Traffic Gridlock: The Real Deal or a Pile of Nonsense?

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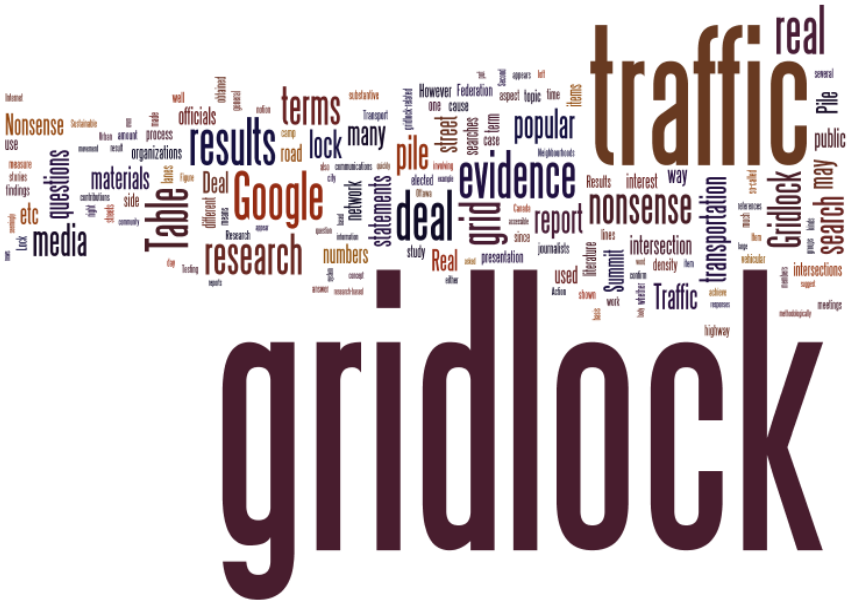

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1. Origins of *Traffic Gridlock: The Real Deal or a Pile of Nonsense?*

The title for this report arose while preparing a presentation for the 2011 Sustainable Community Summit hosted by Ottawa Centre MPP Yasir Naqvi. (http://www.yasirnaqvimpp.ca/pages.aspx?id=sustainability).

I was invited to give a Summit presentation on transportation, and I chose the title "Transportation: *Inspiring* a Sustainability Action Agenda". As indicated by the italics and underlining, and as illustrated in the PowerPoint slides, emphasis in the Summit presentation was on:

1. *Inspiring* citizens, corporations, and governments in the City of Ottawa and beyond to join in common cause and work together to achieve the transportation component of a more sustainable community.

2. *Inspiring* citizens, corporations, and governments in the City of Ottawa and beyond to design and implement an action agenda to achieve more sustainable transport practices NOW. Not in 2015 or 2025, and not next year or even next month, but beginning NOW.

In addition to making a presentation to provide context for the Summit's transportation component, I was asked to prepare focus questions for a breakout session, respond to questions from breakout session participants, and assist the participants develop recommendations for overcoming the barriers and realizing the solutions identified in my presentation.

As for the topic of "gridlock", and specifically "traffic gridlock", it did not prevail as a high priority matter to be addressed during the Summit presentation. Simply put, with only 20 minutes at my disposal, time seemed to be too limited to give detailed consideration to traffic gridlock-related concerns, issues, problems, questions, etc., in my opening remarks.

However, in conducting the literature review research for the Summit presentation, gridlock emerged as a notion that could come up for discussion during the breakout session for three reasons in particular.

First, there is the matter of the frequency with which I encountered references to gridlock, which is seemingly used as a general purpose term to cover all manner of volume-related, capacity-related, and other kinds of problems associated with traffic flow interruptions, delays, diversions, etc. As an illustrative comparison, I have a

very, very small file on popular references to generated, induced, or diverted traffic, and a many-times larger and expanding file of materials on so-called gridlock.

The message to me therefore, was that while gridlock did not appear to warrant priority consideration at the Sustainable Community Summit, the popularity of the concept persuaded me that it would be prudent to prepare for questions and discussion.

Second, because of the impressions that the notion of "gridlock" conveys, or can be construed to represent, it became apparent that a discussion about sustainability could be perceived as pretty tame, long-term stuff if people in attendance were worried about gridlock taking traffic flow by the throat and bringing the city to a standstill.

By way of illustration, my literature searches encountered a number of pronouncements and inferences to the effect that if major corrective steps are not taken, entire cities will be going to transportation hell in a handcart on a daily basis because private motor vehicles – cars, SUVs, pick-ups, minivans, tractor trailers, etc. – will be in the grip of paralysing gridlock. It followed, therefore, that since Summit attendees would doubtless be aware of such statements, and because the Ottawa Centre riding and neighbourhoods are in the downtown area, questions about gridlock could certainly arise.

Third, and consistent with my role as the Policy and Research Advisor, Federation of Urban Neighbourhoods, the PowerPoint slides prepared for the Summit were sent to the group's webmaster for posting on its website.
(http://urbanneighbourhoods.wordpress.com/bulletin-board/)

In addition to preparing materials for and providing advice to Federation members, however, I invite comments on and questions about my technical reports, conference presentations, and other productions. In this case I received a very useful communication regarding the traffic gridlock topic from a Federation member who responded to the Summit slides.

Shortly after the Summit slides were posted, I was asked if I "…could do a report on gridlock because it is being used to promote a road-building campaign in our metro area". The combination of my own research, and the concern raised by a Federation member, suggested that this is a good time, a very opportune time, to discuss whether traffic gridlock is the real deal or a pile of nonsense.

In the remainder of *Traffic Gridlock: The Real Deal or a Pile of Nonsense?*, I discuss some of the literature search findings about gridlock and traffic gridlock that may be of interest to Summit attendees, as well as to others who use the terms, publish the terms, or have questions about whether the notion or concept of traffic gridlock is the real deal or a pile of nonsense.

2. "Traffic Gridlock" in the Popular Media: Real Deal or a Pile of Nonsense?

Newspaper and television stories, talk radio shows, and Internet communications of all kinds (Facebook, Twitter, list serves, etc.) include frequent references to gridlock and traffic gridlock. Table 1 contains an illustrative selection of the statements which have been pulled from media stories and Internet communications which refer to traffic gridlock.

Table 1. A Selection of Public Statements from Media and Internet Sources Which Refer to Traffic Gridlock*

"If we built a ring road we wouldn't be in - - - - - - - gridlock."
"We can beat gridlock by widening the roads."
"The traffic was so gridlocked I was late for work."
"I was stuck in gridlock because buses are given priority."
"This - - - - - - gridlock every day is ridiculous".
"What kind of engineer creates gridlock? It's crazy."
"The city needs to find a way out of gridlock. And fast."
"A surface LRT system would cause gridlock downtown."
"The gridlock on the expressway stretched for miles."
"Dozens of trucks were caught in the gridlock on the 401."
"The Interstate is gridlocked for at least 15 miles!"
"The gridlock problem is killing business on our street."
"Old - - - - - drive too slow, they cause gridlock."
"Eliminating left turns eliminates gridlock. Wake up, traffic geniuses."
"The intersection outside my office is in gridlock every day."
"This is the worst gridlock I ever saw!"
"Gridlock from snow and bad drivers. Ridiculous. Learn to - - - - - - - drive".
"Could this gridlock get any worse?"
"Toronto is getting worse for gridlock!"
"How did this gridlock ever get started anyway?"
"Look out your city hall window - - - - - - - , that's gridlock out here!"
"The gridlock is so bad at that corner I take a short-cut through McDonald's."
"Gridlock in a shopping center parking lot. - - - - - - Take the bus if you can't drive."

*In the interests of good taste, profane or abusive language has been deleted with seemingly little loss in meaning.

Given the frequency with which the term gridlock appears in the popular media, as well as the conviction and all-knowing way with which the term is seemingly used, one could be tempted to believe that most if not all users of the term are what might be called “rocket scientists”, and that evidence will be provided to demonstrate that concerns, worries, fears, etc., regarding traffic gridlock are in fact the real deal, and are not a pile of nonsense.

Upon examination, however, it can be quickly determined that these statements are invariably “bald” assertions, which suggests that they are not likely to make a real deal case for traffic gridlock. That is, the claims, pronouncements, exhortations, promises, profferings, threats, calls for attention, warnings, etc., about traffic gridlock lack methodological underpinnings, and in general appear to be at best the products of what has been described as anatomical sourcing.

(**Note**: Readers wanting to learn more about anatomical sourcing are referred to the report, *Sampler of Commentaries on Methods and Techniques that Could be Used in Making Decisions about Identifying, Adopting, or Implementing Sustainable Transport Practices.* The report was prepared for Transport Canada, and can be viewed at: http://www.wellar.ca/wellarconsulting/home.html.)

In addition, anatomical sourcing is discussed in the YouTube video that records my presentation at the Sustainable Community Summit. The video can be viewed at: http://www.slideshare.net/wellarb/transportation-inspiring-a-sustainability-action-agenda.

On the other hand, to complete this brief analysis, if the statements about traffic gridlock are methodologically based, then they can pass what might be referred to as “real deal tests”.

As an example of one such test, the questions in Table 2 can be used as a filter to ascertain whether the popular media stories, news clips, editorials, columns, blogs, tweets, etc., contain or are likely to contain substantive explanations about the structural and functional characteristics of traffic gridlock.

Using Table 2 as the basis of a real deal test, the more questions the popular news item can answer in a methodologically robust manner, the higher the likelihood that it makes a contribution to our substantive knowledge about the structural and functional characteristics of traffic gridlock as a transportation phenomenon.

And, conversely, the fewer the number of questions the item answers in a methodologically robust manner, the lower the likelihood that the item makes a

contribution to our substantive knowledge about the structure and function of gridlock as a transportation phenomenon.

The point being emphasized is that over the past 100 years there have been thousands of substantive, science-based publications in the transportation field. As a result, and as Walizer and Wienir neatly summarize (***Research Methods and Analysis: Searching for Relationships***) we are long past the stage of relying on intuition, revelation, authority, or everyday experience (so-called "common sense") to become informed on non-trivial traffic matters.

Rather, we can, if we choose to do so, avail ourselves of the tools of science to use a methodologically-based approach when preparing a real deal media contribution on the topic of traffic gridlock. And, alternatively, if we prefer to add to the pile of nonsense on the topic, then anatomical sourcing is the way to go. The questions in Table 2 are one phase in the winnowing process.

Table 2. Testing, Testing, Testing.
If a Popular Media Item Contains Substantive Answers to the Following Kinds of Questions about Traffic Gridlock, then the Item Is Likely to be in the Real Deal Camp: If it Does Not, then the Item Is Likely to Be in the Pile of Nonsense Camp.

1. What is the meaning of traffic gridlock?
2. How is traffic gridlock defined?
3. How is traffic gridlock measured?
4. What is the process whereby traffic gridlock occurs?
5. What is the established process whereby traffic gridlock is mitigated, resolved, or dissolved as the case may be?
6. What are the full environmental, economic, financial, social, energy, and multi-modal transportation system benefits and costs of solving either chronic or temporary manifestations of so-called traffic gridlock?
7. How do you methodologically measure the full environmental, economic, financial, social, energy, and multi-modal transportation system benefits and costs of solving either chronic or temporary manifestations of so-called traffic gridlock?

Examination of many, many hundreds of popular news items from Canadian, U.S, and other sources containing statements about traffic gridlock was not productive in terms of encountering stories that deal with question 1, much less questions 2-7 which are ramped-up, real deal testers.

As a consequence, therefore, of the apparent absence of real deal evidence in the popular media materials that I reviewed, it appears accurate to say that references to traffic gridlock in this body of literature invariably amount to a pile of nonsense.

Of course, there is always the possibility that my popular literature search was flawed, and the search procedures were not directed to look in the right places. That being the case, I may have missed newspaper and television stories, talk radio shows, and Internet communications, which do in fact answer the kinds of questions listed in Table 2.

I invite readers to bring these materials to my attention at the earliest moment, and I express my regrets in advance for mis-designing the literature search and not locating these contributions to the real deal side of the story about traffic gridlock.

3. "Traffic Gridlock" in Google: Real Deal or Pile of Nonsense?

Anyone who has not Googled "gridlock" could be in for a surprise and maybe even a shock.

There are so many references to "gridlock" in Google searches that one could spend many, many hours trying to figure out how to exhaustively review this massive and growing body of material. And, in all likelihood, after spending numerous hours trying to figure out how to get through the material, the researcher could be too tired to review the material, or to review it with a clear mind and a sharp eye.

Fortunately, and thanks in part to a large body of search procedure resources that can be accessed via Google, it is possible to search Google holdings in an efficient way and quickly ascertain whether traffic gridlock-associated materials are in the real deal camp, or largely amount to a pile of nonsense.

As the reader is no doubt aware, Google coverage extends across a variety of literatures on many topics. Consequently, an approach is needed which can take into account the different ways that items in these different kinds of literature could discuss the topic of traffic gridlock.

For the purposes of this paper, the appropriate approach means recalling the questions in Table 2.

Following standard research practice, and in particular having regard for the consistency of research questions as a means of achieving consistency and

comparability of research answers, the questions used to test popular media items are repeated in Table 3 as the means used to test items that appear as Google search results.

Table 3. Testing, Testing, Testing.
If a Google Search Item Contains Substantive Answers to the Following Kinds of Questions about Traffic Gridlock, then the Item Is Likely in the Real Deal Camp: If it Does Not, then the Item Is Likely in the Pile of Nonsense Camp.

1. What is the meaning of traffic gridlock?
2. How is traffic gridlock defined?
3. How is gridlock measured?
4. What is the process whereby traffic gridlock occurs?
5. What is the established process whereby traffic gridlock is mitigated, resolved, or dissolved as the case may be?
6. What are the full environmental, economic, financial, social, energy, and multi-modal transportation system benefits and costs of solving either chronic or temporary manifestations of so-called traffic gridlock?
7. How do you methodologically measure the full environmental, economic, financial, social, energy, and multi-modal transportation system benefits and costs of solving either chronic or temporary manifestations of so-called traffic gridlock?

Step 1 of the Google search process seeks to get a handle on the term “gridlock”, by conducting a preliminary search of its component parts, “grid” and “lock”. By way of a very brief comment, one way of distinguishing between real deal contributions to understanding traffic gridlock, and contributions to the traffic gridlock pile of nonsense, is to examine them for their fundamentals. Table 4 provides a summary of the results obtained by using a small, illustrative selection of basic gridlock-related terms for the Google searches.

Before discussing Table 4, it is appropriate to insert several graphics in order to ensure that the basics are in place for the analysis of Google search results.

Readers of this report may have heard the term grid, seen the term grid, used the term grid, and have a full understanding of the geographic, surveying, etc. interpretations of the term grid. And, they may heard the word lock, seen the word lock, used the word lock, and have personal experience with one or more different kinds of locks serving one or more different purposes. Further, they may have combined the terms grid and lock to form gridlock, and have a clear understanding of the meaning both gridlock and traffic gridlock.

Table 4. Results from Google Searches Based on "Grid", "Lock" and "Variations of Lock"

Keyword	Results
"grid"	366,000,000
"street grid"	392,000
"street grid plan"	62,000
"grid street plan"	18,700
"street grid density"	1,180
"lock"	310,000,000
"lock in"	93,000,000
"freeze"	75,300,000
"confine"	32,300,000
"lock out"	4,890,000
"imprison"	2,210,000

That being the case, they are the exceptions to the rule based on the materials about traffic gridlock which I have reviewed,

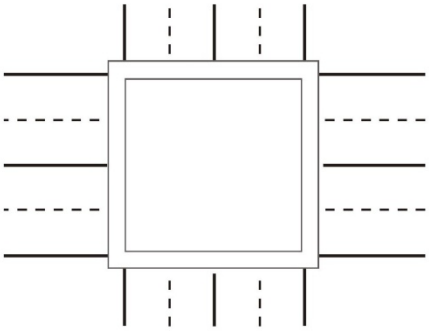
The general case, it appears clear from the literature reviewed, is that many people who have contributed and who presently contribute traffic gridlock-related items to the popular media literature, and other literatures, use the terms grid and lock without understanding their structural and functional features (what they are, what they do), much less what they are and what they do when combined to form the word gridlock.

And, as a logical extension question, if the term gridlock is not understood to begin with, what happens to understanding when it is combined with the word traffic, which itself has elements of complexity?

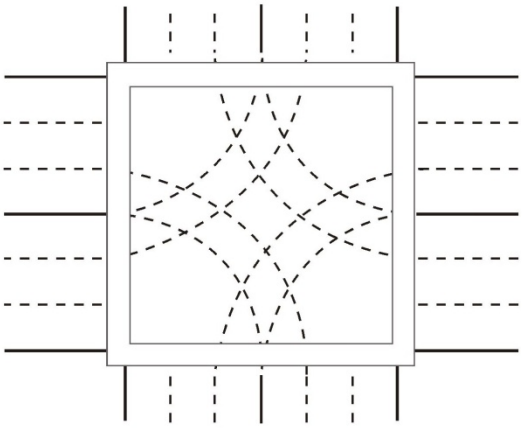
Figure 1 contains several illustrations of grids and features of grids. As shown, grids are series of horizontal and vertical lines which can be similar or different distances apart, and can also be of the same, similar or different thickness.

In this report, the lines in the grids are streets, and intersections occur where streets cross. The lines (streets) can be of different thickness (e.g., representing different numbers of lanes), the lines (streets) can be closer together or further apart, and the intersections can be of varying sizes. For example a relatively small 4-way intersection may have a total of 8 lanes in and out, and larger 4-way intersections can consist of 20, 30, and more lanes in and out.

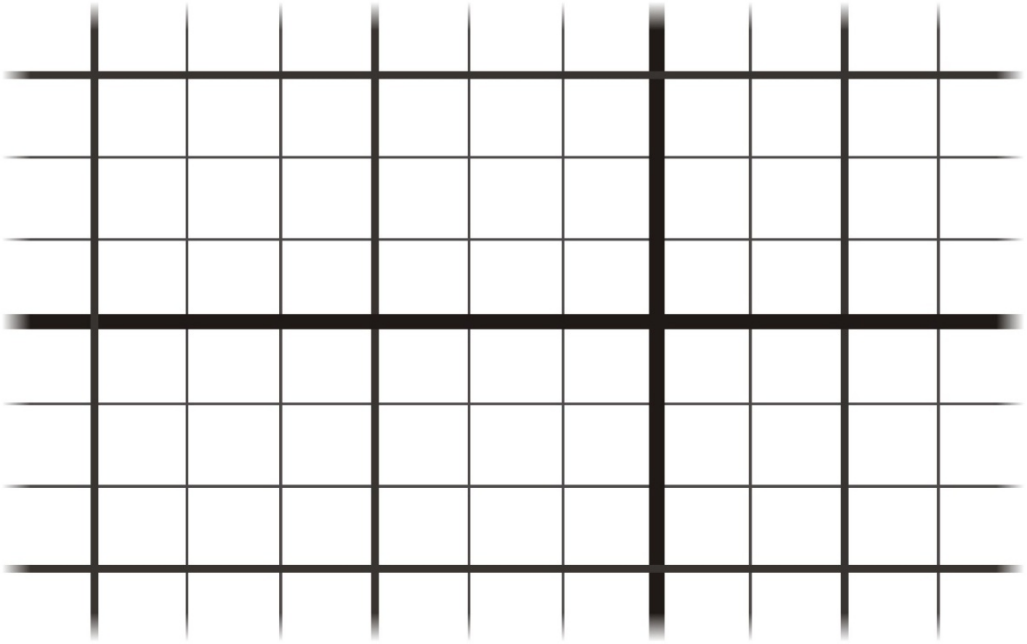
Figure 1. Grid Basics 101 and Two Questions



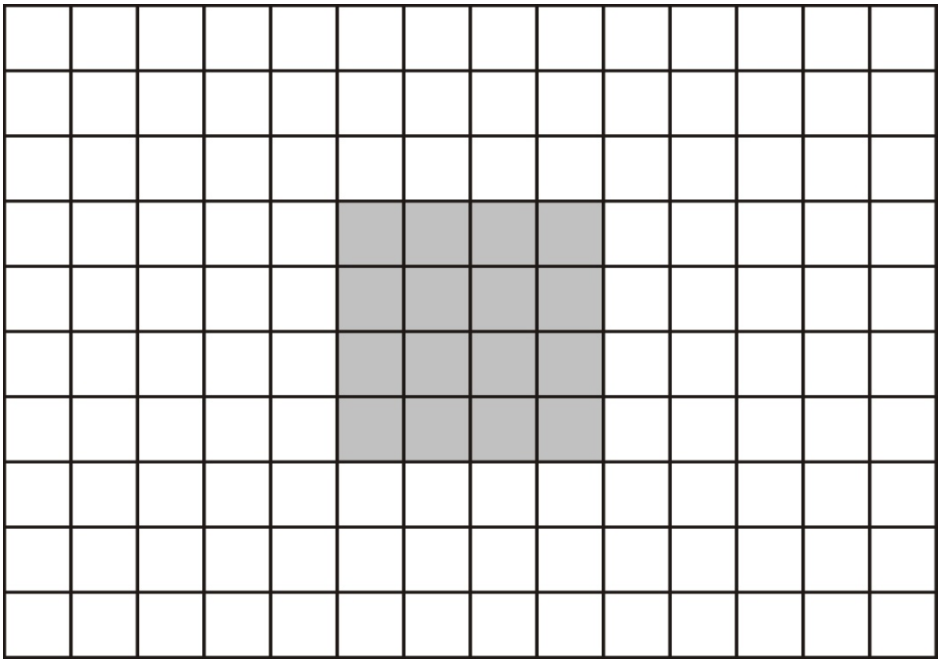
1a. Simple intersection, 2 lanes in-and-out in all directions, total of 16 lanes that access or egress the intersection.



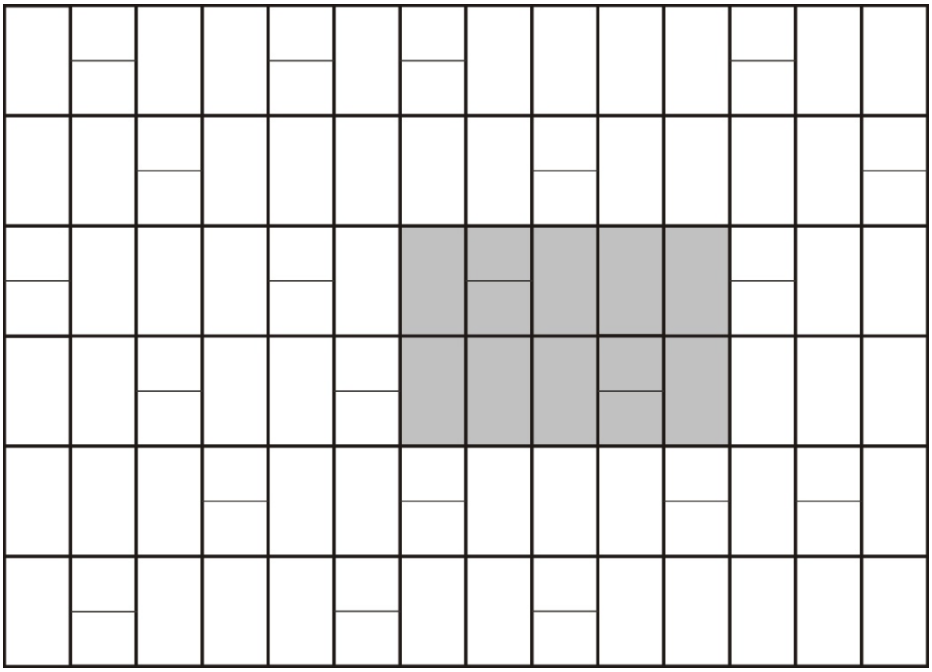
1b. More complex intersection, 3 lanes in-and-out in all directions, total of 24 lanes that access or egress the intersection.



1c. Multi-feature street grid, with thickness of lines signifying different numbers of lanes for streets and different numbers of lanes that access or egress the respective intersections.



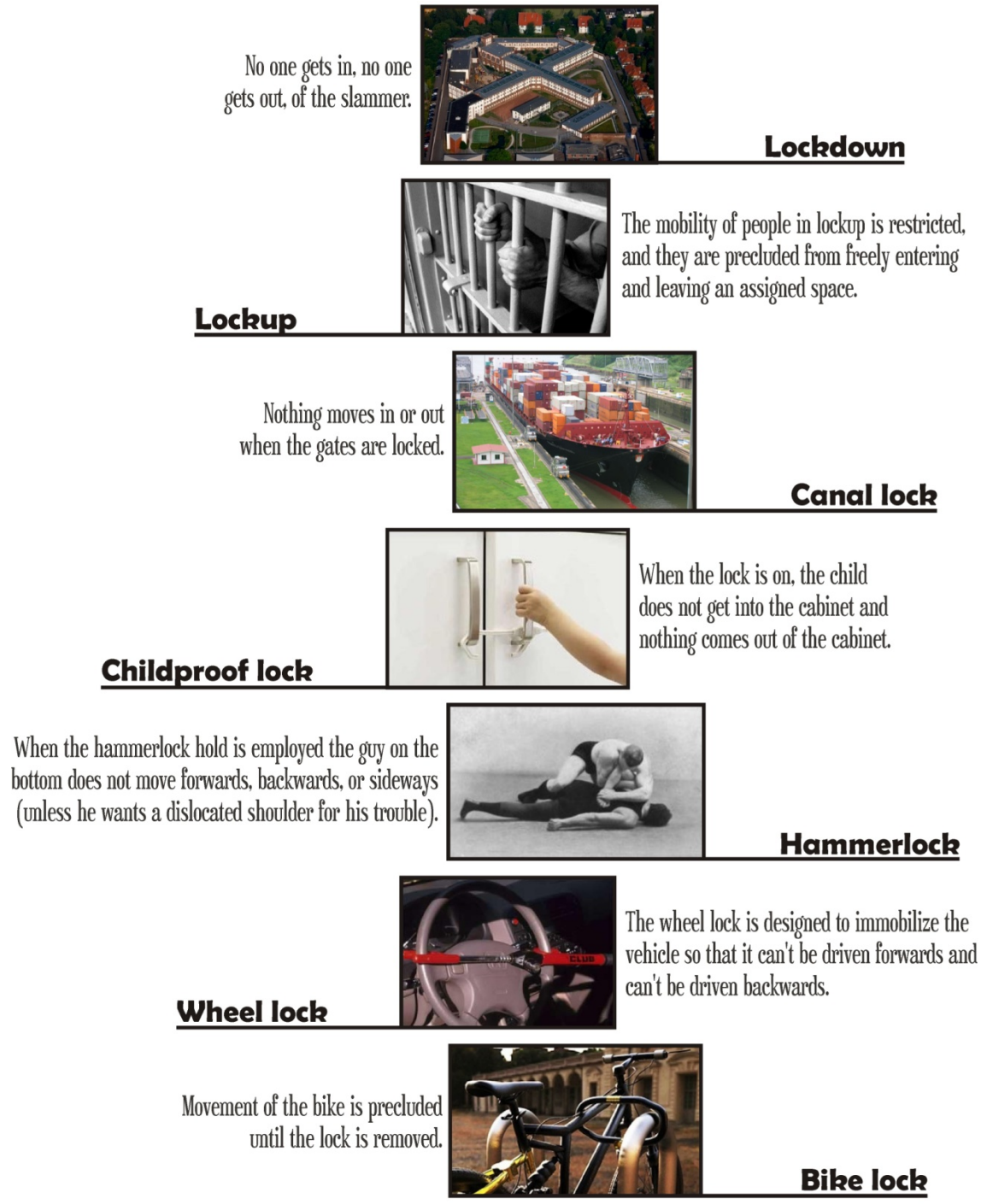
1d. Question: For this simple grid with uniform block sizes, uniform street segments, and uniform intersections, how many street segments must be totally filled by motor vehicles, and how many intersections must be totally blocked on all four legs, in order to achieve "traffic gridlock" for just the 16-block area in the centre of the grid?



1e. Question: For this simple grid with irregular block sizes, irregular street segments, and uniform intersections, how many street segments must be totally filled by motor vehicles, and how many intersections must be totally blocked on all four legs, in order to achieve "traffic gridlock" for just the 10-block area in the centre of the grid?

The noun, adjective, and verb forms of lock are pertinent to the concept of gridlock. Figure 2 illustrates several aspects of "lock", and I use the verb form in the text for the purposes of this report.

Figure 2. Illustrating the Concept of "Lock", as in Lock Closed, Lock Shut, Lock Tight, Lock Up, Lock Off



Each graphic illustrates a common aspect of lock, that is, when the locking process is complete and/or the lock is put in the closed position, movement is totally restricted. That is, the prison (or slammer) is closed off to traffic in or out, prisoners are not free to wander about but are confined to their cells, the canal gate swings shut and ship movement through the canal is curtailed until the gate is opened, the steering wheel lock (and related mechanisms such as vehicle wheel locks, brake pedal locks, door locks, and remote door locks, etc.,) are used to immobilize a vehicle or restrict vehicle movement, the hammerlock hold immobilizes the person on the receiving end, and when the bike lock is operational the bike is not going anywhere.

The bottom line, so to speak, is that once the lock or lock mechanism is in place or is operational in these situations or circumstances, or in related situations or circumstances, movement in or out or up or down or sideways is curtailed, choked off, precluded.

Returning to the examination of Table 4 after that brief discussion of grid and lock, while the word “grid” yields more than 360 million results, there are less than 1200 results for “street grid density”, which is an efficient way to get a handle on the real deal versus pile of nonsense distinction. That is, since traffic gridlock is logically a density measure – for example, number of vehicles per lane kilometre (or per lane mile as the case may be) – only 1200 of the 366,000,000 results have much prospect of being in the real deal camp, and the remaining 99.9999% of the results are destined for the pile of nonsense heap.

There are, of course, other density measures which could be used, but “street grid density” alone serves the purposes of this report by illustrating that while the grid part of gridlock is very popular, when it comes to actual usage for traffic gridlock analysis purposes the term grid seemingly has extremely little real deal value.

As for the lock component of gridlock, there is a solid body of results for such logically related synonyms as “lock in”, “freeze”, “confine”, “lock out”, and “imprison”. Simply put, there appears to be widespread understanding and agreement of what a lock is, what it does, what it means to be locked in, out, up, etc.

The seemingly apparent and logical result of combining grid and lock, therefore, is that however grid is defined in structural and functional terms, “gridlock” entails such mobility limitations as:

- Movement into and/or out of the grid is precluded.

- Movement within the grid is restricted.
- The grid is sealed in terms of entering or leaving.

Which brings us to step 2 in the Google search process. This phase of the Google search process combines grid and lock to form gridlock, and several transportation and research modifiers are attached to assist in ascertaining whether the Google holdings on gridlock are in the real deal camp or tend to contribute to a pile of nonsense.

The Google search results arising from step 2 are shown in Table 5.

At the bottom of Table 5 we begin to seriously zero in on whether Google material on traffic gridlock is the real deal or a pile of nonsense. In particular, and by way of brief reference to Mapping 101, and recalling Figure 1, a grid is in fact a network. That is, a grid is a network of points and lines in which the points are intersections and the lines are sections or segments of roads or streets between the intersections.

Further, and, as made apparent by Figure 1, in terms of logic the concept of traffic gridlock is only applicable in the context of a network of intersecting streets. That is the basis of the real deal, and all else is destined for the pile of nonsense heap.

Table 5. Results from Google Searches Based on "Gridlock" and a Selection of Transportation Modifiers

Keyword Phrase	# of Results
"gridlock"	3,870, 000
"traffic gridlock"	326,000
"road gridlock"	15,800
"highway gridlock"	11,100
"intersection gridlock"	3,250
"street grid density"	1,170
"vehicular gridlock"	874
"intersection gridlock law"	93
"road network gridlock"	8
"highway network gridlock"	0
"intersection network gridlock"	0

Based on Table 5, as few as 8 results of the many thousands obtained in the Google searches could be in the real deal camp, and more than 99.99% of the results could be in the nonsense pile.

However, since it is widely accepted that Google provides access to a potentially powerful knowledge base, and in the spirit of counterfoil research, confirmatory research, or sound research in general for that matter, it is prudent to go that extra step and apply further testing before drawing a conclusion about Google results involving traffic-related gridlock.

For this test I draw upon a methodological criterion. That is, if an item identified as a Google result involves research which is designed to explore or confirm a cause-effect relationship, then that item is deemed to be a strong candidate for the real deal camp. And, conversely, if it does not have a causal aspect, then the item is assigned to the traffic gridlock pile of nonsense.

I hasten to note here that it is entirely possible to undertake pertinent research involving correlation-type relationships. However, extending this body of work in that direction is left for another day. Or another researcher.

The results obtained from using the research-related modifiers study, cause, measure, and evidence are shown in Table 6.

Table 6. Results from Google Searches Based on "Gridlock" and a Selection of Research Modifiers to Assist in Answering the Question, Traffic Gridlock: The Real Deal or a Pile of Nonsense?

Keyword Phrase	# of Results
"cause of gridlock"	6,670
"cause of traffic gridlock"	1,700
"gridlock study"	2,340
"traffic gridlock study"	5
"measuring gridlock"	32
"measuring traffic gridlock"	0
"evidence of gridlock"	1,360
"evidence of traffic gridlock"	2
"evidence of intersection gridlock"	2
"evidence of vehicular gridlock"	0
evidence of vehicle gridlock"	0
"evidence of road gridlock"	0
"evidence of roadway gridlock"	0
"evidence of highway gridlock"	0

In Table 6, the numbers speak for themselves, but a paragraph of elaboration may be useful.

As shown, the numbers drop significantly as the modifiers become more demanding. And, when the basic, real deal word "evidence" is introduced,

- 0 (zero) results are obtained for "evidence of vehicular gridlock",
- 0 for "evidence of vehicle gridlock",
- 0 for "evidence of road gridlock",
- 0 for "evidence of roadway gridlock", and
- 0 for "evidence of highway gridlock".

A total of 2 results were found for each of "evidence of traffic gridlock" and "evidence of intersection gridlock", and at this point they are only potential contributions towards establishing the real deal aspect of traffic gridlock.

The reader may be satisfied that as a result of the numbers in Table 6, nothing more needs to be said. As shown, the Google searches provide the basis for a compelling argument that only a teeny-tiny percentage (on the order of .00001 or less) of the items identified as Google results contribute to the side of the ledger containing entries for Traffic Gridlock: The Real Deal.

And conversely, the Google results unequivocally establish that a near-100 per cent (on the order of 99.9999%) of the items identified by the searches contribute to the side of the ledger containing entries for Traffic Gridlock: A Pile of Nonsense.

I join with the reader on this one, in that I believe that all that needs to be demonstrated has been demonstrated. That is, the gridlock-related materials accessible by Google do not in any, way, shape, or form establish or even point in the direction of establishing that traffic gridlock is the real deal. Rather, the search results appear to establish in no uncertain terms that the Google results about traffic gridlock amount to a massive pile of nonsense.

In anticipation, however, that there will be additional reports on the topic of this report, *Traffic Gridlock: The Real Deal or a Pile of Nonsense?*, Table 7 combines Table 5 and Table 6 to provide a possible context and frame of reference for one or more such reports. As shown in Table 7, the left side contains the transportation gridlock-based search terms which generate relatively large numbers of results, and the right side adds keywords that incorporate the research dimension with the subsequent extreme decrease in results.

I believe that Table 7 provides two kinds of information which may be instructive for researchers, investigators, journalists, etc., who follow the lines of inquiry set forth in this report.

First, while it is illogical to expect matching numbers of results for search phrases on the left and right sides of Table 7, it is fully logical to expect that if concerns about traffic gridlock have been and are the bases of making decisions about transportation networks, then causal relationships would have been hypothesized, studies would have been commissioned, measures would have been selected, tests would have been specified, analyses would have been undertaken, and evidence would have been produced to inform and support the decisions.

The size of the numbers on the right side is instructive as to the amount of work that has been done. If the numbers on the right side are very small, for example, then that is a strong message about how much research work remains to be done. I suggest that in view of the amount of "noise" that has been made and is being made about traffic gridlock, the numbers on the right side of Table 7 point to a huge research gap, and can be used as a basis to justify and request support for research on a topic about which much is said and written, with apparently little or no substantive evidence to validate positions taken.

Second, and as many transportation policy, program, and planning researchers and advisors would be aware, big numbers (of results) on the left side can be a "kiss-of-death" when it comes to securing funds or time to undertake methodologically-based research involving any of the terms.

Simply put, the popularity of the terms can be construed or represented as a signal to do or not do something, and conducting research to confirm or deny a popular conception (or misconception as the case may be) can be portrayed as a waste of time and money by decision-makers. Viewers of such television programs as "Yes, Minister", the "Daily Show", and "The Colbert Report" know what I mean.

As a result, earnest researchers and advisors may want to give serious consideration to coming up with ways of discounting the popularity of a vague notion as a basis for decision-making on public policy matters.

One possibility is that if logic cannot prevail, then perhaps ridicule may be among the viable options to deal with a concept or notion that is based on shallow catch-phrasing and gross simplicity. Television programs such as those mentioned above, as well as Monty Python, the Mercer Report, and This Show has 22 Minutes come to mind.

Table 7. Contrasting the Results Obtained from Google Searches When Research Modifiers Are Added to Assist in Answering the Question, "Traffic Gridlock": The Real Deal or a Pile of Nonsense?

Initial Search Results	Results Using a Research Modifier
"traffic gridlock" (326,000)	"*cause* of traffic gridlock"(1,700)
	"traffic gridlock *study*" (5)
	"evidence of traffic gridlock" (2)
	"*measuring* traffic gridlock" (0)
"road gridlock" (15, 800)	"*evidence* of road gridlock" (0)
"highway gridlock" 11,100)	"evidence of highway gridlock" (0)
"intersection gridlock" (3,250)	"evidence of intersection gridlock"(2)
"street grid density" (1,170)	"street grid density study" (0)
"vehicular gridlock" (874)	"evidence of vehicular gridlock" (0)
	"vehicular gridlock evidence" (0)
"road network gridlock" (8)	"evidence of road gridlock" (2)
	"road gridlock evidence" (0)

As shown by the left and right sides of Table 7, the addition of a research term leads to huge differences in the numbers of results obtained for the respective Google search phrases.

I hasten to emphasize that it is not presumed in this report that the number of results for a Google search phrase is the be-all and end-all measure for assigning the search phrase to either the traffic gridlock real deal camp, or to the traffic gridlock pile of nonsense. However, for example, when the 326,000 results obtained for "traffic gridlock" drop to 2 results when *"*evidence" is added, and to 0 results when "measuring" is added, it appears fair to say that from a substantive perspective it is highly likely that an exceedingly large proportion of those 326,000 results are more nonsense than real deal.

And, a similar interpretation may be applied to all the other traffic gridlock-related search phrases which undergo huge drops in numbers of results when modified by such real deal terms as cause, study, measure, and evidence. That is, when little or no research activity and productions can be identified in association with statements involving highly popular transportation terms, it seems reasonable to conclude that the statements do not involve the real deal and are merely more contributions to various piles of nonsense.

4. Inviting Second Opinions on the Question, "Traffic Gridlock": Real Deal or a Pile of Nonsense?

I look forward to reading confirmations of and challenges to this work, and I have several suggestions that may be of assistance.

First, there are multiple ways of perceiving and representing traffic gridlock concepts, variables, and constructs, many of which differ significantly from those used in this report. I expect that there would be widespread interest in having those other concepts, variables, and constructs articulated and arrayed against or alongside those presented in *Traffic Gridlock: The Real Deal or a Pile of Nonsense?*

The point of emphasis here is that the notion of traffic gridlock seems to have attained a high degree of popularity, but without undergoing serious scrutiny. However, in view of the statements presented in Table 1, and the potential, negative consequences of mis-informed decisions based on popular misconceptions, I suggest that there is an immediate need for a variety of broadly-based, critical examinations of traffic gridlock notions, and that the results of these examinations warrant high-priority consideration.

Second, it is entirely possible that in my reviews and searches of the popular media, and of materials which are accessible by Google searches, I missed items which confirm or deny the findings contained in this report. I welcome learning of any errors of omission of those natures, and especially of materials which involve empirical research on any aspect of the topic of "traffic gridlock".

Third, in responding to the question, "Traffic Gridlock": Real Deal or Pile of Nonsense?, this project is designed to consider materials in the popular media and those which are accessible by Google searches. There are a number of other bodies of literature (e.g., learned, legal, professional, interest group – public, and interest group – vested), which no doubt contain traffic gridlock-related materials, and I expect that examination of those literatures would lead to findings which confirm or challenge the findings of this report, and would also introduce new and different findings.

I believe that there are many readers who would welcome reports informing them of the findings and the source materials encountered in these other literatures. And, I suggest, they would be especially appreciative of information about projects which involve empirical research on any aspect of such related topics as traffic gridlock, road gridlock, highway gridlock, street grid density, vehicular gridlock, road network gridlock, highway network gridlock, and intersection network gridlock.

5. Questioning People Who Use the Phrases "Gridlock" and "Traffic Gridlock" in Public Communications about Transportation Issues, Concerns, Problems, Plans, etc.

Readers might find it informative to contact elected officials, journalists, land developers, corporate executives, city officials, provincial officials, trade group officials, interest group officials, etc., who refer to gridlock or traffic gridlock in popular media items, in news releases, at public meetings, etc., and in other public venues. The purpose of the contact is to ask them about their use of the terms gridlock or traffic gridlock, but in a specific rather than a general way because general questions tend to lead to general, uninformative responses.

This report should provide guidance as to what to ask these individuals, and to learn directly whether the responses are in the real deal camp, or are additions to the gridlock/traffic gridlock pile of nonsense. Then, depending upon the responses, additional steps might suggest themselves in regard to how to proceed in dealing with the comments made, or in further dealings with the contacted individuals.

My own experience upon asking questions about gridlock/traffic gridlock may be summarized as follows:

1. I have never received a written reply which is even remotely related to or based upon a methodologically-based research inquiry into any aspect of gridlock or traffic gridlock.

2. At public venues such as local government committee meetings, neighbourhood meetings organized by councillors, meetings of academic organizations, and professional association meetings, the frequent response to questions about gridlock and traffic gridlock has been a tight-lipped version of the *Humma, Humma, Humma* chorus, which as I recall was Jackie Gleason's response whenever he was asked a question for which he had no answer, when he needed time to invent an answer, or when he was asked a question which he was reluctant to answer and was buying time to "flee the scene".

3. In face-to-face, public settings – such as committee meetings, conferences, seminars, workshops, and advisory board meetings – it has been commonplace to see a "deer in the headlights" reaction when users of the term gridlock or traffic gridlock are asked to explain exactly what they mean, and the source(s) of their information.

Based on my experience, I am not optimistic that readers will achieve responses that confirm the real deal aspect of gridlock or traffic gridlock. However, hope springs eternal that sooner or later some user of the term or terms in a public forum will present evidence to support statements about gridlock or traffic gridlock as the real deal. I doubt that I am alone in wishing that whenever this unexpected event does occur, news about the heretofore elusive evidence is broadcast far and wide so that we all may examine the long-awaited study (ies).

As for the value of additional determinations that statements containing the terms gridlock and traffic gridlock are contributions to a pile of nonsense, those determinations are useful in several constructive ways. The following suggestions may be helpful for those who feel buried under a pile of gridlock or traffic gridlock gobbledygook, and would like to help stem the flow of nonsense.

First, many elected officials pass themselves off as experts on all manner of subjects. Several public communications (such as letters to editors) to the effect that politicians' comments about gridlock or traffic gridlock are of the nonsense variety can quickly put an end to some of them pronouncing on a subject about which they actually know zilch (of a substantive nature).

I expect that many readers of this report belong to list serves, as well as affinity networks which publish references to pertinent media articles. As a result, these services could be an effective means of making members aware of traffic gridlock productions involving elected officials.

Further, websites of public interest organizations such as the Federation of Urban Neighbourhoods as well as walking, cycling, transit and other alternative transportation groups, could also become highly accessible repositories of published materials reporting on elected officials who are taken to task or applauded for their views or positions on traffic gridlock.

Second, staff members of city, regional, and provincial and state governments use the terms gridlock and traffic gridlock in presentations, communications, and in reports. As activists in public participation have discussed, however, it sometimes seems more productive to try teaching feral cats to line dance than to try procuring timely, informative responses from some government staffers.

My suggestions in this case include going to their "bosses" – elected officials – with complaints, filing freedom of information requests, lodging complaints with their professional organizations, and presenting papers at conferences in which staff positions are challenged. But, in all cases, ensure that whatever is done gets back

to elected officials, since they are the ones most likely to "See the light when they feel the heat", to paraphrase former U.S. Senator Everett Dirksen.

Again, resources permitting, websites of public interest organizations such as the Federation of Urban Neighbourhoods and Transport Action Canada, as well as those of walking, cycling, and transit groups, could also become highly accessible repositories of published materials reporting on government staff being taken to task or applauded for their views on traffic gridlock.

Third, many journalists and other popular media personalities use the terms gridlock and traffic gridlock in their stories, but rarely in the company of an explanation of what gridlock means in real terms, how it occurs, or how long we have before "***Gridlock Rules"*** and the movement of motor vehicles in one city or many cities comes grinding to a halt throughout the street network for hours every day, day after day, week after week, month after month, ….

It is my experience, and it may be that of the reader as well, that some journalists and media personalities are opinion expressers rather than deep thinkers, and they do not let being uninformed or under-informed stand in the way of delivering pronouncements with conviction, even fervour.

Under these circumstances and for three reasons in particular, I am not optimistic that much can be done to deter journalists and other media personalities from indiscriminately using the two terms.

> First, the terms are clear as mud but cover the ground, which makes them great media language.
>
> Second, there are elements of mystery, fear, and the unknown in each of the terms, which gives them a sensationalist aspect and makes them a hook upon which to hang a media story.
>
> Third, the terms are a very convenient form of shorthand or word bite in that they imply much while employing only two syllables, which makes them very valuable when space or time for a story is limited.

All in all, then, the terms are very handy for those not inclined to engage in actual research, or to read about actual research prior to pronouncing.

Nevertheless, and again in the spirit of hope springs eternal, perhaps public interest organizations such as Transport Action in Canada, the National Center for Biking and Walking in the U.S., and comparable organizations in Europe, Australia, New Zealand, and other countries could juice the journalistic community to do better.

This juicing (or inspiring) of the media community might best be achieved by such organizations joining forces and circulating information (and links) about columns, stories, etc., by journalists in which research-based knowledge is brought to bear in analyses of claims, pronouncements, etc., involving transportation-related gridlock topics, issues, concerns, and so on. The hope here is that if journalists can't or won't read original research, maybe they will read the derivative work of a journalistic colleague.

6. Concluding Remarks

Due to the nature of my affiliations with the Federation of Urban Neighbourhoods and Transport Action Canada, I undertake policy research on matters of interest to either or both groups. As good fortune would have it, in preparing this report to complement my presentation for the Sustainable Community Summit, I am able to prepare a report which is pertinent to the interests of members of the two public interest groups, as well as to Summit attendees.

In designing *Traffic Gridlock: The Real Deal or a Pile of Nonsense?*, I took into account the many published or uttered assertions to the effect that gridlock and traffic gridlock are the real deal. And, I also considered that in the seeming absence of accompanying evidence, perhaps the assertions "are not worth the paper they are written on", that is, they amount to a pile of nonsense.

There are of course many shades of gray between real deal and pile of nonsense, but as an initial investigation it seemed appropriate to use a dichotomous approach. The dichotomy may be expressed as follows.

A. Statements about gridlock and traffic gridlock are research-based, and deserve to be treated as the real deal.

Or

B. Statements about gridlock and traffic gridlock are not research-based, and deserve to be dismissed as a pile of nonsense.

With regard to the popular media (newspaper and television stories, talk radio shows, and Internet communications of all kinds (Facebook, Twitter, list serves, and so on) the literature search reveals that while the use of the terms gridlock and traffic gridlock are widespread, and are often used interchangeably, statements in the popular media about gridlock and traffic gridlock tend to be assertions which are rarely accompanied by even a hint of research support.

Consequently, since only a teeny-tiny percentage of statements about gridlock and traffic gridlock in the popular media are research-based, these materials are assigned to the pile of nonsense.

As for the results obtained from Google searches, the review progressed from "gridlock" and "traffic gridlock" through increasingly definitive transportation keywords (including "road network" and "intersection network") to increasingly definitive research keywords (including "cause", "study", "measure", and "evidence").

Recalling Tables 5, 6, and 7, when the searching for real deal items became more definitive, the Google search results dropped from millions to hundreds of thousands to 0; yes, to zero using basic research methods terms as modifiers in keyword search phrases.

Consequently, since only a teeny-tiny percentage of the results obtained by the Google searches are research-based, these materials are assigned to the pile of nonsense side of the dichotomy.

The summary finding, therefore, in answer to the question,

> "Traffic Gridlock": The Real Deal or a Pile of Nonsense?

is that since more that 99.99% of popular media statements and results from Google searches do not achieve real deal status, statements about so-called traffic gridlock amount to a large pile of nonsense.

That said, this appears to be a first-of-its-kind exploratory investigation, and in part 4 I invite second opinions which confirm or challenge the contents and findings presented in this report. Towards that end, I suggest two types of second opinion studies: those which give further attention to concepts, variables, and constructs used in this study; and, those that introduce other concepts, variables, and constructs.

Part 5 concludes the report by suggesting that it could be very informative for citizens and members of public interest groups to challenge elected officials, vested private interests, civil servants and consultants, and journalists to justify their use of the term traffic gridlock, or the term gridlock as a general reference to a transportation matter.

Indeed, when the topic of gridlock was briefly touched upon at the Sustainable Community Summit, it became evident very quickly that challenging users of these

terms could also have considerable entertainment value, and particularly for individuals and groups who have been subjected to large piles of gridlock nonsense pumped out by their elected officials and the occasional pundit.

The final comment is to encourage organizations such as the Federation of Urban Neighbourhoods, Transport Action Canada, the National Center for Biking and Walking in the U.S., and comparable organizations in Europe, Australia, New Zealand, and other countries to build e-accessible files on statements made in the popular media about traffic-related gridlock.

These files could be very valuable as a means for ordinary citizens and community associations to counteract baseless traffic gridlock-related statements, and particularly statements made by government officials, corporate entities, and members of the media.

And, I hasten to add, since financial resources available to ordinary citizens and community organizations tend to be limited relative to the resources available to governments, corporations, and the media, this kind of sharing through the power of the Internet is one way to disseminate materials quickly and with very little cost.

Finally, a graphic created by *Wordle* (wordle.net) is used on the cover and on the last page to close the report by illustrating several of the themes that underlie the document. The suggestion to include such a graphic was made by Sam Herold who prepared the graphics for the report, and did the final formatting. According to its developers, *Wordle* is

> "…a toy for generating "word clouds" from text that you provide. The clouds give greater prominence to words that appear more frequently in the source text. You can tweak your clouds with different fonts, layouts, and color schemes. …."

It is always good to have a bit of fun when writing a serious paper. Thank you, *Wordle,* for a very clever twist on content analysis and visualization methodologies.

Barry Wellar Bio-Note

Dr. Barry Wellar is Professor Emeritus, University of Ottawa, Distinguished Research Fellow, Transport Action Canada, Policy and Research Advisor, Federation of Urban Neighbourhoods, and President, Wellar Consulting Inc. He is a Registered Professional Planner in Ontario, and a Member of the Canadian Institute of Planners. Dr. Wellar is the author of more than 100 papers in the transportation-

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Information about Dr. Wellar's academic, research, public service, community service, and consulting activities and productions can be found at various websites, including wellarconsulting.com, transport2000.ca, slideshare.net, urbanneighbourhoods.ca, urisa.org., and http://www.geomatics.uottawa.ca/ In addition, a Google search for B. Wellar and Barry Wellar will yield a number of results.