

Open Source Solutions Symposium

Presentation by

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A THEORY OF OPEN SOURCE INFORMATION

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Good afternoon, as has been said I work for Jane's Information Group as the Group Managing Director or CEO.

My presentation is called 'A Theory of Open Source Information'.

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This talk investigates three regional and international trends that affect and are affected by open source information.

The three trends are:

- A nation or regions export ability
- Technology and the transfer of ideas
- And third regional culture and government censorship.

I shall relate these trends to two periods in history - the Renaissance and the current technological and information revolution.

The basic message is that export wealth accompanied with technology brings massive amounts of open information and global ideas. These trends exert pressure on existing governments to change.

For the romantic among you these three trends can be translated into an Elizabethan Tragedy representing the wheel of fortune, progress and fate.

For the rest of us I have some other examples:

Why Playboy magazine will lose its market,
Why we become ungovernable the more prosperous we become,
And why democratic governments are losing their power,
How I believe Bill Gates' information strategy is wrong.

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To begin - It is an assumption of the Western world that progress consists of the advance of science and technology replacing craft and mysticism. Yet people are increasingly bewildered by the science and technology that creates such things as, terrorist bombing and the Internet. You can't have everything - where would you put it?

In the digital age you've got everything - now how do you buy the time to use it?

Can we explain these apparent contradictions?

Well in a general sense, this apparent progress of civilisation is not a uniform drift towards better things. It may look like this if we map it large enough, but such broad views obscure the details.

And this is born out by a look back at another time of technological turmoil.

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The sixteenth century saw the disruption of governments and Christianity and the rise of modern science, information and technology. Giordano Bruno was the era's martyr and his death in 1600 ushered in the first century of modern science.

The Protestant uprising for all its significance was a European domestic affair - the East viewed it with profound mistrust, yet its true significance was to be found later here in the New World.

Open Source information begins to have global significance, as science and technology spread from the old to the new World on the back of a fundamentalist revival called the Reformation.

In the sixteenth and seventeenth century the major shift was from an old world European view to the potential of the New World.

On the cusp of the 21st Century, technology has shifted our view from western civilisation to global individualism. A world view the founding fathers of the Renaissance would have profoundly endorsed.

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Our present openness with massive information flows stems partially from those Renaissance merchants and printers. The first mass produced product was born around 1450 and it was the printed book - it symbolises classified information becoming open - it was the Gutenberg Bible.

Moveable type was the fifteenth century's idea of the digital bit. Neither has a fixed information content. But both have the potential to deliver any message.

As the new bible represents information, Venice represents export trade. Venice's commercial power stemmed from the known cartography, the established geography and a commercial treaty it had signed some centuries earlier. This meant Venice traded with Muslims rather than warring with them.

International export trade gave Venice its strength and vibrancy.

Self interest and political wisdom spurred its pragmatism.

Later, when the more profitable sea route around the Cape of Good Hope was discovered, its position as the commercial crossroads between East and West was exposed and vulnerable. Henceforth, Venice diminished in importance.

But the openness created by the Renaissance lasted centuries and produced a new confidence which the New World inherited.

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Then, as now, Open exchange spells trouble for rigid organisations and traditional national governments.

In the 20th Century similar changes are occurring. Since the end of the Second World War money has become international alongside trade.

Whereas sixty years ago financial systems were insulated, national and controlled by politics they are now controlled by multinationals and markets. Markets now have power not governments. Markets can topple governments quicker than opposition parties or voters.

The adding machine and its evolution into the microprocessor has altered the division of labour. The individual can in all continents, do the work that five were doing two decades ago.

Alongside finance and technology a wealth of ideas, raw materials, cheaper workers have, by the break up of the Soviet Union, been released into this global marketplace.

The issue is no longer whether resources, technology, finance, skilled or unskilled workers are available, but only can someone prove an economic return. This used only to be the case in the West, it is now true everywhere.

Technology transfer from country to country and across regions, only a few decades ago took years. It now takes months, weeks or days. Patents, copyright and almost all trading legislation is becoming solely a commercial concern. Governments will have less and less impact on these global issues.

Governments will have to re-evaluate their roles if they are to understand the potential on offer.

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For the changes to the individual, let me give you a more trivial example:

Playboy the magazine, used an advertisement in the sixties to sell subscriptions. It characterised Playboy's European reader saying:

He is Swedish yet lives in Paris

He buys his suits in Rome

He works for an American Company

He drives a German car

His girlfriend is Spanish, and they have the same taste in English pop music

In the Sixties this individual was largely a myth, but if we change some of the characteristics this person is becoming real.

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The global middle class now looks like this:

He is rapidly becoming he and she

They probably have a first degree and an MBA

They will change jobs five to ten times in their working life

They will never stop their education

They will buy global products not just western ones

They are from and live in almost any country

They will never read Playboy

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Are there any underlying trends that suggest a pattern.

Governments of any type, from religious to democratic to fundamentalist may not say it, but they each know there is a Financial Law of Negative Political Return.

The more prosperous individuals become the less they want to be governed.

- The Financial Law of Negative Political Return works like this:
- When the average income is below ten thousand dollars per year, governments can easily control their population using propaganda, censorship and imprisonment.
- Between ten and twenty thousand dollars per year governments and religion become objects of cynicism.
- Between twenty and forty thousand individuals seek the best products on a global scale and a real open environment is created.

These three stages loosely represent the moves from agrarian to industrial to global technology.

In the third stage, as it has recently been shown with French nuclear testing in the Pacific, government information control fails. Government short termism will become shorter as CNN and a wealth of other media- influence foreign policy.

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So let me now say something about those governments.

Democratic Governments in general carry out two activities:-

First they set a nation's strategy by legislation.

Second, they control large organisations which provide protection, services and often goods to the nation.

They finance both activities by taxation.

These Governments control public sectors ranging from around 27 percent in Japan to nearly 60 percent of (Gross National Product) in Sweden. Most of these expenditures relate to responsibilities which governments have gathered over the last 100 years.

Many of these responsibilities are connected to a belief in nationhood. Single state politics. Almost all are outdated. Almost none understands what is happening in the world if their taxation systems can be used as a measure.

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A snap shot of export comparisons highlights some other interesting issues:

- In 1993 Hong Kong exported 62 percent of its Gross Domestic Product. Twenty three percent came here to America.

- The Netherlands exported 48 percent. 52 percent going to a range of European countries.

Like old Venice both Hong Kong and The Netherlands must trade internationally if they are to sustain their economic influence. Both have limited land areas and high densities of urban population.

Geographically both understand their unique position as a gateway in and out of Europe and in and out of East Asia and China. Both have global economies.

But more interesting figures are provided by the USA and Japan.

The difference in land mass is significant yet each exports a similar percentage of Gross National Product.

Whilst America still has a massive indigenous market, Japan has little.

Many commentators believe Japan's culture is more inward looking than almost anywhere else in the developed world. Of the 8 percent of its Gross National Product it exports, over 35 percent of it comes to America in the form of middle class toys - cars, motorbikes, TVs, VCRs, cameras etc.

America exports the same percentage as Japan but its base is far broader and more stable and has, at present, more potential for growth.

So you might ask why does the US effectively owe Japan money. It is **not** true to say, as has often been suggested, that US companies find it hard to make headway in Japan. Coca-Cola for instance has 70 percent of the Japanese soft drinks market.

The answer lies in East Asia's success. However if the analysis is correct Japan must be more susceptible to upheaval in the new Century than the USA or Europe.

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Let us look at East Asia's success.

The spectacular component of the current revolution is the general shift in the world economy's tri-polar globe of European, American and Asian. With East Asia for the next decade making the economic running.

If trends continue between 1995 and the year 2000, 40 percent of all the new purchasing power will be in East Asia. The region will absorb 40 percent of the global increase in exports.

East Asian central banks now hold 45 percent of the world's foreign reserves. While the United States and the major European countries are financially in the red - Japan, Taiwan, Singapore and Hong Kong uniquely do not have any debt.

Asia has succeeded because like the Southern Europe of the Renaissance it has found a way of opening itself up to international influences and then to use its own culture to exploit them.

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Asia success is built on six major reasons

1. The West has imported their goods.
2. Asia has copied and improved on Western inventions.
3. Work is as serious as education and saving

4. The West has provided external security
5. Asia is prepared to work longer hours for less pay than either America or Europe.
6. Finally, Asians have lent the West their money at interest.

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The beginning of twenty first century will see more activity in Asia, just as the twentieth was America's century. The twentieth was an age of rise and triumph for America - from film to jazz - from space to the moon. A country that for all its problems still enjoys the highest buying power per citizen in the world. It will not give up this position lightly, and it will look to increase its exports whilst confronting globalisation with all its ramifications..

However, on an international scale perhaps one of the most striking characteristics of the end of the Century is the tension between the process of globalisation and the inability of public institutions to assimilate its consequences.

Governments, not just the old ones, have had trouble adjusting to the world of satellite television, E-mail and global finance.

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Every new highway suggests frontiers, communications and a radical transformation of time, administration, commerce and cultural invasion.

This was true of the Renaissance trade routes and it will be true of the electronic 'Superhighway'.

- The individual consumer will increasingly choose the information content and delivery process.
- The speed of delivery will continue to change information's meaning
- Electronics will alter information's purpose and use.
- Software and new delivery systems can make information tailored to individual needs and requirements.
- Open Source information moves markets and changes buying patterns. It merges and blurs definition of secrecy and classification.
- Open Source may be paranoia for governments, military and industry, but it is finally a resource like any other to be exploited.

Today with our well worn cynicism we say the press prints the news not the truth. This like many fashionable sayings is not wholly correct.

Yet correspondents will often sacrifice coverage of long-term trends in favour of dramatic events whose real importance may be minimal.

The system is geared as much to amuse and divert as it is to inform. It responds inadequately when suddenly called upon to explain something - complex and menacing.

Perhaps two of the more obvious recent examples being the bombing in Oklahoma or the war in Bosnia.

There perhaps should be a health warning on all general open source information.

Propaganda will tend to overwhelm evidence.

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There is now no clear break between regional and the open world economy.

Technology and democratic culture has freed up multinational economics. Computers flow billions around the globe in seconds making a shambles of a nation's efforts to prop up exchange rates and support currencies.

Economic growth because of technology and open borders has meant a recent jobless recovery. People don't move, the production facility moves to and away from job seekers.

The burden for the traditional democracies in the new age will be immense. One example is the social and financial costs of the unification of East and West Germany.

The hard truth is that Western growth will have to be greater than the 2.6 percent of the last two decades for these regions to achieve a reduction in unemployment.

Given the world-wide economic situation, the issues of job creation and job protection are on the agendas of political leaders throughout the industrialised world. Although their ability to affect these trends is decreasing.

From now on, the most important criterion in trade will not be the nationality of a product or a service - a notion that has already become blurred - but rather where and to whom it provides jobs.

In the new order the West can no longer hope to dictate the rules. At present the G7 process includes no East Asian countries except Japan and after 50 years we still have a UN Security Council with only five permanent members.

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As I move to a conclusion I would like to look in more detail at communication and to suggest that definitions and mindsets are broadening but not fast enough.

Traditionally, communication was the passing of ideas, information and attitudes from person to person.

Later communication also came to mean a line or channel from place to place, a delivery mechanism.

By 2025 almost everything could be connected to everything else. Every product we make from books to cars could potentially contain enough intelligence to communicate with us and each other.

This apparent crisis of modern communications has been caused by the speed, formats, and breadth of delivery. Also by the individuals difficulty and the governments dilemma over the mass of content and the opponents need to understand all the signals.

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As government's lose their financial power they may resort, as they often have, when openness has threatened, to retreat and censorship.

Galileo was instructed by the Inquisition that he must no longer hold or publish or defend the concept that the earth moves.

He was sentenced to life which was commuted to house arrest and his books were burnt.

Worldwide there are at present thousands imprisoned because of the views they hold.

Because government economic power is receding many more will attempt to maintain their influence on information and its providers.

Vietnam in the last few weeks let it be known its government would attempt to control the incoming Internet for the benefit and well being of its citizens.

The world, as usual, is not short of information, but it is short on sensible assessment. We need broad access and wisdom as well as the Internet to understand these changes.

The amount of available content will continue to increase and the distribution channels and payment methods will become more diverse. As a publisher, my job will be to offer more complex and customised search, find and indexing systems with a myriad of payment methods.

For instance the index in the Guttenberg bible filled three percent of the content. On a CD-ROM with all the tagging and search and find techniques the index now takes up over 50 percent of the disc space.

It is particular and sensible access that publishers will increasingly sell, not content. Indexes not information - Bill Gates like Francis Bacon of the Renaissance believes that knowledge and content is power. Gates is at present buying up oceans of content. I believe he is mistaken.

Knowledge and content are important but context, authority and indexing are the vital elements.

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As the available information and the freedom of choice increases, the probability that any particular message will be chosen decreases.

As the technology and our education improves the spin doctors will also improve. All will get better at telling truth and lies.

The job of the Open Source Community of information analyst, commentators and intelligence officers is to separate the truth from the rest and to stay, if not one step ahead, at least along side them.

Jim Woolsey in November 1993 gave an address to the Executive Club of Chicago.

Frederick Jackson Turner, Woolsey argued, gave America a challenge in Chicago in 1893... "the American frontier had come to an end and with it the end of an era." Woolsey said it pointed to a common conviction ... 'when one frontier comes to an end, America rightly always believes another one opens.'

Technology and this new open information environment offers that new challenge.

There is a notion that because the Cold War is over and information is on overload, history is at an end. To suggest that we no longer need intelligence is nonsense

The new open information age may require a more fragmentary learning paradigm if we are to deal with the wealth of information and ideas. More perhaps from William Burroughs and Shakespeare than The Readers Digest or Henry James.

The new knowledge when used most effectively will not have linear patterns or a traditional narrative structure.

The conventional response to all media, namely that it is how it is used that counts not the delivery medium, misses the point of the new technology. The effect of the medium is made strong because it is given another medium's content.

For example the content of a movie is a novel. But the effectiveness of a movie is more than just the novel at work.

Printing changed learning and marketing processes alike. The book was the first teaching machine and also the first mass produced commodity.

Print provided a vast new history of past writing which made a personal memory inadequate.

It's not the amount of information that defines open source, but its access, timeliness, authority and presentation. Finally, usefulness is what gives it worth.

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In conclusion, this talk has ranged a long way using trends in export economics.

Yet the theme, I believe you will recognise. At the outset I took the Renaissance as the model which was expanded and built upon by America.

During this transition and expansion the Western middle class individual became more dominant.

The regional expansion is now being driven by the Far East and in this tri polar world, Europe, America and the Far East technology, growth and uncertainty is spreading like a new Renaissance.

Government everywhere is losing power to individuals, multi-nations, trading blocks and federations. We are at the beginning of a change as fundamental as the Renaissance and it is driven by global economics, technology, and information..

As I finish I would like to just say something about our Company's role in this time of turmoil.

Jane's job is to investigate governments, industry and commerce. We gather information and report the results in a form, domestic and international which the law and our councils opinion describes as unclassified open-source information.

Jane's agenda is to be editorially accurate, impartial, and authoritative and like most others to make a reasonable profit.

As the world again re-orders itself away from national governments and towards a more open tri-polar model, where power is widely spread and financial influence less easy to pinpoint we look to the new century without prejudice or favour. This tri-polar system will not maintain indefinitely. The world has an unnerving habit of progressing in one direction, only to re-order in another. Ideas, power and money will win out. Perhaps governments will find new ways of taxing and controlling, but for the next decade and more multinationals will control the means of production probably relegating this brief period of individualism to a few pages of history.

The most critical challenger of the economic and technological revolution is not how to hang on to the old order, but - How will the West be able to maintain this open trade system - integrate the new players - and prevent a violent backlash as Western standards of living fall?

--Thank you for your attention.

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