A New Year Blooms with Promise.

by Don Sweete, CEO

As last year finished and I traveled back to cold Canada for a holiday break I reflected on all of our accomplishments over the past year. As everyone will recall the last newsletter outlined the many changes and successes for 2014. The most important change I believe was the culture shift towards being more customer focused and driven by assessing things from a business value perspective. Going into 2015 the road ahead will be exciting, the organization will continue to work on the many items outlined by our members as priorities, the online education platform will move ahead with the addition of new courses and moving record numbers through training. The Content area will see a focus on building more new content but more importantly dealing with the

backlog that has accumulated over the years. The Content, Release Management and Tooling teams will be moving forward to deliver on our promise to have an authoring tool that allows for continuous authoring capability and the ability for the organization to begin to link with National Release Centers to allow us to leverage the great work done outside of the organization. The changes made over the past year will continue to be solidified in our daily work and will be the foundation on which to continue to evolve our product and services over the coming years. In closing we will be moving forward with new strategies and looking to move into new markets in the areas of mhealth, genomics, and pharma. We will be more engaged in a two way discussion with vendors to allow our product to be more easily consumed, and this will be coupled with the launch of a new vendor engagement strategy. These activities and others will be supported by new communication and marketing plans to further get our message out to stakeholder and to support our growth.

In this issue:

"The Global Language of Healthcare" in a multi-lingual Europe

by Ronald Cornet, European Federation for Medical Informatics (EFMI)

"United in diversity" is the motto of the European Union. It could also be the motto of the IHTSDO, acknowledging the differences in cultures, healthcare systems and languages. Especially as the aspect of language is non-trivial when working to implement SNOMED CT, for though it is the "Global Language of Healthcare" the use of local languages will persist. Hence there is a need to align local languages with the Global Language SNOMED CT, especially in Europe where there are many relatively small countries facing this challenge. Initially, IHTSDO members undertook the effort of translation of SNOMED CT in full. Prominent examples thereof are Denmark and Sweden. These countries (having a population in the range of 5 to 10 million people) have spent considerable resources to specify at least one Danish and Swedish term respectively to almost every concept. One can understand that such an effort is challenging for many of the European countries that are even smaller, such as Lithuania, Slovenia, Estonia and Iceland, (the latter having a population of just over 300,000 people).

Alternative approaches have been sought, but so far no single best solution has been found. Experiments have been performed with automated translation using online tools such as Google Translate. Apart from the fact that this doesn't come close to a translation that complies with the IHTSDO Guidelines for Translation of SNOMED CT, a painstaking validation of the result is required that essentially involves checking each and every translated term. Research is needed to find out how the quality of such automated translation can be improved and how this quality assurance can be performed most efficiently. Furthermore, the quality of the results will strongly differ per language – i.e. If a method were found to apply this method to Dutch, then it cannot be concluded that this goes for every individual language.

Another approach, one that is taken by The Netherlands, is to specify interface terminologies, represented as language reference sets based on extensions consisting of Dutch descriptions. This approach has the advantage over a concept-based translation, in which essentially one preferred term is specified so that the immediate need for synonymous terms can be taken into account. Furthermore, it optimizes the effort on translation, as those parts of SNOMED CT are addressed which will be actively used. Also, it aligns with the approach taken in English-speaking countries, where significant effort is still put into the creation and maintenance of interface terminologies. This is clearly shown by the Convergent Medical Terminology (CMT), which was donated to IHTSDO and contains more than 75,000 clinical terms and concepts. A drawback of demand-driven creation of interface terminologies (compared with an upfront translation) is the time that this process takes, and the need to orchestrate the results and prioritize the areas to address. For example, whereas a focus on specific parts of the clinical findings and the procedures hierarchy seems sensible, there may also be a need to take into account the underlying anatomy or causative agents such as micro-organisms. Since February 1st 2015, a European project is running that addresses language issues, amongst others. In this 'ASSESS-CT' project, we will compare three scenarios: Adopt SNOMED CT as a core terminology for cross-border sharing of clinical information, Alternatives for SNOMED CT, and Abstain from terminology standardization in Europe. As part of this project, we aim to assess the reproducibility of coding, and the differences therein for various languages. Appreciating the benefit of a concept-based representation for cross-border sharing of information, this research is inspired by the fact that this power can only be released if users are maximally supported to speak their local language of healthcare.

Review of Standing Committees

by Jeremy Thorp, on behalf of the Ad-hoc Group on Standing Committees

In October 2014, the General Assembly received a report on the work of the ad-hoc group investigating the work of the Standing Committees. The IHTSDO Articles of Association, developed in 2007, included descriptions of four Standing Committees (SCs): Content Committee, Technical Committee, Research and Innovation Committee [now Implementation and Education], and Quality Assurance Committee. The SCs were subordinate to the Management Board and were responsible for advising the Board on priorities and issues pertaining to their particular areas of competence. For a very small organization that had emerged out of an active and passionate Community of Practice, it was an excellent way to bring in expertise and advice and to make the organization a strong, collaborative platform for continuing the growth of SNOMED CT.

IHTSDO has grown and evolved over the course of seven years. The staff and number of Members have increased and SNOMED CT as a product developed. In April 2014, the General Assembly decided that it was time to review the SCs. Were they fulfilling their mission? Should there still be four? Are the four topics still appropriate? Do they have the right skills set? What should be their role? The General Assembly formed an Ad-hoc Group to investigate. The Ad-hoc group included members from the General Assembly, Management Board, Management Team, Member Forum and Standing Committees/Community of Practice; it reported back to the Open GA meeting in Amsterdam in October. The Ad-hoc Group felt strongly that the Community of Practice added much value to the organization. Similarly, the Group recognized that the organization needs support and advice to progress the strategic directions and work plan. However, the group considered the changes in the size and maturity of the IHTSDO since 2007, as it becomes a product and service organization with more formality and control over the work plan and budget process. As a result, the Ad-hoc group recommended that the focus of the SCs should be to provide advice and support as required to the Management Board and Management Team. It is no longer appropriate for SCs to be the decision making body for new work items or to be responsible for the delivery of work items. The General Assembly agreed with these conclusions and asked the Management Board, with the Management Team, to prepare proposals for implementing the recommendations.

The Management Board (in December) and the Management Team (in January) each considered which groups were needed to support the work of IHTSDO, recognising the need for these groups to be more agile and responsive to the organisation's needs. Based on these discussions, it was decided to form a new Ad-hoc group, with membership from the GA, the MB and the MT. This group met in early February to review options related to the new structure and agreed the following aims:

1) to develop a structure that would include the Community of Practice in a meaningful way that serves both the organisation and the community of practice

2) the process would be agile and include the ability for the organisation to react quickly to developments in the industry

3) to use an open, fair and transparent process that would continue to promote growth and engagement of the community of practice

4) to implement a conflict of interest policy that ensures that both the organisation and community of practice operate in the spirit of openness and transparency

5) to review options that allow for the community of practice to engage in and apply relevant subject matter expertise to major initiatives undertaken

6) to develop and implement a review process as part of the new structure to ensure that there is the ability to adapt and change focus as needed.

The Management Board discussed the next steps at their February face-to-face meeting, and asked for early communications to the community of practice. The Ad-hoc group will meet again in March to draw together proposals to be put to the General Assembly for ratification at the business meeting in Copenhagen in April.

SNOMED CT E-Learning Goes Live

by David Markwell, Head of Education

As the community of SNOMED CT implementers and users expands, there is a growing need for education. Accurate knowledge about SNOMED CT is essential for it to be used consistently and effectively as a shared global healthcare terminology. To provide a scalable response to this growing demand, IHTSDO is developing a series of E-Learning courses. The first of these is the SNOMED CT Foundation Course, which offers a broad basic understanding of SNOMED CT. This series of E-Learning presentations and assessments taken over a three-month period provides a common foundation on which specialized courses can build more detailed knowledge and skills.

In November 2014, we opened applications for the first intake to the Foundation Course. Three weeks later when applications closed, we were pleasantly surprised to find that we had received 890 applications. As illustrated in the map below, there were applications from almost all IHTSDO Member countries and also from 32 non-Member countries.

To meet this higher than expected level of interest, it was necessary to make some changes to our initial plans. These changes resulted in a more scalable approach, which allowed all applicants to be offered entry dates in 2015. The first small pilot intake started in February, and additional larger intakes will start in March, June and September. We will reopen applications in April to fill the remaining places available in June and September. Those who successfully complete the Foundation course will be eligible to apply to take one of the more advanced courses that are currently under development. The first of the more specialized courses will be a six-month Implementation course, which is due to be launched in mid 2015. The IHTSDO content team is also developing E-Learning materials to support the training of new SNOMED CT content editors in National Release Centers. Other areas being considered include training on mapping and reference set development.

Initially, SNOMED CT E-Learning courses are being taught in English. However, IHTSDO will share materials with its Members to enable them to adapt and translate E-Learning resources in ways that are relevant to their national requirements.

Enquiries about SNOMED CT E-Learning should be addressed to elearning@ihtsdo.org.

IHTSDO Collaboration Activities – Latest News

By Jane Millar, Head of Collaboration

The IHTSDO signed a Collaboration Agreement with **HL7 International** in August 2014 which covered a number of areas of joint work – management of licensing of SNOMED CT in HL7 materials, use of SNOMED CT in HL7 value sets, tooling options and education. Work to date has focused on ensuring that users are systematically made aware of the need to have a SNOMED CT license for relevant HL7 materials, given the update to the IHTSDO Affiliate License Agreement.

HL7 International has already started to look at a process and principles for updating the way they manage value sets across the different product lines, which impacts on the use of external vocabularies. IHTSDO is working with the HL7 Terminology Authority to ensure that requests for change to SNOMED CT in support of this work, and for any new works, are managed consistently and in timelines required. In addition, IHTSDO is advising on binding to SNOMED CT and related metadata which can be reused across HL7 materials – a plan is currently being agreed with the FHIR development team on how this will be provided to ensure that lessons learned can be shared with other HL7 development areas.

As many of you know, IHTSDO signed a Collaboration Arrangement with **WHO** in 2010 with the specific focus being on ensuring that SNOMED CT and WHO classifications can work together in systems. IHTSDO is currently completing maps to ICD-10 international so that the map will be complete and consequently maintained and updated in line with change to content in SNOMED CT. WHO have approved the methodology used and received reports on agreed quality metrics – all agreed through the WHO/IHTSDO Joint Advisory Group.

The IHTSDO and WHO are working together to provide a Common Ontology base for ICD-11, due for release in 2017. This means that whether you use SNOMED CT or ICD-11, the outputs for statistical purposes should be equivalent. As a result, with the help of clinical specialists across the world IHTSDO are undertaking a gap analysis and reviewing ICD-11 clinical text definitions, which is feeding in to updates to both SNOMED CT and ICD-11. If you are a clinical specialist and would like to get involved in this review and update, please contact jmi@ihtsdo.org.

Joint work between IHTSDO and **International Council of Nursing (ICN)** to link ICNP (International Classification of Nursing Practice) and SNOMED CT is progressing well as a result of a collaboration agreement signed in August 2014. A gap analysis for Nursing Diagnoses has resulted in additions in the SNOMED CT January 2015 International Edition and an Equivalence table will be published before mid-year 2015. Corresponding work has started on Nursing Interventions.
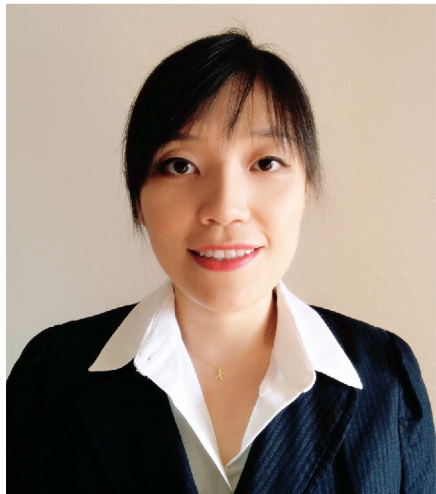
And finally this edition, IHTSDO is pleased to be able to announce that Don Sweete, IHTSDO CEO, has been accepted as chair of the **JIC (Joint Initiative on SDO Global Health Informatics Standardisation)**. The JIC includes CEN, CDISC, GS1, HL7, DICOM, ISO and IHE as well as IHTSDO. Don, along with other member representatives, sees the JIC as the global body to which governments, stakeholders and industry reach out to discuss and manage activities to ensure collaboration and interoperability between health informatics standards. Working on collaboration, these organizations should together be able to provide clear direction and action on the set of products that can form the core of a semantic interoperability suite for all.

New Recruits

Four new staffers joined IHTSDO in early 2015:

Emily Wang

joined IHTSDO in January as a Business Analyst in eHealth, after six years with IWK Health Centre (the largest women and children's hospital in Nova Scotia, Canada). During her professional career, Emily has spent over 8 years working with business analytics implementations associated with the eHealth industry. She has worked on improving the efficiency of the integrated health care associated with the HL7 Standards and SNOMED CT mappings. Emily's passions are rooted in analytics of business process and business relationship building. Emily holds a Master's degree in Health Informatics and a Bachelor's degree in Computer Science.

Chris Swires

joined the IHTSDO Applications and Architecture team in February after a number of positions as a full stack and front-end software developer. He has previously worked on multiple large-scale commercial projects, from big name property firms within the UK to international clothing brands. He has also worked in the healthcare sector within the UK with Servelec (formerly CSE) Healthcare systems. Chris has qualifications and experience in Computer Science, back and front-end development and obtained a Distinction at MSc level in Computer Science from Swansea University.

Steve Archbold

joined the IHTSDO Technical Group in January after several years working in agile product development at Oxford University Press (OUP), Nelson Thornes (NT) (as part of the Infinitas Learning group) and Codeworks DEV. During his time with OUP/NT he gained experience in mobile and web app product development using agile methods to coordinate collocated and remote distributed teams. At Codeworks DEV, Steve was part of an award-winning team that applied "agile with rigour" approaches in a matched-funding program to de-risk bringing innovative client product ideas to market. Steve moved into agile project management through technical and team leadership roles with digital agencies such as Shout Digital and TH_NK, building on earlier work as technical architect and developer for interactive web solutions based on the IBM/Lotus Domino platform.

Ashley Burton

joined the IHTSDO Development Team in January after several years with multiple client delivery technical teams. During her time in these front end development roles she delivered over 25 projects for a wide range of clients, including government, heavy industry, travel and entertainment. Her role also saw her involved in vendor engagement, technical writing, and public workshops. In addition to her development skillset, Ashley has qualifications and experience in UI/UX design, mobile app development, and print design.

Withdrawal of SNOMED Antecedent Works

In 2010 IHTSDO announced a 2009 General Assembly decision that from April 26, 2017 it would no longer license the use of SNOMED antecedent works. SNOMED antecedent works are SNOP, SNOMED, SNOMED II, SNOMED International (3.x), and SNOMED RT. It strongly urged users of these antecedent/old versions to migrate to SNOMED CT as soon as possible. The reason for phasing out support of antecedent versions is that both clinical science and the terminology itself have evolved considerably since they were first developed, so use of these older versions involves risk. IHTSDO cannot be responsible for this risk. A limited license will be available for research purposes and to enable the interpretation of historical data captured using antecedent versions.

The biannual release of the SNOMED CT International Edition includes an antecedent SNOMED identifier reference set, which contains SNOMED, SNOMED II, and SNOMED International (3.x) concept identifiers. This reference set will be withdrawn from use according to this timeline:

- **July 2015 SNOMED CT International Edition:** No change regarding antecedent SNOMED identifier reference set.
- **January 2016 SNOMED CT International Edition:** The last release to include the antecedent SNOMED identifiers for new SNOMED CT content.

- **July 2016 SNOMED CT International Edition:** The last release to contain the antecedent SNOMED identifier reference set.
- **January 2017 SNOMED CT International Edition:** The antecedent SNOMED identifier reference set will be withdrawn and no longer be available in the release. After the antecedent SNOMED identifier reference set has been withdrawn from the International Edition, it will be made permanently available for download as a legacy IHTSDO product, here: http://tinyurl.com/pk4e28d

IHTSDO again strongly urges users of these antecedent versions to migrate to SNOMED CT as soon as possible. Information about migration to SNOMED CT is available in the Technical Implementation Guide (http://snomed.org/tig.pdf).

Files to assist in the migration from antecedent works to SNOMED CT are available to IHTSDO Members here: https://csfe.aceworkspace.net/sf/go/rel2408

IHTSDO Affiliate licensees may retrieve the files from here: http://tinyurl.com/pk4e28d.

Throughout 2015 IHTSDO will remind users of antecedent versions that it will no longer license their use after 26 April, 2017.

LOINC-SNOMED CT Technology Preview: Human Readable Version

The LOINC project released the LOINC-SNOMED CT Technology Preview in October 2014. The release initially included a LOINC Part – SNOMED map refset, a LOINC Term to SNOMED Expression refset and documentation, which soon after was followed by the release of an OWL file version of the LOINC Terms with SNOMED Expressions and documentation for reviewers concerned with content rather than format evaluation.

 Based on multiple requests, the project team also released a human readable version of the file on 24 January, 2015. The human readable file for the SNOMED CT LOINC Technology Preview is provided in Excel format, and is delivered to IHTSDO Member

National Centres and authorized Affiliate Licensees via Internet download. Similar to the OWL file version, the release is for reviewers concerned with content rather than format evaluation, who have difficulty working with OWL files.

 The Human Readable content for the Technology Preview is distributed in a single zipped archive file and is available from the "Technology Preview Packages" section of the "SNOMED CT International Releases" project on the IHTSDO Workspace. Due to the new version, we have extended the deadline for feedback to February 28, 2015. We are seeking input on all versions of the Technology Preview release, to be submitted through the Google form here.

IHTSDO Tooling Update

By Rory Davidson, Head of Applications and Architecture

MLDS, the Member Licensing and Distribution Service, was successfully launched in the second week of January. MLDS has replaced SALSA (the SNOMED CT Affiliate License Service Application) and offers improved navigation and more features. It will facilitate licensing for SNOMED CT use in non-Member countries. It will soon be available to IHTSDO Members to distribute and license SNOMED CT within their own countries.

In 2015, the IHTSDO technical group is focussed on the Workbench Replacement project which aims to provide a next generation authoring service to be used by the IHTSDO Content team. This service will be made of a number of mini-services including batch authoring and template authoring. It will provide an integrated end to end solution from a content request through to the distribution of SNOMED CT.

During Q1 the team will be working to integrate a terminology server into the existing authoring process. We will be able to import SNOMED CT content in batches into the terminology server. We will build on this to deliver extended functionality, including the Translation service. We expect to produce the July 2015 SNOMED CT International Edition out of the terminology server.

The team is continues work on the Refset Management service. We are implementing a reference set directory which will enable users to manage reference sets. We aim to make an initial set of features available to Members and the community during Q1.

Other IHTSDO tools including the Mapping tool and the IHTSDO SNOMED CT Browser are also being used successfully. These are currently in maintenance and support mode although we receive and appreciate the excellent feedback on the browser which has helped us improve the tool.

As always, all the source code for IHTSDO tools is available under an Apache v2 open source license in the IHTSDO GitHub repositories here – https://github.com/IHTSDO. Involvement and input from the community is welcomed.

SNOMED CT to ICD-10 Mapping Update

by the IHTSDO Mapping Service Team

The ongoing project to map existing SNOMED CT concepts (up to January 2014 SNOMED CT International Release) to ICD-10 has been completed by a non-IHTSDO organization. The organization used an algorithm-assisted approach as well as clinical mapping staff in the creation of the maps. The IHTSDO Mapping Service Team's (MST) mapping principles provided instructions on selecting an ICD-10 target, which were instrumental in the development of the algorithm logic. The algorithms will be incorporated into the IHTSDO Mapping Tool. Throughout the mapping process, the MST was sampling about 10% of the maps.

Now that the mapping has been completed, a quality review of the entire mapping by the MST is underway.

In addition, the MST is using a dual independent mapping process to map new SNOMED CT concepts (added since the January 2014 SNOMED CT International Release) to ICD-10. The dual independent mapping process was agreed as part of the WHO and IHTSDO Collaboration Arrangement. One of the quality measures being used in this process is cross-mapping concordance i.e. how often do the two mapping specialists come up with the same ICD-10 code(s) and associated rules for the map from a SNOMED CT concept. *Continued...*

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The target measure is 70% and the current performance is above that mark.

Once the quality review of the mapping by the non-IHTSDO organization (up to the January 2014 SNOMED CT International Release) and MST mapping (up to the January 2015 SNOMED CT International Release) is completed, a Candidate Baseline will be released – this is currently forecast for April 2015. The Candidate Baseline status indicates that IHTSDO is only releasing these maps for review and testing by implementers and other stakeholders. The objective of a Candidate Baseline is to elicit comments before committing to the content.

It is likely that, prior to the Baseline Release (targeted for July 2015), significant changes may be made to address comments made and issues identified during the Candidate Baseline review. The Baseline Release will be aligned to the July 2015 SNOMED CT International Release. From that point forward, a full history of changes will be maintained and provided.

News in Brief

Registration for the April 2015 Business Meeting (Copenhagen)

IHTSDO is pleased to announce that registration for the next Business Meeting in Copenhagen (26th-29th April) is now open. The four-day event is free of charge and will be held at the Park Inn by Radisson (Copenhagen Airport).

Please click our website link below for more details, including the schedule and accommodation/transport information:

http://www.ihtsdo.org/participate/attend-ihtsdo-events/ihtsdo-business-meeting

The following 2015 Business Meeting (with Working Groups) & SNOMED CT Expo will be held in Montevideo, Uruguay, from 25th-30th Oct. The venue for this event is the Radisson Montevideo (Victoria Plaza).

New Affiliate Licensing Agreement

IHTSDO's new Affiliate Licensing Agreement, as approved by the General Assembly, took effect 1st January 2015. Existing affiliates have been notified of this change and have been given the opportunity to accept its terms by 1st April 2015. The new agreement communicates more clearly the rights and obligations of affiliates in their usage and deployment of SNOMED CT.

A copy of the agreement can be viewed at: http://www.ihtsdo.org/resource/resource/85