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### Trend evaluation and comparison of the use and value of GL in core demography and computer science journals

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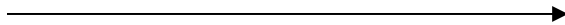




## The idea ....

- To measure the impact of GL on different scientific fields
- To describe the characteristics of GL documents cited
- To ascertain any changes in GL due to the use of www (1995 and 2003)

# Sampled Journals: Demography (DEM) and Computer Science-Information Systems (CS-IS)



<b>DEM Journals</b>	<b>IF 1995 (*)</b>	<b>Rank 1995 (1/17)</b>	<b>IF 2002 (*)</b>	<b>Rank 2002 (1/17)</b>
Demography	1.633	1/17	2.060	2/17
Population Research & Policy Review	0.368	11/17	0.510	10/17
International Migration	0.137	16/17	0.357	14/17
All indexed by ISI, Popindex, CICRED (*) ISI-JCR Social Science ed., 1995 e 2002; Category: Demography: ISI rank 1/17				
<b>CS-IS Journals</b>	<b>IF 1995 (*)</b>	<b>Rank 1995 (1/43)</b>	<b>IF 2002 (*)</b>	<b>Rank 2002 (1/77)</b>
ACM Transactions on Information Systems (ACM TOIS)	1.176	4/43	1.385	12/77
ACM Transactions on Database Systems (ACM TODS)	0.829	9/43	0.875	27/77
Information Sciences	0.245	30/43	0.361	54/77
All indexed by ISI, INSPEC, EI Compendex (*) ISI-JCR Social Science ed., 1995 e 2002; Category: Computer Science-Information Systems: ISI rank 1/43 e 1/77				

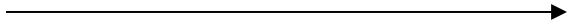
Table 1



## Indicators

- Frequency of GL use
  - Frequency of GL citing
  - Intensity of GL use
- 
- Frequency of e-GL use

## Frequency of GL use (1995 vs. 2003)



	1995			2003		
DEM Journals	Number of articles	Number of article with GL	Frequency of GL use (%)	Number of articles	Number of article with GL	Frequency of GL use (%)
Demography	37	37	100.0	38	38	100.0
Popul Res Policy Rev	27	23	85.2	37	36	97.3
International Migration	21	21	100.0	39	38	97.4
<b>Total</b>	<b>85</b>	<b>81</b>	<b>95.3</b>	<b>114</b>	<b>112</b>	<b>98.2</b>
<b>CS-IS Journals</b>						
ACM TOIS	16	15	93.8	15	14	93.3
ACM TODS	12	12	100.0	15	13	86.7
Information Sciences	84	58	69.0	137	100	73.0
<b>Total</b>	<b>112</b>	<b>85</b>	<b>75.9</b>	<b>167</b>	<b>127</b>	<b>76.0</b>

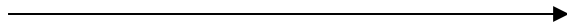
Table 2

# Frequency of GL citing (1995 vs. 2003)

1995							2003		
	Number of references	Number of GL references	Frequency of GL citing (%)		Number of references	Number of GL references	Frequency of GL citing (%)		
<b>DEM Journals</b>									
Demography	1,270	237	18.7		1,795	326	18.2		
Popul Res Policy Rev	779	295	37.9		1,088	210	19.3		
International Migration	773	413	53.4		1,298	444	34.2		
<b>Total</b>	<b>2,822</b>	<b>945</b>	<b>33.5</b>		<b>4,181</b>	<b>980</b>	<b>23.4</b>		
<b>CS-IS Journals</b>									
ACM TOIS	618	71	11.5		602	127	21.1		
ACM TODS	441	45	10.2		621	58	9.3		
Information Sciences	1,502	172	11.5		2,649	434	16.4		
<b>Total</b>	<b>2,561</b>	<b>288</b>	<b>11.2</b>		<b>3,872</b>	<b>619</b>	<b>16.0</b>		

Table 3

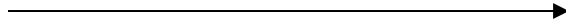
## Intensity of GL use (1995 vs.2003)



1995			2003	
DEM Journals	IF	Intensity of GL use (%)	IF	Intensity of GL use (%)
Demography	1.633	18.7	2.060	18.2
Popul Res Policy Rev	0.368	44.2	0.510	19.8
International Migration	0.137	53.4	0.357	35.4
<b>Total</b>		<b>35.2</b>		<b>23.8</b>
CS-IS Journals				
ACM TOIS	1.176	11.9	1.385	22.6
ACM TODS	0.829	10.2	0.875	10.7
Information Sciences	0.245	16.7	0.361	22.5
<b>Total</b>		<b>14.2</b>		<b>21.0</b>

Table 4

## e-GL use (1995)



1995				Availability	2004
DEM Journals	Number of GL references	Number of e-GL references	Frequency of e-GL use (%)	Number of e-GL available	(%)
Demography	237	0	0.0	0	0.0
Popul Res Policy Rev	295	0	0.0	0	0.0
International Migration	413	0	0.0	0	0.0
<b>Total</b>	<b>945</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>CS-IS Journals</b>					
ACM TOIS	69	9	13.3	2	22.2
ACM TODS	45	2	16.7	1	50.0
Information Sciences	172	0	0.0	0	0.0
<b>Total</b>	<b>286</b>	<b>11</b>	<b>4.7</b>	<b>3</b>	<b>27.3</b>

Table 5a



## e-GL use (2003)



		2003		Availability	2004
DEM Journals	Number of GL references	Number of e-GL references	Frequency of e-GL use (%)	Number of e-GL available	(%)
Demography	326	32	42.1	25	78.1
Popul Res Policy Rev	210	12	16.7	5	41.7
International Migration	444	58	47.4	42	72.4
<b>Total</b>	<b>980</b>	<b>102</b>	<b>35.7</b>	<b>72</b>	<b>70.6</b>
CS-IS Journals					
ACM TOIS	127	49	78.6	40	81.6
ACM TODS	58	17	38.5	16	94.1
Information Sciences	434	87	25.0	70	80.5
<b>Total</b>	<b>619</b>	<b>153</b>	<b>32.3</b>	<b>126</b>	<b>82.4</b>

Table 5b

# Distribution of GL documents by document type (1995 vs. 2003)

DEM	1995		2003	
	Number	(%)	Number	(%)
Thesis	16	1.7	30	3.1
Report	189	20.0	183	18.7
Preprint	0	0.0	0	0.0
Proc/Meeting p.	169	17.9	116	11.8
Unpublished	26	2.8	13	1.3
Technical Doc	19	2.0	21	2.1
Miscellaneous	26	2.8	53	5.4
Undefined	3	0.3	27	2.8
Home Page	0	0.0	25	2.6
Monographic book	233	24.7	236	24.1
Statistical report	264	27.9	267	27.2
Db, DI, Archive	0	0.0	9	0.9
<b>Total</b>	<b>945</b>	<b>100.0</b>	<b>980</b>	<b>100.0</b>

CS-IS	1995		2003	
	Number	(%)	Number	(%)
Thesis	43	14.9	69	11.1
Report	85	29.5	119	19.2
Preprint	25	8.7	19	3.1
Proc/Meeting p.	72	25.0	238	38.4
Unpublished	5	1.7	1	0.2
Technical Doc	47	16.3	110	17.8
Miscellaneous	3	1.0	12	1.9
Undefined	7	2.4	11	1.8
Home Page	1	0.3	23	3.7
Monographic book	0	0.0	8	1.3
Statistical report	0	0.0	0	0.0
Db, DI, Archive	0	0.0	9	1.5
<b>Total</b>	<b>288</b>	<b>100.0</b>	<b>619</b>	<b>100.0</b>

Table 6

# Distribution of GL documents by date (1995 vs. 2003)

DEM Journals					
1995			2003		
Date	Frequency	Cumulative frequency(%)	Date	Frequency	Cumulative frequency(%)
1995	9	1.0	2003	40	4.1
1994	84	9.8	2002	135	17.2
1993	150	25.7	2001	141	32.2
1992	100	36.3	2000	107	43.2
1991	94	46.2	1999	96	53.0
1990	97	56.5	1998	57	58.8
1989	51	61.9	1997	67	65.6
1988	63	68.6	1996	44	70.1
1987	29	71.6	1995	44	74.6
1986	29	74.7	1994	30	77.6
1985-1976	166	92.3	1993-1984	151	93.1
1975-1966	31	95.5	1983-1974	32	96.3
1965-1956	10	96.6	1973-1964	17	98.1
1955-1900	21	98.8	1963-1900	6	0.1
[s.d]	11	1.2	[s.d]	13	1.3
<b>TOTAL</b>	<b>945</b>			<b>980</b>	<b>100.0</b>

DEM

1995: more than 50% of the citations were related to the last five years before 1995  
 2003: more than 50% of the citations were related to the last four years before 2003

CS-IS

1995: more than 50% of the citations were related to the last four years before 1995  
 2003: more than 50% of the citations were related to the last five years before 2003

CS-IS Journals

1995			2003		
Date	Frequency	Cumulative frequency(%)	Date	Frequency	Cumulative frequency(%)
1995	18	6.3	2003	17	2.7
1994	24	14.6	2002	43	9.7
1993	35	26.7	2001	84	23.3
1992	41	41.0	2000	57	32.5
1991	49	58.0	1999	59	42.0
1990	23	66.0	1998	51	50.2
1989	14	70.8	1997	50	58.3
1988	12	75.0	1996	35	64.0
1987	10	78.5	1995	40	70.4
1986	5	80.2	1994	21	73.8
1985-1976	29	90.3	1993-1984	78	86.4
1975-1966	8	93.1	1983-1974	13	88.5
1965-1956	1	93.4	1973-1964	6	89.5
1955-1900	0	0.0	1963-1900	0	0.0
[s.d]	19	6.6	[s.d]	65	10.5
<b>TOTAL</b>	<b>288</b>			<b>619</b>	

Table 7

# Distribution of Self-citations (1995 vs. 2003)

	1995			2003		
DEM Journals	Number of GL references	Number of Self-cit.	(%)	Number of GL references	Number of Self-cit.	(%)
Demography	237	21	8.9	326	14	4.3
Popul Res Policy Rev	295	13	4.4	210	12	5.7
International Migration	413	52	12.6	444	25	5.6
<b>Total</b>	<b>945</b>	<b>86</b>	<b>25.9</b>	<b>980</b>	<b>51</b>	<b>15.6</b>
<b>CS-IS Journals</b>						
ACM TOIS	71	17	23.9	127	22	17.3
ACM TODS	45	12	26.7	58	12	20.7
Information Sciences	172	68	39.5	434	99	22.8
<b>Total</b>	<b>288</b>	<b>97</b>	<b>33.7</b>	<b>619</b>	<b>133</b>	<b>21.5</b>

Table 8

# Conclusion



## DEM and CS-IS use GL differently:

- GL use in DEM tends to decrease
- GL use in CS-IS tends to increase

e-GL was used earlier by CS-IS, but its frequency in 2003 is higher in DEM

GL citation were often unclear and incomplete