Dear Colleagues,

This ISO/TC 211 Newsletter is intended for the members of ISO/TC 211 and its Class A Liaison organizations.

As this Newsletter, a service provided by the ISO/TC 211 Advisory Group on Outreach, develops and evolves, we hope it will also become informative to the global geographic community and eventually to the public at large.

Our mission is to provide information on the standardization of geographic information and related activities.

This issue of the Newsletter will include an editorial, information on recent standards reports and surveys, standards development and implementation, and ISO standards activities, and impact of international standardization.

Sincerely,

Henry Tom, Editor
ISO/TC 211 Newsletter.

Editorial: Standards for Whom? (continued)

and untold numbers of programmers that develop their own applications from the open Google API.

Google Maps / Google Earth have been accompanied by others, such as, in the undeniable presence of Microsoft MapPoint and recent appearance of MSN Virtual Earth.

Standards and specifications developed by ISO/TC 211 and the Open Geospatial Consortium (OGC) have hopefully been adopted and implemented in the traditional mapping-/geographic applications – and possibly in location-based-services applications.

But, what about the developers of open source software for geospatial applications - do they even know about these standards and specifications and if not, do they even care? Their widespread and ubiquitous use of such standards could integrate, advance, and shorten the time needed for software development significantly.

By virtue of the overwhelming number of users, Google and Microsoft totally control the mass market of consumers who have zero knowledge or no commitment to our “sacred” standards and specifications. These companies can instantaneously set de facto standards because their APIs are potentially supported by thousands of programmers and millions of users, who have free or very low cost access to such applications. Recently, the product manager of Google Maps was asked about supporting OGC APIs, he said he was not aware of who or what OGC is. Can you imagine his response if asked about ISO/TC 211? To him, ISO/TC 211 might sound like it was some sort of computer hardware part or IT communications protocol.

So what is the point? The point is that organizations such as ISO/TC 211 and OGC have been going along and developing standards. But, standards for whom? It would seem that ISO/TC 211 standards find their greatest acceptance with national mapping organizations and international institutional users that are comprised of professional and scientific societies and international non-governmental organizations such as the United Nations. OGC has many members, but it started out as an international industry consortium and it’s interface specifications are adopted by users with advanced geospatial applications. OGC has been working to bring geospatial applications into the “open architectures” of the Information and Communications Technology (ITC) industry.
Editorial: Standards for Whom? (continued)

But, neither the standards / specifications developed by ISO/TC 211 or OGC currently seem to have widespread usage by the open software development movement or have been directly integrated into the open APIs that have been made available by Google Maps. The fact is, ISO/TC 211 and the OGC seem to be developing standards and specifications only for internal usage within the geospatial community and even the OGC APIs do not appear to be well known or not widely used in the general IT computing environment. This implication for the emergence of different sets of standards for consumers and for geospatial professionals poses a disturbing and frightening scenario.

So what can be done? We need to work at drawing the attention of the program managers, developers, and users of many of these Internet based applications and educating them about the utility and advantages of using ISO/TC 211 and OGC standards and specifications. If this can be done early on, then - there will be greater utility and access to traditional sources of geographic information that these applications will finally realize - they need. Moreover, there can be access, through these standards, to new sources of geographic information as well as new consumer applications.

But, even within the geospatial community, many fail to realize or recognize that ISO/TC 211 standards are fundamental to establishing and supporting the rapid development of national, regional, and global spatial data infrastructures. For example, the vast majority of all nations involved in the Global Spatial Data Infrastructure (GSDI) are developing countries that currently need basic spatial data standards for geographic information - high tech web-based interface specifications are fine, but premature for most of them, they need to applied in conjunction with the basic spatial data standards or applied afterwards. Hopefully, this viewpoint has helped to raise an awareness for these rather significant issues and has also served as a call to arms.

Economic Benefits of Standardization (continued)

The second study is The Empirical Economics of Standards. "Standards contribute £2.5bn per annum to the UK economy according to a new study published by the Department of Trade and Industry (DTI) and the British Standards Institute (BSI). The DTI report – The Empirical Economics of Standards – quantifies the extent to which standards enhance products and services, build trading relationships, improve management practices and help organisations to reduce risk. As a result, the research finds they are a key driver of growth and labour productivity across the economy.

The DTI commissioned research reveals:

- Standards make an annual contribution of £2.5 billion to the UK economy;
- 13 per cent of the growth in labour productivity is attributed to the role of standards
- Standards are an enabler of innovation and facilitator of technological change; and
- The economic return from investment in standards makes sound business sense at both a macro and micro-economic level."

Surveys by ISO/TC 204, Intelligent Transport Systems (ITS) and ISO/TC 211 Focus Group on Data Producers (FGDP)

Surveys by ISO/TC 204, Intelligent Transport Systems (ITS) and ISO/TC 211 Focus Group on Data Producers (FGDP)

Intelligent Transport Systems (ITS)

"The Asia Pacific Economic Cooperation (APEC) Transportation Working Group in collaboration with ISO Technical Committee 204 – Intelligent Transport Systems (ITS) is undertaking to facilitate cooperation in ITS standardization activities by sharing recent information and experience on the application and/or deployment of ITS standards worldwide. A Joint Project Group (JPG) has been established to undertake a project for developing a 'World Report for Intelligent Transport Systems Standards (WRITSS)'. APEC has commissioned the Korean Agency for Technology and Standards to..."
Surveys by ISO/TC 204, Intelligent Transport Systems (ITS) and ISO/TC 211 Focus Group on Data Producers (FGDP) (continued)

conduct the project. On behalf of the JPG, we are writing to invite your participation in this important initiative. The objectives of the project are:

To survey the current status of ITS standards development throughout various organizations

To identify common needs and potential issues related to ITS standards development and deployment in ITS world markets

The JPG is conducting the survey in two stages. This 1st stage is collecting key contact information and an inventory of international and national standards for ITS. The 2nd stage will be an advanced survey of ITS case studies, deployments using ITS standards and suggestions to enhance ITS standardization activities.

Appendix III contains the Questionnaire and List of ITS International Standards (ISO/TC 204)

Focus Group on Data Providers

The ISO/TC211 Focus Group on Data Producers (FGDP) was established by resolution 302 from the 19th ISO/TC211 Plenary in Pallanza, Italy, in October 2004.

The mandate of the FGDP is to raise the awareness and promote the use of international standards in the area of geographic information by data producers and to collect requirements for development of additional standards in this area.

The membership of the group is determined by the ISO/TC211 Secretariat in collaboration with the Chair. and consists of the following individuals: All participants work for data providers and are/ have been active in standardisation work.

Iain Greenway (Chair), Ordnance Survey Ireland/ FIG

This Survey will continue until September 10, 2005.

China’s Metadata Profile:

At the recent International Cartographic Conference, La Coruna, Spain in July, 2005, our dear friends and colleagues, Jingtong Jiang, former Head of delegation, China and Ruomei Liu presented their joint paper on China Profile of the International Standard: Geographic Information – Metadata.

“The Chinese ‘Geographic Information – Metadata’ standard has been developed and passed voting as the national standard. The paper introduces the definition, scope, structure, levels, attributes, contents of metadata of the Chinese national standard, modified, extension from and consistency with the ISO 19115: 2003, the profile and examples for sharing geographic information, and implementation of the standard in China.”

Appendix IV contains the full paper (11 pages)

The Second Administrative Level Boundaries (SALB) Project

The Second Administrative Level Boundaries (SALB) Project is a dataset aimed at improving the availability of digital administrative boundaries at the second sub-national level. The SALB database will form part of the UN geographic database and was developed in the context of the United Nations Geographic Information Working Group (UNGIWG).

The following website provides information regarding the status and progress of this project.

http://www3.who.int/whosis/gis/salb/salb_home.htm

Appendix V contains the June 2005 SALB Newsletter (3 pages)
OGC Invites Public Comments …

OGC Invites Public Comment on GML in JPEG 2000 Specification June 27, 2005

The Open Geospatial Consortium Inc. (OGC) invites public comment on a candidate specification that will soon be presented for approval by OGC members as an OpenGIS(R) Implementation Specification. The OGC Document, “GML in JPEG 2000 for Geographic Imagery (GMLJP2) Implementation Specification,” is available for downloading from portal.opengeospatial.org/files/?artifact_id=11418. Comments can be submitted to gmljp2-rfc@opengeospatial.org for a thirty-day period ending July 27, Comments received will be consolidated and reviewed by OGC members for incorporation into the document.

OGC Invites Comment on GML Simple Features Specification Profile July 5th 2005

The Open Geospatial Consortium Inc. (OGC) invites public comment on a candidate specification that will soon be presented for approval by OGC members as an OpenGIS(R) Implementation Specification Profile. The OGC candidate specification, “GML simple features profile” is available for downloading from http://www.opengeospatial.org/specs/?page=requests&request=rfc22. Comments can be submitted to gmlsf-rfc@opengeospatial.org for a thirty-day period ending August 4th, 2005. Comments received will be consolidated and reviewed by OGC members for incorporation into the proposed specification.

National Street Addressing Standard

Federal Geographic Data Committee (FGDC) to lead an Address Standards Working Group to draft a standard for street address data content, classification, quality and transfer. The Working Group, intended to include a broad cross section of the community that creates and uses street addresses, will build on previous work done by the Census Bureau

World Standards Day Message 14 October 2005

We all want to live in a safer, more secure world. But earthquakes and hurricanes, floods, transportation and domestic accidents, epidemics and industrial disasters still account for many thousands of deaths and injuries each year, in addition to material and social damage. International Standards offer widely accepted and recognized solutions to prevent and respond to these threats. The role that standards can play in preventing or mitigating such human and material losses is increasingly recognized and their use is rising as a consequence.

“Standards for a Safer World” is the theme of this year’s Worlds Standards Day to be celebrated on 14 October 2005. The International Standards produced by the world’s leading international standards-setting organizations – International Electrotechnical Commission, the International Organization for Standardization and the International Telecommunication Union – provide a valuable safety net.

The three organizations’ procedures and areas of expertise ensure that the world’s leading experts from industry, government, academia and society work together to develop International Standards that contribute to building a safer, more secure world. Their International Standards are thus based on a double level
Standards for a safer world (continued)

World Standards Day Message 14 October 2005

of consensus: amongst stakeholders and across countries.

The IEC, ISO and ITU offer a portfolio of thousands of International Standards specifically focusing on safety and security and relating to such diverse areas as:

- Products, systems and the global supply chain;
- Medical technologies and telemedicine;
- Measurement of the effects of nuclear radiation or electromagnetic emissions on the human body;
- Means to monitor illicit trafficking of radioactive material;
- Biometric technology for identifying people and protecting access to sensitive areas;
- Effective communications following a natural disaster or during an emergency;
- Cybersecurity and protection of the integrity of fixed and mobile communication networks.

IEC, ISO and ITU standards developed at the international level are available for use at the national and regional levels to meet societal, market and regulatory needs. They assist in disseminating best practices and new technologies, while avoiding new barriers to trade that national security and safety regulations may create.

For those technologies involving electricity, electronics and related technologies, the IEC produces both product-specific standards (for example, for electrical batteries or laptop computers) and system standards (for example, functional electrical safety in a factory system. Product standards enable goods to be certified to internationally recognized safety standards. Typical hazard abatement measures include protection against electric shock, excessive temperatures and fire, ensuring that equipment does not have sharp edges or moving parts, and protection against the effects of electromagnetic emissions on the human body.

Standards for a safer world (continued)

World Standards Day Message 14 October 2005

Just a few of the many fields where ISO International Standards ensure safety include construction, transportation, safety in the home or at the workplace. From safety in buildings, including emergency, fire and alarm systems, to standards that help to protect car drivers and passengers (such as child restraint systems, anti-locking braking systems and airbags), to various aspects of food safety and quality (including a new food safety management system), to machinery safety standards, ISO standards help make the world a safer place. For its part, ITU is taking a leading role in the area of cybersecurity, developing standards that will help to combat cyber crime, including protection against identity theft. In the non-cyber world, ITU is working on standards that will allow the prioritization of calls in a disaster situation. This means that in an emergency, telecommunications networks can be effectively cleared of non-urgent calls. The new phenomenon of telemedicine, whereby doctors and surgeons located in different facilities can communicate and administer treatment remotely, is also possible thanks to ITU’s real-time multimedia standard.

Implementation of IEC, ISO and ITU International Standards at the national and/or regional level are helping make the world a safer place. The standards are currently under development by the three organizations.


“The ISO Action Plan for Developing Countries defines a number of actions intended to mobilize its members, regional organizations and donor agencies. The actions are aimed at promoting developing country participation in ISO, building capacity through technical assistance programmes and enhancing interactions at regional and international levels.”
The ISO Action Plan for developing countries sets the following five objectives for 2010.

1. **Improve awareness of key stakeholders in developing countries of the role of standardization in economic growth, world trade and sustainable development.**

2. **Build capacity of ISO members and stakeholders involved in developing the standardization of infrastructure and participating in international standardization work.**

3. **Increase national and regional cooperation to share experience, resources, training, information and communications technology.**

4. **Develop electronic communications and expertise in IT tools to participate in international standardization work, reach out to stakeholders and make efficient use of ISO e-services.**

5. **Increase participation in governance and technical work of ISO to voice priorities, contribute and influence the technical content of ISO deliverable.**

Appendix VI contains ISO Action Plan for Developing Countries (8 pages)

*** The ISO/TC 211 Website had almost 200,000 hits during the month of June 2005.

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**The Impact of International Standardization**

By [Dr. Axel Nawrocki](#), CEO, Hansa Luftbild AG, OGC Bd of Dir., August 9, 2005 Directions Magazine

“Industry-wide standards play a vital role in our globalizing world. For example, in order to conform to foreign standards, 84% of German companies use European and International Standards as part of their export strategy. The Umbrella Organization of German Industry ([BDI](#)) published a position paper (9 Theses on the Significance of Standards for German Industry in the 21st Century) in 2004 on the meaning of standards in the 21st century. This paper treats micro- and macroeconomic as well as legal and political aspects of the international standardization.” Extracts:

“Standards make an important contribution to national and international competitiveness.

Standards support the innovation capability of enterprises for products, services and management by creating objective and internationally recognized parameters, targets and yardsticks for business activity.

Standards create business and political added value as they are drawn up in cooperation with corporate expertise and in consensus with all sectors of society.

Standards are important instruments to achieve technical, political and managerial objectives. They greatly contribute to deregulation and can complement legal and economic parameters in a targeted and flexible manner.

The state also plays a central role in standardization and must create suitable framework conditions. Nationally and internationally recognized standards strengthen the international competitiveness of products and enterprises in that they guarantee transparency, the necessary technical preconditions and provide yardsticks for business activity.

Standardization creates the precondition for economic success and innovation by standardizing the basic elements of technology and management. Real economic success and innovation arise from the creative combination of these elements. Standardization thus reaches its natural limits when it begins to curtail the freedom which fuels innovation. The original purpose and strength of standardization is still to create preconditions for the freedom which is the driving force of innovation.”

Appendix VII (Directions Magazine article)