

# Cloud computing on the horizon

## Huawei country chief sees huge potential in Bangladesh

STAR BUSINESS REPORT

Bangladesh can become a thriving market for 'cloud computing' in the next five years, mainly driven by an upcoming need of e-education for school students in the rural areas, said a top representative of global hi-tech giant Huawei recently.

The internet-based shared computing system, which is the latest buzzword in the global IT industry, can come to bridge the digital divide in the education sector and even change the landscape of the current telecom market, the official said.

In an interview with The Daily Star, Wonder Wang, the country head of the Chinese technology giant in Bangladesh, said he sees good potential for cloud computing in the Bangladeshi market because of its resource sharing capability.

"Despite a new concept, the idea has become all the rage in the global ICT market, as it allows people to share resources based on the distributed computing system," Wang says.

Cloud computing is location-independent computing, whereby shared servers provide resources, software, and data to computers and other devices on demand, as with the electricity grid. Cloud computing is a natural evolution of the widespread adoption of virtualisation, service-oriented architecture and utility computing.

"Globally, the size of the cloud computing market is expected to reach \$130 billion in next two to three years and it can start to have the same kind of impact in Bangladeshi con-



Wonder Wang

text within half a decade."

The Huawei country head's view came just weeks after the Shenzhen-based telecom giant unveiled its cloud computing strategy for the global market to

leverage efficiency for its client data centre as well as computing and storage resource sharing.

"Our ongoing research regarding the Bangladeshi mar-

ket shows that education is one area where cloud computing can have the best potential in the local context given the significant gap in educational standards in the rural and urban

segments," Wang says.

Cloud computing against this backdrop can bridge the digital divide in education as it would enable the students to access the same kind of educational resources through the latest and most convenient internet-based computing system.

In a cloud computing system, people pay only for what they use and there is no upfront cost of buying servers. At the same time, no physical proximity is needed as internet connection provides access to everything.

In such a system, it is also cheaper to create space for backing up data as data is on virtual server. Also, many people will be using the same cloud, meaning that the pooling demand will make it easy to cut prices and maximise server efficiency.

The concept of cloud computing has already made the way for a new category of computers called the netbook, which typically weigh less than three pounds with no CD drives and a low double-digit gigabyte hard drive or solid state drive, and can give the average computer user the same functionality as a standard desktop, by using the cloud.

"Access any information you want from anywhere at anytime -- this is how we can define the utilities of cloud computing where IT-related capabilities are provided as a service as it allows the users to access technology-enabled services from the internet style of computing," Wang says.

Globally, cloud computing has already been hailed for

avoiding capital expenditure on hardware, software, and services, while the idea is also becoming increasingly associated with small and medium enterprises (SMEs) that cannot afford the large capital expenditure of traditional IT.

Apart from education, cloud computing can also have significant impact in leveraging the potential of e-governance, e-commerce and e-banking, the Huawei top official says.

"Nevertheless, it would require strong transmission backbone and bandwidth to make this revolution happen while the government policy must also be friendly," he says.

"Above all, the perception of people about what cloud computing means has to be precise," says Wang, whose company has been in the Bangladesh market for the last 13 years.

The world's second biggest mobile telecom equipment maker currently claims to have a 40 percent share of the local network infrastructure market.

"The biggest advantage of the Bangladeshi market is its huge population where the demand for telecommunication need is always increasing," says Wang, "while the high SIM tax and low ARPU also make this market a challenging one."

If the licence renewal expenses and 3G licensing fees remain rational, the path towards 3G would not be costly or complicated, the official says.

The company also plans to invest significantly in providing environment-friendly green technology solutions, its chief in Bangladesh says.

*Globally, the size of the cloud computing market will reach \$130 billion in the next two to three years and it can start to have the same kind of impact on Bangladesh within half a decade*

## INEQUALITY

# Unbottled Gini

### Inequality is rising. Does it matter -- and if so why?

THE ECONOMIST

For the head of the IMF to quote Adam Smith may seem unremarkable. But here is Dominique Strauss-Kahn citing the great man in November 2010: "The disposition to admire, and almost to worship, the rich and the powerful and...neglect persons of poor and mean condition...is the great and most universal cause of the corruption of our moral sentiments."

Mr Strauss-Kahn then bemoaned "a large and growing chasm between rich and poor -- especially within countries". He argued that inequitable distribution of wealth could "wear down the social fabric". He added: "More unequal countries have worse social indicators, a poorer human-development record, and higher degrees of economic insecurity and anxiety."

That marks a huge shift. Just before the financial crisis America's Congress was gaily cutting taxes for the highest earners, and Tony Blair, Britain's prime minister, said he did not care how much soccer players earned so long as they could reduce child poverty. So why has fear of inequality stormed back into fashion? Does it matter in some new way? Does it have previously unknown effects?

The most obvious reason for the renewed attention is inequality's apparent increase. A common yardstick is the Gini coefficient, which runs from 0 (everyone has the same income) to 1 (one person has all the income). Most countries range between 0.25 and 0.6.

The Gini coefficient has gone up a lot in some rich countries since the 1980s. For American households it climbed from 0.34 in the mid-1980s to 0.38 in the 2000s. In China it went up even more, from under 0.3 to over 0.4. But this was not universal. For decades, Latin America had the world's worst income inequality. But Brazil's Gini coefficient has fallen more than five



points since 2000, to 0.55. And as poor countries are on average growing faster than rich ones, inequality in the world as a whole is falling.

#### GETTING RICHER QUICKER

Greater inequality can happen either because the wealthier are getting wealthier, or the poor are falling behind, or both. In America it has had more to do with the rich. The income of the wealthiest 20 percent of Americans rose 14 percent during the 1970s, when the income of the poorest fifth rose 9 percent. In the 1990s the income of the richest fifth rose 27 percent while that of the poorest fifth went up only 10 percent. That is a widening income spread, but not a drastic one. Robert Gordon, an economist at Northwestern University in Illinois, reckons that for the bottom 99 percent of the population, inequality has not risen since 1993.

The problems at the bottom are reasonably well understood: technology enables the automation of blue-

collar trades; globalisation lets unskilled jobs move to poorer, cheaper countries; shrinking trade-union membership erodes workers' bargaining power. But inequality is rising more sharply at the top, among what George Bush junior called the "haves and have-mores". Here the causes are more mysterious.

The economists Emmanuel Saez and Thomas Piketty studied the incomes of the top 0.1 percent of earners in America, Britain and France in 1913-2008. America's super-rich, they found, were earning about 8 percent of the country's total income at the end of the period -- the same share as during the Gilded Era of the 1920s and up from around 2 percent in the 1960s. A study by the Economic Policy Institute, a think-tank in Washington, DC, looked at the ratio of the average incomes of the rich and the "bottom" 90 percent of the population between 1980 and 2006. It found that the top 1 percent earned ten times more than the rest at

the start of the period and 20 times as much at the end -- ie, its "premium" doubled. But for the top 0.1 percent the gain rose from 20 times the earnings of the lower 90 percent to almost 80-fold.

You can understand why people might regard this as unfair: the top 0.1 percent do not seem to be working 80 times as hard as everyone else, nor are they contributing 80 times more to welfare. But that is a matter of public opinion, and mostly of politics. The question of the economic impact of extreme inequality is separate. Recent evidence suggests it may not be as damaging as many imagine. Our special report casts doubt on the widespread view that inequality causes (or is associated with) a host of social problems. Economics focus finds little evidence that it stoked the financial crisis.

But recent research does suggest two other reasons why the rise in inequality is a problem. One is that rich economies seem to provide disproportionate and growing returns to the

already wealthy. The other is that inequality may literally be making people miserable by increasing stress and the hormones it releases.

In a recent series of lectures at the London School of Economics, Adair Turner, the chairman of Britain's Financial Services Authority, cited several factors that appear to be pushing up the incomes of the rich. First, financial, legal and health services have increased their shares of GDP in most rich economies -- especially Anglo-Saxon ones -- and these professions contain some of the richest people in the country. Financial services' share of GDP in America doubled to 8 percent between 1980 and 2000; over the same period their profits rose from about 10 percent to 35 percent of total corporate profits, before collapsing in 2007-09. Bankers are being paid more, too. In America the compensation of workers in financial services was similar to average compensation until 1980. Now it is twice that average. Rich bankers really are all around you.

#### TURNER TURNS THE SCREW

Next, argues Lord Turner, as people get wealthier they tend to devote more discretionary income to what are called "positional goods" items such as limited-edition, celebrity-endorsed sneakers whose main value lies in their desirability in the eyes of others. The willingness of people to buy such stuff, combined with the vast new markets of millions of emerging middle-class consumers in China, India and elsewhere, has boosted the stars' brands beyond anything that was possible in the past. Bobby Jones, the best golfer of the 1920s, was an amateur. Tiger Woods earned \$90m in 2009, before sex scandals wrecked his image. Writing children's novels used to keep authors in chintz and twinsets. JK Rowling, author of the Harry Potter books, is a billionaire.

TO BE CONTINUED

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