IC\textsuperscript{A} Commission on Generalisation and Multiple Representation

(2011-2015)

\textbf{Activities}

An overview of ICA workshops and symposiums can be found at \url{http://generalisation.icaci.org/index.php/prevevents}

- 14th ICA Workshop on Generalisation and Multiple Representation - jointly organised with ISPRS Commission II/2 Working group on Multiscale Representation of Spatial Data; 30th June to 1st July 2011, Paris, France (with around 40 participants, 20 paper / presentations)
- 15th ICA Workshop on Generalisation and Multiple Representation - jointly organised with EuroSDR Commission on Data Specifications, 13th to 14th September, 2012, Istanbul, Turkey (with around 35 participants)
- ICA / EuroSDR NMA Symposium “Designing MRDB and multi-scale DCMs: sharing experience between governmental mapping agencies”, 21st to 22nd March, 2013, Barcelona, Spain (with around 15 participants, 12 paper / presentations)
- 16th ICA Workshop on Generalisation and Multiple Representation - jointly organised with the ICA Commission on Map production and Geo-Business, 23rd to 24th August, 2013, Dresden, Germany (with around 40 participants, 20 paper / presentations)
- 17th ICA Workshop - with special focus on Integration, Filtering and Abstraction of User Generated or Multi-Source Spatial Content, 23rd September, 2014, Vienna, Austria (with around 25 participants, 13 paper / presentations)
- Thematic Workshop on building an Ontology of Generalisation for On-demand Mapping, 26th to 27th March 2015, Paris, France (with around 15 participants)
- 18th ICA Workshop on Generalisation and Multiple Representation – jointly organised with ISPRS WG II/2 "Multi n-dimensional Spatial Data Representations, Data Structures and Algorithms", 21st August 2015, Rio de Janeiro, Brazil

\textbf{Publications}

- The commission has published a new structured generalisation book through Springer with the title "Abstracting Geographic Information in a Data Rich World – Methodologies and Applications of Map Generalisation" in 2014.
  - The book contains 12 chapters, with 27 case studies whereby contributions from 45 commission members were received.
  - Technical oriented subsections were included from the most active NMA’s to illustrate the usage of automated generalisation in map production.
    - \url{http://www.springer.com/us/book/9783319002026}
- 104 reviewed paper publications in preparation of the ICA workshops between 2011 and 2015, see website of the commission
- Members of the Commission have recently written an entry entitled ‘Map Generalization’ as part of the forthcoming Wiley-AAG International Encyclopedia of Geography: People, the Earth, Environment, and Technology.
- Supported paper by the ICA Commission on Generalisation and Multiple Representation with title “Ontology of Generalisation for On-demand Mapping”, which presents one major research direction for the next years

\textbf{Major achievements}

1. Generalisation for paper map production has reached a new level with nearly full automated solutions at several NMA’s (degree of interactive post-processing depends on varying quality requirements) – see Springer Publication / Chapter 11 “Generalisation in Practice Within National Mapping Agencies”
2. Research and development on Web based Generalisation Services is still essential to achieve sustainable, platform and programming language independent solutions - see Springer Publication / Chapter 7 “Process Modelling, Web Services and Geo-processing”
3. New research directions has been identified with focus on
   a. Integration, Filtering and Abstraction of User Generated or Multi-Source Spatial Content – see 17th ICA Workshop in Vienna and Springer Publication / Chapter 5 “Integrating and Generalising Volunteered Geographic Information”
   b. Development of an Generalisation Ontology for On-demand Mapping – see Thematic workshop in Paris 2015 and common summary paper

\textbf{Planned activities}

- Second ICA/EuroSDR Symposium for National Mapping Agencies on automated generalisation for topographic map production, 3rd to 4th December, 2015, Amsterdam, Netherlands
- The ICA Commission on Generalisation and Multiple Representation is interested to publish a special issue within the new ICA-Journal "The International Journal of Cartography" in the period 2015/2016.

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\includegraphics[width=\textwidth]{figure1.png}
\caption{Participants of the 16th ICA Workshop on Generalisation in Dresden 2013}
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\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2.png}
\caption{Discussion about Generalisation Ontology, Paris 2015}
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