

變 Shoup 為可見 多倫多的訂價問題

作者 BERN GRUSH

一位住在東多倫多的朋友正在測試一套新的離場付費停車與保險計量錶。他上週來市區到大學及學院處拜訪我，做一小時會面。我告訴他能花一小時\$2在旁邊的街道路邊停車，或是以每小時\$8停在我所在建築物內的民營停車場。猜他選了那個停車選項？

為「尋找」停車位而行駛的額外距離。右邊圖片顯示在他最末段開車距離之近乎39%—這全都是無意義的兜圈子想找個方法將他的停車費投到市營的碼錶裡。肯定的，39%不可能會是一種典型，是吧？短短的旅程能發生這麼多浪費嗎？跟你打賭它能。這段旅程本應是5公里，但卻花了8.25公里。

他在傑拉德街和學院街間的伊麗莎白街區巡行了四趟！在這裡誰有錯？想省\$6之燒碳的、獨乘駕車人？或是他所一心想把他的\$2繳交給的市政府？

這個嘛，讓我們來把它想清楚

首先，考慮到我的朋友為了停車而花約10—12分鐘兜圈子，這讓他沒趕上我們的見面時間（他最後停在每小時\$8的停車場）。這意味著他對他時間的重視約為每小時\$36，因為他只肯花費10分鐘來省\$6。其他人比較不重視時間而繞更久你可以確信會如此。

其次，我的朋友顯然會願意為他所需停車時數，付出從\$2.01到\$7.99間之不等金額。所以多倫多市每天在高度需求的停車位上，浪費了好幾千元的營收。我斷言如果能

適當調理停車收費價格，多倫多將會急劇增加它的停車營收。我希望他們會並且開始用那筆錢來修補某些街道。離我住處最近的幹線，根本就是個有島狀柏油分佈的坑洞。

其三，我的朋友浪費了些汽油及排放了些碳。即使全球暖化是胡說八道，我們也不希望被人看見我們在做這種事。

其四，我的朋友造成一些壅塞。兜圈找停車位是內圈市區交通堵塞之最大單一成因。

其五，額外的壅塞讓他和他的周遭其他車輛（壅塞招致壅塞）燒掉更多汽油，這會有額外的溫室氣體和國家安全意含（燃燒汽油讓敵國變富）。

所以我的朋友為了省\$6失敗，而浪費了



10分鐘和一些汽油。他毫無必要的貢獻了一些額外的空氣污染，而且在讀這篇文章時可能感覺心情更差。多倫多市政府則苦於一些額外的污染與壅塞，同時損失了大概是\$4的營收契機，倘若正確的訂價能為我朋友留出車位的話。注意到我們不只談到我朋友個人

所貢獻之增額污染與壅塞，因為他的兜圈活動對他周遭駕駛人亦有間接的干擾效用。

而這種事每天要重演上千遍。加上多倫多市停車輪盤賭的「幸運贏家」，他每小時只付\$ 2而非\$ 4，市政府很可能每週損失\$250,000以上，或每年損失六千萬至一億之間。若研擬停車收費能鼓勵部份這些搶便宜停車客不把他們的車開進市內，而是使用其他形式達成旅程，這也是一種附加益處。有多少人會將他們的車輛留在家中以節省\$ 4 (每小時\$ 2 增額費達 2 小時)呢？可能是街頭停車客的5-10%。而他們之中的大多數會尋找另一種方式來交易他們的商務。

如能妥善因應，我們市政府將減少營收損失，而且對自稱綠色領導統御之市政府也可減少不必要環境衝擊、以及對每日壅塞之折磨。我斷言即，多倫多可以藉提高其停車收費至Shoup-最佳值之15%空間，而急劇改善內圈市區交通流量，及減少排放總量。

考量路外停車與低價街頭停車間的分佈，市可以輕易讓它的停車營收倍增至少在市中心核心內。

設定一適當的停車價格，即位於一每小時\$8停車場旁之街道上為超過\$2，能夠

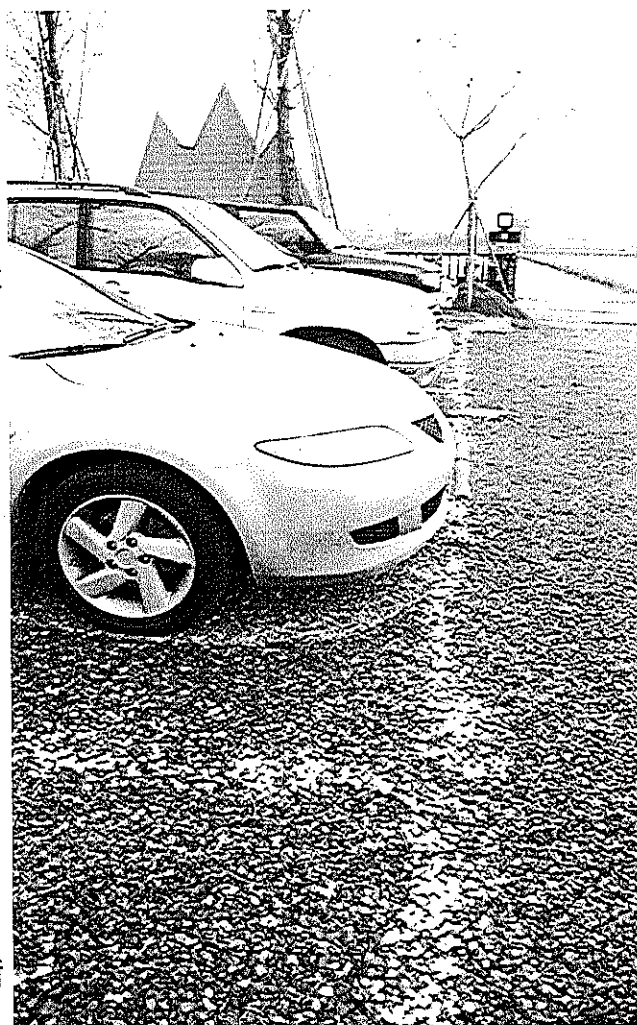
解放出車位給短期訪客，讓那些訪客快樂、節省時間、節省油料、減少壅塞、減少污染及充裕市庫。街頭停車的正確訂價讓每個人都成為贏家，特別是市政府和它的地產稅納稅人。

你說且慢，那些兜圈子找到一個\$2停車位，並從而較有可能造訪多倫多內某購物區而交易商務的人要怎麼辦。那樣不好嗎？不是很好。每一位這類停車彩券幸運兒，都要為不確定性、兜圈子、多耗油、多走路、以及遲到和匆忙，付出代價。每一位都貢獻壅塞和污染，因為他們中的大多數「有權」以最低價來停他們的SOV 車。低價的停車在某一天為剛好幸運的個人帶來小量、短暫利益，然而它每天都為我們所有人帶來大量社會損失。

在我們地球上任何國家的任何城市的任何一位市長都可以綠化他的城市，同時對其市庫做出貢獻。沒有比這能為城市籌募上千萬資金者更為明智的方案而它要比提高財產稅要好太多太多了。

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BY BERN GRUSH

Shoup Made Visible -

Toronto's Pricing Problems

A FRIEND WHO LIVES IN EAST Toronto is testing a new pay-as-you-go parking and insurance meter. He came to visit me last week downtown at College and University for a one-hour meeting. I told him he could park on a side street for \$2 an hour or in the private parking lot under my building for \$8/hr. Guess which parking option he preferred.

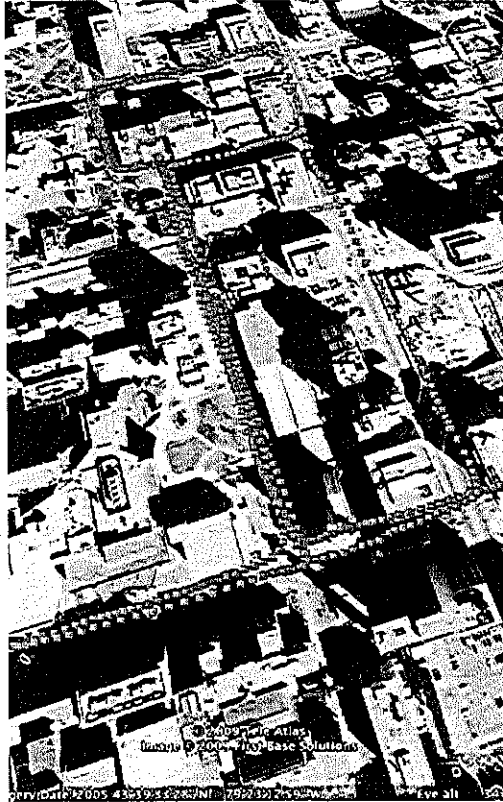
The picture to the right shows a close up of the final 39% of the distance he drove - all of it in fruitless circles to find a way to put his parking money in a City meter. Surely, 39% can't be typical can it? Can short trips engender this much waste? You bet it can. This trip should have been 5km, but was 8.25km.

He cruised the block of Elizabeth between Gerrard Street and College Street four times! Who's at fault here? The carbon-burning, single-occupant vehicle driver trying to save \$6? Or the City he was so eager to give his \$2 to?

Well, let's think it through

First, consider that my friend spent about 10-12 minutes circling for parking which made him late for our meeting (he ended up in the \$8/hr IMPARK lot). That means that he valued his time at about \$36 per hour since he was only willing to blow off 10 minutes to save \$6. Others value their time less and circle more - you can count on it.

Second, my friend clearly would have paid anything between \$2.01 and \$7.99 for the hour he needed. So Toronto is throwing that revenue away on many



Extra distance travelled "looking" for a parking space.

thousands of high-demand parking spots every day. I assert that with proper pricing Toronto would dramatically increase its parking revenue. I wish they would and start repairing some streets with the money. The arterial nearest where I live is a single pothole interrupted by islands of asphalt.

Third, my friend wasted a bit of gas and released a bit of carbon. Even if Global Warming is a crock, this is not something

we want to be seen doing.

Fourth, my friend generated some congestion. Circling for parking is the greatest single cause of inner city traffic congestion.

Fifth, the additional congestion made him and the other cars around him (congestion begets congestion), burn even more gas, which has additional Greenhouse Gas and National Security implications (burning gas enriches hostile states).

So my friend wasted 10 minutes and some gas in his losing bid to save \$6. He needlessly contributed a little extra to air pollution and will probably feel even worse reading this. Toronto suffered some additional pollution and congestion while losing a revenue opportunity of, say, \$4 had correct pricing yielded a

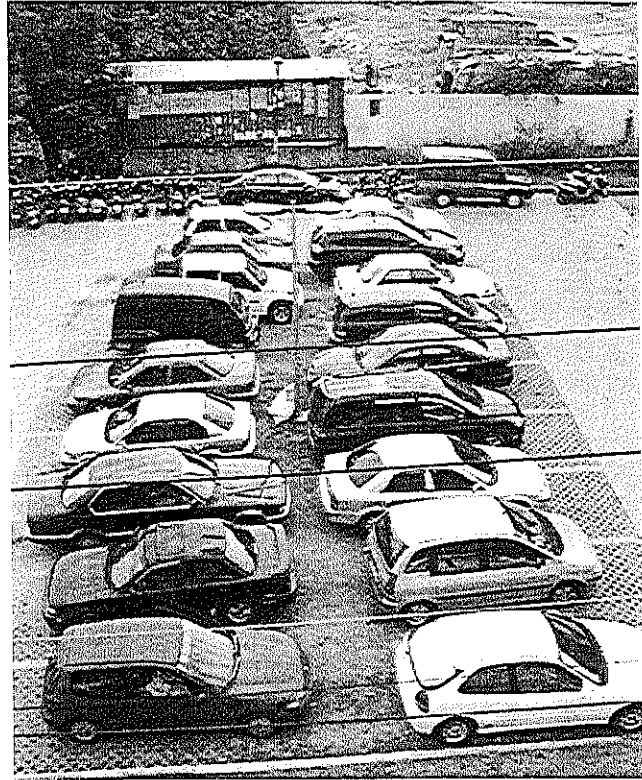
spot for my friend. Note that we are not only talking about the increment of pollution and congestion that my friend personally contributed, since his circling activity had secondary spillover effects for other drivers around him.

And this is repeated thousands of times every day. Add to that the "uckywinners" of Toronto's parking roulette who are paying \$2 instead of \$4 per hour, the city is likely losing upwards of \$250,000 per week-day or somewhere between \$60 - \$100 million per year. If such pricing encouraged a portion of these bargain-hunter parkers not to bring their vehicle into the city, but to use some other modality, that would only be an additional benefit. How many people would leave their car home to save \$4 (\$2 incremental fee per hour for 2 hours)? Likely 5-10% of the street parkers. And most of them would find another way to transact their business.

The cumulative size of revenue loss to our city, the unnecessary environmental impact to a City that lays claim to green leadership, and the direct contribution to the daily grind of congestion beg to be addressed. I assert that Toronto could dramatically improve inner-city traffic flow and reduce emission volumes by increasing its parking charges to the Shoup-optimum of 15% vacancy. Considering the spread between the cost of off-street parking and underpriced on-street parking, the City could easily double its parking revenues -at least in the downtown core.

Setting a proper parking price, i.e., more than \$2 on a street next to an \$8/hour lot would free up spaces for short-term visitors, making those visitors happy, saving time, saving fuel, reducing congestion, reducing pollution and swelling city coffers. Correct pricing of street parking leaves almost everyone a winner especially the City and its property tax-payers.

Wait you say, what about those people who circle and get a \$2 space and therefore are more likely able to visit a shopping area in Toronto to transact bu-



ness. Isn't that good? Not so much. Each such lucky person in the parking lottery pays a price for the uncertainty, the circling, the extra gas, the extra walk, and the lateness and the rush. Each one contributes to congestion and pollution, as the majority of them are "entitled" to park their SOV at the lowest price. Underpriced parking carries a small, transient benefit to individuals who happen to be lucky on a particular day, but it carries a large societal detriment to all of us each day, every day.

Any Mayor in any city in any country on our planet can green his city while contributing to its coffers. No program to raise tens of millions for a city could be saner and its way, way better than increasing property taxes. Bern Grush is Chief Scientist for Skymeter Corporation. He can be reached at bgrush@skymetercorp.com