageC) will include both inactive Stated Relationships plus a complete OWL file from July 2019 (ie) with ONLY history of OWL records that were included in the Jan 2019 International Edition package itself + new July 2019 Axioms.
- The Stated Relationships will remain, inactivated, in the International Edition for the foreseeable future, for audit trail purposes.
- This change will then be rolled out to all Managed Service editions/extensions dependent on future International Edition releases.
- Derivative products will also be updated to reflect the new packaging format, though likely with no specific OWL records for these releases.
- Anyone who isn't yet ready to move forward with OWL can therefore remain on the January 2019 International Edition until they are ready to update with the July 2019 version onwards.

Frequent delivery

Proposals are progressing to move to more frequent delivery. The move would realise several benefits, including:

- The potential to be able to get content changes into the terminology in a shorter time frame.
- The fostering of better interoperability, as a result of entities being able to consume release content that's more aligned with other organisations
- The prevention of circular dependencies that occur in longer projects, due to the move towards smaller, more manageable authoring projects.
- More automated validation services, as a result of the inherent removal of the Alpha and Beta stages in the Release cycle.

There are still many dependencies (automated validation suites, etc) that need to be elaborated, in order to ensure that the quality of our products remains extremely high. We will continue to keep you posted on progress...

Terance Shird

MANAGED SERVICE & OPERATIONS

Technical Operations Update

- Hosting Migration Project

  - Hardware refresh

  - Cost savings

  - Leverage access to the latest innovative technology

- Server Operating System Upgrade

  - All our servers will be updated to the latest supported version

  - There will be some disruption to services during the upgrade

  - Maintenance windows will be published on http://status.ihtsdotools.org

- Automation Improvements

  - Updating process and tooling to enable greater automation of software upgrades to tooling

  - Enable self healing technology

  - Allow services to grow automatically in response to increased use
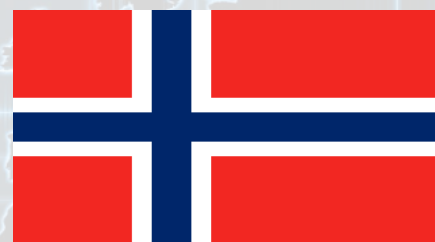
Members Managed Service

Belgium

Denmark

Estonia

Ireland

Norway

Sweden

Switzerland

United States of America

Members Managed Service Sub Group

- Tuesday 09 April 2019 – 09:00 to 12:30
  - Examine use cases for Reporting functionality in the Managed Service Authoring Platform
  - Update from Sweden on using templates in the Managed Service
  - Upcoming Authoring Platform changes to support OWL
  - Hands-On session on the Translation Tool
- Non Managed Service observers welcome

Tooling User Advisory Group

- Wednesday 10 April 2019 – 09:00 to 12:30
  - Authoring Platform Demo
  - Reporting Platform Demo
  - Refset Hands-On Session
    - Participants will need a refset account
  - Snowstorm Project Update

THANK YOU