



EuroVoc, the EU multilingual thesaurus

**An opportunity to increase the visibility and discoverability of
resources**

Publications Office of the EU
Christine LAABOUDI-SPOIDEN

EuroVoc, multilingual thesaurus of the EU

■ Maintained by the Publications Office of the EU

■ Last release (version 4.4)

- Concepts: 6 800
- ConceptSchemes:
 - 21 Domains, 120 Microthesauri
- Published on 15 December 2012

■ Multilingual

- 24 languages
 - 23 EU official languages and Serbian
- Links to external translations
 - Basque, Catalan, language of the FYROM

■ Multidisciplinary thesaurus

- Strong EU coverage
- Not specialised

⊕ 04 POLITICS	
⊕ 08 INTERNATIONAL RELATIONS	
⊕ 10 EUROPEAN UNION	
⊕ 12 LAW	
⊕ 16 ECONOMICS	
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⊕ 72 GEOGRAPHY	
⊕ 76 INTERNATIONAL TRADE	
⊖ 16 ECONOMICS	
1606 economic policy	
1611 economic growth	
1616 regions and regional policy	
1621 economic structure	
1626 national accounts	
1631 economic analysis	
⊖ 20 TRADE	
2006 trade policy	
2011 tariff policy	
2016 trade	
2021 international trade	
2026 consumption	
2031 marketing	
2036 distributive trades	



European Union Open Data Portal

■ SKOS/RDF and XML available in the EU Open Data Portal

- Free to use, reuse, link and redistribute for commercial or non-commercial purposes.



EuroVoc, multilingual thesaurus of the EU

- A concept represented in every language
- Multilingual : exact equivalence between concepts
 - Symmetry
 - No coverage for specific national or regional concepts

digital divide

SN

Disparities between individuals, households, businesses and geographical areas at various socioeconomic levels with regard to access to information technology and use of the Internet for a wide range of activities.

UF *electronic divide*

32 EDUCATION AND COMMUNICATIONS

MT 3231 information and information processing

BT1 access to information

BT2 information policy

RT social inequality [2821]

technological change [6411]

digitale Kluft

SN

Unterschiede zwischen Einzelpersonen, Haushalten, Unternehmen und geografischen Gebieten mit unterschiedlichem sozialen und wirtschaftlichen Niveau in Bezug auf den Zugang zu den Informationstechnologien und die Nutzung des Internet bei einer Vielzahl von Tätigkeiten.

UF *digitaler Bruch*
digitaler Graben
digitales Gefälle

32 BILDUNG UND KOMMUNIKATION

MT 3231 Information und Informationsverarbeitung

BT1 Informationszugang

BT2 Informationspolitik

RT soziale Ungleichheit [2821]

technologischer Wandel [6411]

LANGUAGE EQUIVALENTS

BG	цифрово устройство
ES	retraso digital
CS	digitální propast
DA	it-kløft
DE	digitale Kluft
ET	digitaalne lõhe
EL	ψηφιακό χάσμα
EN	digital divide
FR	fossé numérique
HR	digitalna podijeljenost
IT	divario digitale
LV	digitālās atšķirības
LT	skaitmeninė atskirtis
HU	digitális megosztottság
MT	il-qasma digitali
NL	digitale kloof
PL	luka cyfrowa
PT	fosso digital
RO	divizare digitală
SK	digitálna priepasť
SL	digitalni razkorak
FI	digitaalinen kuilu
SV	digital klyfta
SR	дигитални јаз



Use of EuroVoc today



Publication details



Has the digital divide been reversed? Evidence from five EU countries

This paper examines the digital divide in internet use checks whether there may be digital divides in internet purposes (leisure, improving human capital and obtain services). It uses a unique dataset which covers the e almost 20.000 internet users in the five largest EU ec countries. Our main finding is that, for those who have access to digital divide in internet use has been reversed. Low-i income spend more time on the internet than high-income users find the effect of income on internet use is not affected status of the internet users and we discuss several possible for this result. There is some evidence of an educational in the ability to use websites related to career, educational buying and obtaining goods and services. Tertiary education negative effect on time spent on leisure websites and time spent on websites related to human capital and consumption goods. Using quantile regressions, we find that the net income on time spent on internet and the positive effect time spent on websites related to career, education, and obtaining goods and services hold for the entire conditional these online activities and that these effects are higher quantiles than for the lower quantiles



Corporate author(s): [European Commission, Joint Research Centre](#)
 Private author(s): [Smaranda Pantea](#), [Bertin Martens](#)
 Themes: [Information technology and telecommunications](#)
 Target audience: [Scientific](#)
 Keywords: [digital technology](#), [digital divide](#), [technology assessment](#), [research and development](#), [Internet](#), [leisure](#), [research report](#)

92011E011208

Permanent link (for bookmarking)

Complementary data: Languages and formats available Text (bilingual display)

GO

≤ Bibliographic notice 1 of 7 ≥

Title and reference

Written question E-011208/11 Sergio Paolo Frances Silvestris (PPE) to the Commission. Broadband and measures to bridge the digital divide

The title of this written question was published in [OJ C 180E, 21.6.2012](#)

Authentic language

▶ Italian

Dates

of document: 01/12/2011; Date of transmission of transmission: 01/12/2011
 of answer: 06/01/2012; Written answer

[EUR-Lex.europa.eu](http://eur-lex.europa.eu)

Classifications

▶ **EUROVOC descriptor:**
[industrialised country](#)
[United States](#)
[United Kingdom](#)
[technological change](#)
[transmission network](#)
[digital divide](#)

▶ **Directory code:**
 13.20.60.00 [Industrial policy and internal market / Industrial policy: sectoral operations / Information technology, telecommunications and data-processing](#)

▶ **Subject matter:**
 Telecommunications



This record: Loan / Photocopy Save / Mail		Standard display	Citation display	MARC tags
Title	Has the digital divide been reversed ? [electronic resource] : evidence from five EU countries.			
URL	http://dx.publications.europa.eu/10.2791/12705			
	http://bookshop.europa.eu/uri?target=EUB:NOTICE:LFNA25959:EN:HTML			
Other author(s)	Pantea, Smaranda , Martens, Bertin			
Corporate Author(s)	European Commission, Joint Research Centre, Institute for Prospective Technological Studies			
Publisher	Luxembourg : Publications Office, 2013			
Series	(EUR (Luxembourg, Online), 1831-9424 ; 25959)			
Description	32 p. : col. ill..			
Language Code	eng			
ISBN	978-92-79-29822-6			



Use of EuroVoc today

■ Annotate or retrieve information

■ Resources

- EU resources: EUR-Lex, EU-Bookshop
- Public and private sector information
- Libraries and documentation centre
- Universities, research

■ Applications

- Library Information System
- Content annotation, categorisation (web sites)
- Terminology resources for lawyers or translators
- Text mining, automated indexing
- Semantic web applications



EU resources about "digital divide"



DIGITAL AGENDA FOR EUROPE

A Europe 2020 Initiative

European Commission > Digital Agenda for Europe > Newsroom

Home | Our Goals | Life & Work | Entrepreneurship & Innovation | Science & Technology | Telecom Internet

Europe closes the digital divide

News: 15/10/2013

With high-speed satellite broadband now available, the EU has reached a major milestone in its drive to bridge the Digital Divide. The launch of satellite broadband services in the EU marks a significant step towards closing the digital divide.

Thanks to satellite-based broadband delivering download speeds of up to 20Mbps and upload speeds of up to 6Mbps, EU citizens in remote areas and those who are on the wrong side of the digital divide can now study, trade and access information and video content.

"The availability of satellite broadband in all EU member states is a reality," said Vice President Neelie Kroes. "This initiative of Europe 2020, calls for broadband Internet access for all citizens by 2013."

Neelie Kroes was speaking at the European Parliament launch of a new online web tool that provides practitioners with immediate broadband services to supply them with immediate broadband services.

MEP Lambert Van Nistelrooij (EPP): "Bridging the digital divide everywhere in Europe today, without waiting for tomorrow, is a key to unlocking the full potential to create jobs and give a boost to rural areas."

Neelie Kroes discussed with industry representatives how to ensure that every citizen can get the right support to access the latest generation of High Throughput Satellites has been launched, increasing data transmission speeds and significantly reducing costs for end users.

918711	Education Information technology and data processing Information and information processing	Council	2
cs - Czech	digitální propast	CdT **** *	@
	digitalí kloft	Council ****	
	mangel på IT-færdigheder	Council **** *	@
da - Danish	mangel på IT-kompetencer	Council ****	
	IT-kloft	Council ****	
	informationsteknologisk A- og B-hold	Council ****	
	digitale Kluft	Council **** *	@
de - German	digitale Spaltung	Council **** *	@
	digitaler Graben	Council **** *	@
el - Greek	χάσμα της ψηφιακής ισοπέδωσης	Council **** *	@
	ψηφιακό χάσμα	Council ****	
en - English	digital divide	Council **** *	@
	numeracy gap (DEPRECATED)	Council **** *	@
es - Spanish	fractura digital	Council **** *	@
	brecha digital	Council **** *	@
fi - Finnish	digitaalinen jako	Council **** *	@
fr - French	fracture numérique	Council **** *	@
	fracture digitale	Council **** *	@
hu - Hungarian	számítástechnikai válaszfal	CdT **** *	@
	digitális szakadék (Deprecated)	Council **** *	@

Glossary: Digital divide

Digital divide refers to the gap between those who have access to the Wide Web, and those who do not. At a basic level, the participants in the digital divide are those who lack access to information technology (ICT), i.e. the pre-digital divide. The term explicitly includes those who lack access to ICT. The digital divide can be classified into social groups or geographic regions.

Related concepts

- Digital literacy
- E-inclusion
- E-skills
- Information and communication technology (ICT)

Statistical data

- Information society statistics

Categories: Education and training glossary | Glossary | Information society glossary

- Resources not "annotated" by EuroVoc concept(s)
- Google search or Browse/search in the different web sites to retrieve relevant information




"Digital divide" in other thesauri

UNBIS

02.04.00 - تنمية 06.06.00 - اتصالات سلكية ولاسلكية 16.02.00 - علم الحاسوب والتكنولوجيا	الفجوة الرقمية 数字鸿沟 02.04.00 - 发展 06.06.00 - 电信 16.02.00 - 计算机科学与技术 用于: 数码鸿沟	DIGITAL DIVIDE 02.04.00 - DEVELOPMENT 06.06.00 - TELECOMMUNICATIONS 16.02.00 - COMPUTER SCIENCE AND TECHNOLOGY
روابط المصطلحات: مصطلحات مترابطة: التغير التكنولوجي الفجوة الاقتصادية الوصول إلى المعلومات بناء القدرات مجمع المعلومات محو الأمية الحاسوبية نقل التكنولوجيا	▼ 查询关系: 相关词: 信息的获取 信息社会 技术变革 技术转让 普及计算机知识 经济差距 能力建设	▼ Term Relationships: Related terms: ACCESS TO INFORMATION CAPACITY BUILDING COMPUTER LITERACY ECONOMIC GAP INFORMATION SOCIETY TECHNOLOGICAL CHANGE TECHNOLOGY TRANSFER
FOSSE NUMERIQUE 02.04.00 - DEVELOPPEMENT 06.06.00 - TELECOMMUNICATIONS 16.02.00 - INFORMATIQUE	Цифровой разрыв 02.04.00 - РАЗВИТИЕ 06.06.00 - СВЯЗЬ 16.02.00 - КОМПЬЮТЕРНАЯ НАУКА И ТЕХНОЛОГИЯ	BRECHA DIGITAL 02.04.00 - DESARROLLO 06.06.00 - TELECOMUNICACIONES 16.02.00 - INFORMATICA Usado por: DIVISION DIGITAL
▼ Relations: Termes associés: ACCES A L'INFORMATION ALPHABETISATION INFORMATIQUE CHANGEMENT TECHNOLOGIQUE DEVELOPPEMENT DES CAPACITES ECART ECONOMIQUE SOCIETE DE L'INFORMATION TRANSFER DE TECHNOLOGIE	▼ Связь с другими терминами: Смежные термины: Доступ к информации Информационное общество Компьютерная грамотность Наращивание потенциала Передача технологии Технические преобразования Экономический разрыв	▼ Relaciones: Términos relacionados: ACCESO A LA INFORMACION ALFABETIZACION EN MATERIA DE COMPUTACION CAMBIO TECNOLÓGICO DESARROLLO DE CAPACIDAD DISPARIDAD ECONOMICA SOCIEDAD DE LA INFORMACION TRANSFERENCIA DE TECNOLOGIA

ZBW

Digital divide EB 

Digitale Spaltung (german)

used for: Digital Gap

Broader Terms

■ Internet usage EB 

Related Terms

■ Asymmetric information EB 

Subject Categories

■ N.08.01 Education and Learning ▼
■ N.08.04 Communications and Media ▼

Links to other Thesauri and Vocabularies

= Digitale Spaltung (from GND)

Persistent Identifier (for bookmarking and linking)

■ <http://zbw.eu/stw/descriptor/29224-5>

<http://id.loc.gov/authorities/subjects/sh00006536>



#	ENG Heading	Other languages	Public Note (ENG)	Classification
1	Digital divide (eng)	Fossé numérique (fre)	Scope: Disparities between individuals, households, businesses and geographical areas at various socioeconomic levels with regard to access to information technology and use of the Internet for a wide range of activities. (Source: Eurovoc thesaurus). (eng)	003.02.05.0475



Thesaurus Alignment at the PO

Institutions/bodies	Thesaurus	% of shared concepts with EuroVoc
EACEA (Education, Audiovisual and Culture Education Agency)	TESE (Thesaurus of European Education Systems)	11
EU-OSHA (Agency for health at work)	OSHA Thesaurus	20
Cedefop (Agency for Vocational training)	ETT (European Training Thesaurus)	60
EEA (European Environment Agency)	Gemet	66
EC Library	ECLAS	44
UN Library (United Nations)	UNBIS	23
FAO (United Nations)	Agrovoc	7

Example: 11 % of TESE concepts are matching with EuroVoc



Thesaurus Alignment at the PO

■ Dedicated interface for semi-automated alignment

- Algorithm: Aroma (Inria)
- No pivot language
 - Alignment of concepts (URIs) instead of terms
- SKOS-mapping
 - exactMatch, broadMatch, narrowMatch, relatedMatch and closeMatch
- Human validation (Validated, rejected, to be reviewed)

Actions: [validate](#) [review](#) [reject](#) [delete](#)

select elements in all pages

<input type="checkbox"/>	Concept T1	Mapping type	Concept T2	Score	Status
<input type="checkbox"/>	political ideology	exact match	Political doctrines	0.7	validated
<input type="checkbox"/>	political ideology	exact match	Political ideologies	0.7	validated
<input type="checkbox"/>	political institution	exact match	Political institutions	0.8	validated
<input type="checkbox"/>	Socialist International	exact match	Socialist international	0.9	validated

- Export in SKOS-Core (RDF) or EDDOAL
 - Available in



Thesaurus alignment - Lesson learnt



■ Different type of resources

Available

- Linked Open Data
 - Agrovoc (FAO - UN)
 - Gemet (General Multilingual Environmental Thesaurus - EEA)
- URIs but not yet dereferencable
 - EuroVoc
- URL (HTML format)
 - ECLAS (European Commission's Library)
 - UNBIS (UN Thesaurus)
- No Uri's but published (PDF, HTML, Excel)
 - ETT - European Training Thesaurus (Cedefop)
 - TESE - Thesaurus of education systems in Europe
 - EU-Osha

Not yet published

- Eurojust/Europol (Justice), Eige (Gender equality)



Thesaurus alignment - Lesson learnt

■ We maintain

- Similar or close concepts
- Similar translations

■ We use

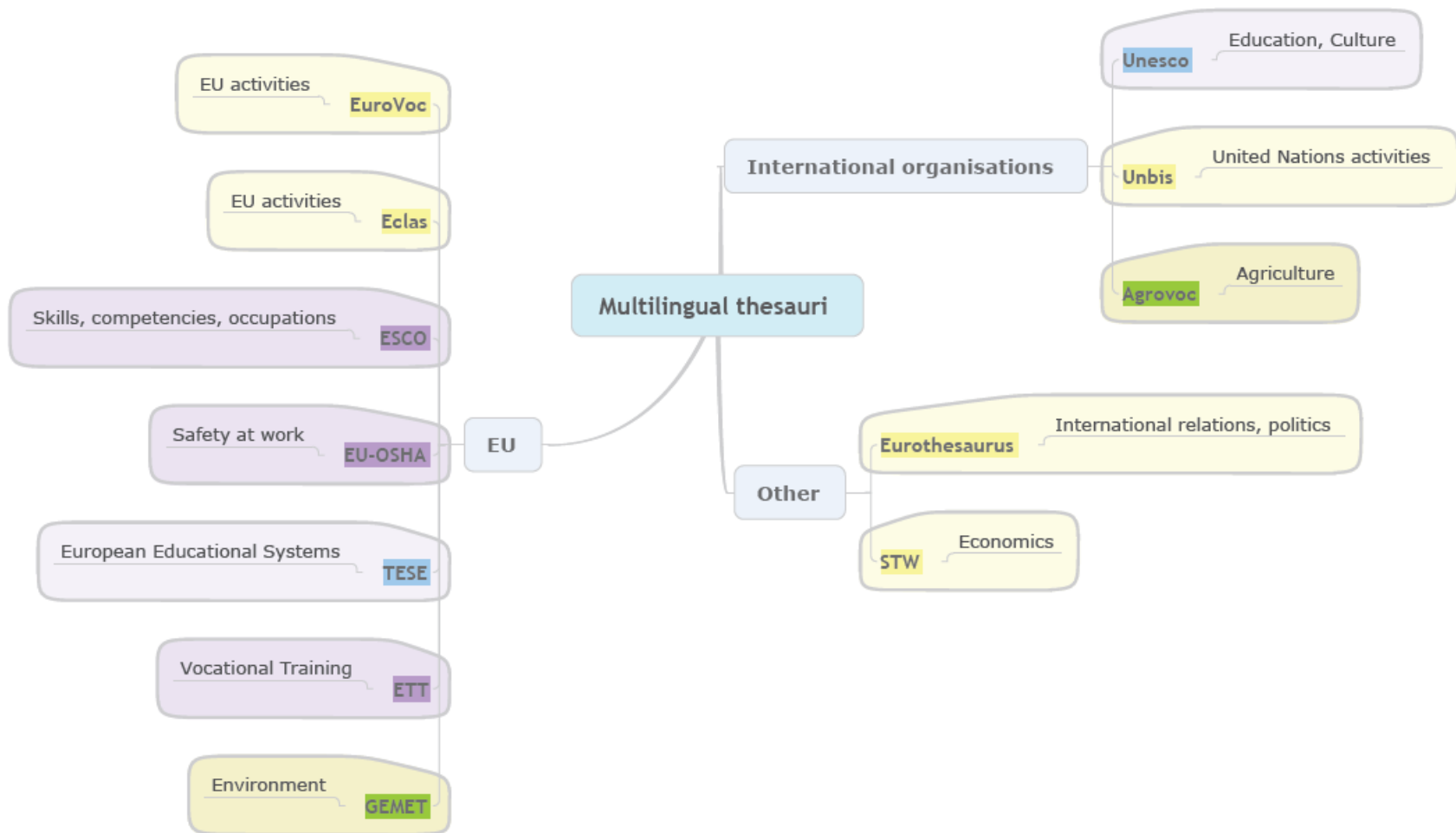
- Different maintenance systems
 - Maintenance, hosting or licensing fees
- Different formats and standards (data model)
- Different means of dissemination

■ Lack of interoperability (LOD)

■ Duplicated efforts and resources in terms of thesaurus maintenance, infrastructure and dissemination



Map of multilingual thesaurus



EuroVoc –Thesaurus collaboration



- Common tools for thesaurus management and dissemination opened to EU institutions and bodies offered by the PO
 - Thesaurus maintenance
 - Vocbench
 - Common dissemination
 - OP Common Portal and EU Open Data Portal
 - Dereferencable resources

- Advantages
 - No licensing fees, no maintenance fees for our partners

- Expand the coverage of EuroVoc with specialized concepts
 - EU related-concepts maintained at the EuroVoc level
 - Integration of specialised concepts in EuroVoc
 - New Microthesauri
 - Specific concepts maintained by the EU bodies or agencies
 - According to their field of expertise





■ Create synergies between vocabularies

- Facilitate interoperability and LOD between vocabularies and the annotated resources
- Reuse the alignments with multilingual (EU, international) and national vocabularies
 - Offer query expansion (via alignments)
 - Increase discoverability of resources annotated with EuroVoc or other thesauri

■ Offer an in-depth indexing tool

- Indexing or categorisation of resources
 - Candidate for the categorisation of European and national data portals semantic assets

■ Offer an accurate information retrieval vocabulary

- Provide cross-data searches and aggregated results for all the EU resources annotated by a EuroVoc concept
 - No need to browse in the different web sites
 - Federated data search across websites





Thanks for your attention

Questions ?

For more information, please contact :

eurovoc@publications.europa.eu

