The Geography of the International Cartographic Association and Sustainable Mapping

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ICA

ACI

ICA's Member and International Cartographic Conferences

The Commissions and working Groups over time

The Geography of the International Cartographic Association and Sustainable Mapping

• Introduction
• ICA's Geography and history
• Maps & cartography
• Maps and the Global Sustainability Goals
  • IMY: ICA initiative
  • Sustainable maps
  • Conclusion

The Commissions and working Groups over time

• Commissions are core to ICA's success
• Commissions follow their ToR to reach ICA's objectives
• Commissions act globally
• Commissions might execute specific ICA tasks incorporated in their ToR

ICA member

The Commissions and working Groups over time

Commission
Working Group
What do we do?

- The mission of the ICA is to promote the disciplines and professions of cartography and GIScience in an international context.
About Cartography (tools)

• the art, science, and technology of making and using maps

Many ‘correct’ design options

Bertin’s Data Analysis

But ….. some off my nightmares

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About Cartography (tools)

• the art, science, and technology of making and using maps

Internet, Displays, Mobile
About Cartography (process)

- ...the art, science, and technology of **making** and using maps

Sustainability of the definition

- Oxford dictionary of English:
  - **Map**: a diagrammatic representation of an area of land or sea showing physical features, cities, roads, etc.
  - **Sustainability**: able to be maintained at a certain rate or level
  - conserving an ecological balance by avoiding depletion of natural recourses
Maps

- A map is a visual representation of an environment
  - maps tell events
  - maps invite engagement
  - maps show patterns
  - maps reveal relationships
  - maps explain
  - maps provide overview
  - maps offer insight

- Maps that matter should raise interest, be engaging, instantly understandable, and be relevant to society

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Cartographic challenge: big data’s visual summaries

- What is big data?

  all contour lines? all airplane movement in a year?

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Summary maps / Dashboard / Dynamics / Time

- Changes
  - Yesterday
    - Carefully crafted ‘authoritative’ products (cartographers)
    - Filling gaps to present the essence of the message
  - Today
    - Participatory perspective (cartographers & mapmakers)
    - Big data

- Illustration of summary maps and data visualization

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Maps

- indoor / outdoor
  - symbols
  - map type
  - real / synthetic

- [Kraak, M.J. & S.I. Fabrikant, 2017]
What about Maps and Sustainability

Cartography / Maps

Sustainability

Global Development Goals

ICA's International Map Year [mapyear.org]

- How can maps be relevant for the global goals?

WE ❤️ MAPS
INTERNATIONAL MAP YEAR 2015–2016
THE GLOBAL GOALS
For Sustainable Development

How can maps be relevant for the global development goals?

Example: Goal 4 Education

- Goals
  - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

- Targets
  - 4.1
  - 4.2
  - 4.3
  - 4.4
  - 4.5
  - 4.6
  - 4.7

- Indicators
  - 4.1.1
  - 4.1.2
  - 4.2.1
  - 4.2.2
  - 4.3.1
  - 4.4.1
  - 4.5.1
  - 4.6.1
  - 4.7.1
  - 4.7.2

http://www.un.org/sustainabledevelopment/education/
The sustainability goals and their targets can be mapped based on their indicators.

Seventeen Commissions have mapped each of the sustainability goals. They have done this often as a multi-commission effort from their particular perspective.

The resulting poster collection created gives an overview of the strength of cartography. It shows how maps can give insight in the data.

Obviously not all indicators are available as of today, so in some cases the maps are based on fictional or older data.
An example

Map design makes a difference because it is key to effective communication.

Exhibition Catalog

At the UN-GGIM

Sensitivity
You want them?

- The posters as well as the catalog for the poster exhibition can be found on: icaci.org/maps-and-sustainable-development-goals.

Sustainable maps

- The map has become an interactive, mobile, dynamic and collaborative interface between a human, groups of people, and the dynamically evolving environment.

- Cartography is ready for tomorrow. However, we have to remain innovative and open, so we can handle societal and technological change, without compromising on fundamental cartographic values.

Let's make the world a better place with maps