

PEOPLE’S MARKETS

Corporations are getting disproportionate advantage from new selling technology. That could be remedied, with potentially dramatic results.

SUMMARY:

- Nearly 3 million Britons bought something on an internet auction site in just the first 3 months of 2004¹. Almost exclusively they bought from very small sellers. Are services like eBay going to be the limit of individuals’ increasing desire to sell in a modern marketplace? Or are these sites just a first glimpse of something much bigger?
- Auction sites are confined to a narrow – very simple - corner of economic activity: an online version of car boot sales. There are far bigger sectors in the economy. But they remain prohibitively complex for open online markets while increasingly being distorted by the disproportionate gains very large sellers can obtain from new technology.
- Government could create a framework in which a whole spectrum of markets can be opened to a potential tidal wave of eBay style low-level sellers. The private sector can’t do that alone.
- We advocate a system of “National E-Marketplaces” (Slivers-of-Time) designed, funded and run by the private sector that have been granted benefits only the state can give to marketplaces. They could enable uniquely efficient micro-businesses in sectors as diverse as services for tourists, security, storage, home services, deliveries, food provision, office services, financial services, transport and tuition.
- In each sector Slivers-of-Time bring unparalleled levels of transaction safety, localised supply/demand/ pricing information, cheapness in transaction costs, protection for users and ease of market entry. Additionally, the proposed system could drive new facilities such as commercial investment in individual traders to fund their development. This would be national infrastructure for the 21st century as state backed money was for the 18th, water supply for the 19th and roads for the 20th.

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¹ Online Auction Sales Booming, The Times (UK) 30th July 2004 p7 (tabloid edition).

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1) The state of New Markets Technology – for corporations

Over the last twenty years, the Information Technology industry has built an extraordinary new world for its corporate customers. It has fundamentally changed the way they relate to the market.

A large enterprise today will routinely harness computer systems that:

- enable them to operate with ever fewer staff and resources each deployed with increasing effectiveness
- monitor suppliers while ensuring they can be easily replaced by cheaper competitors
- allow the most profitable price to be calculated for any individual sale
- provide deep understanding of the market and where new opportunity lies
- put even fleeting cash reserves into the money markets as lucratively as possible
- analyse each customer's business potential ensuring the least profitable are underserved or simply forced elsewhere (banks are particularly good at this)
- centralise decision making so the workforce can be deskilled, then paid less
- facilitate the infrastructure for progressive outsourcing of work².

One big company with a highly sophisticated I.T. infrastructure routinely delivering facilities like this can skew an entire market. Wal-Mart's seemingly unstoppable domination of retailing for example stems from the company's early adoption of innovative supply chain software³. They have used it to push prices to levels below which few can compete. Their new era in cost cutting did not involve any sacrifice of profitability: five of the ten richest people in the world achieved that status through each becoming an heir to just part of the Wal-Mart fortune⁴.

Despite a trough in I.T. spending, this revolution for corporates continues.

Managements are under shareholder pressure to make every firm "an adaptive enterprise". But, at this level, the game is limited to big players. To reap the rewards

² Further explanation can be found in titles such as "The Value Factor: how global leaders use information for growth and competitive advantage" Hurd & Nyberg, Bloomberg Press 2004.

³ "Is Wal-Mart too Powerful?" Business Week October 6, 2003. "The Price of Huge Sales and Tiny Margins" Financial Times (UK) July 10th 2004.

⁴ "The World's Richest People: the Rich get Richer" Forbes magazine Feb 26th 2004.
<http://www.forbes.com/maserati/billionaires2004/bill04land.html>

of this sort of technology requires two components: (a) complex - but appealing to use - software built around your corporate processes (b) a huge pool of data to which it can be applied. The competitive need for ever bigger pools of data, particularly about customers, has emerged as a key driver of the mergers that create ever larger businesses⁵.

2) The state of New Markets Technology - for the rest of us

It's worth comparing the new world corporates have built for themselves with the economic opportunity two decades of I.T. development has achieved for the rest of us. Certainly it has made buying much easier. By visiting Amazon, or one of the other consumer mega-sites, any web user can now purchase a range of standardised bar-coded products more quickly, and usually at lower cost, than before.

But economic inclusion comes from the capacity to earn money, not new ways of spending it. Opportunities here are more limited, but where they exist they are enthusiastically embraced. eBay passed the 100 million user mark in early 2004, a 52% increase on the year before⁶. The world's leading auctioneer is often cited as an example of the dynamism e-markets have brought to small traders. But it needs to be remembered that, despite expansion beyond core sectors, eBay operates in a marginal niche of the economy; collectables, used cars, surplus and second hand goods. It is a way of purchasing that is slow and time consuming for buyers. Ideal for the worldwide community of enthusiasts who may be energised by the prospect of getting their hands on a rare Beanie Baby doll, the eBay model is not one that has translated into the more complex and less clubbable markets that make up the bulk of economic activity.

What most of us have to sell is time based: either hours when we are available to work or the hire of an asset we own such as a room, car or storage space. Transactions in this kind of market involve multi-dimensional parameters typically including the seller's availability, contactability and reliability followed by

⁵ See for example "The Trials of Megabanks" Economist October 29th 1998

⁶ "eBay reaches 100 million users" Lisa Doheny, Net Imperative (UK) April 22nd, 2004.

acceptability of the buyer in what tends to be a close proximity between the two parties, price construction, demand/supply balance and complex administration. The liabilities can be enormous: a feckless Beanie Baby seller is merely annoying; a rogue babysitter or local caterer may be catastrophic.

Because of these issues, the big online marketplaces allow you to sell any number of *things* but don't offer time based sales⁷. What services forums there are online tend to be just listings, the cyber equivalent of ads. on display in a newsagent's window. (And often updated less diligently.) They offer a list of people who *may* be qualified, available, willing and personally suitable for the buyer's needs but require all the work of establishing contact, vetting and setting up a transaction be done by the parties involved⁸.

Anybody of course can set up a website through which they sell their goods or services to the world. A 2004 British regional newspaper report, for example, lauds a Cornish guesthouse owner who spent six months doing night classes in I.T. then built a site which not only accepts guest bookings but will eventually translate itself into any European language with a mouse click⁹. The newspaper and its subject appear to believe this puts the guesthouse at the forefront of the new economy. It doesn't. If the hotelier spends enough to drive sales prospects towards his site he should see some bookings coming in that way over the next few years. But his benefits will be negligible compared to the efficiencies and insights big travel companies in his sector are getting from the new technology. They are deploying their resources, and pricing each offering, with a revenue maximising efficiency the Cornish hotelier can not imagine. At the same time they will be constantly targeting the most profitable prospects with tailored offers; running a portfolio of brands each drawing on centralised efficiencies and all the time segmenting, analysing and cross selling a vast customer base based on years of bookings and potential bookings. All this is achieved at cost so low, once the I.T. is paid for, that it gives them a relationship with the market that would have been unthinkable a decade ago.

⁷ eBay does have a services section but it is simply listings with a tilt towards "get rich quick" schemes.

⁸ Probably the most useful example is Singapore's www.cozzee.com which allows buyers to have their needs emailed or texted to a variety of, for example, plumbers. Each plumber can then formulate a quote and come back with an offer. Though an improvement on offline, this means sellers have to constantly understand and respond to jobs that someone else will get while buyers have to sift multiple offers before constructing a transaction. France's longstanding Minitel is effectively a state backed listings service.

⁹ "Guesthouse Targeting European Customers": The Cornish Guardian (UK) 19 February 2004

There was an earlier, more innocent, time in Internet history when it was widely believed that shoppers would trawl the web for the best value and small traders would find themselves with a new market. It's happened in some ultra-tight niches like maternity bras¹⁰ and art prints¹¹. Elsewhere, survey after survey shows that online shoppers simply end up at the big sellers online¹² presumably because (a) the name is embedded in our consciousness which means we can locate them in the cacophony of the marketplace (b) a large firm is likely to have the capacity to meet our immediate needs (c) we assume their pricing will be competitive (d) the brand creates trust. Barring chronic mismanagement, Big Travel can reshape the sector around its new capabilities because the efficiencies, and breadth of resources, it can command coupled with the ease of buying from a well known name makes their offerings so easy to find and so enticing to purchase.

The Cornish hotelier might fork out to join a marketing alliance for small businesses, of which there are many, or list on a website that has more traffic, the one run by the English Tourist Board for example. But putting up a few photo's and signifying he'll let customers book online is still a long way from the facilities taken for granted by the players who increasingly dominate his sector. Sales success is no longer about websites; it's about the astonishing depth of technology that can sit behind them, and interface with every other aspect of an enterprise.

¹⁰ <http://www.emma-jane.com/>

¹¹ <http://www.artrepublic.com/posters/default.asp>

¹² See for example:

<http://temagami.carleton.ca/jmc/cujo/showcase/boldly/conbrand.htm>

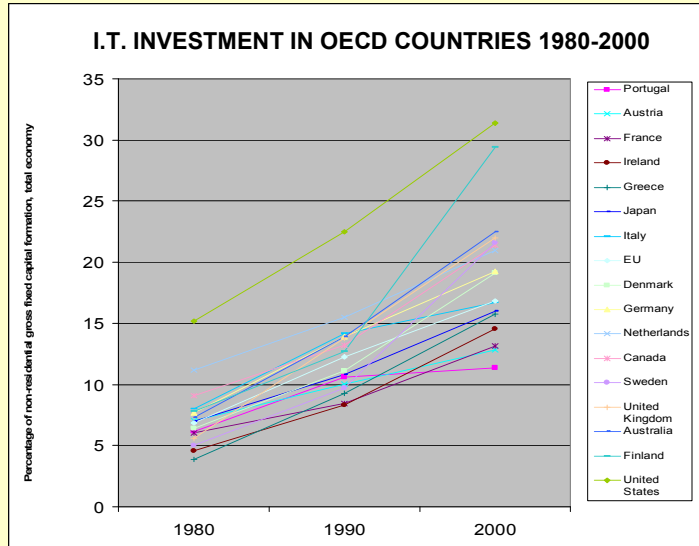
Various papers at: <http://www.brandchannel.com/papers.asp>

http://www.businessweek.com/2000/00_27/b3688183.htm

<http://www.webmasterworld.com/forum34/527.htm>

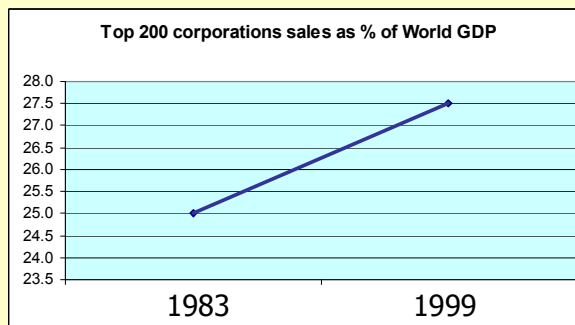
http://www.netimperative.com/cmn/viewdoc.jsp?cat=all&docid=BEP1_Feature_0000064680

BACKGROUND DATA: *Small businesses and lone traders have spent considerable sums on I.T., but as a sector, they are not reaping the rewards. As the spending on I.T. around the world has increased....*



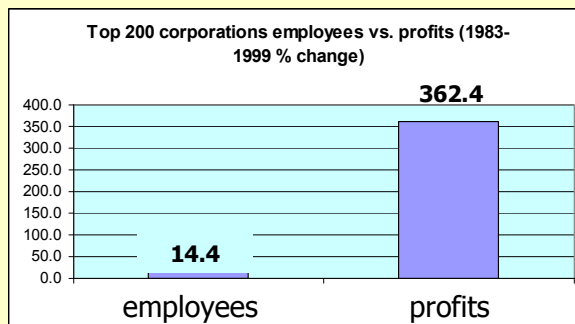
Source:

....so has the proportion of sales taken by corporates.....



SOURCE: Institute for Policy Studies

....who are becoming relentlessly more profitable while – as one indicator of efficiency – requiring proportionately fewer staff relative to their activities and earnings:



SOURCE: Institute for Policy Studies

3) The consequences of this disparity

We are seeing a Market-Access Divide developing. It is now so easy to purchase from the largest player in a market and so disproportionately difficult to buy from thousands of smaller sellers, any of whom may, still, be better value or more attuned to your needs, that the little players can find it impossible to access the market. This doesn't just apply online but it is most noticeable there.

The Market-Access Divide is poorly quantified¹³ but it becomes obvious in so many transactions. In a typically mundane example, I experienced the divide recently when attempting to book a hire car for 24 hours starting as I stepped off a 20.50 train at Bristol Temple Meads station in the west of England. I'm a conscientious driver, I was in a hurry to book and not particularly price sensitive; I was shopping in a market which should have low barriers to entry. There ought to be plenty of local suppliers vying for my business. Seeking the widest possible market, I started with Google.

My search for "car hire" Bristol UK' brought up 365,000 returns. I worked my way through the first few, purportedly national brokers that clearly had access to only a tiny percentage – if any - of the available vehicles in Bristol. In any case, having demanded I input all my requirements, the sites variously informed me they had a minimum hire of three days or they were only able to create bookings as a "request" which may or may not be confirmed within the following two days or they could not handle same day bookings. Then I tried the next tier of returns: Avis, Hertz and their large competitors. Filling in my requirements several more times taught me that the big car hire companies shut their central Bristol offices at teatime on weekdays. After that were the mindless returns; the scammers with advertising driven revenue who dump a list of cities and services into their sites' hidden text so it shows up as relevant to a specific need on search engines driving short lived, but profitable, click-throughs. In despair after wading through what looked like initially promising sites, I phoned the Avis call centre to ask if they could leave a car at the station. They couldn't, but did tell me their Bristol Airport branch was open late. How easy is it to

¹³ Other classical economic factors in the rise of corporations are far better researched; trade liberalisation for instance. See for example "Top 200: The Rise of Corporate Global Power", Institute for Policy Studies (US), December 2000.

get to the airport from the station? They didn't know. So, back to Google to input "Bristol Airport" "Temple Meads" travel'. The first credible return is a site telling you how to get to Bristol Airport, when driving from Birmingham Airport.....

Anyone who has tried to shop beyond bar-coded products online can recount this sort of story. It is so often a slow, blundering, intensely frustrating, process that eventually drives you back into the arms of a big supplier as time and patience is exhausted. This is restricting for me as a buyer: there could be any number of local garages in Bristol who would be willing to commit to meeting evening trains with a workmanlike vehicle at a price I would pay. But, short of working my way through the Yellow Pages or other listings, I don't know how to find them. Even if I could locate these potential providers I would have to explain my requirements to each with a strong likelihood they wouldn't have the capacity to meet them and, even if they said they could, I then wouldn't know if I can trust them to deliver. Assuming all those hurdles could somehow be crossed I still wouldn't know if I was being quoted a competitive price for that requirement. So, after a pointlessly time consuming booking process I ended up bussing it to the airport because, having become the market for car hire to out-of-towners, the big players have decided that this market, in Central Bristol at least, doesn't need to be served outside office hours.

This narrowing of the market, across all sorts of sectors, is often inconvenient for the buyer, but it's devastating for the local economy. A small garage with a couple of cars for sporadic hire will spend most of its turnover locally, a multinational siphons earnings upwards to head office¹⁴. Not all corporates are making a success of their transition to fully-fledged I.T.¹⁵, but those that have are able to turn themselves into pockets of enormous self-serving efficiency with the rest of us left to pick up the unemployment, exclusion and unfortunate impact on communities that results. Entire markets that used to flourish at low levels of the economy are being corporatized or driven into decline. The boy-on-a-bike market for local errands once provided market entry for generations of teenagers; but the local supply chains, of which it was part, couldn't compete with computer controlled delivery drivers from UPS, DHL or the supermarkets. How many of us could locate a neighbourhood tailoring

¹⁴ The full extent of this factor is catalogued in "The Money Trail: measuring your impact on the local economy using LM3": The New Economics Foundation (UK) 2002

¹⁵ The risks corporates are taking in the transition to fully I.T. based operations are illuminated by the fate of K-Mart in the US and MyTravel in the UK. Commentators have blamed the severe financial problems of both on poorly applied IT infrastructures.

service to alter some clothing? How could an old-style neighbourhood finance provider ever have competed for desirable customers with the individually constructed, proactively targeted, offerings from corporations like CapitalOne in the UK¹⁶? These local suppliers have found themselves on the wrong side of new levels of buyer convenience, safety and value that has been set by powerful I.T. systems either interacting directly with consumers or driving call centres, mailshots and retail operations. Once vibrant sectors are now hopelessly antiquated, overhead laden and inconvenient for purchasers.

Commendable effort is being put into tackling what appear to be the causes of market exclusion. Ending the "digital divide" is a government priority: grants are made to individuals in deprived areas. But this is addressing side issues. Even if every household in the country was given Internet access and every social entrepreneur backed with the cash they seek, the Market-Access Divide would continue to effectively exclude those individuals, and many more of us, from so much economic activity.

4) Why did the Market-Access Divide emerge?

Wal-Mart, and other titans of corporate I.T., built their new infrastructure with a coherent vision. Typically the board in each case decided (a) what their new system had to achieve (b) how they were going to integrate all the processes and authority of the company with the new way of doing business (c) how they were going to ensure the lowest overheads while they, not the technology vendors, retained control.

There is no equivalent of the corporate board for the millions of putative local traders and no coherent vision for the technology that makes transacting so efficient. Instead, there are thousands of online marketplaces we could go to; each with a proposition built around widely differing standards of technology, privacy protection and marketing support. Each forum has its own user base, business model, revenue

¹⁶ CapitalOne alone mailed an extraordinary 63.8 million offerings to sales prospects in a recent 12 month period. (Marketing Direct magazine supplement "Top 100 Direct Mail Spenders 2004")

generation method, mechanism for sales and so on. I might go to the trouble, and possible expense, of listing as say a jobbing gardener in one forum while other sellers choose another and my target buyers are somewhere else again. There is no logical, single point of online market entry for sellers in the non-corporate economy. We have been left to choose for ourselves.

That's fascinating if you're gripped by the sheer variety and ingenuity of online commerce models. If you just want to put a car out for hire, rent a room, mow some lawns or offer in one of thousands of other low level markets, the lack of a coherent online vision for the huge part of the economy that is non corporate is a big barrier.

The situation small sellers face is comparable to Wal-Mart having no company-wide plans for I.T. but leaving every one of their employees to research all the different forums for online trading and then choose whether they wanted to use one of them. Had they done that, some staff would probably have opted for aggregated buying services covering different industries with which they dealt, others might have been tempted by one of the dozens of bulletin boards for retailers where advice about suppliers can be posted, more adventurous staff might have started buying on trade auctions. Some employees would have signed up for subscription services, others may have been tempted by marketplaces offering no sign up fees that then ramp up stealth charges as a user becomes locked in. And so endlessly on. Many wouldn't have bothered with the new technology at all. The result might have been some minor increase in productivity as employees eventually gravitated towards some of the better competing services on offer. But it would have been light years behind the efficiencies, insights and market control Wal-Mart obtained by taking an overview of what I.T. could achieve for the entire enterprise and inviting vendors to fulfil their requirements.

5) Plotting a solution to the Market-Access Divide

It's illuminating to think of the non-corporate economy as one big enterprise that includes sectors as diverse as housecleaning, loadspace in vans, party catering, small cash loans, hire of fork lift trucks from small warehouses, minicabs, house painting, book-keeping, tennis coaching, home laundry services, small scale coach operators,

personal computer trainers and organic produce growers. Imagine I.T. architects were called in to come up with a coherent vision for this “adaptive enterprise”, what would a system that served it have to achieve? Some starting point requirements might be:

- immediate cost-free market entry for any potential seller in any market
- immediate effortless purchasing by buyers
- extraordinarily low transaction charges
- full information about local patterns of demand/supply/pricing in any market available to anyone
- an end to bad debt and other problems of unreliability/dishonesty
- total control for each seller and buyer over the terms of each transaction and the people with whom they transact
- immediate market access for anyone, even those with no Internet connection of their own
- a truly national system, not a tweaked version of an international site

New Markets Technology could deliver all this if the data pool was big enough to justify the investment. But this hypothetical system would have limited value unless it could solve some key problems. They include:

- how does it give buyers the confidence to unthinkingly purchase from sellers they have never heard of?
- what’s the means of establishing a legal seller in any market?
- how would the system quickly achieve a flow of transactions from which it can grow?
- what’s to stop the operators pushing up prices, compromising privacy and market neutrality or simply locking users in at every opportunity?
- what should any vendor bother to build such an expensive system for small transactions when there are more lucrative markets to be cherry picked?
- even if such a marketplace was built, and it succeeded, wouldn’t its usefulness then be corroded by competing marketplaces, spared the initial launch costs, who could undercut it in attractive sectors?

There is a way of delivering these benefits to millions of currently frustrated sellers while avoiding the likely pitfalls. It is a means of extending a new technology beyond the currently powerful that has been a recurring theme in economic history.

6) Identifying the solution: “National E-Markets”

The need that’s being outlined above is for a system of e-markets that is a genuine public utility. Like the water supply, electricity grid or road network this would be a system operating within a specific legal framework that provides certain benefits from the state but also mandates operators’ obligations to the public. Government has a range of benefits they could uniquely offer to the operators of a system of e-marketplaces. There are some obvious obligations that could accompany those benefits. They include:

Benefits	Obligations
<ul style="list-style-type: none">• System-compatible codes on all licensing issued by the state• Fully automated relationship with the lower courts• Public sector buying and selling goes through the new system• Permission to operate as a bank• No –counterparty status• Low tax to drive usage	<ul style="list-style-type: none">• Operators must fund access kiosks in areas of low Internet penetration• Fixed charges to users• Transparency, neutrality, privacy all enforced with sanctions for failure• Operators bear all the costs of interfacing with public sector• Auto tax collection offered• No lock-in of users

The benefits revolve around a unique relationship with the highest authorities in the land. For example, disputed transactions in the putative marketplaces can be automatically fed into the courts by the software with resolution input by a court clerk. Likewise any licence issued by the state comes with a system-compatible code

that effortlessly ensures the holder's legality in the relevant market. These are small benefits but, in total, they create a clear underpinning for the system and provide sustainable advantage over other marketplaces for any one operator to whom they have been awarded (they can't be given out to any operator, that would create chaos and dissolve their value). However, the winning operators would have to comply with arduous requirements around privacy, transparency of operation, neutrality and performance. They would also have to fund both all the costs of interfacing their system with the public sector and providing public access points for the markets in areas where households were statistically unlikely to have their own Internet connections.

The model for making this a reality is probably that used in the UK by the Thatcher government to enable funding for the Channel Tunnel and by John Major's cabinet to create the National Lottery. Government outlines a package of benefits and obligations for the operator of National E-Markets. Government then invites any interested consortium of financiers, technology and services companies with the required cash and expertise to express their interest and commit to the flat-rate percentage mark up they would put on all transactions to ensure their revenue stream. Whichever suitably qualified consortium commits to the lowest figure then wins the package for a fixed term of perhaps 15 years. It's worth doing the sums: a figure as low as 1% - 0.5% mark up on each transaction in each market could still grow into a highly profitable business¹⁷.

Government mustn't plan the system, determine the technology or have any control beyond enshrining some core values, like those above, in the obligations. They might also mandate that the winning consortium not be allowed to run the front end marketplaces because that could give them too much power. Instead it might be stipulated that there has to be an individual franchisee for each sector splitting the transaction fee with the consortium. That means there is no powerbase within the system: the consortium are useless without the franchisees and vice versa.

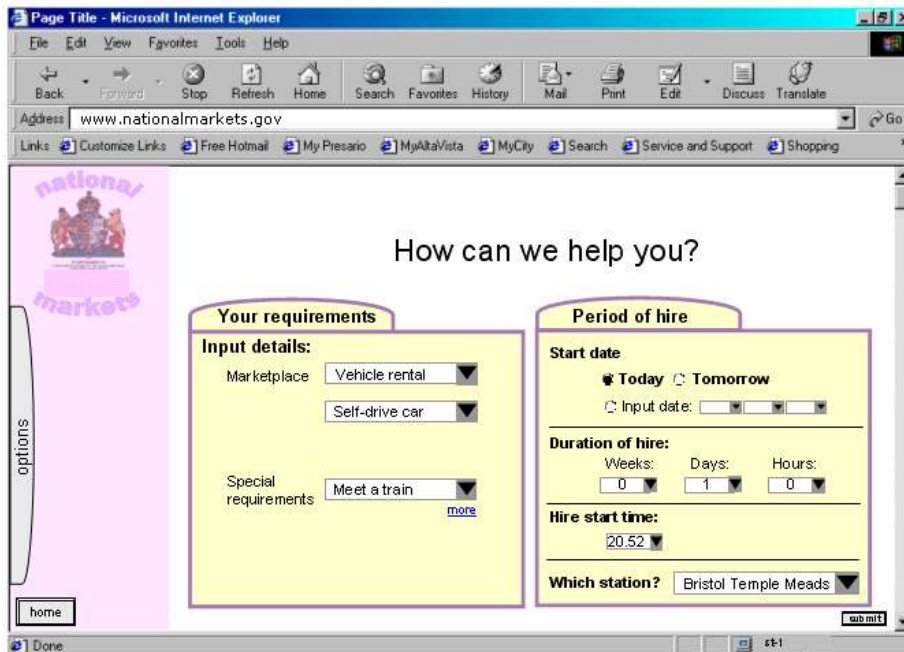
¹⁷ There have been two ways used to estimate a viable transaction charge for Slivers-of-Time (a) assume a percentage of GDP that could flow through a mature system, perhaps 5%, then using the percentage of that retained as a transaction charge subtract likely staffing, concession commitment and technology costs (b) extrapolate Slivers-of-Time ' finances from those of eBay, probably the closest comparable operation.

Once the winner of the tender is announced, government gets out of the way and the operators, with the clock ticking on their 15 years period of concession, have every incentive to launch quickly. They would be wise to focus on a handful of easy to launch markets initially: facilities for tourists, micro-credit, home services and minicabs for example. But, assuming those markets go well, other franchisees would be likely to come forward and launch sectors in which they had particular expertise. There will inevitably be enormous technological, cultural and operational problems to overcome, the new marketplace has to grow gradually.

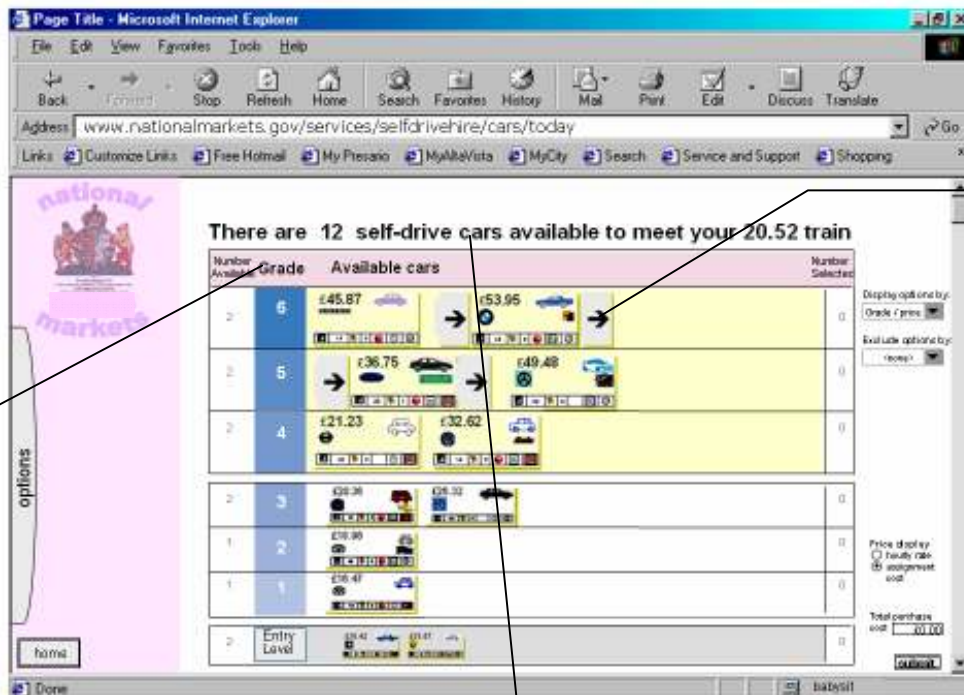
7) What's different about "National E-Markets (Slivers-of-Time)"?

These are e-markets with a new legal status and the stability for operators that makes it worth their while investing in highly sophisticated technology that can then be applied to even the lowest level markets. The simplest way to demonstrate this is with one sample transaction to show how such a system might work. Imagine that the British government had initiated a Slivers-of-Time system, it had matured to include a car hire sector and a user wanted a vehicle to meet tonight's 20.50 arrival at Bristol Temple Meads.

He might input his requirements like this.....



And instantly be shown a range of cars available for that need....



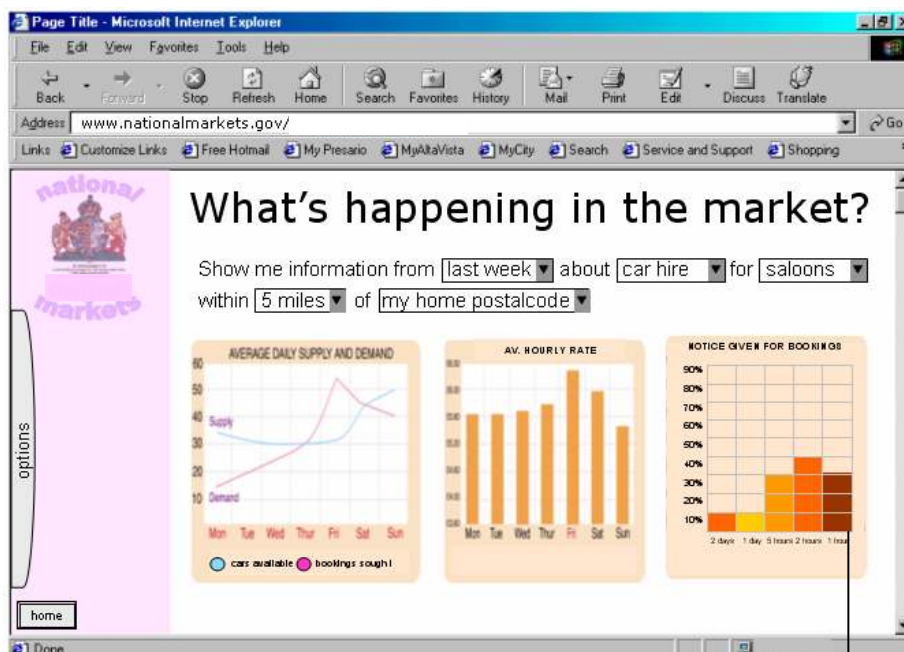
Cars with owners who won't drive them to the station show arrows: the system has found a delivery driver and built them into the transaction

Each provider of car hire is graded by the system based on their track record. Higher grades are provenly reliable; so much so, completion is underwritten by the system. But they are likely to charge a premium. Within each grade the available cars are in price order: cheapest on the left.

The system is calculating a price at which each available and contactable seller will provide the buyer's needs - it factors in personal details like how far the seller has to travel, how much notice they are getting and how reliable the buyer's track record. Sellers are excluded from any transaction that doesn't meet their requirements.

This demonstration uses technology called "Guaranteed e-Markets" which is uniquely applicable to the needs of a Slivers-of-Time system. On this screen it is showing a range of specific cars available from any source to meet tonight's train. This market is open to anyone with a car they want to let out, on whatever terms they wish. To enter the market they simply have to input the system-compatible code that came with the vehicle's current roadworthiness certificate. Sellers may be local garages, car hire companies who want to add these markets to their range of business channels or even individual motorists who might decide to put their car in the market at times when they don't need it. Any seller has control of their pricing and can stipulate the kind of buyers to whom their offering is to be displayed. They might for instance decide their car only be displayed to buyers who have clocked up at least 50 complaint free car rentals from the system already.

Entering the market costs nothing, takes a couple of minutes and is under the seller's total control. Insurance can be instantly built into each hire through the system's markets. Individual sellers can decide whether the market is right for them because the system outputs all data about patterns in any market to anyone who wishes to see any part of it.



A Bristol car owner might have looked at this screen and observed high demand at weekends in his area at the moment with low supply and high prices being paid, but bookings tending to come at short notice – the opportunity, if he wishes to take it, is clear. He has total control over who can hire his car and the price charged.

If the buyer wants to hire one of the cars on offer he is given an online contract that is neutral, not favouring the seller as are so many consumer online contracts, which he signs with his password. Once signed, the cash is taken from his account and held for, perhaps, 48 hours. If the system is not contacted by either party in that time it then releases the funds, minus its own small charge, into the seller's account. However, if either complain about the other through a dispute screen, funds are frozen and, if the software can't get one party to accept responsibility, the case can be referred to a low level court automatically with any judgment input into the system, possibly resulting in a downgrading analogous to court-awarded penalty points on a driving licence.

There is further functionality that might drive take up of the new system. Anyone can repackage the service adding value – and charges – in whatever way they wish. Individual users might see the markets as a service from Virgin, Saga, Cosmopolitan magazine, a high street bank, their local community organisation, a well known supermarket or any other provider that chooses to offer their own version of the national system. The majority of users may never see the basic public utility screen displays. The system works for, not against, existing intermediaries as well as creating endless opportunities for innovative new services on top of the basic platform.

Further functionality can sit behind these markets. For example, new forms of investment can be opened because Slivers-of-Time is constantly monitoring patterns of utilisation in its markets. It might for example show that the market for delivery drivers who ferry vehicles around Bristol is approaching maximum utilisation; virtually every driver is being hired all the time they are available. It might be that a barrier to entry for new sellers is their insurance. That creates an opportunity for an investor, perhaps putting in £10,000 that is used on a transaction-by-transaction basis to insure vehicles in the care of grade 4 or above delivery drivers around Bristol. In return the investor stipulates a mark up of perhaps 12% on each booking that is added to his capital. If that is seen to succeed another investor might capitalise on the same opportunity for only 10% transaction charge, and so on until the market is at equilibrium.

There could be similar investment funds paying for training in markets that are short of sellers, equipment required by tradespeople and so on. In each case the system identifies the market need, displays all the statistics to potential investors, takes the cash, asks sellers meeting the investor's requirements if they want the funds and will undertake the associated commitments then tithes the sum due back to the investor automatically while monitoring the recipient for compliance with his conditions. In the same vein, the system could profitably operate a very sophisticated parallel economy ensuring even those in the most deprived areas have a worthwhile medium for trade. This is the sort of facility New Markets Technology can make routine if unleashed in a public utility model.

It is the speed and safety of purchase coupled with openness to any seller, ultra-low charges, depth of information and sophistication of technology all applied to markets of diverse low value time-based transactions that make the public utility markets unique.

8) Effects of "National E-Markets"

There must be no pre-determined agenda for this system beyond being as accessible as possible for any legal seller, then ensuring the best possible match for each buyer's requirements. It operates across any sector in which a franchisee meeting system standards wants to launch a market that immediately connects into all the existing markets to meet buyers' needs. The system is not anti-corporate for instance. Big players are free to buy or sell in Slivers-of-Time if they wish but they do so on the same terms as other users. We can only guess at such a system's cumulative impact.

In each sector for which it provides a service the new system should offer (a) the cheapest transaction costs and therefore cheapest prices (b) all the information required by potential sellers to decide if, and on what terms, they will enter a particular market thereby increasing competition and expanding the market (c) unique levels of protection for both buyer and seller that build on top of even the

most comprehensive identity and trust mechanisms available today, even national ID cards would simply be a starting point for Slivers-of-Time ' protection by constant market validation (d) market developing benefits such as investment in reliable sellers who need certification, or facilities, to enter more profitable sectors. This should ensure early take up, which creates a critical mass of buyers and sellers which then translates into that marketplace becoming the logical first port of call for both buyers and sellers.

Additionally, these markets are likely to drive increased flexibility of offerings so buying can become ever more precise. At present, for example, the market for self-drive car hire bookings of 2 hours or so is virtually non-existent because the economics of fixed location car hire depots make it impracticable. But in a world where anyone can read patterns of local supply/demand/pricing and put their car, on their drive, into the local market when they don't need it while retaining total control over the hirer and knowing insurance and delivery to a buyer can be instantly built in to each booking we might see car-hire moving towards this kind of atomization. This is likely to attract all sorts of new resources, currently uneconomical to trade, into the economy.

The immediate effect is likely to be a move towards smaller, more localised transactions, because they have become better value and easier for the buyer than other forms of purchase. Local sellers don't have – and don't need - the branding, administration and fixed overheads that large corporates do. Local enterprises like cafes, shops and small scale schools can tap into a deep supply chain that is every bit as efficient as the ones built by corporate Goliaths, but more flexible; it's instantly open to any seller. Money should start to circulate locally. (A useful facility here is that Slivers-of-Time can have a Community Banking function allowing anyone to operate as a self-employed teller transferring coins and notes into digital deposits or turning digital earnings into cash.)

Canny corporates may begin to incorporate Slivers-of-Time into their business processes. If it is effortless and cheap to employ a guaranteed local seamstress at short notice, and equally easy to get someone to transport items around any locality, perhaps clothes retailers will go back to selling garments waiting for a tailored fit rather than forcing their customers to choose between factory imposed sizes?

Similarly a new market in “holders”, insured individuals who undertake to be available to receive goods on behalf of neighbours then arrange final delivery, could solve the “last mile” problems bedevilling the long distance delivery industry.

Would these benefits reach down into blackspot areas of abject economic deprivation? As long as there is some sort of demand for something then an initial market can begin to function, that will enable reliable, conscientious, individuals to be identified and incentivized. Once these people can be effortlessly located, booked, transported and invested in (all likely to initially be at rates cheaper than the market as a whole) then there is a compelling proposition for any firm seeking locations for call-centres, manufacturing workshops, remote working and other businesses where labour costs are a determinant. Certainly those sellers may need training before they are ready to start transacting in this way, but one of the first markets in Slivers-of-Time could be for trainers who work with new market entrants, possibly seed funded as part of the consortium’s obligations.

Government too could see long term benefits: less need for regulation, more precise tax codes enabled with automatic calculation on each transaction, reduced welfare state, consumer choice in public services (instead of booking you into a physiotherapist your doctor gives you a coupon to be spent on the system at the time of your choosing among multiple competing individuals who have a code that shows they are approved suppliers within the health service) and rejuvenation of the economic fringes. Social-need-markets such as those that incentivize young people to do environmental clean-ups can become just as efficient as corporate purchasing is now, making that kind of imaginative initiative easy to launch and cost effective as well as ensuring the youngsters concerned are able to establish the record of reliability that could attract continued investment in their career.

Of course there are potential downsides. This would push public sector integration into online technologies beyond even the most blue sky pronouncements of units like the UK’s Office of Government Commerce. Like so many corporate employees before them, some public sector workers will object to that. As with all public infrastructure, the system could fail or be corrupted with dire consequences. Slivers-of-Time will enable new sources of competition for big organisations and, if they don’t respond,

jobs could be lost even as the market for less structured work might be expanding. These are the perils of giving the electorate more choice in how we buy and sell.

9) Why does this require government?

A sizeable section of the population would welcome the opportunity to access the kind of markets just described. Many technology companies have the skills to build such a system and would relish the returns. Does it really need government to make it happen?

To answer that question we need to briefly look at an episode in the history of money that is unlikely to ever be repeated. In 1832 the youthful American government decided to stop issuing banknotes backed by the state. As any institution could get hold of a printing press and issue notes, the politicians reasoned, why should government be involved? Create choice in money supply and let the market decide became their mantra.

The choice was undeniable. America's three decades of "free banking" spawned thousands of incompatible money systems across the country. Some were honestly run and some established niche sectors in which they were genuinely useful; a currency aimed at farmers in New York state was one example. But too many others were driven by directors who felt compelled to put their resources into short term returns and marketing rather than less visible facilities that might give a currency enduring value for its users.

In this environment, making any kind of purchase had to be preceded by negotiation on the form of payment. All users of cash had to monitor the contents of their wallet for fear of holding money in which everyone else had lost confidence. Of course, the inherent dynamism of capitalism could be relied on to address these problems. Booklets called "detectors" started to be sold every week listing the currencies that had begun losing value in the last seven days. They had to be read promptly; if you had a pocket full of duff notes it became imperative to buy anything off anyone who had not yet read the latest detector. Predictably, not all the detectors were accurate or honest in their intent. So, a new trade emerged: "shavers" would – at a discount –

buy notes in which townspeople in one area had no confidence while the cash still had value elsewhere.

The one choice Americans were not given through the 1830's, 40's and 50's was the facility we take for granted today: a coherent, ubiquitous, too-big-too-fail money supply broadly trusted by everyone. Faced with all the confusion and time-consuming requirements for using cash, swathes of the population simply reverted to barter, a situation that reached crisis point when soldiers had to be paid. Reluctantly in 1862 the government started to issue state-backed notes as an option for the populace and in 1871 the Supreme Court ruled that government issued notes were entitled to an enduring and unique status among money systems¹⁸.

Perversely, free banking worked against the wishes of the market. It's reasonable to assume that almost everyone wanted a convenient (which means dominant) money system to emerge. And it's likely that each of the 15,000 or so note-issuers would have loved their system to be the one that filled that lucrative position. But none of them could come up with any enduring advantage over the others across the whole economy.

For banknotes in 1840's America, read non-corporate electronic markets today. The fact that anyone can start a marketplace and establish some perceived advantage - in pricing, positioning, pools of users or technology - over competitors creates endless confusion for users and makes the cost of achieving lasting dominance over other players untenable. Some niche sectors are well served, eBay is the New York farmers' bank of its time, but the muddled, time consuming nature of online trade means most transactions occur without it. Outside of the corporate sphere we don't yet know what this technology could do for us because its potential has always been so dissipated.

As with detectors and shavers, attempts to resolve this confusion tend to become part of the bewilderment and simply add unnecessary overheads for users. (Think of the countless portals, directories, listing sites and seller endorsing sites with grandiose claims but, in reality, access to only a sliver of the market in each of

¹⁸ Information on the free banking decades from "Greenback: the Almighty Dollar and the Invention of America" Jason Goodwin, Penguin Books 2003 p174 to 222 and "The History of Money" Jack Weatherford, Three Rivers Press 1997 p169-177

hundreds of online sectors.) Except in small niches, no-one can break out of this cycle of potentially useful services being eroded as soon as they appear to be succeeding. Any initiative across hundreds of irregular, low level sectors, by even the biggest player in e-marketplaces would be hugely expensive and risky to launch but then quickly diluted by competitors chipping into the most lucrative parts of the operation with price undercutting or differently focused propositions. The I.T. companies are better off pursuing the corporate sector which has at least learned the value of focusing their authority to create stable marketplaces within their internal economies.

As with printed money, only one body can create an economy wide focus for the benefits of this facility by ensuring enduring advantage for one system - government. No entity in the private sector can pass the laws that allow such a service to be underpinned by the highest authorities in the land. Similarly no company has an incentive to create a completely transparent, genuinely accessible service in even the lowest level markets with fixed pricing for years ahead and any chance of user lock-in renounced.

Every country in the world now has a state backed money system based on benefits only government can bestow. In each case, the state has given the chosen system some degree of stability, endurance and ubiquity. That brings the overheads - in cost and time - of using that system to the lowest possible level while giving users confidence in printed paper rather than less portable assets. Instead of the meaningless short-term activity of new note issues that kept free banking dynamic, state-backed money has encouraged lasting innovation. We would not have the credit industry or financial instruments for instance without one money system becoming the dominant, no-thought-required, platform we take for granted today. Similarly, Slivers-of-Time is a stable facility on top of which others can endlessly innovate without having to constantly re-invent the basics.

Of course dominant systems can emerge without government involvement. Politicians contributed nothing to the rise of the QWERTY keyboard, Microsoft Windows or a standardised DVD format for example. The key to which technologies tend to attract a state-backed version is the search for national advantage. Does government (a) have anything to gain from bypassing the often paralysing

uncertainty, attrition, delays and vendor expense that tends to otherwise precede the arrival of a dominant standard and (b) have anything to offer the new technology that the private sector can't provide? To put it bluntly: there's no reason politicians should care that four incompatible digital music formats are probably going to have to slug it out for dominance¹⁹ before the technology becomes truly ubiquitous. Even if they did care, there's little they could do to resolve things: what does the state have to offer a music format? But government has an array of facilities to offer low-level e-markets and every incentive to apply them, if only because it is the taxpayer who picks up so many of the costs of the new market inequalities.

Money supply aside, we are surrounded by technologies which have met the two tests above. When motor cars first emerged, for instance, road building swiftly entered its own free banking era with uncoordinated toll routes being enthusiastically thrown up by enterprising landowners. But this was followed by coherent planning backed by compulsory purchase and legally enforceable Highway Codes as politicians realised the national advantage to be gained from offering roadsters one co-ordinated network. Similarly, the early airlines worked within competing systems of air traffic control. It was only when governments introduced state backed systems that air travel achieved higher capacity while becoming safer, easier to insure, cheaper and more competitive in national territories. Postage, water supply, railways, electricity, telephones and broadcasting spectrum went through similar phases. New Markets Technology could simply be the latest facility for which government has significant benefits to offer, and everything to gain, from a national vision for its wider potential.

State-backed infrastructure tends to become an effective monopoly. Launching a competitor to the national money supply is unthinkable because of so many legal constraints. But that needn't follow with e-markets. If people don't want to use the state backed system there's no reason why anyone shouldn't launch an unending stream of alternatives at little cost. By enabling Slivers-of-Time, politicians will be giving their electorate genuine choice: there's a solid, possibly rather mundane, state-backed system if you want to use it; but all the short term churn of purely private-sector systems if you don't. At present we are only allowed to choose the later.

¹⁹ iWar looms as Gates muscles in on music, The Observer (UK) 25th July 2004 p4.

10) Why now? What next?

The benefits described in this paper, and many others for which there is no space, are not a utopian dream. The building blocks of technology for these markets are all but ready. Having watched eBay's vertiginously profitable demonstration of the desire of so many micro sellers to get online, financiers are likely to be forthcoming if the framework establishing such markets is clear and realistic. What is missing is the sense of direction from government.

Around the world, politicians are struggling with problems that stem from widening market inequalities. But perhaps the people who should be invited to solve those issues are the ones that created many of them through the brutal efficiencies they have successfully delivered for their corporate clients? Like those clients, government could now define a high level vision for New Markets Technology making sure that it delivers maximum benefit for the electorate then invite the I.T. and business services industry to fulfil it, at their own risk and free of political interference.

The ideas behind Slivers-of-Time have been around for some time but it is only now the economics of computing have reached the stage where deep sophistication could routinely be applied to such fragmented and low-value transactions²⁰. Equally, a concern is often raised about such markets benefiting only certain sections of the community. But web transactions are no longer confined to the usual suspects: "the over 55's have flooded online over the past year and they are spending more than any other age group" noted Verdict, a British retail consultancy, in early 2004²¹. Economic history suggests that some sort of online market system working within a state backed framework is becoming inevitable. Where governments can create national advantage out of an emerging technology at least some of them have always done so.

²⁰ Specifically the proposition has been waiting for what we now know as Blade Servers, high intensity centralised computing with negligible costs for each transaction performed. The first Blade was launched in 2001, Dell announced their offering in 2002 and Sun Microsystems in 2003.

²¹ Santa's Helpers: retailers are the top performers online". The Economist, Survey of E-commerce, May 15th 2004.

That's not to say it will be easy. Understandably policymakers will want the reassurance of a pilot scheme before they advocate a new marketplace for the nation. But achieving a snowballing, eBay style, undeniable success on a small scale is unlikely. Imagine the government of 1840's Britain had sought to prove demand for their notion of universal "penny" postage with a pilot in Penrith, a town in North England. The trial would almost certainly have failed because no-one in Penrith would have adopted a new system to send messages to fellow townsmen. They could just go round and talk to them. What persuaded the people of Penrith, along with the rest of the UK, to progressively learn to read and write then cut holes in their front doors so they could utilise the new system was its emerging scale. The promise of travelling while remaining in touch with home, enjoying cheaply delivered publications and experimenting with mail order within a ubiquitous postal service created soaring usage. But government had to lead with the vision.

Similar dynamics apply to Slivers-of-Time. Time based markets open to any seller will remain hugely complex, uncertain, potentially liability ridden and uniquely difficult forums in which to build "day one" usage. The concept is hard to prove in a self contained pilot because the benefits of an experimental one-off trial are unlikely to outweigh these hurdles. It could take a clear indication that the new system is set to mature into something much bigger to attract momentum from early adopters. Someone has to provide the funds for that launch and its anticipated growth curve to national, interlocking multi-sector, usefulness.

That could be the Catch 22 of getting Slivers-of-Time off the ground. Governments are understandably unwilling to make a bold commitment to an unproven, intangible, facility. But without government commitment, private sector funding may not be forthcoming to create an early success. It is policymakers who should break this impasse. Problems of social inclusion, community breakdown and economic inefficiencies which Slivers-of-Time tackles are priorities for the state; they are sadly not concerns for investors or corporate shareholders. Social justice arguments apart, when the UK government, for example, has to budget £120 billion a year rising to £140 billion for supporting the economically inactive²² it is reasonable to expect our representatives to explore every possible means of widening economic activity.

²² Social Security Benefits allocation in the 2004 Government Spending Review, http://www.hm-treasury.gov.uk/media/D30E9/sr2004_annexa.pdf p2.

Politicians certainly shouldn't rush unthinkingly into the policy outlined in this paper. But they could begin to lead the I.T. community down this road with both sides learning in the process. Suppose a government announced that "universal access to the modern marketplace" was now an official aim and, if it became clear that releasing state-backed facilities for e-markets was what it took to make the aim a reality, they would be prepared to do so in the future. That announcement alone should galvanise diverse finance, technology and community level organisations into allocating resources to developing their position within that looming opportunity. Sparking a range of pilots should then become progressively easier.

Specifically this paper advocates that policymakers instigate a report to be compiled within government, perhaps over a six month period that asks: "*Are there benefits to be obtained from e-markets backed by the state? If so, how are they best initiated?*" The report writers should then hear from technologists, financiers, inclusion groups, economists and government sources before pronouncing a thoughtful answer which can form the basis for detailed policy work if it is merited. Meanwhile, that report creates a focus for the diverse community whose resources will be needed to launch Slivers-of-Time. The expenditure required to generate a report would be a fraction of government funds allocated to e-learning, e-government services, e-democracy, public sector e-procurement and e-community projects. But open marketplaces are potentially the most potent facility the e-world has to offer, once mature they enable anyone to start earning money immediately even if it's only by undercutting others. Make services pushing other government objectives a seamless part of a new marketplace and it might boost their take up beyond anything achieved by stand alone sites.

In the meantime it may be that far sighted local politicians are able to kick-start this sort of service on sufficient scale to create a viable system within their area. Or, that public funds can be diverted from other technology trials to pilot new forms of socially desirable marketplace. But we should never assume that public utilities are just an automatic consequence of the technology that underlies them. Mass public water supply did not follow smoothly from the invention of new pumping technology; it was widely regarded as hopelessly ambitious. Universal postage was deemed pointless in learned journals when it was launched, during an era of mass illiteracy²³.

²³ Rowland Hill, *Genius and Benefactor*, Colin G. Hey, Quiller Press (London) 1989 p72.

The case for regulated “government roads” was incomprehensible to exuberant motoring pioneers. In all these cases the new infrastructure achieved far greater take up than anything that had gone before. Although probably inevitable in the long term, if the kinds of marketplace described in this paper are to become universally available it will be because, in the short term, a first group of politicians are prepared to gamble on their electorate’s hunger for new forms of enterprise.

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