IS GOOGLE EVIL?
KNOWLEDGE COMMODIFICATION,
COMMUNITY AND INNOVATION

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Abstract. The Google search engine is a researcher’s dream come true: Type a few keywords, and ordered, relevant links appear in less than a second. The reduction in searching and sorting effort aids learning, but some claim this benefit is too costly. They say that Google’s ranking system (PageRank) reduces our access to dissident, minority or heterodox views. They also claim that Google—as a one-stop shop for research answers—reduces our ability to compare, contrast and weigh different perspectives. That is, Google makes it so easy to learn the conventional wisdom that nobody bothers to look elsewhere. I dismiss these naïve claims before discussing two negative externalities that come with the huge benefits of Google. One externality is a reduction in community bonds between individuals who consume more commodified knowledge and less common knowledge. The second externality is a reduction in the creation of new knowledge when Google delivers others’ presentations too quickly—removing the Aha! moment when composing a known concept generates a completely new one. To not be evil, Google should act to offset these externalities. I suggest solutions to build community bonds and increase innovation.

No, Google is not evil, but some people think so.¹ I begin this essay with a few words on knowledge, before reviewing and dismissing the conventional critics. In Section 3, I present more significant criticisms.

¹I presented this paper at the 10th International Karl Polanyi Conference (“Protecting Society and Nature from Commodity Fiction”). In a vote at the start of my presentation, 24 participants voted 1-6 (18 abstentions) in favor of Google being evil. (My conjecture is that the high number of abstentions—given that everyone knew of Google—was partially the result of participants’ desire to condemn Google’s delivery of commodified knowledge clashing with their desire to support Google for helping them personally.)
arguing that Google can weaken users’ ties to the community and reduce users’ capacity to innovate. These negative externalities are small compared to the benefits Google delivers, but they should be opposed. In Section 4, I suggest some solutions that Google could implement to encourage community and innovation.

1. KNOWLEDGE, SOCIETY AND GOOGLE

Knowledge measures social evolution. The ability of man to rise above evolved instincts depends directly on his ability to convey knowledge from one generation to the next.\(^2\) As man improved knowledge conveyance (from live to recorded, verbal to written, audio to audio-visual), he increased the scope and scale of accessible information. In parallel, he organized the information to facilitate accessibility. Oral history used rhymes and meter; books had indices and were themselves catalogued; encyclopedias and dictionaries harmonized basic concepts and their representation.

Storing information on computers began after World War II; sharing that information was greatly facilitated when Al Gore invented the Internet in 1969.\(^3\) The Internet reached the masses in the early 1990s, when the world-wide-web allowed users to unilaterally “hyperlink” to unrelated servers, and web browsers made “surfing” the Internet easier. As people created and linked webpages, the web exploded in size and

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\(^2\) Some other species also pass knowledge (primates, etc.), but I will concentrate on *homo sapiens*—the only species using the Internet.

\(^3\) Just kidding about Gore!
complexity. Users navigated by typing known addresses or wondering through pages of hyperlinks. Finding new or relevant information was a problem that many tried to solve.

1.1. Search Engines and Google. Early efforts to catalog information on the Internet organized information by category (e.g., cars) and sub-category (mechanics, buying, etc.) manually. This system was quickly overwhelmed—links were often out-of-date, searches were tedious, and pages were not sorted by quality. Search engines attempted to short-cut the catalog by looking for keywords, but they suffered from a context-problem—which page is most relevant? the one with many repetitions of the keyword? with the word in the title? Users prayed for salvation.

It arrived in 1999. Google used keyword search to find pages and then sorted them by relevance. Google’s PageRank counted each incoming link to a page as a vote for that page’s importance by a user, establishing value Spontaneously, through an Invisible Hand (Smith, 1776; Hayek, 1945, 1966). Today, Google is the most popular search engine in the world, with has 82 million unique users per month and a market value of USD 80 billion.\(^4\)

1.2. A Note on Commodified Knowledge. Knowledge (and information) can be with or without context. Context embeds knowledge in experience, life or society and gives it larger significance. Context can

also be harmful, if linkages create unnecessary burdens on the knowledge. I learned to ride a motorcycle, for example, within the context of Davis, my town, the instruction of Teddy and John, my friends, and on a Honda Nighthawk, my motorcycle. Each of these dimensions are not necessary for me to know how to ride a motorcycle, but they deepen my identification with and to other areas of my life, increasing my enjoyment of it. On the other hand, imagine that I had to know how to ride a motorcycle as fast as possible (as in the *Matrix*, when knowledge was uploaded to the characters’ brains) to get away from the bad guys. I do not need context (because I only have to go), and I do not want context (this may slow me from going); this is when commodified knowledge (or what Bob Jessop calls “disembodied knowledge”) is useful. Thus, when I discuss commodified knowledge in this paper, I am discussing it without context. A keyword search in Google can deliver commodified knowledge better than ever before, but that knowledge is neither as disembodied as in the *Matrix* example above nor does it prevent context from being added.

2. **Some Drawbacks That Are Not**

Don’t be evil. We believe strongly that in the long term, we will be better served—as shareholders and in all other ways—by a company that does good things for the world even if we forgo some short term gains. This is an important aspect of our culture and is broadly shared within the company. Google users trust our systems to help them with important decisions: medical, financial and many others. Our search results are the best we know how to produce. They are unbiased and objective, and we do not accept payment for them or for inclusion or
more frequent updating.

Critics who think Google violates its principle of “Don’t Be Evil” say that: PageRank reduces access to dissident, minority or heterodox views, and Google’s dominance reduces users’ ability to compare, contrast and weigh different perspectives. I address these in turn.

2.1. Reduced Access. “Daniel Brandt, who runs Google-watch.org, urged the FTC to investigate Google and regulate it as a public utility—as a company that, in effect, controls access to the Internet’s natural resources” (McHugh, 2003). In fact, Brandt’s site makes greater claims—that “Google is ‘anti-democratic’ because it gives a higher rank to more popular pages, not necessarily pages of ‘higher quality’” (http://www.Google-watch.org/bigbro.html). He calls for search engines that specialize in public-sector pages, to be funded by non-profits or the State.\(^5\) Chris Beasley of (http://www.Google-watch-watch.org/) dismisses Brandt:

> PageRank is not given by Google, it is given by people—specifically people that run websites. In a way PageRank is both a direct democracy and a representative democracy. If you run a website every site you link to is getting a direct vote from you, thus representing a direct democracy. Additionally you are giving weight, through that link, to the site which can then pass that weight, in the form of a vote, on to a third site, thus representing a representative democracy. So when one webmaster links

\(^5\)Brandt says: “Where is the Library of Congress? Where are the millions of dollars doled out by the Ford Foundation? How about the United Nations? Why can’t some enlightened European entity pick up the slack? Everyone is asleep, while the Internet is getting spammed to death” (ibid).
to a site they are both voting for that site and allowing that site to use weight received to vote for other sites.

Democratic popularity determines a site’s PageRank. Dissident, minority and heterodox views are not suppressed by organizations but irrelevancy. The State has to actively intervene to quash dissent—as when China forced Google to block access to Falun Gong sites (McHugh, 2003).

Google helps users find alternative views; the State has lost power as information dissemination has decentralized. Consider Starbucks, an icon of evil globalization. If I use Google to search for “Starbucks,” I get these results (in order):

1. www.starbucks.com,
2. www.ihatestarbuck.com, and
3. www.starbuckseverywhere.net,

i.e., the official site and two critical sites. Using a different method, I can type starbucks+good to get about 5.7 million pages or starbucks+bad to get 2.5 million pages. Google benefits the opposition, as others would have argued (Cowen, 2002, p. 68).

2.2. Reduced Ability. The next worry is that Google reduces our ability to understand the context of an idea by reducing search to a two-step process: Type keyword(s) and take top entry. Is the “knowledge”

6Interestingly, god+good gets 87 million hits, and god+evil gets 37 million. Perhaps God is 70 percent good, like Mao Zedong? See http://en.wikipedia.org/wiki/Mao_Zedong.
that people find “wrong”? How would they know if it were? Andersen (2004) and Rogers (2004) worry that Google-dependance will result in:

1. Lack of breadth when users stop using other search engines.
2. Lack of content when searches are constrained to what is online.
3. Lack of context when users bypass the library and librarians’ techniques for sifting and understanding information.

These worries arise only because Google delivers so much abundance that users decide to stop using other sources, constraining themselves to a relative poverty of information.7 Although this argument is weak, I will address each objection in more detail:

1. Users can use multiple engines and research tools.8 The objection that Google is too dominant or a monopoly is groundless. Entry is easy, and Google has major rivals.9
2. Although one could argue that the Internet already more than enough information, Google and other organizations are adding even more. Google wants to scan and add about 36 million books from five major research libraries to the Internet (Andersen, 2004).10 This number would dwarf Project Gutenberg’s

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7 Schwartz (2000) argues that market development removes constraints and adds choices, leading people to feel overwhelmed and depressed. They cope using heuristics, moral rules, cultural constraints, etc.
10 Amazon.com and Yahoo.com are making similar efforts. These projects are controversial because they will make parts of books still in copyright available (under “fair use”) and include advertising and sales links.
present 16,000 online eBooks.\textsuperscript{11} Although reading online is tedious, some users will undoubtedly benefit from the service. Google Scholar and specialized search engines such as www.findarticles.com and www.freefulltext.com deliver even more reading material—some public domain, some by subscription or pay-per-view. Users have ever-greater mountains of material to choose from.

(3) Context can be learned from self- or other-teaching. The Internet’s novel methods of creating and debating context complement the classroom and library.\textsuperscript{12} For those who refuse to use the library or classroom, realtime distance-learning, streaming-video lectures, experts-answer-your-questions fora, etc. cater to diverse needs, often for free. Autodidacts and home schoolers now have tremendous resources at their fingertips.\textsuperscript{13}

Hopefully, I have persuaded the reader that these objections to Google are weak—especially when the rest of the Internet can substitute for or complement those of Google. The Internet can be cosmopolitan, multidisciplinary and post-modern—complementing libraries, cafés and the classroom. But Google (and the Internet) can also produce negative

\textsuperscript{11}These are mostly “public domain books whose copyright has expired in the United States.” See http://www.gutenberg.org/.


\textsuperscript{13}This paper is obviously discussing the online world. At no time have I assumed that the off-line world (e.g., schools or libraries) reduce its size. If the Internet advances in the same way as cell-phones have, libraries may end up as rare as payphones. I do not address this problem of public policy.
externalities that harm the community and stifle innovation. I now turn to these.

3. The Externalities of Google

Externalities are, by definition, side effects from an activity that are not included in the price of that activity. Two negative externalities are the reduction in community links that occurs when people make greater links to the extracommunal world, and the decreased opportunities for innovation that occur when users no longer have to think through and present ideas because they can just download them from Google.

These externalities do not make Google evil. Just as the benefits of cars far outweigh their externalities, so too do the benefits of Google far outweigh these harms to the community and innovation. But, similarly, just as society fights pollution and congestion, so too should it take action to counteract Google’s unintended harms. My proposals are in Section 4.

3.1. Common Knowledge and Community.

Not economic exploitation, as often assumed but the disintegration of the cultural environment of the victim is then the cause of the degradation...the immediate cause of his undoing [...] lies in the lethal injury to the institutions in which a social existence is embodied. The result is loss of self-respect and standards, whether the unit is a people or a class.

— Polanyi (1944, pp. 164-5)

When everyone reads the same newspaper (watches the same TV programs, shares the same gossip, etc.), they have a common experience
to share when they meet on other occasions. This shared knowledge is *common knowledge*, i.e., everyone knows that everyone else knows the same thing. Common knowledge serves as an icebreaker to help strangers meet ("How about those Yankees?") and as the background for old friends to debate a complex topics ("Didya see today’s op/ed?"). When people depart from common ground, social cohesion can break down, just as two people may try and fail to meet because they do not have the same meeting place (focal point) in mind.

Since the Internet (and Google) delivers what an individual wants, when he wants it, *in diverse flavors, from many sources*, the community loses a shared resource (Project for Excellence in Journalism, 2005a). (For example, commodified music and Podcasts on iPods are replacing local radio.) As these local sources lose market share and economies of scale, they must reduce their quality. Consumers then have a choice of sources that are centralized and mass-market, local and lower quality, or ideological and biased (Project for Excellence in Journalism, 2005b). Although individuals may be happier when their are consuming their narrow interests, their common ground with each other shrinks and their biases are reinforced. Both the opportunity and inclination to

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14I read that celebrity gossip has replaced village gossip. People chat about celebrities-in-common instead of neighbors-in-common but still share a social space.

15Objectively true common knowledge may not be important. Totalitarian governments limited information to isolate their citizens, but people still had the *bad* information as a common topic. The single source was still useful for coordination, as when all Chinese heard Deng Xiaoping publicly praise capitalism ("It doesn’t matter if the cat is Black or White, as long as it catches mice."). and the present economic boom began.
share or cooperate fall, and the community gets even weaker à la Put-nam (2000). I assert, rather than argue, that this result is bad.

3.2. **Stifled Innovation?**

If I have seen further it is by standing on the shoulders of giants.\textsuperscript{16}

— Sir Isaac Newton (1676)

The struggle to synthesize different ideas is necessary for extension (standing on the shoulders of giants), revelation and innovation. In Section 2.2, I argued that the sufficient conditions exist for one to learn nearly anything, with context. Effort is the necessary condition, however, for both learning and innovation. Since effort is costly, it is more likely that a user takes the best available (constrained optimization) or minimum satisfactory (satisficing) result. Since Google provides many results that fit either criteria, innovation (and often learning) do not result.

3.2.1. **The Innovative Process.**

The point is that in the production of culture, more knowledge does not expand our opportunities across all fronts. Rather, growth brings a trade-off between one set of styles and another... Ironically, in the case of culture, the “negative technology shock” often consists of acquiring knowledge, not losing it... In this regard, the “power relations” described by Marxists can limit the creativity of smaller or poorer societies.

— Cowen (2002, p. 53)

Cowen’s thoughts on culture capture the good news/bad news dichotomy of cultural mixing. When cultures first crash into each other, mutual influence produces an explosion of innovation and diversity

\textsuperscript{16}This quotation dates to the 12th century and even earlier. See, e.g., http://www.aerospaceweb.org/question/history/q0162b.shtml
(Cowen, 2002, p. 55). After this stage, cultures merge, change and die until one culture, pure or hybrid, remains.

I argue that innovation is similar to culture, and that the impact of more information is the same as the “negative technology shock” of more knowledge that Cowen mentions above. Google’s geyser of information reduces the need to innovate; thus, the capacity for innovation (in the smaller, poorer—in innovative capacity—society) dies. Yes, information can help someone avoid reinventing the wheel, learn or innovate, but only those who want to innovate, not those who must innovate, will do so. The reduction in those who must is primarily beneficial, but the secondary impact (the externality) is harmful.\footnote{As I argue below and in Section 3.2.2, inframarginal innovation is beneficial, so this result is harmful even when non-leading-edge innovative capacity shrinks.}

Stated differently, innovation is a function of search, and search is costly. Innovation will occur if and only if the cost of the status quo is greater than the cost of searching for innovation, i.e.,\footnote{This very simple presentation should include an expectation factor to characterize risk and an element of Knightian uncertainty. Both of these will increase the search cost to a risk-averse searcher and reduce innovation. These complications do not add to this discussion, so I ignore them.}

\[ \text{Innovation} \Leftrightarrow \text{cost( status quo)} \geq \text{cost( search)}. \]

Imported, new ideas can replace existing knowledge and reduce the need for search. If innovation occurs in discrete lumps (e.g., “suddenly it hit me”), then new ideas can lower the costs of the status quo below a threshold that prompts innovative effort. If the short-term reduction in
creative thought becomes habitual, the long-term impact is a reduction in the capacity for innovation.\textsuperscript{19}

The key result (and point of this paper) is that the reduction of space for innovation and support for innovators will reduce progress, especially of the local sort, as homogenous solutions solve problems at a minimal, lowest-common-denominator level. This is the familiar “one-size-fits-all” ideal that management consultants, international aid organizations, fast-food franchises, and other purveyors of commodities in the global marketplace often implement—with poor results. Some say that inefficient purveyors of ideas, commodities, etc. should be replaced by superior competitive forces, to free (less-)productive capacity. This idea is not so harmful when the productive sphere has increasing economies of scale and learning-by-doing (e.g., auto manufacture), but it is harmful where innovation is concerned. Innovation is a constant-return-to-scale process; anyone can do it, and do it well, if they put their mind to work.\textsuperscript{20} \textsuperscript{21}

\textsuperscript{19}Cowen (2002) notes how classical recordings have raised the bar in terms of “acceptable performance” to a high, similar level. As a result, I claim, amateur or idiosyncratic voices can have a harder time being heard because their audience has defected, reducing demand. Supply fails when local creators (of music, ideas, etc.) build an expectation that their contributions will be superseded by superior outside sources and do not even bother to try. The spring of their inspiration can dry up, as the ethos defining their culture falls into disuse (Cowen, 2002, p. 48).

\textsuperscript{20}Costello and Ward (2005) give empirical evidence that efficient ordering in search is not very important as far as discovery is concerned, lending support to the idea that discovery is neither systematic nor increasing in returns.

\textsuperscript{21}Cowen (2002, pp. 129-130) notes that cultural homogenization will occur worldwide as cheaper communication and commodification overcome less-competitive ideas; at the same time, however, each culture will grow more heterogeneous as it imports influences. One key to this process is for cultures to specialize in certain innovations; without this, the menu of options will continue to narrow. Specialization is no sure thing, if homogenization also destroys the capacity for innovation.
3.2.2. For Example. A graduate student must prepare a lesson on Ricardoian comparative advantage to teach her economics section. Since she only vaguely remembers the topic, she has two choices:

(1) Read textbooks, write a summary, check with colleagues, and write the material to suit her class.

(2) Download the item from the Internet.

If she takes the first choice, she will learn more about the topic and create a localized, personalized presentation—but pay a high opportunity cost. Although the market will not reward “innovation” within the productive frontier, this suboptimal innovation has a value—either to her as a creative individual, to her students for the more-pertinent presentation, or to society in terms of her future impacts as an innovator or the possibility that she will accidentally discover a useful innovation after she decides to do the work. This unusual market failure will be less serious (but more widespread) for kids researching a high school essay, but it is, nonetheless, an externality that will grow as pre-internet essays and presentations stop being uploaded, and users rely more often on downloads.\footnote{Downloaded term papers are already common in American schools. Ironically, the services that sell papers to students also sell anti-plagiarism services to teachers.}

3.2.3. So When Will This Happen? Does Google (or the Internet) have a negative impact on innovative capacity or innovation in 2005? If not now, when? Is this all hysteria and hyperbole? I do not think so. Consider that typewriting took over a century to have an adverse impact
on handwriting skills or that music recordings have destroyed most of the capacity for live performance. Now, handwriting is only useful as calligraphy ("art"), and enthusiastic musicians (and singers) are rare. Arguably, we have not suffered overmuch from illegible handwriting or a dearth of musical performances, but the efficient commodification of these former cottage industries (to borrow imagery from Polanyi (1944)) has had an adverse impact on our quality of life (in the form of nostalgia for the "good ol' days"). Google (and other Internet sources) have not affected our generation of new knowledge very much now, since there are still old things being uploaded, not everyone is connected, and the meshing of cultures (à la Cowen) is still occurring, but the next stage can include a decrease in overall generation of new material (as old material is downloaded as sufficient) as well as the appropriate reduction in capacity that would follow. Next, I present some offsetting actions to avoid even this possible slowdown.

4. SUGGESTIONS FOR IMPROVEMENT

Externalities are usually countered with taxes on the externality producer or new, offsetting activities. Google does not need to be taxed. In fact, Google can be a source of offsetting activities—not because Google sees Evil to offset, but because Google is always looking for new ways to be "useful" (McHugh, 2003).

4.1. Encouraging Diversity in Sources and Opinions. Although I argued that Google is not causing a diversity problem, Google can
easily include indicators of controversy and completeness in search results.

**Controversy—Intra:** Searches with antonyms could be run in the background to register how much “opposition” exists on a topic (recall, starbucks+good from above).

**Controversy—Inter:** A non-Google meta search engine could record the correspondence/disagreement of results from different search engines.

**Completeness:** Google could display offline catalog results (from the Library of Congress or Amazon.com) next to online search results. This display would be crude without an offline ranking system.²³ (Imagine the number of books on WWII.)

4.2. **Encouraging Community.** When trading individuality (or diversity) for community (or locality), people usually favor their individuality—or identity (Akerlof and Kranton, 2000). While the Internet has “destroyed” distance (giving us breadth), it can also be used to “intensify” locality (give us depth).

Google Local lists local restaurants and shops, so why not local ideas? “Google Search Local” can search local websites so that when I search for “Istanbul” from San Francisco, I am likely to find someone interested in that topic but who also has similar background,

²³These data (sales? borrowing frequency?) may not exist.
perspectives, etc. Face-to-face meetings would be more likely, and these are the type that persist. Google could encourage even more meetings by linking community calendars to interests (in the same way as AdWords). http://www.craigslist.com already promotes many community connections with free listings to buy/sell/meet, but Google can connect locals with far more diverse interests, through either (unique) searches or (ongoing) Google Groups.

4.3. Encouraging Innovation. The Internet has lowered transaction costs and connected more people than ever before. The result has been an explosion of innovation, as Cowen (2002) would have predicted. What is to prevent the scenario from Section 3.2.2 from happening? I will not suggest policies that force people to accept local production just to encourage local innovation. As I mentioned in Section 3.2.1, Google (and the Internet) has eclipsed the need to innovate. The only reliable motivation for innovation is desire. Thus, I focus on increasing that desire, using children as an example.

24This service will require some form of geographic identification within the http or xml coding of a webpage. If coding is not automatic, service will be poor. If it is automatic, privacy or Internet-without-boundaries advocates may oppose it.
25It is sadly predictable that friends who move apart are less-likely to communicate—even via email or the phone—than those who stay in the same area. American communities are especially weak, because they move so often. Polanyi (1944) blames this result on the treatment of labor as a “fictitious commodity;” others might blame (or credit) America’s history of individualism. This model (or commodification) is spreading world-wide.
26“Our Goal: Provide a trustworthy, efficient, relatively non-commercial place for folks to find all the basics in their local area.” Viewed Oct 12, 2005 at http://www.craigslist.com/about/pr/factsheet.html. Ebay now owns 25 percent of Craig’s List.
27Google bought Usenet and renamed it Google Groups. There are over fifty-thousand interest areas.
Children (in and out of school) play, compete, and cooperate within their age group so they have a chance to be “best,” invent “solutions,” and take chances without fear of the consequences. Even if they are not best in the world or their solution was already invented, their experience of doing something original and well—and being acknowledged—gives them the necessary background to be innovators.

Google is already encouraging innovation with a virtual Summer Camp that encourages young people to write computer code and join the open source community, a community that may seem intimidating to outsiders (Economist, 2005).²⁸²⁹

Besides spending for direct support of innovative capacity, Google could also establish “sandbox” environments where anyone could contribute their productive effort within a competitive local sphere.³⁰ The locality could be geographical (encouraging community as well), age-specific, gender-specific, first-effort, or based on some other characteristic. One obvious example would be the most popular web-site to appear in the past 24-hours, week, etc. Another might be Google Image search by area, age-group, etc.³¹

²⁸Google is paying over $2 million to the 419 participating students and mentors. Less than five percent of applicants were accepted. By diverting “potential” away from typical, trivial summer jobs, Google hopes to increase the total number of coders (or innovation).
²⁹Math circles are another example. Kids to push their limits, supported by mentors. See http://mathcircle.berkeley.edu.
³⁰Ironically, this would limit, rather than expand competition. Economic heresy!
³¹Again, this requires more information to be embedded within the file than perhaps exists now.
It is not Google’s fault if either people decide to download or innovative capacity withers. Those responsible for encouraging innovative capacity are parents and teachers, communities and schools. I do not discuss their potential actions.

4.4. **Putting Things in Perspective.** The paragraph just above highlights that these issues are bigger than Google (or the Internet). I am a big fan of Google, use it all the time, and know that it helps millions worldwide. The few agitators who denounce Google are hardly worth noticing. What is important is the need for local attention to community and talent in the face of globalizing influences. These influences are useful and powerful, but they are much more beneficial when they complement local strengths. People’s efforts to reinforce communities are sometimes silly (e.g., via censorship, boycotts, nationalism, protectionism, etc.) and sometimes useful (school events, market days, local voluntary associations, etc.). Google (and the Internet) are only tools that can be used for good or bad. Responsibility, again, rests in the community and with individuals.

5. **Conclusion**

Every move toward integration in society should thus be accompanied by an increase of freedom; moves towards planning should comprise the strengthening of the rights of the individual in society. His indefeasible rights must be enforceable under the new law even against the supreme powers, whether they be personal or anonymous. The true answer to the threat of bureaucracy as
a source of abuse of power is to create spheres of arbitrary freedom protected by unbreakable rules.

— Polanyi (1944, p. 264)

The Internet (Google?) may be a supreme power. Ironically, just as it has threatened us with centralization and commodification, it has given us increasing individual rights and arbitrary freedoms. Commodified knowledge, even with context and understanding, can weaken community ties and innovative capacity. I have argued that this need not happen—if, that is, individuals, communities and enterprises (like Google) use the tools at their disposal to put context on commodities, maintain individuals in communities, use information for innovation, etc. The neoclassical economic Strawman would argue that markets are self-regulating and that no action is necessary. I have argued that action is indeed necessary. Since individuals and Society take action very often (and nobody actually believes the Strawman argument), acting on my suggestions should be easy.

REFERENCES


