

Digital Innovations from India – for the World

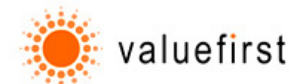
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16 years as an Entrepreneur in the Indian Internet and Mobile space

- 1994-2000: IndiaWorld
 - India's first Internet portal; Self-funded
 - Acquired by Sify in Nov 1999 for \$115 million in one of Asia's largest Internet deals
- 1998-now: Netcore Solutions
 - Managed Mail & Security Services for Enterprises
 - Mobile Data Services for Consumers & Enterprises
- 2005-2008: Emergic Venture Capital
 - Investments in creating India's Digital Infrastructure



The Next Tech Innovations are emerging from Markets like India

- Mobile Operators selling airtime at under 2c
- Mobiles helping to 'bank the unbanked'
- Movies available for free on the Net – legally
- Solar Lighting at sub-\$15 for rural homes
- Low-cost wireless broadband for semi-urban
- Personal healthcare records on the Net

Limited Legacy creates Leapfrog opportunities

A Tale of Two Innovations in Broadband and Mobile

Novatium's \$100 PC

- Pioneering a new model for mass-market computing
- \$100 for access device and \$10 for monthly service
- Makes computing simple and affordable
- Creates Mobile VAS-like upside opportunities
- Creates opportunities for software and content cos.

Netcore's MVAS Operator

- Creating media on mobile by giving SMS a second life
- Building a pan-operator, direct-to-consumer service
- Free SMS Subscriptions create Reach and Right of Way
- Mobile Ads and Paid Channels drive VAS ARPU
- Foundation for 3G World

How Novatium is making Computing as a Service a Reality



The Next Computing Revolution

Computing to 40+ million homes in India over next 5 years

The Telecom Evolution in India

- Cable TV
 - 85 million users
 - 200+ entertainment channels
 - Multiple DTH and digital TV providers
- Mobile
 - Subscriber base 300+ million (Sep 2008) & growing @ 10 million / month
 - Millions are paying for relevant & affordable service
 - < \$100 upfront purchase
 - < \$10 monthly subscription
- Broadband
 - Limited Growth To Date
 - <5 million broadband subscribers
 - <10 million PCs in the home

Why Is Broadband lagging behind?

Why Did Cable TV and Mobile do so well in India?

- Customer Ease: Simple device (Appliance like)
 - Cutting edge technology with user friendly interface
 - Simplicity to users without compromise in functionality
 - Complexity with provider
- Customers want the freedom to choose services
- Do not want to be bound by upfront investment
- Guarantees of service not components

Implementing these can bring the computing and broadband revolution

Novatium's Computing-As-A-Service Innovation



Service Offering

- Any OS – Win/Lin/Mac
- Any service provider
- Remote Management of all elements including upgrades & virus protection



Device

- Appliance Like
- Local print, webcam, VoIP
- No compromise on experience
- Television Output



Business Model

- Low Upfront Cost
- Pay as you use

On the ground learning from Trials

Typical Customer Models

	Novatium	PC in Home	Cybercafe
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One-Time Cost of Device
H/W

Rs. 4,999	\$100	\$500	\$0
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Monthly Internet Cost

Rs. 250	\$5	\$5	\$0
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Computing Cost
Apps +Maintainace

Rs. 250	\$5	\$8	\$20
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Functionality Included:

- | | | |
|----------------------------|----------------------------|-------------------------------|
| •50G of remote storage | •50G of local storage | •Limited storage (pen drive) |
| •Browser, Chat, Skype | •Browser, Chat, Skype | •Browser, Chat, Skype |
| •Multimedia (video, audio) | •Multimedia (video, audio) | •Multimedia (video, audio) |
| •Microsoft Applications | •Microsoft Applications | •Microsoft Applications |
| •Unlimited Usage | •Unlimited Usage | •Limited Usage (30Hrs/month) |
| •Full Parental Control | •Limited Parental Control | •No Parental Control |

Multi-OS option

Nova Navigator – subscriber's

Partner's contents



Subscriber Information

Application categories

Multiple Desktop
1. Novell Suse
2. Windows
3. Apple MAC

Utility Service

Applications

Localized Advertisement

Support system over IM

Online news over RSS

The Novatium Navigator: Simplicity without Compromise

Moore's law Device



Enjoy Apple Mac Leopard



Explore ever evolving Windows



Switch to geek Novell Linux

Low Power Consumption

Zero maintenance

Local Printer &

Other USB devices **Just an Appliance**

TV Output

Audio & Video Conference

Webcam

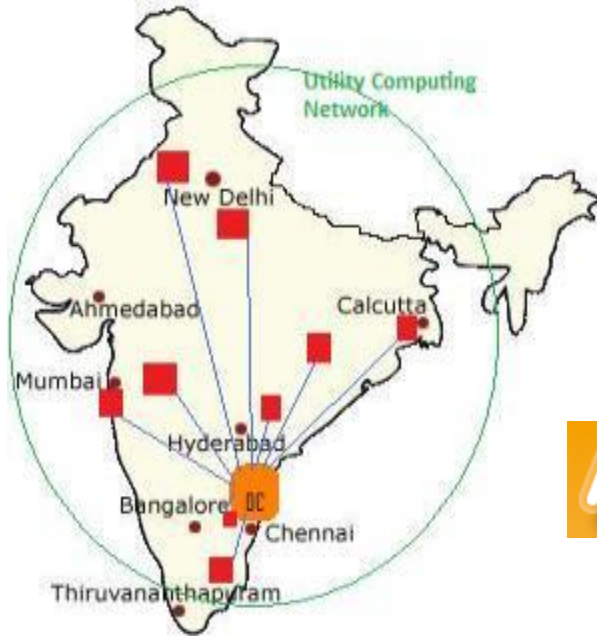
Remote and local sync, deliver seamless experience of applications to the users.

The paradigm of computing experience

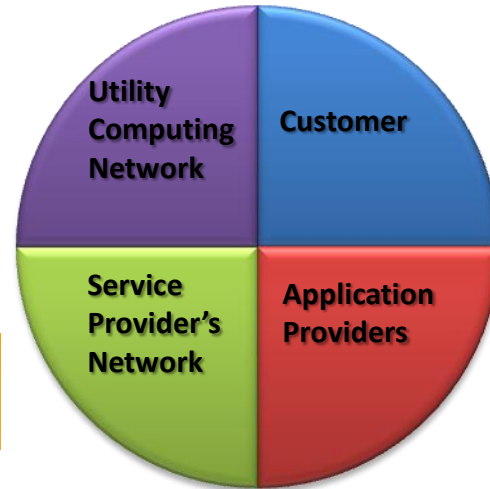


The Power of Utility Computing

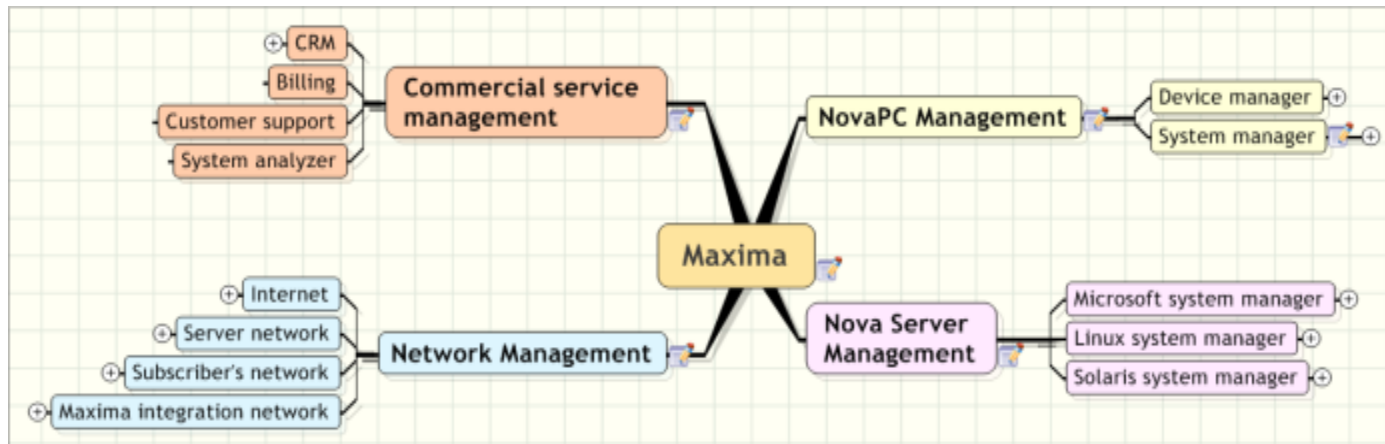
Network



Ecosystem



Architecture



We have come a long way in 1 year

Ecosystem:

1. MTNL Pilot.
2. Thailand pilot deployment.
3. Novell agreement,
4. Microsoft MDF agreement

Ecosystem:

1. HP HW Lease model,
2. Implementation of central control system
3. Optimization of Biz model + Infra.
4. International pilots.

Ecosystem:

1. Mauritius launch
2. TATA Launch
3. Intel Agreement
4. Microsoft SPLA sign up,

2007-Q3

- Nova netPC with Local Apps
- Large scalable servers
- Microsoft + Linux offerings

2007-Q4

- netPC ADSL Ready
- Complete BSS and OSS integrated in Maxima

2008-Q1

- Stable netPC
- Scalable server with Operation management.

2008-Q2

- Intel Atom based Navigator
- Network fault tolerant netPC expansion of Telco model.
- No network and geography limitation,
- Proactive service monitoring

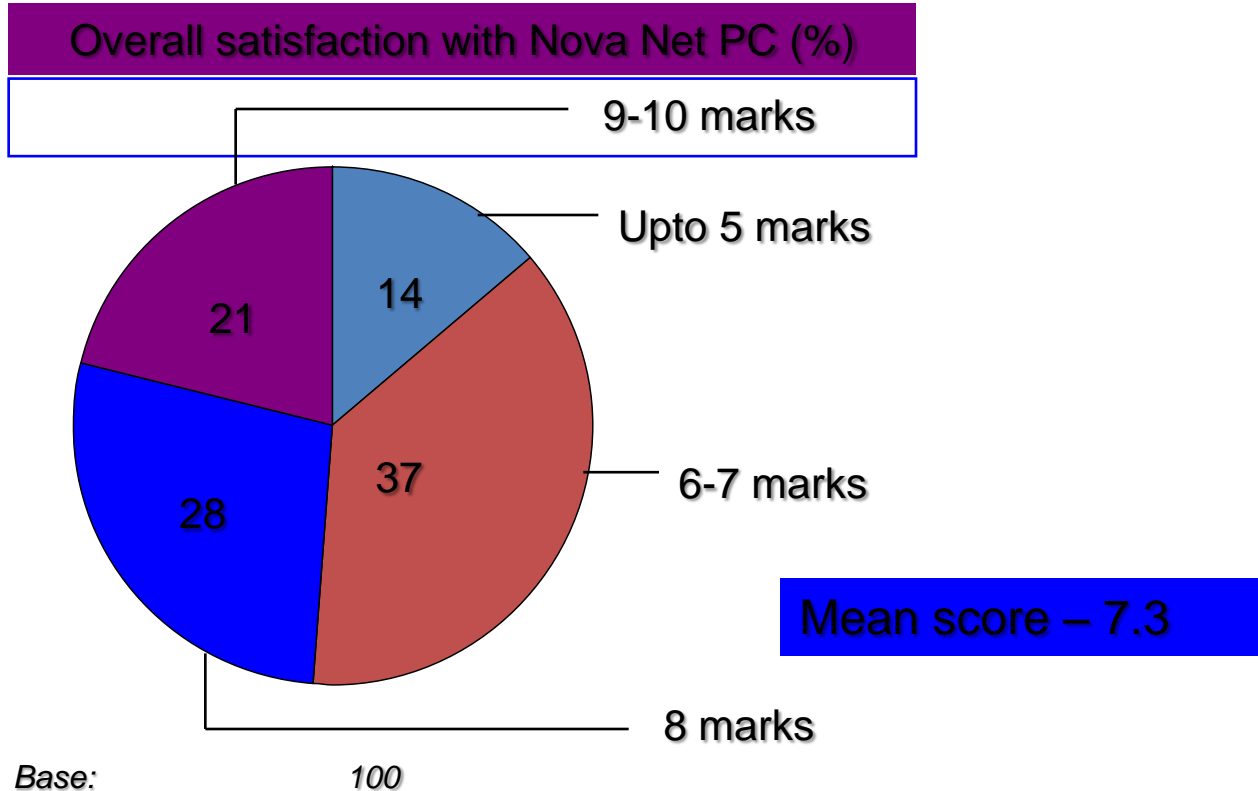
2008-Q3

Achievements:

- 5000+ pilot users
- Over 1½ year of live service record.
- National and International deployment.
- Central management and control.

How satisfied are our customers?

Mean score – Min – 0, Max - 10



Nearly half of our customers are delighted with our product. A third are satisfied while over a tenth are not satisfied and would like improvements.
We have made significant improvement from here.

How Netcore is using SMS to build the next-gen Mobile VAS Operator



Text Search : Internet ::
SMS Subscriptions : Mobile

MyToday Dailies – Simply START / STOP

Text message 1/3

To 09845298452

START SENSEX MUMBAI

Options Back



Text message 2/3

From MyToday

Thank you for subscribing to SENSEX! You will receive FREE daily SENSEX updates from www.mytoday.com To stop, sms STOP SENSEX To 09845298452

Options Back



Text message 3/3

From MyToday

SENSEX:
Sensex conquers another benchmark. BSE(10:04): 21,025.68(+213.03)
Up: Airtel,RComm
Dn: ICICI Bk,Grasim
Ad:
For Jokes, sms START JOKES to 09845298452

Options Back

Text message 3/3

From MyToday

NEWS:
*AARUSHI CASE- All accused free
*K'TAKA-Free buss pass up to 7th std

Ad:
WATCH MR. NATWARLAL, IN AB TAK BACHCHAN, TONIGHT AT 8, ONLY ON MAX

Options Back

Text message 3/3

From MyToday

BIZ:
*Vedanta to demerge Sterlite's alumina, energy biz
*Google to digitalize old newspapers

Ad:
Annual Subscription of OUTLOOK PROFIT @ 50% disc. To book, sms OP to 575758

Options Back

Text message 3/3

From MyToday

CRI:
*SL demands \$2m for ODI series with Pak *Ganguly to star in a docu 'The Warrior Prince'

Ad:
Drive 3 hr for 1 hr flt! Want HAL airport to stay? sms HAL Y for Yes or N for No to 575758

Options Back

MYTODAY



3.7 million subscribers

11 million subscriptions

4% of India's SMS Traffic

Avg. Subscriber age is 25

79% belong to SEC A and B

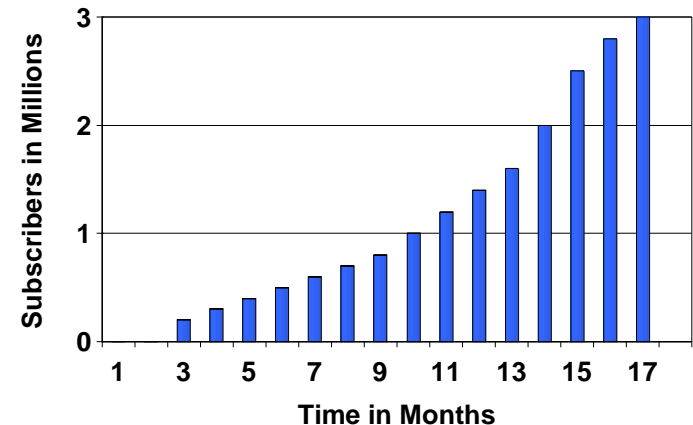
75% read every SMS received

50% forward messages

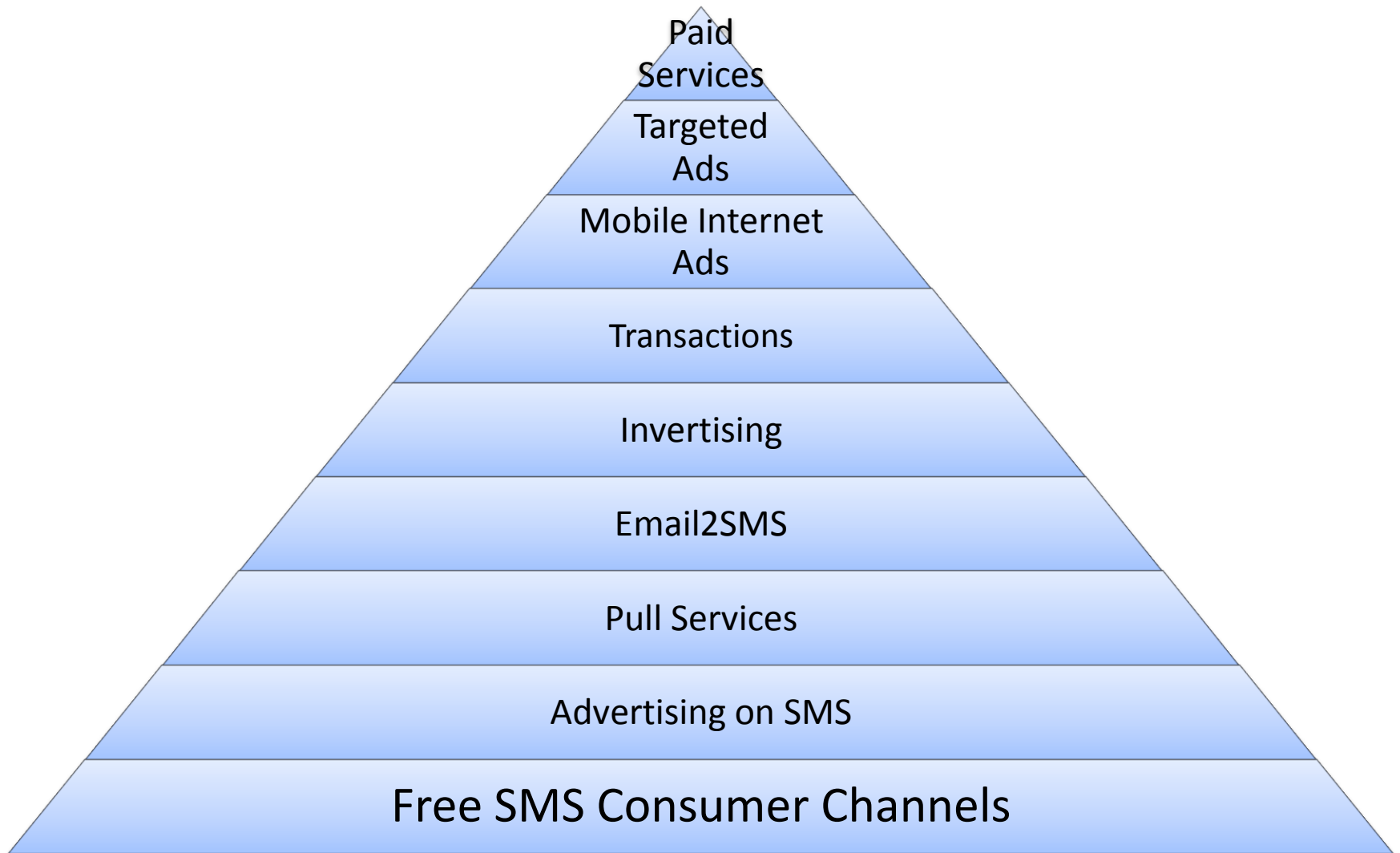
40% seen ads; 30% of them acted

120+ advertisers; 200+ campaigns

Also: Mobile Internet Portals



Right of Way on SMS drives Multiple Monetisation Models



VAS Operator: Multiple Monetisation Models

Subscribers Pay

- Pull Services
- Paid Channels

Advertisers Pay

- SMS Ads
- Lead Generation
- Mobile Internet Ads

Merchants Pay

- Retail Transactions

Enterprises Pay

- Mobile Business Solutions (via “Feet-on-Street”)

Driving Mobile Data Services: The Three Horizons

Horizons →	1	2	3
Microsoft (PC Platform)	OS / DOS, Windows	Apps / Office	Diversified: Enterprise, Xbox...
Google (Internet Platform)	Search	AdWords, AdSense	Cloud Computing
Mobile Data Platform Winner	SMS Subscriptions	VAS Operator	Mobile Computing Operator
Mobile Strategy	Free SMS + Word- of-Mouth = Reach + Right of Way	Advertising + Cash Balance + Feet-on- Street = Multi- Monetisation	Open Data Platform + Microbilling + 3G = Data MVNO
Year 2 Market opportunity (India)	Audience: 25 million subscribers	25 million x \$2 ARPU == \$500 million	5 million x \$10 ARPU == \$500 million

The Future is being created
First in India...!

Envisioning the Future

Teleputers

- Fixed and Handheld
- Mobiles as Network Computers
- Think Apple iPhone 2.0

Ubinet

- Wireline and Wireless
- Broadband
- Ubiquitous

M-Web

- My, Mobile, Magical
- Cloud Computing

Make no little plans;

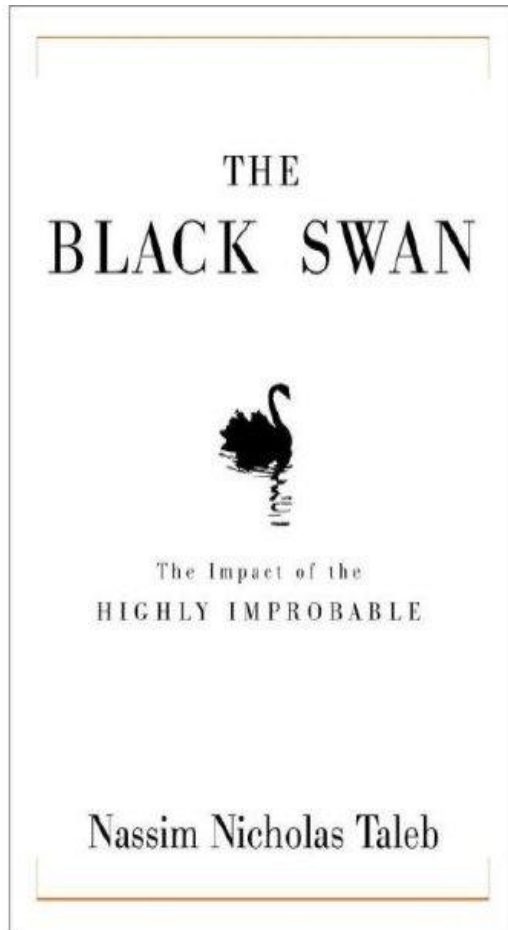
they have no magic to stir men's blood and probably will themselves not be realized.

Make big plans; aim high in hope and work...

- Daniel Burnham

Some Ideas for India to Lead

- Mobile Data: SMS Subscriptions, VAS Operator
- i-mode for India: Mobile Computing
- Bollywood as Online Video Anchor
- Local Languages for Mass Market
- Computing as a Utility for Homes
- Mobile Payments and Commerce
- Computing as a Service for SMEs
- Personal Healthcare Records
- Education for 200 million kids



A Black Swan is a highly improbable event with three principal characteristics: It is unpredictable; it carries a massive impact; and, after the fact, we concoct an explanation that makes it appear less random, and more predictable, than it was.

- Nassim Taleb, 2007

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