

Information Products in CPC version 2

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Paul Johanis
Statistics Canada

1. Introduction

While there is no explicit definition or category for information products in the Central Product Classification, many products have been specifically identified to fit two frameworks relevant to the information economy. The first of these is the Information and Communication Technologies (ICT) framework, developed under the auspices of the OECD. Under this framework, ICT industries are identified based on ISIC rev. 4 classes and these will be included as a special aggregation in an annex to the ISIC manual. In CPC version 2, the principal products of these industries will be identified and similarly provided as special aggregations for ICT goods and ICT services. The second framework that is relevant for the representation and analysis of the information economy is the introduction in ISIC rev 4 of Section J, Information and Communication. This grouping has a different scope and purpose than the ICT industries. As the CPC is developed within the frame of reference of ISIC, care is taken to ensure that there is at least one class in the CPC to represent the principal output of every ISIC class. As a result, changes are proposed in CPC version 2 to identify products in the context of this new Information and Communication section in ISIC.

The goal of this paper is to highlight the products of this new ISIC section in the current draft of the CPC, their definition and rationale in the context of the information product supply chain.¹

2. The Information and Communication section in ISIC rev 4

In the current draft of ISIC rev 4, Section J - Information and Communication, has been introduced. The section description identifies precisely its scope and content.

“This section includes the production and distribution of information and cultural products, the provision of the means to transmit or distribute these products, as well as data or communications, information technology activities and the processing of data and other information service activities.

The main components of this section are publishing activities (division 58), including software publishing, motion picture and sound recording activities (division 59), radio and TV broadcasting and programming activities (division 60), telecommunications activities (division 61) and information technology activities (division 62) and other information service activities (division 63).

Publishing includes the acquisition of copyrights to content (information products) and making this content available to the general public by engaging in (or arranging for) the reproduction and distribution of this content in various forms. All the feasible forms of publishing (in print, electronic or audio form, on the internet, as multimedia products such as CD-ROM reference books etc.) are included in this section.

Activities related to production and distribution of TV programming span divisions 59, 60 and 61, reflecting different stages in this process. Individual components, such as movies, television series etc. are produced by activities in division 59, while the creation of a complete television channel programme, from components produced in division 59 or other components (such as live news programming) is included in division 60. Division 60 also includes the broadcasting of this programme by the producer. The distribution of the complete television programme by third parties, i.e. without any alteration of the content, is included in division 61. This distribution in division 61 can be done through broadcasting, satellite or cable systems.”²

¹ This paper updates a paper given at the 18th Voorburg meeting, Introducing Products for the Information Sector in the CPC, Paul Johannis, Statistics Canada. (Tokyo, 2003)

² International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, Detailed structure and explanatory notes, Draft – 19 August 2005, UNSD

This section comprises units engaged in producing and distributing information and cultural products and in providing the means to transmit or distribute these products as well as data or communications. The detailed structure of the section is shown below.

J			Information and communication
	58		Publishing activities
		581	Publishing of books, periodicals and other publishing activities
		5811	Book publishing
		5812	Publishing of directories and mailing lists
		5813	Publishing of newspapers, journals and periodicals
		5819	Other publishing activities
		582	5820 Software publishing
	59		Motion picture, video and television programme production, sound recording and music publishing activities
		591	Motion picture, video and television programme activities
		5911	Motion picture, video and television programme production activities
		5912	Motion picture, video and television programme post-production activities
		5913	Motion picture, video and television programme distribution activities
		5914	Motion picture projection activities
		592	5920 Sound recording and music publishing activities
	60		Broadcasting and programming activities
		601	6010 Radio broadcasting
		602	Television broadcasting and subscription programming
		6021	Television broadcasting
		6022	Cable, satellite and other subscription programming
	61		Telecommunications
		611	6110 Wired telecommunications activities
		612	6120 Wireless telecommunications activities
		613	6130 Satellite telecommunications activities
		619	6190 Other telecommunications activities
	62	620	Information technology service activities
		6201	Computer programming activities
		6202	Information technology consultancy activities and computer facilities management activities
		6209	Other information technology service activities
	63		Information service activities
		631	Web portals, data processing, hosting and related activities
		6311	Data processing, hosting and related activities
		6312	Web portals
		632	Other information service activities
		6321	News agency activities
		6329	Other information service activities n.e.c.

3. Products for the Information and Communication Section

In the current draft of the CPC, there is no grouping at the Section or Division level for something called information products. Rather, the products that are the outputs of industries in the Information and Communication section are dispersed throughout the classification. Even if they are dispersed, however, these products have been identified and defined according to a consistent logic based on the information product supply chain, which includes origination, production and distribution of information products.

In this respect, these products fall into three broad categories: originals, information products and related services. Originals are the output of the origination step in the overall process, while information products result from the production step. In CPC version 2, originals and information products are identified, in both tangible and intangible forms.

In the case of related services, many of these products are simply specialized technical or business services, that pose no particular conceptual or implementation difficulties. These services generally represent support

activities to, or outsourced activities in, the overall process of origination, production and distribution of information and cultural products. One would find here large parts of the overall process performed on a fee or contract basis, for example 8911 Publishing, on a fee or contract basis.

Originals

The first step in the information product supply chain is origination, the output of which is originals. An original is conceptualized in CPC version 2 as an intangible good. Once produced, it can be traded or made available for use by others through licensing. The actual transactions in these cases take the form of rights. While some originals are the outputs of the Information section, much of the content of information products originates outside of the information section, in particular in the Arts, recreation and entertainment section. In most cases, originals have been placed next or near the service that produces them on a fee or contract basis. For example, CPC class 9632 Services of authors, composers, sculptors and other artists, except performing artists, covers the services of such artists on a fee or contract basis. New product 9633 - Original works of authors, composers, sculptors and other artists except performing artists, has been added.

Producers in the information section also create originals. For example, films, radio and television programs and broadcasts as well as the originals for software programs are originated within the information section. All of the originals mentioned to date are protected through copyright. Other types of originals are protected as industrial property, for example in the form of a patent. These types of originals are also included in CPC version 2, next or near to the services that produces them on a fee or contract basis (see 8140, Original works of research and development). These, however, do not subsequently go through the production and distribution stages of the information product supply chain and will not be discussed in this paper.

The full list of information product originals in CPC version 2 follows.

CPC	ISIC	ISIC section
83153 Software originals	6201	J
84611 Television broadcasts	6021	J
84612 Radio broadcasts	6010	J
84621 Radio channel programmes	6022	J
84622 Television channel programmes	6022	J
96113 Sound recording originals	5920	J
96123 Motion picture, video tape, television and radio programme originals	5911	J
96330 Original works of authors, composers, sculptors and other artists except performing artists	9000	R

Information products

Originals, to be mass distributed, must then be embodied in an information product. These can take different forms, in different media: books, newspapers and periodicals, whether in print, online or in other electronic form; music and other sound recordings on disk, tape, in print or online; movies and other video productions on disk, tape or online, etc. In CPC version 2, information products that are in intangible form, accessed interactively online or downloaded are explicitly identified.

The full list of information products in CPC version 2 follow. All are outputs of the Information and Communication section.

CPC		ISIC
322	Books, in print	5811
32210	School Textbooks	5811
32220	General reference books, including atlases and other books of maps or charts, and dictionaries and encyclopaedias, and serial installments thereof	5811
32230	Professional, technical and scholarly books	5811
32240	Children's books	5811
32250	Adult trade books	5811
32260	Directories	5812
323	Newspapers, in print	5813
32311	General newspapers, daily	5813
32312	General newspapers, other than daily	5813
32321	Specialized newspapers, daily	5813
32322	Specialized newspapers, other than daily	5813
324	Periodicals, in print	5813
32410	General interest periodicals	5813
32420	Business, professional and academic periodicals	5813
32430	Other periodicals	5813
325	Printed maps; music, printed or in manuscript; postcards, greeting cards, pictures and plans	5819
32510	Maps and hydrographic or similar charts (including wall maps, topographical plans and globes), printed, other than in book-form	5819
32520	Music, printed or in manuscript	5920
32530	Printed or illustrated postcards; printed cards bearing personal greetings or messages, with or without envelopes or trimmings	5819
32540	Printed pictures, designs and photographs	5819
32550	Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; hand-written texts; photographic reproductions and carbon copies of the foregoing	5819
47610	Musical audio disks and tapes	5920
47621	Audio books on disk or tape	5811
47622	Other non-musical audio disks and tapes	5920
47710	Films and other video content on disks or tape	5911

CPC		ISIC
47811	Operating systems, packaged	5820
47812	Network software, packaged	5820
47813	Database management software, packaged	5820
47814	Development tools and programming languages software, packaged	5820
47819	Other systems software, packaged	5820
84311	Books, on-line, including school textbooks, general reference books, such as atlases and other books of maps or charts; dictionaries, encyclopedias and directories	5811

84312	Newspapers, on-line	5813
84313	Periodicals, on-line	5813
84321	Musical audio downloads	5920
84322	Streaming audio provision services	5920
84331	Films and other video downloads	5911
84332	Streaming video provision services	5911
84341	System software downloads	5820
84342	Application software, downloads	5820
84391	On-line games	5819
84392	On-line adult content	5819
84393	Web search portals	6312
84399	Other on-line content provision	5819

An original can be embodied in a variety of information products, in various media. For example, a book manuscript (CPC 96330) can be published in a book, in print (CPC 32250), an audio book (CPC 47621) or provided on-line (CPC 84311). All three products are the output of the Book publishing activity, ISIC 5811. Similarly, a musical composition (CPC 96330) can be embodied in an audio disk of tape (CPC 47610), a musical audio download (CPC 84321) or streaming audio on-line (CPC 84322). The latter are all the output of the Sound recording and music publishing activity (ISIC 5920). The parallel for software starts with an original (CPC 83153), which can be published as packaged software on disk or tape (CPC 47811, 47812, 47813, 47814 and 47819), or as a software download (CPC 84341 and 84342). A similar pattern of embodiment in information products is provided for every type of original.

Originals can also be made available for use by others through licensing. Licensing means giving the right to others to use originals for certain specified purposes. This can be for the purpose of publishing (for example, an author licenses a book publisher to produce and distribute a hard cover version of a book in a given geographic area) or to incorporate an original in another original (for example, a music publisher licenses a movie maker to include a given musical composition in a movie). Licensing is an important source of revenues for owners of the rights to originals. CPC version 2 retains the two classes in the current version of the CPC to cover this product: 73310 Licensing services for the right to use computer software and 73320 Licensing services for the right to use entertainment, literary or acoustic originals. They are the principal products of ISIC 7740 Leasing of non-financial intangible assets.

Related services

Three categories of services related to information products are represented in CPC version 2: production services, distribution services and support services.

Production services

Production services result in the production of an original or an information product, on a fee or contract basis. For example, class 83151 - IT design and development services for applications, can result in the production of a software original (which can be retained by the client for own use, or embodied in an information product for mass distribution as packaged software or for online delivery). Similarly, class 96111 – Sound recording services results in an original sound recording, which can be retained by the client for own use or embodied in an information product for mass distribution on disk or tape or by online delivery. In these cases, the producer does not sell the original but the services of producing the original. There is a parallel here to the goods producing services found in CPC Division 88 and 89. Whereas the produced good will be found in Section 1 through 4 of the CPC, the service of producing the good will be found in Division 88. In the case of information products, both the original, an intangible good, and the service of producing the original are placed near each other, but are still distinct products.

The list of production services of information products in CPC version 2 follows. Most are outputs of the Information and Communication section of ISIC. However, the last three products in the list are outputs of activities in Section R, Arts, Entertainment and Culture.

CPC		ISIC
83151	IT design and development services for applications	6201
83152	IT design and application services for networks and systems	6201
89110	Publishing, on a fee or contract basis	5811
96111	Sound recording services	5920
96112	Live recording services	5920
96121	Motion picture, video tape and television programme production services	5911
96122	Radio programme production services	5911
96220	Performing arts event production and presentation services	9000
96310	Services of performing artists	9000
96320	Services of authors, composers, sculptors and other artists, except performing artists	9000

Distribution services

Once produced, information products must be distributed to consumers. Information products in tangible form are distributed through the normal distributive channels of wholesale and retail trade services, and appropriate classes exist in the CPC that cover this product. However, intangible information products have specialized distribution channels

CPC		ISIC
84613	Broadcasting services on a fee or contract basis	6021
84631	Home programme distribution services, basic programming package	6110, 6120, 6130
84632	Home programme distribution services, discretionary programming package	6110, 6120, 6130
84633	Home programme distribution services, pay-per-view	6110, 6120, 6130
96140	Motion picture, video and television programme distribution activities	5913

While not strictly distribution services in the same sense, many intangible information products are delivered over distribution infrastructures, the operation of which is a kind of distribution service. For the sake of preserving the origination, production, distribution paradigm, the telecommunications services and internet provision services are listed here, although they could also be considered support or infrastructure services.

CPC		ISIC
84110	Carrier services	6110
84121	Fixed telephony services - access and use	6110
84122	Fixed telephony services - calling features	6110
84131	Mobile telecommunications services - access and use	6120
84132	Mobile telecommunications services - calling features	6120
84140	Private network services	6110,

		6120, 6130
84150	Data transmission services	6110, 6120, 6130
84160	All other telecommunications services	6190
84210	Internet backbone services	6110
84221	Narrow-band internet access services	6110, 6120, 6130
84222	Broad-band internet access services	6110, 6120, 6130
84290	Other Internet telecommunications services	6190

Support services

The remaining products of the Information and Communication section can be considered support or infrastructure services.

CPC		ISIC
96131	Audio-visual editing services	5912
96132	Transfers and duplication of masters services	5912
96133	Colour correction and digital restoration services	5912
96134	Visual effects services	5912
96135	Animation services	5912
96136	Captioning, titling and subtitling services	5912
96137	Sound editing and design services	5912
96139	Other post-production services	5912
96151	Motion picture projection services	5914
96152	Videotape projection services	5914
83141	IT technical consulting services	6202
83142	IT technical support services	6202
83161	Website hosting services	6311
83162	Application service provisioning	6311
83163	Business process management services	6311
83169	Other IT infrastructure provisioning services	6311, 6209
83171	Network management services	6202
83172	Computer systems management services	6202
84410	News agency services to newspapers and periodicals	6321
84420	News agency services to audio-visual media	6321

Recap

To introduce products of the new ISIC Information and Communication section in the CPC, it was necessary to expand and re-organize the existing content of the CPC in a number of ways. It was decided not to regroup products of the information section in a new division of the CPC. Rather, they are dispersed across several divisions, retaining their place in CPC ver. 3.1. Additional detail was added for existing classes of the CPC, and new products introduced, in particular to represent originals. Throughout the classification, the particular characteristics of the products of the information section were taken into account.

In this respect, we have seen that these products fall into three broad categories: originals, information products and related services. Products in each category have been defined in the context of an information product supply chain, from origination, to production to distribution, with related production, distribution and support services.

In the final result, the CPC provides a rich array of products that are characteristic of the information economy and also provides principal products for each class of the new ISIC Information and Communication section.