

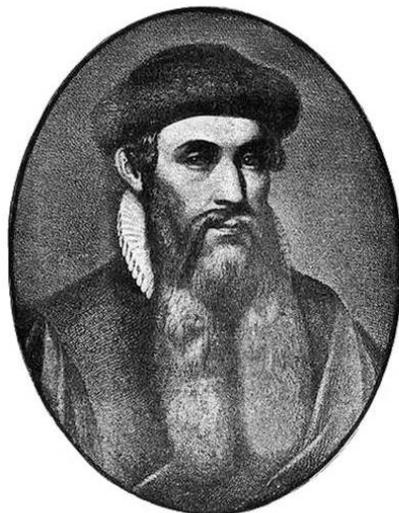
REAL REVOLUTIONS – AND A WORLD CITIZENSHIP EMPOWERED

“If you change the way you look at things, the things you look at change”

The Real Revolutionaries

Ask anyone to nominate their two candidates for the posthumous award Greatest Revolutionary Leader in the history of our race, and you will get a wide variety of *wrong* answers. At least that is my less than modest contention as I give you the names of two people I believe have brought about and enabled the most significant changes in supporting the free spirit and progress of the largest number of people in the history of mankind. If we agree that Revolutions and Revolutionaries bring very great change (in my view the expectation is for *positive* change and the betterment of the human condition), then “my two heroes” outshine all the nationalistic, colonising, empire building, despotic, charismatic, non charismatic, well meaning and not well meaning, political, money grabbing, virtuous - and other names that are put forward as candidates.

The names of my two nominees are not so frequently spoken – although one is getting more recognition latterly than ever before despite having started a revolution that changed the world more than twenty years ago. My nominees? – Johannes Gutenberg and Tim Berners Lee. Moveable type printing technology and the World Wide Web enabled through the internet, both revolutionised communication and connectivity and empowered more world citizens than any other inventions, movements, political leaders, than indeed *anything I* can bring to mind. If revolutions are meant to be world changing – these two top anything I can even imagine!



Johannes Gutenberg



Tim Berners Lee

Visions and Realities of Empowerment and Purpose

Let's ponder for a few moments on how much *power* Gutenberg and Berners Lee have released – *if we can think big enough!* It is true that the first known moveable type printing press was developed in Ancient China (so many great inventions began there!). Bi Sheng in about 1040 made a breakthrough with a *moveable type* press – and having moveable and not fixed type was a necessary liberation of printing technology making typesetting faster and flexible – but Bi Sheng used clay which he baked to make it hard. His invention worked, but the type was too fragile and little progress occurred between 1040 and the fifteenth century. In the 1450s, Gutenberg, a prodigious inventor and entrepreneur, a goldsmith originally, devised a hand mould that enabled the very rapid creation of metal moveable type.



Revolution 1456

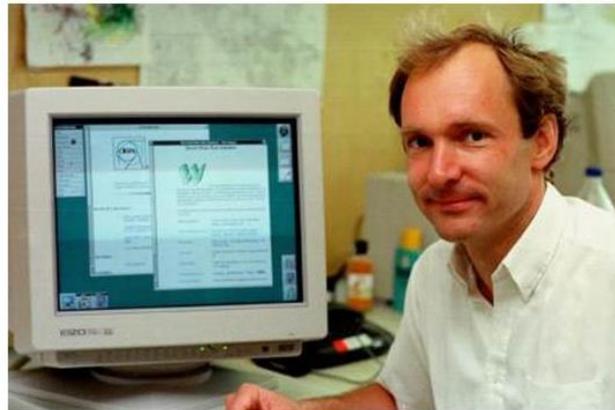
The Gutenberg Printing Press heralded the introduction of assembly line book production. The new technology could produce almost double the number of books a day than the old. A single Renaissance Printing Press a la Gutenberg might produce more than 3,700 books a working day – WOW ! Revolution on the way – because in Renaissance Europe the citizens and the market were ready to take hold of mass communication methods and change the structure of society and the world. The circulation of information was unrestricted - and ideas – many of them revolutionary in themselves could cross borders and boundaries and capture the hearts and minds of the masses at the time of The Reformation. It was Jules Verne (some

say Victor Hugo, it *was* a Frenchman) who later wrote – “*There is nothing more powerful than an idea whose time has come*” Gutenberg’s time had come – and he, in modern parlance certainly “hit the ground running”. The economic and social circumstances in that period of medieval Europe were wonderfully favourable to a rapid increase in literacy and learning, not least in the middle classes, where the entrepreneurial spirit and innovative approaches to capitalism were ripe for exploitation. “*The time had come!*” Gutenberg was a genius who gathered together many of the innovations others were developing and incorporated them into printing press design and functionality which stood the test of time. Although it was more than twenty years after the Gutenberg press was perfected in Mainz in the 1450s before a book appeared in English, in that period more than 1,500 printing presses were started up in Europe and by 1500 it is estimated that more than 20 million volumes were in circulation. By 1600 it had become 200 million. A revolution indeed. And consider the enormous logistical and other challenges that had to be overcome in those distant days to make it happen! If you want to study more of the history “after

Gutenberg” it is all documented in many volumes – and you can get a lot of it from the internet of course. In summary – and without doubt – the printing press was a revolution in the democratization of knowledge and information exchange. A *huge* revolution!

It is interesting that five centuries separated Bi Sheng and his clay type printing and Gutenberg’s revolutionary work. The world had to wait about the same period – another five centuries for the next great revolution in communication and connectivity and an even greater and more profound period of democratization of knowledge and information which is still in process and whose eventual impact is still wonderfully undetermined. And when it came it began quietly, given birth by a man as intellectually powerful and inventive as Gutenberg, as innovative and entrepreneurial in his own determined way. The World Wide Web has already proved as revolutionary as the Gutenberg Press. Some say more so. And its impact and influence have been global and huge and are still expanding and developing. There is no end in site. The latest generation of world citizens have been born as “digital natives” in the world of the World Wide Web and Internet. Those early beginnings happened in CERN, the particle physics laboratory in Switzerland where Timothy John Berners Lee , engineer and computer scientist proposed in 1989 “a global hypertext project” and wrote the first World Wide Web server “*httpd*” and the program “World Wide Web” became available within CERN in December 1990 and then on the Internet in 1991.

Today, everyone can be connected with everyone, theoretically, all individuals with the necessary equipment can have an individual channel of communication, the World Wide Web has become with the Internet big business and big benefit enabling connectivity in all walks of life and in the far corners of the earth. The world has been transformed and is being transformed still. *People* can connect, communicate, co-



Revolution 1991

relate, co-create, and innovate. Metaconnectors and ordinary folk meet and communicate by the billion – compared to the Gutenberg millions. We read, learn, write, communicate, buy, sell, debate, invent, simulate, formulate, and who knows what we will do in even five years time? Tom Peters in a recent book claimed “The World is Flat” – commenting on the ease of passage of information on the Internet and Web. Others claim “The World has shrunk” and can exist on my desktop or in the hand that holds the mobile telephone. The rise of the mobile and wireless device – handheld is only the latest wave in a revolution that may never end. In 2013, Sir Tim Berners Lee and four others were awarded The Queen Elizabeth Prize for Engineering for “*ground breaking innovation in engineering that has been of global benefit to humanity*”

Power to The People

Isn't that what revolutionary leaders have often claimed to be the vision and purpose which has driven them to seek disruptive change? Power to the People! To blow away the old and bring forth the new? And entrepreneurs have aspired to prove Josef Schumpeter's proposition of 1911 – that they "*blow gales of creative destruction*". The World Wide Web has made it all so much more possible – virtual reality has become reality – and in the context of world history – in no time at all – it has been like the batting of an eyelid in comparative terms. In all walks of life, in virtually all parts of the world, greater freedom and empowerment have become the order of the day. "Democracy" begins to assume its true meaning and rises from the damaged goods shelf to which it has been despatched by successive generations of politicians, to mean something, and "Freedom" and "Good Government" have become spoken of when rating the performance of nations and national leaders, rather than the hollow definitions of political systems and mantras such as "socialism, liberalism and conservativeism". In more ways than ever we live in a world set free. And perhaps we are only at the end of the beginning? What we have seen manifest in various parts of the world in recent times is how the speed and power of instant mass communication can topple governments and change the order of things rapidly. Not always for the better – but power reaching people suddenly, including those who never had it before, is a potent force and learning how to best use it is not an instant process. Disruptive change naturally has in its wake casualties and pain.

But so much *has* been for the better. Some of the most stunning examples of power and influence extended to the masses have originated in one of the poorest nations in the modern world. Two great heroes have made huge differences, one riding from day one on the waves of the internet revolution and changing lives of communities by making mobile telephones widely available. Iqbal Quadir and his creation – Grameen Phone (for which read "Rural Phone") is undervalued outside its original home in Bangladesh and yet has, in the founders words, "*raised productivity and created wealth by enhancing connectivity*" Connected people are more empowered and able to organise. They are also able to learn faster, do better business and develop more joined up communities. The poor villager who rents a mobile phone is not only better connected but has something others can rent to use, the money earned being available to invest – perhaps in a goat. Thus a virtuous circle develops and the processes are repeated and replicated. The Grameen Phone story is inspiring and worth detailed study beyond this short encounter. These days, Bangladesh enjoys some 99% mobile phone coverage in populated areas, through 8,000 base stations . Technology and connectivity have started and nurtured processes of "empowering the poorest". Before the internet and world wide web, Nobel Laureate Muhammed Yunus in Dacca, had started his own revolution in microfinance in Bangladesh with Grameen Bank. Founded in 1976 – with the vision of "connecting the poor to their potential" before internet connectivity, Grameen Bank had built up a considerable head of steam. The pace and scale of acceleration were impacted significantly with the boost

brought by the world wide web which enabled microfinance go online and increased the outreach dramatically. By 2006, the model had inspired microfinance schemes in 100 countries. More than 7 million loans had been extended (many more now!) – with an average value of \$US 100each. Nothing like it on such a scale had been seen before. The Grameen Bank financing model enabled Iqbal Qadir and his supporters to create and grow Grameen Phone – thriving still. The true impact of Grameen Bank and Grameen Phone cannot be measured. The psychological impact of changing millions of mindsets to “why not” and “can do” from acceptance of a previous acceptance of a status quo, was game changing. Iqbal Qadir’s work extends outwards now into diverse aspects of entrepreneurial social enterprise from his base at the Legatum Center at MIT Harvard.

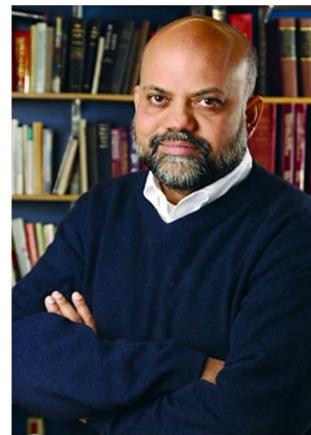
Muhammed Yunus
Nobel Laureate



Bangladesh leads the World

Microcredit and
Microfinance
Grameen Bank
“Lending to the
poor online”

Iqbal Qadir
Legatum Center
for
Entrepreneurship
MIT



Also from and for Bangladesh

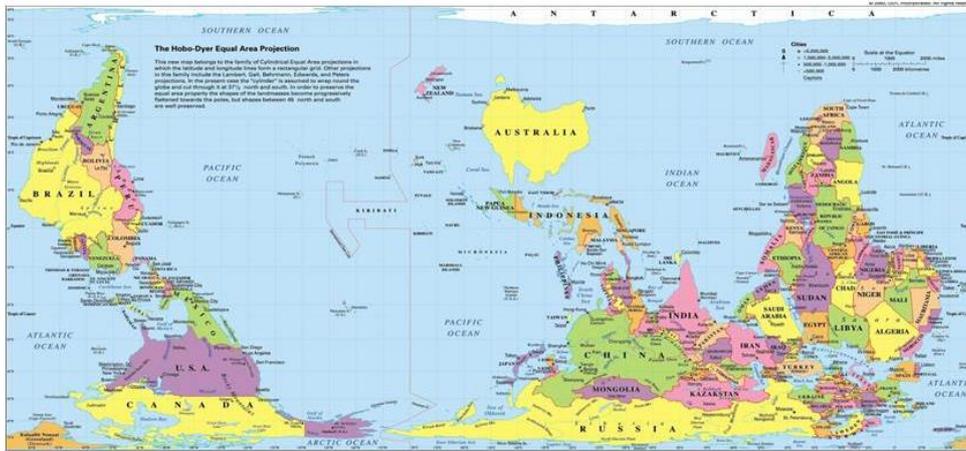
Microloans and
Cell Phones
“Power to the
People”
GrameenPhone

“Why Not?” Two little words that have changed the world

If we look back in time and bring to mind those people – often heroes and heroines who have changed the world, they have invariably been those, who to quote George Bernard Shaw have not “*looked at things and asked why?*” but have “*Dreamed of things that never were and asked WHY NOT*” “Why Not” people change the world. Other categories with a “.*Yes But.....*” mindset more often stop things happening or slow them down. Leonardo Da Vinci was a “*Why Not*” polymath, Chares Darwin’s constant “*Why Not*” restlessness brought profound new knowledge and like, the characterisation of “*The Secret of Life – DNA – The Double Helix*” by Francis Crick, James Watson and Rosalind Franklin – changed the world. And all of those great discoveries happened before we had a World Wide Web. And there have been many more. The Worldwide Web was constructed by “*Why Not*” people and more and more empowers and encourages millions – indeed billions to step out and test something new and innovative.

A World Upside Down – or whatever way you want it

Our world turned upside down



“If you change the way you look at things – the things you look at change”

Maps of the world historically follow a simple pattern and format. North is always at the top of the page. Why not turn it on its head – the World Wide Web has done just that. This is “**The Great “C” Age :-**

- ✚ **C** for Connecting
- ✚ **C** for Convergence
- ✚ **C** for Confluence
- ✚ **C** for Co-Creation
- ✚ **C** for Collaboration
- ✚ **C** for Co-Opetition
- ✚ **C** for Conscious and Collaborative Capitalism
- ✚ **C** for the Co-evolution of ideas

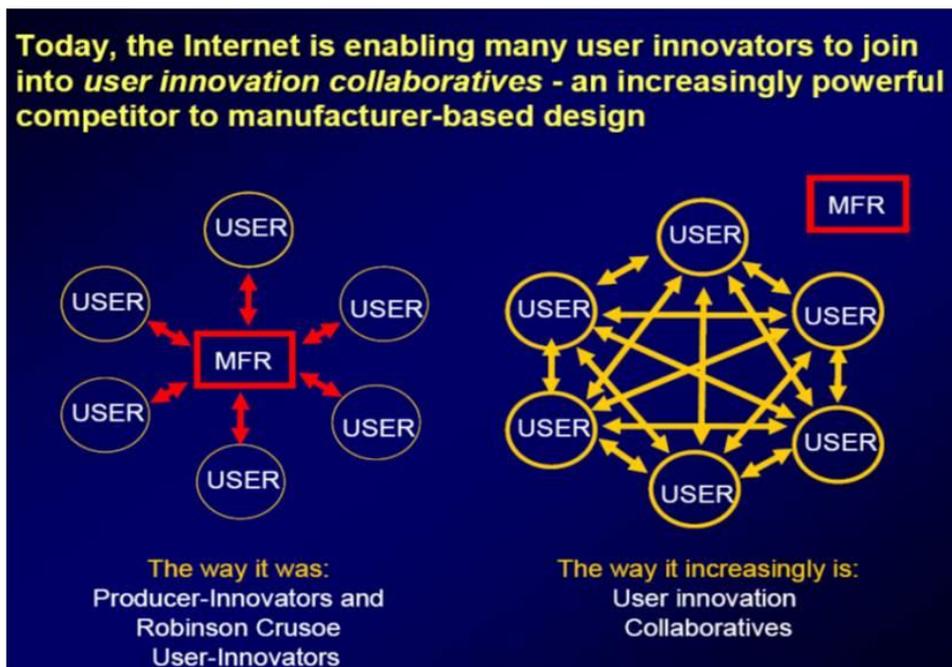
And the **I** for **I**nternet is also the **I** denoting **I**mpact

Institutions Beware – There is a Crowd About

The evidence of the latest great banking crises – institutional failure driven by greed on the up and fear on the down, are but the latest in a series spanning the history of time. The literature of speeches of great leaders from Cicero in the Roman senate in BC 55 and the third President of the USA Thomas Jefferson in 1778, resonate with passionate warnings about the disasters which might befall nations where national economies were profligate and uncontrolled and where banks were permitted “to become more dangerous than standing armies” (Jefferson). And yet it was allowed to happen and to be repeated. Institutions corrupted to serve themselves and each other, rather than the citizens whose incomes and livelihoods they controlled. Economies declined and

nations failed to realise the potential in people. And the “established favoured” called the shots and ran the show.

But” hey there – information and imagination have led to aspiration – in growing abundance and “*Why Not*” is no longer the language nor the mindset of the few. The digital age is cultivating a Brave New World. Billions are connected and ideas can be promoted and promulgated. The Crowd is out there - and everywhere, and it is accessible and persuadable and it has money that is free of institutional control – and can flow freely to support new ideas, R&D, new products, new companies, community projects, good causes, charities and more.



Shift of Influence and Power in Product Development and Marketing. “Marketing is no longer a means to an end – but an end in itself” – *Grant Leboff*

And the Crowd can be local, national and global. It can be general, specialist, technical or arts focussed – indeed it can be any kind of crowd assembled and acting in support of a cause. Some crowds want to make big returns of \$\$\$\$\$. Others want to see societal results. Some expect to see both for their money. Crowds can invest; crowds can lend and get repaid. And the members of crowds can feel proud of their participation and their ownership of products they helped get designed and to market or energy conserved, or maybe a new community centre up and running. Crowd members can swell their money pools if they have a mind to invest for profit. And whilst there is good and sensible control (we all hope and expect in terms of regulation) freedom to act without expensive institutional bureaucracy taking a % cut at every step becomes the order of the day. A revolution – of course – a revolution in support of real moves towards freedom in the real sense, and beyond finance specifically of course.

Value and Values

A timely piece in Real Deals recently by Guy Fraser Sampson highlighting the unsung heroics of one of the fathers of ethical venture investing in Europe, Dick Onians, now long gone but still missed by many of us, reminded me of some of the profound thoughts of this quiet change agent who placed so much importance on Value and Values. Dick, as Chairman of Trustees of the Royal Society of Arts in a great lecture reflecting on the then recent Russian debt default of 1998 asked "Why should Russia be described as 'bankrupt' when it has some of the greatest art treasures, ballet dancers and opera singers in the world, as well as having provided some of our greatest writers. Why should the delivery and possession of financial worth be the only measure of success, whether individual, corporate or national?" Dick concluded his lecture by quoting George Bernard Shaw who once had said "We have no more right to consume happiness without producing it than to consume wealth without creating it" *Everyone a wealth creator – everyone a wealth consumer?* – is that Utopia? But as an aim – "Why Not?" Philanthropy was historically part of social progress in the time of the 19th Century Industrial Revolution and has never gone away. In recent times, the power of communication we have inherited as adopters of the world wide web has encouraged investing for "impact" measured beyond financial returns, especially short term returns. Once again, connectivity and access to evolving knowledge and a range of metrics are enabling and encouraging new approaches to committing capital and measuring its *impact* beyond the simplicity of short term financial ROI. The establishment of a Social Impact Stock Exchange in the UK represents but one more step along a pathway which is literally being mapped out "as we go". The future of "Impact Investing" will be profound some say – its extent hard to predict just as are other aspects of "where connectivity and meta-connectors may lead the world"

The "Why Not" Generations are with us – Up with Innovation and Innovators !

The great www. Revolution has given birth to present and neo natal generations whose mindset and aspirations are different as "digital natives" than ours, enlightened as we may believe we are, us "oldies" are "digital immigrants". In his wonderful new book "Stories of Innovation for the Millenium Generation" Piero Formica, relating Greek Mythology to the new generations – comparing The voyages of the *Argonauts*, including the long sighted Lynceus, to the *Internauts* traversing the World Wide Web. He describes "The Y Generation" . "These are the digerati of the World Wide Web" writes Piero – "The new elite of creative technologies entrepreneurial talents 'in clover', future serial entrepreneurs and knowledge nomads". Generation Y, according to Piero "appears intent on entering the arena of business creators at a far earlier age (than previous generations)" He quotes the support for young entrepreneurs of the Kaufman Foundation – impacting educational policy significantly – and doing much more. Formica comments that "Such initiatives have been dismissed as 'Anglo Saxon eccentricity' by the conservative ruling classes who lack the ability or desire to recognise and accept the role, these intelligent and

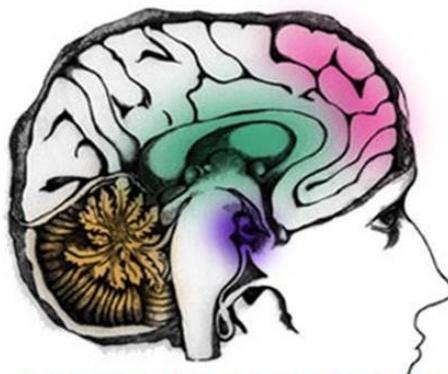
clever teenagers can play in the social and economic life of a nation. In the boardrooms where decisions are made which will shape the future of the community, there are still many who regard these budding entrepreneurs in the same manner as the Mayas perceiving Spanish vessels on the horizon as no more than a strange climatic phenomenon” . Where are the brilliant Mayas today ? Do read more of Piero’s colourful outpourings about digital life and digital intelligence and how entrepreneurial values and behaviour can inspire and steer human capital to find better ways to navigate the oceans of the old and worn out industrial economies of the world. And if you find Piero Formica’s musings on mythology and entrepreneurship enlightening, you will also love Joseph Campbell’s writings on “*The Hero’s Journey*” - books which make connections between common patterns running through the hero myths and stories from around the world. George Lucas – producer of the *Star Wars* films names Campbell’s work as a primary inspiration. Young creative minds and the energy and resourcefulness of youth can make Innovation – turning dreams and visions into real things.

Back to The Future – The Future and The Crowds are here Today

I remember reading about a Roman General whose name escapes me, fighting one of the numerous lesser wars for the Empire in some inconsequential place, reporting back to Rome “*We have met the enemy and it is us!*”. How many national or corporate situations of disadvantage or despair might find the reasons for lack of success and motivation having similar causes where governments and citizens are admitting it? Who can be held responsible for the present desperate situation in Greece with its failing economy than the Greeks? It is a cruel irony that the plight of that nation is hitting the news as inspirational writers such as Piero Formica are using the Greek Heroes as resurrected role models for the next generation of World changers. Piero himself tells in his books how he despairingly and reluctantly left his native Italy to find a place in the world more open to the entrepreneurial opportunities abundant in the New Millenium – unable to tolerate institutional strangulation holding back people and progress in his homeland.

Superconnectivity of People + Open Innovation = Enhanced Wealth Creation

**Add the MINDSET of Belief in “A World Without Borders” and
Miracles can happen !**



**“Brain Circulation” and Knowledge
Sharing Across Borders and Functions
through webenablement.**

But – in so many ways the future is bright and the prophets of doom can be confounded. The fast growing world population is seeing a major decline in the proportion of citizens who live in poverty. Education is reaching more of the millions who desire betterment and individual freedom to improve themselves. The World Wide Web is having a major impact in these areas and indeed in ALL areas. Grameenbank, Grameenphone, micro loans, information, connectivity and the emergence of A World Without Borders at the level at least of aspiration and mindset and supported by Education across Borders are all encouraging signs. Organisations such as Youth Business International, Start Up Generation and its wonderful Global Student Fellowship Program and student power, empowerment and organised enterprise are changing our challenged world. And what about MONEY ? Doesn't it "make the world go round"? Well – "NO" – but as a resource well used, it can make the world a better place for more and more citizens. Think of "citizens" as crowds – and crowds of crowds . Crowds denied the cash in many instances to pursue their aims and fulfil their visions by ossified institutions, now breaking loose and with imagination, persisting with their "Why Not" mindsets towards well defined goals, in some cases changing their small world or the larger world in the process. "Imagination" said *Albert Einstein "is more important than Knowledge – Knowledge is limited – Imagination encircles the World!"*. He also told us that "It is madness to go on doing the same thing over and over again and expecting a different result" . The wonderful thing about the liberation of money flows – from people to people – avoiding those institutions that only take out rather than contribute – and often say "no" to requests for financial support – is that thanks to that www Revolution, concepts of "collaborative capitalism" , step by step, become evidence based reality. Crowdfunding is so much more about *Imagination* than *Regulation* . Can you call to mind the names of any "great regulators" ? – with the stature of Einstein? And where were the regulators during recent, and indeed current banking failures, scams and scandals? . They were *not* earning their regulators salaries !

I have never heard anyone disagree with the Einstein principles I have quoted here. Nor the George Bernard Shaw urgings of young people to "*Dream of Things That Never Were and ask Why Not?*" Controls, trust and responsible behaviour – we need those of course. But a World Set Free needs processes

"Imagination is more important than Knowledge" – Albert Einstein



"You look at things and ask 'Why' – I Dream of things and ask "Why Not" – George Bernard Shaw

and mechanisms which enable vision to become reality and good ideas and research to be turned into products and services. A world where the wisdom of years is transferred without envy or cynicism to the next generation. It is an inspiration to observe sea changes in attitude which seem to be heralding in a new age

where Value and Values may mean something once again. And where monetary resources are valued as a means to an end, not an end in themselves.

It is always helpful to conclude with a factual story which proves a few points. In the emerging world, which in my experience is ahead of the so called developed world in more than a few ways, in emerging China, an entrepreneur, Jack Ma who gave birth to the Alibaba internet / www based company (now with more revenues flowing in than E-Bay and Amazon combined), declaring that "if the banks won't change – we will change them." He put in place a microloan scheme enabling money to flow between subscribers to his online business, to the effect that in the past two years, no less than 230,000 small companies have benefitted from an Alibaba micro loan. Proof positive indeed that a new age of capitalism is emerging – some of the leadership being strongly driven by the "emerging world". **Nice One !**

A continuation of the current and real revolutions described here will without doubt progressively lead us to that world of truly empowered citizenry !

Copyright Alan Barrell – Cambridge – October 12th 2013 (with acknowledgement to Eric Von Hippel at MIT for the schematics on internet user collaboratives)

Professor Alan Barrell DBA., FRSA is Entrepreneur in Residence at the Centre for Entrepreneurial Learning , Judge Business School, University of Cambridge, Chairman of Trustees of the National Association of College and University Entrepreneurs (NACUE), Dean of the GYDO International Business School for Youth – Beijing, Guest Professor at University of Xiamen, Fujian China and a Research Fellow at Laurea University of Applied Sciences Helsinki and at Tohoku Fukushi University in Sendai Japan. He works as a Business Angel and is director and shareholder in four early stage technology companies. Co author of the book "Show Me The Money – How to raise the cash to get your business off the ground".

www.alanbarrell.com