

Problems with Smartcards

"Smartcards are the future of railway ticketing – they are what the industry is moving towards in the long-term and they may one day spell the end of paper tickets. London's Oyster Cards have, of course, been the standard bearer – they have been a huge success, with 17 million in circulation. The cards have had very few problems so far, considering the size of the network, even though the system has crashed a couple of times in recent months. Pity, then, that a judge has allowed the publication of research which shows how Oyster Cards can be forged. Academics at Radboud University in Holland have found a way to copy the cards and thus travel free on London's public transport. The researchers have discovered how to make fakes of the chip, known as the Mifare Classic, which holds the card's data. An injunction taken out by Dutch company NXP, designers of Oyster Card, to halt publication of the research findings has been overturned. NXP-designed Mifare chips are used in around one billion smartcards worldwide, not only in public transport systems but also in security systems in public buildings.

"NXP has said that it has no problem with Radboud University's Digital Security Group publishing research saying that the chip has been found to have weaknesses, but it does not want the details of how its security works to be released into the public domain. A Dutch judge disagreed, however, saying that: 'Damage to NXP is not the result of the publication of the article, but of the production and sale of a chip that appears to have shortcomings.' The logic of that is somewhat flawed, however. If you throw enough money and brainpower at most encrypted systems, they can usually be breached eventually. Enigma, anyone?"

"Oyster Cards were not, after all, designed to have military-level security built into them. There are other considerations that are just as important. Affordability would always have to come high up the agenda, as would the chip's ability to deal with all the different modes of transport Londoners may choose to use."

Ref: Rail Professional, Sept 2008

<http://www.railpro.co.uk>



Radboud University academics

Problems in the Auto Industry

"The U.S. auto industry's downward spiral has accelerated dramatically in recent weeks. In a desperate bid for solvency, General Motors Corp. is seeking a merger with Chrysler. Chrysler has talked with Renault and Nissan about partnerships. And now Ford Motor Co., GM and Chrysler - backed by Michigan lawmakers - are lobbying Washington to give them cash, implying that failure to provide a bailout could doom the industry to bankruptcy. Congress last month approved \$25 billion in loan guarantees for automakers, and rules for those loans are being drafted. But the companies say they need more - now. GM, Ford and Chrysler are burning through cash far more quickly than they're bringing it in, sales have fallen off a cliff, and none of them has been able to borrow money in months because of the credit crisis."

Ref: Ken Bessinger, LA Times 28/10/08

Read the full article at: www.latimes.com/business/la-fi-autos28-2008oct28.0.1118586.story

"European car makers have won EU support for their request of 40 billion Euros (\$A79 billion) in aid to help face the challenge of making greener cars during financial turmoil and an economic downturn. ... The idea was criticised by the environmental organisation Greenpeace, which said the industry is 'asking taxpayers to foot the bill for its irresponsibility and inaction. Instead of responding to demands from the public for cleaner cars, carmakers want to continue to milk the taxpayer and are asking for more government subsidies'."

Ref: The Age, 30/10/08

"Australian Manufacturing Workers Union secretary Mr Camillo said the state [of South Australia] should focus on how to win a slice of up to \$1 billion which could be up for grabs for fuel efficient or alternative fuel car manufacturing, after the Federal Government releases its response to the industry review by former Victorian state premier Steve Bracks. ... 'There will be a hell of a lot of money available and this is a great opportunity', Mr Camillo said. 'The Australian public are telling us they want a clean, green, locally manufactured vehicle and the opportunity is there with this money to deliver that'. ... The vehicle manufacturing industry employs 8000, including 4000 workers in the components industry, which is expected to benefit from a rescue package of between \$2 billion and \$2.5 billion."

Ref: Miles Kemp, Adelaide Advertiser, 29/10/08

Cycling in Melbourne

Growth in cycle journeys to work:

* Melbourne city centre:

2001: 4163; 2007: 7225 Growth: 11.7%

* Inner Melbourne, excluding Melbourne CBD:

2001: 3981; 2007: 5981 Growth: 8.5%

* Non-Metropolitan Melbourne:

2001: 6098; 2007: 6250 Growth: 0.5%

Trips by bicycle into Melbourne's CBD grid:

* In 2007, cyclists accounted for 8% of all trips into Melbourne's CBD, up from 4% in 2006.

* On-road cycling increased by 10% in 2007, and off-road by 20%.

* Cyclists make up 22% of traffic on St Kilda Rd.

Ref: Clay Lucas, The Age, 14/10/08 Sources:

Australian Bureau of Statistics, 2006 Census; Melbourne City Council 2007 *Bicycle Account*.

And thanks to the City Of Melbourne:

* CoM bicycle path network comprises 55km on-road paths and 66 km off road.

* 1,400 bicycle storage hoops currently installed in City of Melbourne.

* In the last 5 years CoM have implemented over 30 kilometres of on-road and off-road cycling paths;

Ref: Haig Poulson, CoM, 23/10/08

Cycling in Cairns

The Queensland Parliament has provided funding of \$6.1 million for a 6.5km 'Copenhagen Style' 4m wide bike path in Cairns.

Thanks to Nick Wardrop for this item, 30/10/08

Bicycling Achievement Awards

The Bicycling Achievement Awards were established in 2002 by the Cycling Promotion Fund to recognise innovation and achievement and to inspire others. All nominees will be included in a booklet that is distributed far and wide. Winners in each category will also receive a cash prize of \$1,000. Deadline for nominations is the 19th December 2008. The Awards are supported by the National Heart Foundation, the Australian Government and the Australian Cyclists. To nominate see:

<http://www.cyclingawards.com.au>

Ref: Rosemarie Speidel, CPF, 5/11/08

Passenger Journeys in Australia

Some interesting transport figures prepared by the Federal Department of Infrastructure for *The West Australian*. What I found really interesting was the growth in ferry trips: 21% over five years and 32.3% over ten years, partly due to Sydney but primarily due to Brisbane (albeit starting from a small base).

Australia – Passenger Journeys ¹ (millions) (Syd/Mel/Adel/Per/Bris)							population	% population increase
Year	Heavy Rail	Light Rail	Bus	Ferry	Total			
1997	454.4	122	529.1	16.1	1121.6	11,162,754		
1998	459	124.1	526.5	16.2	1125.8			
1999	468.4	129.2	518.7	16.4	1132.7			
2000	486.3	138.9	517.5	16.7	1159.4			
2001	519.5	144	525.4	18.6	1207.5			
2002	499.4	148.4	517.9	17.6	1183.3	11,883,982		
2003	501.2	149	523.6	17.5	1191.3			
2004	504.4	149.7	528.9	19	1202			
2005	509.1	153.9	533.2	20.3	1216.5			
2006	535.4	158.8	547.7	21.1	1263			
2007	565.2	165	559.8	21.3	1311.3	12,713,088		
5 years	13.2	11.2	8.1	21.0	10.8		7.0	
10 years	24.4	35.2	5.8	32.3	16.9		13.9	

1 BTRF figures adjusted estimates to account for different sources.

% increase

Transport Planning in the US

"In the second half of the 20th century, the single purpose of traffic planning and engineering was to facilitate the movement of cars. Everywhere, roads were widened, straightened and extended, with little concern for how these projects would affect people or Places. As early as 1954, Jane Jacobs pointed out a phenomenon that has affected every urban, suburban and rural community in the U.S.: 'The erosion of cities by automobiles proceeds as a kind of nibbling. Small nibbles at first but eventually hefty bites. A street is widened here, another is straightened there, a wide avenue is converted to one way flow and more land goes into parking. No one step in this process is in itself crucial but cumulatively the effect is enormous.'

"A growing number of community leaders and transportation agencies are realizing that this focus on mobility has negatively affected our health and quality of life. Instead of walking or biking, we drive everywhere. This lack of physical activity is linked to obesity, diabetes, high blood pressure and lower life expectancy (Centres for Disease Control). Just as importantly, we have dedicated our communities' largest public space – our streets – to one purpose – moving vehicles – instead of nurturing them as the community-enhancing places that they can be. Instead of 'solving' congestion, more highways actually encourage the construction of new low-density, single-use development at the urban edge. In these new communities, destinations are farther apart, requiring us to drive longer distances and more often than in traditional more compact, mixed communities. This 'generated traffic' quickly fills up the highways again.

"Today, many transportation agencies at every level (federal, state, county and municipal) are looking to other ways of dealing with congestion. Instead of focusing on how fast cars can move through a particular place (mobility), DOTs are thinking about how easy it is to reach destinations (access) – by car, as well as by transit, bike or foot. In addition, DOTs are beginning to think about streets and roads as Places – places that people live in, work in or go visit – not just places that cars drive through."

Ref: PPS (Projects for Public Spaces), New York See: <http://www.pps.org/transportation>



Picture: Federally funded Sydney Ferry

Sydney Ferry Reforms

"Among the reform projects currently underway:

1. Negotiation of a single maritime union EBA to deliver significant savings.
2. Delivery of crew-based rosters to improve safety and workplace efficiency.
3. Presentation of a Fleet Replacement Plan to Government outlining the need for new vessels to achieve reliable customer service and increased revenue.
4. Tender assessment of a Ferry Operations and Customer Service System which will provide customers with real time passenger information at each wharf via GPS tracking on all vessels
5. Improved business systems.
6. Introduction of onboard advertising to increase revenue.
7. Renewed destination marketing to encourage patronage."

Ref: Sydney Ferries Media Release 21/10/08

And some ferry comments from last year ...

"In running Manly ferries and jetcats, may I suggest that they should be counted as a service rather than a business? Likewise, the state's rail services. As a taxpayer, I'm happy to subsidise the ferries and trains, just

knowing that the services are there to use, as and when the community wants or needs them. The more reliable the services, the better the patronage will become."

Ref: Barbara Watt, Manly Daily, 12/7/07

"[Ferries] have the ability to transport large numbers relatively cheaply. Why should ferries (and trains and buses, for that matter) be expected to run at a profit? We spend billions each year building and servicing roads and no one is asking what return we are achieving for this investment."

Ref: David Griffiths, Manly Daily, 12/7/07

"Tourism in Manly increased 31% last year, bringing business to Manly restaurants coffee shops and pubs. And the beautiful ferry ride was often a major reason for a day in Manly... Tourists aren't going to take a bus to Manly! People in an area wider than just Manly depend on the ferry service as transportation to jobs in the CBD. Will these workers have to use the already overburdened bus service for transport?"

Ref: Evelyn Ciocco, Manly Daily, 11/5/07

"One million more people were catching Sydney ferries compared to six years ago."

Ref: Andrew Tillett, Manly Daily, 12/7/07

Congestion Thinking Pt. 1

*“Congestion is both a reality, and what’s called a ‘trope’. A ‘trope’ is a figure of speech ‘i.e. using a word in a way other than what is considered its literal or normal form’ (Wikipedia). Trope comes from the Greek *trepo* to turn, direct, alter, change’. When advocates of road building use the term ‘congestion’ they direct attention. They want to make us think that congestion is bad (which our experience tells us is true anyway). But how bad is the reality?”*

“Most of the discussion of ‘congestion’ today employs the word as a trope. The advertisements for the City Link motorways that appeared in Melbourne newspapers at the time of planning the roads, stated: ‘Having a triple bypass will do wonders for your sanity’. The Lord Mayor of Brisbane during his election campaign allegedly placed a huge billboard featuring himself in earnest Mayoral pose above a road into Brisbane which was always jammed at peak hour. The sign said: ‘Congestion: I won’t stand for it!’ What a winning slogan! He was elected.

“The reality is what we experience when we are stuck in a traffic jam. It is annoying to almost everybody who experiences it. You are sitting in a car capable of speeds up to 180 kms per hour – or more – and moving along at walking speed. In reality most people stuck in traffic jams only experience at worst an extra 15 to 20 minutes added to their trips, in most cases much less. That inconvenience is hardly consequential compared with the real damage done to life and health by private vehicle traffic.

“Well, you may say, that’s true, but what about the aggregate of all those 20 minutes, or 5 minutes or 2 minutes lost. They add up to a huge amount of time. When we put a price on that time it adds up to an enormous sum. So we must consider the ‘costs of congestion’. These alleged costs are regularly trotted out by politicians in billions of dollars to make us agree to a road building program costing billions of dollars ‘to relieve congestion’, to remove bottlenecks, to close the ‘infrastructure gap’. Congestion has become a trope to support road building.”

Ref: Professor Nicholas Low, Director, GAMUT, University of Melbourne, Oct 2008

To be continued. For the full paper and the references contact steve@goingsolar.com.au

And Also ... (Aviation 101)

“There are three simple rules for making a smooth landing: Unfortunately, no one knows what they are.”

Ref: www.jokefile.co.uk/numerical_order/1087.html

Electric Car Network

“Australia will become the third country in the world to have an electric car network in a bid to run the country’s 15 million cars on batteries powered by green energy under a plan announced today. In a deal unveiled in Melbourne, international company Better Place will team up with AGL Energy and Macquarie Capital Group to set up a network of ‘charging spots’ and ‘battery exchange stations’ to power electric vehicles in Brisbane, Sydney and Melbourne. Better Place aims to roll out electric car networks that allow zero emission vehicles to run on clean energy grids to reduce the planet’s reliance on oil. Earlier this year, Denmark and Israel undertook to establish the world’s first electric car networks.

“Better Place chief executive officer Shai Agassi said he hoped Australia would prove that the company’s model for electric cars could work anywhere. Under the plan, charging spots, to top up batteries, would be located in places where cars park, including home garages, shopping centres and office car parks. The charging spots, which would look like parking meters, would provide cables to connect batteries to a green energy grid, for which AGL Energy will provide power from renewable sources including hydro and wind. On the outskirts of city centres and on freeways, “battery switching stations” would exist for trips longer than 161 kilometres. A driver would pull up to a switching station and replace the car’s battery before continuing on their journey, similar to filling up the tank at a petrol station, according to Mr Agassi.

“Mr Agassi said the first step was to build the infrastructure while the company was dealing with car manufacturers to produce the battery-run cars. ‘You can’t sell cell phones before you have the towers’, he said.”

Ref: Mex Cooper, The Age, 23/10/08

Grand Prix Debacle

“The cost of staging Melbourne’s Grand prix has doubled in two years, with Victorians coughing up a record \$40.1 million to cover losses on this year’s race. ... Despite the record loss and below-average crowds at this year’s race, eight executives of the Australian Grand Prix Corporation were given more than \$160,000 in bonuses. ... Despite Government claims that the race generated up to \$175 million for Victoria, the Auditor-General found, on best estimates, that the cost of hosting the grand prix outweighed the benefits by \$6.7 million.”

Ref: Ben Doherty, The Age, 31/10/08