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Please cite this paper as:

OECD (2008-01-30), "Measuring User-Created Content: Implications for the ICT Access and Use by Households and Individuals Surveys", *OECD Digital Economy Papers*, No. 139, OECD Publishing, Paris.
http://dx.doi.org/10.1787/230554851603

OECD Digital Economy Papers No. 139

Measuring User-Created Content: Implications for the ICT Access and Use by Households and Individuals Surveys

OECD

Unclassified **DSTI/ICCP/IIS(2007)3/FINAL**

Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development **30-Jan-2008**

English - Or. English

DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY
COMMITTEE FOR INFORMATION, COMPUTER AND COMMUNICATIONS POLICY

DSTI/ICCP/IIS(2007)3/FINAL
Unclassified

Cancels & replaces the same document of 28 January 2008

Working Party on Indicators for the Information Society

MEASURING USER-CREATED CONTENT: IMPLICATIONS FOR THE "ICT ACCESS AND USE BY HOUSEHOLDS AND INDIVIDUALS" SURVEYS

JT03239401

English - Or. English

FOREWORD

This paper reviews recent measurement work on User-Created Content (UCC) undertaken in OECD countries. It shows that UCC is emerging as a significant area of economic and social activity worthy of consideration for official measurement and discusses the implications for the OECD Model Survey on "ICT Access and Use by Households and Individuals".

The paper, prepared by Brigitte van Beuzekom of the Economic Analysis and Statistics (EAS) Division of the OECD Directorate for Science, Technology and Industry (DSTI), was discussed by the Working Party on Indicators for the Information Society (WPIIS) in May 2007 and transmitted to the Committee for Information, Computer and Communication Policy (ICCP).

The ICCP Committee declassified the document at its meeting on 4-5 October 2007.

The document is published under the responsibility of the Secretary-General of the OECD.

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MEASURING USER-CREATED CONTENT: IMPLICATIONS FOR THE "ICT ACCESS AND USE BY HOUSEHOLDS AND INDIVIDUALS" SURVEYS

Introduction

This paper is presented for the information of WPIIS delegates to provide the basis for discussion on measurement work emerging in member countries on Internet-based User-Created Content (UCC); also referred to as User-Generated Content. The paper sets out to:

- Note that User-Created Content is emerging as a significant area of economic and social activity worthy of consideration for official measurement.
- Present examples of the UCC data that are currently being collected by several OECD member countries.
- Present selected examples of non-official sources of UCC data.
- Present the questions that are currently included in OECD member countries "ICT access and use by Households/Individuals" surveys.
- Consult with delegates on capturing information on UCC through "ICT access and use by households and individuals" surveys.

This paper complements a study on UCC by the Working Party on the Information Economy [DSTI/ICCP/IE(2006)7/FINAL], which pointed to the lack of available official data on the topic and called for co-operation among national statistical offices (see Annex 1 for a summary of the main conclusions of this study).[1]

User-Created Content: What is it and why we should measure it?

Time magazine picked "You", as person of the year 2006.[2] According to *Time*, "In 2006, the World Wide Web became a tool for bringing together the small contributions of millions of people and making them matter". This phenomenon has also been broadly referred to as Web 2.0 and the participative web.

What is User-Created Content (UCC)? UCC includes various forms of written, audio, visual and combined media created by Internet users. UCC, also referred to as "User-Generated" Content is defined by Wikipedia, itself a source of UCC, as "…on-line content that is produced by users of websites as

1. This study is part of a series on Digital Broadband Content in the WPIE Programme of Work. The study is divided into six parts: the first part defines UCC, the second and third parts identify the key drivers of UCC, the fourth part analyses associated "value" chains and new business models, the fifth part examines its social and economic impacts, and the final part analyses opportunities and challenges for users, businesses and government.

2. Lev Grossman, "Time's Person of the Year: You", 13 December 2006. http://www.time.com/time/magazine/article/0,9171,1569514,00.html

opposed to traditional media producers such as broadcasters and production companies. It reflects the democratisation of media production through new technologies that are accessible and affordable. These include digital video, blogging, podcasting, mobile phone photography and, of course, wikis. Prominent examples of websites based on User-Generated Content include Flickr, Friends Reunited, eBay, indymedia, FourDocs, YouTube and Wikipedia. The advent of User-Generated Content marks a shift among media organisations from creating online content to creating the facilities and framework for non-media professionals (*i.e.* "ordinary people") to publish their own content in prominent places."[3]

The four drivers of UCC are:

1. Technological (*e.g.* more widespread broadband uptake, new web technologies which facilitate the posting, rating and aggregation of data).

2. Social (*e.g.* demographic factors, attitudes towards privacy).

3. Economic (*e.g.* the increased commercial involvement of Internet and media firms in the hosting of UCC).

4. Legal (*e.g.* the rise of more flexible licensing schemes).

User-Created Content is a phenomenon with major social implications. Changes in the way users produce, distribute, access and re-use information and entertainment give rise to: increased user autonomy; increased participation, increased diversity and increased creativity. UCC also provides citizens with improved ICT skills. As an open platform, UCC increases the free flow of information and freedom of expression, as well as enriching political and societal debates and broadening diversity of opinion.

User-Created Content has also emerged as an important area of economic activity. UCC is redefining the role of those industries that traditionally supply content. Some major media and Internet companies have been quick to see the potential financial opportunities of Web 2.0, as indicated by the recent acquisitions of: YouTube by Google for USD 1.65 billion (2006); and MySpace by News Corporation for USD 850 million (2005).[4] In 2006, Mixi, a Japanese social networking site, and open*BC* (renamed Xing), a German business social networking site, were listed on stock exchanges. Different business models have emerged for UCC, some of which are based on: advertising, voluntary contributions or charging viewers for services.

Finally, UCC raises a host of new policy questions.[5] Apart from standard policy issues such as ensuring widespread broadband access and innovation, questions are emerging around whether and how governments should support UCC. It is important, for example, to maintain a competitive playing field among UCC hosting companies. Other policy issues of concern relate to intellectual property rights, content quality and accuracy, issues surrounding privacy and identity theft, and regulatory questions arising from the increasing prevalence of virtual worlds.

In order to make informed policy recommendations regarding UCC, official data is necessary. However, there is a lack of internationally comparable data on UCC from national statistical sources, and

3. http://en.wikipedia.org/wiki/User_generated_content accessed 19 October 2006.

4. "Report says user generated content sites have exploded but have limited potential for online advertising", 16 January 2007. http://www.finfacts.com/irelandbusinessnews/publish/article_10008690.shtml

5. OECD (2007), "Participative Web: User-Created Content", April, Working Party on the Information Economy, [DSTI/ICCP/IE(2006)7/FINAL].

of knowledge on changing usage habits. As a result, it is often hard to accurately assess the statistical, economic, and societal effects of UCC and to devise appropriate policies.

WPIIS is the ideal place to explore how to best undertake the measurement and collection of official UCC data.

At this time only a limited number of countries collect some data on UCC: Japan, Korea and the countries covered by EUROSTAT. The following sections present information on this measurement work and examples of data collected.

Data on UCC by National Statistical Offices and EUROSTAT

Japan

The Japanese Ministry of Internal Affairs and Communications (MIC) conducts the "Communications Usage Trend Survey for Households". This survey collects information on Internet usage by type of activity. Four variables in the list of Internet-related activities can be considered UCC: Bulletin boards (BBS)/Chat rooms[6], Weblogs (blogs)[7], Social Networking services (SNSs)[8] and File transfer (including peer-to-peer and FTP). See Annex 2 for the question used in the Japanese survey.

At the time of writing this document, only data for Blogs and Social Networking services[9] were publicly available.

By end March 2006, there were 6.2 million bloggers and 25.4 million blog readers in Japan. During the same period there were approximately 5.1 million users of Social Networking services (Figures 1 and 2).

MIC estimates that the blog market was worth about PPP$ 5.1 million in 2004 and forecasts that the blog market will grow by an annual average growth rate of 371% to PPP$ 113.1 million by 2006.

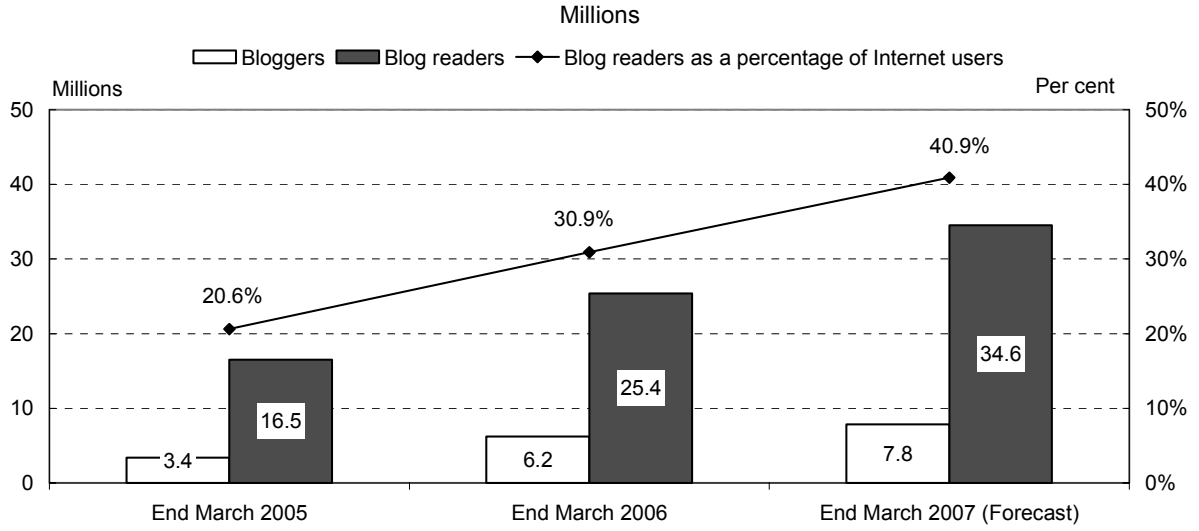
6. MIC defines BBS as: An electronic bulletin board service where users contribute messages which can be read (and replied to) by the others.

7. MIC defines Blog as: An abbreviated form of web log (weB LOG). A web page contains personal diary, commentary or journal and is frequently updated. Postings on such blogs are arranged in chronological order.

8. MIC defines Social networking services as: An SNS is a community-type web site with the purposes of finding new friends, introducing friends and registering a personal interest, hobby, etc.

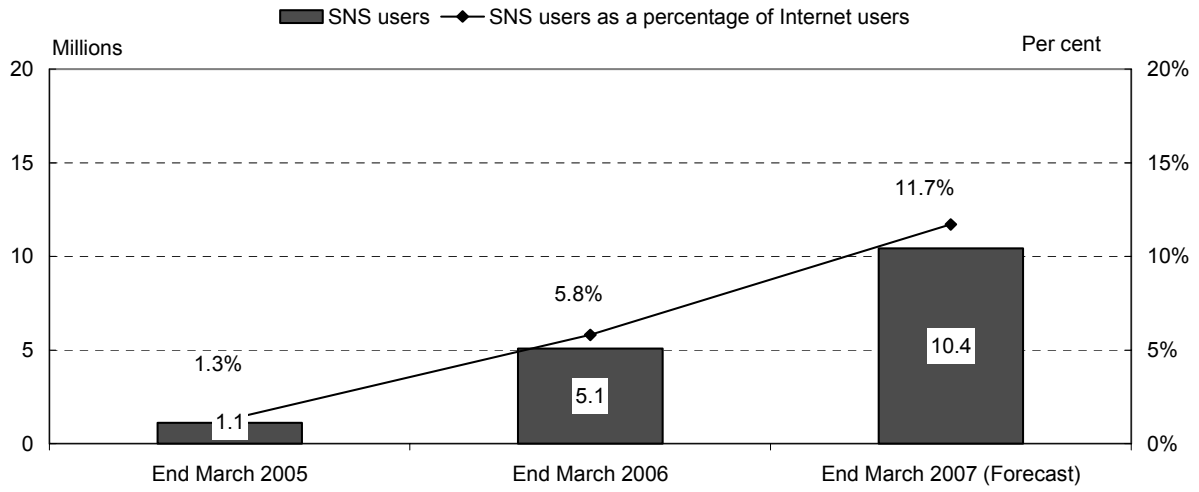
9. MIC, *Analysis on Current Status of and Forecast on Blogs/SNSs,* http://www.soumu.go.jp/joho_tsusin/eng/Releases/Telecommunications/pdf/news050517_2_1.pdf

Figure 1. Bloggers and Blog readers in Japan



Source: MIC, Analysis on Current Status of and Forecast on Blogs/SNSs, May 2005 and April 2006.

Figure 2. Social networking services (SNS) users in Japan



Source: MIC, Analysis on Current Status of and Forecast on Blogs/SNSs, May 2005 and April 2006.

Korea

The National Internet Development Agency of Korea (NIDA) conducts the "Survey on the Computer and Internet Use" which surveys households and individuals. Like the Japanese survey, this survey also collects some information on Internet usage by type of activity. Two variables in the list of Internet-related activities can be considered UCC: Social Networking (Online community) and Managing Homepage, which is further broken down into: Personal homepage and mini-homepage/blog. See Annex 2 for the question used in the Korean survey.

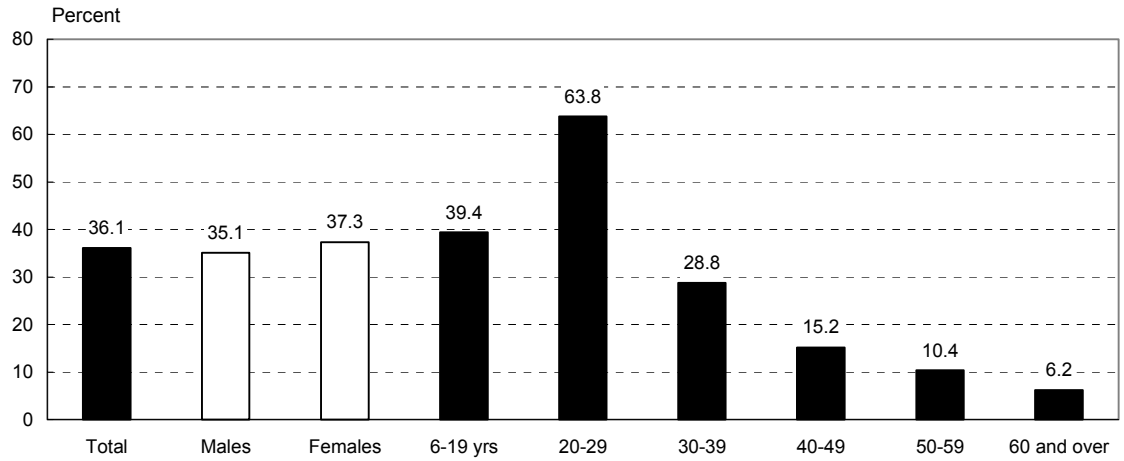
The question asks respondents to give reasons for using Internet. Multiple responses are possible. In 2005, 30.7% of Internet users had their own blogs, and 36.1% visited their own or someone else's blog.

Data show that females use blogs more than males and that people in their 20s are the heaviest users of blogs.

Males are bigger users of Social networking than females and again people in their 20s are the heaviest users.

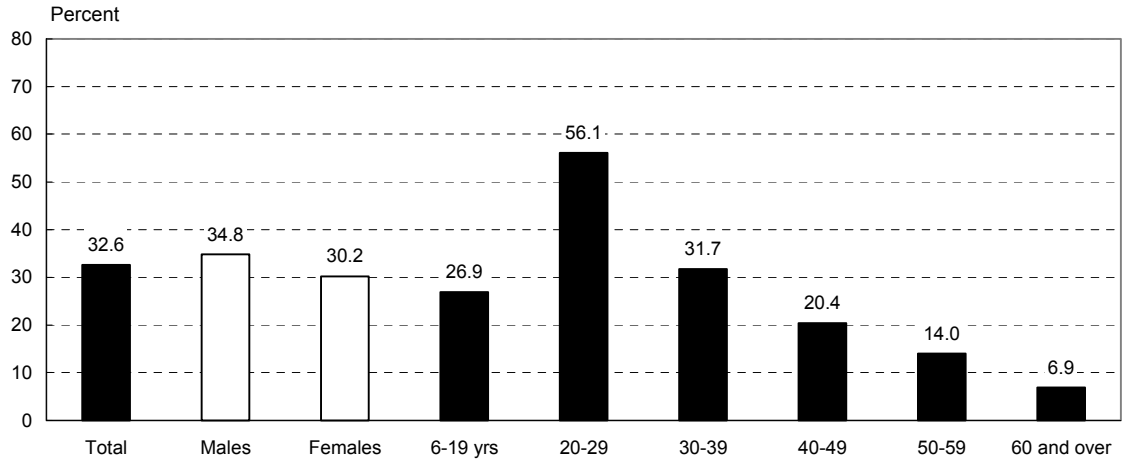
The NIDA survey also collects information on frequency of blog visits. In 2005 blog users visited their own blogs for an average of 4.3 hours (9.8 times) per week and other's blogs for 3.0 hours (13.6 times).

Figure 3. Blog use rate by gender and age in Korea, 2005
Per cent



Source: Ministry of Information and Communication and National Internet Development Agency of Korea, Survey on the Computer and Internet Usage, 2005.8.

Figure 4. Social networking use rate by gender and age in Korea, 2005
Per cent



Source: Ministry of Information and Communication and National Internet Development Agency of Korea, Survey on the Computer and Internet Usage, 2005.8.

EUROSTAT

EUROSTAT collects some data on UCC in its module on e-skills in the "Community survey on ICT usage in Households and by Individuals". In the e-skills module, data is collected on the number of individuals that carry out certain Internet-related activities. Three variables in the Internet-related activities question can be considered information on UCC: individuals who have posted messages to chat rooms, newsgroups or an online discussion forum; individuals who have used peer-to-peer file sharing for exchanging movies or music; and individuals who have created a web page. See Annex 2 for the question used in the e-skills module of the EUROSTAT survey.

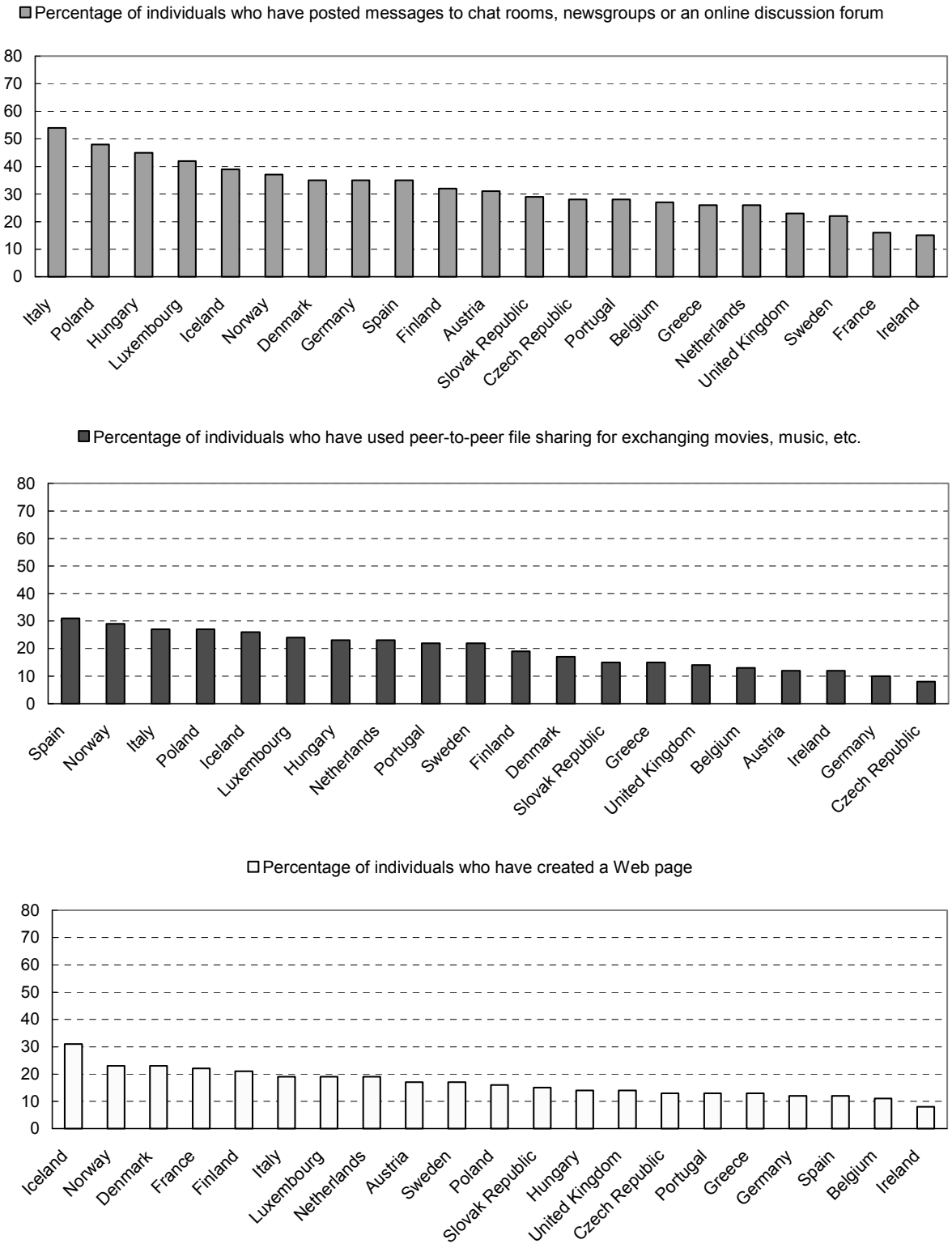
The following graphs are based on data from this module. On average 32% of all 16 to 74 year olds with access to Internet had posted messages to chat rooms, newsgroups or online discussion forums in 2006 (Figure 5). Italy leads with 54% of individuals posting messages to chat rooms, newsrooms or discussion rooms.

On average 19% of all European Internet users use peer-to-peer file sharing. Spain leads with 31% of all individuals having used peer-to-peer file sharing for exchanging movies, music, etc.

Seventeen per cent of all European Internet users have created web pages. Iceland leads with highest percentage of individuals who have created web pages (31%).

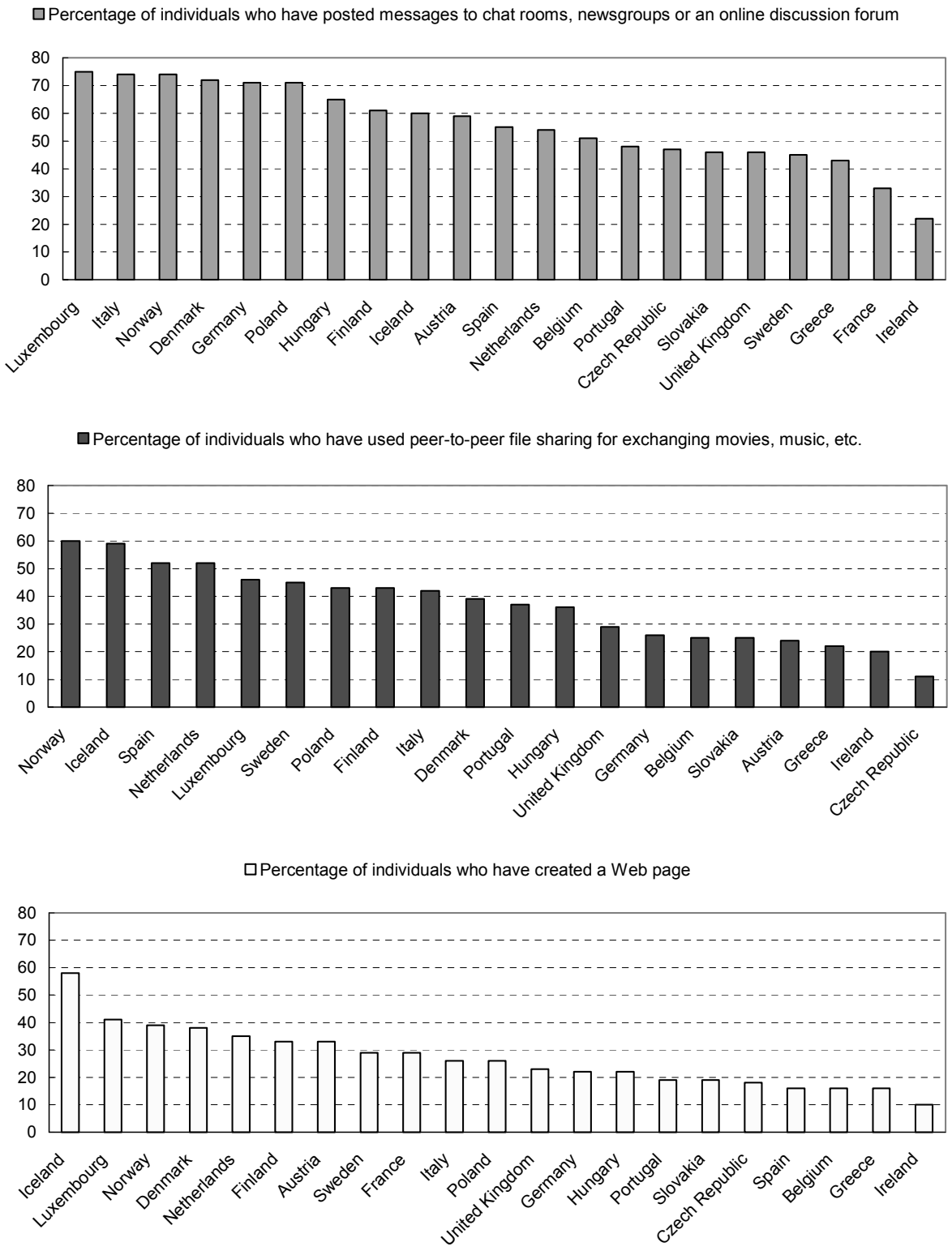
Sixteen to 24 year olds produce the most UCC (Figure 6). The per cent of 16 to 24 year olds, with access to Internet, that posted messages to chat rooms, newsgroups or online discussion forums in 2006 ranged from 22% (Ireland) to 75% (Luxembourg). Peer-to-peer file sharing among 16 to 24 year olds in 2006 ranged from 11% (Czech Republic) to 60% (Norway). Web page creation among Internet users was also higher in this age group, with data ranging from 10% (Ireland) to 58% (Iceland).

Figure 5. User-Created Content among 16-74 year olds, 2006
As a percentage of individuals using the Internet



Source: EUROSTAT, February 2007.

Figure 6. User-Created Content among 16 to 24 year olds, 2006
As a percentage of individuals using the Internet



Source: EUROSTAT, February 2007.

Non-official sources of UCC data

The private sector can generate UCC data by monitoring Internet traffic and tracking the online activities of Internet users. These data can be tracked in real-time, making the data timely.

The following table presents selected examples of the types of UCC data that can be obtained from non-official sources.

Country	Source	Types of variables collected	For more information:
United States	Pew Internet & American Life Project Tracking surveys	Tracking online activities: --Create blogs, webpages --Share something online (*e.g.* own artwork, photos, stories or videos)	http://www.pewinternet.org/
France	Médiamétrie	Tracking online activities and Internet traffic	http://www.mediametrie.fr/
International	Hitwise comScore Nielsen NetRating Alexa	Internet traffic: variables on UCC usage. For example page view statistics, unique visitors etc.	http://www.hitwise.com/ http://www.comscore.com/metrix/ http://www.nielsen-netratings.com/ http://www.alexa.com/
International	Technocrati: State of the Blogosphere.	Blog creation and usage: In April 2006, Technocrati was tracking 35.3 Million weblogs. Posting volume: Number of blogs created daily, number of blogs updated weekly etc.	http://technorati.com/weblog/blogosphere/

Conclusions and way forward

WPIIS might consider the following steps to help improve the metrics on User-Created Content. From the data presented in this paper, we can see that by adding just a few categories to the Internet use by activity question of the OECD Model "ICT access and use by Households/Individuals" survey [DSTI/ICCP/IIS(2005)3/FINAL], it would be possible to collect more data on UCC.

Most OECD countries collect data on Internet use by activity making it possible to add categories to an existing question. For example, adding the following categories to the Internet activity question of the "ICT access and use by Households/Individuals" surveys would allow for the measurement of User-Created Content by individuals:

For which of the following activities did you use the Internet for private purposes in the last 12 months?
Creating a web page
Creating a blog
Social networking (MySpace, friendster, Friends Reunited etc.)
Peer-to-peer file sharing for exchanging movies, music, etc.
Loading digital video (*e.g.* YouTube, FourDocs etc.)
Loading digital pictures for photosharing (*e.g.* Flickr, Picasaweb etc.)
Podcasting
Participating in virtual worlds (*e.g.* Second Life)
Adding content to a wiki (*e.g.* Wikipedia etc.)

Adding the above categories to the Internet activity question would allow for the collection of basic data on UCC, without increasing the response burden.

Collecting information on UCC in the "ICT access and use by Households/Individuals" surveys would allow data on these variables to be linked with other variables from the same survey, which would allow users to establish relationships among variables. This cannot be done with non-official sources of data.

Although certain elements of UCC have been documented in this paper, and in the above example Internet activity question, it is important to bear in mind that this phenomenon is evolving rapidly. As a result, UCC may provide challenges for measurement and some terms may not be readily known or understood by users. For example, policy makers may be interested in measuring what percentage of UCC is constituted by "mashups". Mashups have been described as a "genre of interactive Web applications that draw upon content retrieved from external data sources to create entirely new and innovative services."[10] They are basically a cocktail of content or services from other sources – sometimes with additional UCC thrown into the mix.

Annex 2 presents the questions with UCC content in the national surveys of Japan and Korea and in the EUROSTAT survey.

Annex 3 presents additional UCC questions that could be considered for inclusion in the "ICT access and use by Households/Individuals" surveys.

10. http://www-128.ibm.com/developerworks/library/x-mashups.html accessed 21 March 2007.

ANNEX 1: SUMMARY OF THE WPIE STUDY ON PARTICIPATIVE WEB: USER-CREATED CONTENT, DSTI/ICCP/IE(2006)7/FINAL

The concept of the "participative web" is based on an Internet increasingly influenced by intelligent web services that empower the user to contribute to developing, rating, collaborating on and distributing Internet content and customising Internet applications. As the Internet is more embedded in people's lives "users" draw on new Internet applications to express themselves through "user-created content" (UCC).

This study describes the rapid growth of UCC, its increasing role in worldwide communication and draws out implications for policy. Questions addressed include: What is user-created content? What are its key drivers, its scope and different forms? What are new value chains and business models? What are the extent and form of social, cultural and economic opportunities and impacts? What are associated challenges? Is there a government role and what form could it take?

Definition, measurement and drivers of user-created content

There is no widely accepted definition of UCC, and measuring its social, cultural and economic impacts are in the early stages. In this study UCC is defined as: *i)* content made publicly available over the Internet, *ii)* which reflects a "certain amount of creative effort", and *iii)* which is "created outside of professional routines and practices". Based on this definition a taxonomy of UCC types and hosting platforms is presented. While the measurement of UCC is in its infancy, available data show that broadband users produce and share content at a high rate, and this is particularly high for younger age groups (*e.g.* 50% of Korean Internet users report having a homepage and/or a blog). Given strong network effects a small number of platforms draw large amounts of traffic, and online video sites and social networking sites are developing to be the most popular websites worldwide.

The study also identifies: technological drivers (*e.g.* more widespread broadband uptake, new web technologies), social drivers (*e.g.* demographic factors, attitudes towards privacy), economic drivers (*e.g.* increased commercial involvement of Internet and media firms in hosting UCC) and legal drivers (*e.g.* the rise of more flexible licensing schemes).

Emerging value chains and business models

Most user-created content activity is undertaken without the expectation of remuneration or profit. Motivating factors include connecting with peers, achieving a certain level of fame, notoriety or prestige, and self-expression. Defining an economic value-chain for UCC as in the other OECD digital content studies is thus more difficult.

From a creator's point of view, the traditional media publishing value chain depends on various entities selecting, developing and distributing a creator's work often at great expense. Technical and content quality is guaranteed through the choice of the traditional media "gatekeepers". Relative to the potential supply, only a few works are eventually distributed for example via television or other media.

In the UCC value chain, content is directly created and posted for or on UCC platforms using devices (*e.g.* digital cameras), software (video editing tools), UCC platforms and an Internet access provider. There are many active creators and a large supply of content that can engage viewers, although of potentially lower or more diverse quality. Users are also inspired by, and build on, existing works as in the traditional media chain. Users select what does and does not work, for example through recommending and rating, possibly leading to recognition of creators who would not be selected by traditional media publishers.

Most UCC sites have been start-ups or non-commercial ventures of enthusiasts, but commercial firms are now playing an increasing role in supporting, hosting, searching, aggregating, filtering and diffusing UCC. Most models are still in flux and revenue generation for content creators or commercial firms (*e.g.* media companies) are only now beginning. Different UCC types (*e.g.* blogs, video content) have different although similar approaches to monetising UCC. There are five basic models: *i)* voluntary contributions, *ii)* charging viewers for services – pay-per-item or subscription models, including bundling with existing subscriptions, *iii)* advertising-based models, *iv)* licensing of content and technology to third parties, and *v)* selling goods and services to the community ("monetising the audience via online sales"). These models can also remunerate creators, either by sharing revenues or by direct payments from other users.

Economic impacts of user-created content

User-created content is already an important economic phenomenon despite its originally non-commercial context. The spread of UCC and the amount of attention devoted to it by users appears to be a significant disruptive force for how content is created and consumed and for traditional content suppliers. This disruption creates opportunities and challenges for established market participants and their strategies.

The more immediate economic impacts in terms of growth, entry of new firms and employment are currently with ICT goods and services providers and newly forming UCC platforms. New digital content innovations seem to be more based on decentralised creativity, organisational innovation and new value added models, which favour new entrants, and less on traditional scale advantages and large start-up investments. Search engines, portals and aggregators are also experimenting with business models that are often based on online advertisement and marketing. On social networking sites and in virtual worlds, for example, brands increasingly create special sub-sites and new forms of advertising are emerging.

The shift to Internet-based media is only beginning to affect content publishers and broadcasters. At the outset, UCC may have been seen as competition as: *i)* users may create and watch UCC at the expense of traditional media, reducing advertising revenues, *ii)* users become more selective in their media consumption (especially younger age groups), *iii)* some UCC platforms host unauthorised content from media publishers. However, some traditional media organisations have shifted from creating online content to creating the facilities and frameworks for UCC creators to publish. They have also been making their websites and services more interactive through user comment and ratings and content diffusion. TV companies are also licensing content and extending on-air programmes and brands to UCC platforms.

There are also potentially growing impacts of UCC on independent or syndicated content producers. Professional photographers, graphic designers, free-lance journalists and similar professional categories providing pictures, news videos, articles or other content have started to face competition from freely provided amateur-created content.

Social impacts of user-created content

The creation of content by users is often perceived as having major social implications. The Internet as a new creative outlet has altered the economics of information production and led to the democratisation of media production and changes in the nature of communication and social relationships (sometimes referred to as the "rise – or return – of the amateurs"). Changes in the way users produce, distribute, access and re-use information, knowledge and entertainment potentially gives rise to increased user autonomy, increased participation and increased diversity. These may result in lower entry barriers, distribution costs and user costs and greater diversity of works as digital shelf space is almost limitless.

UCC can provide citizens, consumers and students with information and knowledge. Educational UCC content tends to be collaborative and encourage sharing and joint production of information, ideas, opinions and knowledge, for example building on participative web technologies to improve the quality and extend the reach of education. Discussion fora and product reviews can lead to more informed user and consumer decisions (*e.g.* fora on health-related questions, book reviews).

The cultural impacts of this social phenomenon are also far-reaching. "Long tail" economics allows a substantial increase in availability and a more diverse array of cultural content to find niche audiences. UCC can also be seen as an open platform enriching political and societal debates, diversity of opinion, free flow of information and freedom of expression. Transparency and some "watchdog" functions may be enhanced by decentralised approaches to content creation. Citizen journalism, for instance, allows users to correct, influence or create news, potentially on similar terms as newspapers or other large entities. Furthermore, blogs, social networking sites and virtual worlds can be platforms for engaging electors, exchanging political views, provoking debate and sharing information on societal and political questions.

Challenges related to inclusion, cultural fragmentation, content quality and security and privacy have been raised. A greater divide between digitally literate users and others may occur and cultural fragmentation may take place with greater individualisation of the cultural environment. Other challenges relate to information accuracy and quality (including inappropriate or illegal content) where everybody can contribute without detailed checks and balances. Other issues relate to privacy, safety on the Internet and possibly adverse impacts of intensive Internet use.

Opportunities and challenges for users, business and policy

The rapid rise of UCC is raising new questions for users, business and policy. Policy issues are grouped under six headings: *i)* enhancing R&D, innovation and technology, *ii)* developing a competitive, non-discriminatory framework environment, *iii)* enhancing the infrastructure, *iv)* shaping business and regulatory environments, *v)* governments as producers and users of content, and *vi)* better measurement.

Apart from standard issues such as ensuring widespread broadband access and innovation, new questions emerge around whether and how governments should support UCC. The maintenance of pro-competitive markets is particularly important with increased commercial activity and strong network effects and potential for lock-in. UCC is also putting existing regulatory arrangements and the separation between broadcasting and telecommunications regulations to a test. With the emergence of increasingly advertising-based business models and unsolicited e-mail and marketing messages, rules on advertising will play a particular role in the UCC environment (*e.g.* product placements, advertising to children).

In the regulatory environment important questions relate to intellectual property rights and UCC: how to define "fair use" and other copyright exceptions, what are the effects of copyright on new sources of creativity, and how does IPR shape the coexistence of market and non-market creation and distribution of content. In addition, there are questions concerning the copyright liability of UCC platforms hosting potentially unauthorised content and the impacts of digital rights management.

Other issues include: *i)* how to preserve freedom of expression made possible by UCC, *ii)* information and content quality/accuracy and tools to resolve these, *iii)* adult, inappropriate, and illegal content and self-regulatory (*e.g.* community standards) or technical solutions (*e.g.* filtering software), *iv)* safety on the "anonymous" Internet, *v)* dealing with new issues surrounding privacy and identity theft, *vi)* monitoring the impacts of intensive Internet use, *vii)* network security and spam, and *vii)* regulatory questions in dealing with virtual worlds (taxation, competition etc.). Finally, new statistics and indicators are urgently needed to inform policy.

ANNEX 2: USER-CREATED CONTENT QUESTIONS IN OECD MEMBER COUNTRIES AND EUROSTAT "ICT ACCESS AND USE BY HOUSEHOLDS AND INDIVIDUALS" SURVEYS

Japan

Q4 (1) This question is for **all** respondents who have used the internet over the past year.

Which of the following internet features and services have you used over the past year?
In each category (Computer and Cell Phone), circle all that apply.

	A		B		C		D		E		F		G		H	
	Computer	Cell phone	Computer	Cell phone	Computer	Cell phone	Computer	Cell phone	Computer	Cell phone	Computer	Cell phone	Computer	Cell phone	Computer	Cell phone
1. Websites	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Email[*10] other than mail magazines)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. Mail magazines	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4. Bulletin boards (BBS)[*11]/tickets[*12]	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5. Weblogs (blogs)[*13]	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6. Social networking services[*14]	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7. File transfer/downloading (including P2P[*15] and FTP)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8. Internet auctions[*16]	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9. Other (excluding IP phone and other telephony services)	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10. Don't know	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Source: Ministry of Internal Affairs and Communications (MIC) 2005 Survey of Trends in Communications Usage — Questionnaire Form — For Households
http://www.johotsusintokei.soumu.go.jp/tsusin_riyou/data/eng_tsusin_riyou01_2005.pdf

Korea

21. For what purposes do you mostly use the internet? Please choose all items.

항 목	✓
1) search for data or information	
① goods or services	☐
② job	☐
③ health	☐
④ estate	☐
⑤ public service	☐
⑥ other information	☐
2) communication by text	
① e-mail	☐
② chatting / messenger	☐
3) shopping/reservation	☐
4) leisure	
① music	☐
② game (including download program)	☐
③ download movie, programs, images, etc.	☐
④ radio, TV	☐
⑤ e-book, magazine, newspaper	☐
5) education	
① regular	☐
② except regular	☐
6) financial activities	
① Internet banking	☐
② stock trade	☐
7) online community	☐
8) homepages	
① own homepage	☐
② mini-homepage, blog	☐
9) Job Search	☐
10) Public services	
① public document	☐
② proposal/accusation	☐
③ apply for or download public form	☐

31. Have you ever visited your own or other's blogs (mini hompages)?

☐ 1) yes ☐ 2) no (☞ go to 34)

32. How often do you visit blog sites?

1) your own blog

per (☐1)day ☐2)week ☐3)month ☐4)6 months)

average _____ times

2) other's blogs

per (☐1)day ☐2)week ☐3)month ☐4)6 months)

average _____ times

33. How many hours do you use blogs?

1) your own blog

per (☐1)day ☐2)week ☐3)month ☐4)6 months)

Average _____hours ___minutes

2) other's blogs

per (☐1)day ☐2)week ☐3)month ☐4)6 months)

Average _____hours ___minutes

34. Are you willing to use blogs in the future?

☐ 1) Yes

☐ 2) No

Source: Ministry of Information and Communication and National Internet Development Agency of Korea, Survey on the Computer and Internet Usage, 2005.8.

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Module F: E-skills

F3 **Which of the following Internet related activities have you already carried out?**
(tick all that apply)
(for respondents who didn't answer "Never used it" in question C1)

a) Using a search engine to find information ☐
b) Sending e-mails with attached files (documents, pictures, etc.) ☐
c) Posting messages to chatrooms, newsgroups or an online discussion forum ☐
d) Using the Internet to make telephone calls ☐
e) Using peer-to-peer file sharing for exchanging movies, music, etc. ☐
f) Creating a web page ☐
g) None of the above ☐

Source: http://europa.eu.int/estatref/info/sdds/en/isoc/isoc_hh_model_questionnaire_2006.pdf

ANNEX 3: POSSIBLE QUESTIONS RELATED TO UCC FOR INCLUSION IN "ICT ACCESS AND USE BY HOUSEHOLDS AND INDIVIDUALS" SURVEYS

1. In the last 12 months did you use the Internet to visit any "online'' social (discussion) forums (chat sites)?

- online dating sites
- other social forums
- blogs

2. In the last 12 months did you use the Internet to participate (writing or posting messages) in any "online'' social (discussion) forums (chat sites)?

- online dating sites
- other social forums
- blogs

5. How much of your leisure time do you spend visiting or participating (writing or posting messages) in "online'' social (discussion) forums?

- Less than 5 hours per week
- Between 5 and 9 hours per week
- Between 10 and 14 hours per week
- Between 15 and 19 hours per week
- 20 hours or more per week

3. Do you have your own blog?

4. In the last month, how often have you updated (maintained) your own blog?

- Every day
- Several times a week/At least once a week but not every day
- A few times a week/At least once a month but not every week
- Not in the last month

5. Have you used the Internet for the following activities related to obtaining and/or sharing audiovisual content?

a) Reading or downloading news from online information servers, newspapers or magazines?
   If yes – Have you used browser based news feeds (*e.g.* Really Simple Syndication (RSS)) for reading news content on websites?
b) Listening to web radios
c) Watching web television
d) Downloading and/or listening to music
e) Downloading and/or watching movies, short films or video images
   If yes – Have you used podcasting services to automatically receive audio or video files of interest?
   Have you used peer-to-peer sharing for exchanging movies, music or video files?
f) None of the above

6. In the last month, on average how often did you download music and/or movies?

- Every day
- Several times a week/At least once a week but not every day
- A few times a week/At least once a month but not every week
- Not in the last month

7. Have you personally uploaded any content (text, images, photos, videos, music etc.) to any website to be shared?

8. Have you personally uploaded self-created content (text, images, photos, videos, music etc.) to any website to be shared?

- video for web servers such as YouTube or similar web servers
- self-taken photos/videos for photosharing
- any content (text, images, link) for a wiki
- any other self-produced writing/photos/music