MEASURING DIFFERENTIALS OF INFORMATION POWER BETWEEN ACADEMIC DISCIPLINES USING INTERDISCIPLINARY CITATION PATTERNS AMONG EIGHT SOCIAL SCIENCES FROM 1979-1983 AND 2005-2009

by

Carolyn Evans
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Dedication

Dedicated to my grandfather, George Harding Pierce

Grampa I have dedicated this whole shebang to you; without your aid and encouragement none of it would have been possible. It is true perhaps that it didn't cost any more for me to live there than you alone. Nonetheless, I will never forget how you told me about life on the farm, life in the navy, Tesla and electricity, helped with my first car and first passport trip—as well as fed my cat whilst I was away driving to Seattle and then Tucson. Thank you. To me, you are not gone.

Remember Me

To the living, I am gone
To the sorrowful, I will never return
To the angry, I was cheated

But to the happy, I am at peace
And to the faithful, I have never left.

I cannot speak, but I can listen.
I cannot be seen, but I can be heard.

So as you stand upon a shore
Gazing at a beautiful sea...
Remember me.

As you look in awe at the mighty forest
And its grand majesty...
Remember me.

Remember me in your heart;
Your thoughts and your memories...
Of the times we cried, the times we fought,
The times we laughed.

For if you always think of me,
...I will never have gone.

-Anonymous, Veterans Hospital Remembrance Ceremony on May 14, 2011 in Buffalo, NY

Acknowledgments

"…we see only what we are ready to see, what we have been taught to see."
Jean-Martin Charcot, 1825 – 1893

"One must systematically discard all preconceptions."
Emile Durkheim, *The Rules of Sociological Method* (translated 1982 by W.D. Halls)

What I liked most, why I came to grad school at all, was Galileo™. The idea of concepts related spatially in multiple dimensions was fascinating--topography, geometry, algebra, calculus, physics, and all the other stuff I had no clue about notwithstanding. Doing Galileo surveys showed me things about my own thoughts that were useful, making the relationships between objects I'd never consciously connected explicit. The results seemed always surprising, and yet not surprising, both at the same time. I loved that it was surprising.

A bit later relating my own survey results to the results of others became possible (using cgi-forms, the Galileo Matrix, .asp forms, Survey Monkey, LimeSurvey, and then LimeSurvey with sliders). The first time I realized most folks I knew did not regard Pop-Tarts® as a major food group was after one of my innumerable food surveys—and it wasn't until repeatedly running emotion Galileos that I realized how much closer to fear I was at that time than anyone else taking the surveys. I loved running what I thought of as "goof" surveys about anything that came to mind (animals, dogs, weather, snowmen, boys' names, food, plants, my classes, more food, movies, location of objects in my office, soda, food yet again) and then eventually more "serious" projects (emotion words vs. images, Iraq war, organ donation, quality of life, technology, elections, selling socks).

Yet still the goof surveys also continued since you can, after all, Galileo anything; that is especially exciting as cognitive groupings mapped so far appear to be complex systems and display power laws. As Melanie Mitchell says in her 2009 book *Complexity: A guided tour,* "A nonlinear system is one in which the whole is different from the sum of the parts. Jake puts in

two cups of baking soda. Nicky puts in a cup of vinegar. The whole thing explodes…"! and something new is created. Of course timing matters too; if the vinegar has evaporated nothing much will happen. Or, as one of my early food metaphor thought examples went, fruit added to jello at just the right time suspends well; added too soon it may sink to the bottom, wait much too long and the jello has already hardened so nothing will sink at all. Fresh pineapple will also prevent jello gelling but canned pineapple is ok (since it was heated in the canning process). The process parts are simple yet nonetheless lead to a multiplicity of conditions.

Similarly, people from many places and times have helped shape and guide me to this point; indeed that is the nature of significant other theory. I wish to thank my friends at MSKK and the Buffalo Zoo, as well as colleagues from Singapore in fall 2011; their perspective and encouragement enabled me to go on more than once. My family has also made me who I am today, as have my friends, particularly Brenda Battleson, Hao Chen, Cindy (Yixin) Chen, Mike Egnoto, Arch Haller, Hyunjung Kim, Brian LaValley, HyunJoo Lee, Kristen Lovejoy, and EA (Beth) Sears. I also greatly appreciate Mom and Dad's help proofreading the tables; thank you and love always. Last but surely not least I thank the members of my dissertation committee: Arun Viswanath, Michael Stefanone, and especially Joseph Woelfel. Joe what can I really say? You allowed me to keep questioning, observe repeatedly, not assume there was only one reference frame, and go beyond what I'd been taught to see...

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Abstract

Although social stratification usually calls to mind the hierarchical ranking of individuals, sociology often broadly considers it the ranking of any social objects. The Treiman Socio-Economic Index (SEI), for example, provides a quantitative assessment of the hierarchical ranking of occupations. This dissertation considers the hierarchical ranking of eight social science disciplines (anthropology, communication, economics, geography, library and information science, political science, psychology, and sociology).

The hierarchical ranking of disciplines was operationalized as the degree of asymmetry in cross-discipline citation patterns. Asymmetries in the information flow in the citation data were regarded as indicators of gravitational gradients (making movement in some directions "easier" than others) and the idea that “higher” disciplines exerted greater influence over “lower” disciplines than vice versa was explored. Lower ranking disciplines were expected to cite higher ranking disciplines more than higher ranking disciplines cited lower ranking disciplines.

Interdisciplinary citations in journal citation data from 1979-1983 and 2005-2009 showed considerable asymmetries, and ranking of the status of the eight disciplines investigated was derived from those asymmetries.

Introduction and Research Questions

In this project stratified proxemic relationship patterns between academic disciplines in the social sciences are considered as collective cognitive phenomena. Stratification theory is usually concerned with the difference in status of particular people or groups of people. Marx's theory of stratification, for example, is concerned with the difference in status of classes (Haller, 2000; Livesey, 1995-2010). Occupational prestige is a bit different as it is concerned with the difference in status among roles, regardless of who fills those roles (Nakao, 2010)—yet whoever fills the roles, they are people. A theory of the stratification of collective representations (Woelfel & Fink, 1980), however, concerns systems of ideas.

Collective cognitive phenomena are considered to be the primary elements of society in this study; individuals are the substrate in which these collective patterns of thought reside. Academic disciplines, e.g., communication, psychology, sociology, and the like, constitute collective representations in this sense. Although manifested as neural patterns in individual brains, these patterns of thought transcend particular embodiments and continue to exist as collective patterns despite the replacement of all individuals every generation (Woelfel & Murero, 2005, p. 59). Collective representations may interact with each other, influencing and being influenced, and it is these asymmetric patterns of influence that were examined as indicators of stratification. In particular, questions such as "Are some ideas more powerful than others and, if so, which ideas dominate?", "Do some academic disciplines primarily appear to influence others or to be influenced by others—and if so is that a reciprocal arrangement that changes over time?", and "How do they interact with one another over time and are they competitive?" were explored.

Theoretical Background

Durkheim

Emile Durkheim, a French sociologist who wrote in the late nineteenth and early twentieth centuries (although most of his writings were not translated into English until the mid to late twentieth century[1]), referred to collective phenomena variously as *conscience colectif* and as *représentations collectives* (Collins, 1985; 1951). Both phrases are most often translated into English as either "collective consciousness" or "collective conscience"; either translation is acceptable for the purpose of this study. What is relevant is an idea both phrases include, namely, that collective patterns of thought reside in particular individuals but are not formed in each separate individual.

Specific instances of collective representations are what Durkheim regards as social facts, that is, "…the social structures and cultural norms and values that are external to, and coercive[2] over, actors [individuals]" (Ritzer & Goodman, 2004, p. 73). Social facts may represent both manners of acting or thinking and are "general over the whole of a given society" (Durkheim, 1938, p. 59). As such, they are culturally transmitted and learned by each individual in a

[1] Durkheim's work was initially translated into English largely through Talcott Parsons' influence. Parsons' commentary and interpretation are now thought to reveal his own perspectives as much as those of Durkheim (Pope, 1973). Although some newer translations do not recognize Durkheim as a functionalist and/or structuralist (Giddens & Turner, 1987; Pickering, 2001), many still do (Lemanna, 2002; Pope, 1975). This diversity of opinions is not entirely surprising in light of the fact that what functionalism itself means is also not always agreed upon (Pope, 1975). All do appear to agree, however, that "The way in which Durkheim's work was presented to American audiences also influenced perception of his theoretical interests" (Lemanna, 2002).

[2] Although it might sometimes be the case, the English word "coercive" should not necessarily be taken to imply social facts are consciously restrictive. A particular social fact may seem so natural to an individual that its influence is imperceptible, much as Dewey surmises that fish do not notice water; it is merely a fact of their existence, their environment (Campbell, 1995). In this same manner, particular social facts may be perceived in varying degrees as restrictive or "natural" depending on the perceiver(s).

particular society (Pickering, 2000, p. 101). Regarding social facts as "things" (Durkheim, 1938, p. 34), rather than ideas in an individual mind, allows data to be acquired through observation and experimentation. This allows individuals and groups in a society to be investigated empirically (Durkheim, 1938, p. 12) as both main and sub culture(s)--even if they disagree about how particular social facts are to be interpreted or recognize different social facts.

This mechanism should not, however, be taken to indicate that a social fact merely represents the average of any coherent group of individual representations "for in that case they [collective representations] would be poorer than the latter [individual representations] in individual content, while, as a matter of fact, they contain much that surpasses the knowledge of the average individual" (Durkheim, 1968, p. 483). As suggested by Woelfel, Danielson, & Yum "The key question for analysis above the individual level is whether or not the group—audience, society, or culture—has group properties above and beyond the aggregate properties of its individual members" (2009, p. 2). Durkheim believes this to be so, stating that groups and individuals are not the same, each having their own laws (1982, p. 40), and the groups' laws may "differ from those displayed by the parts from which it is formed" (1982, p. 128).

This third sense that Durkheim outlines, that is, that group properties are distinct from both individual representations and the aggregate representation, relates to Schelling's idea that people's choices and behaviors that are dependent upon behaviors or choices made by others "…are the ones that usually don't permit any simple summation or extrapolation to the aggregates" (1978, p. 14). For example, individuals may each have their own memories of an event and may have also heard via media the perceptions of others regarding that same event. Yet when aggregated, what each individual knows and what others know may merge--destroying neither the personal nor public parts but rather, transforming them into a new "shared" created

meaning. This is similar to the idea of a complex system, that is "a system composed of many interacting parts, such that the collective behavior of those parts together is more than the sum of their individual behaviors" (Newman, 2011, p. 800). In this manner such systems may create patterns, potentially evolving and learning, that exhibit "nontrivial emergent and self-organizing behaviors" (Mitchell, 2009, p. 13).

Shared (collective) knowledge

The Internet appears to especially foster such creation of shared knowledge, meaning, and "selves" by merging private and public representations and then transforming them into something new. This situation agrees with Woelfel's definition of a communication network, namely, that it is "sets of nodes [individuals in this case] whose state is at least partly a function of the states of other nodes in the set" (1990, p. 1).

Individuals may or may not be consciously aware (Lewicki, 1986) of a collective's ability to function as more than the sum of its parts, like a network. As Doty's classical conditioning work demonstrated, however, "…the brain does not require motivation: it simply requires the pairing of two stimuli" (Kandel, 2006, p. 161); that is, purposeful conscious awareness is not necessarily required even at an individual level. That an object as collective representation is something shared among individuals, among the "parts" (Piepmeyer, 2007) is what matters in this study--not that this shared nature, formed perhaps by ritual and education (Gane, 1992, p. 91), is necessarily recognized by the individual(s) as something outside themselves in which they participate.

Society as a whole may be considered an information processing system which has attitudes, beliefs, scripts, plans, and "goals" that no individual or set of individuals within the society holds (Woelfel, et al., 2009, p. 2; Woelfel, Newton, Holmes, Kincaid, & Lee, 1986).

Since it has been previously demonstrated that individuals are influenced by others, albeit at times even by factors beyond their conscious awareness (Lewicki, 1986), this study will assume it possible that culture(s) possess ideas not found in any particular individuals that may, nonetheless, influence individuals.

This sort of interrelationship has frequently been considered at the individual level in both developmental psychological and educational research. For example Vygotsky's learning theory indicates individuals' "developmental change occurs via the internalization of socially shared processes" (Siegler & Alibali, 2005, p. 110). That is, children learn to perform cognitive tasks with social partners and only later perform tasks on their own. Considering this it is clear the learner was not initially aware of the "pattern", what was to be done, prior to doing it. Another more recent developmental psychologist, Katherine Nelson, also invokes Vygotskian social constructivism; she indicates that using language children adapt their understanding to agree with their linguistic community (Remmel, 2008). Since the present project is concerned with interaction between concepts developed by groups of individuals, rather than the development of those group concepts within individuals, this educational literature will not be reviewed further.

Significant Other Project

One model that exemplifies and extends the idea of interrelationship between a focal individual and a group of individuals is the Wisconsin Significant Other Model. The Wisconsin Model is a social psychological model demonstrating how individuals form their educational and occupational aspirations and move through a status trajectory throughout their lives (Woelfel & Murero, 2005, pp. 60, 64). This model assumes that "preferences are formed and modified

largely on the basis of information from others about the occupational structure and self" (Saltiel, 1988, p. 336).

In the significant other[3] project 30 students in various Wisconsin high schools were interviewed; data was then collected from 100 high school seniors in a small Wisconsin city high school. Significant others, people who exercised major influence over the attitudes of these students,[4] were identified for each student and the educational and occupational expectations for each of these significant others, as well as for the student, were measured. Finally, expectations from the significant others for each student were averaged together as it was hypothesized that "…there should be a relationship between the aggregate value of the expectations of others and the aspirations of ego, although the precise nature of that aggregate was (and is) a matter for conjecture" (Woelfel & Haller, 1971, p. 79).

It was found that the aspiration level of the students was substantially related to the expectation level their significant others held for them (Haller & Woelfel, 1969) and students' aspirations were indeed strongly related to the mean expectations of their significant others, no matter how many others a particular student had. That is, the students' aspirations were not the same as the expectations of particular significant others but were an aggregate of the expectations all their significant others held for them—and not only were those expectations of others related to the students' attitudes, they were the main factor determining them (Haller & Woelfel, 1972, pp. 616-617). Further, both the expectations of the significant others and the

[3] The first known occurrence of the term "significant other" was in 1953 by US psychiatrist, Harry Stack Sullivan, a former editor of the journal Psychiatry, in his posthumously published work, *The Interpersonal Theory of Psychiatry* .

[4] Significant others were defined more specifically as those people who influenced the attitudes of the high school students either by defining objects (occupations or the students themselves) via personal communication or representing an occupational example by their actions (Woelfel & Haller, 1971, p. 75).

students were influenced by social structural factors such as the father's occupational level (Saltiel, 1990; Woelfel & Haller, 1971).

The present study assumes that since these cognitive and structural elements influence each other, the reverse, that individual cognitive factors influence collective structural elements, is also true. Yet although collective representations as experienced by an individual begin at that individual's birth, such representations as experienced by society have no clear beginning[5]. Nonetheless it is proposed that it is this overlap of individual perspectives that allows cultural representations to continue beyond the lifetime of particular human beings. The initial significant other work suggests, but does not directly uphold, such a notion; subsequent studies that generalize the Wisconsin Model as the Linear Force Aggregation Model (which in the multidimensional case is Galileo Theory), however, do support this assumption.

Linear Force Aggregation Model

The Wisconsin Model specifically indicated that "…others are significant in direct proportion to the amount of information they convey to an ego about the categories he used to define objects and self, either by word (definers) or examples (models), affective factors notwithstanding" (Woelfel & Haller, 1971, p. 76). Therefore it was the total amount of information conveyed that mattered, not whether the significant other was liked or disliked by the student. The Linear Force Aggregation Model, originally built on the Belief Certainty Model and also sometimes referred to as the Accumulated Information Model (Blau & Katerberg, 1982), notes that the rate of a behavior (or strength of a belief) equals a linear aggregate of information from all sources (Blau & Katerberg, 1982; Woelfel, Hernandez, & Allen, 1973;

[5] See Woelfel, J., & Barnett, G. A. (1990). *Procedures for controlling reference frame effects in the measurement of multidimensional processes* at http://www.galileoco.com/CEtestLit/literature.asp for more information on reference frames.

Woelfel & Saltiel, 1978). Resistance to change may therefore be predicted by the amount of previously accumulated knowledge (Blau & Katerberg, 1982; Danes, Hunter, & Woelfel, 1984) and "old" beliefs, those based on greater amounts of information, are less likely to change than weaker "new" beliefs (Danes, Hunter, & Woelfel, 1978). Thresholding in neural networks displays a similar mechanism; unless an input value causes a neuron to exceed a certain preset threshold value, no nodal connection is made (Woelfel, 2009, p. 12; Woelfel & Richards, 1989, p. 35).

A subsequent study by Kincaid, Yum, Woelfel, and Barnett suggested that it was inertial mass that determined the rate of change in acceleration. Even massive objects (strong beliefs formed by a large amount of previous knowledge) could be expected to move as quickly as weaker beliefs once movement began; it was such movement beginning at all that was related to previous knowledge (Kincaid, Yum, Woelfel, & Barnett, 1983). This is similar to the idea of a local minimum in a neural network and has more recently been developed by Woelfel and Stoyanoff in relation to sales funnels (Woelfel & Stoyanoff, 2007).

Sales Funnels and Theory of Reasoned Action

Sales funnels, also sometimes called sales pipelines or sales tunnels, are a concept used by marketing professionals to visually describe different stages prospective customers go through when buying a product (Harry-The-Spider, 2011). The wide top of the funnel is where most potential buyers are located and the width of the funnel is correlated with the number of potential buyers. There are fewer and fewer people located at each stage as one moves through the sales process so the funnel narrows; customers at the very bottom have made a purchase. This is somewhat analogous to the Theory of Reasoned Action (TRA); TRA was developed by Ajzen and Fishbein in 1980 and is often used in health communication (University of Twente, 2010).

Both sales funnels and TRA maintain that a person's intention to perform a behavior (in the case of sales funnels, for example, the intention to purchase a product) determines their subsequent behavior. TRA goes further, introducing the idea that both social norms as well as perceived behavioral control play a role in this intention. What most relates to the present study, however, is the fact that how likely one is to perform a particular behavior correlates with the strength of the intention to perform that behavior; the stronger the intention to perform a behavior is, the more likely it is to be performed.

Relationships between objects in both TRA and sales funnels suggest the importance of viewing variables as continuous in time, else no meaning exists for considering "stages" or process. Woelfel and Stoyanoff (2007) go further and attempt not only to situate continuous variables in time, but also in space. By using a sales funnel type visualization as an overlay for Galileo space, they were able not only to consider concepts in isolation, each in their own funnel, but also model relationships between multiple concepts.

In such a space, massive objects create regions that attract other objects yet also cause objects within to be difficult to move; these regions may usefully be considered to be valleys. Considered in this manner, it is possible to suggest that beliefs at the bottom of a deep funnel (valley) may have more trouble moving than beliefs in shallower funnels or those not in a funnel at all[6]. How likely it is that objects in valleys will begin to move may depend on the strength of the initial beliefs (as evidenced by the depth of the initial funnel); this is consistent with previous

[6] Although the terms "funnel" and "valley" are being used here, one might alternately consider the funnels as mountains; the idea that other concepts are attracted somehow to whatever is at the bottom of the funnel (or peak of the mountain) is what matters; "up" and "down" are irrelevant so these ideas are interchangeable.

research (Barnett, 1988; Danes, et al., 1984; Kincaid, et al., 1983; Woelfel, Holmes, Newton, & Kincaid, 1988).

The Galileo Model and Collective Stratification Theory

These relational ideas are at the heart of what is usually referred to as Galileo Spatial Modeling. The Galileo Model has been regarded as both a theory and measurement tool dealing with "the structure and development of social cognitive space"[7] that holds concept meaning to be both relational and situational (Ewert & Linton, n.d.). As such, concepts (sometimes also referred to as objects[8] or terms) may be both directly and indirectly connected.

Spatial representation allows equations used to describe physical movement to be used with non-physical concepts and is an extension of the earlier Wisconsin Model which stated "…each significant other's expectation can be represented as a force vector pulling the adolescent in a specific direction..." (Woelfel & Murero, 2005, p. 61). Indeed, in Galileo space "message" relationships between objects average as vectors (Woelfel, Holmes, Cody, & Fink, 1988; Woelfel & Stoyanoff, 2007, p. 16) and, over time, individuals' attitudes will "tend toward the point at which all such forces are balanced" (Woelfel & Murero, 2005, p. 61).

Collective stratification theory, as shown using Galileo spatial modeling, suggests that social objects are most usefully measured[9] comparatively as continuous, multidimensional variables. The relational pattern of all concepts observed shows how respondents, as a group,

[7] "Knowledge structure" does not have a precise agreed meaning at this time; "social cognitive space" is meant as a representational knowledge structure in this paper ("DEFINITION: Knowledge structure," 2012) and knowledge structures will be regarded herein as a cognitive structures.

[8] "Object" is the term preferred by Mead in Symbolic Interactionism and was used most frequently in early Galileo work.

[9] Traditionally this measurement has been done at the individual level using pair comparison questions in surveys administered via face to face, telephone, or internet communication.

view them (Cancian, 1975, p. 53; Vishwanath & Chen, 2006) and it is this pattern that defines the concepts, allowing central tendencies of cultural belief systems to be investigated (Woelfel & Barnett, 1982) and multiple patterns (or the same pattern over time) to be compared[10].

Magnitude estimations generated are situated as coordinates in non-Euclidian space by using the Young-Householder and Torgerson procedures for obtaining a double-centered scalar products matrix from a matrix of dissimilarities (Torgerson, 1952; Torgerson, 1958; Young & Householder, 1938). A method that finds the principle axes of the centroid scalar products using a procedure first established by Karl Jacobi in 1849, implemented in a mathematical algorithm by Johannes Van de Geer in 1971, and incorporated into the Galileo Fortran program by Kim Blaine Serota and Richard A. Holmes in 1975 is then used to calculate the eigenvalues and eigenvectors for this coordinate space (Barnett, Serota, & Taylor, 1976; "Galileo Website," 2011; Van de Geer, 1971; Woelfel & Evans, 2009; Woelfel, Newton, Kincaid, & Holmes, 1979; Woelfel, et al., 1975, August).

Similar concepts are close to one another in this space and concepts that are dissimilar are distant from one another. These distance relationships describe and define the concepts (Woelfel & Fink, 1980) and the concepts are therefore not independent from one another. The self-concept may also be located close to, or distant from, other concepts and behavioral concepts closest to the self-concept are those performed most frequently—while those seldom or never performed are more distant from the self-concept (Woelfel & Fink, 1980, pp. 163-164). More

[10] This idea of similar and dissimilar features defining concept connections is somewhat analogous to Geoffrey Hinton's discussion of image recognition features as forming energy "landscapes" that include valleys and ravines (Hinton, 2007, 19:24-20:10)

recently it has also been found that media close to the self-concept are utilized more often than media further from the self-concept (Cheong, et al., 2010).[11]

It should be noted, however, that although particular points are plotted, the location of objects is best thought of as a field with indefinite range, rather than as a discrete point. Where a particular measured point is located within such a field at any given time is dependent upon the degree of uncertainty, as expressed by the measurement of standard error (Woelfel & Pruzek, 1983). That is, the center of the fields where points reside in a particular Galileo space is located within a tolerance (permitted measurement variation) as estimated by a hypersphere with a radius of one standard error around the mean coordinates for the values of the point's location. Accordingly, it should also be noted that although the first three dimensions of a Galileo space can be plotted visually, more complete and meaningful analysis must rely on mathematical computations based on all dimensions of the spatial coordinates.

In Wisan's 1972 dissertation, Galileo space (called therein a "social manifold" so as to model terminology after physical science[12]), was constructed and investigated as "…continuous, linear, unbounded, metric, isotropic, and homogenous." The present study will, however, reconsider whether it has inherent anisotropic or isotropic characteristics for the concept set under investigation (academic disciplines). Continuous is assumed.

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[11] This research, as well as unpublished replications and partial replications, appears to display a power law.

[12]This terminology was more recently used by Geoffrey Samuel (1990) but does not appear to have been adopted by present day neuroanthropology. It did, however, resurface in 2009 when discussed at some length in a biblical sociology book (Mol, 2009) that was then reviewed by a religious studies journal in 2010 (Joyce, 2010). Presently much of the 2009 book is available online as a Google book; the section mentioning Samuel's work begins on p249 and includes his definitions of both social manifold and modal states. It is of interest that his definition uses the image of a flowing river as an analogy for social "currents" and notes the social manifold is derived, but differs, from both individuals and societies.

Method

Eight social science disciplines[13] (anthropology, communication, economics, geography, information & lib science, political science, psychology, sociology) were considered using citations from journals ranked highest by impact factor[14] according to *Journal Citation Reports*® (JCR)[15] and downloaded from the *Web of Science*® database[16]. For each year 2005-2009, citations in the highest impact factor journal for each of the eight disciplines were downloaded and inspected for citations to any of the top five impact factor journals for all eight disciplines. A second dataset of citations from 1979-1983 was also created. In that dataset, citations from the highest impact factor journal for each of the eight disciplines in 1981[17] were downloaded[18] for

[13] Which disciplines are regarded as a social science is not always agreed upon. The disciplines considered in this project were chosen by aggregating a number of different sources listing social science disciplines and then choosing the six disciplines that were mentioned most frequently plus two disciplines of interest to the researcher (Appendix A). Listiac, a non-hierarchical clustering program (Appendix B), was used to confirm results.

[14] Impact factor was chosen, although other rankings are available, as it is regarded by *JCR* publisher Thomson Reuters as a "gross approximation of the prestige of journals" (Garfield, 2006, p. 14; The Institute for Scientific Information (ISI), 1994). See Appendix C for more information on *Journal Citation Reports*®.

[15] Appendix D shows a screenshot of the 2009 *JCR* database interface.

[16] See Appendix E for more information on *Web of Science*®

[17] University at Buffalo has online access for *JCR* 2002 and after; prior to that year information is available for some years in print form or on CDs. A scanned example of one of the print pages used to locate the highest impact journals for 1981 is in Appendix F. Since impact factor sorted by discipline was not available, all impact factor rankings were examined and compared to the 1981 *JCR* subject reference provided (see Appendix G). Dr. Brenda Battleson, a professor from the UB library science dept., was also consulted as it was at times unclear which journals may have been regarded as relating to library science during that timespan. An Ulrich's listing she provided (Appendix H) showing dates of publication for library and information science journals was used thereafter when inspecting the 1981 *JCR* impact factor report.

[18] *Web of Science*® has online access for articles from 1965 and after.

all five years and citations to the top five 1981 impact factor journals for were counted[19] each year.

Journal choice procedures using Journal Citation Reports (JCR)

Lists of journals appearing in the *JCR* database for eight disciplines (anthropology, communication, economics, geography, information & lib science, political science, psychology, sociology) were downloaded; for psychology all subject categories available were chosen so as to include all possible journals. [20] These lists were then combined and that master list was sorted; Appendix I shows the first page of the combined sort document. Forty-three of the 1082 journals located were associated with at least two disciplines and two of those 43 journals were associated with three disciplines: DISCOURSE SOC [Discourse & Society] was associated with communication, psychology, and sociology; GLOBAL NETW [Global Networks—A Journal of Transnational Affairs] was associated with anthropology, geography, and sociology.

[19] Garfield notes when discussing impact factor that 1, 7, and 15 year rankings for journals within subject disciplines do not differ significantly (2006); he also indicates that although exceptions to these generalities are possible, possible exceptions do not represent average behavior. Accordingly it was decided to use the same journals in each discipline 1979-1983, based on their 1981 impact factor.

[20] All *JCR* psychology headings (psychology; psychology, applied; psychology, biological; psychology, clinical; psychology, developmental; psychology, educational; psychology, mathematical; psychology, multidisciplinary; psychology, psychoanalysis; psychology, social) were selected prior to impact factor sort in 2005, 2007, and 2009. In 2006 a single subject heading entitled "psychology" was available; it, however, only found 4 journals. A single subject heading psychology also appeared in 2008 but only returned one journal. In light of this, all psychology headings including this "general", albeit limited, heading were selected in 2006 and 2008.

	multidisciplinary Journals	Total journals	Percentage of total discipline journals that are multidisciplinary
Anthropology	8	61	13.1
Communication	12	45	26.7
Economics	18	209	8.6
Geography	5	51	9.8
Info & Lib Science	4	61	6.6
Political Science	15	99	15.2
Psychology	10	457	2.2
Sociology	16	99	16.2
Totals	88	1082	8.1

Table 1: 2008 Journals listed in JCR by discipline

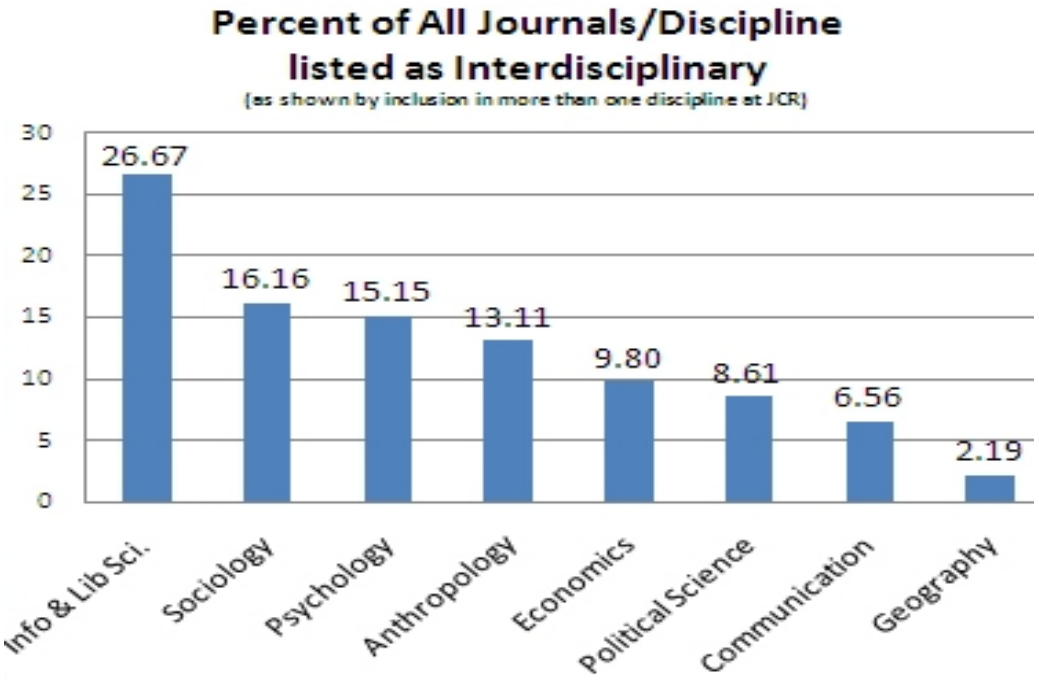

Figure 1: 2008 Journals listed in JCR by discipline

Five journals for each of the eight disciplines were then chosen for further investigation by ranking the top five 2008 journals by impact factor on the *JCR* report for each discipline (Appendix J).[21] All 2008 citations available from the top impact journals (one journal/discipline)

[21] History was originally investigated as a social science but after inspection of the 2008 citation data it was deemed more closely aligned with humanities in many cases. Anthropology was often, although not always, more closely aligned with scientific disciplines but was retained.

were then downloaded from the *ISI Web of Science* database[22] using the *Social Sciences Citation Index*. This content was then inspected and each time a journal ranked as a top five journal by impact factor for that year for any of the eight disciplines was found, it was counted.

Based on these initial findings it appeared the anthropology journal with the highest 2008 impact factor (*American Journal of Physical Anthropology*) might be somewhat atypical as it featured substantially more articles than the journals in any of the other chosen disciplines--yet largely cited only other anthropology journals. After consultation with a colleague whose background was in anthropology, 2008 citations from a journal felt to be potentially more representative of that discipline (*Cultural Anthropology*) were also examined. The citation pattern in that journal was more in line with patterns found in other disciplines; that is, sparse connections were found but not to the point of virtual isolation. In light of that discovery, a table was created listing all top five journals in each discipline using any ranking method on *JCR* and a two mode binomial network[23] (# of times journal was in the top five by citation ranking type) using UCINET was created for each (Appendices L1 to L8).[24]

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[22] Although the *Web of Knowledge*^{SM} database accesses the same article set, citations used by each article are available as an option to download through the *Web of Science*® database (see Appendix K).

[23] To create the binomial network it is important that if there was no connection a value of zero is entered into the cell. Steps in order: 1 start UCINET; 2 file, open, choose excel file, save, close spreadsheet editor (be sure to click to add zero to blank cells); 3 click on visualize network with netdraw (icon at far right); 4 click on open-ucinetwork-2mode network.

[24] It was noted after this work was completed that the ranking Cited Half-Life had been incompletely considered as only the top 5 journals alphabetically were inspected—but Cited Half-Life rankings of equal value often extended beyond the top 5 journals in an alphabetical listing. In light of that it is now recommended that this ranking be disregarded in Appendices L1-L8. Were the proposed aggregate ranking method done again it is suggested that either Cited Half-Life not be included or that the Cited Half-Life ranking of all journals in any other top 5 ranking be inspected and counted if that rank is equivalent to the highest Cited Half-life ranking possible for the year inspected (even if that means there may be more than five aggregated entries with a Cited-Half life maximum ranking).

Although there were some discrepancies, most notably in political science (see Appendix L-6), most rankings found in this manner were determined not to differ substantially from the *JCR* impact factor ranking; that is, almost all journals in the top 5 ranking by impact factor were also among the top journals listed when aggregated by all *JCR* ranking methods. Since the aim of the present study is to compare citations between fields, not to compare journals within fields, impact factor was used for the remainder of the project. It is, however, proposed that the aggregate ranking system demonstrated (rather than journals ranked highest by impact factor alone) be utilized in future studies, especially when further investigation within particular disciplines is desired.

Journal citation download procedures from Web of Science

After *JCR* was used to locate the top five journals in the chosen disciplines each year by impact factor ranking, the *Web of Science*® database[25] was used to download all citations from the top impact factor journal in each discipline.[26] Since *JCR* lists journals by abbreviated journal name but *Web of Science* requires unabbreviated journal names entered to search, it was necessary to locate unabbreviated journal names for all journals under investigation using http://www.efm.leeds.ac.uk/~mark/ISIabbr/A_abrvjt.html, http://images.isiknowledge.com/WOK46/help/WOS/J_abrvjt.html, or http://library.caltech.edu/reference/abbreviations/ to match abbreviations with titles.

Searches for the journal contents were done in the *Web of Science*® database as follows: publication name=[insert journal name] AND Year Published=[insert desired year], timespan all Years, Databases=SCI-EXPANDED, SSCI, A&HCI [the default database settings]. If searches

[25] *Web of knowledge* also accesses the same journal set but does not allow one to download the citations used in each article (see Appendix K).
[26] See Appendices M & N for a screenshots illustrating the 2008 download procedures in detail.

were done using only the publication name and restricted the timespan by year, rather than searching by year published, that sometimes also found data from the final issue of the previous year (usually December or November); this was first noticed during test data collection for the 2008 citations. It was also noted that (for example) searching for 2008 plus restricting the timespan to 2008 returned the same results as searching for 2008 and not restricting the timespan; therefore, "Timespan all years" (the default setting) was used in all future searches.

It should be noted that only 500 records may be downloaded at a time from the *Web of Science*® database. When more than 500 records needed to be downloaded, for example in a journal like *American Journal of Physical Anthropology*, they were downloaded as multiple groups and then reassembled. Such reassembly was easier in the Excel file than in the initially downloaded text files as the Excel spreadsheet allowed one to double check the total number of records downloaded against the row numbers, thereby making it clear none had been lost or were duplicated. When downloading from *Web of Science*® both "fill record" and "plus cited references" were checked. Records were initially downloaded as text files and then imported into Excel spreadsheet documents. In the initial 2008 test dataset this was done using Excel 2003 on a Samsung NC10 netbook or Excel 2004 on a Mac[27] by opening a blank excel document,

[27] This project was carried out using a Macintosh computer running OS X v10.5 then v10.6 and six PC computers (Samsung NC10 netbook with Windows XP, a Gateway SX2801 with Windows 7 Ultimate, an IBM Thinkpad with Windows XP, a Dell Latitude e5400 with Windows VISTA, a Samsung laptop running Windows 7 Home Premium, and an HP Compaq LE1711 running Windows XP 5.1 service pack 3). The 2008 test data was processed with Microsoft office Excel and Word 2003 (Samsung netbook and IBM) and Word 2004 (Mac), UCINET 6 for Windows for network visualization (Samsung netbook), Endnote X for references (all computers), Listiac to inspect the list of potential social science disciplines (Samsung netbook), and Galileo V56 for 3d plots and reports (HP, IBM, and Samsung netbook). In later work Microsoft office Excel and Word (2007 and 2010 on all PCs; 2008 and 2011 on the Mac), UCINET 6 for Windows (Samsung netbook only), Grab (windows v1.6 and Mac, v1.5), Endnote X3 and then X4 (all computers), Galileo V56 (Samsung netbook, IBM, Dell, Gateway virtual

choosing the data menu, and importing the text files as external data.

Counting Citations in 2008 test dataset

In the 2008 test dataset counting was done by opening the eight[28] text files containing citations from each discipline's highest impact journal, importing them into Excel (using semicolon as a delimiter), and sequentially searching them for the names of the top 5 impact factor journals in each of the eight disciplines[29]. A find/replace command finding each journal name and replacing it with the same journal name but formatted in a different color was used and the total number of replacements for each journal was noted in the Excel counting worksheet (Appendix O). [30] The journal citations in each discipline were then totalled to create an asymmetric matrix showing when a discipline was cited by, as well as when they cited, another discipline.

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machine, and Mac w/parallels 6), Fireworks in Macromedia Studio MX, then Adobe CS4, Fireworks 10 and Photoshop 11, and CS5 (Samsungs and Gateway), and Adobe Acrobat Pro 9, then 10 (Samsungs & Gateway) and 10 (Mac) were used. The Excel work was largely done on the Mac (except fall 2011 when only the Samsung PCs were used) because it allowed more than one Excel document window to open at the same time and the larger monitor facilitated easier image captures; work with Word, however, was most often done on the PCs (especially the Gateway in the USA and Samsungs fall 2011) because they scrolled more quickly and inserting pages, changing page orientation, and updating the TOC was more easily done using the same type of computer consistently. Moving from Mac to pc using Word also at times changed small things (for example linebreak spacing in Appendix Q) even when using compatibility mode.

[28] Ten files including history and cultural anthropology; this data was later not used.

[29] A listing of the highest five impact factor 2008 journals ranked by discipline is in Appendix R. Note that in 2008 there were only 29 searches done for each of the 8 highest impact journals, rather than 40, as SOCIAL NETWORKS was one of the top 5 highest journals in both anthropology and sociology.

[30] Another method explored was creating Visual Basic Code (VBA) using the Macro Recorder, rather than cut/pasting a journal template, to get the counts in multiple files. Since the macro recorder was no longer available in Excel 2008 and only one of the three computers regularly used during data collection could still run Microsoft Excel 2003, however, this proved unsatisfactory.

Counting citations in 2005-2009 and 1979-1983 datasets

The counting method was entirely revised for the non-test data. This new method was initially evaluated by recounting the 2008 data and comparing those new counts to the test dataset counts. There were a few differences that, upon investigation, were all inaccuracies in the test dataset counts. Some problems had already been discovered and the initial count method had already been revised (for example, any column containing the journal's name was deleted so as not to inflate the self-citation counts for example; that was no longer necessary in the non-test data, however, as only the contents of column Z, header CR, were now searched) but more irregularities were discovered when checking at this time. For example J COMM (the abbreviation for *Journal of Communication*) is contained within I J COMM (the abbreviation for *International Journal of Communication*). The new counting sheet was modified accordingly to take into account journal abbreviations contained within other abbreviations as they were discovered (and previously run data was rerun each time).[31] For a final listing of all journals excluded from the count of other journals with similar abbreviated names, please refer to the example count worksheets (for Library and Information Science, 2006) in Appendix P.

The highest impact factor journals for each year 2005-2009 were located, as described earlier, by sorting a *JCR* report containing all journals in a particular discipline. Citations in these journals were then counted by pasting the counting sheet (using the "paste special" command and checking "formula" box) into each of the eight excel files, one for each discipline, for each

[31] It should be noted that when a main journal was found less often than other journals including the title of the main journal, that generated a negative number. Although absolute values were used at first, that proved problematic for subsequent formulas using the cell value. This problem was solved by using the following formula in Excel: =MAX(0,E181-G188)

year in rows 173-231.[32] The citations were located in column Z so the particular count formula for each journal was (for example): =SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ECONOMETRICA", ""))) / LEN("ECONOMETRICA")) This formula finds the total count of text in quotes from cells specified and writes that output value into the formula cell. A listing of all journals investigated 2005-2009 for each discipline is available in Appendix Q.

The same download and counting methods were used for the 1979-1983 dataset although the journal choice method was modified. As discussed in the journal choice section earlier, for this dataset a print version of *JCR* was consulted and the journals ranked highest by impact factor in 1981 were used for all five years. Appendix R shows details on the 1979-1983 journals.

After counting the citations in each discipline they were then totalled in the same way as the 2008 test data to create an asymmetric matrix showing when a discipline was cited, as well as when they cited, another discipline. Unlike the 2008 data which was manually re-entered when transferring between the Excel spreadsheet where it was counted to the original total count spreadsheet, however, the 2005-2009 data and 1979-1983 count sheets were arranged so as to allow a cut/paste directly from column D of the discipline count sheets into the master count total worksheet for each year (thereby allowing the totals generated on count sheets to be checked against master count sheet to ensure no data was lost). All additional matrices were then created in the same workbook with the master count sheets and tied to the original data in an effort to minimize error; when values were transferred between worksheets using cut/paste, rather than

[32] There were also two additional count templates created to accommodate journals that had more than 173 items (each item was a data row). The formulas are the same but the row range was increased from Z1-Z170 to Z1-whatever was necessary. These templates were then pasted a few rows below the last row of data in the Excel file.

direct connection, the "paste special" command with "values" checked was used (else the formulas were copied). Listings of only the asymmetric matrices (raw data counts, both with and without self-citation) extracted from these workbooks for all years are in Appendices S-V; other matrices will be discussed in the results section.

Creating additional matrices from the counted asymmetric matrices

The asymmetric counting matrices for each of the ten years observed, both with and without self-citations, were used to create a number of additional matrices in Excel workbooks. Additional matrices created were: Transpose of the asymmetric count matrix, symmetric matrix 1 (upper triangle of asymmetric matrix), symmetric matrix 2 (lower triangle of asymmetric matrix), a matrix of the means of the upper/lower triangle values, a matrix of the absolute value differences of the upper/lower triangle values. Two more additional matrices based on the original asymmetric matrix (matrix A) and its transpose (matrix At) were calculated using the online matrix calculator at http://www.bluebit.gr/matrix-calculator. Settings used indicated values were delimited by tabs (cut/pasted directly from the excel worksheets to the online calculator) and results were returned with zero decimal digits (if you chose more digits it just added zeros as placeholders, for example 7.00 would be returned if you chose two digits and your result was 7); see Appendix Y for screenshots showing both settings and output.

Measures taken to guard against calculation error

With so many calculations and matrices generated, the minimization of error whenever possible was a priority. The name for each discipline's data file included the total number of results found in the Web of Science search; this was then checked against the Excel file row numbers after the text files were opened and saved there. Use of the counting sheets, placed in the same rows in each Excel data file (so the range was consistent), proved to be more accurate

than the original counting method used. The formulas were checked on each counting sheet before counts were generated for each discipline every year; they were also checked again approximately a week after counting was completed[33]. Counting was primarily completed in three waves: the 2008 test data, the 2005-2009 years, and the 1979-1983 years. The count sheet was reconfigured after the 2008 data check to allow citation numbers for all 25 journals (5/discipline) to be pasted directly into an excel sheet[34]; that excel sheet then calculated the totals and placed those calculated values into the initial asymmetric matrices.

These totals were also calculated on the count sheet (in a separate column so they were not selected), thus allowing comparison to ensure accuracy. The Excel matrix and percent workbooks were also constructed so most values were calculated two different ways; both values could then be compared to be sure they matched. Additionally, formulas that allowed linkage of cell values were utilized extensively, especially when generating the symmetric matrices. Temporary matrices of values used later in one of the final matrix formats for the means and difference matrices were also generated. Finally, although initially all online matrix calculator results were saved, it was discovered to be just as fast to cut/paste and re-multiply the matrices (rather than check against the saved results). That was done for each discipline, every year, at least a week after initial calculations were performed; which results had already been checked

[33] This may seem unnecessary, and perhaps would have been were the initial procedure what was used in the end. It took time to realize, however, that cut/pasting the counting template into different rows (for example) could at times change the range.

[34] This was necessary because, as mentioned in footnote 26, one journal appeared in the top 5 ranking for two different disciplines and the initial count template test was prepared only counting it in only one discipline (since the value would be the same). The template was subsequently modified to count this journal twice (once in each discipline) however, so the same template could be used all years.

was kept track of by not completing the text to column[35] and formatting steps until after results were verified.

It is possible that despite the safeguards employed error may have crept into the results; for example perhaps a mistake was made at first and then the same exact calculation error was made again two weeks later. Based on comparison of the original 2008 test data (including matrices) with the final 2008 dataset, however, it is felt that although it is not impossible such a thing may have happened, it is unlikely.

Getting the Excel matrices to display in word and subsequent .pdf

The Excel matrix files were saved as .pdfs; these .pdfs were then viewed and *Grab* (version 1.5) was used on the Mac to capture an image of each page. This image was then inserted into the word document (which later became the dissertation .pdf). The percent tables, ratio tables, and charts were also originally calculated in Excel and inserted into the word document in this manner.[36]

Generating TIN/TOUT matrices

The citation count asymmetric matrices were changed into binomial matrices and the presence or absence of links between disciplines was investigated as follows:

↔ = home concept links both to and from another discipline (IN and OUT)

← = home concept is cited by another discipline (IN)

→ = home concept cites another discipline (OUT)

UTlink = total unique links, any direction, not including home concept (total possible=7)

[35] See Appendix Z for screenshots of text to columns procedure.
[36] It is possible to use the Grab program to save portions of the Excel files, rather than the .pdfs created from Excel, but the image quality is usually not as good. This was done, however, for a few of the charts.

Tout = total outlinks--home concept cites another (OUT)

Tin = total inlinks--home concept cited by another (IN)

Tlink = tin+tout (total links)

TlinkMaxOUT = tout-tin

TlinkMaxIN = tin-tout

The maximum formula for Excel calculations was used with TlinkMaxOUT and TlinkMaxIN so negative calculation results were reported as zero (see Appendix AA for Excel sheet with formulas and footnote 28).

Generating the UCINET graphs

The UCINET graphs we created by copying and pasting each asymmetric matrix into the UCINET spreadsheet editor to create .##D and .##H files. The .##H files were then opened within UCINET in Netdraw (choosing "open UCINET network dataset and using default settings) and saved as .jpgs. These images were edited with Adobe Fireworks to add the year and "asymmetric matrix" and then inserted into the dissertation MSword document.

Using Galileo to generate coordinates & descriptive statistics for the matrices

An initial runstream file was created using INTERGAL (see appendix AF); subsequent runstream files were then created by modifying the initial runstream using Notepad++. The Excel matrix files for each year were then opened and the symmetric matrices were cut/pasted to the end of the runstream files. After cut/pasting the spacing was then manually modified so columns lined up in the way the Galileo v5.6 program requires. Using a temporary text file (created by saving the excel files as .prn files) to modify the pasted values was also briefly tried; although that worked, it still required further spacing modification so that method was discontinued in favor of directly pasting and modifying spacing within the runstream files.

The runstreams were then used to create coordinate and print files (containing eigenvalues and variance percentages for each dimension as well as information on distances each term moved between sets) using Galileo v5.6. Runstream files were created to rotate together the following symmetric matrices for 2005-2009: upper triangle of original asymmetric matrix, lower triangle of original asymmetric matrix, matrix of means between upper/lower triangle values, matrix of differences between upper/lower triangle values.

Results

The citation count matrices were first inspected using UCINET. In UCINET, the asymmetric matrices for all ten years were graphed using NetDraw. Arrowheads were shown by tie strength (minimum=0, maximum=50) and label defaults were used with placement set after the node symbols. Initially matrices both with and without self citations were graphed; when it was discovered, however, that UCINET graphs for both were the same this was discontinued (although the initial duplicate graphs were maintained and used as a check). Upon further investigation it was noted that UCINET could graph self reflexive connections but only as arrows from/to the same node that did not convey how many self connections there were (no weight). Therefore these graphs were made without showing self connections.

It should also be noted that the arrows shown on the UCINET graphs may at times appear to show an opposite relation to the arrows shown on the Cite(OUT)|Cited(IN) link results. On the UCINET graphs an arrow facing a discipline indicates it is cited by the discipline the arrow is coming from. This is the same as in the Cite(OUT)|Cited(IN) link results. Also, an arrow pointing towards the home concept indicates the home concept is cited by the second discipline (like on a UCINET graph) and an arrow pointing away from the home concept indicates the home concept cites the discipline it is pointing towards. In this way the Cite(OUT)|Cited(IN)

results attempt to clearly capture the fact that a single point (node on UCINET graph) has both in/out relationships to the other nodes related to it. Both relationships are then considered separately, rather than using a single arrow as in the UCINET graphs[37]; it is as if two lines were shown on the UCINET graphs connecting each dyad. Thus both the in and out relationships for particular nodes from the point of view of each node are considered. This makes is easier to tell which disciplines are being cited by many other disciplines—whereas in the matrix rankings alone sometimes a discipline will be placed highly because a few other disciplines cite them many times, rather than because many disciplines cite them.

"Home concept" on the Cite(OUT)|Cited(IN) results therefore refers to the discipline under consideration; that is, the discipline being examined to see how it connects to others. This is equivalent to the "target" concept in message generation in Galileo ("home" being the concept under consideration towards which the "start" concept would be moved just as the source/target relationship in Galileo message generation). Another way to think of it would be to equate the "home concept" to "ego" in social networking; that is, all other concepts are being considered from the point of view of the "home concept".

The matrices for 2005-2009 were also inspected using the Galileo program to rotate and plot coordinates for both the upper and lower triangle symmetric matrices as well as the matrices formed from the differences between the upper and lower triangles and the means between the upper and lower triangles[38]. The relationships between the disciplines in these plots was not

[37] UCINET can display weighted edge information as double headed arrows with two numbers per single line; see Appendix AE for an example using the 2008 test data. The researcher felt, however, that this graph was a confusing visualization. It is nonetheless included as an example as others may think differently and wish to use this visualization method.

[38] Plots for the upper triangle, lower triangle, or each year separately are available from the author by request.

entirely clear but did suggest that the disciplines plotted in a similar manner from year to year, not randomly. If communication was located in the lower left quadrant of the plot in 2005, it was also located in the lower left quadrant in 2009, etc. Communication and political science appear to be outliers in 2005 and 2007. It is felt this is due to that fact that *Public Opinion Quarterly* was one of the top 5 journals by impact factor for both disciplines those years so both cited the same journal heavily--thus strengthening the connection between them, especially as compared to their connections to others. This is especially noticeable in the plot without self-citations.

The numbers preceding the disciplinary abbreviation in the following plots indicate the year (for example 2005 is 5, 2006 is 6, etc.) and the disciplinary abbreviations are as follows:

Anthropology = ANTH
Communication = COMM
Economics = ECON
Geography = GEOG
Library and information science = INF LIB
Political Science = POL SCI
Psychology = PSYCH
Sociology = SOC

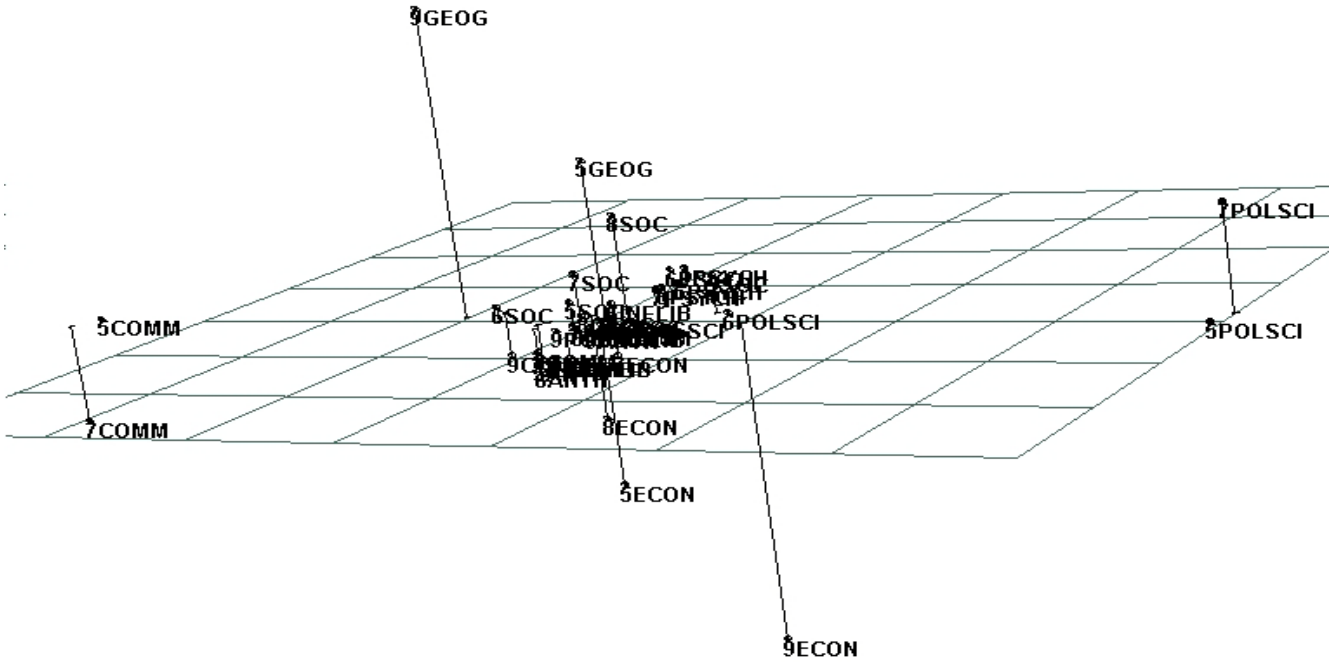

Figure 2 : 2005-2009 mean citations, without self citations, plotted as coordinates using Galileo

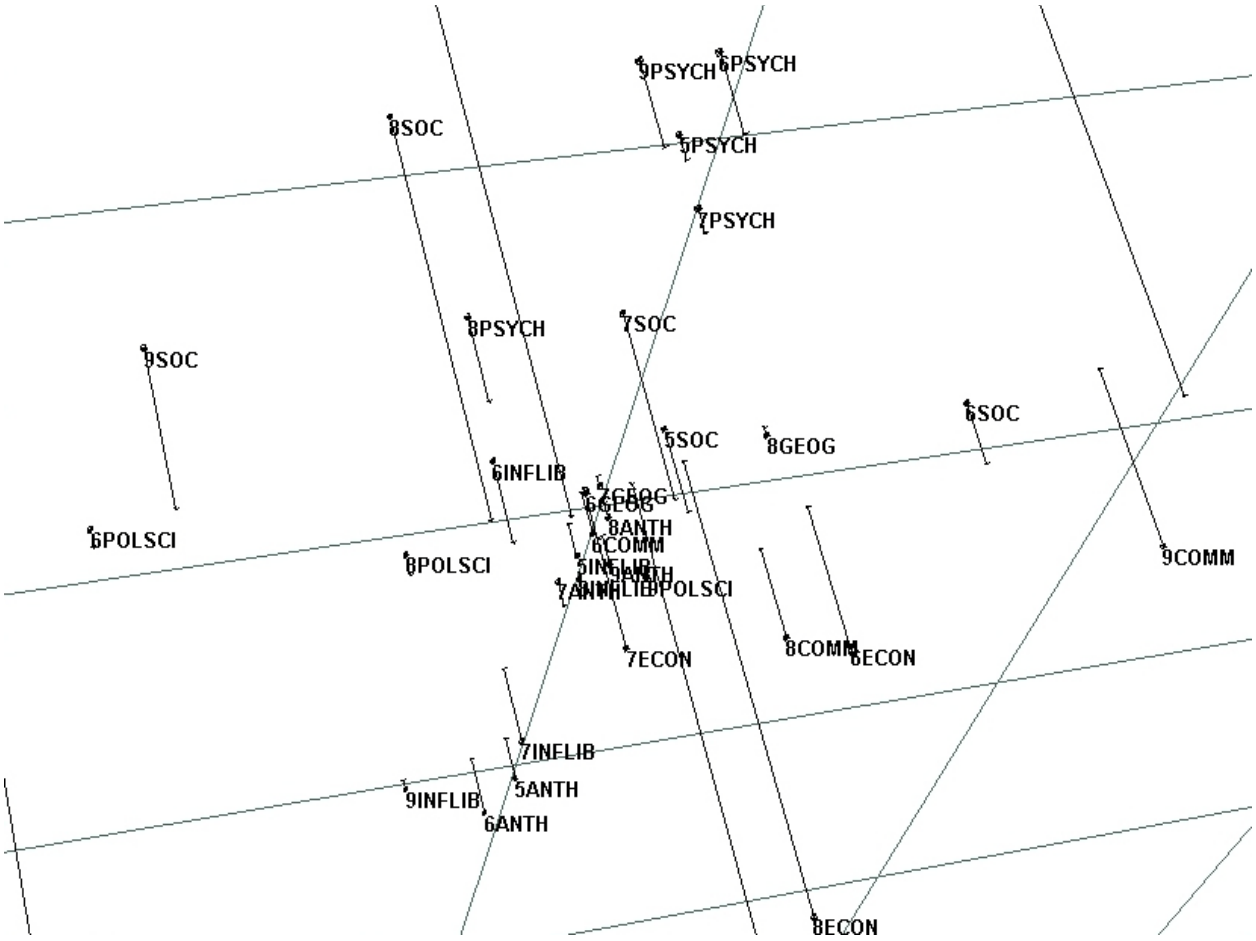

Figure 3: 2005-2009 mean citations, without self citations, plotted as coordinates using Galileo, lower center section only

Note that this plot was enlarged, cropped, and rotated so as many labels as possible might be seen and it now mirrors the image in figure 2 although it was created from the same data; that is, polisci is on the right in figure 2 but the left here and communication is on the left in figure 2 but on the right here.

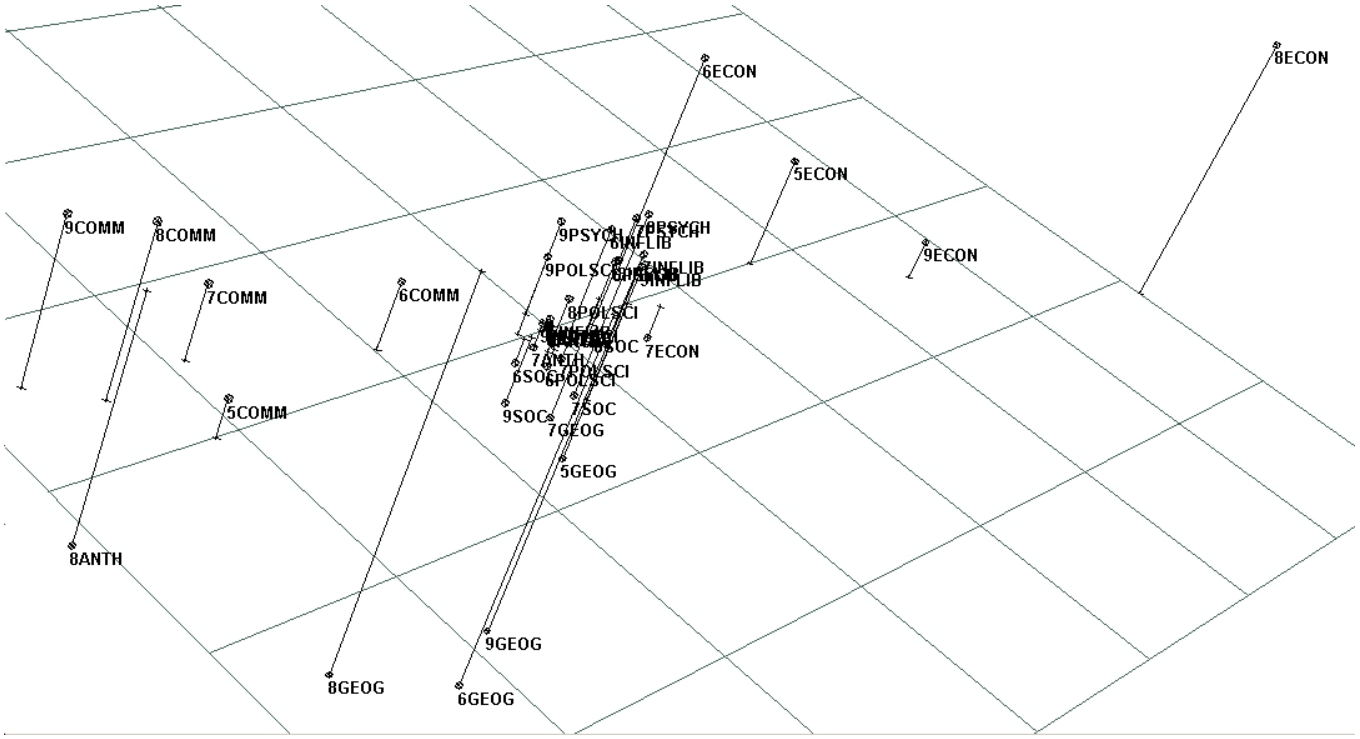

Figure 4: 2005-2009 mean citations, including self citations, plotted as coordinates using Galileo

1979	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
sociology	0	13	0	4	0	5	4	440	**466**
anthropology	436	0	7	1	0	0	3	3	**450**
economics	0	0	150	4	0	2	0	30	**186**
psychology	1	7	0	0	3	0	162	8	**181**
politicalSci	0	2	24	0	0	25	1	17	**69**
communication	0	34	0	0	2	0	3	7	**46**
info&libSci	0	0	0	0	21	0	0	0	**21**
geography	1	0	0	16	0	0	0	2	**19**
totals	**438**	**56**	**181**	**25**	**26**	**32**	**173**	**507**	**1438**

Table 2: 1979 Asymmetric matrix with self citation sorted most to least citations[39]

1979	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
politicalSci	0	2	24	0	0	0	1	17	**44**
economics	0	0	0	4	0	2	0	30	**36**
sociology	0	13	0	4	0	5	4	0	**26**
psychology	1	7	0	0	3	0	0	8	**19**
anthropology	0	0	7	1	0	0	3	3	**14**
communication	0	0	0	0	2	0	3	7	**12**
geography	1	0	0	0	0	0	0	2	**3**
info&libSci	0	0	0	0	0	0	0	0	**0**
totals	**2**	**22**	**31**	**9**	**5**	**7**	**11**	**67**	**154**

Table 3: 1979 Asymmetric matrix without self citation sorted most to least citations

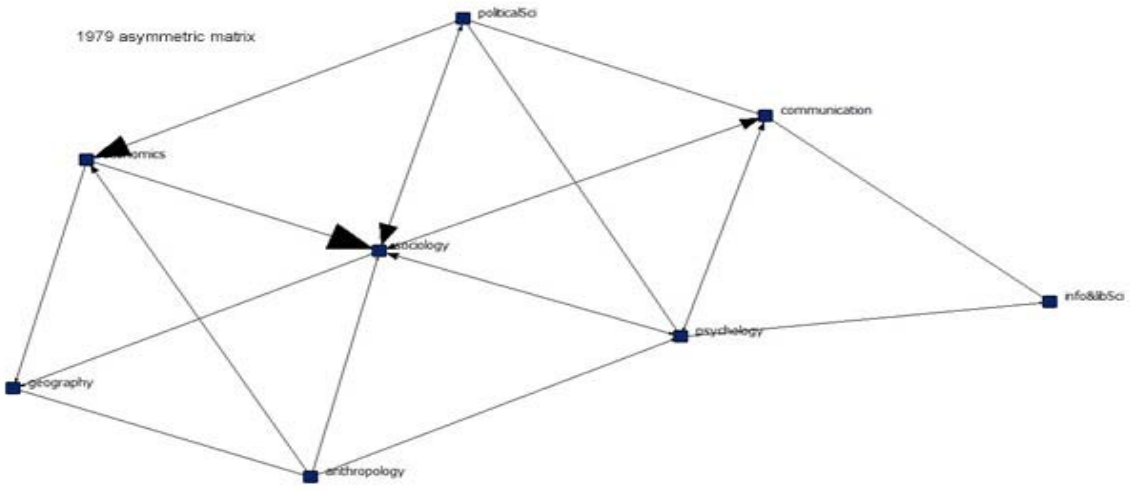

Figure 5: 1979 UCINET graph of asymmetric matrix

[39] For original asymmetric matrices sorted alphabetically see Appendices T, U, V, and W.

1979	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**Tin (INtotal)**
anthropology	0	0	1	1	0	0	1	1	**4**
communication	0	0	0	0	1	0	1	1	**3**
economics	0	0	0	1	0	1	0	1	**3**
geography	1	0	0	0	0	0	0	1	**2**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	1	1	0	0	0	1	1	**4**
psychology	1	1	0	0	1	0	0	1	**4**
sociology	0	1	0	1	0	1	1	0	**4**
Tout (OUTtotal)	**2**	**3**	**2**	**3**	**2**	**2**	**4**	**6**	**24**
Tlink (tin+tout)	6	6	5	5	2	6	8	10	**24**
TlinkMaxOUT (tout-tin)	0	0	0	1	2	0	0	2	
TlinkMaxIN (tin-tout)	2	0	1	0	0	2	0	0	

Table 4: 1979 Cites(OUT) and cited(IN) asymmetric binomial link matrix without self citation[40]

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlink TWO:
Info. & Library Sci
1 InfLib→com
2 InfLib→psych
(0↔, 0←, 2→)

UTlink THREE:
Geography
1Geog↔anth
2Geog↔soc
3Geog→econ
(2↔, 0←, 1→)

UTlink FOUR:
Anthropology
1 Anth↔geog
2 Anth↔psych
3 Anth←econ
4 Anth←soc,
(2↔, 2←, 0→)

Communication
1 Com↔psych
2 Com↔soc
3 Com←infoLib
4 Com→poliSci
(2↔, 1←, 1→)

Economics
1 Econ↔polSci
2 Econ←soc
3 Econ←geog
4 Econ→anth
(1↔, 2←, 1→)

Political Science
1 PolSci↔econ
2 PolSci↔soc
3 PolSci←com
4 PolSci←psych
(2↔, 2←, 0→)

UTlink FIVE:
Psychology
1 Psych↔anth
2 Psych↔com
3 Psych↔soc
4 Psych←infoSci
5 Psych→PoliSci
(3↔, 1←, 1→)

UTlink SIX:
Sociology
1 Soc↔com
2 Soc↔geog
3 Soc↔polSci
4 Soc↔psych
5 Soc→anth
6 Soc→econ,
(4↔, 0←, 2→)

[40] An Excel binomial link matrix table showing formulas used is in Appendix AA.

1979	done 6-2-11	Linked to Table at left so can copy/paste into matrix (cells might be hidden; unhide if "gone...")							
		anthropol	communic	economi	geograph	informati	politicalS	psycholo	sociology
JOURNAL TITLE	JOURNAL ABBREVIATION								
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY	AM J PHYS ANTHROPOL	403	0	0	0	0	0	0	0
ANNUAL REVIEW OF ANTHROPOLOGY	ANNU REV ANTHROPOL	1	0	0	0	0	0	1	0
AMERICAN ANTHROPOLOGIST	AM ANTHROPOL	12	0	5	0	0	0	2	2
*SOCIAL NETWORKS	SOC NETWORKS	0	0	0	0	0	0	0	0
CURRENT ANTHROPOLOGY	CURR ANTHROPOL	20	0	2	1	0	0	0	1
anthropology: AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY		**436**	**0**	**7**	**1**	**0**	**0**	**3**	**3**
COMMUNICATION RESEARCH	COMMUN RES	0	12	0	0	0	0	0	0
*PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	0	12	0	0	0	0	0	7
JOURNAL OF COMMUNICATION	J COMMUN	0	7	0	0	0	0	3	0
QUARTERLY JOURNAL OF SPEECH	Q J SPEECH	0	2	0	0	0	0	0	0
COMMUNICATION MONOGRAPHS	COMMUN MONOGR	0	1	0	0	2	0	0	0
communication: COMMUNICATION RESEARCH		**0**	**34**	**0**	**0**	**2**	**0**	**3**	**7**
JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	0	0	13	1	0	0	0	5
JOURNAL OF FINANCIAL ECONOMICS	J FINANC ECON	0	0	2	0	0	0	0	0
*JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	0	0	23	0	0	0	0	3
AM ECON REV	AM ECON REV	0	0	82	0	0	2	0	17
**ECONOMETRICA	ECONOMETRICA	0	0	30	3	0	0	0	5
economics: JOURNAL OF ECONOMIC LITERATURE		**0**	**0**	**150**	**4**	**0**	**2**	**0**	**30**
*ECONOMIC GEOGRAPHY	ECON GEOGR	0	0	0	9	0	0	0	2
GEOGRAPHICAL ANALYSIS	GEOG ANNAL	0	0	0	0	0	0	0	0
PROFESSIONAL GEOGRAPHER	PROF GEOGR	0	0	0	1	0	0	0	0
TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	0	0	0	2	0	0	0	0
**ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS	ANN ASSOC AM GEOGR	1	0	0	4	0	0	0	0
geography: ECONOMIC GEOGRAPHY		**1**	**0**	**0**	**16**	**0**	**0**	**0**	**2**
*ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY	ANNU REV INFORM SCI	0	0	0	0	7	0	0	0
**LIBRARY JOURNAL	LIBR J	0	0	0	0	5	0	0	0
LIBRARY RESOURCES AND TECHNICAL SERVICES	LIBR RESOURCE TECH SER	0	0	0	0	0	0	0	0
LIBRARY QUARTERLY	LIBR QUART	0	0	0	0	4	0	0	0
JOURNAL OF ACADEMIC LIBRARIANSHIP	J ACAD LIB	0	0	0	0	5	0	0	0
info&libSci: ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOL		**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**
WORLD POLITICS	WORLD POLIT	0	0	0	0	0	0	0	0
*JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	0	0	23	0	0	0	0	3
AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	0	2	1	0	0	8	0	10
AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	0	0	0	0	0	0	0	2
JOURNAL OF CONFLICT RESOLUTION	J CONFLICT RESOLUT	0	0	0	0	0	17	1	2
politicalSci: WORLD POLITICS		**0**	**2**	**24**	**0**	**0**	**25**	**1**	**17**
ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	0	0	0	0	0	0	17	1
PSYCHOLOGICAL REVIEW	PSYCHOL REV	0	6	0	0	2	0	45	7
COGNITIVE PSYCHOLOGY	COGNITIVE PSYCHOL	0	1	0	0	1	0	51	0
ADVANCES IN EXPERIMENTAL SOCIAL PSYCHOLOGY	ADV EXP SOC PSYCHOL	0	0	0	0	0	0	2	0
COGNITION	COGNITION	1	0	0	0	0	0	47	0
psychology: ANNUAL REVIEW OF PSYCHOLOGY		**1**	**7**	**0**	**0**	**3**	**0**	**162**	**8**
AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	0	7	0	3	0	2	2	267
AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	0	3	0	1	0	2	1	125
ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	0	0	0	0	0	0	0	3
SOCIOLOGY -- THE JOURNAL OF THE BRITISH SOCIOLOGICAL ASSOCIATION	SOCIOLOGY	0	2	0	0	0	1	1	12
SOCIAL PROBLEMS	SOC PROBL	0	1	0	0	0	0	0	33
sociology: AMERICAN SOCIOLOGICAL REVIEW		**0**	**13**	**0**	**4**	**0**	**5**	**4**	**440**

***note: there is no password to lock sheet
(right click on sheet name and leave psswd space blank)

1979	anthropology	communicati	economics	geography	information &	politicalScienc	psychology	sociology	totals	
anthropology	436	0	7	1	0	0	3	3	**450**	
communication	0	34	0	0	2	0	3	7	**46**	
economics	0	0	150	4	0	2	0	30	**186**	
geography	1	0	0	16	0	0	0	2	**19**	
info&libSci	0	0	0	0	21	0	0	0	**21**	
politicalSci	0	2	24	0	0	25	1	17	**69**	
psychology	1	7	0	0	3	0	162	8	**181**	
sociology	0	13	0	4	0	5	4	440	**466**	
totals	**438**	**56**	**181**	**25**	**26**	**32**	**173**	**507**	**1438**	<-rows
									1438	<-columns

"cites" = column labeled disciplines cite row labeled disciplines
"cited" = row labeled disciplines are cited by column labeled disciplines

Table 5: 1979 raw data citation counts [41]

[41] Counts were done for all 10 years this way and are available from author upon request.

CITES percent (asymmetric matrix) with self cites 1979

		anthropology		communication		economics		geography		information & libra		political science		psychology		sociology		
		cites	%Column	cites	%Colum	cites	%Colun	cites	%Colum	cites	%ColumnTo	cites	%Colum	cites	%Colu	cites	%ColumnTotal(cites)	
	anthropology	436	99.5434	0	0	7	3.8674	1	4	0	0	0	0	3	1.734	3	0.592	
	communicatior	0	0	34	60.714	0	0	0	0	2	7.6923077	0	0	3	1.734	7	1.381	
A	economics	0	0	0	0	150	82.873	4	16	0	0	2	6.25	0	0	30	5.917	
[this column=	geography	1	0.22831	0	0	0	0	16	64	0	0	0	0	0	0	2	0.394	
what goes	info&libSci	0	0	0	0	0	0	0	0	21	80.769231	0	0	0	0	0	0	
where on	politicalSci	0	0	2	3.5714	24	13.26	0	0	0	0	25	78.125	1	0.578	17	3.353	
ratio sheet]	psychology	1	0.22831	7	12.5	0	0	0	0	3	11.538462	0	0	162	93.64	8	1.578	
	sociology	0	0	13	23.214	0	0	4	16	0	0	5	15.625	4	2.312	440	86.79	
	Total	438	100	56	100	181	82.873	25	100	26	100	32	100	173	100	507	100	1438
	%totalCols		30.459		3.8943		12.587		1.7385		1.8080668		2.2253		12.03		35.26	100

CITES percent (without selfcites)

		anthropology		communication		economics		geography		information & libra		political science		psychology		sociology		
		cites	%Column	cites	%Colum	cites	%Colun	cites	%Colum	cites	%ColumnTo	cites	%Colum	cites	%Colu	cites	%ColumnTotal(cites)	
	anthropology	0	0	0	0	7	22.581	1	11.111	0	0	0	0	3	27.27	3	4.478	
	communicatior	0	0	0	0	0	0	0	0	2	40	0	0	3	27.27	7	10.45	
B	economics	0	0	0	0	0	0	4	44.444	0	0	2	28.571	0	0	30	44.78	
	geography	1	50	0	0	0	0	0	0	0	0	0	0	0	0	2	2.985	
	info&libSci	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	politicalSci	0	0	2	9.0909	24	77.419	0	0	0	0	0	0	1	9.091	17	25.37	
	psychology	1	50	7	31.818	0	0	0	0	3	60	0	0	0	0	8	11.94	
	sociology	0	0	13	59.091	0	0	4	44.444	0	0	5	71.429	4	36.36	0	0	
	Total	2	50	22	100	31	0	9	100	5	100	7	100	11	100	67	100	154
	%totalCols		1.2987		14.286		20.13		5.8442		3.2467532		4.5455		7.143		43.51	100

Table 6: 1979 Cites percent (asymmetric matrix) with and without self citation[42]

[42] A portion of this Excel percentage sheet for 1979 showing formulas is in Appendix AB. Percents were done for all 10 years for both cites and cited citation counts; data available from author upon request.

CITED percent (asymmetric transpose) with selfcites 1979

	anthropology		communication		economics		geography		information & libra		political science		psychology		sociology		
	cites	%ColumnT	cites	%Colum	cites	%Colum	cites	%Colum	cites	%ColumnTo	cites	%Colum	cites	%Colu	cites		
anthropology	436	96.8889	0	0	0	0	1	5.2632	0	0	0	0	1	0.552	0	0	
communicatior	0	0	34	73.913	0	0	0	0	0	0	2	2.8986	7	3.867	13	2.79	
economics	7	1.55556	0	0	150	80.645	0	0	0	0	24	34.783	0	0	0	0	
geography	1	0.22222	0	0	4	2.1505	16	84.211	0	0	0	0	0	0	4	0.858	
C info&libSci	0	0	2	4.3478	0	0	0	0	21	100	0	0	3	1.657	0	0	
politicalSci	0	0	0	0	2	1.0753	0	0	0	0	25	36.232	0	0	5	1.073	
psychology	3	0.66667	3	6.5217	0	0	0	0	0	0	1	1.4493	162	89.5	4	0.858	
sociology	3	0.66667	7	15.217	30	16.129	2	10.526	0	0	17	24.638	8	4.42	440	94.42	
Total	450	100	46	100	186	100	19	100	21	100	69	100	181	100	466	100	1438
%totalCols		31.2935		3.1989		12.935		1.3213		1.4603616		4.7983		12.59		32.41	100

CITED percent (without selfcites)

	anthropology		communication		economics		geography		information & libra		political science		psychology		sociology		
	cites	%ColumnT	cites	%Colum	cites	%Colum	cites	%Colum	cites	%ColumnTo	cites	%Colum	cites	%Colu	cites		
anthropology	0	0	0	0	0	0	1	33.333	0	#DIV/0!	0	0	1	5.263	0	0	
communicatior	0	0	0	0	0	0	0	0	0	#DIV/0!	2	4.5455	7	36.84	13	50	
D economics	7	50	0	0	0	0	0	0	0	#DIV/0!	24	54.545	0	0	0	0	
geography	1	7.14286	0	0	4	11.111	0	0	0	#DIV/0!	0	0	0	0	4	15.38	
info&libSci	0	0	2	16.667	0	0	0	0	0	#DIV/0!	0	0	3	15.79	0	0	
politicalSci	0	0	0	0	2	5.5556	0	0	0	#DIV/0!	0	0	0	0	5	19.23	
psychology	3	21.4286	3	25	0	0	0	0	0	#DIV/0!	1	2.2727	0	0	4	15.38	
sociology	3	21.4286	7	58.333	30	83.333	2	66.667	0	#DIV/0!	17	38.636	8	42.11	0	0	
Total	14	100	12	100	36	100	3	100	0	#DIV/0!	44	100	19	100	26	100	154
%totalCols		9.09091		7.7922		23.377		1.9481		0		28.571		12.34		16.88	100

Table 7: 1979 Cited percent (asymmetric matrix transpose) with and without self citation

%s for asymmetric matrix WITHOUT self-citations								check	
	CITES/CITED	row%ofTotalCited							
anthropology	7.792207792	9.090909						-7.792207792	<-=B45-C36
communication	-6.493506494	7.792208		CITES/CITED formula: =row%total-col%total				6.493506494	<=C45-C37
economics	3.246753247	23.37662		check formula: =col%total-row%total				-3.246753247	etc.
geography	-3.896103896	1.948052	D					3.896103896	
info. & library science	-3.246753247	0						3.246753247	
politicalScience	24.02597403	28.5714						-24.02597403	
psychology	5.194805195	12.3377						-5.194805195	
sociology	-26.62337662	16.88312						26.62337662	
columns:%ofTotal(	1.298701299	14.2857143	20.1298701		5.844155844	3.246753247	4.545454545	7.142857143	43.506494

%s for asymmetric matrix WITH self-citations				B				check	
	CITES/CITED	row%ofTotalCited							
anthropology	0.834492353	31.29346						-0.834492353	<-=B59-C50
communication	-0.695410292	3.198887		CITES/CITED formula: =row%total-col%total				0.695410292	<=C59-C51
economics	0.347705143	12.93463		check formula: =col%total-row%total				-0.347705143	etc.
geography	-0.417246175	1.32128	C					0.417246175	
info. & library science	-0.347705146	1.460362						0.347705146	
politicalScience	1.389144896	3.614458						-1.389144896	
psychology	0.556328237	12.5869						-0.556328237	
sociology	-2.851182199	32.40612						2.851182199	
col%ofTotalCited	30.45897079	3.89429764	12.5869263		1.73852573	1.808066759	2.225312935	12.03059805	35.257302
notice poli sci flips when own citations are excluded				A					

CITES/CITED:	negative#=they cite others more than they are cited by others
	positive#=they are cited by others more than they cite others

1979 Citation totals/discipline ratios WITHOUT self-citation (raw count #s):

	cites	cited	more likely to cite others than to be cited by others		more likely to be cited by others than to cite	
anthropology	2	14	2,14	0	14,2	7
communication	22	12	22,12	1	12,22	0
economics	31	36	31,36	0	36,31	1
geography	9	3	9,3	3	3,9	0
info&libSci	5	0	5,0	#DIV/0!	0,5	0
politicalSci	7	44	7,44	0	44,7	6
psychology	11	19	11,19	0	19,11	1
sociology	67	26	67,26	2	26,67	0
totals	154	154				

1979 Citation totals/discipline ratios WITH self-citation (raw count #s):

	cites	cited	more likely to cite others than to be cited by others		more likely to be cited by others than to cite	
anthropology	438	450	438,450	0	450,438	1
communication	56	46	56,46	1	46,56	0
economics	181	186	181,186	0	186,181	1
geography	25	19	25,19	1	19,25	0
info&libSci	26	21	26,21	1	21,26	0
politicalSci	32	69	32,69	0	69,32	2
psychology	173	181	173,181	0	181,173	1
sociology	507	466	507,466	1	466,507	0
totals	1438	1438				

Table 8: 1979 Cites divided by cited and cited divided by cites[43]

[43] This Excel sheet with formulas is in Appendix AC and AD. Ratios were done for all 10 years; data available from author upon request.

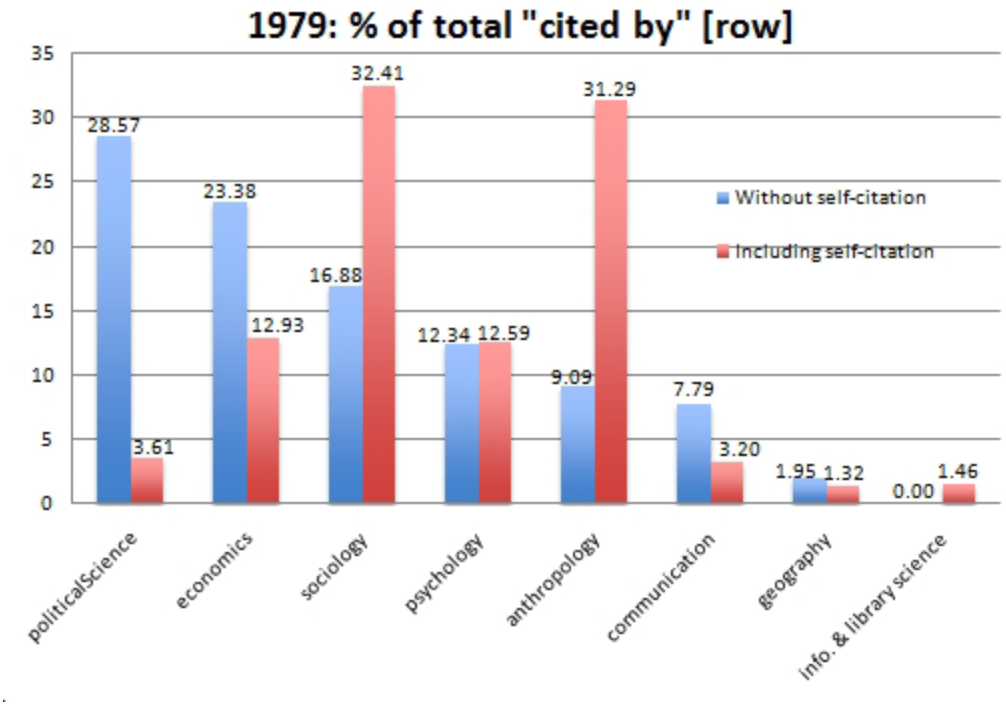

Figure 6: 1979 Total percent/discipline graph

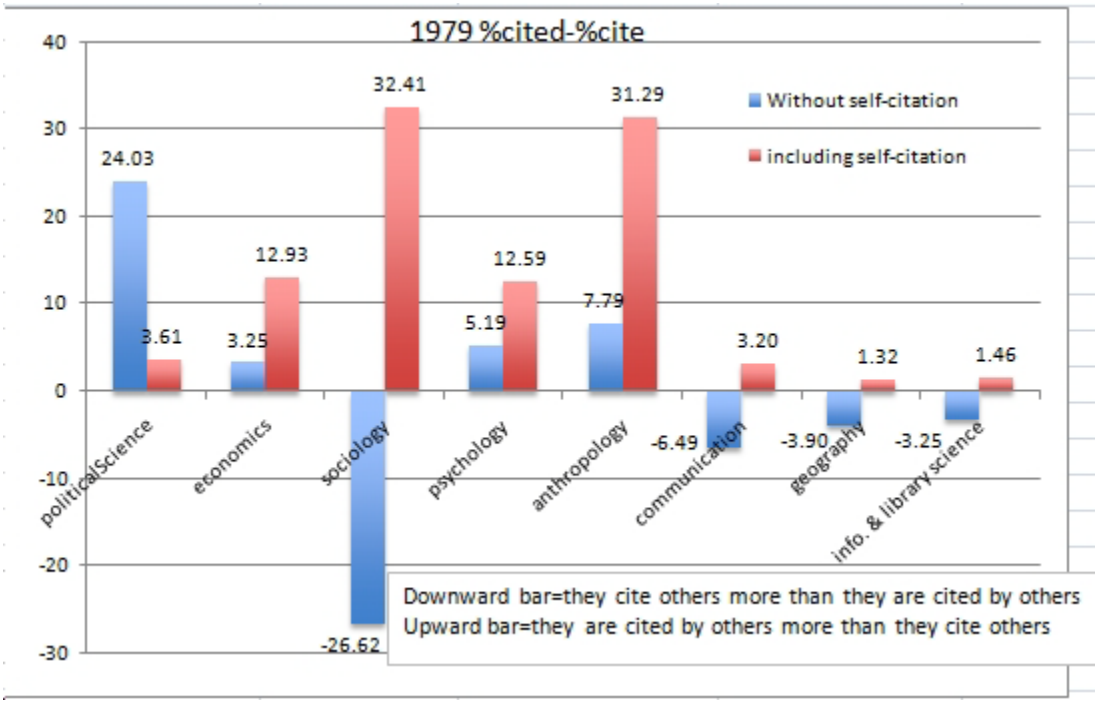

Figure 7: 1979 Cites subtracted from cited graph

1980	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
sociology	0	7	3	8	0	0	27	483	**528**
economics	0	0	155	15	0	1	17	24	**212**
psychology	0	4	1	0	3	0	134	6	**148**
communication	0	58	0	0	9	0	1	9	**77**
anthropology	57	0	0	2	0	0	0	4	**63**
politicalSci	0	4	18	2	0	4	8	18	**54**
geography	0	0	0	44	0	0	0	3	**47**
info&libSci	0	0	0	0	6	0	0	0	**6**
totals	**57**	**73**	**177**	**71**	**18**	**5**	**187**	**547**	**1135**

Table 9: 1980 Asymmetric matrix with self citation sorted most to least citations

1980	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
economics	0	0	0	15	0	1	17	24	**57**
politicalSci	0	4	18	2	0	0	8	18	**50**
sociology	0	7	3	8	0	0	27	0	**45**
communication	0	0	0	0	9	0	1	9	**19**
psychology	0	4	1	0	3	0	0	6	**14**
anthropology	0	0	0	2	0	0	0	4	**6**
geography	0	0	0	0	0	0	0	3	**3**
info&libSci	0	0	0	0	0	0	0	0	**0**
totals	**0**	**15**	**22**	**27**	**12**	**1**	**53**	**64**	**194**

Table 10: 1980 Asymmetric matrix without self citation sorted most to least citations

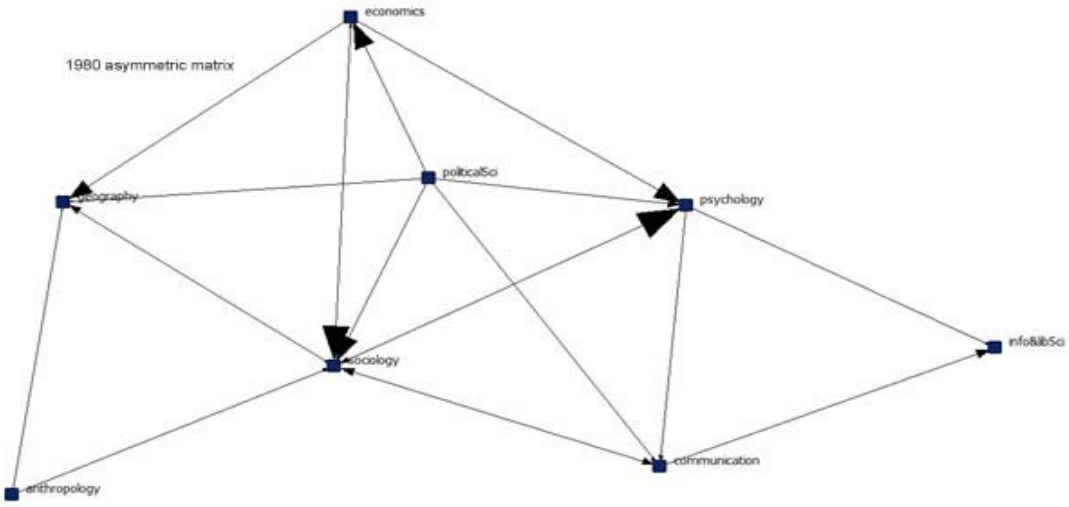

Figure 8: 1980 UCINET graph of asymmetric matrix

1980	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	Tin(INtotal)
anthropology	0	0	0	1	0	0	0	1	**2**
communication	0	0	0	0	1	0	1	1	**3**
economics	0	0	0	1	0	1	1	1	**4**
geography	0	0	0	0	0	0	0	1	**1**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	1	1	1	0	0	1	1	**5**
psychology	0	1	1	0	1	0	0	1	**4**
sociology	0	1	1	1	0	0	1	0	**4**
Tout (OUTtotal)	**0**	**3**	**3**	**4**	**2**	**1**	**4**	**6**	**23**
Tlink (tin+tout)	2	6	7	5	2	6	8	10	**23**
TlinkMaxOUT (tout-tin)	0	0	0	3	2	0	0	2	
TlinkMaxIN (tin-tout)	2	0	1	0	0	4	0	0	

Table 11: 1980 Cites(OUT) and cited(IN) asymmetric binomial link matrix without self citation

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlinks TWO:
Info. & Library Sci
1 InfLib→com
2 InfLib→psych
(0↔, 0←, 2→)

Anthropology
1 Anth←geog
2 Anth←soc
(0↔, 2←, 0→)

UTlinks THREE:
None

UTlinks FOUR:
Communication
1 Com↔psych
2 Com↔soc
3 Com←infoLib
4 Com→poliSci
(2↔, 1←, 1→)

Economics
1 Econ↔polSci
2 Econ↔psych
3 Econ↔soc
4 Econ←geog
(3↔, 1←, 0→)

Geography
1Geog↔anth
2Geog↔soc
3Geog→econ
4Geog→polSci
(2↔, 0←, 2→)

UTlinks FIVE:
Political Science
1 PolSci↔econ
3 PolSci←com
2 PolSci←geog
4 PolSci←psych
2 PolSci←soc
(1↔, 4←, 0→)

Psychology
1 Psych↔com
2 Psych↔econ
3 Psych↔soc
4 Psych←infoSci
5 Psych→PoliSci
(3↔, 1←, 1→)

UTlinks SIX:
Sociology
1 Soc↔com
2 Soc↔geog
3 Soc↔polSci
4 Soc↔psych
5 Soc→anth
6 Soc→econ,
(4↔, 0←, 2→)

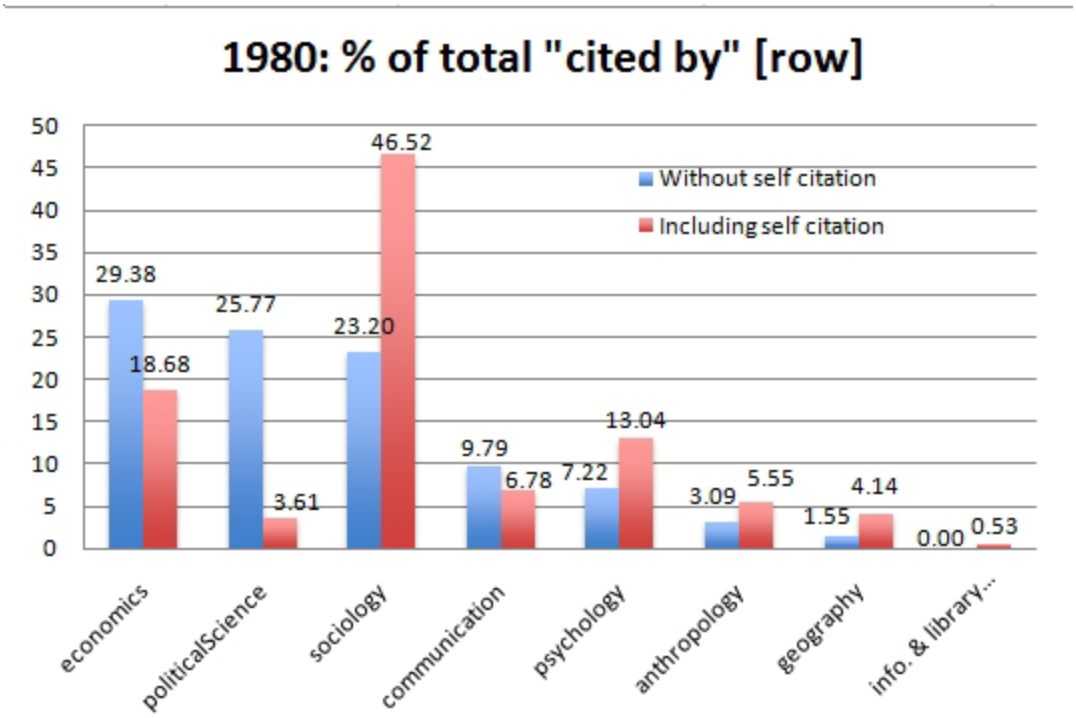

Figure 9: 1980 Total percent/discipline graph

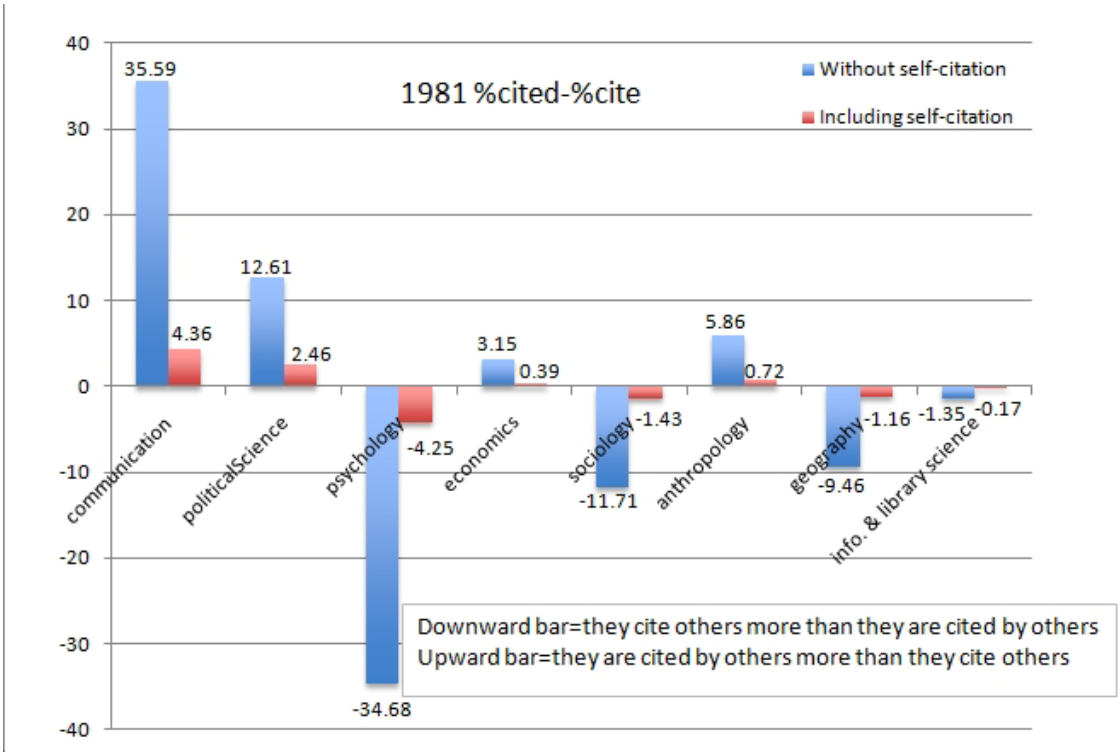

Figure 10: 1980 Cites subtracted from cited graph

1981	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	584	0	0	0	0	0	3	11	**598**
sociology	1	10	1	1	1	3	4	499	**520**
psychology	0	6	1	16	2	0	192	2	**219**
communication	0	70	0	0	0	0	90	11	**171**
economics	0	1	144	3	0	2	5	15	**170**
geography	0	0	0	50	0	0	0	0	**50**
politicalSci	0	5	17	1	0	16	2	8	**49**
info&libSci	0	0	0	0	35	0	0	0	**35**
totals	**585**	**92**	**163**	**71**	**38**	**21**	**296**	**546**	**1812**

Table 12: 1981 Asymmetric matrix with self citation from most to least citations

1981	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
communication	0	0	0	0	0	0	90	11	**101**
politicalSci	0	5	17	1	0	0	2	8	**33**
psychology	0	6	1	16	2	0	0	2	**27**
economics	0	1	0	3	0	2	5	15	**26**
sociology	1	10	1	1	1	3	4	0	**21**
anthropology	0	0	0	0	0	0	3	11	**14**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
totals	**1**	**22**	**19**	**21**	**3**	**5**	**104**	**47**	**222**

Table 13: 1981 Asymmetric matrix without self citation sorted most to least citations

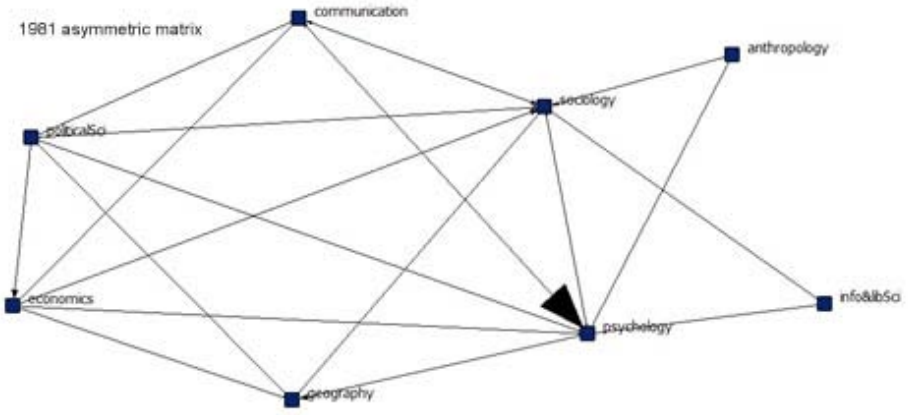

Figure 11: 1981 UCINET graph of asymmetric matrix

1981	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**Tin (INtotal)**
anthropology	0	0	0	0	0	0	1	1	**2**
communication	0	0	0	0	0	0	1	1	**2**
economics	0	1	0	1	0	1	1	1	**5**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	1	1	1	0	0	1	1	**5**
psychology	0	1	1	1	1	0	0	1	**5**
sociology	1	1	1	1	1	1	1	0	**7**
Tout (OUTtotal)	**1**	**4**	**3**	**4**	**2**	**2**	**5**	**5**	**26**
Tlink (IN+OUT)	3	6	8	4	2	7	10	12	**26**
TlinkMaxOUT (tout-tin)	0	2	0	4	2	0	0	0	
TlinkMaxIN tin-tout)	1	0	2	0	0	3	0	2	

Table 14: 1981 Cites(OUT) and cited(IN) asymmetric binomial link matrix without self citation

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlinks TWO:
Anthropology
1 Anth←psych
2 Anth↔soc,
(1↔, 1←, 0→)

Info. & Library Sci
1 InfLib→psych
2 InfLib→soc
(0↔, 0←, 2→)

UTlinks THREE:
None

UTlinks FOUR:
Communication
1 Com↔psych
2 Com↔soc
3 Com→economics
4 Com→poliSci
(2↔, 0←, 2→)

Geography
1Geog→econ
2Geog→poliSci
3Geog→psych
4Geog→soc
(0↔, 0←, 4→)

UTlinks FIVE:
Economics
1 Econ↔polSci
2 Econ↔psych
3 Econ↔soc
4 Econ←geog
5 Econ←com
(3↔, 2←, 0→)

Political Science
1 PolSci↔econ
2 PolSci↔soc
3 PolSci←com
4 PolSci←geog
5 PolSci←psych
(2↔, 2←, 0→)

UTlinks SEVEN:
Psychology
1 Psych↔com
2Psych↔econ
3 Psych↔soc
4 Psych→anth
5 Psych→PoliSci
6 Psych←geog
7 Psych←infoLib
(3↔, 2←, 2→)

Sociology
1 Soc↔anth
2 Soc↔com
3 Soc↔econ
4 Soc↔polSci
5 Soc↔psych
6 Soc←geog
7 Soc←infoLib
(5↔, 0←, 2→)

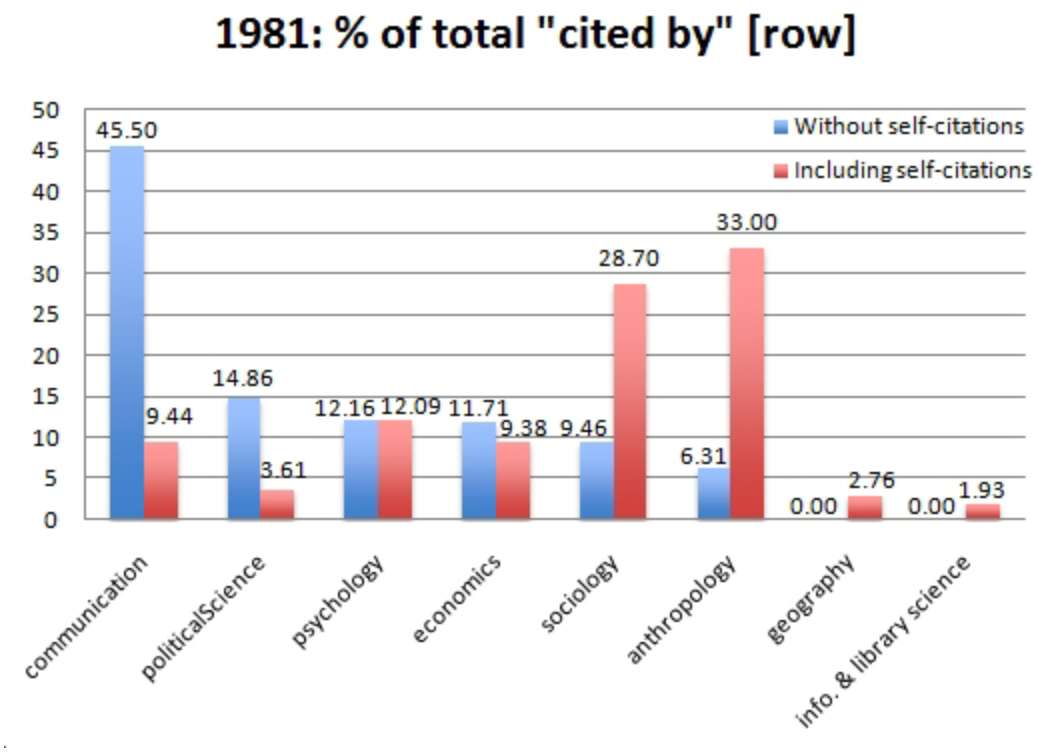

Figure 12: 1981 Total percent/discipline graph

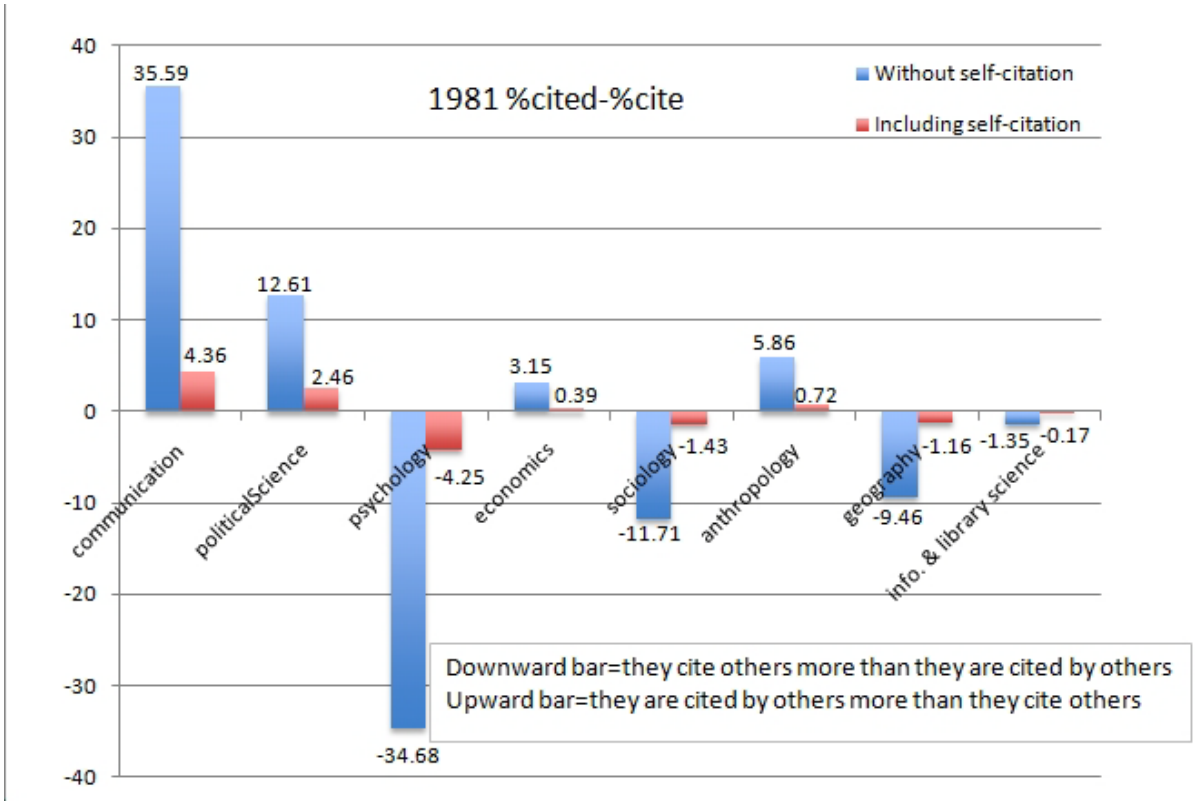

Figure 13: 1981 Cites subtracted from cited graph

1982	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	473	0	0	0	0	0	0	4	**477**
sociology	0	14	2	10	0	8	9	389	**432**
psychology	0	11	13	0	0	5	142	7	**178**
economics	0	0	112	2	2	4	0	19	**139**
communication	0	83	0	0	12	0	2	17	**114**
politicalSci	0	10	20	0	0	8	13	8	**59**
geography	0	0	0	20	0	0	1	1	**22**
info&libSci	0	0	0	1	10	0	0	0	**11**
totals	**473**	**118**	**147**	**33**	**24**	**25**	**167**	**445**	**1432**

Table 15: 1982 Asymmetric matrix with self citation sorted most to least citations

1982	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
politicalSci	0	10	20	0	0	0	13	8	**51**
sociology	0	14	2	10	0	8	9	0	**43**
psychology	0	11	13	0	0	5	0	7	**36**
communication	0	0	0	0	12	0	2	17	**31**
economics	0	0	0	2	2	4	0	19	**27**
anthropology	0	0	0	0	0	0	0	4	**4**
geography	0	0	0	0	0	0	1	1	**2**
info&libSci	0	0	0	1	0	0	0	0	**1**
totals	**0**	**35**	**35**	**13**	**14**	**17**	**25**	**56**	**195**

Table 16: 1982 Asymmetric matrix with self citation sorted most to least citations

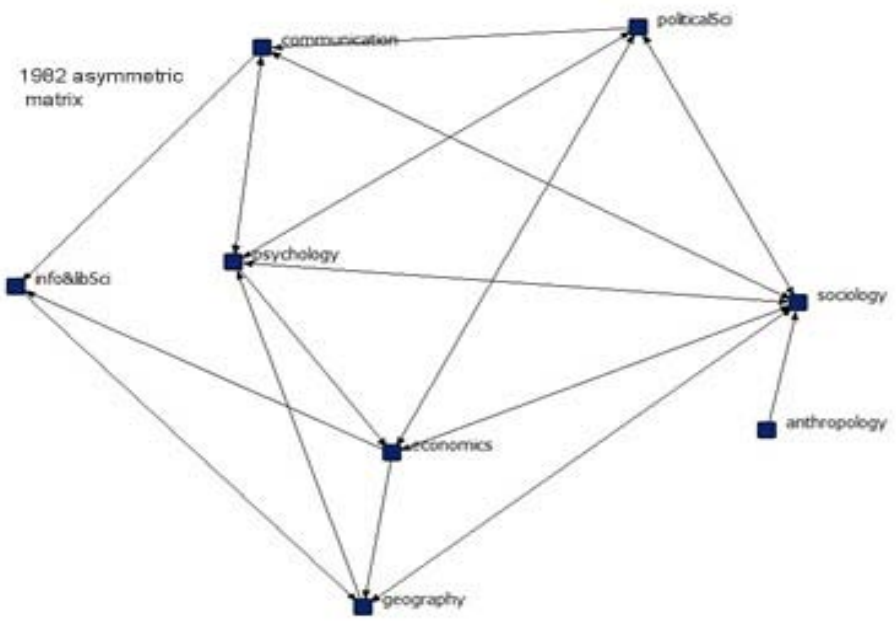

Figure 14: 1982 UCINET graph for asymmetric matrix

1982	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	Tin(Intotals)
anthropology	0	0	0	0	0	0	0	1	**1**
communication	0	0	0	0	1	0	1	1	**3**
economics	0	0	0	1	1	1	0	1	**4**
geography	0	0	0	0	0	0	1	1	**2**
info&libSci	0	0	0	1	0	0	0	0	**1**
politicalSci	0	1	1	0	0	0	1	1	**4**
psychology	0	1	1	0	0	1	0	1	**4**
sociology	0	1	1	1	0	1	1	0	**5**
Tout(OUTtotals)	**0**	**3**	**3**	**3**	**2**	**3**	**4**	**6**	**24**
Tlink (tin+tout)	1	6	7	5	3	7	8	11	**24**
TlinkMaxOUT (tout-tin)	0	0	0	1	1	0	0	1	
TlinkMaxIN (tin-tout	1	0	1	0	0	1	0	0	

Table 17: 1982 Cites(OUT) and cited(IN) asymmetric binomial link matrix without self citation

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlinks ONE:
Anthropology
1 Anth←soc,
(0↔, 1←, 0→)

UTlinks TWO:
None

UTlinks THREE:
Info. & Library Sci
1 InfLib→com
2 InfLib→econ
3InfLib←geog
(0↔, 1←, 2→)

UTlinks FOUR:
Communication
1 Com↔psych
2 Com↔soc
3 Com←infoLib
4 Com→poliSci
(2↔, 1←, 1→)

Geography
1Geog↔soc
2Geog←psych
3Geog→econ
4Geog→infLib
(1↔, 1←, 2→)

Political Science
1 PolSci↔econ
4 PolSci↔psych
2 PolSci↔soc
3 PolSci←com
(3↔, 1←, 0→)

UTlinks FIVE:
Economics
1 Econ↔polSci
2 Econ↔soc
3 Econ←geog
4 Econ←infLib
5 Econ→psych
(2↔, 2←, 1→)

Psychology
1 Psych↔com
2 Psych↔poliSci
3 Psych↔soc
4 Psych←econ
5 Psych→geog
(3↔, 1←, 1→)

UTlinks SIX:
Sociology
1 Soc↔com
2 Soc↔econ
3 Soc↔geog
4 Soc↔polSci
5 Soc↔psych
6 Soc→anth
(5↔, 0←, 1→)

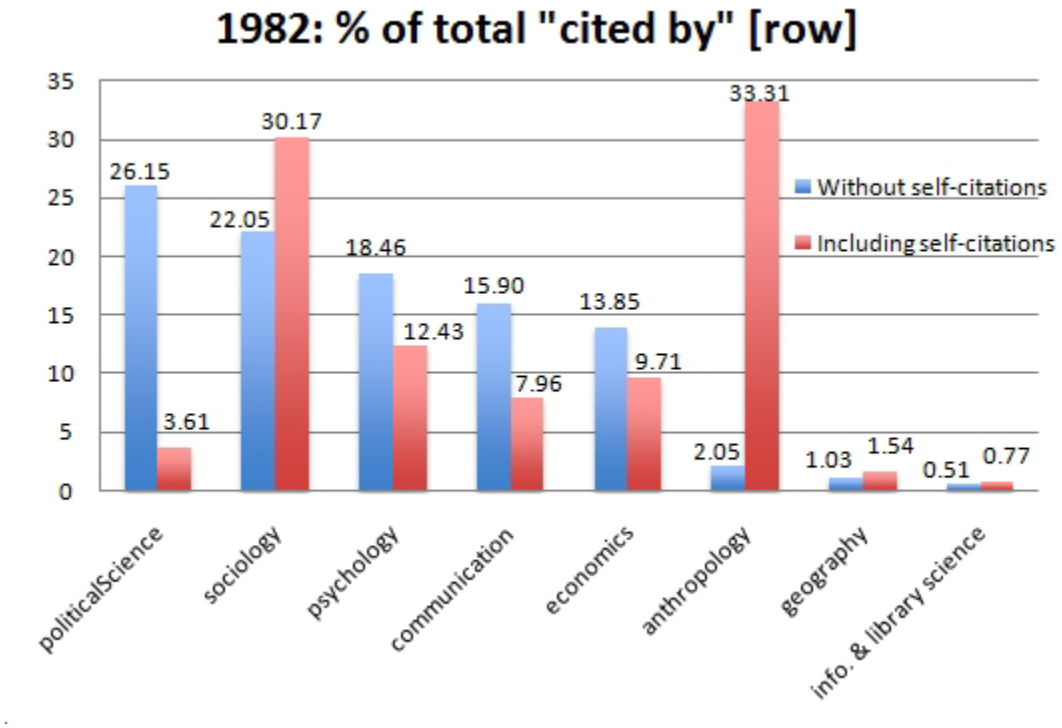

Figure 15: 1982 Total percent/discipline graph

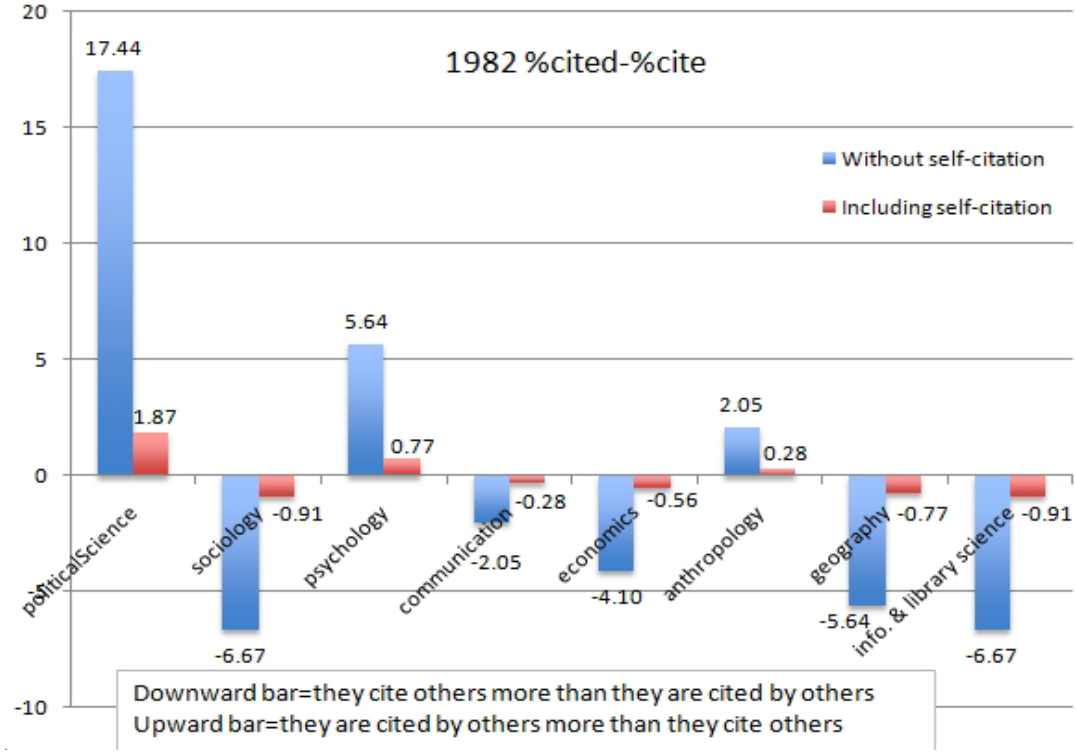

Figure 16: 1982 Cites subtracted from cited graph

1983	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	532	0	0	0	0	1	2	14	**549**
sociology	0	21	1	6	0	1	2	416	**447**
psychology	0	1	0	0	1	0	130	3	**135**
economics	0	0	86	12	0	2	0	28	**128**
communication	0	99	0	1	3	1	2	10	**116**
politicalSci	0	8	9	5	0	11	0	14	**47**
geography	0	0	0	37	0	0	0	0	**37**
info&libSci	0	0	0	0	4	0	0	0	**4**
totals	**532**	**129**	**96**	**61**	**8**	**16**	**136**	**485**	**1463**

Table 18: 1983 Asymmetric matrix with self citation sorted most to least citations

1983	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
economics	0	0	0	12	0	2	0	28	**42**
politicalSci	0	8	9	5	0	0	0	14	**36**
sociology	0	21	1	6	0	1	2	0	**31**
anthropology	0	0	0	0	0	1	2	14	**17**
communication	0	0	0	1	3	1	2	10	**17**
psychology	0	1	0	0	1	0	0	3	**5**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
totals	**0**	**30**	**10**	**24**	**4**	**5**	**6**	**69**	**148**

Table 19: 1983 Asymmetric matrix without self citation sorted most to least citations

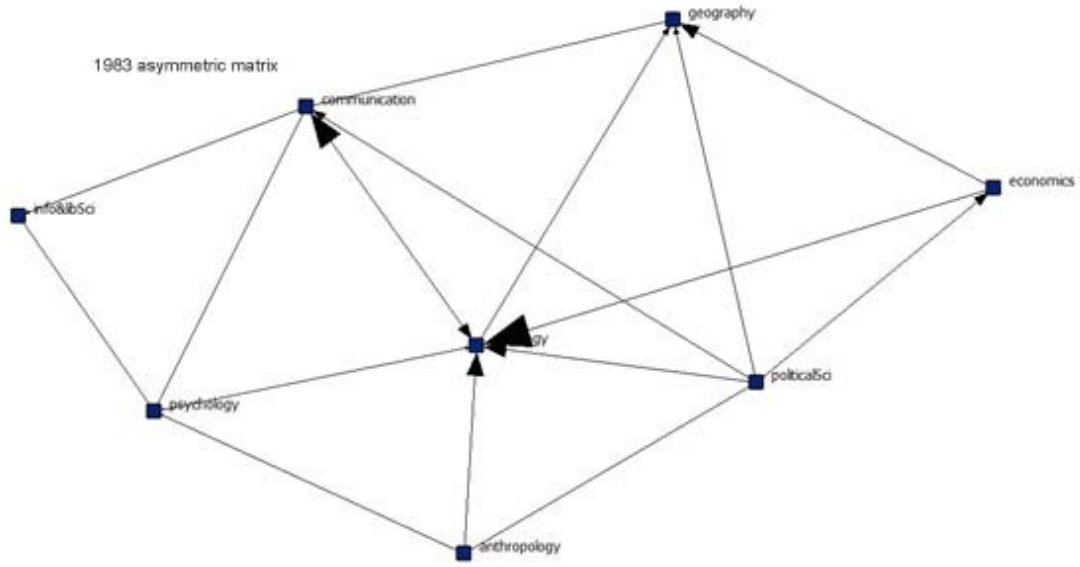

Figure 17: 1983 UCINET graph of asymmetric matrix

1983	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	Tin(Intotals)
anthropology	0	0	0	0	0	1	1	1	**3**
communication	0	0	0	1	1	1	1	1	**5**
economics	0	0	0	1	0	1	0	1	**3**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	1	1	1	0	0	0	1	**4**
psychology	0	1	0	0	1	0	0	1	**3**
sociology	0	1	1	1	0	1	1	0	**5**
Tout(OUTtotals)	**0**	**3**	**2**	**4**	**2**	**4**	**3**	**5**	**23**
Tlink (tin+tout)	3	8	5	4	2	8	6	10	**23**
TlinkMaxOUT (tout-tin)	0	0	0	4	2	0	0	0	
TlinkMaxIN (tin-tout)	3	2	1	0	0	0	0	0	

Table 20: 1983 Cites(OUT) and cited(IN) asymmetric binomial link matrix without self citation

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlink TWO:
Info. & Library Sci
1 InfLib→com
2 InfLib→psych
(0↔, 0←, 2→)

UTlink THREE:
Anthropology
1 Anth←poliSci
2 Anth←psych
3 Anth←soc
(0↔, 3←, 0→)

Economics
1 Econ↔polSci
2 Econ↔soc
3 Econ←geog
(2↔, 1←, 0→)

UTlink FOUR:
Geography
1Geog→com
2Geog→econ
3Geog→poliSci
4Geog→soc
(0↔, 0←, 4→)

Psychology
1 Psych↔com
2 Psych↔soc
3 Psych→anth
4 Psych←infoSci
(2↔, 1←, 1→)

UTlink FIVE:
Communication
1 Com↔poliSci
2 Com↔psych
3 Com↔soc
4 Com←geog
5 Com←infoLib
(3↔, 2←, 0→)

Political Science
1 PolSci↔econ
2 PolSci↔soc
3 PolSci↔com
4 PolSci←geog
5 PolSci→anth
(3↔, 1←, 1→)

UTlink SIX:
Sociology
1 Soc↔com
2 Soc↔econ
3 Soc↔polSci
4 Soc↔psych
5 Soc←geog
6 Soc→anth
(4↔, 1←, 1→)

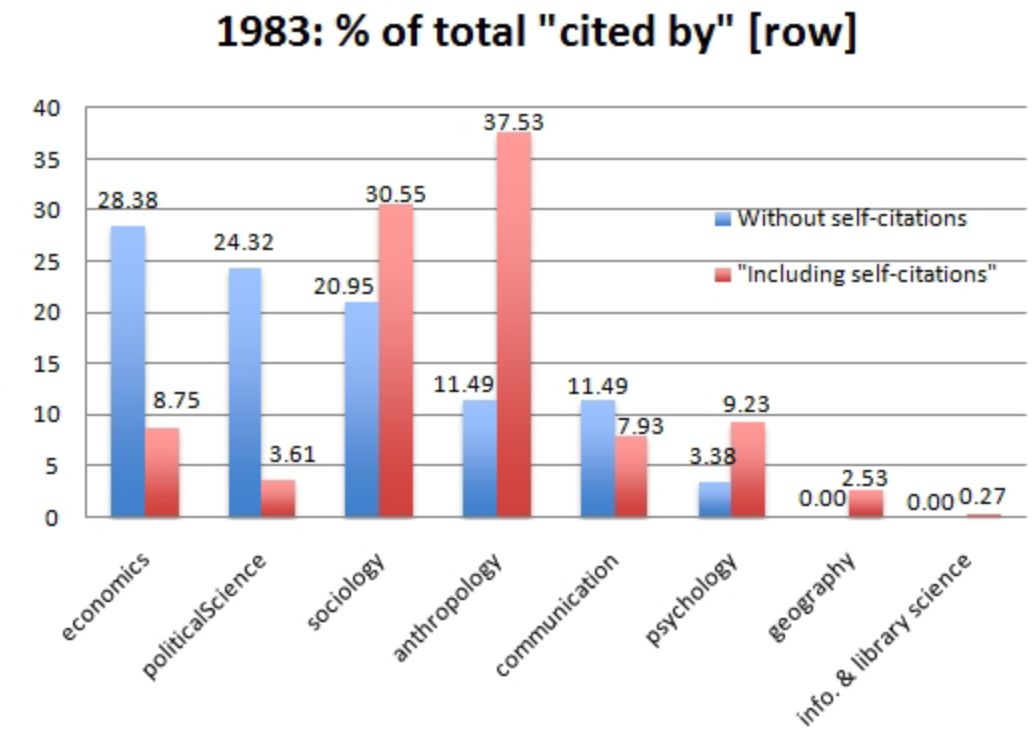

Figure 18: 1983 Total percent/discipline graph

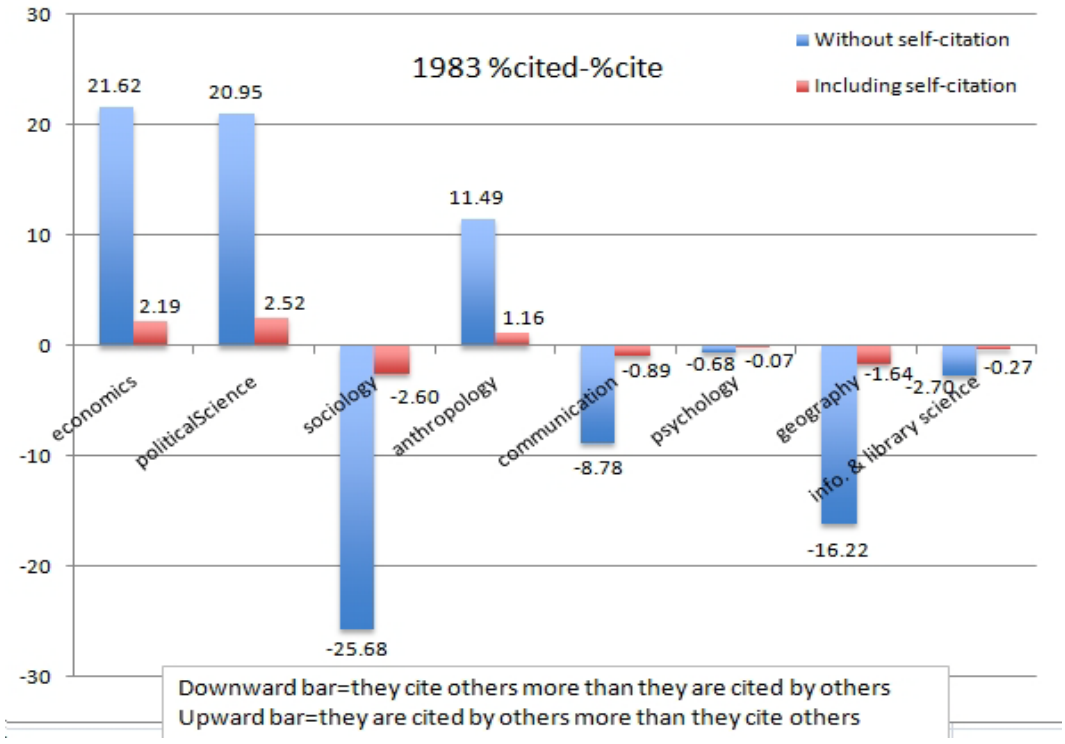

Figure 19: 1983 Cites subtracted from cited graph

2005	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
anthropology	1124	0	0	0	0	0	43	1	**1168**
politicalSci	0	219	14	0	2	280	1	48	**564**
sociology	0	17	11	3	14	10	8	455	**518**
psychology	11	4	1	0	19	5	395	11	**446**
economics	0	4	129	71	6	20	15	19	**264**
info&libSci	0	0	0	0	229	0	0	0	**229**
communication	0	140	1	0	8	11	0	7	**167**
geography	0	0	0	61	0	0	0	0	**61**
totals	**1135**	**384**	**156**	**135**	**278**	**326**	**462**	**541**	**3417**

Table 21: 2005 Asymmetric matrix with self citation sorted most to least citations

2005	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
politicalSci	0	219	14	0	2	0	1	48	**283**
economics	0	4	0	71	6	20	15	19	**135**
sociology	0	17	11	3	14	10	8	0	**63**
psychology	11	4	1	0	19	5	0	11	**51**
anthropology	0	0	0	0	0	0	43	1	**44**
communication	0	0	1	0	8	11	0	7	**27**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
Totals	**11**	**244**	**27**	**74**	**49**	**46**	**66**	**75**	**604**

Table 22: 2005 Asymmetric matrix without self citation sorted most to least citations

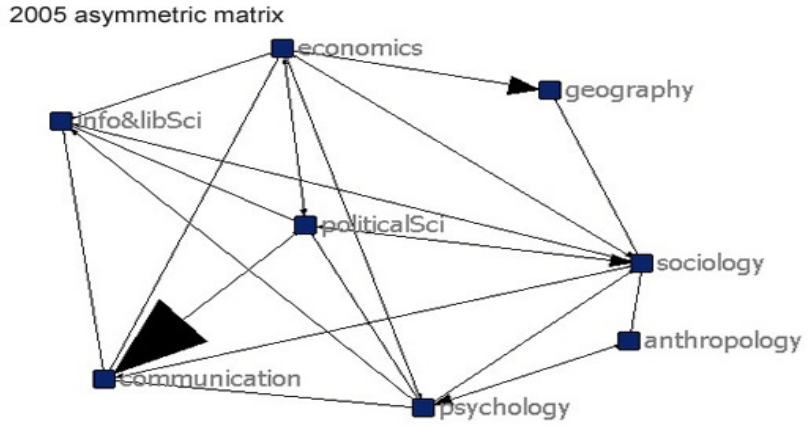

Figure 20: 2005 UCINET graph of asymmetric matrix

2005	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**Tin(INtotal)**
anthropology	0	0	0	0	0	0	1	1	**2**
communication	0	0	1	0	1	1	0	1	**4**
economics	0	1	0	1	1	1	1	1	**6**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	1	1	0	1	0	1	1	**5**
psychology	1	1	1	0	1	1	0	1	**6**
sociology	0	1	1	1	1	1	1	0	**6**
Tout(OUTtotal)	**1**	**4**	**4**	**2**	**5**	**4**	**4**	**5**	**29**
Tlink (tin+tout)	3	8	10	2	5	8	8	11	**29**
TlinkMaxOUT (tout-tin)	0	0	0	2	5	0	0	0	
TlinkMaxIN (tin-tout)	1	0	2	0	0	1	2	1	

Table 23: 2005 Cites(OUT) and cited(IN) asymmetric binomial link matrix without self citation

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlink TWO:
Anthropology
1 Anth↔psych
2 Anth←soc,
(1↔, 1←, 0→)

Geography
1Geog→soc
2Geog→econ
(0↔, 0←, 2→)

UTlink THREE &
FOUR: None

Tlink FIVE:
Communication
1 Com↔econ
2 Com↔poliSci
3 Com↔soc
4 Com←infoLib
5 Com→psych
(3↔, 1←, 1→)

Info. & Library Sci
1 InfLib→com
2 InfLib→econ
3 InfLib→poliSci
4 InfLib→psych
5 InfLib→soc
(0↔, 0←, 5→)

Political Science
1 PolSci↔com
2 PolSci↔econ
3 PolSci↔psych
4 PolSci↔soc
5PolSci←infoSci
(4↔, 1←, 0→)

UTlink SIX:
Economics
1 Econ↔com
2 Econ↔polSci
3 Econ↔psych
4 Econ↔soc
5 Econ←geog
6 Econ←infLib
(4↔, 2←, 0→)

Psychology
1 Psych↔anth
2 Psych↔econ
3 Psych↔poliSci
4 Psych↔soc
5 Psych←com
6 Psych←infoLib
(4↔, 2←, 0→)

UTlink SEVEN:
Sociology
1 Soc↔com
2 Soc↔econ
3 Soc↔polSci
4 Soc↔psych
5 Soc←geog
6 Soc←infLib
7 Soc→anth
(4↔, 2←, 1→)

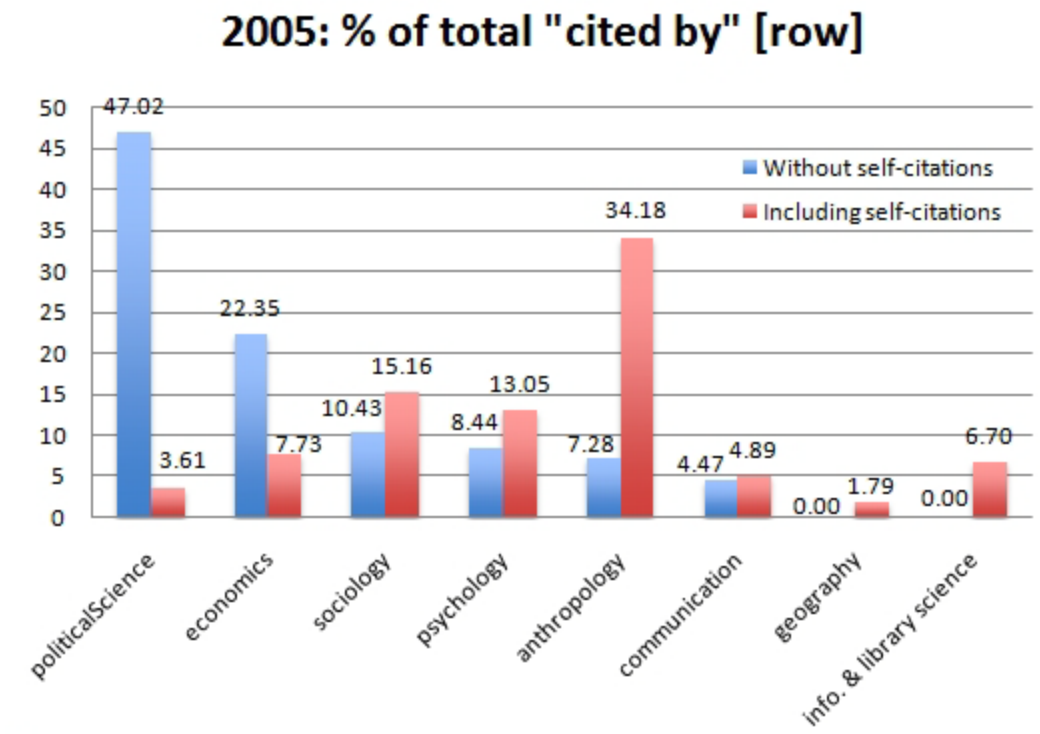

Figure 21: 2005 Total percent/discipline graph

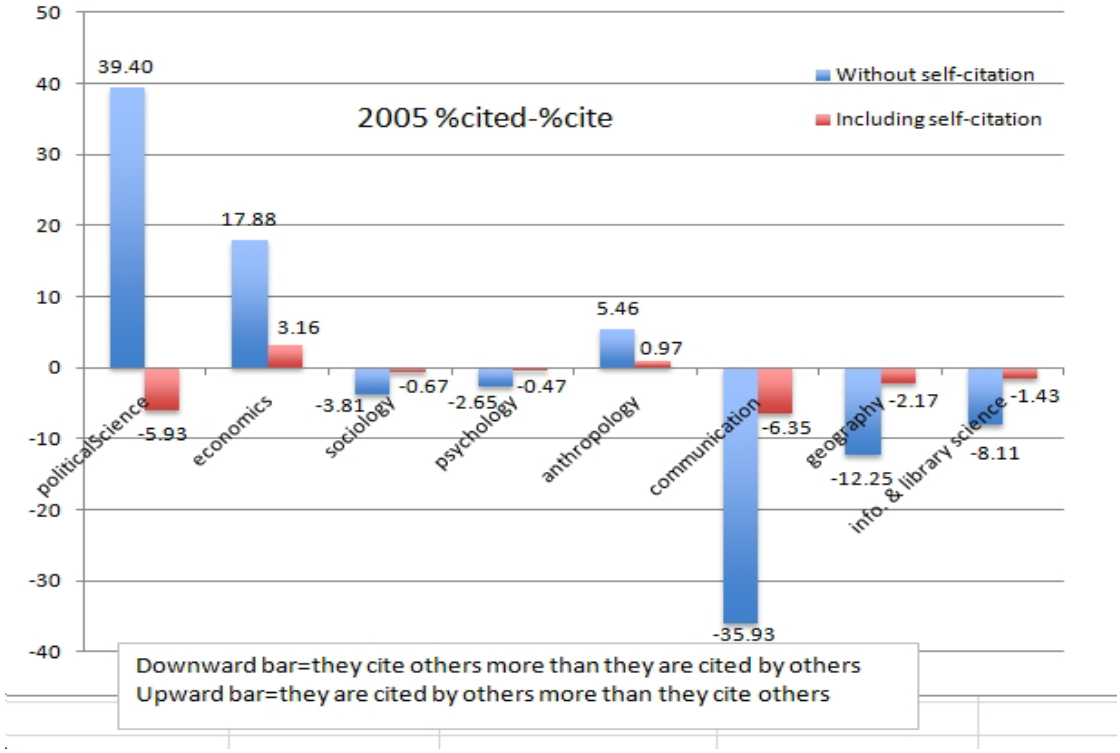

Figure 22: 2005 Cites subtracted from cited graph

2006	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
anthropology	1338	0	0	0	1	0	39	2	**1380**
politicalSci	0	0	2	2	2	466	1	28	**501**
info&libSci	0	0	0	0	351	0	1	0	**352**
psychology	18	1	16	0	18	0	255	7	**315**
sociology	1	0	4	8	15	17	5	242	**292**
geography	0	0	1	168	0	0	1	0	**170**
economics	0	0	100	1	16	34	8	7	**166**
communication	0	6	0	0	4	6	1	11	**28**
totals	**1357**	**7**	**123**	**179**	**407**	**523**	**311**	**297**	**3204**

Table 24: 2006 Asymmetric matrix with self citation sorted most to least citations

2006	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
economics	0	0	0	1	16	34	8	7	**66**
psychology	18	1	16	0	18	0	0	7	**60**
sociology	1	0	4	8	15	17	5	0	**50**
anthropology	0	0	0	0	1	0	39	2	**42**
politicalSci	0	0	2	2	2	0	1	28	**35**
communication	0	0	0	0	4	6	1	11	**22**
geography	0	0	1	0	0	0	1	0	**2**
info&libSci	0	0	0	0	0	0	1	0	**1**
Totals	**19**	**1**	**23**	**11**	**56**	**57**	**56**	**55**	**278**

Table 25: 2006 Asymmetric matrix without self citation sorted most to least citations

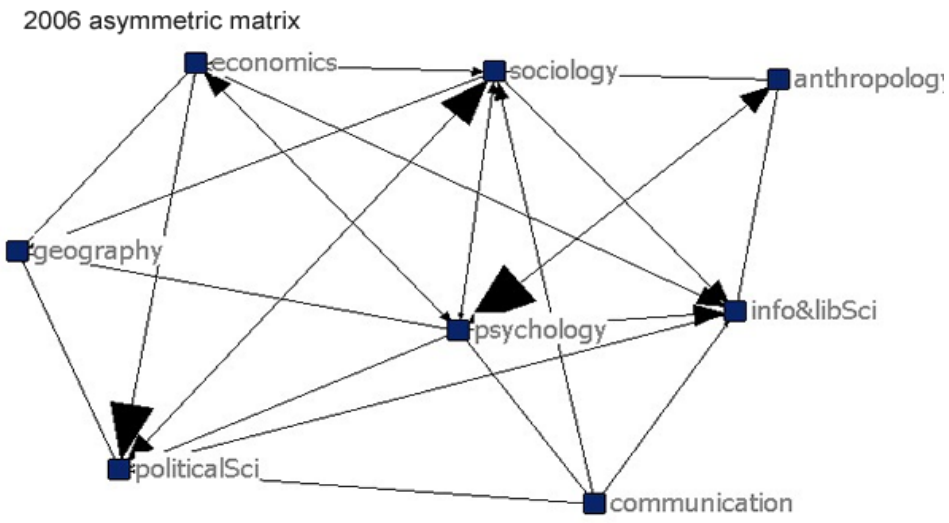

Figure 23: 2006 UCINET graph of asymmetric matrix

2006	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	Tin(Intotals)
anthropology	0	0	0	0	1	0	1	1	**3**
communication	0	0	0	0	1	1	1	1	**4**
economics	0	0	0	1	1	1	1	1	**5**
geography	0	0	1	0	0	0	1	0	**2**
info&libSci	0	0	0	0	0	0	1	0	**1**
politicalSci	0	0	1	1	1	0	1	1	**5**
psychology	1	1	1	0	1	0	0	1	**5**
sociology	1	0	1	1	1	1	1	0	**6**
Tout(OUTtotals)	**2**	**1**	**4**	**3**	**6**	**3**	**7**	**5**	**31**
Tlink	5	5	9	5	7	8	12	11	**31**
TlinkMaxOUT	0	0	0	1	5	0	2	0	
TlinkMaxIN	1	3	1	0	0	2	0	1	

Table 26: 2006 Cites(OUT) and cited(IN) asymmetric binomial matrix without self citations

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlink TWO:
None

UTlink THREE:
Anthropology
1 Anth↔psych
2 Anth↔soc
3 Anth←infoLib
(2↔, 1←, 0→)

UTlink FOUR:
Communication
1 Com↔psych
2 Com←infoLib
3 Com←poliSci
4 Com←soc
(1↔, 3←, 0→)

Geography
1Geog↔econ
2Geog←psych
3Geog→polSci
4Geog→soc
(1↔, 1←, 2→)

UTlink FIVE:
Economics
1Econ↔geog
2Econ↔poliSci
3Econ↔psych
4Econ↔soc
5Econ←infLib
(4↔, 1←, 0→)

UTlink SIX:
Info & Lib Sci
1 InfoLib↔psych
2 InfoLib→anth
3 InfoLib→com
4 InfoLib→econ
5 InfoLib→poliSci
6 InfoLib→soc
(1↔, 0←, 5→)

1 PolSci↔econ
2 PolSci↔soc
3 PolSci←geog
4 PolSci←infLib
5 PolSci←psych
6 PolSci→com
(2↔, 3←, 1→)

UTlink SEVEN:
Psychology
1Psych↔anth
2Psych↔com
3Psych↔econ
4Psych↔infoLib
6Psych↔soc
7Psych→geog
5Psych→poliSci
(5↔, 0←, 2→)

Sociology
1 Soc↔anth
2 Soc↔econ
3 Soc↔polSci
4 Soc↔psych
5 Soc←geog
6 Soc←infoLib
7 Soc→com
(4↔, 2←, 1→)

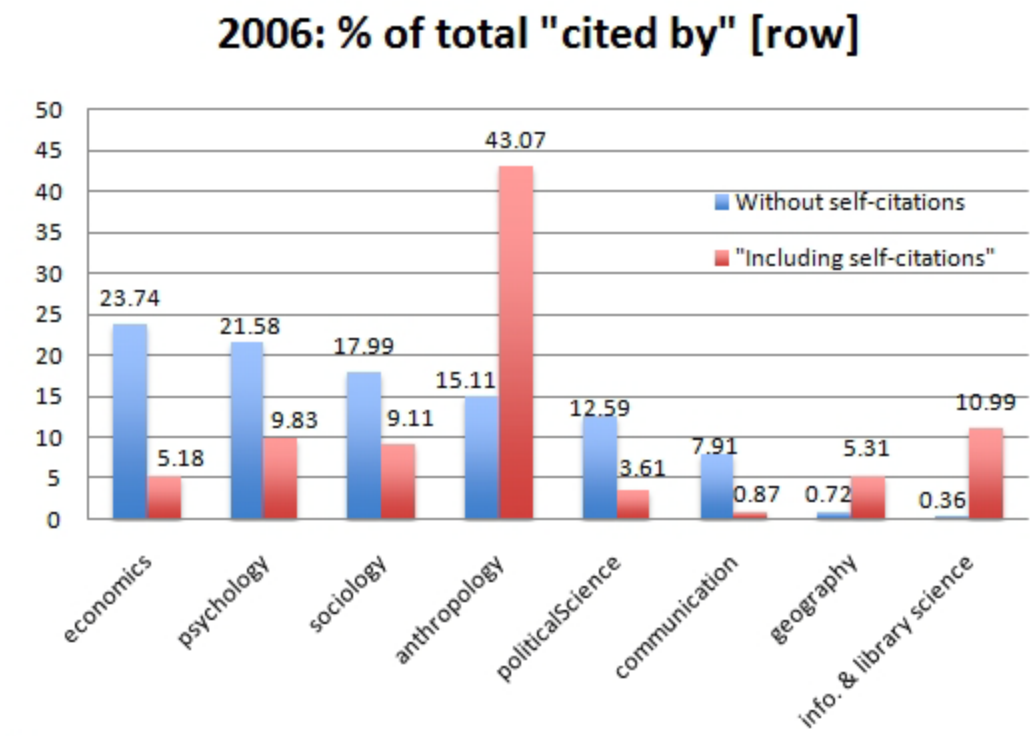

Figure 24: 2006 Total percent/discipline graph

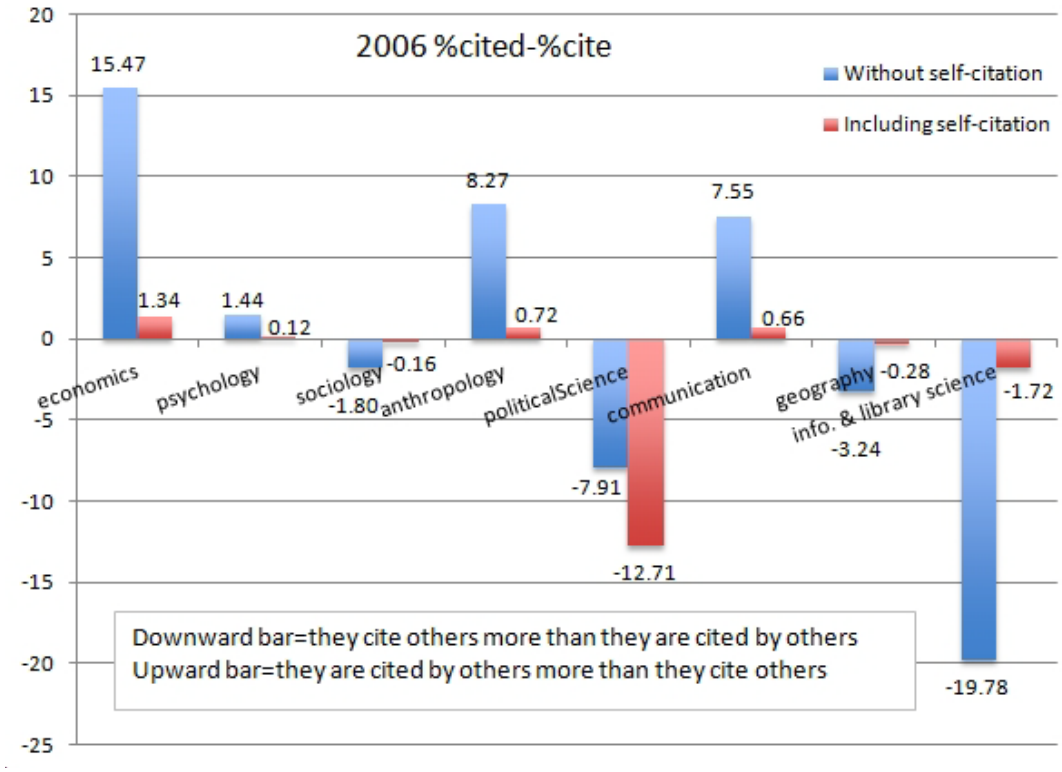

Figure 25: 2006 Cites subtracted from cited graph

2007	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
sociology	1	11	0	2	17	3	4	478	**516**
politicalSci	0	229	1	0	0	167	4	34	**435**
info&libSci	0	0	0	0	432	0	0	0	**432**
psychology	1	14	0	0	40	1	334	16	**406**
communication	0	152	0	0	10	15	1	3	**181**
anthropology	80	0	0	0	0	0	30	1	**111**
economics	0	0	31	0	11	1	14	20	**77**
geography	0	0	0	14	2	0	0	1	**17**
totals	**82**	**406**	**32**	**16**	**512**	**187**	**387**	**553**	**2175**

Table 27: 2007 Asymmetric matrix with self citation sorted most to least citations

2007	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
politicalSci	0	229	1	0	0	0	4	34	**268**
psychology	1	14	0	0	40	1	0	16	**72**
economics	0	0	0	0	11	1	14	20	**46**
sociology	1	11	0	2	17	3	4	0	**38**
anthropology	0	0	0	0	0	0	30	1	**31**
communication	0	0	0	0	10	15	1	3	**29**
geography	0	0	0	0	2	0	0	1	**3**
info&libSci	0	0	0	0	0	0	0	0	**0**
Totals	**2**	**254**	**1**	**2**	**80**	**20**	**53**	**75**	**487**

Table 28: 2007 Asymmetric matrix without self citation sorted most to least citations

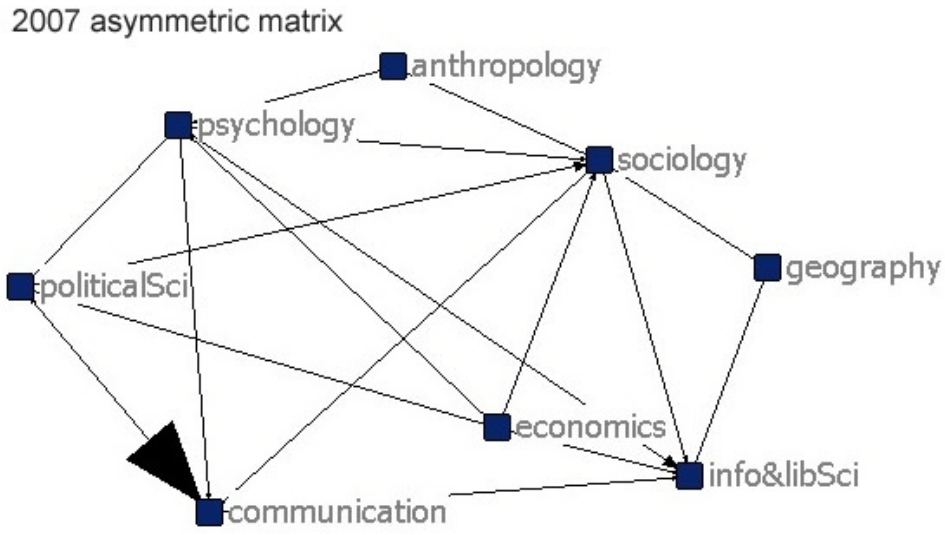

Figure 26: 2007 UCINET graph of asymmetric matrix

2007	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**Tin (Intotals)**
anthropology	0	0	0	0	0	0	1	1	**2**
communication	0	0	0	0	1	1	1	1	**4**
economics	0	0	0	0	1	1	1	1	**4**
geography	0	0	0	0	1	0	0	1	**2**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	1	1	0	0	0	1	1	**4**
psychology	1	1	0	0	1	1	0	1	**5**
sociology	1	1	0	1	1	1	1	0	**6**
Tout(OUTtotals)	**2**	**3**	**1**	**1**	**5**	**4**	**5**	**6**	**27**
Tlink (IN+OUT)	4	7	5	3	5	8	10	12	**27**
TlinkMaxOUT	0	0	0	0	5	0	0	0	
TlinkMaxIN	0	1	3	1	0	0	0	0	

Table 29: 2007 Cites(OUT) and cited(IN) asymmetric binomial link matrix without self citation

↔ = citations (links) both to and from another discipline (both IN & OUT)
← = home concept is cited by another discipline (IN)
→ = home concept cites another discipline (OUT)

UTlink TWO:
Anthropology
1 Anth↔psych
2 Anth↔soc
(2↔, 0←, 0→)

Geography
1Geog↔soc
2Geog←infoLib
(1↔, 1←, 0→)

UTlink THREE:
None

UTlink FOUR:
Communication
1 Com↔poliSci
2 Com↔psych
3 Com↔soc
4 Com←infoLib
(3↔, 1←, 0→)

Economics
1Econ↔poliSci
5Econ←infLib
3Econ←psych
4Econ←soc
(1↔, 3←, 0→)

Political Science
1 PolSci↔com
2 PolSci↔econ
3 PolSci↔psych
4 PolSci↔soc
(4↔, 0←, 0→)

UTlink FIVE:
Info & Lib Sci
1 InfoLib→com
2 InfoLib→econ
3 InfoLib→geog
4 InfoLib→psych
5 InfoLib→soc
(0↔, 0←, 5→)

UTlink SIX:
Psychology
1Psych↔anth
2Psych↔com
3Psych↔poliSci
4Psych↔soc
5Psych←infoLib
6Psych→econ
(4↔, 1←, 1→)

UTlink SEVEN:
Sociology
1 Soc↔anth
2 Soc↔com
3 Soc↔geog
4 Soc↔polSci
5 Soc↔psych
6 Soc←infoLib
7 Soc→econ
(5↔, 1←, 1→)

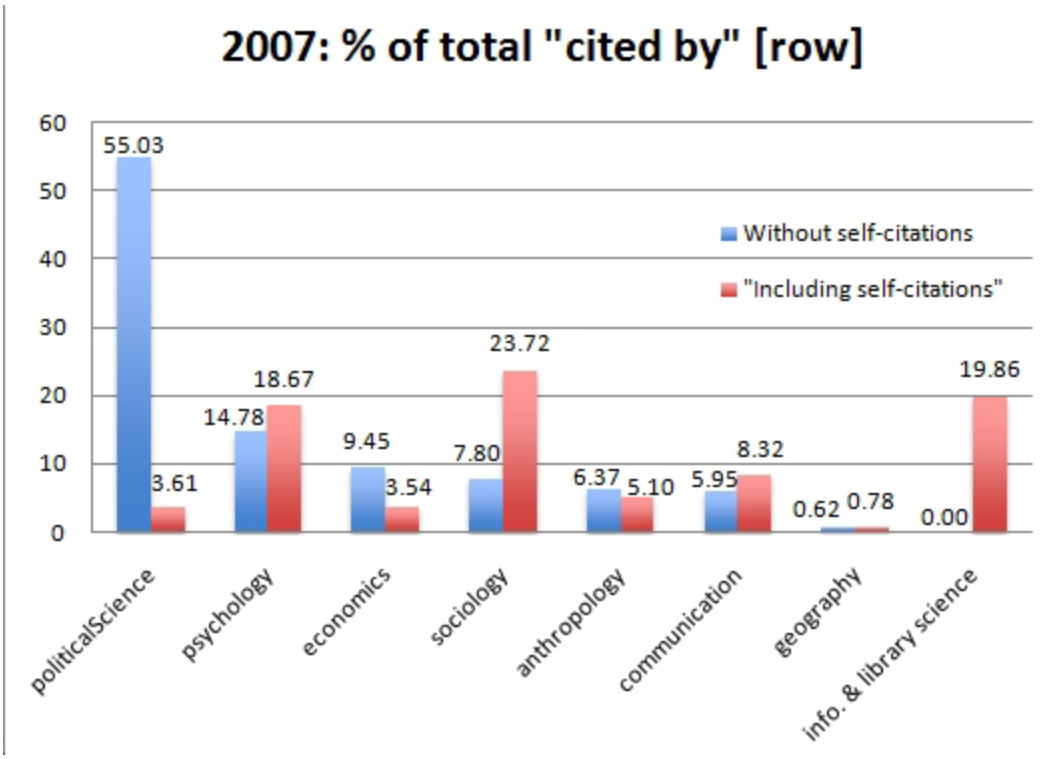

Figure 27: 2007 Total percent/discipline graph

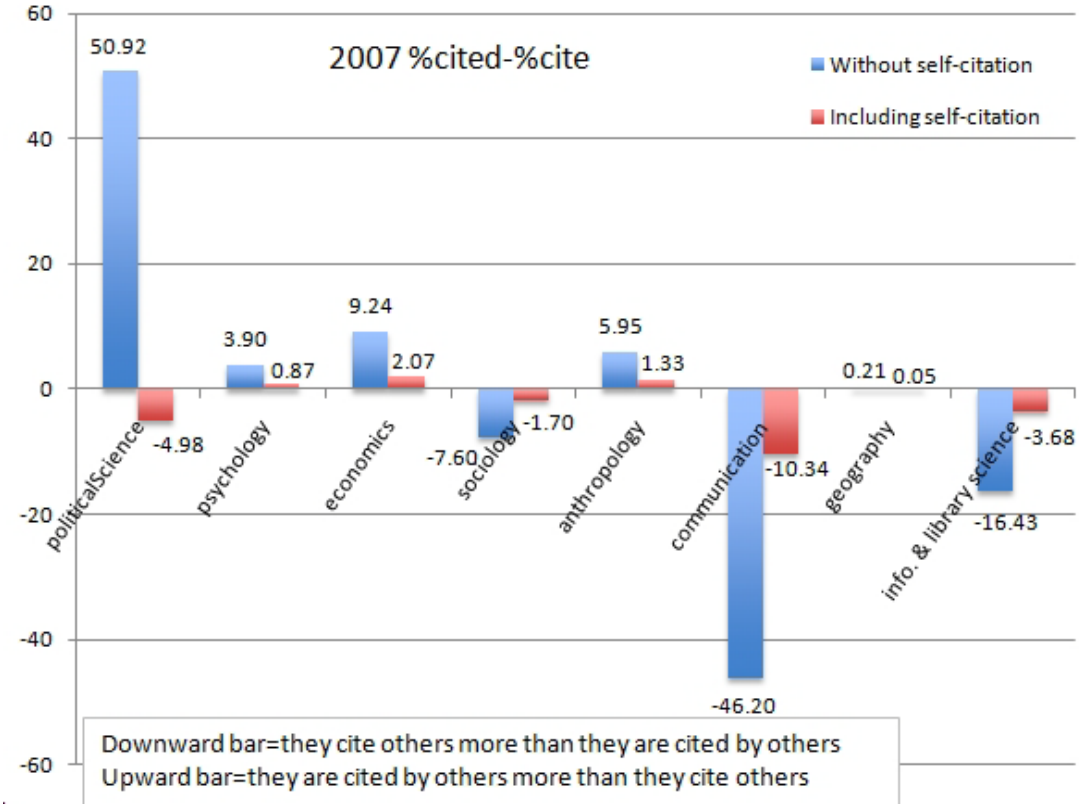

Figure 28: 2007 Cites subtracted from cited graph

2008	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
anthropology	2229	1	0	1	0	0	2	9	**2242**
sociology	0	27	7	5	13	6	0	402	**460**
economics	0	11	307	1	20	15	17	41	**412**
psychology	4	24	5	1	18	0	240	6	**298**
info&libSci	0	1	0	0	236	0	3	0	**240**
communication	0	165	4	0	11	3	1	2	**186**
geography	0	0	0	158	0	0	0	2	**160**
politicalSci	0	11	0	22	0	113	0	4	**150**
totals	**2233**	**240**	**323**	**188**	**298**	**137**	**263**	**466**	**4148**

Table 30: 2008 Asymmetric matrix with self citation sorted most to least citations

2008	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
economics	0	11	0	1	20	15	17	41	**105**
psychology	4	24	5	1	18	0	0	6	**58**
sociology	0	27	7	5	13	6	0	0	**58**
politicalSci	0	11	0	22	0	0	0	4	**37**
communication	0	0	4	0	11	3	1	2	**21**
anthropology	0	1	0	1	0	0	2	9	**13**
info&libSci	0	1	0	0	0	0	3	0	**4**
geography	0	0	0	0	0	0	0	2	**2**
Totals	**4**	**75**	**16**	**30**	**62**	**24**	**23**	**64**	**298**

Table 31: 2008 Asymmetric matrix without self citation sorted most to least citations

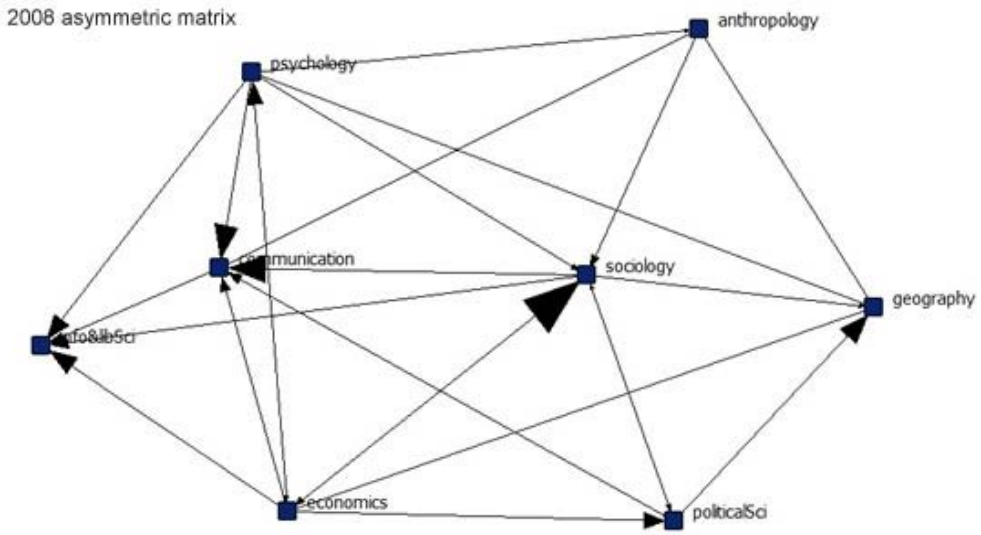

Figure 29: 2008 UCINET graph of asymmetric matrix

2008	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**Tin (Intotals)**
anthropology	0	1	0	1	0	0	1	1	**4**
communication	0	0	1	0	1	1	1	1	**5**
economics	0	1	0	1	1	1	1	1	**6**
geography	0	0	0	0	0	0	0	1	**1**
info&libSci	0	1	0	0	0	0	1	0	**2**
politicalSci	0	1	0	1	0	0	0	1	**3**
psychology	1	1	1	1	1	0	0	1	**6**
sociology	0	1	1	1	1	1	0	0	**5**
Tout(OUTtotals)	**1**	**6**	**3**	**5**	**4**	**3**	**4**	**6**	**32**
Tlink (IN+OUT)	5	11	9	6	6	6	10	11	**32**
TlinkMaxOUT	0	1	0	4	2	0	0	1	
TlinkMaxIN	3	0	3	0	0	0	2	0	

Table 32: 2008 Cites(OUT) and cited(IN) asymmetric binomial matrix without self citations

UTlink TWO & THREE: None

UTlink FOUR:
Anthropology
1 Anth↔psych
2 Anth←com
3 Anth←geog
4 Anth←soc
(1↔, 3←, 0→)

Info. & Library Sci
1 InfLib↔com
2 InfLib↔psych
3 InfLib→econ
4 InfLib→soc
(2↔, 0←, 2→)

Political Science
1 PolSci↔com
2 PolSci↔soc
3 PolSci←geog
4 PolSci→econ
(2↔, 1←, 1→)

UTlink FIVE:
Geography
1 Geog↔soc
2 Geog→anth
3 Geog→econ
4 Geog→polSci
5 Geog→psych
(1↔, 0←, 4→)

UTlink SIX:
Communication
1 Com↔econ
2 Com↔infoLib
3 Com↔polSci
4 Com↔psych
5 Com↔soc
6 Com→anth
(5↔, 0←, 1→)

Economics
1 Econ↔com
2 Econ↔psych
3 Econ↔soc
4 Econ←polSci
5 Econ←geog
6 Econ←infLib
(3↔, 3←, 0→)

Psychology
1 Psych↔anth
2 Psych↔com
3 Psych↔econ
4 Psych↔infoSci
5 Psych←geog
6 Psych←soc
(4↔, 2←, 0→)

UTlink SEVEN:
Sociology
1 Soc↔com
2 Soc↔econ
3 Soc↔geog
4 Soc↔polSci
5 Soc→anth
6 Soc→psych
7 Soc←infoLib
(4↔, 1←, 2→)

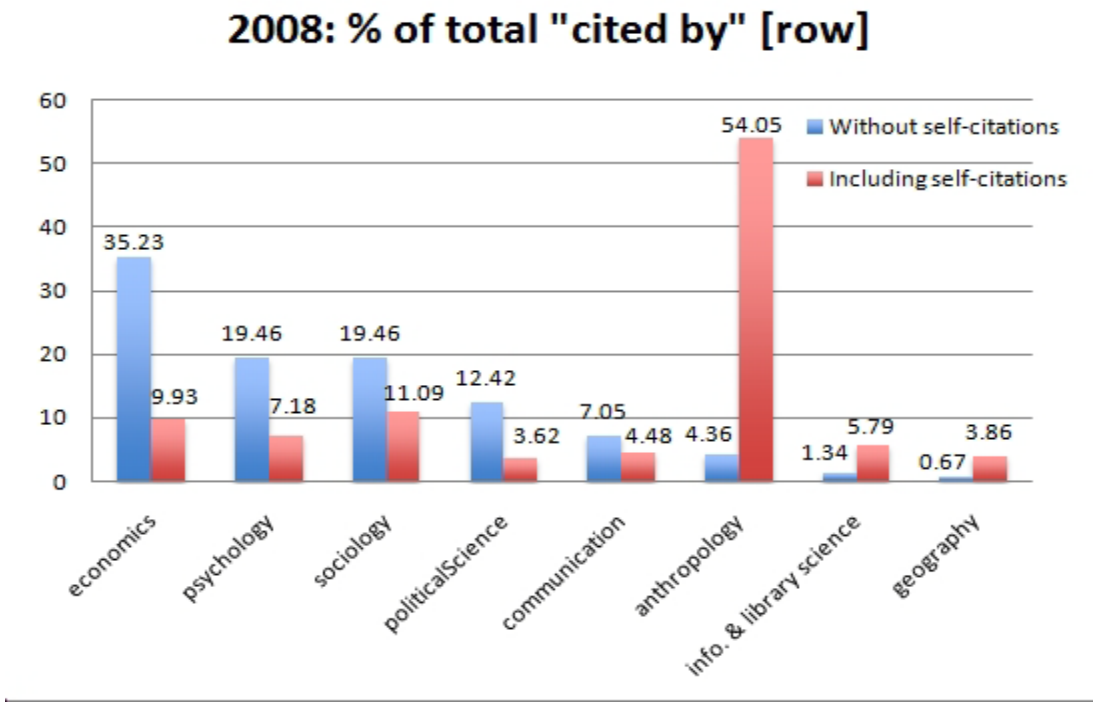

Figure 30: 2008 Total percent/discipline graph

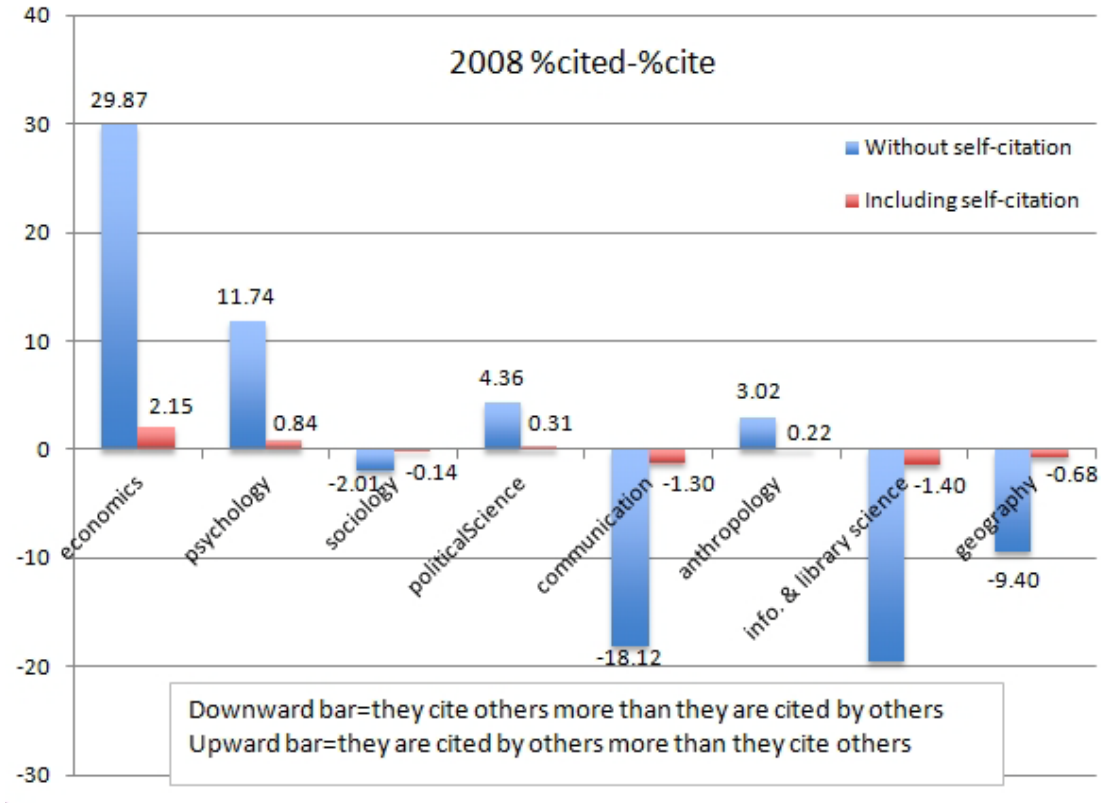

Figure 31: 2008 Cites subtracted from cited graph

2009	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
economics	0	2	222	165	18	31	9	17	**464**
sociology	0	40	9	17	28	4	4	307	**409**
info&libSci	0	42	0	0	283	0	0	2	**327**
psychology	19	10	10	1	59	5	188	2	**294**
politicalSci	0	13	4	4	2	169	30	14	**236**
anthropology	219	6	0	0	2	0	4	2	**233**
communication	0	168	0	0	3	0	17	8	**196**
geography	0	0	0	189	0	0	0	4	**193**
totals	**238**	**281**	**245**	**376**	**395**	**209**	**252**	**356**	**2352**

Table 33: 2009 Asymmetric matrix with self citation sorted most to least citations

2009	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
economics	0	2	0	165	18	31	9	17	**242**
psychology	19	10	10	1	59	5	0	2	**106**
sociology	0	40	9	17	28	4	4	0	**102**
politicalSci	0	13	4	4	2	0	30	14	**67**
info&libSci	0	42	0	0	0	0	0	2	**44**
communication	0	0	0	0	3	0	17	8	**28**
anthropology	0	6	0	0	2	0	4	2	**14**
geography	0	0	0	0	0	0	0	4	**4**
Totals	**19**	**113**	**23**	**187**	**112**	**40**	**64**	**49**	**607**

Table 34: 2009 Asymmetric matrix without self citation sorted most to least citations

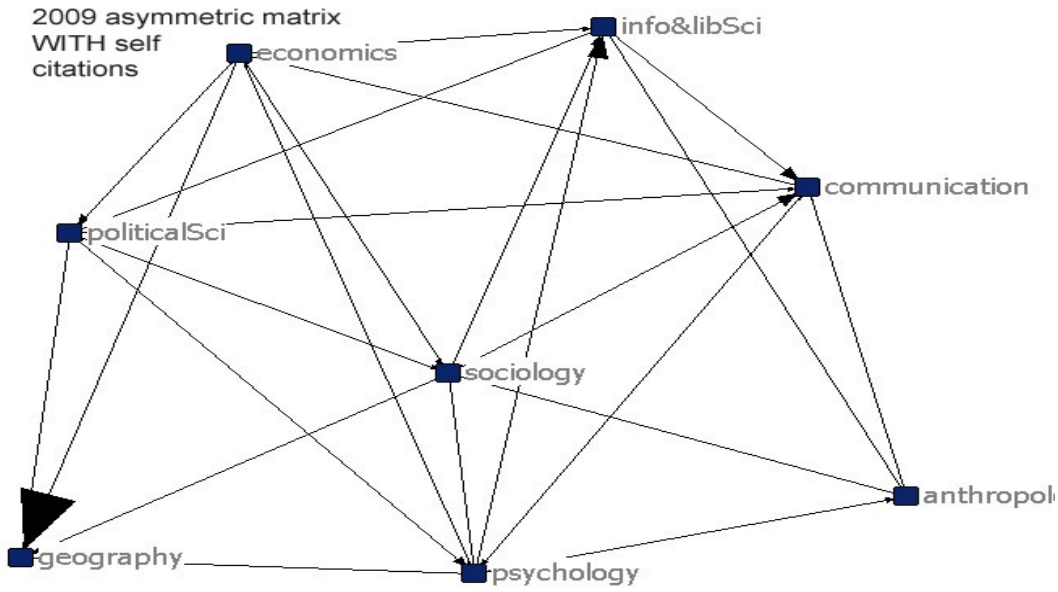

Figure 32: 2009 UCINET graph of asymmetric matrix

2009	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	Tin(Intotals)
anthropology	0	1	0	0	1	0	1	1	**4**
communication	0	0	0	0	1	0	1	1	**3**
economics	0	1	0	1	1	1	1	1	**6**
geography	0	0	0	0	0	0	0	1	**1**
info&libSci	0	1	0	0	0	0	0	1	**2**
politicalSci	0	1	1	1	1	0	1	1	**6**
psychology	1	1	1	1	1	1	0	1	**7**
sociology	0	1	1	1	1	1	1	0	**6**
Tout(OUTtotals)	**1**	**6**	**3**	**4**	**6**	**3**	**5**	**7**	**35**
Tlink (IN+OUT)	5	9	9	5	8	9	12	13	**35**
TlinkMaxOUT	0	3	0	3	4	0	0	1	
TlinkMaxIN	3	0	3	0	0	3	2	0	

Table 35: 2009 Cites(OUT) and cited(IN) asymmetric binomial matrix without self citations

UTlink TWO, THREE and FIVE: None

UTlink FOUR:
Anthropology
1 Anth↔psych
2 Anth←com
3 Anth←infoLib
4 Anth←soc
(1↔, 3←, 0→)

Geography
1Geog↔soc
2Geog→econ
3Geog→poliSci
4Geog→psych
(1↔, 0←, 3→)

UTlink SIX:
Communication
2 Com↔infoLib
4 Com↔psych
5 Com↔soc
6 Com→anth
1 Com→econ
3 Com→poliSci
(3↔, 0←, 3→)

Economics
1 Econ↔poliSci
2 Econ↔psych
3 Econ↔soc
4 Econ←com
5 Econ←geog
6 Econ←infLib
(3↔, 3←, 0→)

Info & Lib Sci
1 InfoLib↔com
2 InfoLib↔soc
3 InfoLib→anth
4 InfoLib→econ
5 InfoLib→polSci
6 InfoLib→psych
(2↔, 0←, 4→)

Political Science
1 PolSci↔econ
2 PolSci↔psych
3 PolSci↔soc
4 PolSci←com
5 PolSci←geog
6 PolSci←infLib
(3↔, 3←, 0→)

UTlink SEVEN:
Psychology
1 Psych↔anth
2 Psych↔com
3 Psych↔econ
4 Psych↔polSci
5 Psych↔soc
6 Psych←geog
7 Psych←infoLib
(5↔, 2←, 0→)

Sociology
1 Soc↔com
2 Soc↔econ
3 Soc↔geog
4 Soc↔infoLib
5 Soc↔polSci
6 Soc↔psych
7 Soc→anth
(6↔, 0←, 1→)

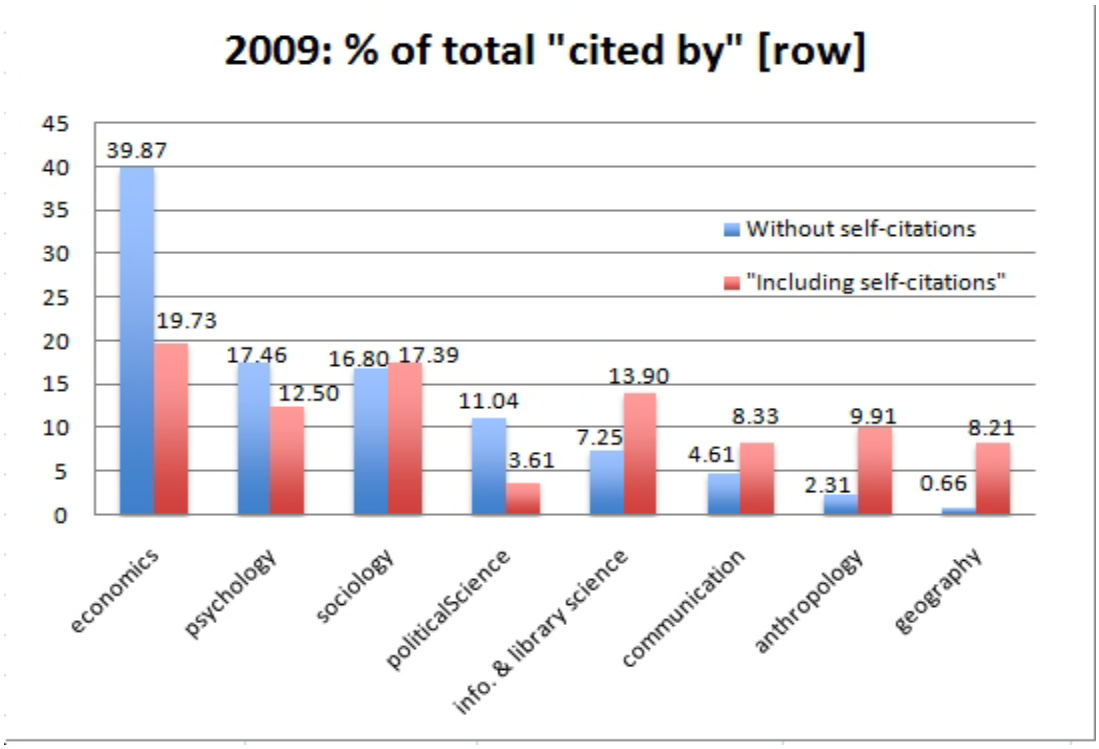

Figure 33: 2009 Total percent/discipline graph

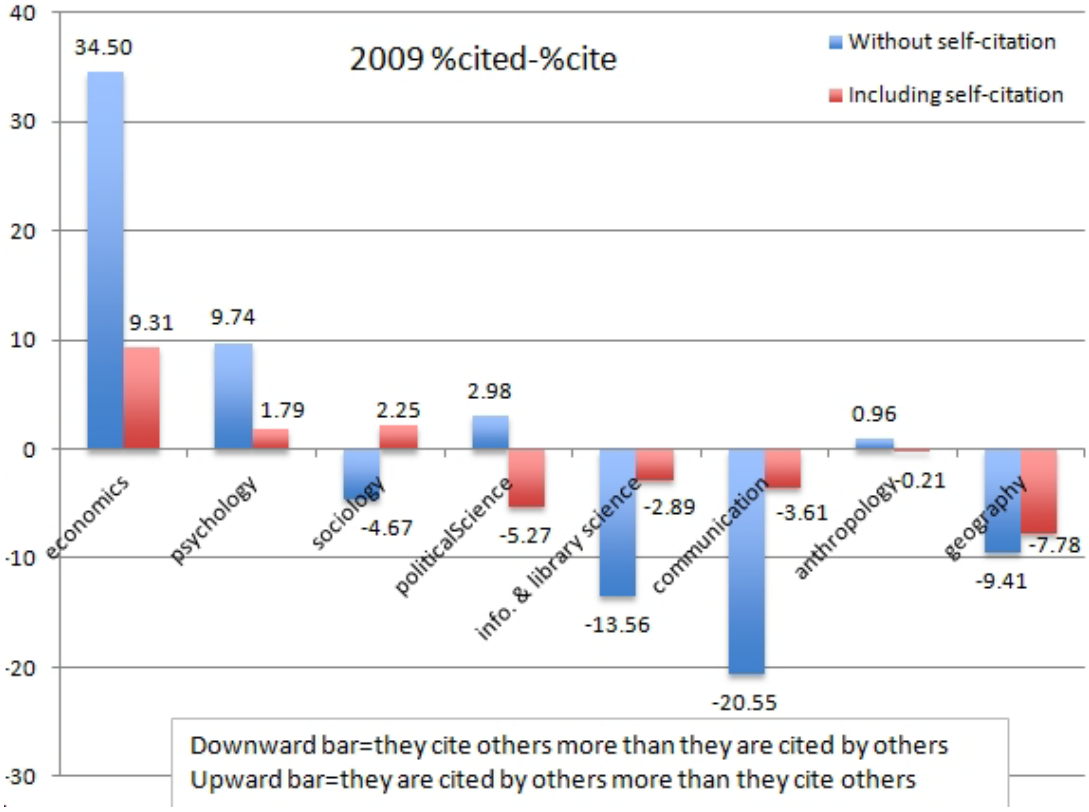

Figure 34: 2009 Cites subtracted from cited graph

	1979	1980	1981	1982	1983	2005	2006	2007	2008	2009	Average 79-83	Average 05-09	Average 10 yrs
ANTH	2	0	1	0	0	1	2	2	1	1	0.60	1.40	1.00
COM	3	3	4	3	3	4	1	3	6	6	3.20	4.00	3.69
ECON	2	3	3	3	3	4	4	1	3	3	2.80	3.00	2.98
GEOG	3	4	4	3	3	2	3	1	5	4	3.40	3.00	3.04
INF&LIBSCI	2	2	2	2	2	5	6	5	4	6	2.00	5.20	4.13
POLI SCI	2	1	2	3	3	4	3	4	3	3	2.20	3.40	3.18
PSYCH	4	4	5	4	4	4	7	5	4	5	4.20	5.00	4.69
SOC	6	6	5	6	6	5	5	6	6	7	5.80	5.80	5.84
average	3	2.875	3.25	3	3	3.625	3.875	3.375	4	4.375			
Sum (total # of links)	24	23	26	24	24	29	31	27	32	35			

Table 36: Cites Summary (Tout), all 10 years

	1979	1980	1981	1982	1983	2005	2006	2007	2008	2009	average 79-83	average 05-09	average 10 yrs
Anthropology	4	2	2	1	3	2	3	2	4	4	2.40	3.00	2.71
Communication	3	3	2	3	5	4	4	4	5	3	3.20	4.00	3.91
Economics	3	4	5	4	3	6	5	4	6	6	3.80	5.40	4.80
Geography	2	1	0	2	0	0	2	2	1	1	1.00	1.20	1.13
Info & Lib Sci	0	0	0	1	0	0	1	0	2	2	0.20	1.00	0.80
Political Sci	4	5	5	4	4	5	5	4	3	6	4.40	4.60	4.44
Psychology	4	4	5	4	3	6	5	5	6	7	4.00	5.80	5.09
Sociology	4	4	7	5	5	6	6	6	5	6	5.00	5.80	5.53
average	3	2.875	3.25	3	2.875	3.625	3.875	3.375	4	4.375			
Sum (total # of links)	24	23	26	24	23	29	31	27	32	35			

Table 37: Cited Summary (Tin), all 10 years

Mean # of links 1979-1983/year (total all possible=64, total any particular discipline=8): 24.2 (avg # of links=3.025)

Mean # of links 2005-2009/year (total possible=64, total any particular discipline=8): 30.8 (avg # of links=3.85)

Although the average # of links/discipline remained nearly the same for both five year time periods (3.025 in 1979-1983 and 3.85 in 2005-2009), the total average # of links for all disciplines increased from 24.2 to 30.8. Anthropology and Geography remained largely the same while overall links between other disciplines increased in proportion to their average # of links 1979-1983; that is, sociology and psychology had the most cross-disciplinary linkages 1979-1983 and they also had the most in 2005-2009. The discipline that developed the highest discrepancy IN/OUT linkages was library science. In the first 5 year span their IN/OUT linkage #s were similar; by 2005-2009, however, they were clearly citing others much more than others were citing them. Conversely, although the # of IN linkages for economics remained largely the same, the number of OUT linkages increased dramatically. Finally, both communication and political science increased overall in both IN and OUT linkages (although political science increased more than communication).

Geography and information/library science were cited the least in all years except 2009 (in 2009 info/libSci moved up to the 4th least cited position). In the 2005-2009 cited percentages, the most cited rankings were less variable than they had been in 1979-1983; that is, in all years except 2006 the 4 disciplines cited the most (by percentage) were economics, political science, psychology, and sociology. It should also be noted that both economics and psychology were consistently cited by others more than they cited others in the second 5 yr set; this had not been consistently true 1979-1983. Sociology was closer to even; their citing others and cited by others percentages were often nearly the same.

When mutual linkages between disciplines are considered, the pattern is even more consistent; sociology and psychology have the most mutual linkages in all years except 1983 (in 1983 sociology still had the most mutual linkages but psychology, with two mutual linkages, was

overtaken by communication and political science, each with three mutual linkages). Info/libSci did not have any mutual linkages at all until 2006, 2008 and 2009; they had a single mutual linkage with psychology in 2006 and two mutual linkages 2008-2009 (between communication and psychology in 2008, communication and sociology in 2009).

Discussion

Psychology and sociology were consistently cited by the most other disciplines all 10 years, economics and political science were frequently cited by most other disciplines (2005-2009 more than 1979-1983), anthropology generally cited themselves or science disciplines (not the social science disciplines investigated here), geography was sometimes cited and sometimes not, communication was sometimes cited and sometimes not (most often it was cited when the interdisciplinary journal *Public Opinion Quarterly* was in a top 5 impact factor journal), and information and library science was rarely cited (some years never)—this was ironic as both communication and information and library science frequently cited others.

Overall there were more interdisciplinary citations in all disciplines 2005-2009 as compared to 1979-1983 but the citation pattern largely remained; for example in 1979-1983 information and library science's total TIN score was 1 and in 2005-2009 it was only 5 (with two year with no interdisciplinary citations at all)–yet their total TOUT score for 1979-1983 was 10 and for 2005-2009 was 26. Psychology and Sociology, the disciplines who were cited the most 2005-2009, had a total TIN of 29 and total TOUTS of 25 and 29 respectively. So it appears that it is the TIN score, rather than the TOUT score, that has continued to relegate library and information science to the lower tier.[44]

[44] In unpublished research from 1989 comparing interdisciplinary citations for journals in 1984, Barnett and Fink also indicate that information science came close to being a social isolate and

Exceptions to the 1979-1983 pattern are seen in the mid-range disciplines, especially in political science and economics. Although the TIN order of the lower four disciplines (Information and library science, geography, communication, and anthropology) did not change from the 1979-1983 period in 2005-2009 and sociology remained the discipline most cited, psychology and political science changed their TIN rank order; in 1979-1983 psychology was sixth and political science was seventh whereas in 2005-2009 psychology was seventh and political science was only fifth—and economics moved from fifth rank order in 1979-1983 to sixth in 2005-2009. So psychology was cited by others more than political science in 2005-2009 and economics was also cited much more in 2005-2009 than it had been in 1979-1983.

Total TOUT patterns also displayed similarity between the two time periods with sociology and psychology citing the most other disciplines and anthropology citing the least. Again some of the mid-ranked disciplines, however, changed from one period to the next. Information and library science changed the most; in 1979-1983 they were ranked second lowest but in 2005-2009 they were ranked fifth. Geography, although their own TOUT average percentage stayed the same between the two time periods, moved from ranking sixth (so highest next to psychology and sociology) in 1979-1983 to a tie for second/third rank from the bottom position in 2005-2009; even though their own TOUT average stayed nearly the same, the averages of communication, information and library science, and political science increased (although it should once again be noted that for two year 2005-2009 communication and political science were both citing the same shared journal, *Public Opinion Quarterly*, heavily).

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the most central disciplines were sociology, general psychology, and social psychology (Barnett & Fink, 1989).

It should be noted that the TOUT and TIN measures developed almost always correspond with the up/down bar graphs unless cited/cites numbers are the same. Also, most anthropology comparisons cited/cites are rather moot as there were so few citations to compare when self citations are exclude; a very small part of small remains exceptionally small. By comparison it is something but perhaps not something notable, rather like how the percents for information and library science in years no one cited them are not meaningful—but we know obviously if no one cited them at all they were more likely to cite than be cited (no matter what the percents say).

Power was controlled for by holding journal choices constant for each field (5 journals for each discipline were investigated no matter how many were available). It is of interest that, despite that, the TIN disciplinary order ranking for 2005-2009 was so similar to the total number of interdisciplinary journals available in each discipline (refer back to Figure 1 on page 15)—even though generally none of the top 5 impact factor journals were interdisciplinary journals (with the exception of *Public Opinion Quarterly* noted earlier). Anthropology and sociology also had an interdisciplinary journal (*Social Networks*) in their top 5 impact factor journals, but by and large neither cited it heavily. This, combined with the fact that their interdisciplinary journal rank pattern does not match with their TIN order ranking, perhaps further strengthens the idea that anthropology at this point in time may be better considered not as a social science. The other difference between the interdisciplinary journal rank pattern and the TIN order ranking is that information and library science doesn't match at all—having the most interdisciplinary journals without even a moderate TIN score. It is possible, however, they are sharing journals with non-social science disciplines such as management.

Future research may therefore usefully compare journals in non-social science disciplines. It is probable that the aggregate journal ranking method proposed on page 16 may be

more useful than impact factor for this. Given the time involved to generate such a ranking, however, it is now recommended it is not necessarily useful in this line of research; continuing to use impact factor journal ranking will also allow future work to be compared to this present work—although it still seems for work within a particular disciplinary field the aggregate journal ranking would be preferable. Future research in interdisciplinary citation may also find it useful to compare journals lower in the impact factor rankings, rather than the top 5 journals, as those lower in the rankings are potentially more likely to bridge multiple disciplines (Barnett & Fink, 1989). This might further elucidate the interaction observed in this study between communication and political science (which shared the journal *Public Opinion Quarterly*). Future research might also examine whether the pattern of average citation counts, rather than actual citation counts, simply scales the rank order smaller or changes it in other ways.

From this initial study it is clear that the interdisciplinary citation patterns observed are anisotropic. This is most clearly illustrated with information and library science as an extreme example since they consistently cite almost all other disciplines but are rarely cited by others. The fact that the original count matrix was largely asymmetric, rather than a symmetric matrix as would be expected if information was being shared evenly between the disciplines, also shows the interaction between the disciplines to be anisotropic.

These asymmetries in the information flow of citation data are regarded as indicators of gravitational gradients (making movement in some directions "easier" than others). Accordingly, it appears movement of ideas from sociology or psychology to other social science disciplines is the most likely and movement of ideas from geography, anthropology, and information and library science is the least likely. Therefore it appears sociology and psychology continue to exert more influence on other social sciences, although limited influence over each other, than

any of the other social sciences exert over them. Most of the other social sciences are historically newer as academic disciplines; nonetheless the rank order of the total interdisciplinary journals' close mirroring of the TOUT rank order suggests this interaction pattern is no longer based merely on historical happenstance.

Appendix A: Disciplines considered social science by nine sources

	Total	Dr. Wolfel	Washington State University	Wikipedia	National Science Foundation	Michigan State University	degree-finder.com	Academicinfo.net	International Encyclopedia of the Social Sciences (1968)	International Encyclopedia of the Social & Behavioral Science (2001)
Anthropology	8	J	W	Wik	nsf	MSUi	degree-finder.com		International Encyclopedia (1968)	International Encyclopedia (2001)
Economics	8	J	W	wik	nsf	MSU	degree-finder.com		International Encyclopedia (1968)	International Encyclopedia (2001)
Psychology; Clinical and Applied Psychology; Cognitive Psychology and Cognitive Science; Developmental, Social, Personality, and Motivational Psychology	8	J	W	wik	nsf	MSU	degree-finder.com	Academicinfo.net		International Encyclopedia (2001)
Sociology	7	J	W	wik	nsf	MSU		Academicinfo.net		International Encyclopedia (2001)+-
Political Science; Politics	6	J		Wik	Nsf		degree-finder.com		International Encyclopedia (1968)	International Encyclopedia (2001)
History	5	J	W			MSU	degree-finder.com	Academicinfo.net		
Criminal Justice; Criminology	4		W			MSU	degree-finder.com	Academicinfo.net		
Geography	4			wik	nsf	MSU	degree-finder.com			
Law; Legal Studies; Paralegal	4		W		nsf			Academicinfo.net	International Encyclopedia (1968)	
Archaeology	2			wik			degree-finder.com			
Communication(s)	2	J	W							
Cultural Studies and Ethnic Studies; Cultural and Global Studies	2			wik			degree-finder.com			
Library Science	2	J	W							
Public Affairs; Public Administration	2		W					Academicinfo.net		

Note: disciplines suggested as social science by only a single source have been omitted from this table.

Appendix B: Listiac

Partial list of input data:

```
COMMUNICATION
HISTORY
ECONOMICS
SOCIOLOGY
PSYCHOLOGY
ANTHROPOLOGY
POLITICAL SCIENCE
LIBRARY SCIENCE
-1
ANTHROPOLOGY
ECONOMICS
POLITICAL SCIENCE
CLINICAL AND APPLIED PSYCHOLOGY
COGNITIVE PSYCHOLOGY AND COGNITIVE SCIENCE
DEVELOPMENTAL, SOCIAL, PERSONALITY, AND MOTIVATIONAL PSYCHOLOGY
SOCIOLOGY
-1
ANTHROPOLOGY
ECONOMICS
LAW
PENOLOGY
POLITICS
SOCIAL WORK
-1
CRIMINAL JUSTICE
FORENSIC SCIENCE
HISTORY
HOMELAND SECURITY
LAW
LEGAL STUDIES
PARALEGAL
POLITICAL SCIENCE
PSYCHOLOGY
PUBLIC ADMINISTRATION
PUBLIC SAFETY
SOCIOLOGY
-1
HISTORY
PHILOSOPHY
POLITICAL SCIENCE
PSYCHOLOGY
ANTHROPOLOGY
LINGUISTICS
ARCHEOLOGY
DEMOGRAPHIC STUDIES
CRIMINOLOGY
```

Partial list of output data:

```
     AREA STUDIES                    ACTIVATION LEVEL = 0.0015
     ARCHAEOLOGY                     ACTIVATION LEVEL = 0.0015
=Separation Line====================
     COMMUNICATION                   ACTIVATION LEVEL = 0.0017
     HISTORY                         ACTIVATION LEVEL = 0.0068
     ECONOMICS                       ACTIVATION LEVEL = 1.0000
     SOCIOLOGY                       ACTIVATION LEVEL = 0.0117
     PSYCHOLOGY                      ACTIVATION LEVEL = 0.0116
     ANTHROPOLOGY                    ACTIVATION LEVEL = 0.0165
     POLITICAL SCIENCE               ACTIVATION LEVEL = 0.0141
     LIBRARY SCIENCE                 ACTIVATION LEVEL = 0.0017
     CLINICAL AND APPLIED PSYCHOLOG ACTIVATION LEVEL = 0.0016
     COGNITIVE PSYCHOLOGY AND COGNI ACTIVATION LEVEL = 0.0016
     DEVELOPMENTAL, SOCIAL, PERSONA ACTIVATION LEVEL = 0.0016
     LAW                             ACTIVATION LEVEL = 0.0042
     PENOLOGY                        ACTIVATION LEVEL = 0.0015
     POLITICS                        ACTIVATION LEVEL = 0.0015
     SOCIAL WORK                     ACTIVATION LEVEL = 0.0041
     CRIMINAL JUSTICE                ACTIVATION LEVEL = 0.0017
     PUBLIC ADMINISTRATION           ACTIVATION LEVEL = 0.0017
     PHILOSOPHY                      ACTIVATION LEVEL = 0.0016
     LINGUISTICS                     ACTIVATION LEVEL = 0.0016
     ARCHEOLOGY                      ACTIVATION LEVEL = 0.0016
     DEMOGRAPHIC STUDIES             ACTIVATION LEVEL = 0.0016
     CRIMINOLOGY                     ACTIVATION LEVEL = 0.0016
     GOVERNMENT STUDIES              ACTIVATION LEVEL = 0.0016
     CULTURAL AND GLOBAL STUDIES     ACTIVATION LEVEL = 0.0016
     GEOGRAPHY                       ACTIVATION LEVEL = 0.0090
     URBAN & REGIONAL PLANNING       ACTIVATION LEVEL = 0.0015
     LABOR & INDUSTRIAL RELATIONS    ACTIVATION LEVEL = 0.0015
     INTERDISCIPLINARY STUDIES IN S ACTIVATION LEVEL = 0.0015
     GLOBAL AND AREA STUDIES         ACTIVATION LEVEL = 0.0015
     FAMILY AND CHILD ECOLOGY        ACTIVATION LEVEL = 0.0015
     GENDER AND SEXUALITY STUDIES    ACTIVATION LEVEL = 0.0015
     CULTURAL STUDIES AND ETHNIC ST ACTIVATION LEVEL = 0.0015
     AREA STUDIES                    ACTIVATION LEVEL = 0.0015
     ARCHAEOLOGY                     ACTIVATION LEVEL = 0.0015
=Separation Line====================
     COMMUNICATION                   ACTIVATION LEVEL = 0.0016
     HISTORY                         ACTIVATION LEVEL = 0.0092
     ECONOMICS                       ACTIVATION LEVEL = 0.0116
     SOCIOLOGY                       ACTIVATION LEVEL = 0.0116
     PSYCHOLOGY                      ACTIVATION LEVEL = 1.0000
     ANTHROPOLOGY                    ACTIVATION LEVEL = 0.0116
     POLITICAL SCIENCE               ACTIVATION LEVEL = 0.0141
     LIBRARY SCIENCE                 ACTIVATION LEVEL = 0.0016
     LAW                             ACTIVATION LEVEL = 0.0042
     SOCIAL WORK                     ACTIVATION LEVEL = 0.0016
     CRIMINAL JUSTICE                ACTIVATION LEVEL = 0.0041
     FORENSIC SCIENCE                ACTIVATION LEVEL = 0.0016
     HOMELAND SECURITY               ACTIVATION LEVEL = 0.0016
     LEGAL STUDIES                   ACTIVATION LEVEL = 0.0016
     PARALEGAL                       ACTIVATION LEVEL = 0.0016
     PUBLIC ADMINISTRATION           ACTIVATION LEVEL = 0.0042
     PUBLIC SAFETY                   ACTIVATION LEVEL = 0.0016
     PHILOSOPHY                      ACTIVATION LEVEL = 0.0016
     LINGUISTICS                     ACTIVATION LEVEL = 0.0016
     ARCHEOLOGY                      ACTIVATION LEVEL = 0.0016
     DEMOGRAPHIC STUDIES             ACTIVATION LEVEL = 0.0016
     CRIMINOLOGY                     ACTIVATION LEVEL = 0.0016
     GOVERNMENT STUDIES              ACTIVATION LEVEL = 0.0016
     CULTURAL AND GLOBAL STUDIES     ACTIVATION LEVEL = 0.0016
     GEOGRAPHY                       ACTIVATION LEVEL = 0.0090
     URBAN & REGIONAL PLANNING       ACTIVATION LEVEL = 0.0015
```

Appendix C: Journal Citation Reports ®

Journal Citation Reports

UB ONLY

Access: ***UB Restricted*** - Off-campus remote access to this resource requires a UBITName and password.

Description: **Journal Citation Reports** allows you to evaluate and compare scholarly journals in all areas of the sciences and social sciences. Results can be used to determine which journals are the most important and influential in their respective disciplines.

Leads to analytical reports comparing the number of articles published in more than 8,000 academic journals, together with the number of times those articles have been cited by other scholars. Each report provides a variety of unique measurements for each journal, including its Impact Factor, Immediacy Index, Cited Half-Life, and Citing Half-Life.

Dates Covered: 2000 to the present; updated annually.

Print Counterpart: Various older editions of **Journal Citation Reports** can be found in the following libraries:

Health Sciences Library
Index Collection, shelved by title; 1980-88, 1992-97.
Index Collection, Microfiche, 1998-2000.

Science & Engineering Library
Periodical Collection, Per Q1 S354; 1975-1988
Reference CD-ROM, Z699.5 S65J68; 1998

Lockwood Library
Reference Collection Z7161 S8; 1981-1988
Ref Microfiche Z7161 S8; 1992 and 1996
Newspaper Area, CD-ROM, Z699.5 S65J68; 1998

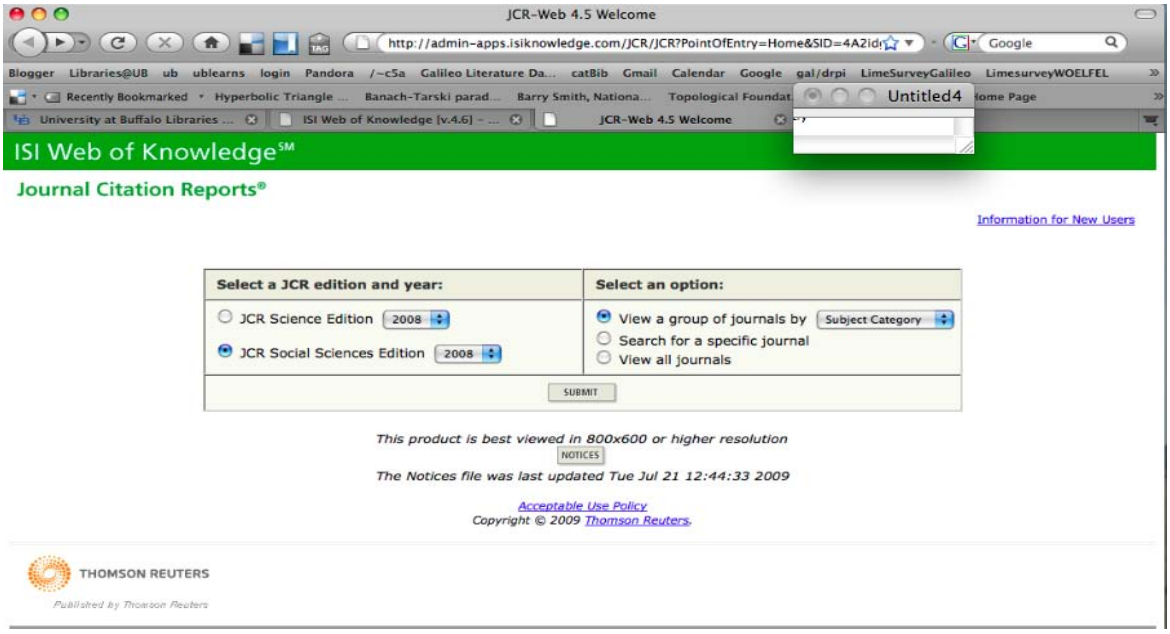
Related Databases: · Web of Science

Contact: Mike Lavin

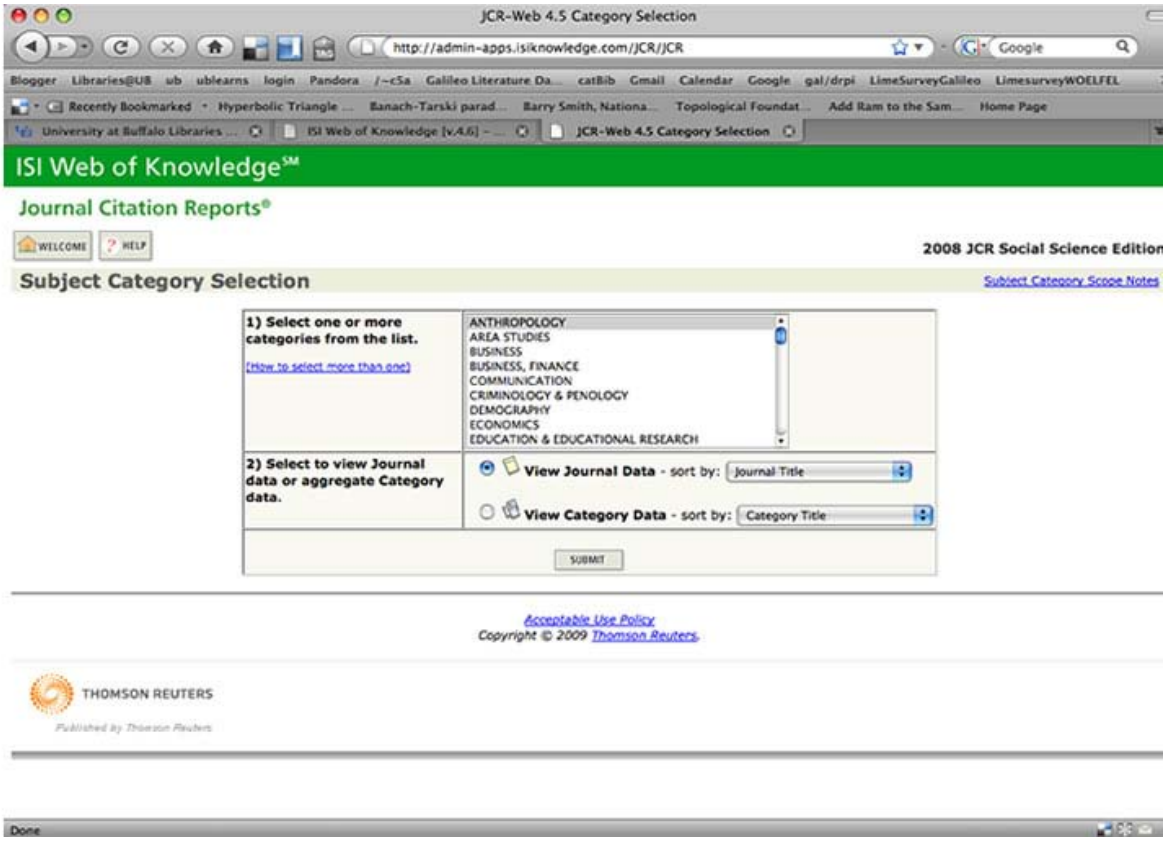
Last Update: 8/25/2008

Appendix D: Screenshot of JCR database interface in 2009

First screen:



Second screen:



Appendix E: Web of Science

Web of Science

UB ONLY

Access: ***UB Restricted*** - Off-campus remote access to this resource requires a UBITName and password.

Description:

The **Web of Science** is a collection of multidisciplinary databases. It includes
· *Arts & Humanities Citation Index*
· *Science Citation Index*
· *Social Sciences Citation Index*

You can search for specific articles by subject, author, and/or title in the indexes individually or at the same time. Because the information about each article includes the article's cited reference list (i.e., the bibliography), you can also search the databases for articles that cite a particular author or work. Searching for cited references often locates relevant articles that cannot be found through traditional searching techniques.

Contains leads to citations with bibliographical references for articles from over 8,000 journals. Many of the references include author-prepared abstracts, as well as links to the full-text of articles if available.

Dates Covered:

Arts & Humanities Citation Index
1975 to the present; Updated weekly.

Science Citation Index
1965 to the present; Updated weekly.

Social Sciences Citation Index
1965 to the present; Updated weekly.

Print Counterpart:

Arts & Humanities Citation Index
Library Annex
CALL NUMBER: Z 5937 .A795, 1975-1998

Science Citation Index
UNDERGRAD-SCI/ENGR Reference
CALL NUMBER: Q1.C5, 1961, 1964-1972
IN STORAGE 1973-1991
HEALTH SCIENCES Mezzanine Index Coll, 1961-1964, 1966-1969, 1985-1998

Social Sciences Citation Index
Lockwood Ref (Index Area)
CALLNUMBER: Z 7161 .S8, 1956-1998

Related Databases:

· Arts & Humanities Citation Index
· Science Citation Index
· Social Sciences Citation Index

Contact: Don Hartman

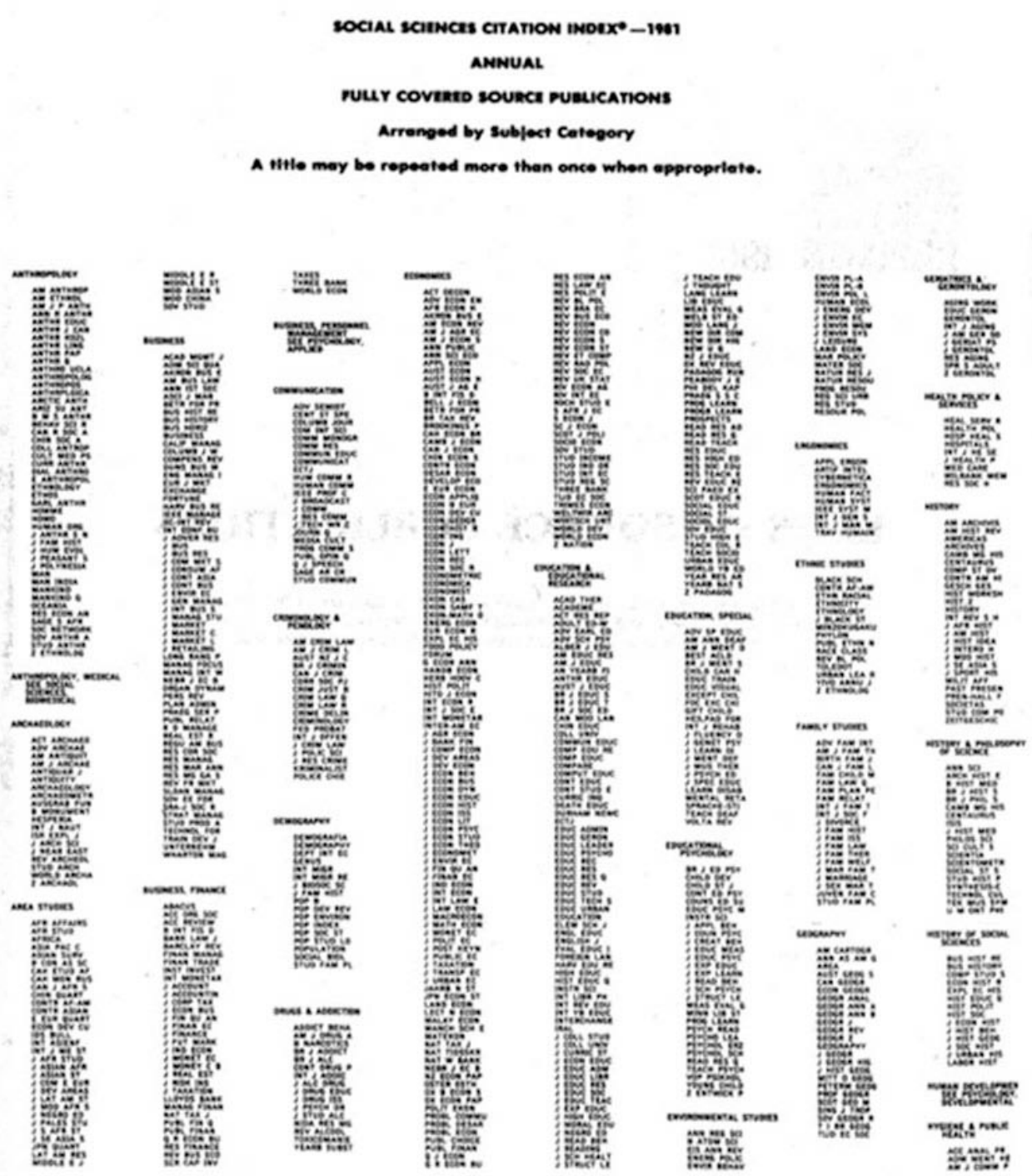
Last Update: 1/6/2010

Appendix F: Part of 1981 SSCI (later renamed JCR) report ranking journals by impact factor

JOURNALS RANKED BY IMPACT FACTOR

RANK	JOURNAL TITLE	CITATIONS IN 1981 TO ALL YEARS	1980	1979	80+79	SOURCE ITEMS IN 1980	1979	80+79	IMPACT FACTOR	CITATIONS IN 1981 TO 1981 ITEMS	SOURCE ITEMS IN 1981	IMMEDIACY INDEX
114	ECON J	1087	65	53	118	47	52	99	1.192	21	66	0.318
115	J CLIN PSYCHIAT	433	83	149	232	92	104	196	1.184	20	97	0.206
116	BEHAV GENET	414	38	67	105	43	46	89	1.180	12	47	0.255
117	J MONETARY ECON	294	28	58	86	36	37	73	1.178	6	49	0.122
118	J EXP SOC PSYCHOL	992	27	74	101	42	44	86	1.174	9	38	0.237
119	JUDICATURE	278	43	68	111	43	52	95	1.168	28	47	0.596
120	SOC FORCES	1161	59	97	156	65	69	134	1.164	7	75	0.093
121	AM BAR FOUND RES J	134	31	20	51	26	18	44	1.159	6	25	0.240
122	ADV CLIN CHILD PSYCH	52	11	11	22	11	8	19	1.158	0	9	0.000
123	DUKE LAW J	408	32	54	86	31	44	75	1.147	4	25	0.160
124	ADV ENVIRON PSYCHOL	38	6	2	8	7	0	7	1.143	6	7	0.857
124	J AM ACAD CHILD PSY	592	38	74	112	48	50	98	1.143	18	55	0.327
124	J HUM STRESS	217	16	32	48	23	19	42	1.143	2	19	0.105
127	J NERV MENT DIS	2443	120	134	254	118	105	223	1.139	27	101	0.267
128	J FINANC	1510	67	147	214	91	97	188	1.138	10	91	0.110
129	ANNU REV ANTHROPOL	201	20	30	50	21	23	44	1.136	1	15	0.067
130	MED CARE	1015	85	151	236	101	108	209	1.129	17	93	0.183
131	ANIM LEARN BEHAV	616	86	135	221	98	98	196	1.128	11	86	0.128
131	COMMUN RES	153	15	29	44	19	20	39	1.128	6	16	0.316
133	AM EDUC RES J	503	36	38	74	34	32	66	1.121	1	36	0.028
134	J MARKETING RES	1282	42	109	151	68	67	135	1.119	10	50	0.200
135	FAM COORD	361	0	88	88	0	79	79	1.114	0	0	
136	BEHAV SCI	646	20	51	71	30	34	64	1.109	5	32	0.156
137	J CRIM LAW CRIM	609	50	42	92	39	44	83	1.108	23	64	0.359
138	INQUIRY	298	13	30	43	20	19	39	1.103	4	13	0.308
138	POPUL DEV REV	171	24	40	64	28	30	58	1.103	13	32	0.406
140	MAN	503	43	35	78	32	39	71	1.099	3	35	0.086
141	SOUTHERN CALIF LAW R	461	43	50	93	38	47	85	1.094	8	27	0.296
142	SOC STUD SCI	212	15	32	47	21	22	43	1.093	24	19	1.263
143	INT ORGAN	255	23	25	48	24	20	44	1.091	6	31	0.194
144	ARCH SEX BEHAV	418	38	47	85	39	39	78	1.090	5	39	0.128
145	AM J MENT DEFIC	1444	85	102	187	82	90	172	1.087	11	84	0.131
146	PROBL COMMUNISM	148	19	20	39	20	16	36	1.083	9	21	0.429
147	J HUM RESOUR	400	20	60	80	41	33	74	1.081	6	41	0.146
148	PSYCHOMETRIKA	1404	27	56	83	33	44	77	1.078	3	33	0.091
149	SOCIOLOGY	365	27	29	56	30	22	52	1.077	6	30	0.200
150	J SOC ISSUES	951	17	55	72	30	37	67	1.075	20	36	0.556
151	J MARKETING	555	28	56	84	40	39	79	1.063	16	53	0.302
152	WASH LAW REV	214	11	24	35	14	19	33	1.061	1	19	0.053
153	EDUC RES	267	25	42	67	32	32	64	1.047	17	21	0.810
154	ACTA PSYCHIAT SCAND	1738	125	174	299	186	100	286	1.045	32	148	0.216
155	J PSYCHIAT RES	634	3	21	24	0	23	23	1.043	5	12	0.417
156	LLOYDS BANK REV	70	18	9	27	14	12	26	1.038	9	14	0.643
156	PERS PSYCHOL	622	30	51	81	42	36	78	1.038	2	39	0.051
158	J CHILD PSYCHOL PSYC	606	27	39	66	32	32	64	1.031	8	28	0.286
159	J DIVORCE	107	5	31	36	29	6	35	1.029	0	5	0.000
160	ECONOMICA	602	26	31	57	27	29	56	1.018	5	33	0.152
161	FAM PLANN PERSPECT	479	58	76	134	63	69	132	1.015	19	67	0.284
162	BRIT J MATH STAT PSY	269	10	28	38	20	18	38	1.000	3	21	0.143
162	HARVARD CIVIL RIGHTS	173	12	18	30	12	7	19	1.000	3	7	0.429
162	J FAM HIST	106	14	30	44	23	21	44	1.000	3	24	0.125
162	SCHOOL REV	162	0	9	9	0	9	9	1.000	0	0	
166	IEEE T SYST MAN CYB	629	52	75	127	66	64	130	0.977	10	58	0.172
167	AM J POLIT SCI	334	27	53	80	41	41	82	0.976	3	42	0.071
168	TEMPLE LAW QUART	111	15	22	37	21	17	38	0.974	1	3	0.333
169	DAEDALUS	480	54	20	74	42	35	77	0.961	13	41	0.317
170	UCLA LAW REV	396	16	32	48	22	28	50	0.960	0	11	0.000
171	REV ECON STUD	1310	75	50	125	76	55	131	0.954	8	62	0.129
172	EXCEPT CHILD	785	67	64	131	74	64	138	0.949	9	72	0.125
173	HARVARD J LEGIS	114	8	26	34	17	19	36	0.944	0	14	0.000
174	J ABNORM CHILD PSYCH	433	33	45	78	41	42	83	0.940	6	34	0.176
175	INT MONET FUND S PAP	208	11	33	44	24	23	47	0.936	0	26	0.000
176	J STUD ALCOHOL	837	76	123	199	112	101	213	0.934	17	96	0.177
177	NEW YORK U LAW REV	499	15	39	54	31	27	58	0.931	54	17	3.176
178	J PERS	920	28	45	73	36	43	79	0.924	3	34	0.088
179	J AUTISM DEV DISORD	73	16	55	71	39	38	77	0.922	1	22	0.045
180	ECONOMIST	103	21	14	35	19	19	38	0.921	5	21	0.238
181	AM ANTHROPOL	1194	27	52	79	46	41	87	0.919	6	46	0.130
182	LIBR J	413	100	35	135	62	85	147	0.918	64	61	1.049
182	MULTIVAR BEHAV RES	339	18	38	56	30	31	61	0.918	5	27	0.185
184	J CONFLICT RESOLUT	377	31	23	54	29	30	59	0.915	1	23	0.043
185	DEMOGRAPHY	539	12	52	64	22	41	70	0.914	6	44	0.136
186	ECON GEOGR	292	16	23	39	22	21	43	0.907	0	24	0.000
187	Q J ECON	1331	63	72	135	101	48	149	0.906	12	43	0.279
188	J CONSUM RES	352	25	51	76	43	41	84	0.905	4	52	0.077
189	J INT ECON	230	24	42	66	33	40	73	0.904	4	37	0.108
190	J EDUC MEAS	440	14	39	53	29	30	59	0.898	8	21	0.381
191	GEORGE WASH LAW REV	269	15	28	43	21	27	48	0.896	2	12	0.167
192	SOC PROBL	918	37	45	82	43	49	92	0.891	4	36	0.111
193	J PUBLIC ECON	447	21	60	81	40	51	91	0.890	5	45	0.111
194	AGGRESSIVE BEHAV	163	12	33	45	19	26	45	0.889	4	27	0.148
194	AM BANKRUPT LAW J	68	12	12	24	12	15	27	0.889	4	13	0.308
196	SOC NETWORKS	60	9	22	31	19	16	35	0.886	0	15	0.000
196	VA INT LAW	174	23	16	39	22	22	44	0.886	3	14	0.214
198	COMMUNITY MENT HLT J	294	20	26	46	26	26	52	0.885	4	29	0.138
199	AM J ORTHOPSYCHIAT	1329	41	68	109	58	66	124	0.879	6	62	0.097
200	J PSYCHOSOM RES	1255	28	58	86	44	54	98	0.878	5	65	0.074
201	PUBLIC OPIN QUART	828	29	49	78	43	46	89	0.876	8	41	0.195
202	ARTIF INTELL	271	20	14	34	29	10	39	0.872	13	25	0.520
203	ACTA PSYCHOL	570	57	24	81	58	36	94	0.862	9	63	0.143
204	PERCEPTION	466	36	88	124	69	76	145	0.855	3	33	0.091
205	J BUS	585	32	26	58	41	27	68	0.853	8	22	0.364
205	J RES CRIME DELINQ	157	12	17	29	17	17	34	0.853	4	15	0.267
207	CRIM LAW REV	220	50	24	74	43	44	87	0.851	28	42	0.667
208	COMPR PSYCHIAT	765	39	66	105	61	63	124	0.847	5	73	0.068
209	INT J CLIN EXP HYP	313	13	42	55	38	27	65	0.846	14	33	0.424
210	LINGUIST ANAL	116	15	12	27	16	16	32	0.844	5	30	0.167
211	GEOGR ANAL	265	19	40	59	32	38	70	0.843	7	32	0.219
212	NAT RESOUR LAW	161	16	16	32	4	34	38	0.842	1	18	0.056
212	PSYCHOL WOMEN QUART	171	16	48	64	39	37	76	0.842	6	48	0.125
214	AM HIST REV	382	14	23	37	16	28	44	0.841	3	18	0.167
214	J PHONETICS	228	18	40	58	42	27	69	0.841	3	41	0.073
216	HASTINGS LAW J	325	32	52	84	40	60	100	0.840	24	33	0.727
217	CURR ANTHROPOL	587	87	48	135	77	84	161	0.839	18	73	0.247
218	TEACH PSYCHOL	255	115	33	148	92	86	178	0.831	8	79	0.101
219	FOREIGN POLICY	211	47	38	85	50	53	103	0.825	10	47	0.213
220	CATHOL U LAW REV	129	23	23	46	30	26	56	0.821	9	21	0.429
220	TEACH SOCIOL	95	37	9	46	27	29	56	0.821	3	20	0.150
222	POPUL STUD-LONDON	451	27	32	59	35	37	72	0.819	5	29	0.172
223	PROF GEOGR	162	31	36	67	47	35	82	0.817	11	52	0.212
224	J EPIDEMIOL COMMUN H	185	41	39	80	58	40	98	0.816	22	59	0.373
225	INT AFF	99	18	17	35	22	21	43	0.814	6	25	0.240
226	NOTRE DAME LAWYER	210	25	44	69	43	42	85	0.812	9	28	0.321

Appendix G: Part of 1981 SSCI (later renamed JCR) index



SOCIAL SCIENCES CITATION INDEX® —1981

ANNUAL

FULLY COVERED SOURCE PUBLICATIONS

Arranged by Subject Category

A title may be repeated more than once when appropriate.

Appendix H: Sample of Ulrich's Report on Library and Information Science

Title	Subjects	Publisher	Country	Start Y	Language	Frequency
South African Journal of Library and Information Science	LIBRARY AND INFORM	South African Bureau fo	South Africa	1933	Text and summaries in	Quarterly
American Society for Information Science and Technology. Jour	COMPUTERS|INFORM	John Wiley & Sons, Inc.	United Stat	1938	Text in English	Monthly
University of Chicago Studies in Library Science	LIBRARY AND INFORM	University of Chicago	United Stat	1939	Text in English	Irregular
Aslib Proceedings	LIBRARY AND INFORM	Emerald Group Publishir	United King	1949	Text in English	Bi-monthly
Libri	LIBRARY AND INFORM	De Gruyter Saur	Germany	1951	Text in English	Quarterly
Nippon Toshokan Joho Gakkai-shi	LIBRARY AND INFORM	Nippon Toshokan Joho G	Japan	1954	Text in Japanese | Sun	Quarterly
Mousaion	LIBRARY AND INFORM	UniSA Press	South Africa	1955	Text in Afrikaans | Tex	Semi-annually
Agricultural Information Worldwide	AGRICULTURE|LIBRAF	International Association	United Stat	1955	Text in English	Quarterly
Journal of Chemical Information and Modeling	CHEMISTRY|COMPUTI	American Chemical Socie	United Stat	1960	Text in English	Monthly
Journal of Education for Library and Information Science	EDUCATION|LIBRARY	Association for Library a	United Stat	1960	Text in English	Quarterly
Knygotyra	LIBRARY AND INFORM	Vilniaus Universiteto Lei	Lithuania	1961	Text in Lithuanian | Te	2 times a year
Herald of Library Science	LIBRARY AND INFORM	Scientific Publishers	India	1962	Text in English	Quarterly
Information Processing & Management	LIBRARY AND INFORM	Elsevier Ltd	United King	1963	Text in German | Text	6 times a year
Library and Information Science	LIBRARY AND INFORM	Mita Society for Library	Japan	1963	Text in Japanese | Tex	Semi-annually
SRELS Journal of Information Management	COMPUTER APPLICATI	Sarada Ranganathan Enc	India	1964	Text in English	Bi-monthly
Program	COMPUTER APPLICATI	Emerald Group Publishir	United King	1966	Text in English	Quarterly
University of Teheran. Central Library. Library Bulletin	LIBRARY AND INFORM	University of Teheran *	Iran, Islamic	1966	Text in Persian, Mode	Irregular
Pakistan Library & Information Science Journal	LIBRARY AND INFORM	Library Promotion Burea	Pakistan	1968	Text in Urdu	Quarterly
Information Technology and Libraries	COMPUTER APPLICATI	American Library Associ	United Stat	1968	Text in English	Quarterly
Journal of Librarianship and Information Science	LIBRARY AND INFORM	Sage Publications Ltd.	United King	1969	Text in English	Quarterly
International Information and Library Review	LIBRARY AND INFORM	Elsevier Ltd	United King	1969	Text in English	Quarterly
Hanguk Munheon Jeongbo Hakhoeji	LIBRARY AND INFORM	Hanguk Munheon Jeong	Korea, Rep	1970	Text in Korean	Quarterly
Jiaoyu Ziliao yu Tushuguanxue	EDUCATION|LIBRARY	Tamkang University Pres	Taiwan, Re	1970	Text in Chinese | Text	Quarterly
VINE	COMPUTER APPLICATI	Emerald Group Publishir	United King	1971	Text in English	Quarterly
Health Information Management Journal	LIBRARY AND INFORM	Health Information Man	Australia	1971	Text in English	3 times a year
Multimedia Information & Technology	COMPUTER APPLICATI	Chartered Institute of Li	United King	1973	Text in English	Quarterly
Scientific and Technical Information Processing	LIBRARY AND INFORM	Allerton Press, Inc.	United Stat	1974	Text in English	Bi-monthly
Journal of Library & Information Science	LIBRARY AND INFORM	National Taiwan Normal	Taiwan, Re	1975	Text in Chinese | Text	Semi-annually Apr. & Oc
Canadian Journal of Information and Library Science	LIBRARY AND INFORM	University of Toronto Pr	Canada	1976	Text in French | Text i	Quarterly
Online Information Review	COMPUTERS|INTERNI	Emerald Group Publishir	United King	1977	Text in English	Bi-monthly
Lecture Notes in Control and Information Sciences	LIBRARY AND INFORM	Springer	Germany	1978	Text in German	Irregular
Library & Information Science Research	LIBRARY AND INFORM	Pergamon	United King	1979	Text in English	4 times a year
Behavioral & Social Sciences Librarian	LIBRARY AND INFORM	Routledge	United Stat	1979	Text in English	Quarterly
Dansk Biblioteksforskning	LIBRARY AND INFORM	Danmarks Biblioteksskol	Denmark	1979	Text in Danish	3 times a year
Science & Technology Libraries	LIBRARY AND INFORM	Routledge	United Stat	1980	Text in English	Quarterly
International Journal of Information Management	COMMUNICATIONS|C	Pergamon	United King	1980	Text in English	6 times a year
Arab Journal of Library and Information Science	LIBRARY AND INFORM	Dar Al Mirikh	Saudi Arabi	1980	Text in Arabic | Text ir	Quarterly
The Information Society	COMPUTER APPLICATI	Taylor & Francis Inc.	United Stat	1981	Text in English	5 times a year
Resource Sharing & Information Networks	LIBRARY AND INFORM	Routledge	United Stat	1981	Text in English	Quarterly
Journal of Enterprise Information Management	LIBRARY AND INFORM	Emerald Group Publishir	United King	1981	Text in English	Bi-monthly
Information Services & Use	COMPUTERS|INFORM	IOS Press	Netherland	1981	Text in English	Quarterly
Journal of Law and Information Science	COMPUTER APPLICATI	University of Tasmania *	Australia	1981	Text in English	Semi-annually
Information Technology and People	COMPUTER APPLICATI	Emerald Group Publishir	United King	1982	Text in English	Quarterly
The Electronic Library	COMPUTER APPLICATI	Emerald Group Publishir	United King	1982	Text in English	Bi-monthly

Note: This report sample has been modified to fit into the text frame. The columns titleID, ISSN, serialType, format, Status, subtitle, contentType, and vatiantTitle have been hidden; results for journals that ceased printing or merged prior to 2011 or started after 1982 have also been hidden from this image.

Appendix I: Part of JCR journal report sorted by subject

discipline	Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Articles	Cited Half-Life	Eigenfactor Score	Article Influence Score
educ.,SciDiscplines	ACAD MED	1040-2446	5422	1.867	2.337			6.8	0.02072	0.944
politicalSci	ACTA POLIT	0001-6810	157	0.667		0.059	17	4.2	0.00159	
psychology	ACTA PSYCHOL	0001-6918	2777	2.155	2.652	0.611	157	>10.0	0.00601	1.026
sociology	ACTA SOCIOL	0001-6993	354	0.957	0.873	0.059	17	>10.0	0.00095	0.419
psychology	ADAPT BEHAV	1059-7123	434	1.152	1.84	0.19	21	7.5	0.00093	0.447
psychology	ADDICT BEHAV	0306-4603	5389	1.846	2.272	0.286	185	7	0.01737	0.753
psychology	ADOLESCENCE	0001-8449	1511	0.72	1.443	0.035	57	>10.0	0.0023	0.442
psychology	ADV CHILD DEV BEHAV	0065-2407	289	1.222	1.911	0.5	10	7.6	0.00108	1.079
psychology	ADV EXP SOC PSYCHOL	0065-2601	2550	8.308	11.161	1.6	5	>10.0	0.00484	7.043
educ.,SciDiscplines	ADV HEALTH SCI EDUC	1382-4996	327	1.254	1.545	0.2	50	4.8	0.00136	0.501
educ.,SciDiscplines	ADV PHYSIOL EDUC	1043-4046	438	1.483	1.723	0.227	44	4.5	0.00134	0.38
anthropology	AFRICA	0001-9720	496	0.636	0.547	0.167	24	>10.0	0.00079	0.306
psychology	AGGRESS VIOLENT BEH	1359-1789	809	1.618	2.254	0.051	39	5.9	0.00315	0.785
psychology	AGGRESSIVE BEHAV	0096-140X	1454	2.056	2.129	0.245	53	8.8	0.00376	0.728
psychology	AGING NEUROPSYCHOL C	1382-5585	455	1.143	1.464	0.206	34	6.9	0.00159	0.519
economics	AGR ECON-BLACKWELL	0169-5150	777	0.484	0.91	0.263	76	6.9	0.0025	0.362
sociology	AGR HUM VALUES	0889-048X	520	1.186	1.319	0.064	47	7.2	0.00172	0.485
psychology	AIDS CARE	0954-0121	2601	1.466	2.197	0.168	167	5.5	0.00967	0.692
anthropology	AM ANTHROPOL	0002-7294	2019	1.218	1.332	0.179	28	>10.0	0.00322	0.568
anthropology	AM ANTIQUITY	0002-7316	1942	1.841	2.154	0.294	34	>10.0	0.00251	0.67
psychology	AM BEHAV SCI	0002-7642	1649	0.691	0.886	0.253	99	9.1	0.00449	0.443
educ.,SciDiscplines	AM BIOL TEACH	0002-7685	256	0.308	0.346	0.033	60	8.9	0.00044	0.095
economics	AM ECON REV	0002-8282	21672	2.285	3.775	0.33	185	>10.0	0.0916	4.668
anthropology	AM ETHNOL	0094-0496	925	0.888	1.033	0.19	42	>10.0	0.00276	0.687
psychology	AM INDIAN ALASKA NAT	0893-5394	100	0.227		0	10	>10.0	0.00023	
economics	AM J AGR ECON	0002-9092	3405	0.967	1.534	0.111	108	>10.0	0.00739	0.672
psychology	AM J CLIN HYPN	0002-9157	360	0.966	1.143	0.7	20	>10.0	0.00033	0.192
psychology	AM J COMMUN PSYCHOL	0091-0562	2697	1.198	2.313	0.719	57	>10.0	0.00497	0.89
psychology	AM J DRUG ALCOHOL AB	0095-2990	1330	1.094	1.536	0.16	81	8.6		0.474
economics	AM J ECON SOCIOL	0002-9246	283	0.349	0.364	0	39	9.7		0.128
sociology	AM J ECON SOCIOL	0002-9246	283	0.349	0.364	0	39	9.7		0.142
psychology	AM J FAM THER	0192-6187	282	0.491	0.455	0.062	32	>10.0		

Appendix J-1: Top 5 impact factor journals, 2008

1 Anthropology

Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
J HUM EVOL	0047-2484	4519	3.550	4.310	1.336	137	8.6	0.00984	1.297
EVOL ANTHROPOL	1060-1538	966	3.484	3.725	1.111	18	7.6	0.00298	1.475
AM J PHYS ANTHROPOL	0002-9483	7241	2.353	2.690	0.456	147	>10.0	0.01257	0.829
SOC NETWORKS	0378-8733	1276	2.068	2.929	0.276	29	>10.0	0.00318	1.270
CURR ANTHROPOL	0011-3204	2413	2.032	2.718	0.412	51	>10.0	0.00682	1.314

2 Communication

Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
J COMMUN	0021-9916	1816	2.266	2.365	0.122	41	9.9	0.00514	1.059
J HEALTH COMMUN	1081-0730	955	2.057	2.431	0.087	46	4.6	0.00580	0.999
PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00478	1.349
J COMPUT-MEDIAT COMM	1083-6101	803	1.901		0.250	36	4.6	0.00361	
HUM COMMUN RES	0360-3989	1339	1.689	2.112	0.423	26	>10.0	0.00271	1.055

3 Economics

Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
Q J ECON	0033-5533	11723	5.048	8.716	0.756	41	>10.0	0.05419	11.981
J ECON LIT	0022-0515	4069	4.842	8.380	0.842	19	>10.0	0.01806	8.853
J ECON PERSPECT	0895-3309	4261	3.944	5.057	0.558	43	9.4	0.02487	5.341
ECONOMETRICA	0012-9682	17091	3.865	4.943	0.255	47	>10.0	0.04526	7.238
J POLIT ECON	0022-3808	13671	3.725	5.742	0.419	31	>10.0	0.04088	8.822

4 Geography

Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
T I BRIT GEOGR	0020-2754	1581	3.967	4.600	0.455	33	7.3	0.00589	1.832
GLOBAL ENVIRON CHANG	0959-3780	1291	3.955	4.272	0.524	63	5.1	0.00564	1.611
PROG HUM GEOG	0309-1325	1889	3.482	4.305	0.575	40	6.0	0.00749	1.586
ECON GEOGR	0013-0095	1048	2.968	3.578	0.438	16	10.0	0.00224	1.218
J ECON GEOGR	1468-2702	763	2.932	4.557	0.576	33	4.8	0.00536	1.847

Appendix J-2: 5 Information & Library Science

5 Information & Library Science

Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
MIS QUART	0276-7783	5684	5.183	11.586	0.778	36	9.7	0.01138	3.540
J AM MED INFORM ASSN	1067-5027	2574	3.428	3.886	0.560	100	5.2	0.00891	1.069
ANNU REV INFORM SCI	0066-4200	477	2.500	2.954	0.846	13	6.5	0.00138	0.956
INFORM SYST J	1350-1917	528	2.375	2.940	0.600	25	6.0	0.00133	0.711
INFORM MANAGE-AMSTER	0378-7206	2919	2.358	4.079	0.355	62	6.2	0.00625	0.826

6 Political Science

Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
POLIT ANAL	1047-1987	644	4.780	3.283	0.263	19	5.0	0.00711	2.837
EUR J POLIT RES	0304-4130	1760	2.514	2.734	0.239	71	6.6	0.01038	1.638
AM J POLIT SCI	0092-5853	4416	2.397	3.363	0.322	59	>10.0	0.01976	3.084
POLIT GEOGR	0962-6298	1032	2.295	2.375	0.250	40	6.7	0.00453	1.063
EUR UNION POLIT	1465-1165	419	2.064	2.378	0.435	23	4.5	0.00303	1.232

7 Psychology

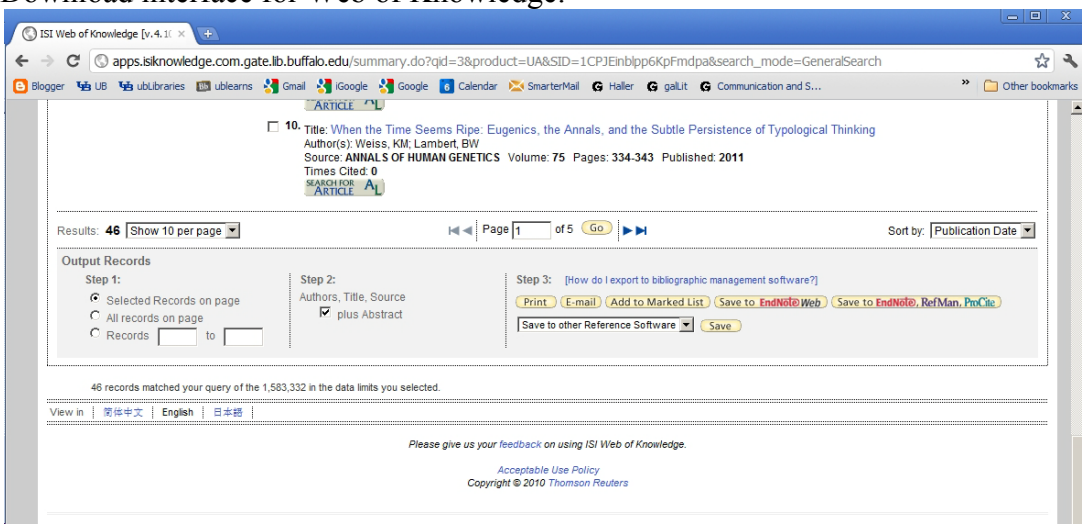
Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
ANNU REV PSYCHOL	0066-4308	6715	16.217	17.608	4.958	24	7.7	0.02280	8.568
BEHAV BRAIN SCI	0140-525X	5274	12.818	19.355	2.667	12	9.5	0.01173	8.536
PSYCHOL BULL	0033-2909	22965	12.568	18.037	1.026	38	>10.0	0.03458	8.253
PSYCHOL REV	0033-295X	17810	11.765	12.563	2.396	48	>10.0	0.02648	6.787
TRENDS COGN SCI	1364-6613	9143	10.981	13.826	1.086	70	5.3	0.05327	6.323

8 Sociology

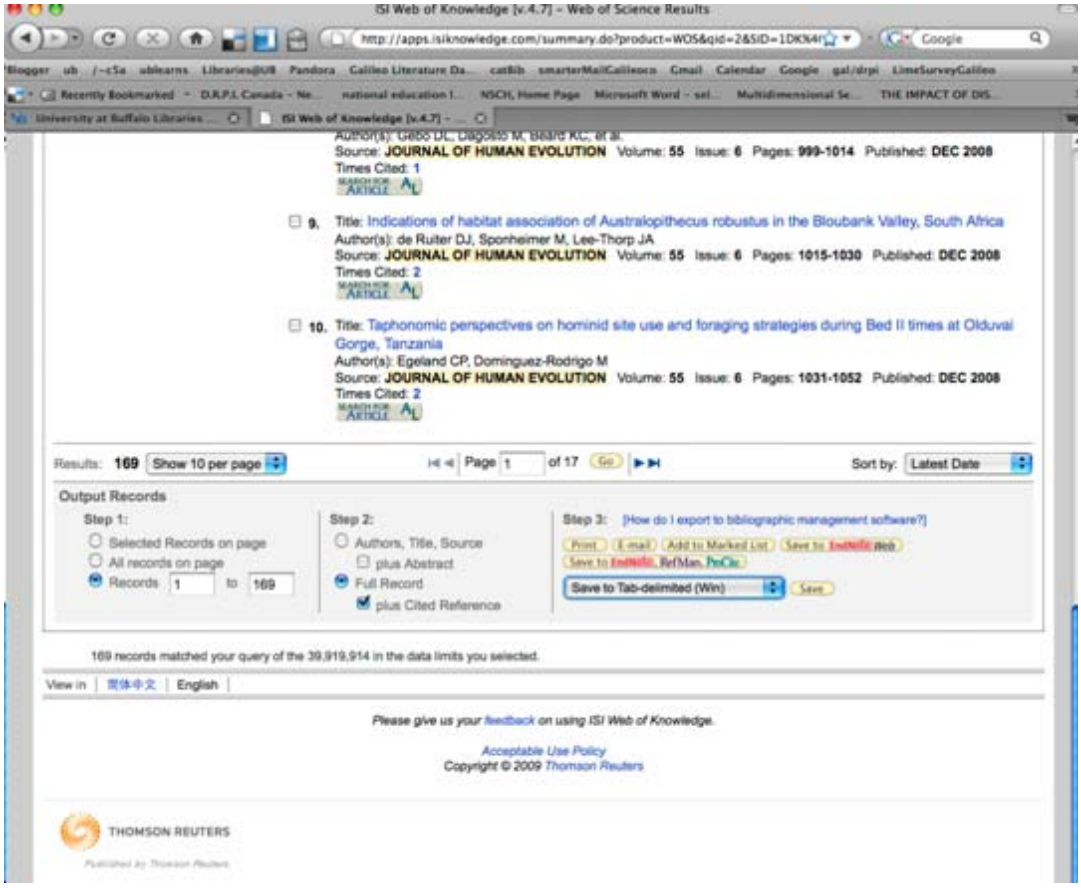
Abbreviated Journal Title	ISSN	2008 Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	2008 Articles	Cited Half-life	*Eigenfactor*™ Score	*Article Influence*™ Score
AM SOCIOL REV	0003-1224	9349	3.762	5.285	0.364	44	>10.0	0.01728	3.897
AM J SOCIOL	0002-9602	8629	2.808	5.046	0.444	45	>10.0	0.01476	3.804
ANNU REV SOCIOL	0360-0572	3665	2.273	4.954	0.364	22	>10.0	0.00804	3.358
SOC NETWORKS	0378-8733	1276	2.068	2.929	0.276	29	>10.0	0.00318	1.270
SOC PROBL	0037-7791	1832	2.059	2.677	0.154	26	>10.0	0.00511	1.731

Appendix K: Web of Knowledge & Web of Science download interface screenshots

Download interface for Web of Knowledge:



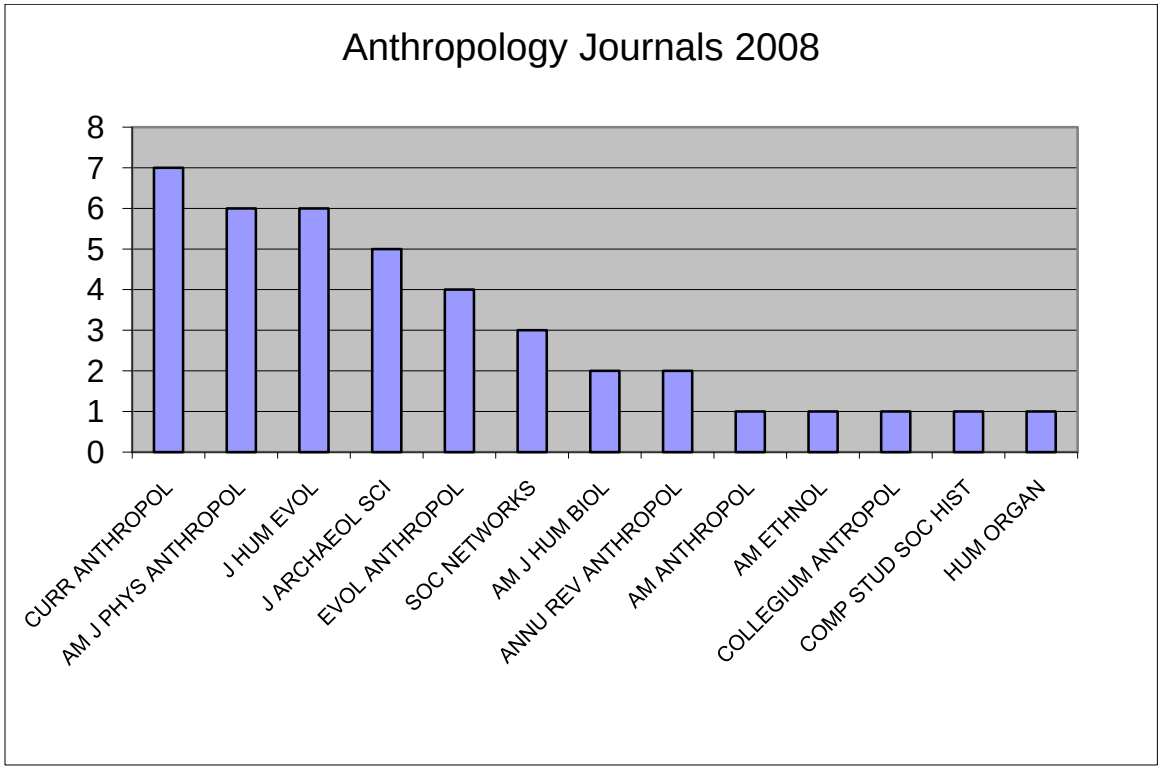
Download interface for Web of Science:



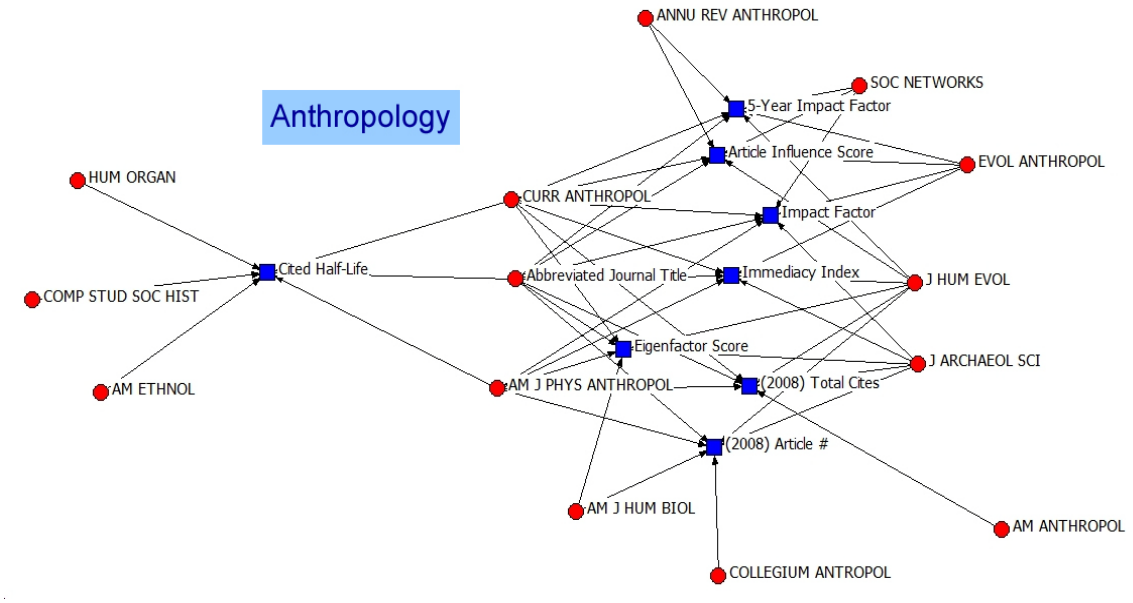
Appendix L-1a, Anthropology

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfac-tor Score	Article Influence Score
CURR ANTHROPOL	7	1	1	1	1		1	1	1
AM J PHYS ANTHROPOL	6	1	1		1	1	1	1	
J HUM EVOL	6	1		1	1	1		1	1
J ARCHAEOL SCI	5	1	1		1	1		1	
EVOL ANTHROPOL	4		1	1	1				1
SOC NETWORKS	3		1	1					1
AM J HUM BIOL	2					1		1	
ANNU REV ANTHROPOL	2			1					1
AM ANTHROPOL	1	1							
AM ETHNOL	1						1		
COLLEGIUM ANTROPOL	1					1			
COMP STUD SOC HIST	1						1		
HUM ORGAN	1						1		
	40	5	5	5	5	5	5	5	5

13 journals in top 5 rankings



Appendix L-1b



Appendix L -2a, Communication

1 COM journals sorted by total citations:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00478	1.349
J COMMUN	0021-9916	1816	2.266	2.365	0.122	41	9.9	0.00514	1.059
COMMUN RES	0093-6502	1747	1.473	2.486	0.111	36	>10.0	0.0032	1.046
J ADVERTISING	0091-3367	1367	1	1.909	0.579	38	>10.0	0.00191	0.526
J ADVERTISING RES	0021-8499	1360	0.612	1.257	0.067	45	>10.0	0.00166	0.393

2 COM journals sorted by impact factor:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008} Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
J COMMUN	0021-9916	1816	2.266	2.365	0.122	41	9.9	0.00514	1.059
J HEALTH COMMUN	1081-0730	955	2.057	2.431	0.087	46	4.6	0.0058	0.999
PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00478	1.349
J COMPUT-MEDIAT COMM	1083-6101	803	1.901		0.25	36	4.6	0.00361	
HUM COMMUN RES	0360-3989	1339	1.689	2.112	0.423	26	>10.0	0.00271	1.055

3 COM journals sorted by 5 yr impact factor:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00478	1.349
COMMUN RES	0093-6502	1747	1.473	2.486	0.111	36	>10.0	0.0032	1.046
J HEALTH COMMUN	1081-0730	955	2.057	2.431	0.087	46	4.6	0.0058	0.999
J COMMUN	0021-9916	1816	2.266	2.365	0.122	41	9.9	0.00514	1.059
COMMUN THEOR	1050-3293	521	1.422	2.146	0.125	24	6.5	0.00216	0.946

4 COM journals sorted by immediacy:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
J ADVERTISING	0091-3367	1367	1	1.909	0.579	38	>10.0	0.00191	0.526
J MEDIA ECON	0899-7764	120	0.522	0.571	0.5	10	8.3	0.00016	0.106
HUM COMMUN RES	0360-3989	1339	1.689	2.112	0.423	26	>10.0	0.00271	1.055
PUBLIC UNDERST SCI	0963-6625	564	1.286	1.605	0.423	26	8	0.0018	0.682
INTERACT STUD	1572-0373	113	1.359		0.346	26	2.8	0.00071	

Appendix L-2b, Communication

5 COM journals sorted by # of articles in 2008:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
CYBERPSYCHOL BEHAV	1094-9313	1256	1.295	2.01	0.094	139	4.8	0.00435	0.484
PUBLIC RELAT REV	0363-8111	385	0.507	0.575	0.083	72	7.4	0.00036	0.058
TELECOMMUN POLICY	0308-5961	629	1.244	1.534	0.074	54	5.9	0.00182	0.399
HEALTH COMMUN	1041-0236	623	1.154	1.599	0.22	50	5.9	0.00221	0.52
J HEALTH COMMUN	1081-0730	955	2.057	2.431	0.087	46	4.6	0.0058	0.999

6 COM journals sorted by cited half-life:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
J SOC PERS RELAT	0265-4075	1273	1.097	1.5	0.111	45	>10.0	0.00322	0.632
J ADVERTISING RES	0021-8499	1360	0.612	1.257	0.067	45	>10.0	0.00166	0.393
PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00478	1.349
J ADVERTISING	0091-3367	1367	1	1.909	0.579	38	>10.0	0.00191	0.526
COMMUN RES	0093-6502	1747	1.473	2.486	0.111	36	>10.0	0.0032	1.046

7 COM journals sorted by Eigenfactor Score:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
J HEALTH COMMUN	1081-0730	955	2.057	2.431	0.087	46	4.6	0.0058	0.999
J COMMUN	0021-9916	1816	2.266	2.365	0.122	41	9.9	0.00514	1.059
PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00478	1.349
CYBERPSYCHOL BEHAV	1094-9313	1256	1.295	2.01	0.094	139	4.8	0.00435	0.484
J COMPUT-MEDIAT COMM	1083-6101	803	1.901		0.25	36	4.6	0.00361	

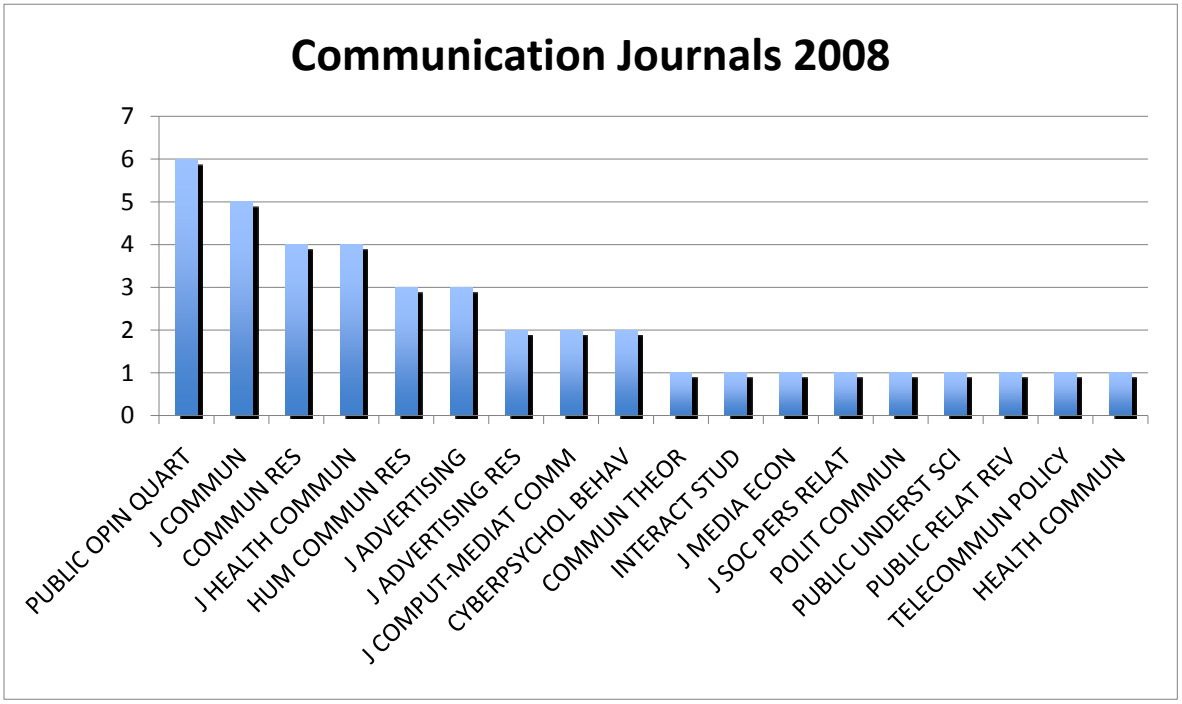
8 COM journals sorted by Article Influence Score:

Abbreviated Journal Title	ISSN	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00478	1.349
J COMMUN	0021-9916	1816	2.266	2.365	0.122	41	9.9	0.00514	1.059
HUM COMMUN RES	0360-3989	1339	1.689	2.112	0.423	26	>10.0	0.00271	1.055
COMMUN RES	0093-6502	1747	1.473	2.486	0.111	36	>10.0	0.0032	1.046
POLIT COMMUN	1058-4609	599	1.023	1.828	0.2	20	7.4	0.00258	1.004

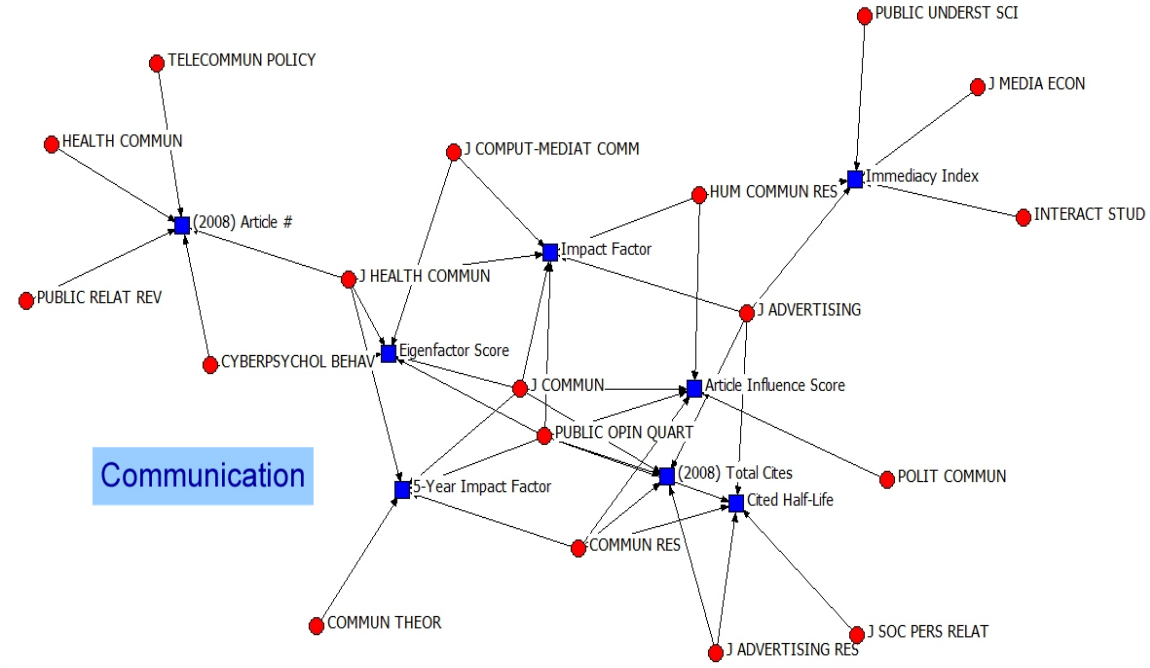
Appendix L-2b, Communication

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
PUBLIC OPIN QUART	6	1	1	1			1	1	1
J COMMUN	5	1	1	1				1	1
COMMUN RES	4	1		1			1		1
J HEALTH COMMUN	4		1	1		1		1	
HUM COMMUN RES	3		1		1				1
J ADVERTISING	3	1			1		1		
J ADVERTISING RES	2	1					1		
J COMPUT-MEDIAT COMM	2		1					1	
CYBERPSYCHOL BEHAV	2					1		1	
COMMUN THEOR	1			1					
INTERACT STUD	1				1				
J MEDIA ECON	1				1				
J SOC PERS RELAT	1						1		
POLIT COMMUN	1								1
PUBLIC UNDERST SCI	1				1				
PUBLIC RELAT REV	1					1			
TELECOMMUN POLICY	1					1			
HEALTH COMMUN	1					1			
	40	5	5	5	5	5	5	5	5

18 journals in top 5 rankings



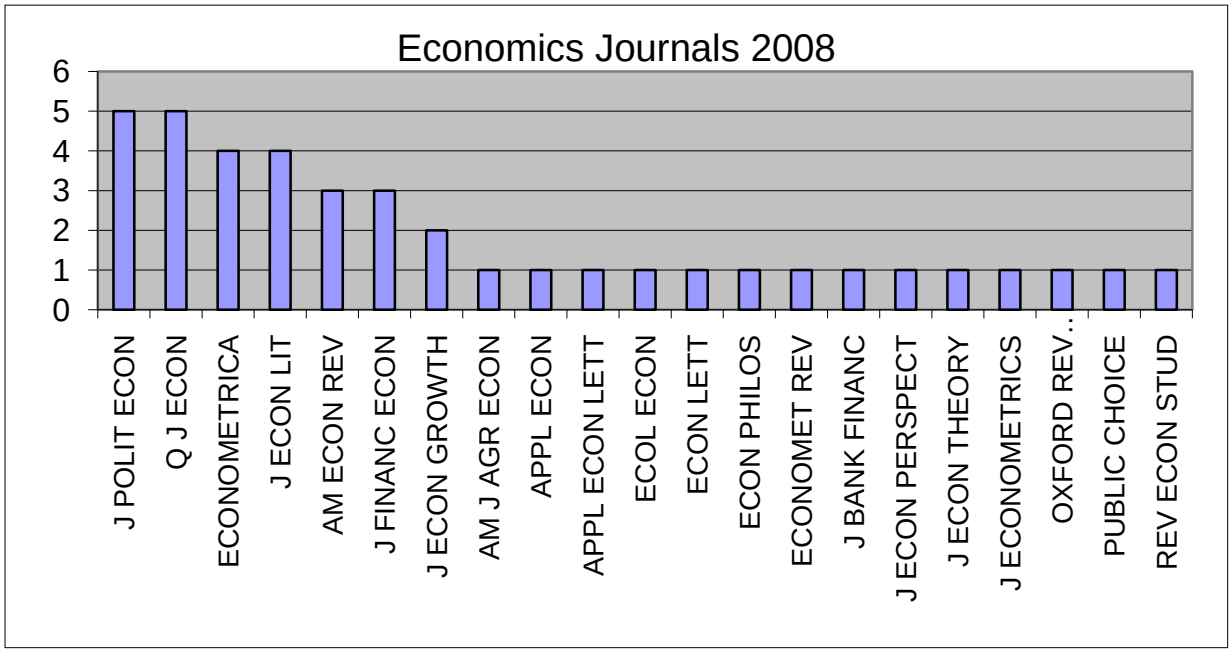
Appendix L-2c



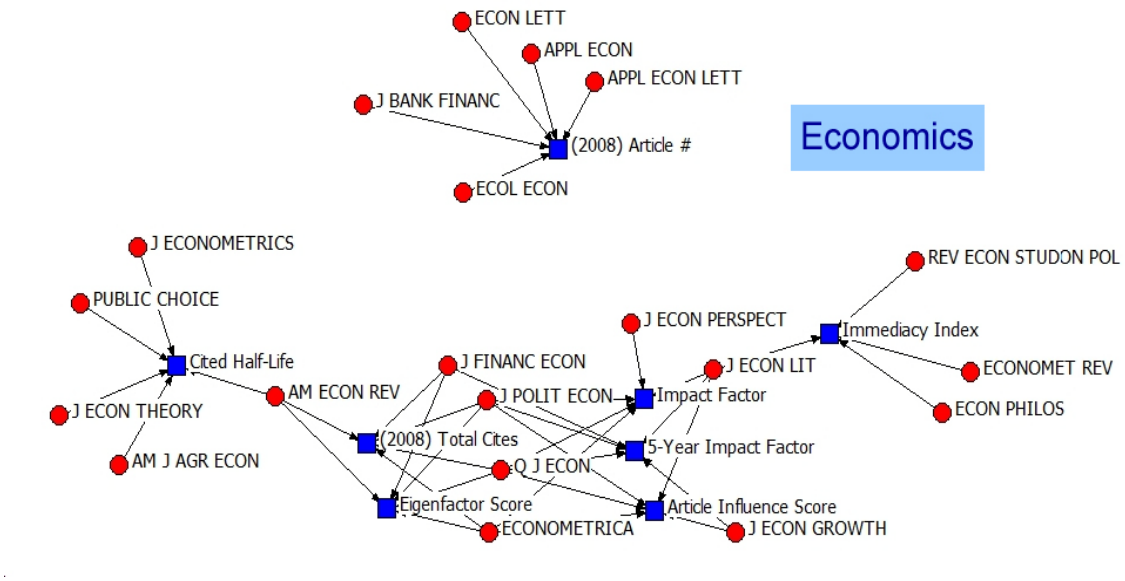
Appendix L-3a, Economics

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
J POLIT ECON	5	1	1	1				1	1
Q J ECON	5	1	1	1				1	1
ECONOMETRICA	4	1	1					1	1
J ECON LIT	4		1	1	1				1
AM ECON REV	3	1					1	1	
J FINANC ECON	3	1		1				1	
J ECON GROWTH	2			1					1
AM J AGR ECON	1						1		
APPL ECON	1					1			
APPL ECON LETT	1					1			
ECOL ECON	1					1			
ECON LETT	1					1			
ECON PHILOS	1				1				
ECONOMET REV	1				1				
J BANK FINANC	1					1			
J ECON PERSPECT	1		1						
J ECON THEORY	1						1		
J ECONOMETRICS	1						1		
OXFORD REV ECON POL	1				1				
PUBLIC CHOICE	1						1		
REV ECON STUD	1				1				
	40	5	5	5	5	5	5	5	5

21 journals in top 5 rankings



Appendix L-3b

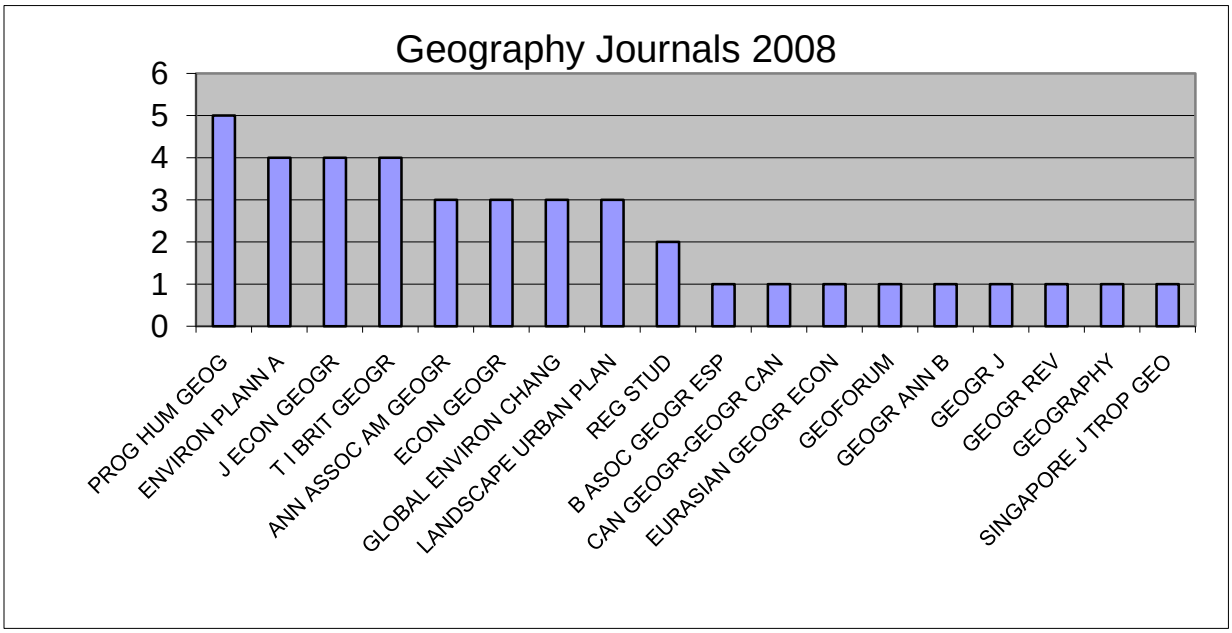


Appendix L-4a, Geography

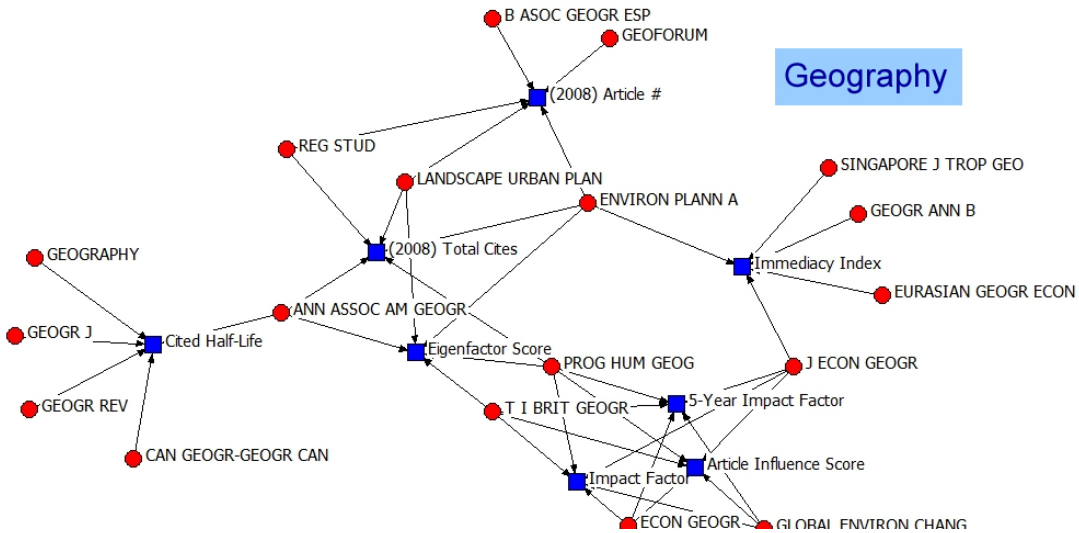
of times journal is in top5 journal sort:

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfac-tor Score	Article Influence Score
PROG HUM GEOG	5	1	1	1				1	1
ENVIRON PLANN A	4	1			1	1		1	
J ECON GEOGR	4		1	1	1				1
T I BRIT GEOGR	4		1	1				1	1
ANN ASSOC AM GEOGR	3	1					1	1	
ECON GEOGR	3		1	1					1
GLOBAL ENVIRON CHANG	3		1	1					1
LANDSCAPE URBAN PLAN	3	1				1		1	
REG STUD	2	1				1			
B ASOC GEOGR ESP	1					1			
CAN GEOGR-GEOGR CAN	1						1		
EURASIAN GEOGR ECON	1				1				
GEOFORUM	1					1			
GEOGR ANN B	1				1				
GEOGR J	1						1		
GEOGR REV	1						1		
GEOGRAPHY	1						1		
SINGAPORE J TROP GEO	1				1				
	40	5	5	5	5	5	5	5	5

18 journals In top 5 rankings



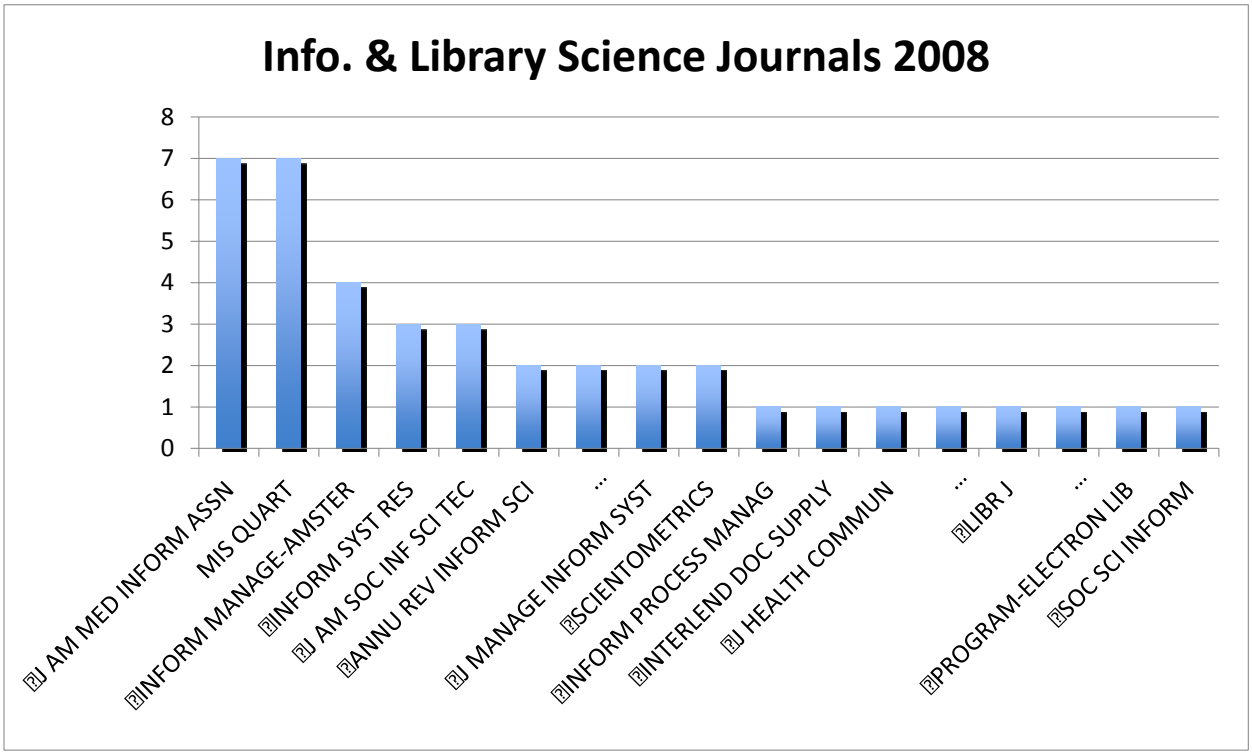
Appendix L-4b



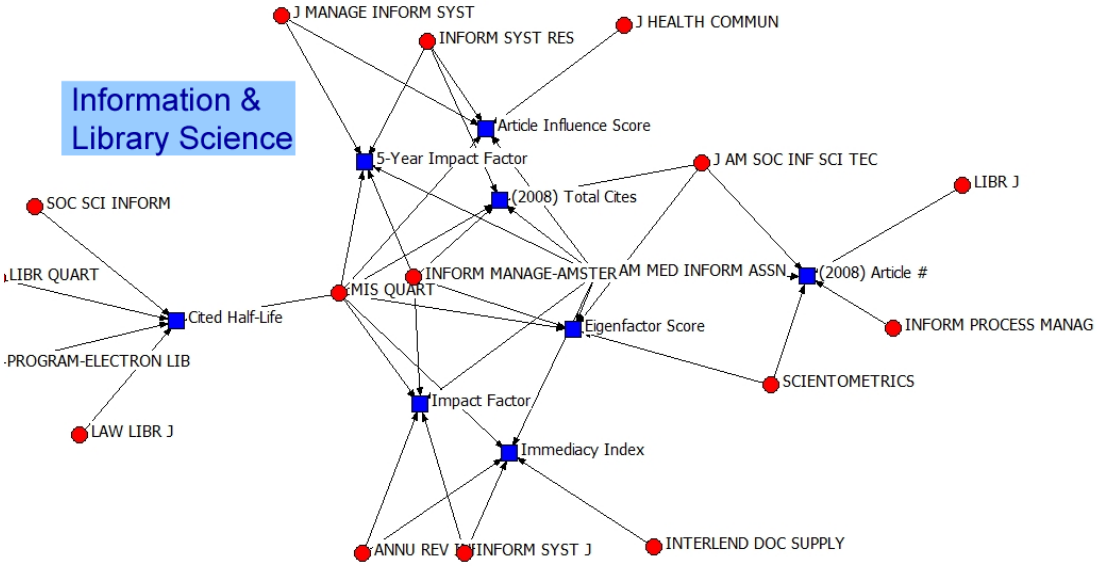
Appendix L-5a, Information & Library Science

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
J AM MED INFORM ASSN	7	1	1	1	1	1		1	1
MIS QUART	7	1	1	1	1		1	1	1
INFORM MANAGE-AMSTER	4	1	1	1				1	
INFORM SYST RES	3	1		1					1
J AM SOC INF SCI TEC	3	1				1		1	
ANNU REV INFORM SCI	2		1		1				
INFORM SYST J	2		1		1				
J MANAGE INFORM SYST	2			1					1
SCIENTOMETRICS	2					1		1	
INFORM PROCESS MANAG	1					1			
INTERLEND DOC SUPPLY	1				1				
J HEALTH COMMUN	1								1
LAW LIBR J	1						1		
LIBR J	1					1			
LIBR QUART	1						1		
PROGRAM-ELECTRON LIB	1						1		
SOC SCI INFORM	1						1		
	40	5	5	5	5	5	5	5	5

17 journals in top 5 rankings



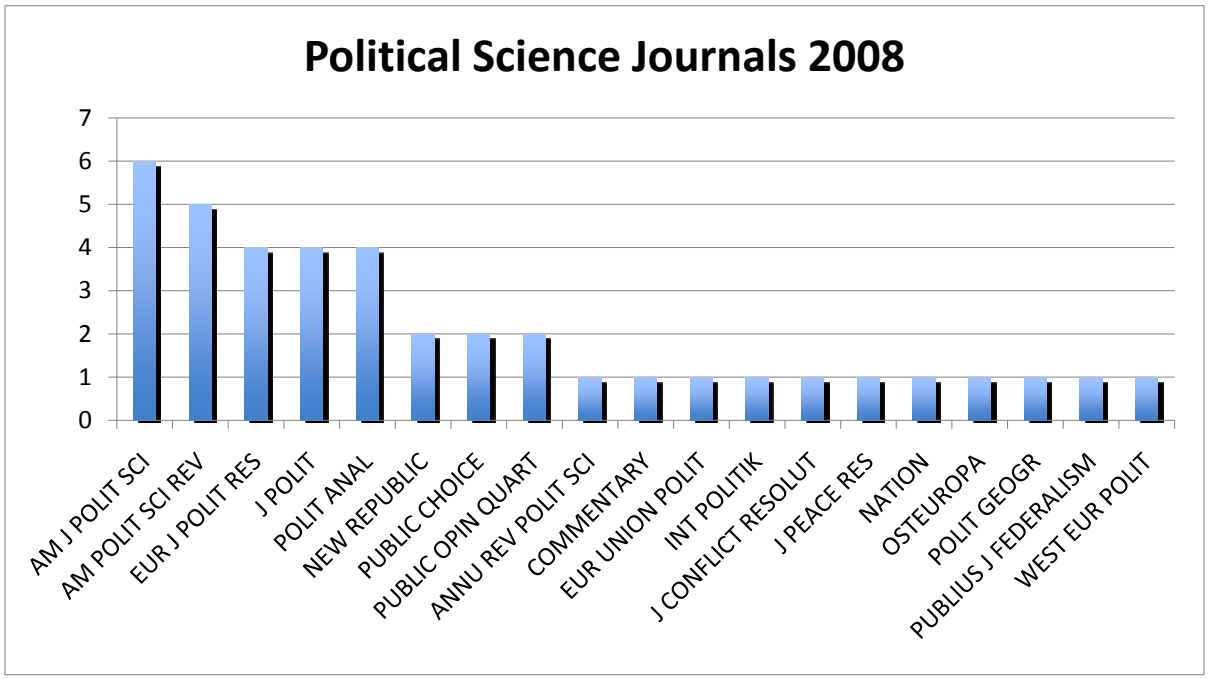
Appendix L-5b



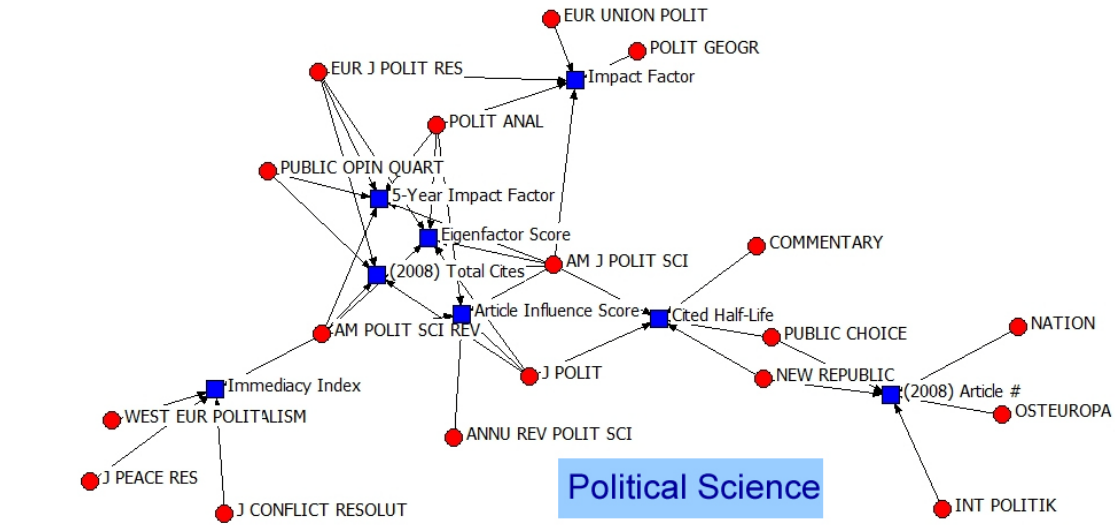
Appendix L-6a, Political Science

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
AM J POLIT SCI	6	1	1	1			1	1	1
AM POLIT SCI REV	5	1		1	1			1	1
EUR J POLIT RES	4	1	1	1				1	
J POLIT	4	1					1	1	1
POLIT ANAL	4		1	1				1	1
NEW REPUBLIC	2					1	1		
PUBLIC CHOICE	2					1	1		
PUBLIC OPIN QUART	2	1		1					
ANNU REV POLIT SCI	1								1
COMMENTARY	1						1		
EUR UNION POLIT	1		1						
INT POLITIK	1					1			
J CONFLICT RESOLUT	1				1				
J PEACE RES	1				1				
NATION	1					1			
OSTEUROPA	1					1			
POLIT GEOGR	1		1						
PUBLIUS J FEDERALISM	1				1				
WEST EUR POLIT	1				1				
	40	5	5	5	5	5	5	5	5

19 journals in top 5 rankings



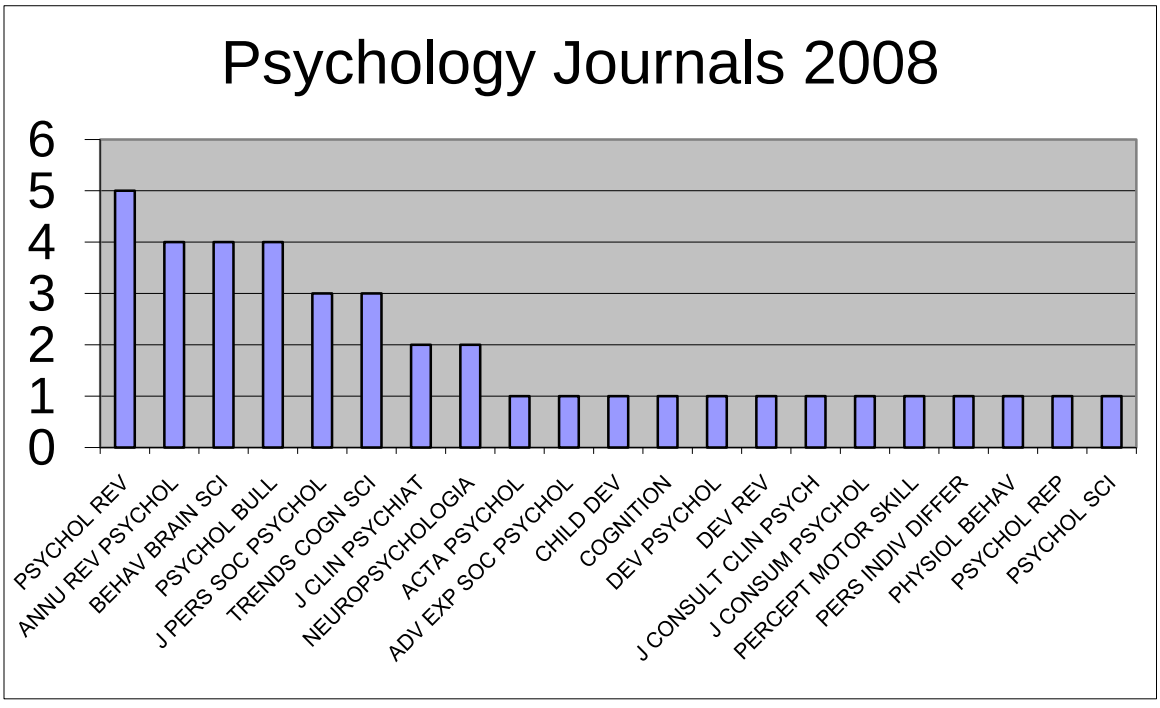
Appendix L-6a



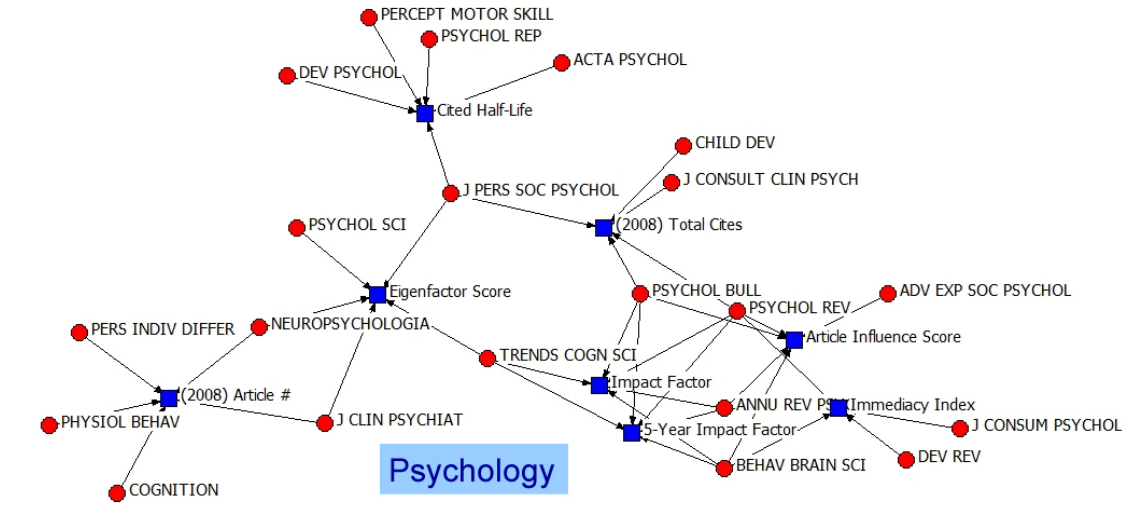
Appendix L-7a, Psychology

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfactor Score	Article Influence Score
PSYCHOL REV	5	1	1	1	1				1
ANNU REV PSYCHOL	4		1	1	1				1
BEHAV BRAIN SCI	4		1	1	1				1
PSYCHOL BULL	4	1	1	1					1
J PERS SOC PSYCHOL	3	1					1	1	
TRENDS COGN SCI	3		1	1				1	
J CLIN PSYCHIAT	2					1		1	
NEUROPSYCHOLOGIA	2					1		1	
ACTA PSYCHOL	1						1		
ADV EXP SOC PSYCHOL	1								1
CHILD DEV	1	1							
COGNITION	1					1			
DEV PSYCHOL	1						1		
DEV REV	1				1				
J CONSULT CLIN PSYCH	1	1							
J CONSUM PSYCHOL	1				1				
PERCEPT MOTOR SKILL	1						1		
PERS INDIV DIFFER	1					1			
PHYSIOL BEHAV	1					1			
PSYCHOL REP	1						1		
PSYCHOL SCI	1							1	
	40	5	5	5	5	5	5	5	5

21 journals in top 5 rankings



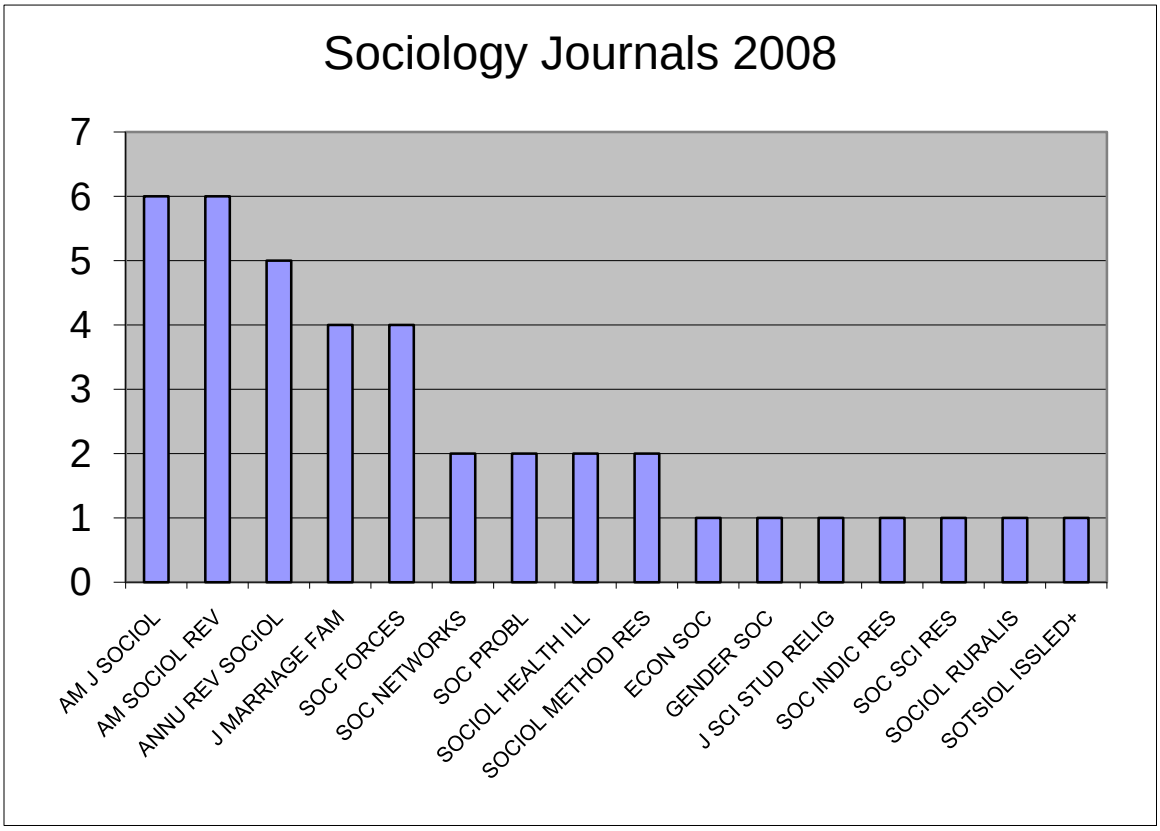
Appendix L-7b



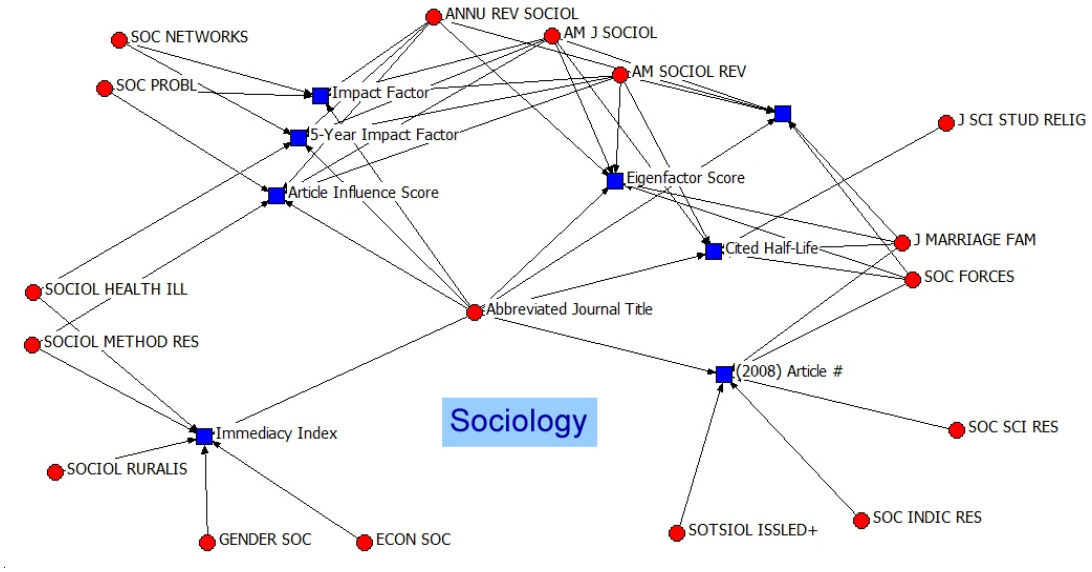
Appendix L-8a, Sociology

Abbreviated Journal Title	total times in top 5	(2008) Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	(2008) Article #	Cited Half-Life	Eigenfac-tor Score	Article Influence Score
AM J SOCIOL	6	1	1	1			1	1	1
AM SOCIOL REV	6	1	1	1			1	1	1
ANNU REV SOCIOL	5	1	1	1				1	1
J MARRIAGE FAM	4	1				1	1	1	
SOC FORCES	4	1				1	1	1	
SOC NETWORKS	2		1	1					
SOC PROBL	2		1						1
SOCIOL HEALTH ILL	2			1	1				
SOCIOL METHOD RES	2				1				1
ECON SOC	1				1				
GENDER SOC	1				1				
J SCI STUD RELIG	1						1		
SOC INDIC RES	1					1			
SOC SCI RES	1					1			
SOCIOL RURALIS	1				1				
SOTSIOL ISSLED+	1					1			
	40	5	5	5	5	5	5	5	5

16 journals in top 5 rankings

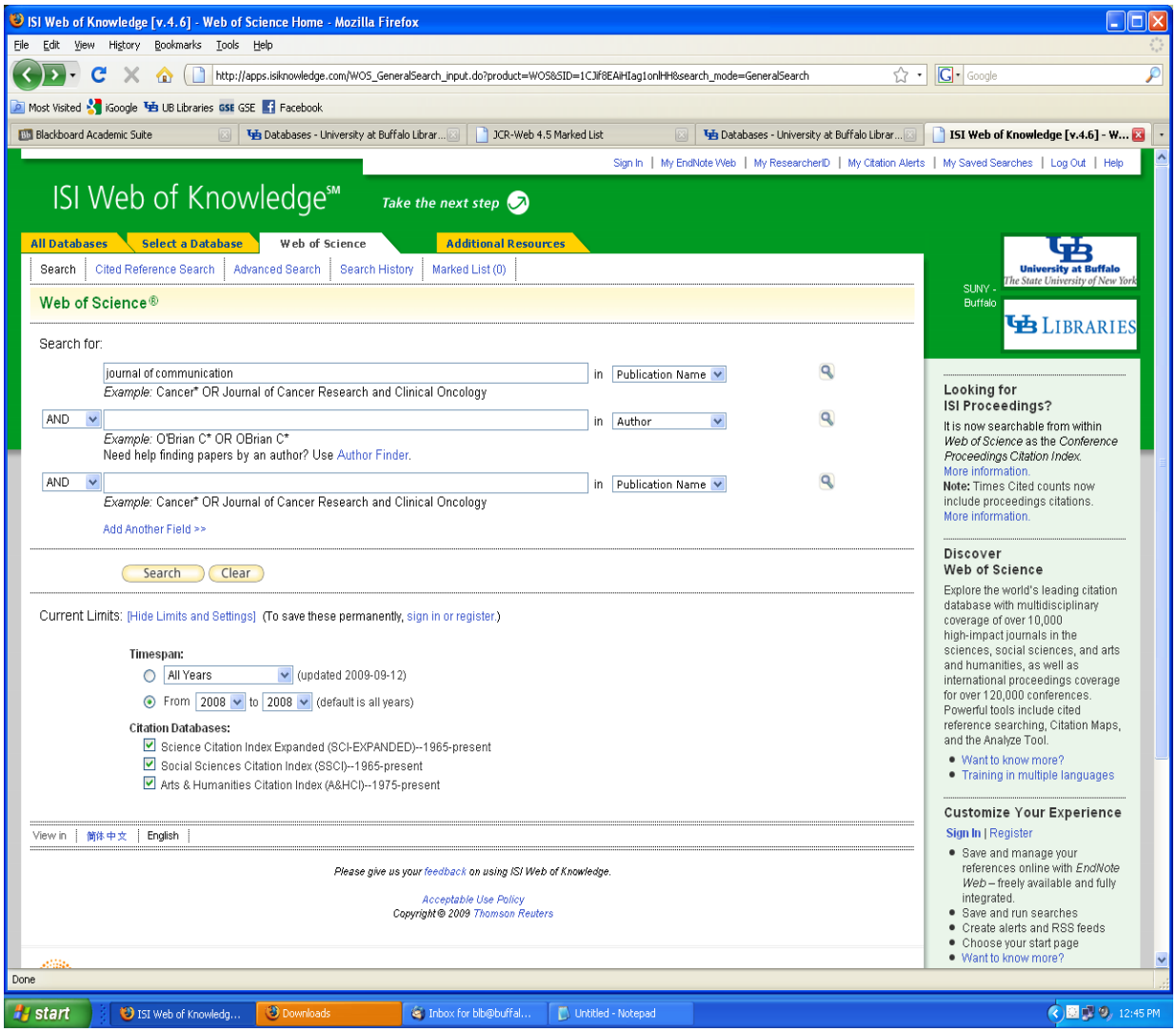


Appendix L-8b



Appendix M-1A

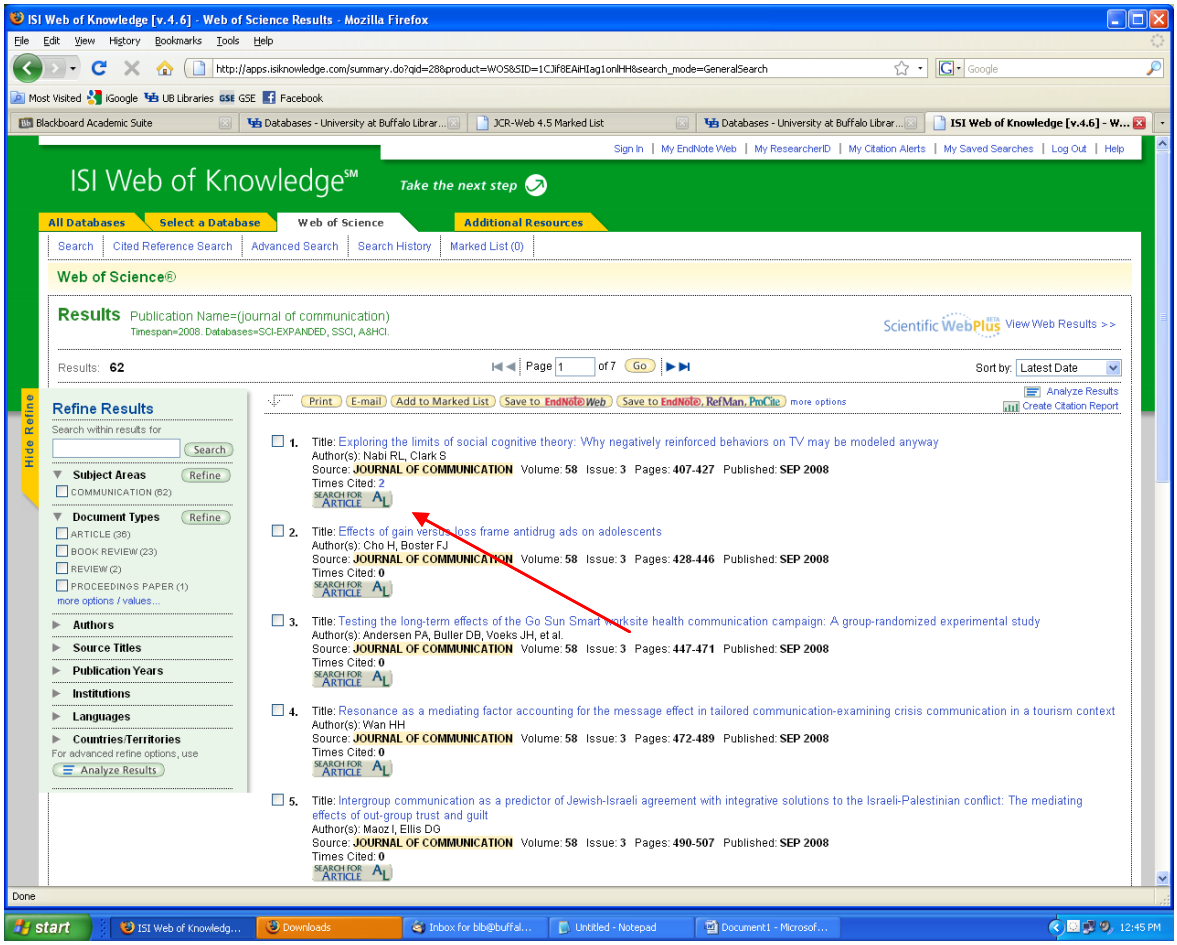
First Download Procedure: 2008 test data using *Web of Knowledge*®



1. Enter "Publication Name" and year. Note that at first "Timespan" was used; it was subsequentially determined, however, that entering the year in a search field as "Year Published" is preferable as at times using "timespan" selection criteria will also download items from the final journal of the previous year.

Appendix M-2A

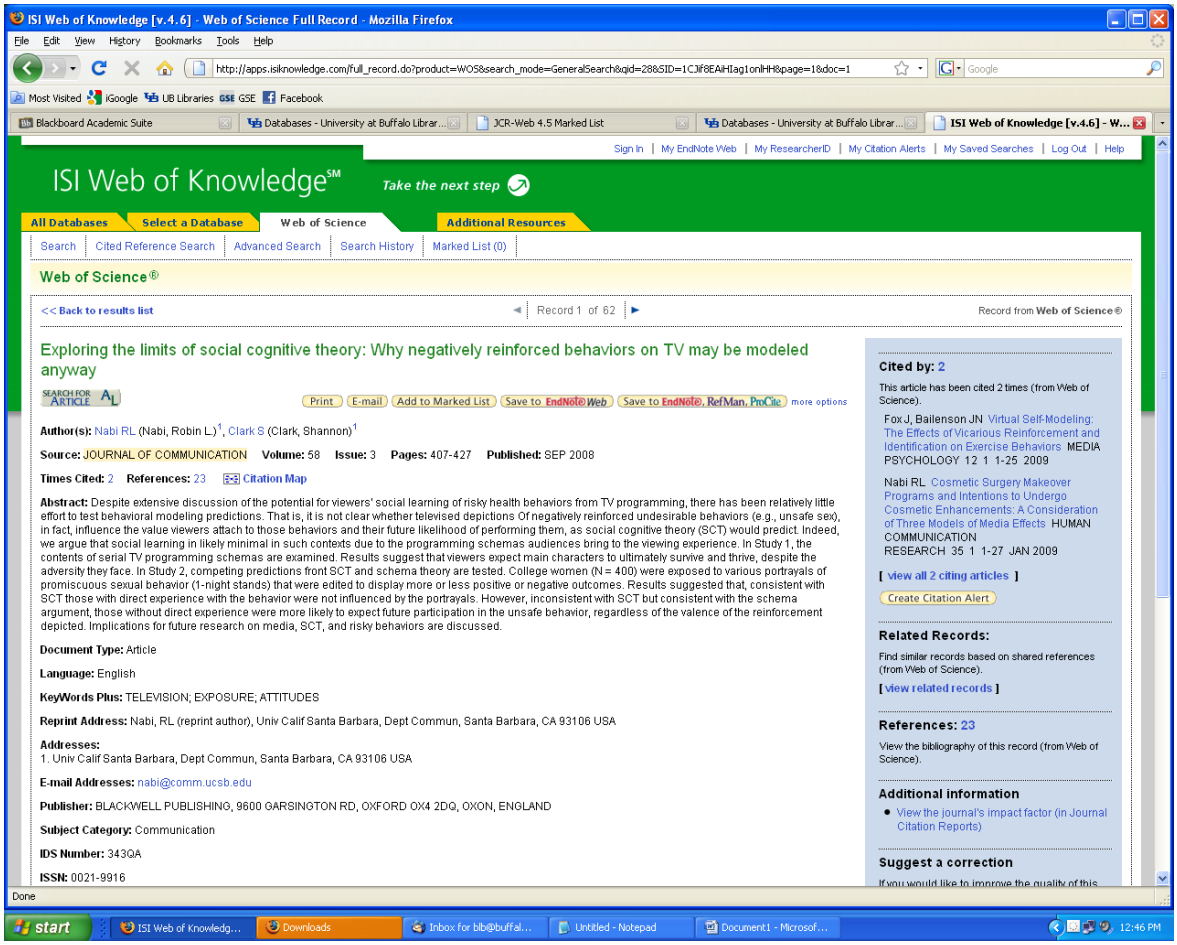
First Download Procedure: 2008 test data using *Web of Knowledge*®



2. The first article is opened.

Appendix M-3A

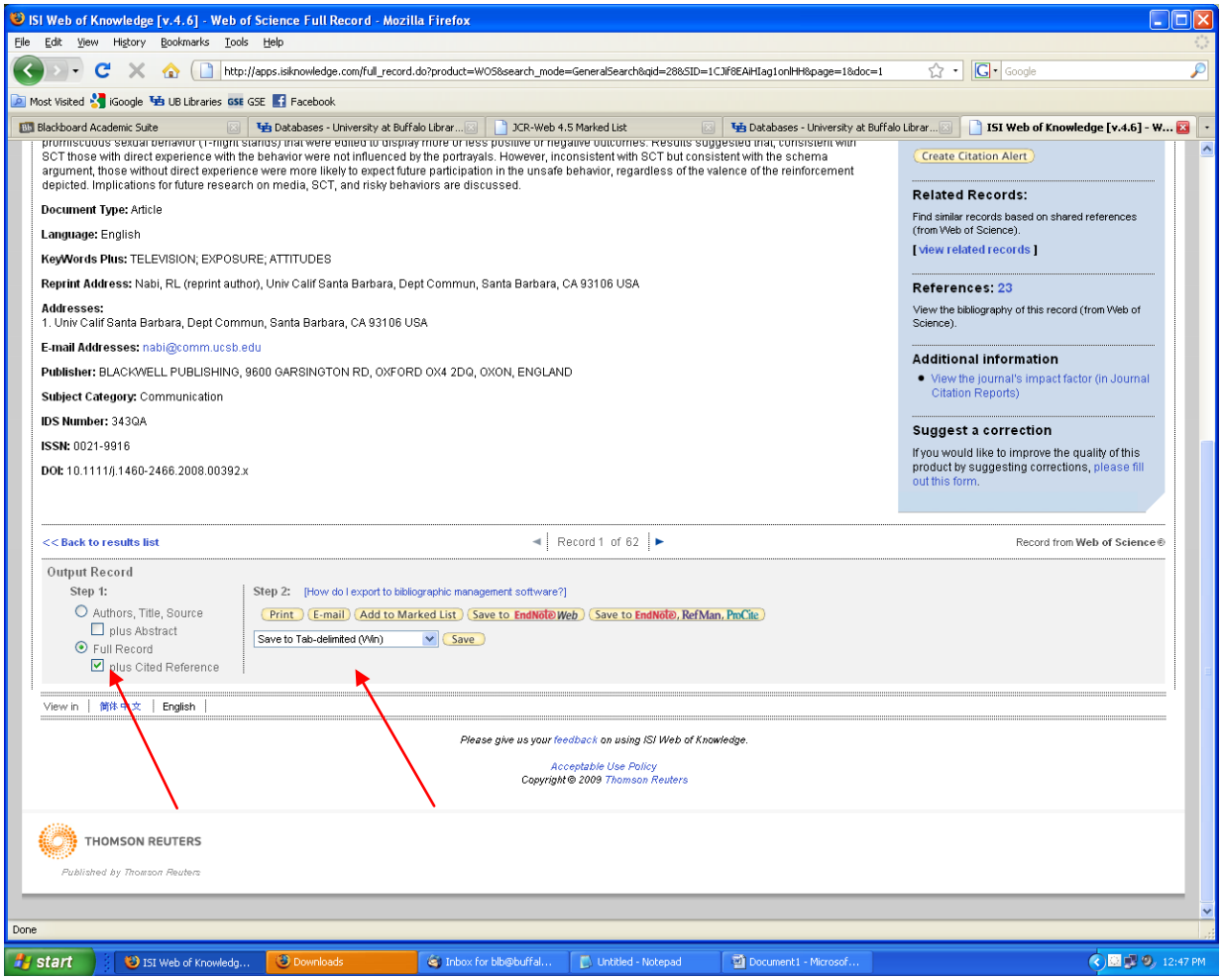
First Download Procedure: 2008 test data using *Web of Knowledge*®



3a-c were initial procedures developed for *Web of Knowledge* to download citations for each article (before it was discovered *Web of Science* allowed citation download as a choice for all items in found set).

Appendix M-4A

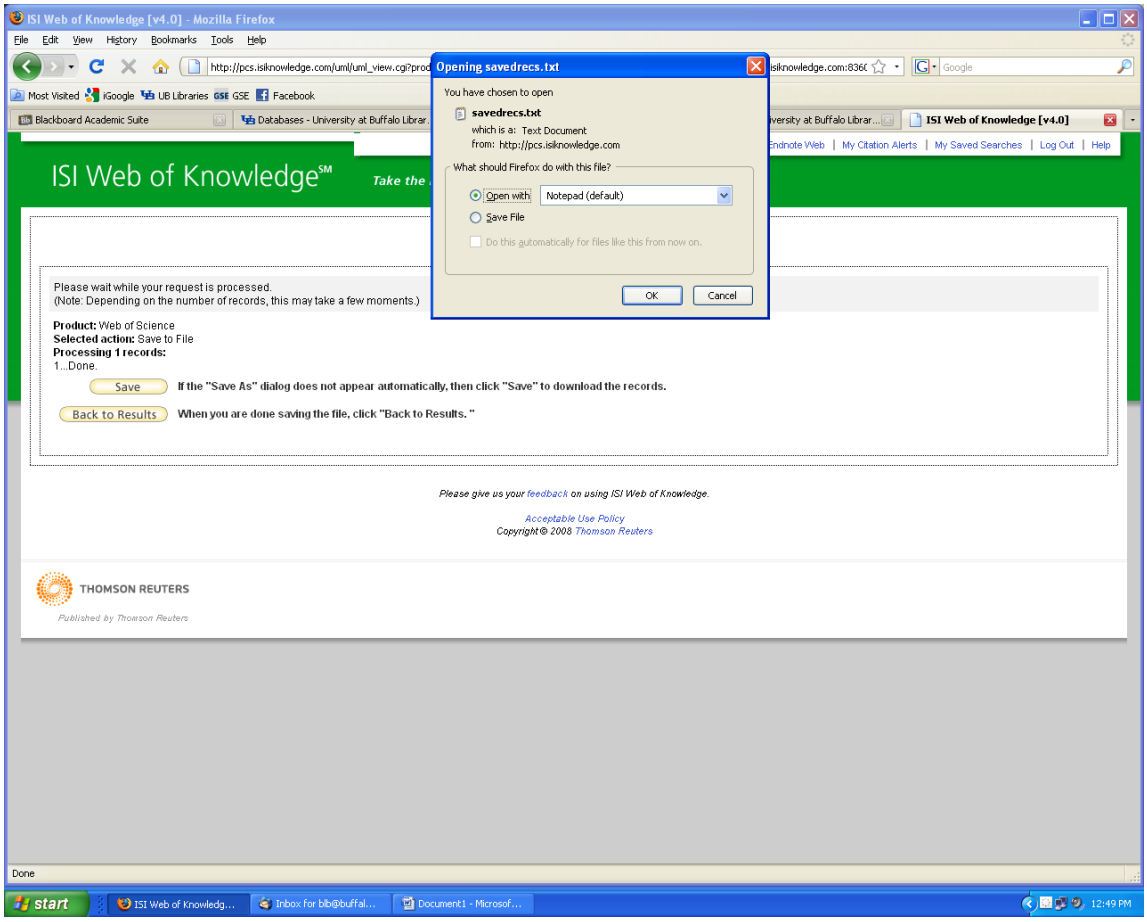
First Download Procedure: 2008 test data using *Web of Knowledge*®



3b. Download settings used to get citations for each article using *Web of Knowledge*. Appendix K shows download checkbox setting for *Web of Science* to download all items in a found set at once (this was not done initially with the 2008 test dataset).

Appendix M-5A

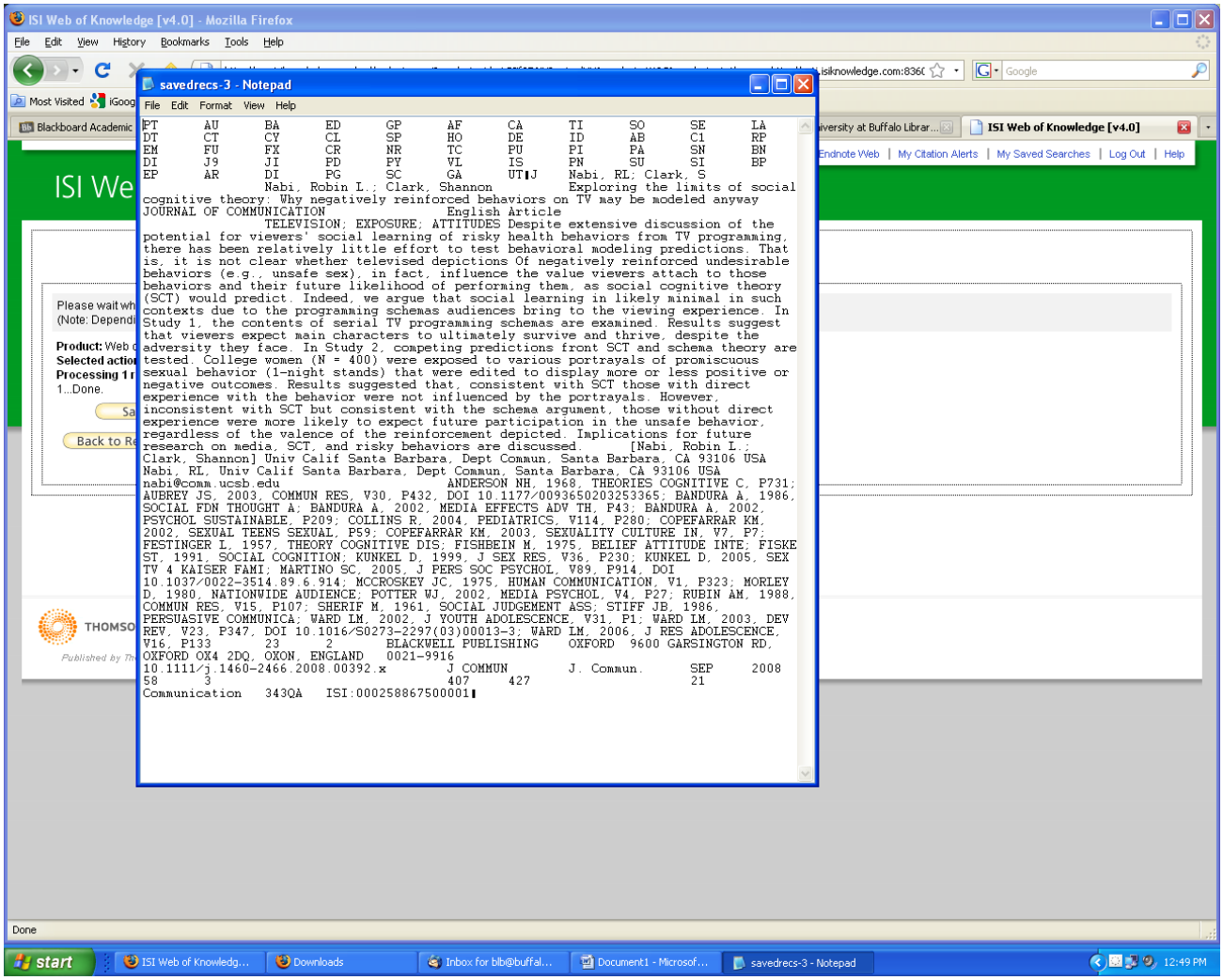
First Download Procedure: 2008 test data using *Web of Knowledge*®



3c Information is downloaded to a temporary file named “savedrec.txt”

Appendix M-6A

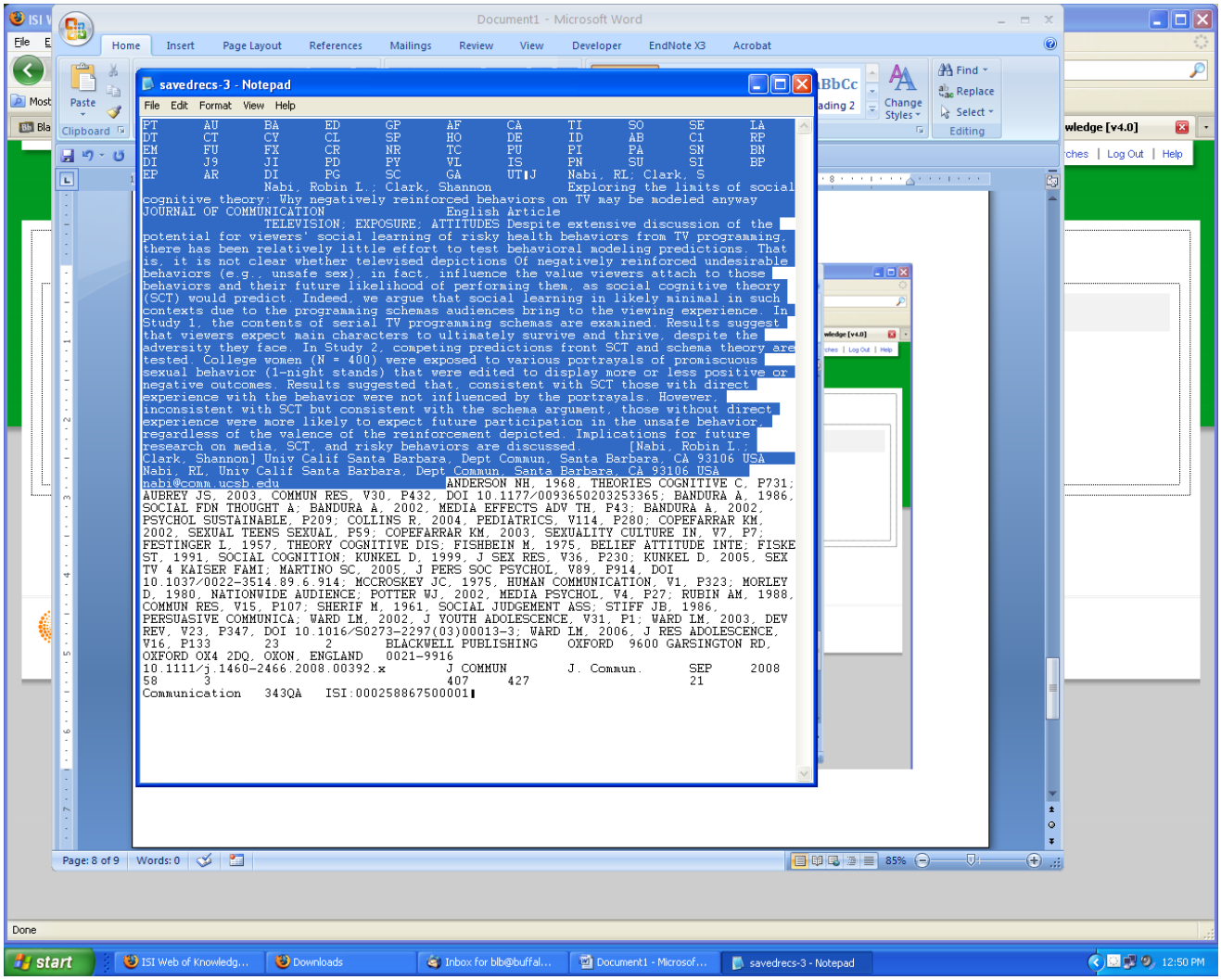
First Download Procedure: 2008 test data using *Web of Knowledge*®



4a-c. Show text modification prior to copying to excel spreadsheet. First, temporary file savedrecs.txt is opened in notepad on pc computers (or TextEdit on macs).

Appendix M-7A

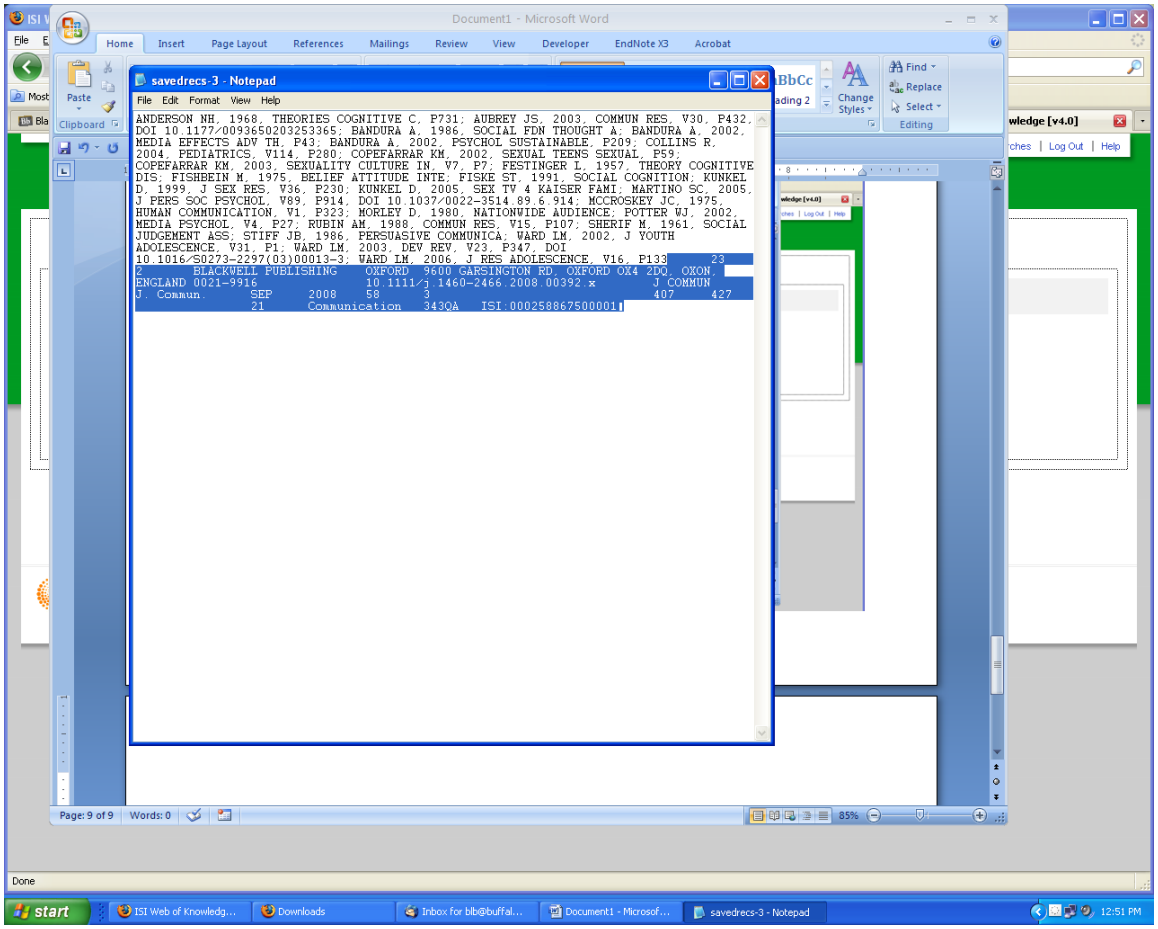
First Download Procedure: 2008 test data using *Web of Knowledge*®



4b Second, text portions of record above citations are deleted.

Appendix M-8A

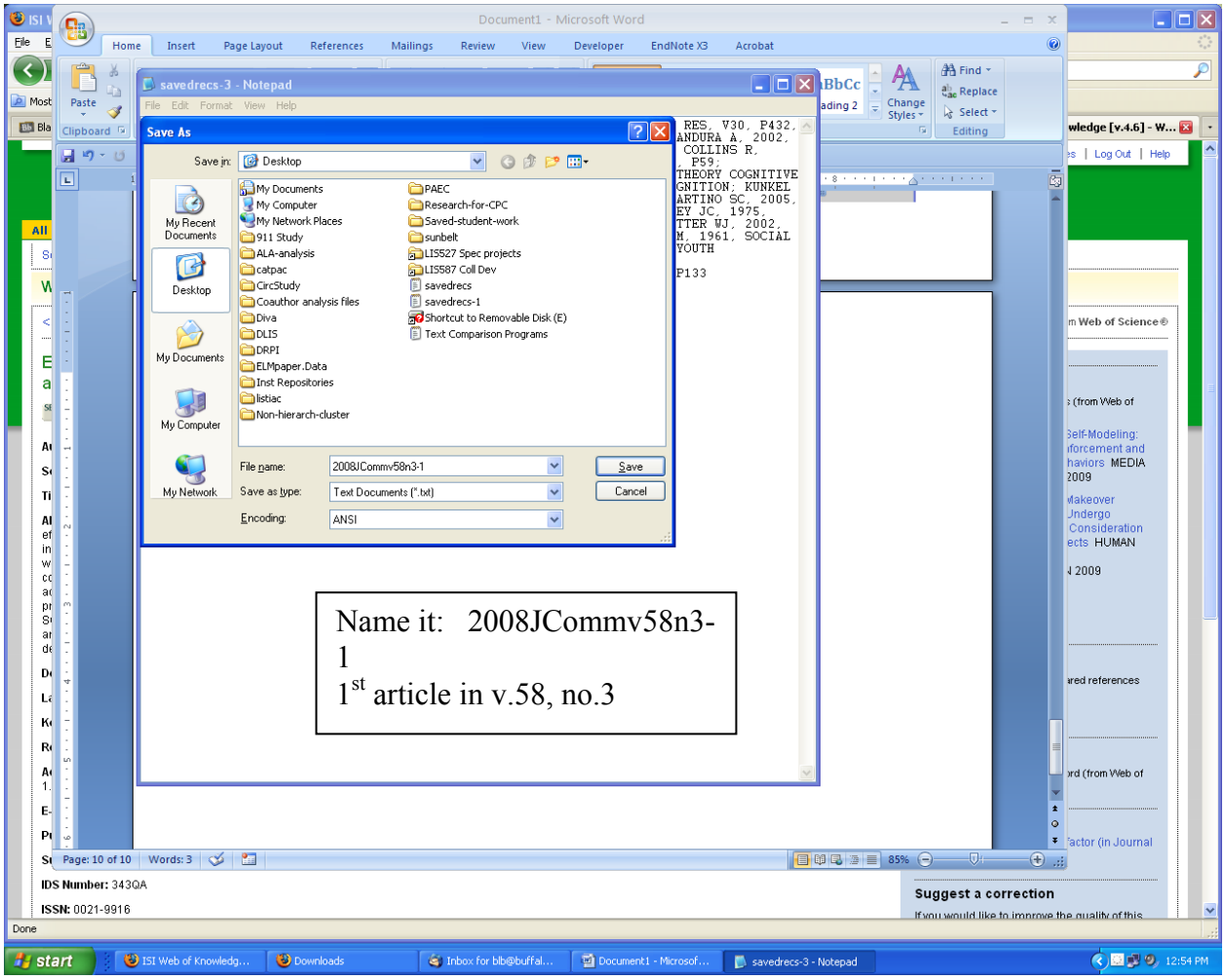
First Download Procedure: 2008 test data using *Web of Knowledge*®



4c Third, text portions of record below citations are deleted.

Appendix M-9A

First Download Procedure: 2008 test data using *Web of Knowledge*®



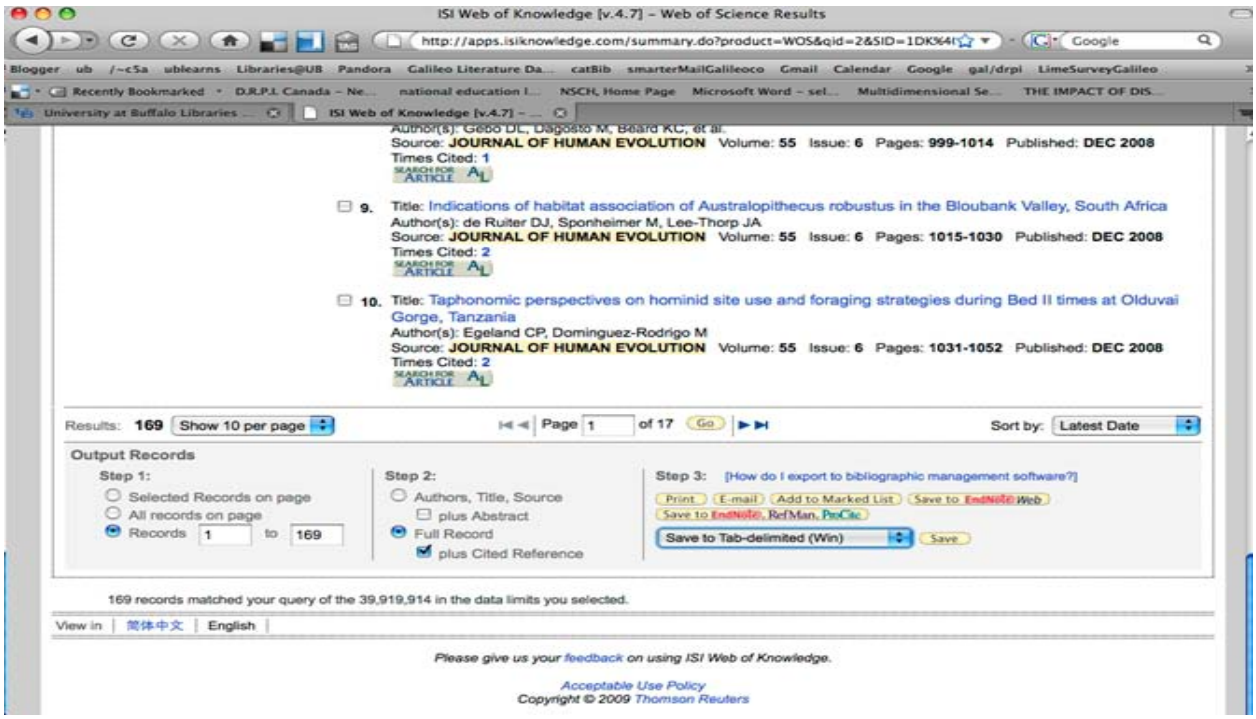
5. Temporary file is now saved as a new text file named to indicate year, journal name, and journal volume & issue.

In later project stages (i.e. non-test data), after using *Web of Science* to procure information for entire found set, the text file was opened in excel and the "text to columns" command (see Appendix Z for screen shots of this) was then used to modify format.

This consistently placed citation information in column Z (header CR from original data). The excel file was then renamed as follows: discipline abbreviation (ANTH, COM, ECON, GEOG, LIBSCI, POLSCI, PSYCH, or SOC), year found, journal name, # of total items downloaded. For example: ECON09jEconLit109.xls was the set found for Economics in 2009 from the Journal of Economic Literature and there were 109 items.

Appendix M-1B

Second Download Procedure: 2008 test data using *Web of Science®*



**be sure to click “full record” and “plus cited references”. Usually if your results don’t seem like what you expect this was the problem.

To open download text file in Excel:
data->getExternalData->import text file

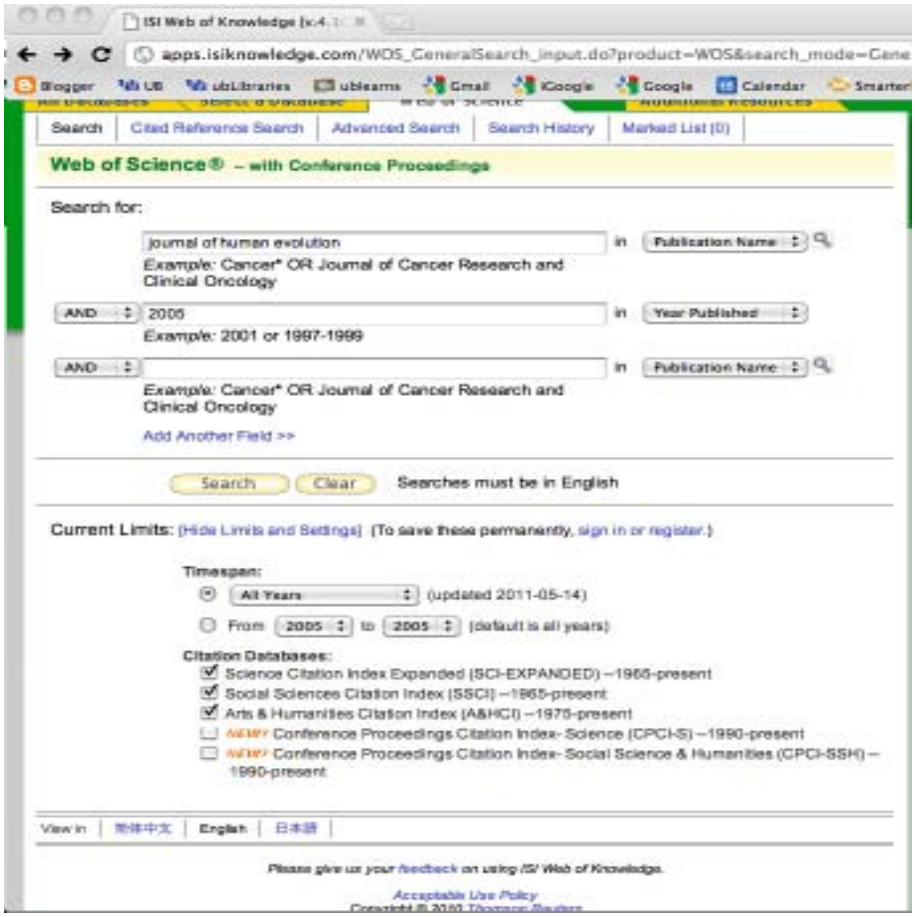
In text import wizard: choose delimited and press next, set delimiter as Tab and press next, press finish.

To delete non-citation bits in excel document go to column headed “CR” (column Z) and…
1. choose “Data”-> “text to columns”
2. set delimiter to semicolon
3. when it says “do you want to replace the contents of the destination cells?” say yes. It is ok to copy over this data because you will still have it available in the .txt file if you ever wish to see it but leaving it here will mess up your find/replacing as the journal title abbreviation often appears in later columns (ex columns AI and AJ for communication)

Note: if there are more than 71 citations then this will make your document have too many columns for .xls 2003 on a pc. Use the Mac and/or transpose (so columns are rows) or download in batches and then reassemble into single excel file.

Appendix N

Third (final) Download Procedure: Non-text data *Web of Science*®



Note that "conference proceedings" is now a choice. The same dataset will be found, however, if you leave all the default choices checked or not; accordingly all default choices were left unmodified (so "conference proceedings" was now checked)

1. Download full journal citation found set at once using Web of Science (as shown in Appendices K and M-1B).
2. On Mac, right click the .txt file created and open with Excel. Use data-> text to columns.

   Since after 2008 all data was counted using an Excel count sheet, rather than find/replace command to get count and change color for top 5 journals in all 8 disciplines, the citation acquisition procedure is now done.

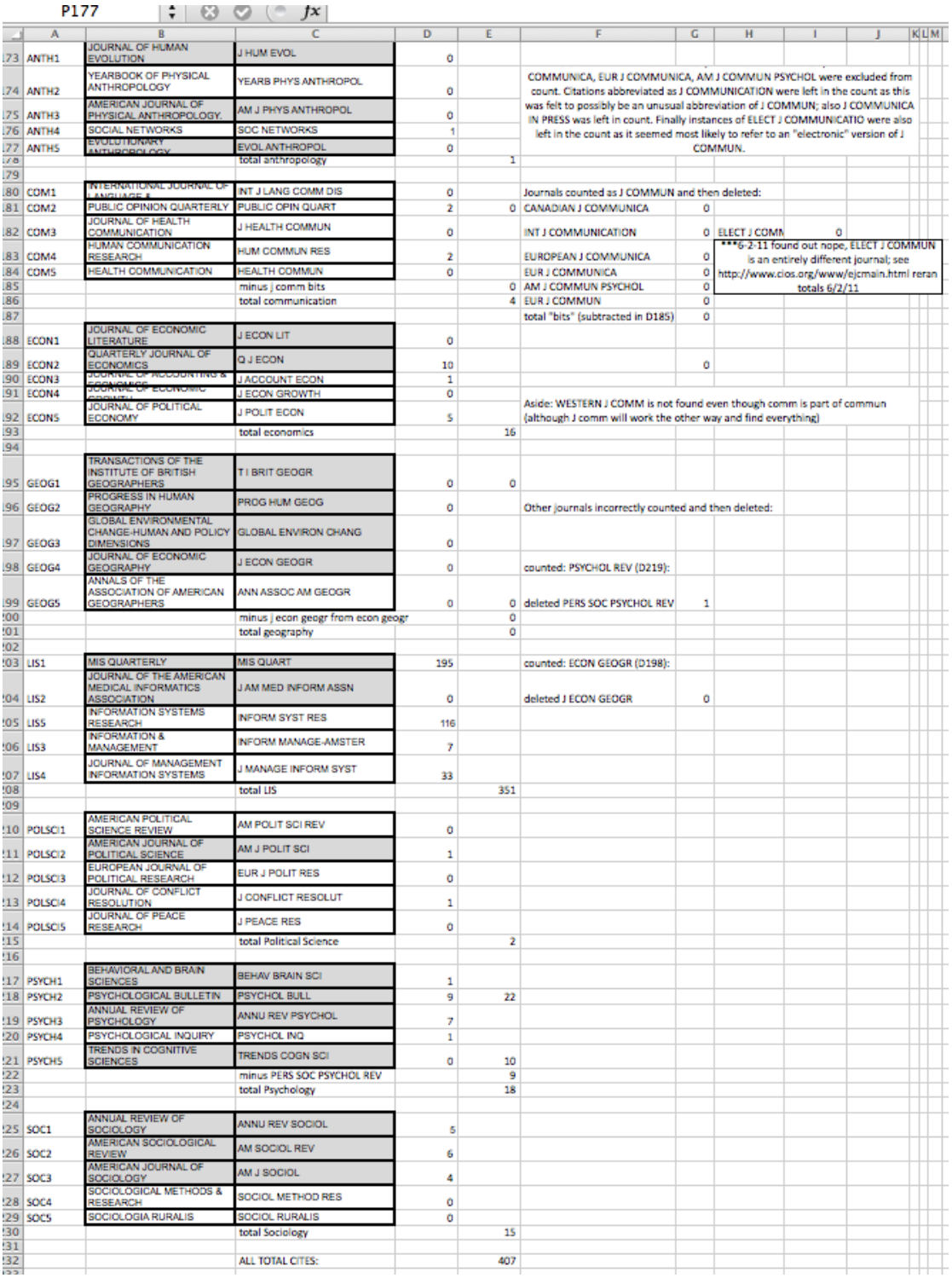
   All citations will be in column Z (header CR) and it will not matter if the journal name also appears in other columns; the new excel count sheet will only search column Z. This allows all downloaded information to be retained and available later if desired—as well as minimizes potential for accidental error in previous text modification procedures.

Appendix O: 2008 test data citation counts

	A	B	C	H	K	M	O	Q	T	W	Z	AA
1		total selections in 08 (not al		Anthro	commu	econon	geograp	informa	politica	psycho	sociology	
2		24	CULT ANTHROPOL	0	1	0	0	0	0	0	0	
3												
4	anthropol	169	J HUM EVOL	1264	0	0	0	0	0	1	0	
5	anthropology		EVOL ANTHROPOL	105	0	0	0	0	0	0	0	
6	anthropology		AM J PHYS ANTHRO	731	0	0	0	0	0	1	0	
7	anthropology		CURR ANTHROPOL	128	1	0	1	0	0	0	1	
8	anthropology/sociolo		SOC NETWORKS	0	0	0	0	0	0	0	8	
9	**anthropology: JO**		**URNAL OF HUMA**	**2228**	**1**	**0**	**1**	**0**	**0**	**2**	**9**	
10												
11	communica	57	J COMMUN - note: CA	0	102	1	0	2	1	0	0	
12	communication		J HEALTH COMMUN	0	14	0	0	0	0	1	0	
13	communication		PUBLIC OPIN QUART	0	24	3	0	2	1	0	2	
14	communication		J COMPUT-MEDIAT C	0	0	0	0	0	0	0	0	
15	communication		HUM COMMUN RES	0	27	0	0	8	1	0	0	
16	**communication: JOU**		**RNAL OF COMMUI**	**0**	**167**	**4**	**0**	**12**	**3**	**1**	**2**	
17												
18	economics	41	Q J ECON	0	2	138	0	4	2	7	14	
19	economics		J ECON LIT	0	2	14	0	2	1	2	8	
20	economics		J ECON PERSPECT	0	3	25	1	2	0	2	6	
21	economics		ECONOMETRICA	0	0	43	0	6	9	4	4	
22	economics		J POLIT ECON	0	4	86	0	6	3	2	9	
23	**economics: QUARTE**		**RLY JOURNAL OF**	**0**	**11**	**306**	**1**	**20**	**15**	**17**	**41**	
24												
25	geography	39	T I BRIT GEOGR	0	0	0	95	0	0	0	1	
26	geography		GLOBAL ENVIRON C	0	0	0	5	0	0	0	0	
27	geography		PROG HUM GEOG	0	0	0	46	0	0	0	0	
28	geography		ECON GEOGR	0	0	0	12	0	0	0	1	
29	geography		J ECON GEOGR	0	0	0	6	0	0	0	0	
30	**geography: TRAN**		**SACTIONS OF TH**	**0**	**0**	**0**	**164**	**0**	**0**	**0**	**2**	
31												
32	info&libSc	39	MIS QUART [*be su	0	0	0	0	226	0	3	0	
33	info&libSci		J AM MED INFORM A	0	1	0	0	0	0	0	0	
34	info&libSci		ANNU REV INFORM	0	0	0	0	2	0	0	0	
35	info&libSci		INFORM SYST J	0	0	0	0	8	0	0	0	
36	info&libSci		INFORM MANAGE-A	0	0	0	0	18	0	0	0	
37	**info&libSci: MIS QUARTERLY**			**0**	**1**	**0**	**0**	**254**	**0**	**3**	**0**	
38												
39	politicalSc	29	POLIT ANAL	0	0	0	0	0	46	0	1	
40	politicalSci		EUR J POLIT RES	0	2	0	0	0	1	0	0	
41	politicalSci		AM J POLIT SCI	0	9	0	0	0	64	0	2	
42	politicalSci		POLIT GEOGR	0	0	0	22	0	1	0	1	
43	politicalSci		EUR UNION POLIT	0	0	0	0	0	1	0	0	
44	**politicalSci: POLI**		**TICAL ANALYSIS**	**0**	**11**	**0**	**22**	**0**	**113**	**0**	**4**	
45												
46	psycholog	24	ANNU REV PSYCHO	0	5	1	0	4	0	62	0	
47	psychology		BEHAV BRAIN SCI	3	2	0	0	0	0	20	0	
48	psychology		PSYCHOL BULL	0	12	1	0	11	0	42	4	
49	psychology		PSYCHOL REV	0	5	3	1	3	0	94	2	
50	psychology		TRENDS COGN SCI	1	0	3	0	0	0	19	0	
51	**psychology: ANNU**		**AL REVIEW OF**	**4**	**24**	**8**	**1**	**18**	**0**	**237**	**6**	
52												
53	sociology	47	AM SOCIOL REV	0	13	6	3	6	5	0	179	
54	sociology		AM J SOCIOL	0	10	1	0	5	1	0	147	
55	sociology		ANNU REV SOCIOL	0	2	0	2	2	0	0	61	
56	sociology		SOC PROBL	0	1	1	0	0	0	0	15	
57	**sociology: AMERI**		**CAN SOCIOLOGI**	**0**	**26**	**8**	**5**	**13**	**6**	**0**	**402**	
58												
59												
60	note1: SOC NETWORKS listed in anthropology was 5th sociology journal											
61	note2: the .txt files were searched to verify count when number changed (also old files were consulted to see why)											
62	note3: suspect polisci and com citations were originally downloaded articles only											
63	note4: original anth missing citations from longest records (too long for excel, had to split into two files--newer downloads were split differently yet retained same overall count. Yay.)											
64	note5: all cult anth refs in soc were in different articles (so 4 refs=4 dif articles)											
65	note6:in com: j commun # is minus 1-J COMMUNICA IN PRESS, 1-INT J COMMUNICATION, 1-CANADIAN J											
66	COMMUNICA, 6-EUR J COMMUN, 1-EUROPEAN J COMMUNICA/ left in ELECT J COMMUNICATIO, J COMMUNICATION though as I thought they were probably meant to be j commun (one incorrectly											
67	abbreviated and the other perhaps indicating the electronic version of j commun)											

Appendix P-1

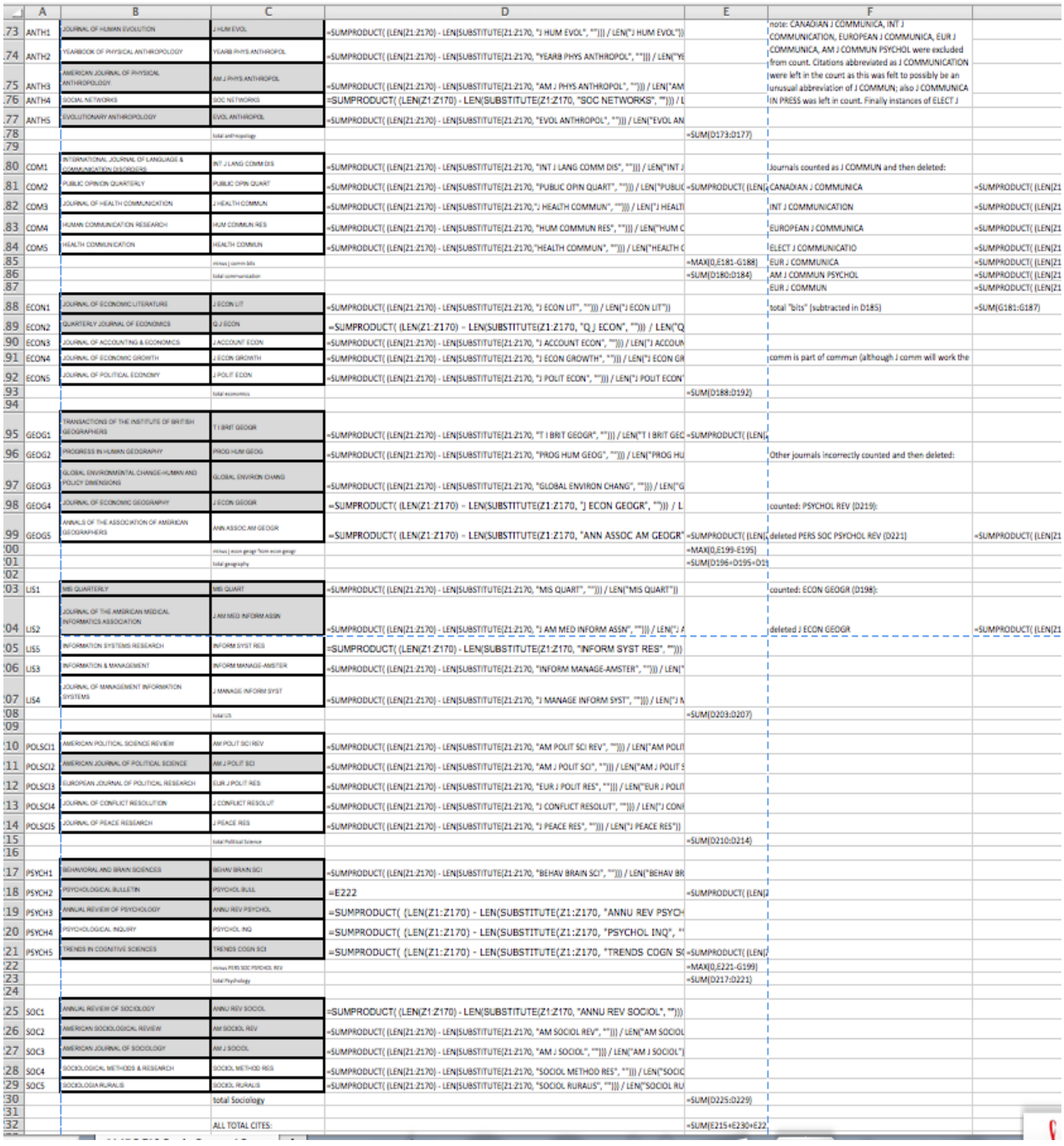
Count worksheet example for Library and Information Science 2006 (screenshot from Excel)



	A	B	C	D	E	F	G	H	I	J
173	ANTH1	JOURNAL OF HUMAN EVOLUTION	J HUM EVOL	0						
174	ANTH2	YEARBOOK OF PHYSICAL ANTHROPOLOGY	YEARB PHYS ANTHROPOL	0		COMMUNICA, EUR J COMMUNICA, AM J COMMUN PSYCHOL were excluded from count. Citations abbreviated as J COMMUNICATION were left in the count as this was felt to possibly be an unusual abbreviation of J COMMUN; also J COMMUNICA IN PRESS was left in count. Finally instances of ELECT J COMMUNICATIO were also left in the count as it seemed most likely to refer to an "electronic" version of J COMMUN.				
175	ANTH3	AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY.	AM J PHYS ANTHROPOL	0						
176	ANTH4	SOCIAL NETWORKS	SOC NETWORKS	1						
177	ANTH5	EVOLUTIONARY ANTHROPOLOGY	EVOL ANTHROPOL	0						
178			total anthropology		1					
179										
180	COM1	INTERNATIONAL JOURNAL OF LANGUAGE &	INT J LANG COMM DIS	0		Journals counted as J COMMUN and then deleted:				
181	COM2	PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	2	0	CANADIAN J COMMUNICA	0			
182	COM3	JOURNAL OF HEALTH COMMUNICATION	J HEALTH COMMUN	0		INT J COMMUNICATION	0	ELECT J COMM	0	
183	COM4	HUMAN COMMUNICATION RESEARCH	HUM COMMUN RES	2		EUROPEAN J COMMUNICA	0	***6-2-11 found out nope, ELECT J COMMUN is an entirely different journal; see http://www.cios.org/www/ejcmain.html reran totals 6/2/11		
184	COM5	HEALTH COMMUNICATION	HEALTH COMMUN	0		EUR J COMMUNICA	0			
185			minus j comm bits		0	AM J COMMUN PSYCHOL	0			
186			total communication		4	EUR J COMMUN	0			
187						total "bits" (subtracted in D185)	0			
188	ECON1	JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	0						
189	ECON2	QUARTERLY JOURNAL OF ECONOMICS	Q J ECON	10			0			
190	ECON3	JOURNAL OF ACCOUNTING & ECONOMICS	J ACCOUNT ECON	1						
191	ECON4	JOURNAL OF ECONOMIC GROWTH	J ECON GROWTH	0						
192	ECON5	JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	5		Aside: WESTERN J COMM is not found even though comm is part of commun (although J comm will work the other way and find everything)				
193			total economics		16					
194										
195	GEOG1	TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	0	0					
196	GEOG2	PROGRESS IN HUMAN GEOGRAPHY	PROG HUM GEOG	0		Other journals incorrectly counted and then deleted:				
197	GEOG3	GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS	GLOBAL ENVIRON CHANG	0						
198	GEOG4	JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	0		counted: PSYCHOL REV (D219):				
199	GEOG5	ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS	ANN ASSOC AM GEOGR	0	0	deleted PERS SOC PSYCHOL REV	1			
200			minus j econ geogr from econ geogr		0					
201			total geography		0					
202										
203	LIS1	MIS QUARTERLY	MIS QUART	195		counted: ECON GEOGR (D198):				
204	LIS2	JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION	J AM MED INFORM ASSN	0		deleted J ECON GEOGR	0			
205	LIS5	INFORMATION SYSTEMS RESEARCH	INFORM SYST RES	116						
206	LIS3	INFORMATION & MANAGEMENT	INFORM MANAGE-AMSTER	7						
207	LIS4	JOURNAL OF MANAGEMENT INFORMATION SYSTEMS	J MANAGE INFORM SYST	33						
208			total LIS		351					
209										
210	POLSCI1	AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	0						
211	POLSCI2	AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	1						
212	POLSCI3	EUROPEAN JOURNAL OF POLITICAL RESEARCH	EUR J POLIT RES	0						
213	POLSCI4	JOURNAL OF CONFLICT RESOLUTION	J CONFLICT RESOLUT	1						
214	POLSCI5	JOURNAL OF PEACE RESEARCH	J PEACE RES	0						
215			total Political Science		2					
216										
217	PSYCH1	BEHAVIORAL AND BRAIN SCIENCES	BEHAV BRAIN SCI	1						
218	PSYCH2	PSYCHOLOGICAL BULLETIN	PSYCHOL BULL	9	22					
219	PSYCH3	ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	7						
220	PSYCH4	PSYCHOLOGICAL INQUIRY	PSYCHOL INQ	1						
221	PSYCH5	TRENDS IN COGNITIVE SCIENCES	TRENDS COGN SCI	0	10					
222			minus PERS SOC PSYCHOL REV		9					
223			total Psychology		18					
224										
225	SOC1	ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	5						
226	SOC2	AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	6						
227	SOC3	AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	4						
228	SOC4	SOCIOLOGICAL METHODS & RESEARCH	SOCIOL METHOD RES	0						
229	SOC5	SOCIOLOGIA RURALIS	SOCIOL RURALIS	0						
230			total Sociology		15					
231										
232			ALL TOTAL CITES:		407					

Appendix P-2

Count worksheet example w/formulas for Library and Info Science 2006 (screenshot from Excel)



	A	B	C	D	E	F	
73	ANTH1	JOURNAL OF HUMAN EVOLUTION	J HUM EVOL	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HUM EVOL", "")) / LEN("J HUM EVOL"))		note: CANADIAN J COMMUNICA, INT J COMMUNICATION, EUROPEAN J COMMUNICA, EUR J COMMUNICA, AM J COMMUN PSYCHOL were excluded from count. Citations abbreviated as J COMMUNICATION were left in the count as this was felt to possibly be an unusual abbreviation of J COMMUN; also J COMMUNICA IN PRESS was left in count. Finally instances of ELECT J	
74	ANTH2	YEARBOOK OF PHYSICAL ANTHROPOLOGY	YEARB PHYS ANTHROPOL	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "YEARB PHYS ANTHROPOL", "")) / LEN("YE			
75	ANTH3	AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY	AM J PHYS ANTHROPOL	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J PHYS ANTHROPOL", "")) / LEN("AM			
76	ANTH4	SOCIAL NETWORKS	SOC NETWORKS	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOC NETWORKS", "")) / L			
77	ANTH5	EVOLUTIONARY ANTHROPOLOGY	EVOL ANTHROPOL	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EVOL ANTHROPOL", "")) / LEN("EVOL AN			
78			total anthropology		=SUM(D173:D177)		
79							
80	COM1	INTERNATIONAL JOURNAL OF LANGUAGE & COMMUNICATION DISORDERS	INT J LANG COMM DIS	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INT J LANG COMM DIS", "")) / LEN("INT J		Journals counted as J COMMUN and then deleted:	
81	COM2	PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC OPIN QUART", "")) / LEN("PUBLIC	=SUMPRODUCT(LEN(Z	CANADIAN J COMMUNICA	=SUMPRODUCT(LEN(Z1
82	COM3	JOURNAL OF HEALTH COMMUNICATION	J HEALTH COMMUN	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"J HEALTH COMMUN", "")) / LEN("J HEALT		INT J COMMUNICATION	=SUMPRODUCT(LEN(Z1
83	COM4	HUMAN COMMUNICATION RESEARCH	HUM COMMUN RES	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "HUM COMMUN RES", "")) / LEN("HUM C		EUROPEAN J COMMUNICA	=SUMPRODUCT(LEN(Z1
84	COM5	HEALTH COMMUNICATION	HEALTH COMMUN	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"HEALTH COMMUN", "")) / LEN("HEALTH C		ELECT J COMMUNICATIO	=SUMPRODUCT(LEN(Z1
85			minus J comm bits		=MAX(0,E181-G188)	EUR J COMMUNICA	=SUMPRODUCT(LEN(Z1
86			total communication		=SUM(D180:D184)	AM J COMMUN PSYCHOL	=SUMPRODUCT(LEN(Z1
87						EUR J COMMUN	=SUMPRODUCT(LEN(Z1
88	ECON1	JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON LIT", "")) / LEN("J ECON LIT"))		total "bits" (subtracted in D185)	=SUM(G181:G187)
89	ECON2	QUARTERLY JOURNAL OF ECONOMICS	Q J ECON	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", "")) / LEN("Q			
90	ECON3	JOURNAL OF ACCOUNTING & ECONOMICS	J ACCOUNT ECON	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ACCOUNT ECON", "")) / LEN("J ACCOUN			
91	ECON4	JOURNAL OF ECONOMIC GROWTH	J ECON GROWTH	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GROWTH", "")) / LEN("J ECON GR		comm is part of commun (although J comm will work the	
92	ECON5	JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J POLIT ECON", "")) / LEN("J POLIT ECON"			
93			total economics		=SUM(D188:D192)		
94							
95	GEOG1	TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "T I BRIT GEOGR", "")) / LEN("T I BRIT GEO	=SUMPRODUCT(LEN(Z		
96	GEOG2	PROGRESS IN HUMAN GEOGRAPHY	PROG HUM GEOG	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PROG HUM GEOG", "")) / LEN("PROG HU		Other journals incorrectly counted and then deleted:	
97	GEOG3	GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS	GLOBAL ENVIRON CHANG	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL ENVIRON CHANG", "")) / LEN("G			
98	GEOG4	JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", "")) / L		counted: PSYCHOL REV (D219):	
99	GEOG5	ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS	ANN ASSOC AM GEOGR	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANN ASSOC AM GEOGR"	=SUMPRODUCT(LEN(Z	deleted PERS SOC PSYCHOL REV (D221)	=SUMPRODUCT(LEN(Z1
100			minus J econ geogr from econ geogr		=MAX(0,E199-E195)		
101			total geography		=SUM(D196+D195+D19		
102							
103	LIS1	MIS QUARTERLY	MIS QUART	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "MIS QUART", "")) / LEN("MIS QUART"))		counted: ECON GEOGR (D198):	
104	LIS2	JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION	J AM MED INFORM ASSN	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J AM MED INFORM ASSN", "")) / LEN("J A		deleted J ECON GEOGR	=SUMPRODUCT(LEN(Z1
105	LIS5	INFORMATION SYSTEMS RESEARCH	INFORM SYST RES	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INFORM SYST RES", ""))			
106	LIS3	INFORMATION & MANAGEMENT	INFORM MANAGE-AMSTER	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INFORM MANAGE-AMSTER", "")) / LEN("			
107	LIS4	JOURNAL OF MANAGEMENT INFORMATION SYSTEMS	J MANAGE INFORM SYST	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J MANAGE INFORM SYST", "")) / LEN("J M			
108			total LIS		=SUM(D203:D207)		
109							
110	POLSCI1	AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM POLIT SCI REV", "")) / LEN("AM POLIT			
111	POLSCI2	AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J POLIT SCI", "")) / LEN("AM J POLIT S			
112	POLSCI3	EUROPEAN JOURNAL OF POLITICAL RESEARCH	EUR J POLIT RES	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EUR J POLIT RES", "")) / LEN("EUR J POLIT			
113	POLSCI4	JOURNAL OF CONFLICT RESOLUTION	J CONFLICT RESOLUT	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J CONFLICT RESOLUT", "")) / LEN("J CONF			
114	POLSCI5	JOURNAL OF PEACE RESEARCH	J PEACE RES	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J PEACE RES", "")) / LEN("J PEACE RES"))			
115			total Political Science		=SUM(D210:D214)		
116							
117	PSYCH1	BEHAVIORAL AND BRAIN SCIENCES	BEHAV BRAIN SCI	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "BEHAV BRAIN SCI", "")) / LEN("BEHAV BR			
118	PSYCH2	PSYCHOLOGICAL BULLETIN	PSYCHOL BULL	=E222	=SUMPRODUCT(LEN(Z		
119	PSYCH3	ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV PSYCH			
120	PSYCH4	PSYCHOLOGICAL INQUIRY	PSYCHOL INQ	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL INQ", "			
121	PSYCH5	TRENDS IN COGNITIVE SCIENCES	TRENDS COGN SCI	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "TRENDS COGN SC	=SUMPRODUCT(LEN(Z		
122			minus PERS SOC PSYCHOL REV		=MAX(0,E221-G199)		
123			total Psychology		=SUM(D217:D221)		
124							
125	SOC1	ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV SOCIOL", ""))			
126	SOC2	AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM SOCIOL REV", "")) / LEN("AM SOCIOL			
127	SOC3	AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J SOCIOL", "")) / LEN("AM J SOCIOL")			
128	SOC4	SOCIOLOGICAL METHODS & RESEARCH	SOCIOL METHOD RES	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOCIOL METHOD RES", "")) / LEN("SOCIO			
129	SOC5	SOCIOLOGIA RURALIS	SOCIOL RURALIS	=SUMPRODUCT(LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOCIOL RURALIS", "")) / LEN("SOCIOL RU			
130			total Sociology		=SUM(D225:D229)		
131							
132			ALL TOTAL CITES:		=SUM(E215+E230+E22		

*To show all formulas in a worksheet at once, press control + ~ (tilde) key; note that there is no need to shift before pressing the ~ key.

Appendix Q-1

Top 5 impact factor journals for disciplines by year, 2005-2009

shading=Journals in top 5 ranking all 5 years

Re: result totals reported:

1 ECON GEOGR totals have had J ECON GEOGR totals subtracted

2 J COMMUN totals have had CANADIAN J COMMUNICA, INT J COMMUNICA, EUR J COMMUNICA, AM J COMMUN PSYCHOL, AND EUR J COMMUN totals subtracted [WESTERN J COMM is not found searching for j commun even though comm is part of commun--although J comm will work the other way and find all j commun)

3 PSYCHOL REV totals have had PERS SOC PSYCHOL REV subtracted

Re: counting:

1 For 2005 Psychology citations range was increased [example formula: =SUMPRODUCT((LEN(Z1:Z366) - LEN(SUBSTITUTE(Z1:Z366, "J HUM EVOL", ""))) / LEN("J HUM EVOL"))]

2 For 2005 Sociology citations range was increased [=SUMPRODUCT((LEN(Z18:Z187) - LEN(SUBSTITUTE(Z18:Z187, "EVOL ANTHROPOL", ""))) / LEN("EVOL ANTHROPOL"))]

Re: article # vs. record #

All possible records were downloaded from web of science. Many of these were editorial reviews (for example in Behavioral and Brain Sciences), book reviews (for example in AM J PYS ANTHROPOL), and proceedings papers (for example in American Journal of Sociology), etc.; they usually had citations though so it was felt they should be included to gain the most complete picture of possible interdisciplinary citations possible. Meeting abstracts did not include citations (for example in AM J PHYS ANTHROPOL) but were also downloaded since lack of citations did not harm results and otherwise unnecessary errors were easily introduced (Web of Science sorting by document type was not entirely reliable; this was verified in 2010 by Joseph Petrick, librarian at Alfred State University).

1 Anthropology

2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	J HUM EVOL	0047-2484	2491	3.077	0.493	67	8.1
2	EVOL ANTHROPOL	1060-1538	630	2.391	0.429	14	6.0
3	CURR ANTHROPOL	0011-3204	1690	2.289	0.431	51	9.8
4	AM J PHYS ANTHROPOL	0002-9483	5221	2.104	0.375	160	>10.0
5	ANNU REV ANTHROPOL	0084-6570	944	1.644	0.086	35	>10.0

Anthropology, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF HUMAN EVOLUTION	J HUM EVOL	95	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HUM EVOL", ""))) / LEN("J HUM EVOL"))
EVOLUTIONARY ANTHROPOLOGY	EVOL ANTHROPOL	44	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EVOL ANTHROPOL", ""))) / LEN("EVOL ANTHROPOL"))
CURRENT ANTHROPOLOGY	CURR ANTHROPOL	113	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "CURR ANTHROPOL", ""))) / LEN("CURR ANTHROPOL"))
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY.	AM J PHYS ANTHROPOL	857	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J PHYS ANTHROPOL", ""))) / LEN("AM J PHYS ANTHROPOL"))
ANNUAL REVIEW OF ANTHROPOLOGY	ANNU REV ANTHROPOL	36	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV ANTHROPOL", "")))

Appendix Q-2

2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	J HUM EVOL	0047-2484	3003	3.267	0.759	79	8.3
2	YEARB PHYS ANTHROPOL	0096-848X	522	2.143	0.000	4	>10.0
3	AM J PHYS ANTHROPOL	0002-9483	6007	2.136	0.462	173	>10.0
4	SOC NETWORKS	0378-8733	775	1.919	0.000	25	>10.0
5	EVOL ANTHROPOL	1060-1538	648	1.875	0.467	15	6.5

Anthropology, top 5 impact factor 2006			
journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF HUMAN EVOLUTION	J HUM EVOL	102	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HUM EVOL", ""))) / LEN("J HUM EVOL"))
YEARBOOK OF PHYSICAL ANTHROPOLOGY	YEARB PHYS ANTHROPOL	4	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "YEARB PHYS ANTHROPOL", ""))) / LEN("YEARB PHYS ANTHROPOL"))
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY.	AM J PHYS ANTHROPOL	773	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J PHYS ANTHROPOL", ""))) / LEN("AM J PHYS ANTHROPOL"))
SOCIAL NETWORKS	SOC NETWORKS	28	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOC NETWORKS", ""))) / LEN("SOC NETWORKS"))
EVOLUTIONARY ANTHROPOLOGY	EVOL ANTHROPOL	36	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EVOL ANTHROPOL", ""))) / LEN("EVOL ANTHROPOL"))

2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	EVOL ANTHROPOL	1060-1538	807	3.138	2.136	0.250	16	7.3	0.00437	1.278
2	J HUM EVOL	0047-2484	3148	2.712	3.251	1.014	71	8.5	0.01087	1.466
3	CURR ANTHROPOL	0011-3204	2032	2.312	2.432	0.229	48	>10.0	0.00808	1.485
4	AM J PHYS ANTHROPOL	0002-9483	6292	2.273	2.624	0.323	158	>10.0	0.01480	1.021
5	GLOBAL NETW	1470-2266	269	1.886		0.080	25	4.0	0.00213	

Anthropology, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
EVOLUTIONARY ANTHROPOLOGY	EVOL ANTHROPOL	42	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EVOL ANTHROPOL", ""))) / LEN("EVOL ANTHROPOL"))
JOURNAL OF HUMAN EVOLUTION	J HUM EVOL	122	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HUM EVOL", ""))) / LEN("J HUM EVOL"))
CURRENT ANTHROPOLOGY	CURR ANTHROPOL	90	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "CURR ANTHROPOL", ""))) / LEN("CURR ANTHROPOL"))
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY.	AM J PHYS ANTHROPOL	1064	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J PHYS ANTHROPOL", ""))) / LEN("AM J PHYS ANTHROPOL"))
GLOBAL NETWORKS-A JOURNAL OF TRANSNATIONAL AFFAIRS	GLOBAL NETW	28	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL NETW", ""))) / LEN("GLOBAL NETW"))

Appendix Q-3

2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	J HUM EVOL	0047-2484	4519	3.550	4.310	1.336	137	8.6	0.00983	1.297
2	EVOL ANTHROPOL	1060-1538	966	3.484	3.725	1.111	18	7.6	0.00298	1.475
3	AM J PHYS ANTHROPOL	0002-9483	7241	2.353	2.690	0.456	147	>10.0	0.01258	0.830
4	SOC NETWORKS	0378-8733	1276	2.068	2.929	0.276	29	>10.0	0.00318	1.269
5	CURR ANTHROPOL	0011-3204	2413	2.032	2.718	0.412	51	>10.0	0.00681	1.313

Anthropology, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF HUMAN EVOLUTION	J HUM EVOL	169	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HUM EVOL", ""))) / LEN("J HUM EVOL"))
EVOLUTIONARY ANTHROPOLOGY	EVOL ANTHROPOL	37	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EVOL ANTHROPOL", ""))) / LEN("EVOL ANTHROPOL"))
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY.	AM J PHYS ANTHROPOL	940	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J PHYS ANTHROPOL", ""))) / LEN("AM J PHYS ANTHROPOL"))
SOCIAL NETWORKS	SOC NETWORKS	29	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOC NETWORKS", ""))) / LEN("SOC NETWORKS"))
CURRENT ANTHROPOLOGY	CURR ANTHROPOL	109	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "CURR ANTHROPOL", ""))) / LEN("CURR ANTHROPOL"))

2009:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	EVOL ANTHROPOL	1060-1538	1235	3.382	3.864	0.714	14	8.5	0.00340	2.012
2	CULT ANTHROPOL	0886-7356	962	3.350	3.097	0.810	21	9.3	0.00293	1.365
3	J HUM EVOL	0047-2484	5242	2.987	4.077	1.273	99	8.9	0.01486	1.664
4	AM J PHYS ANTHROPOL	0002-9483	7924	2.756	2.903	0.665	170	>10.0	0.01473	0.978
5	SOC NETWORKS	0378-8733	1485	2.349	3.328	0.370	27	>10.0	0.00357	1.369

Anthropology, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
EVOLUTIONARY ANTHROPOLOGY	EVOL ANTHROPOL	52	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EVOL ANTHROPOL", ""))) / LEN("EVOL ANTHROPOL"))
CULTURAL ANTHROPOLOGY	CULT ANTHROPOL	25	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "CULT ANTHROPOL", ""))) / LEN("CULT ANTHROPOL"))
JOURNAL OF HUMAN EVOLUTION	J HUM EVOL	119	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HUM EVOL", ""))) / LEN("J HUM EVOL"))
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY	AM J PHYS ANTHROPOL	1180	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J PHYS ANTHROPOL", ""))) / LEN("AM J PHYS ANTHROPOL"))
SOCIAL NETWORKS	SOC NETWORKS	27	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOC NETWORKS", ""))) / LEN("SOC NETWORKS"))

Appendix Q-4

2 Communication
2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	PUBLIC OPIN QUART	0033-362X	1700	1.509	0.324	34	>10.0
2	COMMUN THEOR	1050-3293	220	1.472	0.182	22	6.6
3	RES LANG SOC INTERAC	0835-1813	245	1.357	0.500	14	7.4
4	POLIT COMMUN	1058-4609	347	1.261	0.074	27	5.7
5	COMMUN RES	0093-6502	990	1.255	0.214	28	>10.0

Communication, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	67	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC OPIN QUART", ""))) / LEN("PUBLIC OPIN QUART"))
COMMUNICATION THEORY	COMMUN THEOR	25	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "COMMUN THEOR", ""))) / LEN("COMMUN THEOR"))
RESEARCH ON LANGUAGE AND SOCIAL INTERACTION	RES LANG SOC INTERAC	15	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"RES LANG SOC INTERAC", ""))) / LEN("RES LANG SOC INTERAC"))
POLITICAL COMMUNICATION	POLIT COMMUN	57	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "POLIT COMMUN", ""))) / LEN("POLIT COMMUN"))
COMMUNICATION RESEARCH	COMMUN RES	29	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"COMMUN RES", ""))) / LEN("COMMUN RES"))

2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	INT J LANG COMM DIS	1368-2822	340	1.612	0.135	37	5.2
2	PUBLIC OPIN QUART	0033-362X	1970	1.550	0.212	33	>10.0
3	J HEALTH COMMUN	1081-0730	550	1.387	0.161	62	4.4
4	HUM COMMUN RES	0360-3989	923	1.372	0.143	21	>10.0
5	HEALTH COMMUN	1041-0236	414	1.169	0.208	53	6.6

Communication, top 5 impact factor 2006			
Journal name	Journal Abbrev.	# of records	Excel count formula
INTERNATIONAL JOURNAL OF LANGUAGE & COMMUNICATION DISORDERS	INT J LANG COMM DIS	55	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INT J LANG COMM DIS", ""))) / LEN("INT J LANG COMM DIS"))
PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	52	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC OPIN QUART", ""))) / LEN("PUBLIC OPIN QUART"))
JOURNAL OF HEALTH COMMUNICATION	J HEALTH COMMUN	88	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"J HEALTH COMMUN", ""))) / LEN("J HEALTH COMMUN"))
HUMAN COMMUNICATION RESEARCH	HUM COMMUN RES	21	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "HUM COMMUN RES", ""))) / LEN("HUM COMMUN RES"))
HEALTH COMMUNICATION	HEALTH COMMUN	62	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"HEALTH COMMUN", ""))) / LEN("HEALTH COMMUN"))

Appendix Q-5

2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	PUBLIC OPIN QUART	0033-362X	2189	2.030	2.349	0.658	38	>10.0	0.00498	1.467
2	J HEALTH COMMUN	1081-0730	709	1.836	2.021	0.136	44	4.0	0.00433	0.773
3	AUGMENT ALTERN COMM	0743-4618	557	1.591		0.889	27	9.0	0.00058	
4	COMMUN MONOGR	0363-7751	651	1.512	1.491	0.121	33	>10.0	0.00154	0.613
5	COMMUN RES	0093-6502	1305	1.481	2.191	0.103	29	>10.0	0.00329	1.041

Communication, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	53	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC OPIN QUART", ""))) / LEN("PUBLIC OPIN QUART"))
JOURNAL OF HEALTH COMMUNICATION	J HEALTH COMMUN	64	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"J HEALTH COMMUN", ""))) / LEN("J HEALTH COMMUN"))
AUGMENTATIVE AND ALTERNATIVE COMMUNICATION	AUGMENT ALTERN COMM	32	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"AUGMENT ALTERN COMM", ""))) / LEN("AUGMENT ALTERN COMM"))
COMMUNICATION MONOGRAPHS	COMMUN MONOGR	35	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "COMMUN MONOGR", ""))) / LEN("COMMUN MONOGR"))
COMMUNICATION RESEARCH	COMMUN RES	29	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"COMMUN RES", ""))) / LEN("COMMUN RES"))

2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	J COMMUN	0021-9916	1816	2.266	2.365	0.122	41	9.9	0.00514	1.059
2	J HEALTH COMMUN	1081-0730	955	2.057	2.431	0.087	46	4.6	0.00579	0.998
3	PUBLIC OPIN QUART	0033-362X	2565	1.972	2.606	0.262	42	>10.0	0.00482	1.360
4	J COMPUT-MEDIAT COMM	1083-6101	803	1.901		0.250	36	4.6	0.00360	
5	HUM COMMUN RES	0360-3989	1339	1.689	2.112	0.423	26	>10.0	0.00271	1.054

Communication, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	
JOURNAL OF COMMUNICATION	J COMMUN	57	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J COMMUN", ""))) / LEN("J COMMUN"))
JOURNAL OF HEALTH COMMUNICATION	J HEALTH COMMUN	64	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HEALTH COMMUN", ""))) / LEN("J HEALTH COMMUN"))
PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	62	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC OPIN QUART", ""))) / LEN("PUBLIC OPIN QUART"))
JOURNAL OF COMPUTER-MEDIATED COMMUNICATION	J COMPUT-MEDIAT COMM	38	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J COMPUT-MEDIAT COMM", "")
HUMAN COMMUNICATION RESEARCH	HUM COMMUN RES	26	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"HUM COMMUN RES", ""))) / LEN("HUM COMMUN RES"))

2009:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	J COMPUT-MEDIAT COMM	1083-6101	1279	3.639		0.017	60	4.6	0.00457	
2	J COMMUN	0021-9916	2188	2.415	2.765	0.189	37	>10.0	0.00557	1.230
3	HUM COMMUN RES	0360-3989	1466	2.200	2.482	0.207	29	>10.0	0.00266	1.120
4	PUBLIC UNDERST SCI	0963-6625	670	1.981	2.124	0.104	48	8.1	0.00254	1.004
5	CYBERPSYCHOL BEHAV	1094-9313	1940	1.591	2.472	0.150	100	5.2	0.00565	0.576

Communication, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF COMPUTER-MEDIATED COMMUNICATION	J COMPUT-MEDIAT COMM	60	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J COMPUT-MEDIAT COMM", ""))) / LEN("J COMPUT-MEDIAT COMM"))
JOURNAL OF COMMUNICATION	J COMMUN	69	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J COMMUN", ""))) / LEN("J COMMUN"))
HUMAN COMMUNICATION RESEARCH	HUM COMMUN RES	29	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"HUM COMMUN RES", ""))) / LEN("HUM COMMUN RES"))
PUBLIC UNDERSTANDING OF SCIENCE	PUBLIC UNDERST SCI	54	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC UNDERST SCI", ""))) / LEN("PUBLIC UNDERST SCI"))
CYBERPSYCHOLOGY & BEHAVIOR	CYBERPSYCHOL BEHAV	286	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170,"CYBERPSYCHOL BEHAV", ""))) / LEN("CYBERPSYCHOL BEHAV"))

3 Economics

2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	Q J ECON	0033-5533	6947	4.775	0.500	40	>10.0
2	J ECON LIT	0022-0515	2649	4.054	0.529	17	8.6
3	J ECON GEOGR	1468-2702	270	3.222	0.370	27	2.8
4	J HEALTH ECON	0167-6296	1909	2.708	0.316	57	6.8
5	J ECON PERSPECT	0895-3309	2713	2.634	0.385	39	8.4

Economics, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
QUARTERLY JOURNAL OF ECONOMICS	Q J ECON	40	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	120	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	34	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", ""))) / LEN("J ECON GEOGR"))
JOURNAL OF HEALTH ECONOMICS	J HEALTH ECON	63	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J HEALTH ECON", ""))) / LEN("J HEALTH ECON"))
JOURNAL OF ECONOMIC PERSPECTIVES	J ECON PERSPECT	59	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON PERSPECT", ""))) / LEN("J ECON PERSPECT"))

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2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	J ECON LIT	0022-0515	2845	4.667	0.650	20	9.1
2	Q J ECON	0033-5533	7962	3.938	0.750	40	>10.0
3	J ACCOUNT ECON	0165-4101	1788	3.360	0.485	33	9.1
4	J ECON GROWTH	1381-4338	579	3.240	0.000	12	6.6
5	J POLIT ECON	0022-3808	10150	3.194	0.405	37	>10.0

Economics, top 5 impact factor 2006			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	92	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON LIT", ""))) / LEN("J ECON LIT"))
QUARTERLY JOURNAL OF ECONOMICS	Q J ECON	40	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
JOURNAL OF ACCOUNTING & ECONOMICS	J ACCOUNT ECON	34	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ACCOUNT ECON", ""))) / LEN("J ACCOUNT ECON"))
JOURNAL OF ECONOMIC GROWTH	J ECON GROWTH	12	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GROWTH", ""))) / LEN("J ECON GROWTH"))
JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	38	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J POLIT ECON", ""))) / LEN("J POLIT ECON"))

2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	J POLIT ECON	0022-3808	10878	4.190	4.800	0.889	27	>10.0	0.04803	9.181
2	J ECON LIT	0022-0515	3201	3.973	7.161	0.667	18	9.8	0.01805	8.347
3	Q J ECON	0033-5533	8713	3.688	7.135	0.773	44	>10.0	0.05227	11.241
4	J ACCOUNT ECON	0165-4101	1784	3.034	3.417	0.412	34	9.0	0.02529	7.824
5	J FINANC ECON	0304-405X	6980	2.988	4.084	0.573	103	>10.0	0.04276	5.123

Economics, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	35	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J POLIT ECON", ""))) / LEN("J POLIT ECON"))
JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	106	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON LIT", ""))) / LEN("J ECON LIT"))
QUARTERLY JOURNAL OF ECONOMICS	Q J ECON	44	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
JOURNAL OF ACCOUNTING & ECONOMICS	J ACCOUNT ECON	34	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ACCOUNT ECON", ""))) / LEN("J ACCOUNT ECON"))
JOURNAL OF FINANCIAL ECONOMICS	J FINANC ECON	105	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J FINANC ECON", ""))) / LEN("J FINANC ECON"))

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2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	Q J ECON	0033-5533	11723	5.048	8.716	0.756	41	>10.0	0.05416	11.978
2	J ECON LIT	0022-0515	4069	4.842	8.380	0.842	19	>10.0	0.01805	8.852
3	J ECON PERSPECT	0895-3309	4261	3.944	5.057	0.558	43	9.4	0.02485	5.340
4	ECONOMETRICA	0012-9682	17091	3.865	4.943	0.255	47	>10.0	0.04527	7.243
5	J POLIT ECON	0022-3808	13671	3.725	5.742	0.419	31	>10.0	0.04086	8.821

Economics, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	Excel count formula
QUARTERLY JOURNAL OF ECONOMICS	Q J ECON	41	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	88	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
JOURNAL OF ECONOMIC PERSPECTIVES	J ECON PERSPECT	52	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON PERSPECT", ""))) / LEN("J ECON PERSPECT"))
ECONOMETRICA	ECONOMETRICA	49	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ECONOMETRICA", ""))) / LEN("ECONOMETRICA"))
JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	32	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J POLIT ECON", ""))) / LEN("J POLIT ECON"))

2009:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	J ECON LIT	0022-0515	5018	6.919	8.922	1.000	18	>10.0	0.01568	8.354
2	Q J ECON	0033-5533	13985	5.647	8.171	0.953	43	>10.0	0.05051	11.811
3	J FINANC ECON	0304-405X	12058	4.020	5.675	0.376	93	>10.0	0.06032	6.572
4	ECONOMETRICA	0012-9682	20643	4.000	5.321	0.246	61	>10.0	0.04312	7.712
5	J ECON GEOGR	1468-2702	1146	3.937	4.705	0.543	35	5.2	0.00515	1.691

Economics, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	109	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
QUARTERLY JOURNAL OF ECONOMICS	Q J ECON	44	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "Q J ECON", ""))) / LEN("Q J ECON"))
JOURNAL OF FINANCIAL ECONOMICS	J FINANC ECON	94	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J FINANC ECON", ""))) / LEN("J FINANC ECON"))
ECONOMETRICA	ECONOMETRICA	63	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ECONOMETRICA", ""))) / LEN("ECONOMETRICA"))
JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	47	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", ""))) / LEN("J ECON GEOGR"))

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4 Geography

2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	J ECON GEOGR	1468-2702	270	3.222	0.370	27	2.8
2	PROG HUM GEOG	0309-1325	1069	2.616	0.286	42	5.0
3	T I BRIT GEOGR	0020-2754	986	2.218	0.400	30	8.7
4	GLOBAL ENVIRON CHANG	0959-3780	615	1.952	0.862	29	4.8
5	ECON GEOGR	0013-0095	661	1.757	0.200	15	9.1

Geography, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	34	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", ""))) / LEN("J ECON GEOGR"))
PROGRESS IN HUMAN GEOGRAPHY	PROG HUM GEOG	126	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL ENVIRON CHANG", ""))) / LEN("GLOBAL ENVIRON CHANG"))
TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	43	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "T I BRIT GEOGR", ""))) / LEN("T I BRIT GEOGR"))
GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS	GLOBAL ENVIRON CHANG	37	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL ENVIRON CHANG", ""))) / LEN("GLOBAL ENVIRON CHANG"))
ECONOMIC GEOGRAPHY	ECON GEOGR	34	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ECON GEOGR", ""))) / LEN("ECON GEOGR"))

2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	T I BRIT GEOGR	0020-2754	1154	3.500	0.133	30	7.9
2	PROG HUM GEOG	0309-1325	1410	3.440	0.333	42	5.6
3	GLOBAL ENVIRON CHANG	0959-3780	779	2.600	1.200	30	5.3
4	J ECON GEOGR	1468-2702	403	2.519	0.591	22	3.4
5	ANN ASSOC AM GEOGR	0004-5608	1872	2.141	0.275	40	9.4

Geography, top 5 impact factor 2006			
Journal name	Journal Abbrev.	# of records	Excel count formula
TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	38	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "T I BRIT GEOGR", ""))) / LEN("T I BRIT GEOGR"))
PROGRESS IN HUMAN GEOGRAPHY	PROG HUM GEOG	124	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PROG HUM GEOG", ""))) / LEN("PROG HUM GEOG"))
GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS	GLOBAL ENVIRON CHANG	38	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL ENVIRON CHANG", ""))) / LEN("GLOBAL ENVIRON CHANG"))
JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	41	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", ""))) / LEN("J ECON GEOGR"))
ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS	ANN ASSOC AM GEOGR	93	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANN ASSOC AM GEOGR", ""))) / LEN("ANN ASSOC AM GEOGR"))

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2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	T I BRIT GEOGR	0020-2754	1402	4.067	4.336	0.433	30	6.9	0.00561	1.763
2	GLOBAL ENVIRON CHANG	0959-3780	998	3.915	3.727	0.649	37	5.3	0.00547	1.645
3	PROG HUM GEOG	0309-1325	1638	3.762	4.052	0.372	43	5.6	0.00735	1.483
4	ANN ASSOC AM GEOGR	0004-5608	2008	2.962	3.333	0.561	41	8.8	0.00677	1.386
5	J ECON GEOGR	1468-2702	571	2.679	4.050	0.933	30	4.0	0.00478	1.728

Geography, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	42	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "T I BRIT GEOGR", ""))) / LEN("T I BRIT GEOGR"))
GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS	GLOBAL ENVIRON CHANG	42	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL ENVIRON CHANG", ""))) / LEN("GLOBAL ENVIRON CHANG"))
PROGRESS IN HUMAN GEOGRAPHY	PROG HUM GEOG	114	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PROG HUM GEOG", ""))) / LEN("PROG HUM GEOG"))
ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS	ANN ASSOC AM GEOGR	85	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANN ASSOC AM GEOGR", ""))) / LEN("ANN ASSOC AM GEOGR"))
JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	40	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", ""))) / LEN("J ECON GEOGR"))

2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	T I BRIT GEOGR	0020-2754	1581	3.967	4.600	0.455	33	7.3	0.00588	1.830
2	GLOBAL ENVIRON CHANG	0959-3780	1291	3.955	4.272	0.524	63	5.1	0.00564	1.611
3	PROG HUM GEOG	0309-1325	1889	3.482	4.305	0.575	40	6.0	0.00749	1.586
4	ECON GEOGR	0013-0095	1048	2.968	3.578	0.438	16	10.0	0.00224	1.217
5	J ECON GEOGR	1468-2702	763	2.932	4.557	0.576	33	4.8	0.00538	1.854

Geography, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	Excel count formula
TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	39	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "T I BRIT GEOGR", ""))) / LEN("T I BRIT GEOGR"))
GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS	GLOBAL ENVIRON CHANG	73	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL ENVIRON CHANG", ""))) / LEN("GLOBAL ENVIRON CHANG"))
PROGRESS IN HUMAN GEOGRAPHY	PROG HUM GEOG	109	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PROG HUM GEOG", ""))) / LEN("PROG HUM GEOG"))
ECONOMIC GEOGRAPHY	ECON GEOGR	44	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ECON GEOGR", ""))) / LEN("ECON GEOGR"))
JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	47	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", ""))) / LEN("J ECON GEOGR"))

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2009:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	J ECON GEOGR	1468-2702	1146	3.937	4.705	0.543	35	5.2	0.00515	1.691
2	PROG HUM GEOG	0309-1325	2402	3.590	5.158	0.468	47	6.6	0.00812	1.863
3	ECON GEOGR	0013-0095	1311	3.452	3.075	1.200	20	>10.0	0.00166	0.993
4	T I BRIT GEOGR	0020-2754	1876	3.413	4.768	0.647	34	7.9	0.00545	1.729
5	GLOBAL ENVIRON CHANG	0959-3780	1832	3.340	5.487	0.787	47	5.1	0.00853	2.098

Geography, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
JOURNAL OF ECONOMIC GEOGRAPHY	J ECON GEOGR	47	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J ECON GEOGR", ""))) / LEN("J ECON GEOGR"))
PROGRESS IN HUMAN GEOGRAPHY	PROG HUM GEOG	117	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PROG HUM GEOG", ""))) / LEN("PROG HUM GEOG"))
ECONOMIC GEOGRAPHY	ECON GEOGR	47	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ECON GEOGR", ""))) / LEN("ECON GEOGR"))
TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	35	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "T I BRIT GEOGR", ""))) / LEN("T I BRIT GEOGR"))
GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS	GLOBAL ENVIRON CHANG	52	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL ENVIRON CHANG", ""))) / LEN("GLOBAL ENVIRON CHANG"))

5 Information Science & Library Science (Subj heading used by JCR)

2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	MIS QUART	0276-7783	2395	4.978	0.643	28	>10.0
2	J AM MED INFORM ASSN	1067-5027	2040	4.339	0.710	69	4.7
3	ANNU REV INFORM SCI	0066-4200	298	2.652	0.643	14	6.3
4	INFORM SYST RES	1047-7047	949	2.054	0.048	21	6.2
5	SCIENTOMETRICS	0138-9130	1406	1.738	0.241	112	6.1

Information Science & Library Science, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
MIS QUARTERLY	MIS QUART	34	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "MIS QUART", ""))) / LEN("MIS QUART"))
JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION	J AM MED INFORM ASSN	85	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J AM MED INFORM ASSN", ""))) / LEN("J AM MED
ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY	ANNU REV INFORM SCI	15	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV INFORM SCI", ""))) / LEN("ANNU REV INFORM SCI"))
INFORMATION SYSTEMS RESEARCH	INFORM SYST RES	31	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INFORM SYST RES", ""))) / LEN("INFORM SYST RES"))
SCIENTOMETRICS	SCIENTOMETRICS	114	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SCIENTOMETRICS", ""))) / LEN("SCIENTOMETRICS"))

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2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	MIS QUART	0276-7783	3186	4.731	0.610	41	9.5
2	J AM MED INFORM ASSN	1067-5027	2143	3.979	0.587	80	4.7
3	INFORM SYST RES	1047-7047	1508	2.537	0.304	23	6.6
4	INFORM MANAGE-AMSTER	0378-7206	1466	2.119	0.215	79	5.4
5	J MANAGE INFORM SYST	0742-1222	1523	1.818	0.195	41	6.9

Information Science & Library Science, top 5 impact factor 2006			
Journal name	Journal Abbrev.	# of records	Excel count formula
MIS QUARTERLY	MIS QUART	46	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "MIS QUART", ""))) / LEN("MIS QUART"))
JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION	J AM MED INFORM ASSN	91	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J AM MED INFORM ASSN", ""))) / LEN("J AM MED
INFORMATION SYSTEMS RESEARCH	INFORM SYST RES	24	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INFORM SYST RES", ""))) / LEN("INFORM SYST RES"))
INFORMATION & MANAGEMENT	INFORM MANAGE-AMSTER	81	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INFORM MANAGE-AMSTER", ""))) / LEN("INFORM MANAGE-AMSTER"))
JOURNAL OF MANAGEMENT INFORMATION SYSTEMS	J MANAGE INFORM SYST	48	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J MANAGE INFORM SYST", ""))) / LEN("J MANAGE INFORM SYST"))

2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	MIS QUART	0276-7783	4329	5.826	9.257	0.533	30	9.4	0.01128	3.567
2	J AM MED INFORM ASSN	1067-5027	2394	3.094	3.489	0.699	93	5.2	0.00948	1.096
3	INFORM SYST RES	1047-7047	2146	2.682	6.579	0.130	23	8.3	0.00766	3.079
4	ANNU REV INFORM SCI	0066-4200	378	1.963	2.810	0.533	15	6.1	0.00137	0.934
5	J MANAGE INFORM SYST	0742-1222	1861	1.867	3.229	0.175	40	7.7	0.00571	1.307

Information Science & Library Science, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
MIS QUARTERLY	MIS QUART	35	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "MIS QUART", ""))) / LEN("MIS QUART"))
JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION	J AM MED INFORM ASSN	112	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J AM MED INFORM ASSN", ""))) / LEN("J AM MED INFORM ASSN"))
INFORMATION SYSTEMS RESEARCH	INFORM SYST RES	25	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INFORM SYST RES", ""))) / LEN("INFORM SYST RES"))
ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY	ANNU REV INFORM SCI	16	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV INFORM SCI", ""))) / LEN("ANNU REV INFORM SCI"))
JOURNAL OF MANAGEMENT INFORMATION SYSTEMS	J MANAGE INFORM SYST	47	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J MANAGE INFORM SYST", ""))) / LEN("J MANAGE INFORM SYST"))

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2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	MIS QUART	0276-7783	5684	5.183	11.586	0.778	36	9.7	0.01138	3.541
2	J AM MED INFORM ASSN	1067-5027	2574	3.428	3.886	0.560	100	5.2	0.00890	1.068
3	J INFORMETR	1751-1577	89	2.531	2.563	0.206	34		0.00040	0.563
4	ANNU REV INFORM SCI	0066-4200	477	2.500	2.954	0.846	13	6.5	0.00138	0.956
5	INFORM SYST J	1350-1917	528	2.375	2.940	0.600	25	6.0	0.00132	0.711

Information Science & Library Science, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	Excel count formula
MIS QUARTERLY	MIS QUART	39	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "MIS QUART", ""))) / LEN("MIS QUART"))
JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION	J AM MED INFORM ASSN	112	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J AM MED INFORM ASSN", ""))) / LEN("J AM MED INFORM ASSN"))
JOURNAL OF INFORMETRICS	J INFORMETR	34	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J INFORMETR", ""))) / LEN("J INFORMETR"))
ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY	ANNU REV INFORM SCI	14	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV INFORM SCI", ""))) / LEN("ANNU REV INFORM SCI"))
INFORMATION SYSTEMS RESEARCH	INFORM SYST J	28	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "INFORM SYST J", ""))) / LEN("INFORM SYST J"))

2009:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	MIS QUART	0276-7783	6186	4.485	9.208	0.579	38	>10.0	0.00962	2.899
2	J AM MED INFORM ASSN	1067-5027	4183	3.974	5.199	0.705	105	5.7	0.01366	1.585
3	J COMPUT-MEDIAT COMM	1083-6101	1279	3.639		0.017	60	4.6	0.00457	
4	J INFORMETR	1751-1577	253	3.379	3.379	0.909	33	2.1	0.00149	1.079
5	ANNU REV INFORM SCI	0066-4200	563	2.929	3.030	1.200	10	6.9	0.00147	1.053

Information Science & Library Science, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
MIS QUARTERLY	MIS QUART	47	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "MIS QUART", ""))) / LEN("MIS QUART"))
JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION	J AM MED INFORM ASSN	123	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J AM MED INFORM ASSN", ""))) / LEN("J AM MED INFORM ASSN"))
JOURNAL OF COMPUTER-MEDIATED COMMUNICATION	J COMPUT-MEDIAT COMM	60	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J COMPUT-MEDIAT COMM", ""))) / LEN("J COMPUT-MEDIAT COMM"))
JOURNAL OF INFORMETRICS	J INFORMETR	36	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J INFORMETR", ""))) / LEN("J INFORMETR"))
ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY	ANNU REV INFORM SCI	11	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV INFORM SCI", ""))) / LEN("ANNU REV INFORM SCI"))

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6 Political Science

2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	AM POLIT SCI REV	0003-0554	4628	3.233	0.409	44	>10.0
2	AM J POLIT SCI	0092-5853	3123	1.845	0.217	60	9.5
3	EUR J POLIT RES	0304-4130	928	1.783	0.174	69	6.5
4	J THEOR POLIT	0951-6298	291	1.686	0.250	20	6.4
5	PUBLIC OPIN QUART	0033-362X	1700	1.509	0.324	34	>10.0

Political Science, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	45	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM POLIT SCI REV", ""))) / LEN("AM POLIT SCI REV"))
AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	60	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J POLIT SCI", ""))) / LEN("AM J POLIT SCI"))
EUROPEAN JOURNAL OF POLITICAL RESEARCH	EUR J POLIT RES	72	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EUR J POLIT RES", ""))) / LEN("EUR J POLIT RES"))
JOURNAL OF THEORETICAL POLITICS	J THEOR POLIT	21	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J THEOR POLIT", ""))) / LEN("J THEOR POLIT"
PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	67	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC OPIN QUART", ""))) / LEN("PUBLIC OPIN QUART"))

2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	AM POLIT SCI REV	0003-0554	5327	3.023	0.368	57	>10.0
2	AM J POLIT SCI	0092-5853	3535	2.167	0.438	64	>10.0
3	EUR J POLIT RES	0304-4130	1108	1.916	0.326	43	7.1
4	J CONFLICT RESOLUT	0022-0027	1518	1.810	0.488	41	>10.0
5	J PEACE RES	0022-3433	730	1.658	0.351	37	7.0

Political Science, top 5 impact factor 2006			
Journal name	Journal Abbrev.	# of records	Excel count formula
AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	80	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM POLIT SCI REV", ""))) / LEN("AM POLIT SCI REV"))
AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	64	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J POLIT SCI", ""))) / LEN("AM J POLIT SCI"))
EUROPEAN JOURNAL OF POLITICAL RESEARCH	EUR J POLIT RES	44	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EUR J POLIT RES", ""))) / LEN("EUR J POLIT RES"))
JOURNAL OF CONFLICT RESOLUTION	J CONFLICT RESOLUT	44	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J CONFLICT RESOLUT", ""))) / LEN("J CONFLICT RESOLUT"))
JOURNAL OF PEACE RESEARCH	J PEACE RES	185	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J PEACE RES", ""))) / LEN("J PEACE RES"))

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2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	POLIT ANAL	1047-1987	453	2.535		0.545	22	5.2	0.00571	
2	AM POLIT SCI REV	0003-0554	5323	2.317	3.919	0.269	52	>10.0	0.01861	3.590
3	AM J POLIT SCI	0092-5853	3628	2.032	2.901	0.306	62	>10.0	0.01792	2.714
4	PUBLIC OPIN QUART	0033-362X	2189	2.030	2.349	0.658	38	>10.0	0.00498	1.467
5	J CONFLICT RESOLUT	0022-0027	1509	1.975	2.157	0.081	37	>10.0	0.00873	1.965

Political Science, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
POLITICAL ANALYSIS	POLIT ANAL	26	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "POLIT ANAL", ""))) / LEN("POLIT ANAL"))
AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	56	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM POLIT SCI REV", ""))) / LEN("AM POLIT SCI REV"))
AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	62	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J POLIT SCI", ""))) / LEN("AM J POLIT SCI"))
PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	53	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PUBLIC OPIN QUART", ""))) / LEN("PUBLIC OPIN QUART"))
JOURNAL OF CONFLICT RESOLUTION	J CONFLICT RESOLUT	39	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J CONFLICT RESOLUT", ""))) / LEN("J CONFLICT RESOLUT"))

2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	POLIT ANAL	1047-1987	644	4.780	3.283	0.263	19	5.0	0.00709	2.831
2	EUR J POLIT RES	0304-4130	1760	2.514	2.734	0.239	71	6.6	0.01037	1.637
3	AM J POLIT SCI	0092-5853	4416	2.397	3.363	0.322	59	>10.0	0.01972	3.079
4	POLIT GEOGR	0962-6298	1032	2.295	2.375	0.250	40	6.7	0.00453	1.064
5	EUR UNION POLIT	1465-1165	419	2.064	2.378	0.435	23	4.5	0.00303	1.231

Political Science, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	Excel count formula
POLITICAL ANALYSIS	POLIT ANAL	29	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "POLIT ANAL", ""))) / LEN("POLIT ANAL"))
EUROPEAN JOURNAL OF POLITICAL RESEARCH	EUR J POLIT RES	72	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EUR J POLIT RES", ""))) / LEN("EUR J POLIT RES"))
AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	59	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J POLIT SCI", ""))) / LEN("AM J POLIT SCI"))
POLITICAL GEOGRAPHY	POLIT GEOGR	75	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "POLIT GEOGR", ""))) / LEN("POLIT GEOGR"))
EUROPEAN UNION POLITICS	EUR UNION POLIT	23	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "EUR UNION POLIT", ""))) / LEN("EUR UNION POLIT"))

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2009:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	POLIT ANAL	1047-1987	757	3.756	4.083	0.200	25	4.7	0.00817	3.625
2	AM POLIT SCI REV	0003-0554	7507	3.207	4.194	0.243	37	>10.0	0.01723	3.560
3	ANNU REV POLIT SCI	1094-2939	760	2.619	3.206	0.346	26	6.9	0.00506	2.380
4	AM J POLIT SCI	0092-5853	5239	2.554	3.793	0.233	60	>10.0	0.01944	3.117
5	J PEACE RES	0022-3433	1529	2.468	2.677	0.465	43	8.2	0.00575	1.458

Political Science, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
POLITICAL ANALYSIS	POLIT ANAL	25	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "POLIT ANAL", ""))) / LEN("POLIT ANAL"))
AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	38	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM POLIT SCI REV", ""))) / LEN("AM POLIT SCI REV"))
ANNUAL REVIEW OF POLITICAL SCIENCE	ANNU REV POLIT SCI	27	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV POLIT SCI", ""))) / LEN("ANNU REV POLIT SCI"))
AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	60	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J POLIT SCI", ""))) / LEN("AM J POLIT SCI"))
JOURNAL OF PEACE RESEARCH	J PEACE RES	158	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "J PEACE RES", ""))) / LEN("J PEACE RES"))

7 Psychology

2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	BEHAV BRAIN SCI	0140-525X	4029	9.885	1.857	14	8.7
2	ANNU REV PSYCHOL	0066-4308	4014	9.784	2.261	23	7.1
3	PSYCHOL BULL	0033-2909	16506	9.746	1.892	37	>10.0
4	TRENDS COGN SCI	1364-6613	4597	9.155	1.250	92	4.8
5	PSYCHOL REV	0033-295X	13423	7.986	2.229	35	>10.0

Psychology, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
BEHAVIORAL AND BRAIN SCIENCES	BEHAV BRAIN SCI	365	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "BEHAV BRAIN SCI", ""))) / LEN("BEHAV BRAIN SCI"))
ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	24	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV PSYCHOL", ""))) / LEN("ANNU REV PSYCHOL"))
PSYCHOLOGICAL BULLETIN	PSYCHOL BULL	52	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL BULL", ""))) / LEN("PSYCHOL BULL"))
TRENDS IN COGNITIVE SCIENCES	TRENDS COGN SCI	140	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "TRENDS COGN SCI", ""))) / LEN("TRENDS COGN SCI"))
PSYCHOLOGICAL REVIEW	PSYCHOL REV	58	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL REV", ""))) / LEN("PSYCHOL REV"))

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2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	BEHAV BRAIN SCI	0140-525X	4425	14.964	1.100	10	8.2
2	PSYCHOL BULL	0033-2909	18429	12.725	1.919	37	>10.0
3	ANNU REV PSYCHOL	0066-4308	4804	11.706	4.091	22	6.8
4	PSYCHOL INQ	1047-840X	1026	9.688	0.600	5	6.8
5	TRENDS COGN SCI	1364-6613	5965	9.374	1.566	83	4.6

Psychology, top 5 impact factor 2006			
Journal name	Journal Abbrev.	# of records	Excel count formula
BEHAVIORAL AND BRAIN SCIENCES	BEHAV BRAIN SCI	284	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "BEHAV BRAIN SCI", ""))) / LEN("BEHAV BRAIN SCI"))
PSYCHOLOGICAL BULLETIN	PSYCHOL BULL	44	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL BULL", ""))) / LEN("PSYCHOL BULL"))
ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	23	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV PSYCHOL", ""))) / LEN("ANNU REV PSYCHOL"))
PSYCHOLOGICAL INQUIRY	PSYCHOL INQ	42	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL INQ", ""))) / LEN("PSYCHOL INQ"))
TRENDS IN COGNITIVE SCIENCES	TRENDS COGN SCI	118	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "TRENDS COGN SCI", ""))) / LEN("TRENDS COGN SCI"))

2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	BEHAV BRAIN SCI	0140-525X	4721	17.462	16.391	3.500	2	9.0	0.01089	7.317
2	ANNU REV PSYCHOL	0066-4308	5425	13.400	17.263	3.583	24	7.2	0.02499	9.107
3	PSYCHOL BULL	0033-2909	19678	10.905	15.230	1.841	44	>10.0	0.03357	7.890
4	TRENDS COGN SCI	1364-6613	7525	9.389	12.421	1.513	76	4.9	0.05120	6.067
5	PSYCHOL REV	0033-295X	15541	7.803	10.607	2.351	37	>10.0	0.02362	5.872

Psychology, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
BEHAVIORAL AND BRAIN SCIENCES	BEHAV BRAIN SCI	254	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "BEHAV BRAIN SCI", ""))) / LEN("BEHAV BRAIN SCI"))
ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	24	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV PSYCHOL", ""))) / LEN("ANNU REV PSYCHOL"))
PSYCHOLOGICAL BULLETIN	PSYCHOL BULL	50	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL BULL", ""))) / LEN("PSYCHOL BULL"))
TRENDS IN COGNITIVE SCIENCES	TRENDS COGN SCI	99	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "TRENDS COGN SCI", ""))) / LEN("TRENDS COGN SCI"))
PSYCHOLOGICAL REVIEW	PSYCHOL REV	58	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL REV", ""))) / LEN("PSYCHOL REV"))

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2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	ANNU REV PSYCHOL	0066-4308	6715	16.217	17.608	4.958	24	7.7	0.02277	8.560
2	BEHAV BRAIN SCI	0140-525X	5274	12.818	19.355	2.667	12	9.5	0.01173	8.533
3	PSYCHOL BULL	0033-2909	22965	12.568	18.037	1.026	38	>10.0	0.03453	8.244
4	PSYCHOL REV	0033-295X	17810	11.765	12.563	2.396	48	>10.0	0.02646	6.783
5	TRENDS COGN SCI	1364-6613	9143	10.981	13.826	1.086	70	5.3	0.05323	6.320

Psychology, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	Excel count formula
ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	24	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV PSYCHOL", ""))) / LEN("ANNU REV PSYCHOL"))
BEHAVIORAL AND BRAIN SCIENCES	BEHAV BRAIN SCI	296	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "BEHAV BRAIN SCI", ""))) / LEN("BEHAV BRAIN SCI"))
PSYCHOLOGICAL BULLETIN	PSYCHOL BULL	43	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL BULL", ""))) / LEN("PSYCHOL BULL"))
PSYCHOLOGICAL REVIEW	PSYCHOL REV	71	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL REV", ""))) / LEN("PSYCHOL REV"))
TRENDS IN COGNITIVE SCIENCES	TRENDS COGN SCI	96	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "TRENDS COGN SCI", ""))) / LEN("TRENDS COGN SCI"))

2009:

Mark	Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
				Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
	1	ANNU REV PSYCHOL	0066-4308	8192	22.750	21.025	4.321	28	8.2	0.02575	10.200
	2	BEHAV BRAIN SCI	0140-525X	6290	19.045	23.548	3.000	9	>10.0	0.01207	9.334
	3	PSYCHOL BULL	0033-2909	26149	12.854	19.160	2.024	42	>10.0	0.03312	8.445
	4	TRENDS COGN SCI	1364-6613	11626	11.664	15.591	2.134	67	5.8	0.05759	7.189
	5	ANNU REV CLIN PSYCHO	1548-5943	837	9.613	11.250	1.200	20	3.8	0.00717	4.773

Psychology, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	29	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV PSYCHOL", ""))) / LEN("ANNU REV PSYCHOL"))
BEHAVIORAL AND BRAIN SCIENCES	BEHAV BRAIN SCI	254	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "BEHAV BRAIN SCI", ""))) / LEN("BEHAV BRAIN SCI"))
PSYCHOLOGICAL BULLETIN	PSYCHOL BULL	54	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "PSYCHOL BULL", ""))) / LEN("PSYCHOL BULL"))
TRENDS IN COGNITIVE SCIENCES	TRENDS COGN SCI	95	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "TRENDS COGN SCI", ""))) / LEN("TRENDS COGN SCI"))
ANNUAL REVIEW OF CLINICAL PSYCHOLOGY	ANNU REV CLIN PSYCHO	21	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV CLIN PSYCHO", ""))) / LEN("ANNU REV CLIN PSYCHO"))

Appendix Q-19

8 Sociology
2005:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	AM J SOCIOL	0002-9602	6189	3.262	0.683	41	>10.0
2	AM SOCIOL REV	0003-1224	7210	2.933	0.439	41	>10.0
3	ANNU REV SOCIOL	0360-0572	2232	2.521	0.062	16	8.3
4	SOCIOL HEALTH ILL	0141-9889	1132	2.169	0.171	41	7.7
5	SOC PROBL	0037-7791	1414	1.796	0.143	28	>10.0

Sociology, top 5 impact factor 2005			
Journal name	Journal Abbrev.	# of records	Excel count formula
AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	186	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J SOCIOL", ""))) / LEN("AM J SOCIOL"))
AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	46	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM SOCIOL REV", ""))) / LEN("AM SOCIOL REV"))
ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	17	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV SOCIOL", ""))) / LEN("ANNU REV SOCIOL"))
SOCIOLOGY OF HEALTH & ILLNESS	SOCIOL HEALTH ILL	85	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOCIOL HEALTH ILL", ""))) / LEN("SOCIOL HEALTH ILL"))
SOCIAL PROBLEMS	SOC PROBL	33	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOC PROBL", ""))) / LEN("SOC PROBL"))

2006:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data				
			Total Cites	Impact Factor	Immediacy Index	Articles	Cited Half-life
1	ANNU REV SOCIOL	0360-0572	2687	3.275	0.368	19	9.1
2	AM SOCIOL REV	0003-1224	7927	3.205	0.571	42	>10.0
3	AM J SOCIOL	0002-9602	6730	2.581	0.361	36	>10.0
4	SOCIOL METHOD RES	0049-1241	808	2.355	0.111	18	>10.0
5	SOCIOL RURALIS	0038-0199	577	2.093	0.056	18	6.3

Sociology, top 5 impact factor 2006			
Journal name	Journal Abbrev.	# of records	Excel count formula
ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	19	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV SOCIOL", ""))) / LEN("ANNU REV SOCIOL"))
AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	49	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM SOCIOL REV", ""))) / LEN("AM SOCIOL REV"))
AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	197	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J SOCIOL", ""))) / LEN("AM J SOCIOL"))
SOCIOLOGICAL METHODS & RESEARCH	SOCIOL METHOD RES	20	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOCIOL METHOD RES", ""))) / LEN("SOCIOL METHOD RES"))
SOCIOLOGIA RURALIS	SOCIOL RURALIS	19	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOCIOL RURALIS", ""))) / LEN("SOCIOL RURALIS"))

Appendix Q-20

2007:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	AM J SOCIOL	0002-9602	7264	3.338	5.113	0.514	37	>10.0	0.01564	4.004
2	AM SOCIOL REV	0003-1224	8092	3.277	4.541	0.619	42	>10.0	0.01598	3.508
3	BRIT J SOCIOL	0007-1315	957	2.449	2.052	0.222	27	9.1	0.00386	1.238
4	ANNU REV SOCIOL	0360-0572	2984	2.400	5.718	0.200	25	9.6	0.00976	4.077
5	GLOBAL NETW	1470-2266	269	1.886		0.080	25	4.0	0.00213	

Sociology, top 5 impact factor 2007			
Journal name	Journal Abbrev.	# of records	Excel count formula
AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	180	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J SOCIOL", ""))) / LEN("AM J SOCIOL"))
AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	49	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM SOCIOL REV", ""))) / LEN("AM SOCIOL REV"))
BRITISH JOURNAL OF SOCIOLOGY	BRIT J SOCIOL	109	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "BRIT J SOCIOL", ""))) / LEN("BRIT J SOCIOL"))
ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	25	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV SOCIOL", ""))) / LEN("ANNU REV SOCIOL"))
GLOBAL NETWORKS-A JOURNAL OF TRANSNATIONAL AFFAIRS	GLOBAL NETW	28	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "GLOBAL NETW", ""))) / LEN("GLOBAL NETW"))

2008:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	AM SOCIOL REV	0003-1224	9349	3.762	5.285	0.364	44	>10.0	0.01732	3.906
2	AM J SOCIOL	0002-9602	8629	2.808	5.046	0.444	45	>10.0	0.01481	3.819
3	ANNU REV SOCIOL	0360-0572	3665	2.273	4.954	0.364	22	>10.0	0.00806	3.368
4	SOCIOL METHODOL	0081-1750	1226	2.087	2.691	0.000	15	>10.0	0.00257	2.107
5	SOC NETWORKS	0378-8733	1276	2.068	2.929	0.276	29	>10.0	0.00318	1.269

Sociology, top 5 impact factor 2008			
Journal name	Journal Abbrev.	# of records	Excel count formula
AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	47	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM SOCIOL REV", ""))) / LEN("AM SOCIOL REV"))
AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	192	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J SOCIOL", ""))) / LEN("AM J SOCIOL"))
ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	22	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV SOCIOL", ""))) / LEN("ANNU REV SOCIOL"))
SOCIOLOGICAL METHODOLOGY	SOCIOL METHODOL	15	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOCIOL METHODOL", ""))) / LEN("SOCIOL METHODOL"))
SOCIAL NETWORKS	SOC NETWORKS	29	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOC NETWORK", ""))) / LEN("SOC NETWORK"))

Appendix Q-21

2009:

Rank	Abbreviated Journal Title (linked to journal information)	ISSN	JCR Data						Eigenfactor™ Metrics	
			Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
1	ANNU REV SOCIOL	0360-0572	4803	3.702	5.953	0.333	27	>10.0	0.00837	3.787
2	AM J SOCIOL	0002-9602	11196	3.476	5.411	0.444	36	>10.0	0.01428	3.564
3	AM SOCIOL REV	0003-1224	11813	3.221	5.578	0.500	44	>10.0	0.01732	4.030
4	SOC NETWORKS	0378-8733	1485	2.349	3.328	0.370	27	>10.0	0.00357	1.369
5	SOCIOL HEALTH ILL	0141-9889	1904	2.041	2.598	0.106	66	8.6	0.00439	0.855

Sociology, top 5 impact factor 2009			
Journal name	Journal Abbrev.	# of records	Excel count formula
ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	27	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV SOCIOL", ""))) / LEN("ANNU REV SOCIOL"))
AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	243	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "AM J SOCIOL", ""))) / LEN("AM J SOCIOL"))
AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	48	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "ANNU REV SOCIOL", ""))) / LEN("ANNU REV SOCIOL"))
SOCIAL NETWORKS	SOC NETWORKS	27	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOC NETWORKS", ""))) / LEN("SOC NETWORKS"))
SOCIOLOGY OF HEALTH & ILLNESS	SOCIOL HEALTH ILL	107	=SUMPRODUCT((LEN(Z1:Z170) - LEN(SUBSTITUTE(Z1:Z170, "SOCIOL HEALTH ILL", ""))) / LEN("SOCIOL HEALTH ILL"))

Appendix R-1
Top 5 impact factor journals for disciplines by year 1979-1983

Note: The same high impact factor journals from 1981 Journal Citation Report Index were used for 1979, 1980, 1981, 1982, and 1983 searches on Web of Science database.
Journal is also in top 5 ranking 2005-2009

1 Anthropology

Anthropology, 1981 high impact factor journals			# of records in Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY	AM J PHYS ANTHROPOL	1.384	432	466	452	428	510
ANNUAL REVIEW OF ANTHROPOLOGY	ANNU REV ANTHROPOL	1.136	23	22	15	13	18
AMERICAN ANTHROPOLOGIST	AM ANTHROPOL	.919	428	458	330	388	304
*SOCIAL NETWORKS	SOC NETWORKS	.886	17	19	16	25	24
CURRENT ANTHROPOLOGY	CURR ANTHROPOL	.839	162	186	141	150	145

*Social Networks was in top 5 of JCR impact factor score sort 2006, 2008, & 2009 for anthropology and 2008 for sociology

2 Communication

Communication, 1981 high impact factor journals			# of records in Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
COMMUNICATION RESEARCH	COMMUN RES	1.128	26	24	25	33	33
*PUBLIC OPINION QUARTERLY	PUBLIC OPIN QUART	.876	76	66	60	71	55
JOURNAL OF COMMUNICATION	J COMMUN	.464	185	176	170	151	182
QUARTERLY JOURNAL OF SPEECH	Q J SPEECH	.455	88	113	114	100	103
COMMUNICATION MONOGRAPHS	COMMUN MONOGR	.438	26	22	19	20	25

*Public Opinion Quarterly was in top 5 of JCR impact factor score sort 2005-2008 for communication and 2005, 2007 for political science

3 Economics

Economics, 1981 high impact factor journals			# of records in Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
JOURNAL OF ECONOMIC LITERATURE	J ECON LIT	3.103	197	213	198	176	171
JOURNAL OF FINANCIAL ECONOMICS	J FINANC ECON	2.821	14	14	21	21	43
*JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	1.903	107	105	90	90	78
AMERICAN ECONOMIC REVIEW	AM ECON REV	1.518	186	210	195	194	197
**ECONOMETRICA	ECONOMETRICA	1.461	111	128	96	93	102

*Journal of Political Economy was in top 5 of JCR impact factor score sort 2006—2008
**Econometrica was in top 5 of JCR impact factor score sort 2008 & 2009.

4 Geography

Geography, 1981 high impact factor journals			# of records in Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
*ECONOMIC GEOGRAPHY	ECON GEOGR	.907	35	38	44	64	57
GEOGRAPHICAL ANALYSIS	GEOG ANNAL	.843	50	50	36	38	40
PROFESSIONAL GEOGRAPHER	PROF GEOGR	.817	157	162	162	177	248
TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS	T I BRIT GEOGR	.622	39	47	35	41	39
**ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS	ANN ASSOC AM GEOGR	.542	106	88	98	92	82

*Note: Journal of Economic Geography is a different journal that began publication in 2001 that is now often cited by both economics and geography. Economic Geography was in the top 5 of JCR impact factor score sort 2005, 2008, & 2009 for geography; Journal of Economic Geography was in the top 5 of JCR impact factor sort 2005, 2007, 2009 for geography and 2005 & 2009 for economics.
**Annals of the Association of American Geographers was in top 5 of JCR impact factor score sort 2006-2007

5 Information Science & Library Science (Subj heading used by JCR)

Information Science & Library Science, 1981 high impact factor journals			# of records in Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
*ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY	ANNU REV INFORM SCI	1.611	9	9	15	10	10
**LIBRARY JOURNAL	LIBR J	.918	301	309	296	324	697
LIBRARY RESOURCES & TECHNICAL SERVICES	LIBR RESOURCE TECH SER	.793	42	34	30	32	35
LIBRARY QUARTERLY	LIBR QUART	.710	127	99	114	109	95
JOURNAL OF ACADEMIC LIBRARIANSHIP	J ACAD LIB	.641	79	87	104	104	122

*was in top 5 of JCR impact factor score sort 2005 and 2007-2009
**note: J LIBR is a different journal; JCR impact factor score for J LIBR in 1981 was .333

6 Political Science

Political Science, 1981 high impact factor journals			# of records in Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
WORLD POLITICS	WORLD POLIT	1.936	35	63	54	65	78
*JOURNAL OF POLITICAL ECONOMY	J POLIT ECON	1.903	107	105	90	90	78
AMERICAN POLITICAL SCIENCE REVIEW	AM POLIT SCI REV	1.773	550	511	504	457	536
AMERICAN JOURNAL OF POLITICAL SCIENCE	AM J POLIT SCI	.976	42	43	42	43	41
JOURNAL OF CONFLICT RESOLUTION	J CONFLICT RESOLUT	.915	38	42	30	33	49

*note: in 1981 also in top 5 JCR impact factor score for economics; not 05-09 in top 5 JCR impact factor score sort for Political Science but was in top 5 for economics 2006, 2007, & 2008.

7 Psychology

Psychology, 1981 high impact factor journals			# of records in Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
ANNUAL REVIEW OF PSYCHOLOGY	ANNU REV PSYCHOL	5.079	19	19	18	20	19
*PSYCHOLOGICAL REVIEW	PSYCHOL REV	4.895	32	30	29	29	25
COGNITIVE PSYCHOLOGY	COGNITIVE PSYCHOL	4.775	21	19	20	19	17
**ADVANCES IN EXPERIMENTAL SOCIAL PSYCHOLOGY	ADV EXP SOC PSYCHOL	4.643	8	6	7	6	5
COGNITION	COGNITION	3.769	24	15	61	34	38

*Note: was in top 5 impact factor sort 2005 & 2007-2008.
**Complete results for this journal could not be located using web of science June 11 or June 12, 2011; 1982 & 1983 results were found but not 1979-1981. Therefore totals for this journal are from
http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%2321321%231979%23999879999%23685388%23FLP%23&_cdi=21321&_pubType=BS&_auth=y&_acct=C000037419&_version=1&_urlVersion=0&_userid=681891&md5=9f38e1deed1ea47c9b91b22ee4f3f012
The 1982 and 1983 totals were the same there so the 1979-1981 discovered were counted and added to table above.

8 Sociology

Sociology, 1981 high impact factor journals			# of records in from Web of Science database				
Journal name	Journal Abbrev.	1981 ImpFac	1979	1980	1981	1982	1983
AMERICAN SOCIOLOGICAL REVIEW	AM SOCIOL REV	3.188	84	88	96	86	80
AMERICAN JOURNAL OF SOCIOLOGY	AM J SOCIOL	1.669	237	240	222	213	224
ANNUAL REVIEW OF SOCIOLOGY	ANNU REV SOCIOL	1.563	16	16	15	13	26
SOCIOLOGY – THE JOURNAL OF THE BRITISH SOCIOLOGICAL ASSOCIATION	SOCIOLOGY	1.077	93	101	78	103	61
SOCIAL PROBLEMS	SOC PROBL	.891	49	47	47	46	46

Note that top impact factor journals in sociology 1981 are still top impact factor journals 2005-2009.

Appendix S – 1

Asymmetric citation matrices without self-citations 1979-1983

1979	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	0	0	7	1	0	0	3	3	**14**
communication	0	0	0	0	2	0	3	7	**12**
economics	0	0	0	4	0	2	0	30	**36**
geography	1	0	0	0	0	0	0	2	**3**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	2	24	0	0	0	1	17	**44**
psychology	1	7	0	0	3	0	0	8	**19**
sociology	0	13	0	4	0	5	4	0	**26**
totals	**2**	**22**	**31**	**9**	**5**	**7**	**11**	**67**	**154**

1980	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	0	0	0	2	0	0	0	4	**6**
communication	0	0	0	0	9	0	1	9	**19**
economics	0	0	0	15	0	1	17	24	**57**
geography	0	0	0	0	0	0	0	3	**3**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	4	18	2	0	0	8	18	**50**
psychology	0	4	1	0	3	0	0	6	**14**
sociology	0	7	3	8	0	0	27	0	**45**
totals	**0**	**15**	**22**	**27**	**12**	**1**	**53**	**64**	**194**

1981	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	0	0	0	0	0	0	3	11	**14**
communication	0	0	0	0	0	0	90	11	**101**
economics	0	1	0	3	0	2	5	15	**26**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	5	17	1	0	0	2	8	**33**
psychology	0	6	1	16	2	0	0	2	**27**
sociology	1	10	1	1	1	3	4	0	**21**
totals	**1**	**22**	**19**	**21**	**3**	**5**	**104**	**47**	**222**

Appendix S – 2

Asymmetric citation matrices without self-citations 1979-1983

1982	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	0	0	0	0	0	0	0	4	**4**
communication	0	0	0	0	12	0	2	17	**31**
economics	0	0	0	2	2	4	0	19	**27**
geography	0	0	0	0	0	0	1	1	**2**
info&libSci	0	0	0	1	0	0	0	0	**1**
politicalSci	0	10	20	0	0	0	13	8	**51**
psychology	0	11	13	0	0	5	0	7	**36**
sociology	0	14	2	10	0	8	9	0	**43**
totals	**0**	**35**	**35**	**13**	**14**	**17**	**25**	**56**	**195**

1983	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	0	0	0	0	0	1	2	14	**17**
communication	0	0	0	1	3	1	2	10	**17**
economics	0	0	0	12	0	2	0	28	**42**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	8	9	5	0	0	0	14	**36**
psychology	0	1	0	0	1	0	0	3	**5**
sociology	0	21	1	6	0	1	2	0	**31**
totals	**0**	**30**	**10**	**24**	**4**	**5**	**6**	**69**	**148**

Remember:
"cites" = column labeled disciplines cite row labeled disciplines
(for example communication cites psychology 1 times in 1983)

"cited" = row labeled disciplines are cited by column labeled disciplines
(for example communication is cited by psychology 2 times in 1983)

Appendix T – 1

Asymmetric citation matrices with self-citation 1979-1983

1979	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	436	0	7	1	0	0	3	3	**450**
communication	0	34	0	0	2	0	3	7	**46**
economics	0	0	150	4	0	2	0	30	**186**
geography	1	0	0	16	0	0	0	2	**19**
info&libSci	0	0	0	0	21	0	0	0	**21**
politicalSci	0	2	24	0	0	25	1	17	**69**
psychology	1	7	0	0	3	0	162	8	**181**
sociology	0	13	0	4	0	5	4	440	**466**
totals	**438**	**56**	**181**	**25**	**26**	**32**	**173**	**507**	**1438**

1980	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	57	0	0	2	0	0	0	4	**63**
communication	0	58	0	0	9	0	1	9	**77**
economics	0	0	155	15	0	1	17	24	**212**
geography	0	0	0	44	0	0	0	3	**47**
info&libSci	0	0	0	0	6	0	0	0	**6**
politicalSci	0	4	18	2	0	4	8	18	**54**
psychology	0	4	1	0	3	0	134	6	**148**
sociology	0	7	3	8	0	0	27	483	**528**
totals	**57**	**73**	**177**	**71**	**18**	**5**	**187**	**547**	**1135**

1981	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	584	0	0	0	0	0	3	11	**598**
communication	0	70	0	0	0	0	90	11	**171**
economics	0	1	144	3	0	2	5	15	**170**
geography	0	0	0	50	0	0	0	0	**50**
info&libSci	0	0	0	0	35	0	0	0	**35**
politicalSci	0	5	17	1	0	16	2	8	**49**
psychology	0	6	1	16	2	0	192	2	**219**
sociology	1	10	1	1	1	3	4	499	**520**
totals	**585**	**92**	**163**	**71**	**38**	**21**	**296**	**546**	**1812**

Appendix T – 2

Asymmetric citation matrices with self-citation 1979-1983

1982	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	473	0	0	0	0	0	0	4	**477**
communication	0	83	0	0	12	0	2	17	**114**
economics	0	0	112	2	2	4	0	19	**139**
geography	0	0	0	20	0	0	1	1	**22**
info&libSci	0	0	0	1	10	0	0	0	**11**
politicalSci	0	10	20	0	0	8	13	8	**59**
psychology	0	11	13	0	0	5	142	7	**178**
sociology	0	14	2	10	0	8	9	389	**432**
totals	**473**	**118**	**147**	**33**	**24**	**25**	**167**	**445**	**1432**

1983	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	532	0	0	0	0	1	2	14	**549**
communication	0	99	0	1	3	1	2	10	**116**
economics	0	0	86	12	0	2	0	28	**128**
geography	0	0	0	37	0	0	0	0	**37**
info&libSci	0	0	0	0	4	0	0	0	**4**
politicalSci	0	8	9	5	0	11	0	14	**47**
psychology	0	1	0	0	1	0	130	3	**135**
sociology	0	21	1	6	0	1	2	416	**447**
totals	**532**	**129**	**96**	**61**	**8**	**16**	**136**	**485**	**1463**

Remember:
"cites" = column labeled disciplines cite row labeled disciplines
(for example communication cites psychology 1 times in 1983)

"cited" = row labeled disciplines are cited by column labeled disciplines
(for example communication is cited by psychology 2 times in 1983)

Appendix U – 1

Asymmetric citation matrices without self-citation 2005-2009

2005	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
anthropology	0	0	0	0	0	0	43	1	**44**
communication	0	0	1	0	8	11	0	7	**27**
economics	0	4	0	71	6	20	15	19	**135**
geography	0	0	0	0	0	0	0	0	**0**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	219	14	0	2	0	1	48	**284**
psychology	11	4	1	0	19	5	0	11	**51**
sociology	0	17	11	3	14	10	8	0	**63**
Totals	**11**	**244**	**27**	**74**	**49**	**46**	**67**	**86**	**604**

2006	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
anthropology	0	0	0	0	1	0	39	2	**42**
communication	0	0	0	0	4	6	1	11	**22**
economics	0	0	0	1	16	34	8	7	**66**
geography	0	0	1	0	0	0	1	0	**2**
info&libSci	0	0	0	0	0	0	1	0	**1**
politicalSci	0	0	2	2	2	0	1	28	**35**
psychology	18	1	16	0	18	0	0	7	**60**
sociology	1	0	4	8	15	17	5	0	**50**
Totals	**19**	**1**	**23**	**11**	**56**	**57**	**56**	**55**	**278**

2007	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	totals
anthropology	0	0	0	0	0	0	30	1	**31**
communication	0	0	0	0	10	15	1	3	**29**
economics	0	0	0	0	11	1	14	20	**46**
geography	0	0	0	0	2	0	0	1	**3**
info&libSci	0	0	0	0	0	0	0	0	**0**
politicalSci	0	229	1	0	0	0	4	34	**268**
psychology	1	14	0	0	40	1	0	16	**72**
sociology	1	11	0	2	17	3	4	0	**38**
Totals	**2**	**254**	**1**	**2**	**80**	**20**	**53**	**75**	**487**

Appendix U – 2

Asymmetric citation matrices without self-citation 2005-2009

2008	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	0	1	0	1	0	0	2	9	**13**
communication	0	0	4	0	11	3	1	2	**21**
economics	0	11	0	1	20	15	17	41	**105**
geography	0	0	0	0	0	0	0	2	**2**
info&libSci	0	1	0	0	0	0	3	0	**4**
politicalSci	0	11	0	22	0	0	0	4	**37**
psychology	4	24	5	1	18	0	0	6	**58**
sociology	0	27	7	5	13	6	0	0	**58**
Totals	**4**	**75**	**16**	**30**	**62**	**24**	**23**	**64**	**298**
									298

2009	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	0	6	0	0	2	0	4	2	**14**
communication	0	0	0	0	3	0	17	8	**28**
economics	0	2	0	165	18	31	9	17	**242**
geography	0	0	0	0	0	0	0	4	**4**
info&libSci	0	42	0	0	0	0	0	2	**44**
politicalSci	0	13	4	4	2	0	30	14	**67**
psychology	19	10	10	1	59	5	0	2	**106**
sociology	0	40	9	17	28	4	4	0	**102**
Totals	**19**	**113**	**23**	**187**	**112**	**40**	**64**	**49**	**607**

Remember:
"cites" = column labeled disciplines cite row labeled disciplines
(for example anthropology cites psychology 19 times in 2009)

"cited" = row labeled disciplines are cited by column labeled disciplines
(for example anthropology is cited by psychology 4 times in 2009)

Appendix V-1

Asymmetric Matrices with self-citations 2005-2009

2005	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	1124	0	0	0	0	0	43	1	**1168**
communication	0	140	1	0	8	11	0	7	**167**
economics	0	4	129	71	6	20	15	19	**264**
geography	0	0	0	61	0	0	0	0	**61**
info&libSci	0	0	0	0	229	0	0	0	**229**
politicalSci	0	219	14	0	2	280	1	48	**564**
psychology	11	4	1	0	19	5	395	11	**446**
sociology	0	17	11	3	14	10	8	455	**518**
totals	**1135**	**384**	**156**	**135**	**278**	**326**	**462**	**541**	**3417**

2006	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	1338	0	0	0	1	0	39	2	**1380**
communication	0	6	0	0	4	6	1	11	**28**
economics	0	0	100	1	16	34	8	7	**166**
geography	0	0	1	168	0	0	1	0	**170**
info&libSci	0	0	0	0	351	0	1	0	**352**
politicalSci	0	0	2	2	2	466	1	28	**501**
psychology	18	1	16	0	18	0	255	7	**315**
sociology	1	0	4	8	15	17	5	242	**292**
totals	**1357**	**7**	**123**	**179**	**407**	**523**	**311**	**297**	**3204**

2007	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	80	0	0	0	0	0	30	1	**111**
communication	0	152	0	0	10	15	1	3	**181**
economics	0	0	31	0	11	1	14	20	**77**
geography	0	0	0	14	2	0	0	1	**17**
info&libSci	0	0	0	0	432	0	0	0	**432**
politicalSci	0	229	1	0	0	167	4	34	**435**
psychology	1	14	0	0	40	1	334	16	**406**
sociology	1	11	0	2	17	3	4	478	**516**
totals	**82**	**406**	**32**	**16**	**512**	**187**	**387**	**553**	**2175**

Appendix V-2

Asymmetric Matrices with self-citations 2005-2009

2008	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	2229	1	0	1	0	0	2	9	**2242**
communication	0	165	4	0	11	3	1	2	**186**
economics	0	11	307	1	20	15	17	41	**412**
geography	0	0	0	158	0	0	0	2	**160**
info&libSci	0	1	0	0	236	0	3	0	**240**
politicalSci	0	11	0	22	0	113	0	4	**150**
psychology	4	24	5	1	18	0	240	6	**298**
sociology	0	27	7	5	13	6	0	402	**460**
totals	**2233**	**240**	**323**	**188**	**298**	**137**	**263**	**466**	**4148**

2009	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**totals**
anthropology	219	6	0	0	2	0	4	2	**233**
communication	0	168	0	0	3	0	17	8	**196**
economics	0	2	222	165	18	31	9	17	**464**
geography	0	0	0	189	0	0	0	4	**193**
info&libSci	0	42	0	0	283	0	0	2	**327**
politicalSci	0	13	4	4	2	169	30	14	**236**
psychology	19	10	10	1	59	5	188	2	**294**
sociology	0	40	9	17	28	4	4	307	**409**
totals	**238**	**281**	**245**	**376**	**395**	**209**	**252**	**356**	**2352**

Remember:
"cites" = column labeled disciplines cite row labeled disciplines
(for example anthropology cites psychology 19 times in 2009)

"cited" = row labeled disciplines are cited by column labeled disciplines
(for example anthropology is cited by psychology 4 times in 2009)

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 2005 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolc	0	0	0	0	0	0	43	1	44	7.284768
communic	0	0	1	0	8	11	0	7	27	4.470199
economics	0	4	0	71	6	20	15	19	135	22.35099
geography	0	0	0	0	0	0	0	0	0	0
info&libSci	0	0	0	0	0	0	0	0	0	0
politicalSci	0	219	14	0	2	0	1	48	284	47.01987
psychology	11	4	1	0	19	5	0	11	51	8.443709
sociology	0	17	11	3	14	10	8	0	63	10.43046
column tota	11	244	27	74	49	46	67	86	604	100
col:%ofTota	1.8211921	40.4	4.4702	12.3	8.113	7.616	11.093	14.23841	604	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	0	0	0	0	0	0	11	0	11	1.821192
communicat	0	0	4	0	0	219	4	17	244	40.39735
economics	0	1	0	0	0	14	1	11	27	4.470199
geography	0	0	71	0	0	0	0	3	74	12.25166
info. & librar	0	8	6	0	0	2	19	14	49	8.112583
politicalScie	0	11	20	0	0	0	5	10	46	7.615894
psychology	43	0	15	0	0	1	0	8	67	11.09272
sociology	1	7	19	0	0	48	11	0	86	14.23841
column tota	44	27	135	0	0	284	51	63	604	100
col:%ofTota	7.2847682	4.47	22.351	0	0	47.02	8.4437	10.43046	604	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	11	0	11
communicat	0	0	4	0	0	219	4	17	244
economics	0	4	0	0	0	14	1	11	30
geography	0	0	0	0	0	0	0	3	3
info&libSci	0	0	0	0	0	2	19	14	35
politicalSci	0	219	14	0	2	0	5	10	250
psychology	11	4	1	0	19	5	0	8	48
sociology	0	17	11	3	14	10	8	0	63
column tota	11	244	30	3	35	250	48	63	684
									684

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	43	1	44
communicat	0	0	1	0	8	11	0	7	27
economics	0	1	0	71	6	20	15	19	132
geography	0	0	71	0	0	0	0	0	71
info&libSci	0	8	6	0	0	0	0	0	14
politicalSci	0	11	20	0	0	0	1	48	80
psychology	43	0	15	0	0	1	0	11	70
sociology	1	7	19	0	0	48	11	0	86
column tota	44	27	132	71	14	80	70	86	524
									524

2005 without self citations
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	27	0.5	27.5
communicat	0	0	2.5	0	4	115	2	12	135.5
economics	0	2.5	0	35.5	3	17	8	15	81
geography	0	0	35.5	0	0	0	0	1.5	37
info. & librar	0	4	3	0	0	1	9.5	7	24.5
politicalScie	0	115	17	0	1	0	3	29	165
psychology	27	2	8	0	9.5	3	0	9.5	59
sociology	0.5	12	15	1.5	7	29	9.5	0	74.5
column total	27.5	135.5	81	37	24.5	165	59	74.5	841

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	32	1	33
communicat	0	0	3	0	8	208	4	10	233
economics	0	3	0	71	6	6	14	8	108
geography	0	0	71	0	0	0	0	3	74
info. & librar	0	8	6	0	0	2	19	14	49
politicalScie	0	208	6	0	2	0	4	38	258
psychology	32	4	14	0	19	4	0	3	76
sociology	1	10	8	3	14	38	3	0	77
column total	33	233	108	74	49	258	76	77	908

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	1850	7	664	0	0	91	11	344	2967
communicat	7	235	401	0	0	366	285	233	1527
economics	664	401	6079	0	0	1815	439	685	10083
geography	0	0	0	0	0	0	0	0	0
info. & librar	0	0	0	0	0	0	0	0	0
politicalScie	91	366	1815	0	0	50466	1456	3913	58107
psychology	11	285	439	0	0	1456	645	395	3231
sociology	344	233	685	0	0	3913	395	779	6349
column total	2967	1527	10083	0	0	58107	3231	6349	82264

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	43	1	44
communicat	0	0	1	0	8	11	0	7	27
economics	0	4	0	71	6	20	15	19	135
geography	0	0	0	0	0	0	0	0	0
info. & librar	0	0	0	0	0	0	0	0	0
politicalScie	0	219	14	0	2	0	1	48	284
psychology	11	4	1	0	19	5	0	11	51
sociology	0	17	11	3	14	10	8	0	63
column total	11	244	27	74	49	46	67	86	604

WITH SELF CITATIONS

Note: column labels are disciplines whose 2005 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolc	1124	0	0	0	0	0	43	1	1168	34.18203
communic	0	140	1	0	8	11	0	7	167	4.887328
economics	0	4	129	71	6	20	15	19	264	7.726076
geography	0	0	0	61	0	0	0	0	61	1.785192
info&libSci	0	0	0	0	229	0	0	0	229	6.701785
politicalSci	0	219	14	0	2	280	1	48	564	16.50571
psychology	11	4	1	0	19	5	395	11	446	13.05239
sociology	0	17	11	3	14	10	8	455	518	15.1595
column tota	1135	384	156	135	278	326	462	541	3417	100
col:%ofTota	33.216272	11.24	4.5654	3.95	8.136	9.541	13.521	15.8326	3417	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	1124	0	0	0	0	0	11	0	1135	33.21627
communicat	0	140	4	0	0	219	4	17	384	11.23793
economics	0	1	129	0	0	14	1	11	156	4.565408
geography	0	0	71	61	0	0	0	3	135	3.950834
info. & libra	0	8	6	0	229	2	19	14	278	8.135792
politicalScie	0	11	20	0	0	280	5	10	326	9.540533
psychology	43	0	15	0	0	1	395	8	462	13.52063
sociology	1	7	19	0	0	48	11	455	541	15.8326
column tota	1168	167	264	61	229	564	446	518	3417	100
col:%ofTota	34.182031	4.887	7.7261	1.79	6.702	16.51	13.052	15.1595	3417	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	1124	0	0	0	0	0	11	0	1135
communicat	0	140	4	0	0	219	4	17	384
economics	0	4	129	0	0	14	1	11	159
geography	0	0	0	61	0	0	0	3	64
info&libSci	0	0	0	0	229	2	19	14	264
politicalSci	0	219	14	0	2	280	5	10	530
psychology	11	4	1	0	19	5	395	8	443
sociology	0	17	11	3	14	10	8	455	518
column tota	1135	384	159	64	264	530	443	518	3497
									3497

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	1124	0	0	0	0	0	43	1	1168
communicat	0	140	1	0	8	11	0	7	167
economics	0	1	129	71	6	20	15	19	261
geography	0	0	71	61	0	0	0	0	132
info&libSci	0	8	6	0	229	0	0	0	243
politicalSci	0	11	20	0	0	280	1	48	360
psychology	43	0	15	0	0	1	395	11	465
sociology	1	7	19	0	0	48	11	455	541
column tota	1168	167	261	132	243	360	465	541	3337
									3337

2005 WITH self citation

means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalSc	psycholog	sociology	row totals
anthropolog	1124	0	0	0	0	0	27	0.5	1151.5
communicat	0	140	2.5	0	4	115	2	12	275.5
economics	0	2.5	129	35.5	3	17	8	15	210
geography	0	0	35.5	61	0	0	0	1.5	98
info. & librar	0	4	3	0	229	1	9.5	7	253.5
politicalScie	0	115	17	0	1	280	3	29	445
psychology	27	2	8	0	9.5	3	395	9.5	454
sociology	0.5	12	15	1.5	7	29	9.5	455	529.5
column total	1151.5	275.5	210	98	253.5	445	454	529.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalSc	psycholog	sociology	row totals
anthropolog	1124	0	0	0	0	0	32	1	1157
communicat	0	140	3	0	8	208	4	10	373
economics	0	3	129	71	6	6	14	8	237
geography	0	0	71	61	0	0	0	3	135
info. & librar	0	8	6	0	229	2	19	14	278
politicalScie	0	208	6	0	2	280	4	38	538
psychology	32	4	14	0	19	4	395	3	471
sociology	1	10	8	3	14	38	3	455	532
column total	1157	373	237	135	278	538	471	532	3721

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalSc	psycholog	sociology	row totals
anthropolog	1265226	7	664	0	0	91	29360	799	1296147
communicat	7	19835	1090	0	1832	34106	845	5798	63513
economics	664	1090	22720	4331	1374	9221	6493	10749	56642
geography	0	0	4331	3721	0	0	0	183	8235
info. & librar	0	1832	1374	0	52441	458	4351	3206	63662
politicalScie	91	34106	9221	0	458	128866	3251	28553	204546
psychology	29360	845	6493	0	4351	3251	156670	8560	209530
sociology	799	5798	10749	183	3206	28553	8560	207804	265652
column total	1296147	63513	56642	8235	63662	204546	209530	265652	2167927

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalSc	psycholog	sociology	row totals
anthropolog	1263497	44	11	0	209	55	52677	1245	1317738
communicat	44	67882	3913	335	1896	63130	1995	19347	158542
economics	11	3913	16960	9192	983	6626	2432	8146	48263
geography	0	335	9192	8771	468	1450	1089	2714	24019
info. & librar	209	1896	983	468	53102	1003	7709	6845	72215
politicalScie	55	63130	6626	1450	1003	79046	2635	18502	172447
psychology	52677	1995	2432	1089	7709	2635	158164	8361	235062
sociology	1245	19347	8146	2714	6845	18502	8361	209861	275021
column total	1317738	158542	48263	24019	72215	172447	235062	275021	2303307

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 2006 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	0	0	0	0	1	0	39	2	42	15.10791
communic	0	0	0	0	4	6	1	11	22	7.913669
economics	0	0	0	1	16	34	8	7	66	23.74101
geography	0	0	1	0	0	0	1	0	2	0.719424
info&libSci	0	0	0	0	0	0	1	0	1	0.359712
politicalSci	0	0	2	2	2	0	1	28	35	12.58993
psychology	18	1	16	0	18	0	0	7	60	21.58273
sociology	1	0	4	8	15	17	5	0	50	17.98561
column tota	19	1	23	11	56	57	56	55	278	100
col:%ofTota	6.8345324	0.36	8.2734	3.96	20.14	20.5	20.144	19.78417	278	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	0	0	0	0	0	0	18	1	19	6.834532
communicat	0	0	0	0	0	0	1	0	1	0.359712
economics	0	0	0	1	0	2	16	4	23	8.273381
geography	0	0	1	0	0	2	0	8	11	3.956835
info. & libra	1	4	16	0	0	2	18	15	56	20.14388
politicalScie	0	6	34	0	0	0	0	17	57	20.5036
psychology	39	1	8	1	1	1	0	5	56	20.14388
sociology	2	11	7	0	0	28	7	0	55	19.78417
column tota	42	22	66	2	1	35	60	50	278	100
col:%ofTota	15.107914	7.914	23.741	0.72	0.36	12.59	21.583	17.98561	278	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	18	1	19
communicat	0	0	0	0	0	0	1	0	1
economics	0	0	0	1	0	2	16	4	23
geography	0	0	1	0	0	2	0	8	11
info&libSci	0	0	0	0	0	2	18	15	35
politicalSci	0	0	2	2	2	0	0	17	23
psychology	18	1	16	0	18	0	0	5	58
sociology	1	0	4	8	15	17	5	0	50
column tota	19	1	23	11	35	23	58	50	220
									220

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	1	0	39	2	42
communicat	0	0	0	0	4	6	1	11	22
economics	0	0	0	1	16	34	8	7	66
geography	0	0	1	0	0	0	1	0	2
info&libSci	1	4	16	0	0	0	1	0	22
politicalSci	0	6	34	0	0	0	1	28	69
psychology	39	1	8	1	1	1	0	7	58
sociology	2	11	7	0	0	28	7	0	55
column tota	42	22	66	2	22	69	58	55	336
									336

Appendix W-2b

2006 WITHOUT self citations
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0.5	0	28.5	1.5	30.5
communicat	0	0	0	0	2	3	1	5.5	11.5
economics	0	0	0	1	8	18	12	5.5	44.5
geography	0	0	1	0	0	1	0.5	4	6.5
info. & librar	0.5	2	8	0	0	1	9.5	7.5	28.5
politicalScie	0	3	18	1	1	0	0.5	22.5	46
psychology	28.5	1	12	0.5	9.5	0.5	0	6	58
sociology	1.5	5.5	5.5	4	7.5	22.5	6	0	52.5
column total	30.5	11.5	44.5	6.5	28.5	46	58	52.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	1	0	21	1	23
communicat	0	0	0	0	4	6	0	11	21
economics	0	0	0	0	16	32	8	3	59
geography	0	0	0	0	0	2	1	8	11
info. & librar	1	4	16	0	0	2	17	15	55
politicalScie	0	6	32	2	2	0	1	11	54
psychology	21	0	8	1	17	1	0	2	50
sociology	1	11	3	8	15	11	2	0	51
column total	23	21	59	11	55	54	50	51	324

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	1526	65	342	39	39	97	32	210	2350
communicat	65	174	353	1	1	317	149	167	1227
economics	342	353	1526	8	8	238	337	866	3678
geography	39	1	8	2	1	3	16	9	79
info. & librar	39	1	8	1	1	1	0	5	56
politicalScie	97	317	238	3	1	797	264	59	1776
psychology	32	149	337	16	0	264	954	352	2104
sociology	210	167	866	9	5	59	352	620	2288
column total	2350	1227	3678	79	56	1776	2104	2288	13558 13558

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	325	18	292	8	339	17	5	126	1130
communicat	18	1	16	0	18	0	0	7	60
economics	292	16	277	36	352	68	23	168	1232
geography	8	0	36	69	140	170	50	63	536
info. & librar	339	18	352	140	826	823	248	340	3086
politicalScie	17	0	68	170	823	1481	363	304	3226
psychology	5	0	23	50	248	363	1614	173	2476
sociology	126	7	168	63	340	304	173	1007	2188
column total	1130	60	1232	536	3086	3226	2476	2188	13934

WITH SELF CITATIONS

Note: column labels are disciplines whose 2006 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	1338	0	0	0	1	0	39	2	1380	43.07116
communic	0	6	0	0	4	6	1	11	28	0.873908
economics	0	0	100	1	16	34	8	7	166	5.181024
geography	0	0	1	168	0	0	1	0	170	5.305868
info&libSci	0	0	0	0	351	0	1	0	352	10.98627
politicalSci	0	0	2	2	2	466	1	28	501	15.6367
psychology	18	1	16	0	18	0	255	7	315	9.831461
sociology	1	0	4	8	15	17	5	242	292	9.113608
column tota	1357	7	123	179	407	523	311	297	3204	100
col:%ofTota	42.353308	0.218	3.839	5.59	12.7	16.32	9.7066	9.269663	3204	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	1338	0	0	0	0	0	18	1	1357	42.35331
communicat	0	6	0	0	0	0	1	0	7	0.218477
economics	0	0	100	1	0	2	16	4	123	3.838951
geography	0	0	1	168	0	2	0	8	179	5.586767
info. & libra	1	4	16	0	351	2	18	15	407	12.70287
politicalScie	0	6	34	0	0	466	0	17	523	16.32335
psychology	39	1	8	1	1	1	255	5	311	9.706617
sociology	2	11	7	0	0	28	7	242	297	9.269663
column tota	1380	28	166	170	352	501	315	292	3204	100
col:%ofTota	43.071161	0.874	5.181	5.31	10.99	15.64	9.8315	9.113608	3204	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	1338	0	0	0	0	0	18	1	1357
communicat	0	6	0	0	0	0	1	0	7
economics	0	0	100	1	0	2	16	4	123
geography	0	0	1	168	0	2	0	8	179
info&libSci	0	0	0	0	351	2	18	15	386
politicalSci	0	0	2	2	2	466	0	17	489
psychology	18	1	16	0	18	0	255	5	313
sociology	1	0	4	8	15	17	5	242	292
column tota	1357	7	123	179	386	489	313	292	3146
									3146

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	1338	0	0	0	1	0	39	2	1380
communicat	0	6	0	0	4	6	1	11	28
economics	0	0	100	1	16	34	8	7	166
geography	0	0	1	168	0	0	1	0	170
info&libSci	1	4	16	0	351	0	1	0	373
politicalSci	0	6	34	0	0	466	1	28	535
psychology	39	1	8	1	1	1	255	7	313
sociology	2	11	7	0	0	28	7	242	297
column tota	1380	28	166	170	373	535	313	297	3262
									3262

2006 WITH self citations
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	1338	0	0	0	0.5	0	28.5	1.5	1368.5
communicat	0	6	0	0	2	3	1	5.5	17.5
economics	0	0	100	1	8	18	12	5.5	144.5
geography	0	0	1	168	0	1	0.5	4	174.5
info. & librar	0.5	2	8	0	351	1	9.5	7.5	379.5
politicalScie	0	3	18	1	1	466	0.5	22.5	512
psychology	28.5	1	12	0.5	9.5	0.5	255	6	313
sociology	1.5	5.5	5.5	4	7.5	22.5	6	242	294.5
column total	1368.5	17.5	144.5	174.5	379.5	512	313	294.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	1338	0	0	0	1	0	21	1	1361
communicat	0	6	0	0	4	6	0	11	27
economics	0	0	100	0	16	32	8	3	159
geography	0	0	0	168	0	2	1	8	179
info. & librar	1	4	16	0	351	2	17	15	406
politicalScie	0	6	32	2	2	466	1	11	520
psychology	21	0	8	1	17	1	255	2	305
sociology	1	11	3	8	15	11	2	242	293
column total	1361	27	159	179	406	520	305	293	3250

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	108212	55	597	4	432	224	14436	2467	126427
communicat	41	1076	284	19	1728	2754	760	5414	12076
economics	247	699	3562	53	6912	6048	3458	3754	24733
geography	30	1	45	2352	0	5	334	340	3107
info. & librar	30	3511	3875	702	151632	4	14374	5971	180099
politicalScie	58	7095	1124	60	864	78780	1328	14824	104133
psychology	9097	608	4404	43	7776	1503	86034	4701	114166
sociology	472	1136	5216	384	6480	11091	6160	116019	146958
column total	118187	14181	19107	3617	175824	100409	126884	153490	711699

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	107059	1	20	8	113	17	3380	409	111007
communicat	263	926	726	546	1483	107813	4006	10844	126607
economics	0	0	3102	33	498	1520	249	245	5647
geography	2	0	22	2368	30	34	24	484	2964
info. & librar	737	100	1810	483	152823	723	10817	4581	172074
politicalScie	21	91	462	359	473	77997	460	5581	85444
psychology	46156	340	6768	54	6338	2414	86477	3587	152134
sociology	2104	34	4237	4080	7859	24668	6707	116915	166604
column total	156342	1492	17147	7931	169617	215186	112120	142646	822481
									822481

Appendix W-3a

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 2007 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	0	0	0	0	0	0	30	1	31	6.365503
communic	0	0	0	0	10	15	1	3	29	5.954825
economics	0	0	0	0	11	1	14	20	46	9.445585
geography	0	0	0	0	2	0	0	1	3	0.616016
info&libSci	0	0	0	0	0	0	0	0	0	0
politicalSci	0	229	1	0	0	0	4	34	268	55.0308
psychology	1	14	0	0	40	1	0	16	72	14.78439
sociology	1	11	0	2	17	3	4	0	38	7.802875
column tota	2	254	1	2	80	20	53	75	487	100
col:%ofTota	0.4106776	52.16	0.2053	0.41	16.43	4.107	10.883	15.40041	487	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	0	0	0	0	0	0	1	1	2	0.410678
communicat	0	0	0	0	0	229	14	11	254	52.15606
economics	0	0	0	0	0	1	0	0	1	0.205339
geography	0	0	0	0	0	0	0	2	2	0.410678
info. & librar	0	10	11	2	0	0	40	17	80	16.4271
politicalScie	0	15	1	0	0	0	1	3	20	4.106776
psychology	30	1	14	0	0	4	0	4	53	10.88296
sociology	1	3	20	1	0	34	16	0	75	15.40041
column tota	31	29	46	3	0	268	72	38	487	100
col:%ofTota	6.3655031	5.955	9.4456	0.62	0	55.03	14.784	7.802875	487	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	1	1	2
communicat	0	0	0	0	0	229	14	11	254
economics	0	0	0	0	0	1	0	0	1
geography	0	0	0	0	0	0	0	2	2
info&libSci	0	0	0	0	0	0	40	17	57
politicalSci	0	229	1	0	0	0	1	3	234
psychology	1	14	0	0	40	1	0	4	60
sociology	1	11	0	2	17	3	4	0	38
column tota	2	254	1	2	57	234	60	38	648
									648

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	30	1	31
communicat	0	0	0	0	10	15	1	3	29
economics	0	0	0	0	11	1	14	20	46
geography	0	0	0	0	2	0	0	1	3
info&libSci	0	10	11	2	0	0	0	0	23
politicalSci	0	15	1	0	0	0	4	34	54
psychology	30	1	14	0	0	4	0	16	65
sociology	1	3	20	1	0	34	16	0	75
column tota	31	29	46	3	23	54	65	75	326
									326

Appendix W-3b

2007 WITHOUT self citations
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	15.5	1	16.5
communicat	0	0	0	0	5	122	7.5	7	141.5
economics	0	0	0	0	5.5	1	7	10	23.5
geography	0	0	0	0	1	0	0	1.5	2.5
info. & librar	0	5	5.5	1	0	0	20	8.5	40
politicalScie	0	122	1	0	0	0	2.5	18.5	144
psychology	15.5	7.5	7	0	20	2.5	0	10	62.5
sociology	1	7	10	1.5	8.5	18.5	10	0	56.5
column total	16.5	141.5	23.5	2.5	40	144	62.5	56.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	29	0	29
communicat	0	0	0	0	10	214	13	8	245
economics	0	0	0	0	11	0	14	20	45
geography	0	0	0	0	2	0	0	1	3
info. & librar	0	10	11	2	0	0	40	17	80
politicalScie	0	214	0	0	0	0	3	31	248
psychology	29	13	14	0	40	3	0	12	111
sociology	0	8	20	1	17	31	12	0	89
column total	29	245	45	3	80	248	111	89	850

Matrix product A*At (post multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	901	33	440	1	0	154	16	120	1665
communicat	33	335	199	23	0	106	463	219	1378
economics	440	199	718	42	0	736	761	246	3142
geography	1	23	42	5	0	34	96	34	235
info. & librar	0	0	0	0	0	0	0	0	0
politicalScie	154	106	736	34	0	53614	3750	2535	60929
psychology	16	463	761	96	0	3750	2054	838	7978
sociology	120	219	246	34	0	2535	838	440	4432
column total	1665	1378	3142	235	0	60929	7978	4432	79759

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	2	25	0	2	57	4	4	16	110
communicat	25	52758	229	22	747	47	960	8010	62798
economics	0	229	1	0	0	0	4	34	268
geography	2	22	0	4	34	6	8	0	76
info. & librar	57	747	0	34	2114	252	232	892	4328
politicalScie	4	47	0	6	252	236	41	81	667
psychology	4	960	4	8	232	41	1129	449	2827
sociology	16	8010	34	0	892	81	449	1823	11305
column total	110	62798	268	76	4328	667	2827	11305	82379

WITH SELF CITATIONS

Note: column labels are disciplines whose 2007 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolc	80	0	0	0	0	0	30	1	111	5.103448
communic	0	152	0	0	10	15	1	3	181	8.321839
economics	0	0	31	0	11	1	14	20	77	3.54023
geography	0	0	0	14	2	0	0	1	17	0.781609
info&libSci	0	0	0	0	432	0	0	0	432	19.86207
politicalSci	0	229	1	0	0	167	4	34	435	20
psychology	1	14	0	0	40	1	334	16	406	18.66667
sociology	1	11	0	2	17	3	4	478	516	23.72414
column tota	82	406	32	16	512	187	387	553	2175	100
col:%ofTota	3.7701149	18.67	1.4713	0.74	23.54	8.598	17.793	25.42529	2175	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row total	%ofTotalCited
anthropolog	80	0	0	0	0	0	1	1	82	3.770115
communicat	0	152	0	0	0	229	14	11	406	18.66667
economics	0	0	31	0	0	1	0	0	32	1.471264
geography	0	0	0	14	0	0	0	2	16	0.735632
info. & librar	0	10	11	2	432	0	40	17	512	23.54023
politicalScie	0	15	1	0	0	167	1	3	187	8.597701
psychology	30	1	14	0	0	4	334	4	387	17.7931
sociology	1	3	20	1	0	34	16	478	553	25.42529
column tota	111	181	77	17	432	435	406	516	2175	100
col:%ofTota	5.1034483	8.322	3.5402	0.78	19.86	20	18.667	23.72414	2175	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	80	0	0	0	0	0	1	1	82
communicat	0	152	0	0	0	229	14	11	406
economics	0	0	31	0	0	1	0	0	32
geography	0	0	0	14	0	0	0	2	16
info&libSci	0	0	0	0	432	0	40	17	489
politicalSci	0	229	1	0	0	167	1	3	401
psychology	1	14	0	0	40	1	334	4	394
sociology	1	11	0	2	17	3	4	478	516
column tota	82	406	32	16	489	401	394	516	2336
									2336

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	80	0	0	0	0	0	30	1	111
communicat	0	152	0	0	10	15	1	3	181
economics	0	0	31	0	11	1	14	20	77
geography	0	0	0	14	2	0	0	1	17
info&libSci	0	10	11	2	432	0	0	0	455
politicalSci	0	15	1	0	0	167	4	34	221
psychology	30	1	14	0	0	4	334	16	399
sociology	1	3	20	1	0	34	16	478	553
column tota	111	181	77	17	455	221	399	553	2014
									2014

2007 WITH self citations
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	80	0	0	0	0	0	15.5	1	96.5
communicat	0	152	0	0	5	122	7.5	7	293.5
economics	0	0	31	0	5.5	1	7	10	54.5
geography	0	0	0	14	1	0	0	1.5	16.5
info. & librar	0	5	5.5	1	432	0	20	8.5	472
politicalScie	0	122	1	0	0	167	2.5	18.5	311
psychology	15.5	7.5	7	0	20	2.5	334	10	396.5
sociology	1	7	10	1.5	8.5	18.5	10	478	534.5
column total	96.5	293.5	54.5	16.5	472	311	396.5	534.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	80	0	0	0	0	0	29	0	109
communicat	0	152	0	0	10	214	13	8	397
economics	0	0	31	0	11	0	14	20	76
geography	0	0	0	14	2	0	0	1	17
info. & librar	0	10	11	2	432	0	40	17	512
politicalScie	0	214	0	0	0	167	3	31	415
psychology	29	13	14	0	40	3	334	12	445
sociology	0	8	20	1	17	31	12	478	567
column total	109	397	76	17	512	415	445	567	2538
									2538

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	7301	33	440	1	0	154	10116	678	18723
communicat	33	23439	199	23	4320	37419	2925	3325	71683
economics	440	199	1679	42	4752	934	5437	9806	23289
geography	1	23	42	201	864	34	96	540	1801
info. & librar	0	4320	4752	864	186624	0	17280	7344	221184
politicalScie	154	37419	934	34	0	81503	5253	19288	144585
psychology	10116	2925	5437	96	17280	5253	113610	9822	164539
sociology	678	3325	9806	540	7344	19288	9822	228924	279727
column total	18723	71683	23289	1801	221184	144585	164539	279727	925531
									925531

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	6402	25	0	2	57	4	2738	574	9802
communicat	25	75862	229	22	2267	40570	5788	13724	138487
economics	0	229	962	0	341	198	438	654	2822
geography	2	22	0	200	62	6	8	970	1270
info. & librar	57	2267	341	62	188738	252	13592	9018	214327
politicalScie	4	40570	198	6	252	28125	1043	7193	77391
psychology	2738	5788	438	8	13592	1043	112685	7705	143997
sociology	574	13724	654	970	9018	7193	7705	230307	270145
column total	9802	138487	2822	1270	214327	77391	143997	270145	858241
									858241

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 2008 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix 2008 citation data (2011)

	anthropology	commun	economics	geograp	informat	politica	psychold	sociology	row total	%ofTotalCited
anthropology	0	1	0	1	0	0	2	9	13	4.3624161
communication	0	0	4	0	11	3	1	2	21	7.0469799
economics	0	11	0	1	20	15	17	41	105	35.234899
geography	0	0	0	0	0	0	0	2	2	0.6711409
info&libSci	0	1	0	0	0	0	3	0	4	1.3422819
politicalSci	0	11	0	22	0	0	0	4	37	12.416107
psychology	4	24	5	1	18	0	0	6	58	19.463087
sociology	0	27	7	5	13	6	0	0	58	19.463087
column totals	4	75	16	30	62	24	23	64	298	100
col:%ofTotal	1.34228	25.17	5.3691	10.07	20.81	8.05	7.718	21.477	298	
									100	

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix 2008 citation data (2011)

	anthropology	commun	economics	geograp	info. & li	politica	psychold	sociology	row totals	%ofTotalCited
anthropology	0	0	0	0	0	0	4	0	4	1.3422819
communication	1	0	11	0	1	11	24	27	75	25.167785
economics	0	4	0	0	0	0	5	7	16	5.3691275
geography	1	0	1	0	0	22	1	5	30	10.067114
info. & library s	0	11	20	0	0	0	18	13	62	20.805369
politicalScience	0	3	15	0	0	0	0	6	24	8.0536913
psychology	2	1	17	0	3	0	0	0	23	7.7181208
sociology	9	2	41	2	0	4	6	0	64	21.47651
column totals	13	21	105	2	4	37	58	58	298	100
col:%ofTotalCit	4.36242	7.047	35.235	0.671	1.342	12.4	19.46	19.463	100	
									298	

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of 2008/2011 asymmetric matrix)

	anthropology	commun	economics	geograp	informat	politica	psychold	sociology	row totals
anthropology	0	0	0	0	0	0	4	0	4
communication	0	0	11	0	1	11	24	27	74
economics	0	11	0	0	0	0	5	7	23
geography	0	0	0	0	0	22	1	5	28
info&libSci	0	1	0	0	0	0	18	13	32
politicalSci	0	11	0	22	0	0	0	6	39
psychology	4	24	5	1	18	0	0	0	52
sociology	0	27	7	5	13	6	0	0	58
column totals	4	74	23	28	32	39	52	58	310
									310

Symmetric Matrix 2 (upper triangle of 2008/2011 asymmetric matrix)

	anthropology	commun	economics	geograp	informat	politica	psychold	sociology	row totals
anthropology	0	1	0	1	0	0	2	9	13
communication	1	0	4	0	11	3	1	2	22
economics	0	4	0	1	20	15	17	41	98
geography	1	0	1	0	0	0	0	2	4
info&libSci	0	11	20	0	0	0	3	0	34
politicalSci	0	3	15	0	0	0	0	4	22
psychology	2	1	17	0	3	0	0	6	29
sociology	9	2	41	2	0	4	6	0	64
column totals	13	22	98	4	34	22	29	64	286
									286

2008 WITHOUT self sitations

means of upper/lower triangles from assymetric matrix values (this matrix is symmetric) - 2008/2011

	anthropology	communi	economics	geograp	info. & li	politica	psycholo	sociology	row totals
anthropology	0	0.5	0	0.5	0	0	3	4.5	8.5
communication	0.5	0	7.5	0	6	7	12.5	14.5	48
economics	0	7.5	0	0.5	10	7.5	11	24	60.5
geography	0.5	0	0.5	0	0	11	0.5	3.5	16
info. & library s	0	6	10	0	0	0	10.5	6.5	33
politicalScience	0	7	7.5	11	0	0	0	5	30.5
psychology	3	12.5	11	0.5	10.5	0	0	3	40.5
sociology	4.5	14.5	24	3.5	6.5	5	3	0	61
column totals	8.5	48	60.5	16	33	30.5	40.5	61	298

absolute value differences upper/lower triangles from assymetric matrix values (matrix is symmetric)2008/2011

	anthropology	communi	economics	geograp	info. & li	politica	psycholo	sociology	row totals
anthropology	0	1	0	1	0	0	2	9	13
communication	1	0	7	0	10	8	23	25	74
economics	0	7	0	1	20	15	12	34	89
geography	1	0	1	0	0	22	1	3	28
info. & library s	0	10	20	0	0	0	15	13	58
politicalScience	0	8	15	22	0	0	0	2	47
psychology	2	23	12	1	15	0	0	6	59
sociology	9	25	34	3	13	2	6	0	92
column totals	13	74	89	28	58	47	59	92	460
									460

2008 Matrix product A*At (post mulitiplied) / 2011

	anthropology	communi	economics	geograp	info. & li	politica	psycholo	sociology	row totals
anthropology	87	20	415	18	7	69	79	32	727
communication	20	151	364	4	3	8	230	189	969
economics	415	364	2717	82	62	307	871	652	5470
geography	18	4	82	4	0	8	12	0	128
info. & library s	7	3	62	0	10	11	24	27	144
politicalScience	69	8	307	8	11	621	310	407	1741
psychology	79	230	871	12	24	310	978	922	3426
sociology	32	189	652	0	27	407	922	1008	3237
column totals	727	969	5470	128	144	1741	3426	3237	15842
									15842

2008 Matrix product At*A (pre multiplied) / 2011

	anthropology	communi	economics	geograp	info. & li	politica	psycholo	sociology	row totals
anthropology	16	96	20	4	72	0	0	24	232
communication	96	1549	309	413	1003	327	192	648	4537
economics	20	309	90	40	225	54	4	38	780
geography	4	413	40	512	103	45	19	144	1280
info. & library s	72	1003	225	103	1014	411	351	950	4129
politicalScience	0	327	54	45	411	270	258	621	1986
psychology	0	192	4	19	351	258	303	717	1844
sociology	24	648	38	144	950	621	717	1822	4964
column totals	232	4537	780	1280	4129	1986	1844	4964	19752
									19752

WITH SELF CITATIONS *checked 7-1-11

Note: column labels are disciplines whose 2008 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix 2008 citation data (2011)

	anthropology	communi	economics	geogra	informa	politicalS	psycholog	sociology	row total	%ofTotalCited
anthropolog	2229	1	0	1	0	0	2	9	2242	54.05014
communicat	0	165	4	0	11	3	1	2	186	4.484089
economics	0	11	307	1	20	15	17	41	412	9.932498
geography	0	0	0	158	0	0	0	2	160	3.857281
info&libSci	0	1	0	0	236	0	3	0	240	5.785921
politicalSci	0	11	0	22	0	113	0	4	150	3.616201
psychology	4	24	5	1	18	0	240	6	298	7.184185
sociology	0	27	7	5	13	6	0	402	460	11.08968
column tota	2233	240	323	188	298	137	263	466	4148	100
col:%ofTota	53.833173	5.786	7.7869	4.53	7.18	3.303	6.3404	11.23433	4148	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix 2008 citation data (2011)

	anthropology	communi	economics	geogra	info. &	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	2229	0	0	0	0	0	4	0	2233	53.83317
communicat	1	165	11	0	1	11	24	27	240	5.785921
economics	0	4	307	0	0	0	5	7	323	7.786885
geography	1	0	1	158	0	22	1	5	188	4.532305
info. & libra	0	11	20	0	236	0	18	13	298	7.184185
politicalScie	0	3	15	0	0	113	0	6	137	3.302797
psychology	2	1	17	0	3	0	240	0	263	6.340405
sociology	9	2	41	2	0	4	6	402	466	11.23433
column tota	2242	186	412	160	240	150	298	460	4148	100
col:%ofTota	54.050145	4.484	9.9325	3.86	5.79	3.616	7.1842	11.08968	4148	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of 2008/2011 asymmetric matrix)

	anthropology	communi	economics	geogra	informa	political	psycholog	sociology	row totals
anthropolog	2229	0	0	0	0	0	4	0	2233
communicat	0	165	11	0	1	11	24	27	239
economics	0	11	307	0	0	0	5	7	330
geography	0	0	0	158	0	22	1	5	186
info&libSci	0	1	0	0	236	0	18	13	268
politicalSci	0	11	0	22	0	113	0	6	152
psychology	4	24	5	1	18	0	240	0	292
sociology	0	27	7	5	13	6	0	402	460
column tota	2233	239	330	186	268	152	292	460	4160
									4160

Symmetric Matrix 2 (upper triangle of 2008/2011 asymmetric matrix)

	anthropology	communi	economics	geogra	informa	political	psycholog	sociology	row totals
anthropolog	2229	1	0	1	0	0	2	9	2242
communicat	1	165	4	0	11	3	1	2	187
economics	0	4	307	1	20	15	17	41	405
geography	1	0	1	158	0	0	0	2	162
info&libSci	0	11	20	0	236	0	3	0	270
politicalSci	0	3	15	0	0	113	0	4	135
psychology	2	1	17	0	3	0	240	6	269
sociology	9	2	41	2	0	4	6	402	466
column tota	2242	187	405	162	270	135	269	466	4136
									4136

2008 WITH self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric) - 2008/2011

	anthropology	communi	economics	geogra	info. &	politicalS	psycholog	sociology	row totals
anthropolog	2228	0.5	0	0.5	0	0	3	4.5	2236.5
communicat	0.5	165	7.5	0	6	7	12.5	14.5	213
economics	0	7.5	306	0.5	10	7.5	11	24	366.5
geography	0.5	0	0.5	158	0	11	0.5	3.5	174
info. & librar	0	6	10	0	254	0	10.5	6.5	287
politicalScie	0	7	7.5	11	0	113	0	5	143.5
psychology	3	12.5	11	0.5	10.5	0	240	3	280.5
sociology	4.5	14.5	24	3.5	6.5	5	3	402	463
column total	2236.5	213	366.5	174	287	143.5	280.5	463	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric) - 2008/2011

	anthropology	communi	economics	geogra	info. &	politicalS	psycholog	sociology	row totals
anthropolog	2228	1	0	1	0	0	2	9	2241
communicat	1	165	7	0	10	8	23	25	239
economics	0	7	306	1	20	15	12	34	395
geography	1	0	1	158	0	22	1	3	186
info. & librar	0	10	20	0	254	0	15	13	312
politicalScie	0	8	15	22	0	113	0	2	160
psychology	2	23	12	1	15	0	240	6	296
sociology	9	25	34	3	13	2	6	402	494
column total	2241	239	395	186	312	160	296	494	4323

2008 Matrix product A*At (post mulitiplied) / 2011

	anthropology	communi	economics	geogra	info. &	politicalS	psycholog	sociology	row totals
anthropolog	4968528	185	415	176	7	69	9475	3650	4982505
communicat	185	27376	3407	4	2764	2162	4430	5448	45776
economics	415	3407	96966	240	4782	2002	6486	19283	133581
geography	176	4	240	24968	0	3484	170	1594	30636
info. & librar	7	2764	4782	0	55706	11	4992	3095	71357
politicalScie	69	2162	2002	3484	11	13390	310	2693	24121
psychology	9475	4430	6486	170	4992	310	58578	3334	87775
sociology	3650	5448	19283	1594	3095	2693	3334	162612	201709
column total	4982505	45776	133581	30636	71357	24121	87775	201709	5577460
									5577460

2008 Matrix product At*A (pre multiplied) / 2011

	anthropology	communi	economics	geogra	info. &	politicalS	psycholog	sociology	row totals
anthropolog	4968457	2325	20	2233	72	0	5418	20085	4998610
communicat	2325	28774	4346	413	3054	2065	6117	11832	58926
economics	20	4346	94339	347	6365	4659	6423	15439	131938
geography	2233	413	347	25476	103	2531	259	2470	33832
info. & librar	72	3054	6365	103	56710	411	5379	6176	78270
politicalScie	0	2065	4659	2531	411	13039	258	3485	26448
psychology	5418	6117	6423	259	5379	258	57903	2157	83914
sociology	20085	11832	15439	2470	6176	3485	2157	163426	225070
column total	4998610	58926	131938	33832	78270	26448	83914	225070	5637008
									5637008

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 2009 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economics	geograp	informat	politica	psycholc	sociology	row total	%ofTotalCited
anthropology	0	6	0	0	2	0	4	2	14	2.306425
communication	0	0	0	0	3	0	17	8	28	4.6128501
economics	0	2	0	165	18	31	9	17	242	39.868204
geography	0	0	0	0	0	0	0	4	4	0.6589786
info&libSci	0	42	0	0	0	0	0	2	44	7.2487644
politicalSci	0	13	4	4	2	0	30	14	67	11.037891
psychology	19	10	10	1	59	5	0	2	106	17.462932
sociology	0	40	9	17	28	4	4	0	102	16.803954
column totals	19	113	23	187	112	40	64	49	607	100
col:%ofTotal	3.13015	18.62	3.7891	30.81	18.45	6.59	10.54	8.0725	607	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	commun	economics	geograp	info. & l	politica	psycholc	sociology	row totals	%ofTotalCited
anthropology	0	0	0	0	0	0	19	0	19	3.1301483
communication	6	0	2	0	42	13	10	40	113	18.616145
economics	0	0	0	0	0	4	10	9	23	3.7891269
geography	0	0	165	0	0	4	1	17	187	30.807249
info. & library s	2	3	18	0	0	2	59	28	112	18.4514
politicalScience	0	0	31	0	0	0	5	4	40	6.5897858
psychology	4	17	9	0	0	30	0	4	64	10.543657
sociology	2	8	17	4	2	14	2	0	49	8.0724876
column totals	14	28	242	4	44	67	106	102	607	100
col:%ofTotalCit	2.30643	4.613	39.868	0.659	7.249	11	17.46	16.804	607	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	commun	economics	geograp	informat	politica	psycholc	sociology	row totals
anthropology	0	0	0	0	0	0	19	0	19
communication	0	0	2	0	42	13	10	40	107
economics	0	2	0	0	0	4	10	9	25
geography	0	0	0	0	0	4	1	17	22
info&libSci	0	42	0	0	0	2	59	28	131
politicalSci	0	13	4	4	2	0	5	4	32
psychology	19	10	10	1	59	5	0	4	108
sociology	0	40	9	17	28	4	4	0	102
column totals	19	107	25	22	131	32	108	102	546
									546

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	commun	economics	geograp	informat	politica	psycholc	sociology	row totals
anthropology	0	6	0	0	2	0	4	2	14
communication	6	0	0	0	3	0	17	8	34
economics	0	0	0	165	18	31	9	17	240
geography	0	0	165	0	0	0	0	4	169
info&libSci	2	3	18	0	0	0	0	2	25
politicalSci	0	0	31	0	0	0	30	14	75
psychology	4	17	9	0	0	30	0	2	62
sociology	2	8	17	4	2	14	2	0	49
column totals	14	34	240	169	25	75	62	49	668
									668

2009 WITHOUT self citation

means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	commun	economics	geograp	info. & li	politica	psychol	sociology	row totals
anthropology	0	3	0	0	1	0	11.5	1	16.5
communication	3	0	1	0	22.5	6.5	13.5	24	70.5
economics	0	1	0	82.5	9	17.5	9.5	13	132.5
geography	0	0	82.5	0	0	2	0.5	10.5	95.5
info. & library s	1	22.5	9	0	0	1	29.5	15	78
politicalScience	0	6.5	17.5	2	1	0	17.5	9	53.5
psychology	11.5	13.5	9.5	0.5	29.5	17.5	0	3	85
sociology	1	24	13	10.5	15	9	3	0	75.5
column totals	16.5	70.5	132.5	95.5	78	53.5	85	75.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	commun	economics	geograp	info. & li	politica	psychol	sociology	row totals
anthropology	0	6	0	0	2	0	15	2	25
communication	6	0	2	0	39	13	7	32	99
economics	0	2	0	165	18	27	1	8	221
geography	0	0	165	0	0	4	1	13	183
info. & library s	2	39	18	0	0	2	59	26	146
politicalScience	0	13	27	4	2	0	25	10	81
psychology	15	7	1	1	59	25	0	2	110
sociology	2	32	8	13	26	10	2	0	93
column totals	25	99	221	183	146	81	110	93	958
									958

Matrix product A*At (post mulitiplied)

	anthropology	commun	economics	geograp	info. & li	politica	psychol	sociology	row totals
anthropology	60	90	118	8	256	230	182	312	1256
communication	90	362	343	32	16	628	193	152	1816
economics	118	343	28884	68	118	1230	1436	3549	35746
geography	8	32	68	16	8	56	8	0	196
info. & library s	256	16	118	8	1768	574	424	1680	4844
politicalScience	230	628	1230	56	574	1301	320	800	5139
psychology	182	193	1436	8	424	320	4072	2179	8814
sociology	312	152	3549	0	1680	800	2179	2786	11458
column totals	1256	1816	35746	196	4844	5139	8814	11458	69269
									69269

Matrix product At*A (pre multiplied)

	anthropology	commun	economics	geograp	info. & li	politica	psychol	sociology	row totals
anthropology	361	190	190	19	1121	95	0	38	2014
communication	190	3673	512	1072	1784	272	592	332	8427
economics	190	512	197	179	850	86	156	76	2246
geography	19	1072	179	27531	3513	5188	1673	2863	42038
info. & library s	1121	1784	850	3513	4606	965	393	480	13712
politicalScience	95	272	86	5188	965	1002	295	537	8440
psychology	0	592	156	1673	393	295	1302	717	5128
sociology	38	332	76	2863	480	537	717	577	5620
column totals	2014	8427	2246	42038	13712	8440	5128	5620	87625
									87625

WITH SELF CITATIONS

Note: column labels are disciplines whose 2009 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	communi	economics	geogra	informati	politicalS	psycholog	sociology	row total	%ofTotalCited
anthropolog	219	6	0	0	2	0	4	2	233	9.906463
communicat	0	168	0	0	3	0	17	8	196	8.333333
economics	0	2	222	165	18	31	9	17	464	19.72789
geography	0	0	0	189	0	0	0	4	193	8.205782
info&libSci	0	42	0	0	283	0	0	2	327	13.90306
politicalSci	0	13	4	4	2	169	30	14	236	10.03401
psychology	19	10	10	1	59	5	188	2	294	12.5
sociology	0	40	9	17	28	4	4	307	409	17.38946
column tota	238	281	245	376	395	209	252	356	2352	100
col:%ofTota	10.119048	11.95	10.417	16	16.79	8.886	10.714	15.13605	2352	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	219	0	0	0	0	0	19	0	238	10.11905
communicat	6	168	2	0	42	13	10	40	281	11.94728
economics	0	0	222	0	0	4	10	9	245	10.41667
geography	0	0	165	189	0	4	1	17	376	15.98639
info. & libra	2	3	18	0	283	2	59	28	395	16.79422
politicalScie	0	0	31	0	0	169	5	4	209	8.886054
psychology	4	17	9	0	0	30	188	4	252	10.71429
sociology	2	8	17	4	2	14	2	307	356	15.13605
column tota	233	196	464	193	327	236	294	409	2352	100
col:%ofTota	9.9064626	8.333	19.728	8.21	13.9	10.03	12.5	17.38946	2352	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	219	0	0	0	0	0	19	0	238
communicat	0	168	2	0	42	13	10	40	275
economics	0	2	222	0	0	4	10	9	247
geography	0	0	0	189	0	4	1	17	211
info&libSci	0	42	0	0	283	2	59	28	414
politicalSci	0	13	4	4	2	169	5	4	201
psychology	19	10	10	1	59	5	188	4	296
sociology	0	40	9	17	28	4	4	307	409
column tota	238	275	247	211	414	201	296	409	2291
									2291

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	219	6	0	0	2	0	4	2	233
communicat	6	168	0	0	3	0	17	8	202
economics	0	0	222	165	18	31	9	17	462
geography	0	0	165	189	0	0	0	4	358
info&libSci	2	3	18	0	283	0	0	2	308
politicalSci	0	0	31	0	0	169	30	14	244
psychology	4	17	9	0	0	30	188	2	250
sociology	2	8	17	4	2	14	2	307	356
column tota	233	202	462	358	308	244	250	356	2413
									2413

2009 WITH self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communic	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropology	219	3	0	0	1	0	11.5	1	235.5
communicat	3	168	1	0	22.5	6.5	13.5	24	238.5
economics	0	1	222	82.5	9	17.5	9.5	13	354.5
geography	0	0	82.5	189	0	2	0.5	10.5	284.5
info. & librar	1	22.5	9	0	283	1	29.5	15	361
politicalScie	0	6.5	17.5	2	1	169	17.5	9	222.5
psychology	11.5	13.5	9.5	0.5	29.5	17.5	188	3	273
sociology	1	24	13	10.5	15	9	3	307	382.5
column total	235.5	238.5	354.5	284.5	361	222.5	273	382.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropology	219	6	0	0	2	0	15	2	244
communicat	6	168	2	0	39	13	7	32	267
economics	0	2	222	165	18	27	1	8	443
geography	0	0	165	189	0	4	1	13	372
info. & librar	2	39	18	0	283	2	59	26	429
politicalScie	0	13	27	4	2	169	25	10	250
psychology	15	7	1	1	59	25	188	2	298
sociology	2	32	8	13	26	10	2	307	400
column total	244	267	443	372	429	250	298	400	2703
									2703

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropology	48021	1098	118	8	822	230	5095	926	56318
communicat	1098	28586	679	32	7921	2812	5069	9328	55525
economics	118	679	78168	31253	5212	7357	5348	10766	138901
geography	8	32	31253	35737	8	812	197	4441	72488
info. & librar	822	7921	5212	8	81857	1140	17121	10218	124299
politicalScie	230	2812	7357	812	1140	29862	6805	5774	54792
psychology	5095	5069	5348	197	17121	6805	39416	3545	82596
sociology	926	9328	10766	4441	10218	5774	3545	97035	142033
column total	56318	55525	138901	72488	124299	54792	82596	142033	726952
									726952

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropology	48322	1504	190	19	1559	95	4448	476	56613
communicat	1504	31897	956	1072	14174	2469	5328	13956	71356
economics	190	956	49481	36809	4846	7644	4034	6613	110573
geography	19	1072	36809	63252	3513	5864	1861	8838	121228
info. & librar	1559	14174	4846	3513	84695	1303	11485	9642	131217
politicalScie	95	2469	7644	5864	1303	29563	6305	4131	57374
psychology	4448	5328	4034	1861	11485	6305	36646	2321	72428
sociology	476	13956	6613	8838	9642	4131	2321	94826	140803
column total	56613	71356	110573	1E+05	131217	57374	72428	140803	761592

Appendix X-1a

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 1979 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	communic	economics	geograp	informatic	politicalS	psychologi	sociology	row total	%ofTotalCited
anthropology	0	0	7	1	0	0	3	3	14	9.090909091
communicati	0	0	0	0	2	0	3	7	12	7.792207792
economics	0	0	0	4	0	2	0	30	36	23.37662338
geograph	1	0	0	0	0	0	0	2	3	1.948051948
info&libSci	0	0	0	0	0	0	0	0	0	0
politicalSci	0	2	24	0	0	0	1	17	44	28.57142857
psychology	1	7	0	0	3	0	0	8	19	12.33766234
sociology	0	13	0	4	0	5	4	0	26	16.88311688
column totals	2	22	31	9	5	7	11	67	154	100
col:%ofTotal	1.298701299	14.28571	20.12987	5.8442	3.24675	4.54545	7.142857	43.50649351	154	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communic	economics	geograp	info. & libr	politicalS	psychologi	sociology	row totals	%ofTotalCited
anthropology	0	0	0	1	0	0	1	0	2	1.298701299
communicati	0	0	0	0	0	2	7	13	22	14.28571429
economics	7	0	0	0	0	24	0	0	31	20.12987013
geography	1	0	4	0	0	0	0	4	9	5.844155844
info. & library	0	2	0	0	0	0	3	0	5	3.246753247
politicalScien	0	0	2	0	0	0	0	5	7	4.545454545
psychology	3	3	0	0	0	1	0	4	11	7.142857143
sociology	3	7	30	2	0	17	8	0	67	43.50649351
column totals	14	12	36	3	0	44	19	26	154	100
col:%ofTotal	9.090909091	7.792208	23.376623	1.9481	0	28.5714	12.33766	16.88311688	154	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communic	economics	geograp	informatic	political s	psychologi	sociology	row totals
anthropology	0	0	0	1	0	0	1	0	2
communicati	0	0	0	0	0	2	7	13	22
economics	0	0	0	0	0	24	0	0	24
geography	1	0	0	0	0	0	0	4	5
info&libSci	0	0	0	0	0	0	3	0	3
politicalSci	0	2	24	0	0	0	0	5	31
psychology	1	7	0	0	3	0	0	4	15
sociology	0	13	0	4	0	5	4	0	26
column totals	2	22	24	5	3	31	15	26	128
									128

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communic	economics	geograp	informatic	political s	psychologi	sociology	row totals
anthropology	0	0	7	1	0	0	3	3	14
communicati	0	0	0	0	2	0	3	7	12
economics	7	0	0	4	0	2	0	30	43
geography	1	0	4	0	0	0	0	2	7
info&libSci	0	2	0	0	0	0	0	0	2
politicalSci	0	0	2	0	0	0	1	17	20
psychology	3	3	0	0	0	1	0	8	15
sociology	3	7	30	2	0	17	8	0	67
column totals	14	12	43	7	2	20	15	67	180
									180

Appendix X-1b

1979 WITHOUT self citations
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	3.5	1	0	0	2	1.5	8
communicat	0	0	0	0	1	1	5	10	17
economics	3.5	0	0	2	0	13	0	15	33.5
geography	1	0	2	0	0	0	0	3	6
info. & librar	0	1	0	0	0	0	1.5	0	2.5
politicalScie	0	1	13	0	0	0	0.5	11	25.5
psychology	2	5	0	0	1.5	0.5	0	6	15
sociology	1.5	10	15	3	0	11	6	0	46.5
column total	8	17	33.5	6	2.5	25.5	15	46.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	7	0	0	0	2	3	12
communicat	0	0	0	0	2	2	4	6	14
economics	7	0	0	4	0	22	0	30	63
geography	0	0	4	0	0	0	0	2	6
info. & librar	0	2	0	0	0	0	3	0	5
politicalScie	0	2	22	0	0	0	1	12	37
psychology	2	4	0	0	3	1	0	4	14
sociology	3	6	30	2	0	12	4	0	57
column total	12	14	63	6	5	37	14	57	208
									208

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	68	30	94	6	0	222	24	16	460
communicat	30	62	210	14	0	122	62	12	512
economics	94	210	920	60	0	510	240	26	2060
geography	6	14	60	5	0	34	17	0	136
info. & librar	0	0	0	0	0	0	0	0	0
politicalScie	222	122	510	34	0	870	150	30	1938
psychology	24	62	240	17	0	150	123	91	707
sociology	16	12	26	0	0	30	91	226	401
column total	460	512	2060	136	0	1938	707	401	6214
									6214

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	2	7	0	0	3	0	0	10	22
communicat	7	222	48	52	21	65	54	90	559
economics	0	48	625	7	0	0	45	429	1154
geography	0	52	7	33	0	28	19	123	262
info. & librar	3	21	0	0	13	0	6	38	81
politicalScie	0	65	0	28	0	29	20	60	202
psychology	0	54	45	19	6	20	35	47	226
sociology	10	90	429	123	38	60	47	1315	2112
column total	22	559	1154	262	81	202	226	2112	4618

WITH SELF CITATIONS

Note: column labels are disciplines whose 1979 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commur	economic	geogra	informat	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	436	0	7	1	0	0	3	3	450	31.293463
communica	0	34	0	0	2	0	3	7	46	3.1988873
economics	0	0	150	4	0	2	0	30	186	12.934631
geography	1	0	0	16	0	0	0	2	19	1.3212796
info&libSci	0	0	0	0	21	0	0	0	21	1.4603616
politicalSci	0	2	24	0	0	25	1	17	69	4.798331
psychology	1	7	0	0	3	0	162	8	181	12.586926
sociology	0	13	0	4	0	5	4	440	466	32.40612
column total	438	56	181	25	26	32	173	507	1438	100
col:%ofTotal	30.4589708	3.8943	12.5869	1.74	1.8081	2.225	12.031	35.257302	1438	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	436	0	0	1	0	0	1	0	438	30.458971
communicat	0	34	0	0	0	2	7	13	56	3.8942976
economics	7	0	150	0	0	24	0	0	181	12.586926
geography	1	0	4	16	0	0	0	4	25	1.7385257
info. & librar	0	2	0	0	21	0	3	0	26	1.8080668
politicalScier	0	0	2	0	0	25	0	5	32	2.2253129
psychology	3	3	0	0	0	1	162	4	173	12.030598
sociology	3	7	30	2	0	17	8	440	507	35.257302
column total	450	46	186	19	21	69	181	466	1438	100
col:%ofTotal	31.2934631	3.1989	12.9346	1.32	1.4604	4.798	12.587	32.40612	1438	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	436	0	0	1	0	0	1	0	438
communicat	0	34	0	0	0	2	7	13	56
economics	0	0	150	0	0	24	0	0	174
geography	1	0	0	16	0	0	0	4	21
info&libSci	0	0	0	0	21	0	3	0	24
politicalSci	0	2	24	0	0	25	0	5	56
psychology	1	7	0	0	3	0	162	4	177
sociology	0	13	0	4	0	5	4	440	466
column total	438	56	174	21	24	56	177	466	1412
									1412

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	436	0	7	1	0	0	3	3	450
communicat	0	34	0	0	2	0	3	7	46
economics	7	0	150	4	0	2	0	30	193
geography	1	0	4	16	0	0	0	2	23
info&libSci	0	2	0	0	21	0	0	0	23
politicalSci	0	0	2	0	0	25	1	17	45
psychology	3	3	0	0	0	1	162	8	177
sociology	3	7	30	2	0	17	8	440	507
column total	450	46	193	23	23	45	177	507	1464
									1464

1979 WITH self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	436	0	3.5	1	0	0	2	1.5	444
communicat	0	34	0	0	1	1	5	10	51
economics	3.5	0	150	2	0	13	0	15	183.5
geography	1	0	2	16	0	0	0	3	22
info. & librar	0	1	0	0	21	0	1.5	0	23.5
politicalScie	0	1	13	0	0	25	0.5	11	50.5
psychology	2	5	0	0	1.5	0.5	162	6	177
sociology	1.5	10	15	3	0	11	6	440	486.5
column tota	444	51	183.5	22	23.5	50.5	177	486.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	436	0	7	0	0	0	2	3	448
communicat	0	34	0	0	2	2	4	6	48
economics	7	0	150	4	0	22	0	30	213
geography	0	0	4	16	0	0	0	2	22
info. & librar	0	2	0	0	21	0	3	0	26
politicalScie	0	2	22	0	0	25	1	12	62
psychology	2	4	0	0	3	1	162	4	176
sociology	3	6	30	2	0	12	4	440	497
column tota	448	48	213	22	26	62	176	497	1492
									1492

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	190164	30	1144	458	0	222	946	1336	194300
communicat	30	1218	210	14	42	190	786	3534	6024
economics	1144	210	23420	124	0	4160	240	13226	42524
geography	458	14	124	261	0	34	17	944	1852
info. & librar	0	42	0	0	441	0	63	0	546
politicalScie	222	190	4160	34	0	1495	312	7635	14048
psychology	946	786	240	17	63	312	26367	4259	32990
sociology	1336	3534	13226	944	0	7635	4259	193826	224760
column tota	194300	6024	42524	1852	546	14048	32990	224760	517044
									517044

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	190098	7	3052	452	3	0	1470	1318	196400
communicat	7	1378	48	52	89	115	1290	6048	9027
economics	3052	48	23125	607	0	900	45	4929	32706
geography	452	52	607	289	0	28	19	1915	3362
info. & librar	3	89	0	0	454	0	492	38	1076
politicalScie	0	115	900	28	0	654	45	2685	4427
psychology	1470	1290	45	19	492	45	26279	3103	32743
sociology	1318	6048	4929	1915	38	2685	3103	194915	214951
column tota	196400	9027	32706	3362	1076	4427	32743	214951	494692

Appendix X-2a

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 1980 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	0	0	0	2	0	0	0	4	6	3.092784
communic	0	0	0	0	9	0	1	9	19	9.793814
economics	0	0	0	15	0	1	17	24	57	29.38144
geography	0	0	0	0	0	0	0	3	3	1.546392
info&libSci	0	0	0	0	0	0	0	0	0	0
politicalSci	0	4	18	2	0	0	8	18	50	25.7732
psychology	0	4	1	0	3	0	0	6	14	7.216495
sociology	0	7	3	8	0	0	27	0	45	23.19588
column tota	0	15	22	27	12	1	53	64	194	100
col:%ofTota	0	7.732	11.34	13.9	6.186	0.515	27.32	32.98969	194	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	0	0	0	0	0	0	0	0	0	0
communicat	0	0	0	0	0	4	4	7	15	7.731959
economics	0	0	0	0	0	18	1	3	22	11.34021
geography	2	0	15	0	0	2	0	8	27	13.91753
info. & libra	0	9	0	0	0	0	3	0	12	6.185567
politicalScie	0	0	1	0	0	0	0	0	1	0.515464
psychology	0	1	17	0	0	8	0	27	53	27.31959
sociology	4	9	24	3	0	18	6	0	64	32.98969
column tota	6	19	57	3	0	50	14	45	194	100
col:%ofTota	3.0927835	9.794	29.381	1.55	0	25.77	7.2165	23.19588	194	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	0	0
communicat	0	0	0	0	0	4	4	7	15
economics	0	0	0	0	0	18	1	3	22
geography	0	0	0	0	0	2	0	8	10
info&libSci	0	0	0	0	0	0	3	0	3
politicalSci	0	4	18	2	0	0	0	0	24
psychology	0	4	1	0	3	0	0	27	35
sociology	0	7	3	8	0	0	27	0	45
column tota	0	15	22	10	3	24	35	45	154
									154

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	2	0	0	0	4	6
communicat	0	0	0	0	9	0	1	9	19
economics	0	0	0	15	0	1	17	24	57
geography	2	0	15	0	0	0	0	3	20
info&libSci	0	9	0	0	0	0	0	0	9
politicalSci	0	0	1	0	0	0	8	18	27
psychology	0	1	17	0	0	8	0	6	32
sociology	4	9	24	3	0	18	6	0	64
column tota	6	19	57	20	9	27	32	64	234
									234

Appendix X-2b

1980 WITHOUT self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	1	0	0	0	2	3
communicat	0	0	0	0	4.5	2	2.5	8	17
economics	0	0	0	7.5	0	9.5	9	13.5	39.5
geography	1	0	7.5	0	0	1	0	5.5	15
info. & librar	0	4.5	0	0	0	0	1.5	0	6
politicalScies	0	2	9.5	1	0	0	4	9	25.5
psychology	0	2.5	9	0	1.5	4	0	16.5	33.5
sociology	2	8	13.5	5.5	0	9	16.5	0	54.5
column total	3	17	39.5	15	6	25.5	33.5	54.5	194

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	2	0	0	0	4	6
communicat	0	0	0	0	9	4	3	2	18
economics	0	0	0	15	0	17	16	21	69
geography	2	0	15	0	0	2	0	5	24
info. & librar	0	9	0	0	0	0	3	0	12
politicalScies	0	4	17	2	0	0	8	18	49
psychology	0	3	16	0	3	8	0	21	51
sociology	4	2	21	5	0	18	21	0	71
column total	6	18	69	24	12	49	51	71	300

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	20	36	126	12	0	76	24	16	310
communicat	36	163	233	27	0	170	81	27	737
economics	126	233	1091	72	0	598	144	579	2843
geography	12	27	72	9	0	54	18	0	192
info. & librar	0	0	0	0	0	0	0	0	0
politicalScies	76	170	598	54	0	732	142	314	2086
psychology	24	81	144	18	0	142	62	31	502
sociology	16	27	579	0	0	314	31	851	1818
column total	310	737	2843	192	0	2086	502	1818	8488

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	0	0
communicat	0	81	97	64	12	0	221	96	571
economics	0	97	334	60	3	0	225	330	1049
geography	0	64	60	297	0	15	487	404	1327
info. & librar	0	12	3	0	90	0	9	99	213
politicalScies	0	0	0	15	0	1	17	24	57
psychology	0	221	225	487	9	17	1083	561	2603
sociology	0	96	330	404	99	24	561	1042	2556
column total	0	571	1049	1327	213	57	2603	2556	8376

WITH SELF CITATIONS

Note: column labels are disciplines whose 1980 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	57	0	0	2	0	0	0	4	63	5.550661
communic	0	58	0	0	9	0	1	9	77	6.784141
economics	0	0	155	15	0	1	17	24	212	18.67841
geography	0	0	0	44	0	0	0	3	47	4.140969
info&libSci	0	0	0	0	6	0	0	0	6	0.528634
politicalSci	0	4	18	2	0	4	8	18	54	4.757709
psychology	0	4	1	0	3	0	134	6	148	13.03965
sociology	0	7	3	8	0	0	27	483	528	46.51982
column tota	57	73	177	71	18	5	187	547	1135	100
col:%ofTota	5.0220264	6.432	15.595	6.26	1.586	0.441	16.476	48.19383	1135	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	57	0	0	0	0	0	0	0	57	5.022026
communicat	0	58	0	0	0	4	4	7	73	6.431718
economics	0	0	155	0	0	18	1	3	177	15.59471
geography	2	0	15	44	0	2	0	8	71	6.255507
info. & librat	0	9	0	0	6	0	3	0	18	1.585903
politicalScie	0	0	1	0	0	4	0	0	5	0.440529
psychology	0	1	17	0	0	8	134	27	187	16.47577
sociology	4	9	24	3	0	18	6	483	547	48.19383
column tota	63	77	212	47	6	54	148	528	1135	100
col:%ofTota	5.5506608	6.784	18.678	4.14	0.529	4.758	13.04	46.51982	1135	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	57	0	0	0	0	0	0	0	57
communicat	0	58	0	0	0	4	4	7	73
economics	0	0	155	0	0	18	1	3	177
geography	0	0	0	44	0	2	0	8	54
info&libSci	0	0	0	0	6	0	3	0	9
politicalSci	0	4	18	2	0	4	0	0	28
psychology	0	4	1	0	3	0	134	27	169
sociology	0	7	3	8	0	0	27	483	528
column tota	57	73	177	54	9	28	169	528	1095

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	57	0	0	2	0	0	0	4	63
communicat	0	58	0	0	9	0	1	9	77
economics	0	0	155	15	0	1	17	24	212
geography	2	0	15	44	0	0	0	3	64
info&libSci	0	9	0	0	6	0	0	0	15
politicalSci	0	0	1	0	0	4	8	18	31
psychology	0	1	17	0	0	8	134	6	166
sociology	4	9	24	3	0	18	6	483	547
column tota	63	77	212	64	15	31	166	547	1175
									1175

1980 WITH self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	57	0	0	1	0	0	0	2	60
communicat	0	58	0	0	4.5	2	2.5	8	75
economics	0	0	155	7.5	0	9.5	9	13.5	194.5
geography	1	0	7.5	44	0	1	0	5.5	59
info. & libra	0	4.5	0	0	6	0	1.5	0	12
politicalScie	0	2	9.5	1	0	4	4	9	29.5
psychology	0	2.5	9	0	1.5	4	134	16.5	167.5
sociology	2	8	13.5	5.5	0	9	16.5	483	537.5
column tota	60	75	194.5	59	12	29.5	167.5	537.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	57	0	0	2	0	0	0	4	63
communicat	0	58	0	0	9	4	3	2	76
economics	0	0	155	15	0	17	16	21	224
geography	2	0	15	44	0	2	0	5	68
info. & libra	0	9	0	0	6	0	3	0	18
politicalScie	0	4	17	2	0	4	8	18	53
psychology	0	3	16	0	3	8	134	21	185
sociology	4	2	21	5	0	18	21	483	554
column tota	63	76	224	68	18	53	185	554	1241
									1241

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	3269	36	126	100	0	76	24	1948	5579
communicat	36	3527	233	27	54	402	447	4780	9506
economics	126	233	25116	732	0	3392	2577	12636	44812
geography	100	27	732	1945	0	142	18	1801	4765
info. & libra	0	54	0	0	36	0	18	0	108
politicalScie	76	402	3392	142	0	748	1214	9008	14982
psychology	24	447	2577	18	18	1214	18018	6547	28863
sociology	1948	4780	12636	1801	0	9008	6547	234140	270860
column tota	5579	9506	44812	4765	108	14982	28863	270860	379475
									379475

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	3249	0	0	114	0	0	0	228	3591
communicat	0	3445	97	64	534	16	815	3999	8970
economics	0	97	24359	2385	3	227	2994	5499	35564
geography	114	64	2385	2233	0	23	487	4400	9706
info. & libra	0	534	3	0	126	0	411	99	1173
politicalScie	0	16	227	23	0	17	49	96	428
psychology	0	815	2994	487	411	49	19039	14406	38201
sociology	228	3999	5499	4400	99	96	14406	234331	263058
column tota	3591	8970	35564	9706	1173	428	38201	263058	360691

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 1981 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commur	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	0	0	0	0	0	0	3	11	14	6.306306
communic	0	0	0	0	0	0	90	11	101	45.4955
economics	0	1	0	3	0	2	5	15	26	11.71171
geography	0	0	0	0	0	0	0	0	0	0
info&libSci	0	0	0	0	0	0	0	0	0	0
politicalSci	0	5	17	1	0	0	2	8	33	14.86486
psychology	0	6	1	16	2	0	0	2	27	12.16216
sociology	1	10	1	1	1	3	4	0	21	9.459459
column tota	1	22	19	21	3	5	104	47	222	100
col:%ofTota	0.4504505	9.91	8.5586	9.46	1.351	2.252	46.847	21.17117	222	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	0	0	0	0	0	0	0	1	1	0.45045
communicat	0	0	1	0	0	5	6	10	22	9.90991
economics	0	0	0	0	0	17	1	1	19	8.558559
geography	0	0	3	0	0	1	16	1	21	9.459459
info. & libra	0	0	0	0	0	0	2	1	3	1.351351
politicalScie	0	0	2	0	0	0	0	3	5	2.252252
psychology	3	90	5	0	0	2	0	4	104	46.84685
sociology	11	11	15	0	0	8	2	0	47	21.17117
column tota	14	101	26	0	0	33	27	21	222	100
col:%ofTota	6.3063063	45.5	11.712	0	0	14.86	12.162	9.459459	222	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	1	1
communicat	0	0	1	0	0	5	6	10	22
economics	0	1	0	0	0	17	1	1	20
geography	0	0	0	0	0	1	16	1	18
info&libSci	0	0	0	0	0	0	2	1	3
politicalSci	0	5	17	1	0	0	0	3	26
psychology	0	6	1	16	2	0	0	4	29
sociology	1	10	1	1	1	3	4	0	21
column tota	1	22	20	18	3	26	29	21	140

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	3	11	14
communicat	0	0	0	0	0	0	90	11	101
economics	0	0	0	3	0	2	5	15	25
geography	0	0	3	0	0	0	0	0	3
info&libSci	0	0	0	0	0	0	0	0	0
politicalSci	0	0	2	0	0	0	2	8	12
psychology	3	90	5	0	0	2	0	2	102
sociology	11	11	15	0	0	8	2	0	47
column tota	14	101	25	3	0	12	102	47	304
									304

Appendix X-3b

1981 WITHOUT self-citation

means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	commun	economics	geogra	info. & li	politicalS	psycholo	sociology
anthropolo	0	0	0	0	0	0	1.5	6
communica	0	0	0.5	0	0	2.5	48	10.5
economics	0	0.5	0	1.5	0	9.5	3	8
geography	0	0	1.5	0	0	0.5	8	0.5
info. & libra	0	0	0	0	0	0	1	0.5
politicalScie	0	2.5	9.5	0.5	0	0	1	5.5
psychology	1.5	48	3	8	1	1	0	3
sociology	6	10.5	8	0.5	0.5	5.5	3	0
column tota	7.5	61.5	22.5	10.5	1.5	19	65.5	34

absolute value differences of upper/lower triangles from assymetric matrix values (this matri

	anthropology	commun	economics	geogra	info. & li	politicalS	psycholo	sociology
anthropolo	0	0	0	0	0	0	3	10
communica	0	0	1	0	0	5	84	1
economics	0	1	0	3	0	15	4	14
geography	0	0	3	0	0	1	16	1
info. & libra	0	0	0	0	0	0	2	1
politicalScie	0	5	15	1	0	0	2	5
psychology	3	84	4	16	2	2	0	2
sociology	10	1	14	1	1	5	2	0
column tota	13	91	37	21	3	28	113	34

Matrix product A*At (post mulitiplied)

	anthropology	commun	economics	geogra	info. & li	politicalS	psycholo	sociology
anthropolo	130	391	180	0	0	94	22	12
communica	391	8221	615	0	0	268	22	360
economics	180	615	264	0	0	138	84	39
geography	0	0	0	0	0	0	0	0
info. & libra	0	0	0	0	0	0	0	0
politicalScie	94	268	138	0	0	383	79	76
psychology	22	22	84	0	0	79	301	79
sociology	12	360	39	0	0	76	79	129
column tota	829	9877	1320	0	0	1038	587	695

Matrix product At*A (pre multiplied)

	anthropology	commun	economics	geogra	info. & li	politicalS	psycholo	sociology
anthropolo	1	10	1	1	1	3	4	0
communica	10	162	101	114	22	32	55	67
economics	1	101	291	34	3	3	38	138
geography	1	114	34	267	33	9	21	85
info. & libra	1	22	3	33	5	3	4	4
politicalScie	3	32	3	9	3	13	22	30
psychology	4	55	38	21	4	22	8154	1114
sociology	0	67	138	85	4	30	1114	535
column tota	21	563	609	564	75	115	9412	1973

WITH SELF CITATIONS

Note: column labels are disciplines whose 1981 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	584	0	0	0	0	0	3	11	598	33.00221
communic	0	70	0	0	0	0	90	11	171	9.437086
economics	0	1	144	3	0	2	5	15	170	9.381898
geography	0	0	0	50	0	0	0	0	50	2.759382
info&libSci	0	0	0	0	35	0	0	0	35	1.931567
politicalSci	0	5	17	1	0	16	2	8	49	2.704194
psychology	0	6	1	16	2	0	192	2	219	12.08609
sociology	1	10	1	1	1	3	4	499	520	28.69757
column tota	585	92	163	71	38	21	296	546	1812	100
col:%ofTota	32.284768	5.077	8.9956	3.92	2.097	1.159	16.336	30.13245	1812	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	584	0	0	0	0	0	0	1	585	32.28477
communicat	0	70	1	0	0	5	6	10	92	5.077263
economics	0	0	144	0	0	17	1	1	163	8.995585
geography	0	0	3	50	0	1	16	1	71	3.918322
info. & libra	0	0	0	0	35	0	2	1	38	2.09713
politicalScie	0	0	2	0	0	16	0	3	21	1.15894
psychology	3	90	5	0	0	2	192	4	296	16.33554
sociology	11	11	15	0	0	8	2	499	546	30.13245
column tota	598	171	170	50	35	49	219	520	1812	100
col:%ofTota	33.002208	9.437	9.3819	2.76	1.932	2.704	12.086	28.69757	1812	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	584	0	0	0	0	0	0	1	585
communicat	0	70	1	0	0	5	6	10	92
economics	0	1	144	0	0	17	1	1	164
geography	0	0	0	50	0	1	16	1	68
info&libSci	0	0	0	0	35	0	2	1	38
politicalSci	0	5	17	1	0	16	0	3	42
psychology	0	6	1	16	2	0	192	4	221
sociology	1	10	1	1	1	3	4	499	520
column tota	585	92	164	68	38	42	221	520	1730
									1730

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	584	0	0	0	0	0	3	11	598
communicat	0	70	0	0	0	0	90	11	171
economics	0	0	144	3	0	2	5	15	169
geography	0	0	3	50	0	0	0	0	53
info&libSci	0	0	0	0	35	0	0	0	35
politicalSci	0	0	2	0	0	16	2	8	28
psychology	3	90	5	0	0	2	192	2	294
sociology	11	11	15	0	0	8	2	499	546
column tota	598	171	169	53	35	28	294	545	1894
									1894

1981 WITH self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psychol	sociolog	row totals
anthropolog	584	0	0	0	0	0	1.5	6	591.5
communicat	0	70	0.5	0	0	2.5	48	10.5	131.5
economics	0	0.5	144	1.5	0	9.5	3	8	166.5
geography	0	0	1.5	50	0	0.5	8	0.5	60.5
info. & librar	0	0	0	0	35	0	1	0.5	36.5
politicalScie	0	2.5	9.5	0.5	0	16	1	5.5	35
psychology	1.5	48	3	8	1	1	192	3	257.5
sociology	6	10.5	8	0.5	0.5	5.5	3	499	533
column total	591.5	131.5	166.5	60.5	36.5	35	257.5	533	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psychol	sociolog	row totals
anthropolog	584	0	0	0	0	0	3	10	597
communicat	0	70	1	0	0	5	84	1	161
economics	0	1	144	3	0	15	4	14	181
geography	0	0	3	50	0	1	16	1	71
info. & librar	0	0	0	0	35	0	2	1	38
politicalScie	0	5	15	1	0	16	2	5	44
psychology	3	84	4	16	2	2	192	2	305
sociology	10	1	14	1	1	5	2	499	533
column total	597	161	181	71	38	44	305	533	1930

Matrix product A*At (post multiplied)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psychol	sociolog	row totals
anthropolog	341186	391	180	0	0	94	598	6085	348534
communicat	391	13121	685	0	0	618	17722	6549	39086
economics	180	685	21000	150	0	2618	1188	7668	33489
geography	0	0	150	2500	0	50	800	50	3550
info. & librar	0	0	0	0	1225	0	70	35	1330
politicalScie	94	618	2618	50	0	639	463	4116	8598
psychology	598	17722	1188	800	70	463	37165	1845	59851
sociology	6085	6549	7668	50	35	4116	1845	249130	275478
column total	348534	39086	33489	3550	1330	8598	59851	275478	769916

Matrix product At*A (pre multiplied)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psychol	sociolog	row totals
anthropolog	341057	10	1	1	1	3	1756	6923	349752
communicat	10	5062	245	114	22	112	7507	5827	18899
economics	1	245	21027	466	3	563	950	2797	26052
geography	1	114	466	2767	33	25	3093	584	7083
info. & librar	1	22	3	33	1230	3	388	503	2183
politicalScie	3	112	563	25	3	269	54	1655	2684
psychology	1756	7507	950	3093	388	54	45018	3494	62260
sociology	6923	5827	2797	584	503	1655	3494	249536	271319
column total	349752	18899	26052	7083	2183	2684	62260	271319	740232

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 1982 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	0	0	0	0	0	0	0	4	4	2.051282
communic	0	0	0	0	12	0	2	17	31	15.89744
economics	0	0	0	2	2	4	0	19	27	13.84615
geography	0	0	0	0	0	0	1	1	2	1.025641
info&libSci	0	0	0	1	0	0	0	0	1	0.512821
politicalSci	0	10	20	0	0	0	13	8	51	26.15385
psychology	0	11	13	0	0	5	0	7	36	18.46154
sociology	0	14	2	10	0	8	9	0	43	22.05128
column tota	0	35	35	13	14	17	25	56	195	100
col:%ofTota	0	17.95	17.949	6.67	7.179	8.718	12.821	28.71795	195	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	0	0	0	0	0	0	0	0	0	0
communicat	0	0	0	0	0	10	11	14	35	17.94872
economics	0	0	0	0	0	20	13	2	35	17.94872
geography	0	0	2	0	1	0	0	10	13	6.666667
info. & libra	0	12	2	0	0	0	0	0	14	7.179487
politicalScie	0	0	4	0	0	0	5	8	17	8.717949
psychology	0	2	0	1	0	13	0	9	25	12.82051
sociology	4	17	19	1	0	8	7	0	56	28.71795
column tota	4	31	27	2	1	51	36	43	195	100
col:%ofTota	2.0512821	15.9	13.846	1.03	0.513	26.15	18.462	22.05128	195	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	0	0
communicat	0	0	0	0	0	10	11	14	35
economics	0	0	0	0	0	20	13	2	35
geography	0	0	0	0	1	0	0	10	11
info&libSci	0	0	0	1	0	0	0	0	1
politicalSci	0	10	20	0	0	0	5	8	43
psychology	0	11	13	0	0	5	0	9	38
sociology	0	14	2	10	0	8	9	0	43
column tota	0	35	35	11	1	43	38	43	206
									206

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	4	4
communicat	0	0	0	0	12	0	2	17	31
economics	0	0	0	2	2	4	0	19	27
geography	0	0	2	0	0	0	1	1	4
info&libSci	0	12	2	0	0	0	0	0	14
politicalSci	0	0	4	0	0	0	13	8	25
psychology	0	2	0	1	0	13	0	7	23
sociology	4	17	19	1	0	8	7	0	56
column tota	4	31	27	4	14	25	23	56	184
									184

1982 WITHOUT self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economic	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	2	2
communicat	0	0	0	0	6	5	6.5	15.5	33
economics	0	0	0	1	1	12	6.5	10.5	31
geography	0	0	1	0	0.5	0	0.5	5.5	7.5
info. & librar	0	6	1	0.5	0	0	0	0	7.5
politicalScie	0	5	12	0	0	0	9	8	34
psychology	0	6.5	6.5	0.5	0	9	0	8	30.5
sociology	2	15.5	10.5	5.5	0	8	8	0	49.5
column total	2	33	31	7.5	7.5	34	30.5	49.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economic	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	4	4
communicat	0	0	0	0	12	10	9	3	34
economics	0	0	0	2	2	16	13	17	50
geography	0	0	2	0	1	0	1	9	13
info. & librar	0	12	2	1	0	0	0	0	15
politicalScie	0	10	16	0	0	0	8	0	34
psychology	0	9	13	1	0	8	0	2	33
sociology	4	3	17	9	0	0	2	0	35
column total	4	34	50	13	15	34	33	35	218

Matrix product A*At (post mulitiplied)

	anthropology	communi	economic	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	16	68	76	4	0	32	28	0	224
communicat	68	437	347	19	0	162	119	18	1170
economics	76	347	385	19	2	152	153	52	1186
geography	4	19	19	2	0	21	7	9	81
info. & librar	0	0	2	0	1	0	0	10	13
politicalScie	32	162	152	21	0	733	426	297	1823
psychology	28	119	153	7	0	426	364	220	1317
sociology	0	18	52	9	10	297	220	445	1051
column total	224	1170	1186	81	13	1823	1317	1051	6865
									6865

Matrix product At*A (pre multiplied)

	anthropology	communi	economic	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	0	0
communicat	0	417	371	140	0	167	256	157	1508
economics	0	371	573	20	0	81	278	251	1574
geography	0	140	20	105	4	88	90	38	485
info. & librar	0	0	0	4	148	8	24	242	426
politicalScie	0	167	81	88	8	105	72	111	632
psychology	0	256	278	90	24	72	255	139	1114
sociology	0	157	251	38	242	111	139	780	1718
column total	0	1508	1574	485	426	632	1114	1718	7457
									7457

WITH SELF CITATIONS

Note: column labels are disciplines whose 1982 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	communic	economics	geograp	informatic	politicalS	psychology	sociology	row total	%ofTotalCited
anthropology	473	0	0	0	0	0	0	4	477	33.31005587
communicati	0	83	0	0	12	0	2	17	114	7.960893855
economics	0	0	112	2	2	4	0	19	139	9.706703911
geograph	0	0	0	20	0	0	1	1	22	1.536312849
info&libSci	0	0	0	1	10	0	0	0	11	0.768156425
politicalSci	0	10	20	0	0	8	13	8	59	4.120111732
psychology	0	11	13	0	0	5	142	7	178	12.4301676
sociology	0	14	2	10	0	8	9	389	432	30.16759777
column totals	473	118	147	33	24	25	167	445	1432	100
col:%ofTotal	33.03072626	8.240223	10.265363	2.3045	1.67598	1.74581	11.66201	31.07541899	1432	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communic	economics	geograp	info. & libr	politicalS	psychology	sociology	row totals	%ofTotalCited
anthropology	473	0	0	0	0	0	0	0	473	33.03072626
communicati	0	83	0	0	0	10	11	14	118	8.240223464
economics	0	0	112	0	0	20	13	2	147	10.26536313
geography	0	0	2	20	1	0	0	10	33	2.304469274
info. & library	0	12	2	0	10	0	0	0	24	1.675977654
politicalScien	0	0	4	0	0	8	5	8	25	1.745810056
psychology	0	2	0	1	0	13	142	9	167	11.66201117
sociology	4	17	19	1	0	8	7	389	445	31.07541899
column totals	477	114	139	22	11	59	178	432	1432	100
col:%ofTotal	33.31005587	7.960894	9.7067039	1.5363	0.76816	4.12011	12.43017	30.16759777	1432	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communic	economics	geograp	informatic	political s	psychology	sociology	row totals
anthropology	473	0	0	0	0	0	0	0	473
communicati	0	83	0	0	0	10	11	14	118
economics	0	0	112	0	0	20	13	2	147
geography	0	0	0	20	1	0	0	10	31
info&libSci	0	0	0	1	10	0	0	0	11
politicalSci	0	10	20	0	0	8	5	8	51
psychology	0	11	13	0	0	5	142	9	180
sociology	0	14	2	10	0	8	9	389	432
column totals	473	118	147	31	11	51	180	432	1443
									1443

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communic	economics	geograp	informatic	political s	psychology	sociology	row totals
anthropology	473	0	0	0	0	0	0	4	477
communicati	0	83	0	0	12	0	2	17	114
economics	0	0	112	2	2	4	0	19	139
geography	0	0	2	20	0	0	1	1	24
info&libSci	0	12	2	0	10	0	0	0	24
politicalSci	0	0	4	0	0	8	13	8	33
psychology	0	2	0	1	0	13	142	7	165
sociology	4	17	19	1	0	8	7	389	445
column totals	477	114	139	24	24	33	165	445	1421
									1421

1982 WITH self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	473	0	0	0	0	0	0	2	475
communicat	0	83	0	0	6	5	6.5	15.5	116
economics	0	0	112	1	1	12	6.5	10.5	143
geography	0	0	1	20	0.5	0	0.5	5.5	27.5
info. & librar	0	6	1	0.5	10	0	0	0	17.5
politicalScie	0	5	12	0	0	8	9	8	42
psychology	0	6.5	6.5	0.5	0	9	142	8	172.5
sociology	2	15.5	10.5	5.5	0	8	8	389	438.5
column total	475	116	143	27.5	17.5	42	172.5	438.5	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	473	0	0	0	0	0	0	4	477
communicat	0	83	0	0	12	10	9	3	117
economics	0	0	112	2	2	16	13	17	162
geography	0	0	2	20	1	0	1	9	33
info. & librar	0	12	2	1	10	0	0	0	25
politicalScie	0	10	16	0	0	8	8	0	42
psychology	0	9	13	1	0	8	142	2	175
sociology	4	3	17	9	0	0	2	389	424
column total	477	117	162	33	25	42	175	424	1455

Matrix product A*At (post mulitiplied)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	223745	68	76	4	0	32	28	1556	225509
communicat	68	7326	347	19	120	992	1316	7793	17981
economics	76	347	12929	59	22	2424	1609	7667	25133
geography	4	19	59	402	20	21	149	598	1272
info. & librar	0	120	22	20	101	0	0	10	273
politicalScie	32	992	2424	21	0	797	2312	3473	10051
psychology	28	1316	1609	149	0	2312	20528	4221	30163
sociology	1556	7793	7667	598	10	3473	4221	151766	177084
column total	225509	17981	25133	1272	273	10051	30163	177084	487466

Matrix product At*A (pre multiplied)

	anthropology	communi	economi	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	223729	0	0	0	0	0	0	1892	225621
communicat	0	7306	371	140	996	247	1984	7014	18058
economics	0	371	13117	244	224	689	2124	3157	19926
geography	0	140	244	505	14	88	110	3948	5049
info. & librar	0	996	224	14	248	8	24	242	1756
politicalScie	0	247	689	88	8	169	886	3287	5374
psychology	0	1984	2124	110	24	886	20419	4634	30181
sociology	1892	7014	3157	3948	242	3287	4634	152101	176275
column total	225621	18058	19926	5049	1756	5374	30181	176275	482240

WITHOUT SELF CITATIONS

Note: column labels are disciplines whose 1983 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	0	0	0	0	0	1	2	14	17	11.48649
communic	0	0	0	1	3	1	2	10	17	11.48649
economics	0	0	0	12	0	2	0	28	42	28.37838
geography	0	0	0	0	0	0	0	0	0	0
info&libSci	0	0	0	0	0	0	0	0	0	0
politicalSci	0	8	9	5	0	0	0	14	36	24.32432
psychology	0	1	0	0	1	0	0	3	5	3.378378
sociology	0	21	1	6	0	1	2	0	31	20.94595
column tota	0	30	10	24	4	5	6	69	148	100
col:%ofTota	0	20.27	6.7568	16.2	2.703	3.378	4.0541	46.62162	148	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	0	0	0	0	0	0	0	0	0	0
communicat	0	0	0	0	0	8	1	21	30	20.27027
economics	0	0	0	0	0	9	0	1	10	6.756757
geography	0	1	12	0	0	5	0	6	24	16.21622
info. & libra	0	3	0	0	0	0	1	0	4	2.702703
politicalScie	1	1	2	0	0	0	0	1	5	3.378378
psychology	2	2	0	0	0	0	0	2	6	4.054054
sociology	14	10	28	0	0	14	3	0	69	46.62162
column tota	17	17	42	0	0	36	5	31	148	100
col:%ofTota	11.486486	11.49	28.378	0	0	24.32	3.3784	20.94595	148	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	0	0
communicat	0	0	0	0	0	8	1	21	30
economics	0	0	0	0	0	9	0	1	10
geography	0	0	0	0	0	5	0	6	11
info&libSci	0	0	0	0	0	0	1	0	1
politicalSci	0	8	9	5	0	0	0	1	23
psychology	0	1	0	0	1	0	0	2	4
sociology	0	21	1	6	0	1	2	0	31
column tota	0	30	10	11	1	23	4	31	110
									110

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	1	2	14	17
communicat	0	0	0	1	3	1	2	10	17
economics	0	0	0	12	0	2	0	28	42
geography	0	1	12	0	0	0	0	0	13
info&libSci	0	3	0	0	0	0	0	0	3
politicalSci	1	1	2	0	0	0	0	14	18
psychology	2	2	0	0	0	0	0	3	7
sociology	14	10	28	0	0	14	3	0	69
column tota	17	17	42	13	3	18	7	69	186
									186

1983 WITHOUT self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0.5	1	7	8.5
communicat	0	0	0	0.5	1.5	4.5	1.5	15.5	23.5
economics	0	0	0	6	0	5.5	0	14.5	26
geography	0	0.5	6	0	0	2.5	0	3	12
info. & librar	0	1.5	0	0	0	0	0.5	0	2
politicalScie	0.5	4.5	5.5	2.5	0	0	0	7.5	20.5
psychology	1	1.5	0	0	0.5	0	0	2.5	5.5
sociology	7	15.5	14.5	3	0	7.5	2.5	0	50
column total	8.5	23.5	26	12	2	20.5	5.5	50	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	1	2	14	17
communicat	0	0	0	1	3	7	1	11	23
economics	0	0	0	12	0	7	0	27	46
geography	0	1	12	0	0	5	0	6	24
info. & librar	0	3	0	0	0	0	1	0	4
politicalScie	1	7	7	5	0	0	0	13	33
psychology	2	1	0	0	1	0	0	1	5
sociology	14	11	27	6	0	13	1	0	72
column total	17	23	46	24	4	33	5	72	224
									224

Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	201	145	394	0	0	196	42	5	983
communicat	145	115	294	0	0	145	33	11	743
economics	394	294	932	0	0	452	84	74	2230
geography	0	0	0	0	0	0	0	0	0
info. & librar	0	0	0	0	0	0	0	0	0
politicalScie	196	145	452	0	0	366	50	207	1416
psychology	42	33	84	0	0	50	11	21	241
sociology	5	11	74	0	0	207	21	483	801
column total	983	743	2230	0	0	1416	241	801	6414
									6414

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lib	politicalS	psycholog	sociology	row totals
anthropolog	0	0	0	0	0	0	0	0	0
communicat	0	506	93	166	1	21	42	115	944
economics	0	93	82	51	0	1	2	126	355
geography	0	166	51	206	3	31	14	416	887
info. & librar	0	1	0	3	10	3	6	33	56
politicalScie	0	21	1	31	3	7	6	80	149
psychology	0	42	2	14	6	6	12	48	130
sociology	0	115	126	416	33	80	48	1285	2103
column total	0	944	355	887	56	149	130	2103	4624
									4624

WITH SELF CITATIONS

Note: column labels are disciplines whose 1983 top impact journals were examined; row labels (at left) represent citations/discipline of top 5 impact factor journals in top journal by discipline.

asymmetric matrix citation data

	anthropology	commun	economic	geogra	informa	political	psycholo	sociology	row total	%ofTotalCited
anthropolo	532	0	0	0	0	1	2	14	549	37.52563
communic	0	99	0	1	3	1	2	10	116	7.928913
economics	0	0	86	12	0	2	0	28	128	8.749146
geography	0	0	0	37	0	0	0	0	37	2.52905
info&libSci	0	0	0	0	4	0	0	0	4	0.273411
politicalSci	0	8	9	5	0	11	0	14	47	3.212577
psychology	0	1	0	0	1	0	130	3	135	9.227614
sociology	0	21	1	6	0	1	2	416	447	30.55366
column tota	532	129	96	61	8	16	136	485	1463	100
col:%ofTota	36.363636	8.817	6.5619	4.17	0.547	1.094	9.296	33.15106	1463	100

remember: A matrix columns=cites, rows=cited

"cites" = column labeled disciplines cite row labeled disciplines (for example anthropology cites psychology four times)

"cited" = row labeled disciplines are cited by column labeled disciplines (for example anthropology is cited by psychology twice)

transpose of asymmetric matrix citation data

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals	%ofTotalCited
anthropolog	532	0	0	0	0	0	0	0	532	36.36364
communicat	0	99	0	0	0	8	1	21	129	8.817498
economics	0	0	86	0	0	9	0	1	96	6.561859
geography	0	1	12	37	0	5	0	6	61	4.169515
info. & libra	0	3	0	0	4	0	1	0	8	0.546822
politicalScie	1	1	2	0	0	11	0	1	16	1.093643
psychology	2	2	0	0	0	0	130	2	136	9.295967
sociology	14	10	28	0	0	14	3	416	485	33.15106
column tota	549	116	128	37	4	47	135	447	1463	100
col:%ofTota	37.525632	7.929	8.7491	2.53	0.273	3.213	9.2276	30.55366	1463	100

remember: At matrix (transpose matrix) is columns=cited, rows=cites

Symmetric Matrix1 (lower triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	532	0	0	0	0	0	0	0	532
communicat	0	99	0	0	0	8	1	21	129
economics	0	0	86	0	0	9	0	1	96
geography	0	0	0	37	0	5	0	6	48
info&libSci	0	0	0	0	4	0	1	0	5
politicalSci	0	8	9	5	0	11	0	1	34
psychology	0	1	0	0	1	0	130	2	134
sociology	0	21	1	6	0	1	2	416	447
column tota	532	129	96	48	5	34	134	447	1425
									1425

Symmetric Matrix 2 (upper triangle of asymmetric matrix)

	anthropology	communi	economics	geogra	informati	political	psycholog	sociology	row totals
anthropolog	532	0	0	0	0	1	2	14	549
communicat	0	99	0	1	3	1	2	10	116
economics	0	0	86	12	0	2	0	28	128
geography	0	1	12	37	0	0	0	0	50
info&libSci	0	3	0	0	4	0	0	0	7
politicalSci	1	1	2	0	0	11	0	14	29
psychology	2	2	0	0	0	0	130	3	137
sociology	14	10	28	0	0	14	3	416	485
column tota	549	116	128	50	7	29	137	485	1501
									1501

1983 WITH self citation
means of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	532	0	0	0	0	0.5	1	7	540.5
communicat	0	99	0	0.5	1.5	4.5	1.5	15.5	122.5
economics	0	0	86	6	0	5.5	0	14.5	112
geography	0	0.5	6	37	0	2.5	0	3	49
info. & librar	0	1.5	0	0	4	0	0.5	0	6
politicalScie	0.5	4.5	5.5	2.5	0	11	0	7.5	31.5
psychology	1	1.5	0	0	0.5	0	130	2.5	135.5
sociology	7	15.5	14.5	3	0	7.5	2.5	416	466
column total	540.5	122.5	112	49	6	31.5	135.5	466	

absolute value differences of upper/lower triangles from assymetric matrix values (this matrix is symmetric)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	532	0	0	0	0	1	2	14	549
communicat	0	99	0	1	3	7	1	11	122
economics	0	0	86	12	0	7	0	27	132
geography	0	1	12	37	0	5	0	6	61
info. & librar	0	3	0	0	4	0	1	0	8
politicalScie	1	7	7	5	0	11	0	13	44
psychology	2	1	0	0	1	0	130	1	135
sociology	14	11	27	6	0	13	1	416	488
column total	549	122	132	61	8	44	135	488	1539
									1539

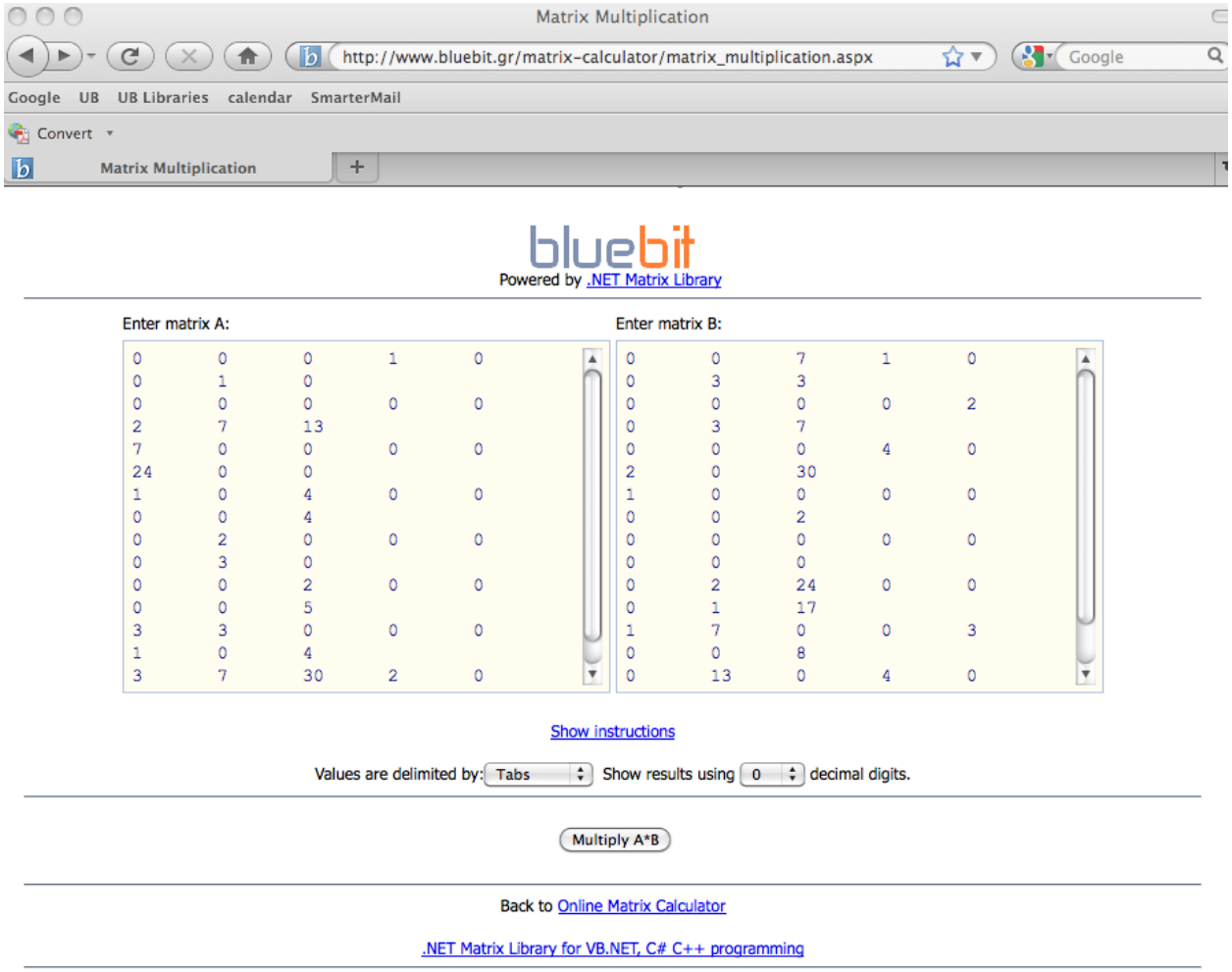
Matrix product A*At (post mulitiplied)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	283225	145	394	0	0	207	302	5829	290102
communicat	145	9916	294	37	12	948	392	6250	17994
economics	394	294	8328	444	0	1248	84	11808	22600
geography	0	37	444	1369	0	185	0	222	2257
info. & librar	0	12	0	0	16	0	4	0	32
politicalScie	207	948	1248	185	0	487	50	6042	9167
psychology	302	392	84	0	4	50	16911	1529	19272
sociology	5829	6250	11808	222	0	6042	1529	173539	205219
column total	290102	17994	22600	2257	32	9167	19272	205219	566643
									566643

Matrix product At*A (pre multiplied)

	anthropology	communi	economics	geogra	info. & lit	politicalS	psycholog	sociology	row totals
anthropolog	283024	0	0	0	0	532	1064	7448	292068
communicat	0	10307	93	265	298	208	370	9841	21382
economics	0	93	7478	1083	0	272	2	2950	11878
geography	0	265	1083	1575	3	86	14	2912	5938
info. & librar	0	298	0	3	26	3	136	33	499
politicalScie	532	208	272	86	3	128	6	650	1885
psychology	1064	370	2	14	136	6	16912	1270	19774
sociology	7448	9841	2950	2912	33	650	1270	174341	199445
column total	292068	21382	11878	5938	499	1885	19774	199445	552869

Appendix Y-1: Matrix Multiplication using BlueBit online Calculator (screenshot)



Appendix Y-2: Example of Matrix Multiplication Output (using BlueBit)

Online Matrix Multiplication - Results Page
Powered by .NET Matrix Library

Matrix Multiplication Results

Input matrix A:

```
 0.000  0.000  7.000  1.000  0.000  0.000  3.000  3.000
 0.000  0.000  0.000  0.000  2.000  0.000  3.000  7.000
 0.000  0.000  0.000  4.000  0.000  2.000  0.000 30.000
 1.000  0.000  0.000  0.000  0.000  0.000  0.000  2.000
 0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.000
 0.000  2.000 24.000  0.000  0.000  0.000  1.000 17.000
 1.000  7.000  0.000  0.000  3.000  0.000  0.000  8.000
 0.000 13.000  0.000  4.000  0.000  5.000  4.000  0.000
```

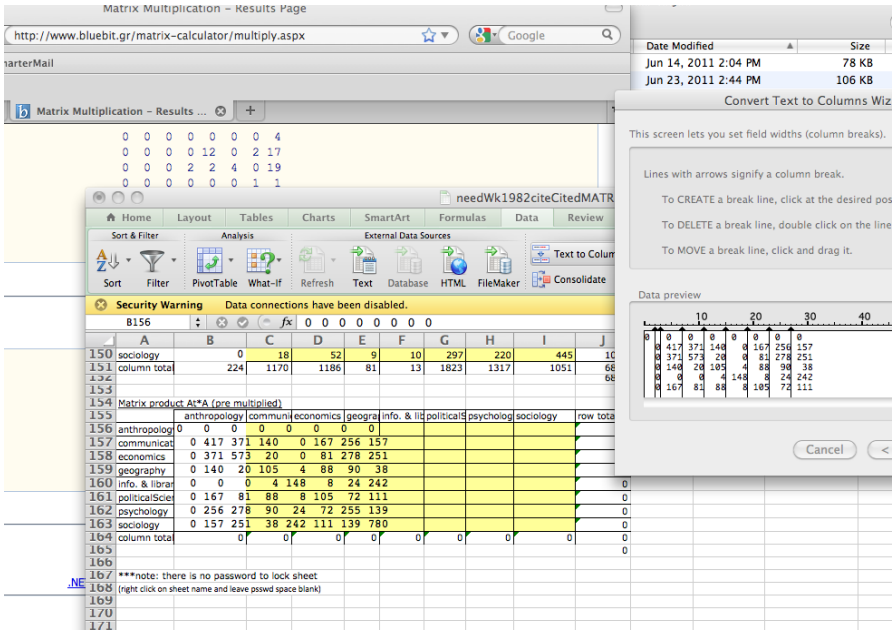
Input matrix B:

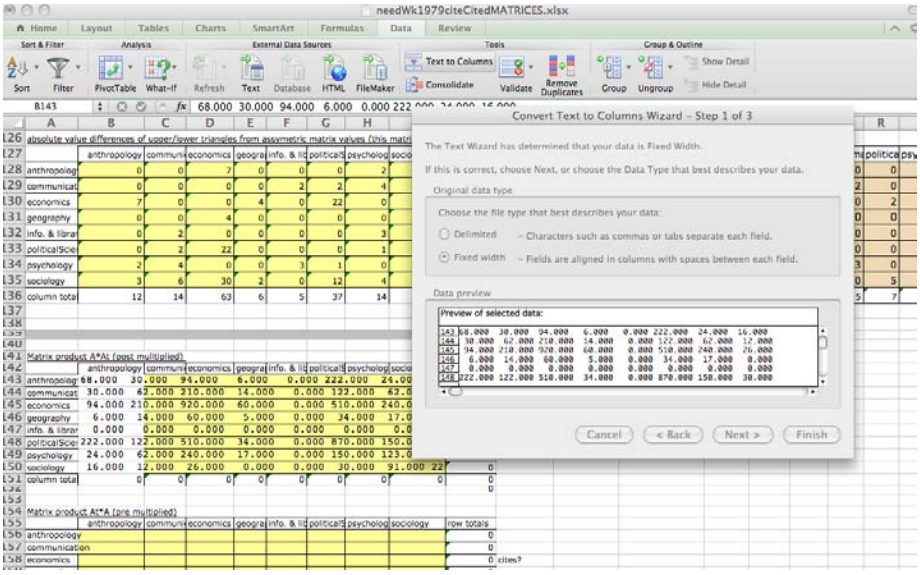
```
 0.000  0.000  0.000  1.000  0.000  0.000  1.000  0.000
 0.000  0.000  0.000  0.000  0.000  2.000  7.000 13.000
 7.000  0.000  0.000  0.000  0.000 24.000  0.000  0.000
 1.000  0.000  4.000  0.000  0.000  0.000  0.000  4.000
 0.000  2.000  0.000  0.000  0.000  0.000  3.000  0.000
 0.000  0.000  2.000  0.000  0.000  0.000  0.000  5.000
 3.000  3.000  0.000  0.000  0.000  1.000  0.000  4.000
 3.000  7.000 30.000  2.000  0.000 17.000  8.000  0.000
```

Matrix product A*B

```
 68.000  30.000  94.000   6.000   0.000 222.000  24.000  16.000
 30.000  62.000 210.000  14.000   0.000 122.000  62.000  12.000
 94.000 210.000 920.000  60.000   0.000 510.000 240.000  26.000
  6.000  14.000  60.000   5.000   0.000  34.000  17.000   0.000
  0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
222.000 122.000 510.000  34.000   0.000 870.000 150.000  30.000
 24.000  62.000 240.000  17.000   0.000 150.000 123.000  91.000
 16.000  12.000  26.000   0.000   0.000  30.000  91.000 226.000
```

Appendix Z: Text to columns (screenshot)





Appendix AA: Excel formulas in cite/cited binomial matrix

2009	ANTH	COM	ECON	GEOG	InfoLib	PoliSci	PSYCH	SOC	**Tin (Intotals)**
anthropology	0	1	0	0	1	0	1	1	**=SUM(B140:I140)**
communication	0	0	0	0	1	0	1	1	**=SUM(B141:I141)**
economics	0	1	0	1	1	1	1	1	**=SUM(B142:I142)**
geography	0	0	0	0	0	0	0	1	**=SUM(B143:I143)**
info&libSci	0	1	0	0	0	0	0	1	**=SUM(B144:I144)**
politicalSci	0	1	1	1	1	0	1	1	**=SUM(B145:I145)**
psychology	1	1	1	1	1	1	0	1	**=SUM(B146:I146)**
sociology	0	1	1	1	1	1	1	0	**=SUM(B147:I147)**
Tout (OUTtotals)	**=SUM(B140:B147)**	**=SUM(C140:C147)**	**=SUM(D140:D147)**	**=SUM(E140:E147)**	**=SUM(F140:F147)**	**=SUM(G140:G147)**	**=SUM(H140:H147)**	**=SUM(I140:I147)**	**=SUM(J140:J147)**
Tlink (IN+OUT)	=SUM(B148+J140)	=SUM(C148+J141)	=SUM(D148+J142)	=SUM(E148+J143)	=SUM(F148+J144)	=SUM(G148+J145)	=SUM(H148+J146)	=SUM(I148+J147)	**=SUM(B148:I148)**
TlinkMaxOUT	=MAX(0,B148-J140)	=MAX(0,C148-J141)	=MAX(0,D148-J142)	=MAX(0,E148-J143)	=MAX(0,F148-J144)	=MAX(0,G148-J145)	=MAX(0,H148-J146)	=MAX(0,I148-J147)	
tlinkMaxIN	=MAX(J140-B148,0)	=MAX(0,J141-C148)	=MAX(J142-D148,0)	=MAX(J143-E148,0)	=MAX(J144-F148,0)	=MAX(J145-G148,0)	=MAX(J146-H148,0)	=MAX(J147-I148,0)	

Appendix AB: Excel formulas from citation percent spreadsheet

	H	I	J	K	L	M	N	O	P	Q	R	S
4		geography		information &		political science		psychology		sociology		
5	%ColumnTotal(c	cites	%ColumnTotal(cit	cites	%ColumnTotal(cites)	cites	%ColumnTotal(ci	cites	%ColumnTota	cites	%ColumnTotal(cite	
6	=(G6/G14)/0.01	=Y6	=(I6/I14)/0.01	=Z6	=(K6/K14)/0.01	=AA6	=(M6/M14)/0.01	=AB6	=(O6/O14)/0.	=AC6	=(Q6/Q14)/0.	
7	=(G7/G14)/0.01	=Y7	=(I7/I14)/0.01	=Z7	=(K7/K14)/0.01	=AA7	=(M7/M14)/0.01	=AB7	=(O7/O14)/0.	=AC7	=(Q7/Q14)/0.	
8	=(G8/G14)/0.01	=Y8	=(I8/I14)/0.01	=Z8	=(K8/K14)/0.01	=AA8	=(M8/M14)/0.01	=AB8	=(O8/O14)/0.	=AC8	=(Q8/Q14)/0.	
9	=(G9/G14)/0.01	=Y9	=(I9/I14)/0.01	=Z9	=(K9/K14)/0.01	=AA9	=(M9/M14)/0.01	=AB9	=(O9/O14)/0.	=AC9	=(Q9/Q14)/0.	
10	=(G10/G14)/0.0	=Y10	=(I10/I14)/0.01	=Z10	=(K10/K14)/0.01	=AA10	=(M10/M14)/0.01	=AB10	=(O10/O14)/0	=AC10	=(Q10/Q14)/0	
11	=(G11/G14)/0.0	=Y11	=(I11/I14)/0.01	=Z11	=(K11/K14)/0.01	=AA11	=(M11/M14)/0.01	=AB11	=(O11/O14)/0	=AC11	=(Q11/Q14)/0	
12	=(G12/G14)/0.0	=Y12	=(I12/I14)/0.01	=Z12	=(K12/K14)/0.01	=AA12	=(M12/M14)/0.01	=AB12	=(O12/O14)/0	=AC12	=(Q12/Q14)/0	
13	=(G13/G14)/0.0	=Y13	=(I13/I14)/0.01	=Z13	=(K13/K14)/0.01	=AA13	=(M13/M14)/0.01	=AB13	=(O13/O14)/0	=AC13	=(Q13/Q14)/0	
14	=SUM(H7+H8+H	=SUM(I6:I13)	=SUM(J6:J13)	=SUM(K6:K13	=SUM(L6:L13)	=SUM(M6:M13)	=SUM(N6:N13)	=SUM(O6:O1	=SUM(P6:P13	=SUM(Q6:Q1	=SUM(R6:R13	=SUM(O14+M14+K14+I14+G14+E14+C14)
15	=SUM(G14/S14)		=SUM(I14/S14)/0		=SUM(K14/S14)/0.01		=SUM(M14/S14)/		=SUM(O14/S1		=SUM(Q14/S1	=SUM(D15+F15+H15+J15+L15+N15+P15+R15)
16												
17												
18												
19		geography		information &		political science		psychology		sociology		
20	%ColumnTotal(c	cites	%ColumnTotal(cit	cites	%ColumnTotal(cites)	cites	%ColumnTotal(ci	cites	%ColumnTota	cites	%ColumnTotal(cite	
21	=(G21/G29)/0.0	=Y21	=(I21/I29)/0.01	=Z21	=(K21/K29)/0.01	=AA21	=(M21/M29)/0.01	=AB21	=(O21/O29)/0	=AC21	=(Q21/Q29)/0	
22	=(G22/G29)/0.0	=Y22	=(I22/I29)/0.01	=Z22	=(K22/K29)/0.01	=AA22	=(M22/M29)/0.01	=AB22	=(O22/O29)/0	=AC22	=(Q22/Q29)/0	
23	=(G23/G29)/0.0	=Y23	=(I23/I29)/0.01	=Z23	=(K23/K29)/0.01	=AA23	=(M23/M29)/0.01	=AB23	=(O23/O29)/0	=AC23	=(Q23/Q29)/0	
24	=(G24/G29)/0.0	=Y24	=(I24/I29)/0.01	=Z24	=(K24/K29)/0.01	=AA24	=(M24/M29)/0.01	=AB24	=(O24/O29)/0	=AC24	=(Q24/Q29)/0	
25	=(G25/G29)/0.0	=Y25	=(I25/I29)/0.01	=Z25	=(K25/K29)/0.01	=AA25	=(M25/M29)/0.01	=AB25	=(O25/O29)/0	=AC25	=(Q25/Q29)/0	
26	=(G26/G29)/0.0	=Y26	=(I26/I29)/0.01	=Z26	=(K26/K29)/0.01	=AA26	=(M26/M29)/0.01	=AB26	=(O26/O29)/0	=AC26	=(Q26/Q29)/0	
27	=(G27/G29)/0.0	=Y27	=(I27/I29)/0.01	=Z27	=(K27/K29)/0.01	=AA27	=(M27/M29)/0.01	=AB27	=(O27/O29)/0	=AC27	=(Q27/Q29)/0	
28	=(G28/G29)/0.0	=Y28	=(I28/I29)/0.01	=Z28	=(K28/K29)/0.01	=AA28	=(M28/M29)/0.01	=AB28	=(O28/O29)/0	=AC28	=(Q28/Q29)/0	
29	=SUM(H22+H23	=SUM(I21:I28	=SUM(J21:J28)	=SUM(K21:K2	=SUM(L21:L28)	=SUM(M21:M28	=SUM(N21:N28)	=SUM(O21:O2	=SUM(P21:P2	=SUM(Q21:Q	=SUM(R21:R2	=SUM(Q29+O29+M29+K29+I29+G29+E29+C29)
30	=SUM(G29/S29)		=SUM(I29/S29)/0		=SUM(K29/S29)/0.01		=SUM(M29/S29)/		=SUM(O29/S2		=SUM(Q29/S2	=SUM(D30+F30+H30+J30+L30+N30+P30+R30)

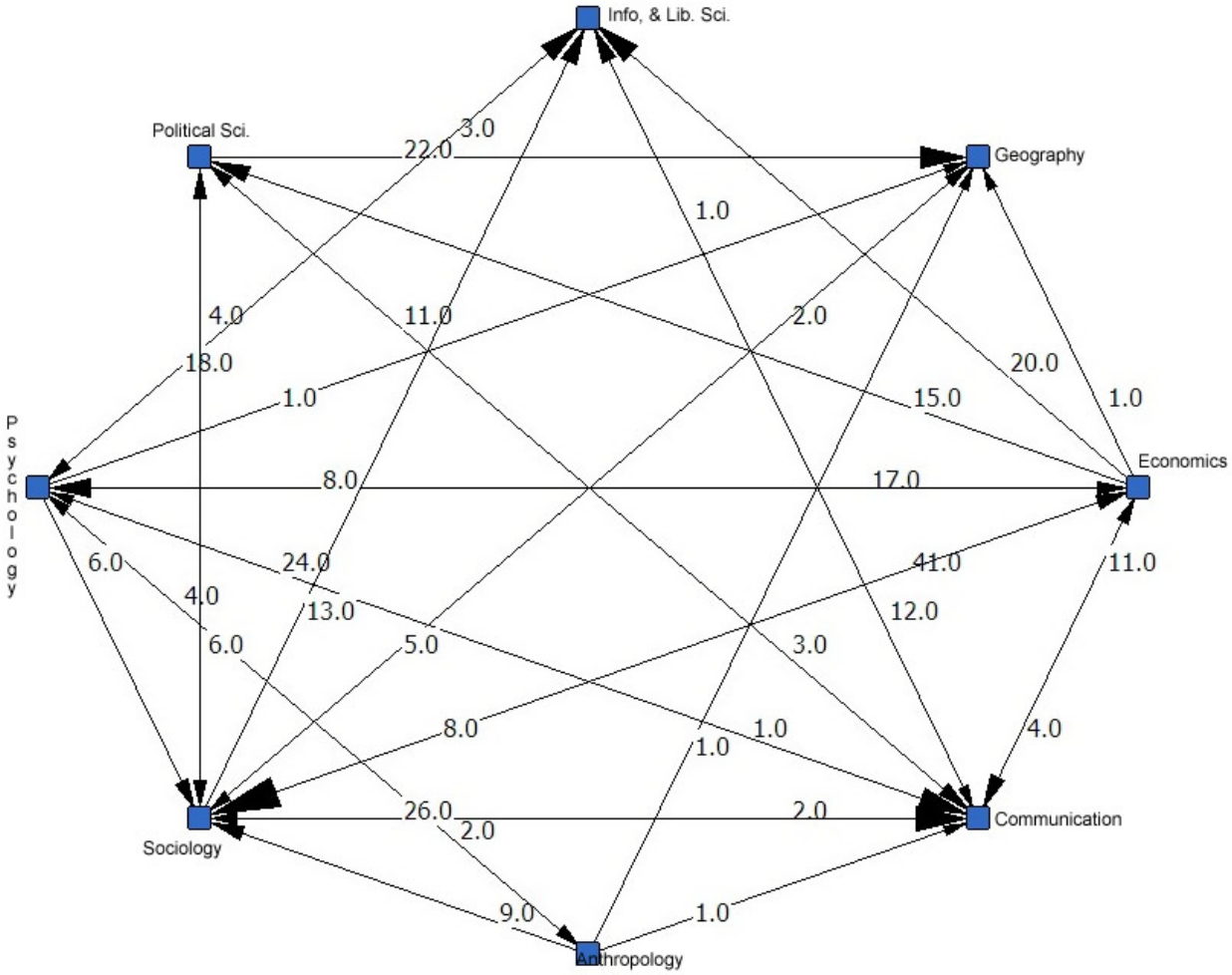
Appendix AC: Excel formulas ratio spreadsheet

	A	B	C	D	E	F	G
1							
2	Citation totals/discipline ratios WITH						
3							
4		cites	cited	more likely to cite others than tc		more likely to be cited by others th	
5	anthropology	='1979Percents'!C29	='1979Percents'!C60	=(B5&","&C5)	=QUOTIENT(B5,C5)	=(C5&","&B5)	=QUOTIENT(C5,B5)
6	communication	='1979Percents'!E29	='1979Percents'!E60	=(B6&","&C6)	=QUOTIENT(B6,C6)	=(C6&","&B6)	=QUOTIENT(C6,B6)
7	economics	='1979Percents'!G29	='1979Percents'!G60	=(B7&","&C7)	=QUOTIENT(B7,C7)	=(C7&","&B7)	=QUOTIENT(C7,B7)
8	geography	='1979Percents'!I29	='1979Percents'!I60	=(B8&","&C8)	=QUOTIENT(B8,C8)	=(C8&","&B8)	=QUOTIENT(C8,B8)
9	info&libSci	='1979Percents'!K29	='1979Percents'!K60	=(B9&","&C9)	=QUOTIENT(B9,C9)	=(C9&","&B9)	=QUOTIENT(C9,B9)
10	politicalSci	='1979Percents'!M29	='1979Percents'!M60	=(B10&","&C10)	=QUOTIENT(B10,C10)	=(C10&","&B10)	=QUOTIENT(C10,B10)
11	psychology	='1979Percents'!O29	='1979Percents'!O60	=(B11&","&C11)	=QUOTIENT(B11,C11)	=(C11&","&B11)	=QUOTIENT(C11,B11)
12	sociology	='1979Percents'!Q29	='1979Percents'!Q60	=(B12&","&C12)	=QUOTIENT(B12,C12)	=(C12&","&B12)	=QUOTIENT(C12,B12)
13	totals	=SUM(B5:B12)	=SUM(C5:C12)				
14							
15							
16	Citation totals/discipline ratios WITH						
17							
18		cites	cited	more likely to cite others than tc		more likely to be cited by others th	
19	anthropology	2233	2242	=(B19&","&C19)	=QUOTIENT(B19,C19)	=(C19&","&B19)	=QUOTIENT(C19,B19)
20	communication	242	188	=(B20&","&C20)	=QUOTIENT(B20,C20)	=(C20&","&B20)	=QUOTIENT(C20,B20)
21	economics	323	412	=(B21&","&C21)	=QUOTIENT(B21,C21)	=(C21&","&B21)	=QUOTIENT(C21,B21)
22	geography	188	160	=(B22&","&C22)	=QUOTIENT(B22,C22)	=(C22&","&B22)	=QUOTIENT(C22,B22)
23	info&libSci	298	240	=(B23&","&C23)	=QUOTIENT(B23,C23)	=(C23&","&B23)	=QUOTIENT(C23,B23)
24	politicalSci	137	150	=(B24&","&C24)	=QUOTIENT(B24,C24)	=(C24&","&B24)	=QUOTIENT(C24,B24)
25	psychology	263	298	=(B25&","&C25)	=QUOTIENT(B25,C25)	=(C25&","&B25)	=QUOTIENT(C25,B25)
26	sociology	466	460	=(B26&","&C26)	=QUOTIENT(B26,C26)	=(C26&","&B26)	=QUOTIENT(C26,B26)
27	totals	=SUM(B19:B26)	=SUM(C19:C26)				
28							

Appendix AD: Excel formulas for graph percent data

	A	B	C	D	E	F	G	H	I
34	%s for asymmetric matrix WITHOUT s							check	
35		CITES/CITED	row%ofTotalCited					=B45-C36	<-=B45-C36
36	anthropology	=C36-B45	='1979Percents'!D61					=C45-C37	<=C45-C37
37	communication	=C37-C45	='1979Percents'!F61		CITES/CITED formula: =row%total-col%total			=D45-C38	etc.
38	economics	=C38-D45	='1979Percents'!H61		check formula: =col%total-row%total			=E45-C39	
39	geography	=C39-E45	='1979Percents'!J61	D				=F45-C40	
40	info. & library science	=C40-F45	='1979Percents'!L61					=G45-C41	
41	politicalScience	=C41-G45	='1979Percents'!N61					=H45-C42	
42	psychology	=C42-H45	='1979Percents'!P61					=I45-C43	
43	sociology	=C43-I45	='1979Percents'!R61						
44									
45	columns:%ofTotalCites	=L45	=M45	=N45	=O45	=P45	=Q45	=R45	=S45
48	%s for asymmetric matrix WITH self-c				B			check	
49		CITES/CITED	row%ofTotalCited					=B59-C50	<-=B59-C50
50	anthropology	=C50-B59	='1979Percents'!D46					=C59-C51	<=C59-C51
51	communication	=C51-C59	='1979Percents'!F46		CITES/CITED formula: =row%total-col%total			=D59-C52	etc.
52	economics	=C52-D59	='1979Percents'!H46		check formula: =col%total-row%total			=E59-C53	
53	geography	=C53-E59	='1979Percents'!J46	C				=F59-C54	
54	info. & library science	=C54-F59	='1979Percents'!L46					=G59-C55	
55	politicalScience	=C55-G59	3.6144578313253					=H59-C56	
56	psychology	=C56-H59	='1979Percents'!P46					=I59-C57	
57	sociology	=C57-I59	='1979Percents'!R46						
58									
59	col%ofTotalCited	=L59	=M59	=N59	=O59	=P59	=Q59	=R59	=S59
60	notice poli sci flips when own citations				A				
61									
62	CITES/CITED:	negative#=they cite others more than th							
63		positive#=they are cited by others more							

Appendix AE: UCINET 2008 graph showing weighted edges



Appendix AF-1: Example of runstream file used by v56

```
strt05NC.prt
strt05NC.crd
RUN NAME      strat05-09NOscs,symMatx1-lwrTri,Rot
N-CONCEPTS    8
N-DATASETS    5
CRITERION PAIR n/a=citeCounts
CONLABELS
                    ANTH
                    COMM
                    ECON
                    GEOG
                    INFLIB
                    POLSCI
                    PSYCH
                    SOC
OPERATIONS    COMPARISONS
SPECIFICATIONS
MAXVAL        20000
END OF SPECIFICATIONS
OPTIONS       23,24,22,18,8,9,12,13,14,15,16
READ DATA
(8F8.0)
       0       0       0       0       0       0      11       0
       0       0       4       0       0     219       4      17
       0       4       0       0       0      14       1      11
       0       0       0       0       0       0       0       3
       0       0       0       0       0       2      19      14
       0     219      14       0       2       0       5      10
      11       4       1       0      19       5       0       8
       0      17      11       3      14      10       8       0
(8F8.0)
       0       0       0       0       0       0      18       1
       0       0       0       0       0       0       1       0
       0       0       0       1       0       2      16       4
       0       0       1       0       0       2       0       8
       0       0       0       0       0       2      18      15
       0       0       2       2       2       0       0      17
      18       1      16       0      18       0       0       5
       1       0       4       8      15      17       5       0
(8F8.0)
       0       0       0       0       0       0       1       1
       0       0       0       0       0     229      14      11
       0       0       0       0       0       1       0       0
       0       0       0       0       0       0       0       2
```

Appendix AF-2: Example of runstream file used by v56

```
       0       0       0       0       0       0      40      17
       0     229       1       0       0       0       1       3
       1      14       0       0      40       1       0       4
       1      11       0       2      17       3       4       0
(8F8.0)
       0       0       0       0       0       0       4       0
       0       0      11       0       1      11      24      27
       0      11       0       0       0       0       5       7
       0       0       0       0       0      22       1       5
       0       1       0       0       0       0      18      13
       0      11       0      22       0       0       0       6
       4      24       5       1      18       0       0       0
       0      27       7       5      13       6       0       0
(8F8.0)
       0       0       0       0       0       0      19       0
       0       0       2       0      42      13      10      40
       0       2       0       0       0       4      10       9
       0       0       0       0       0       4       1      17
       0      42       0       0       0       2      59      28
       0      13       4       4       2       0       5       4
      19      10      10       1      59       5       0       4
       0      40       9      17      28       4       4       0
```

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