

Harnessing the Power of Ideas... **... Fueled by Entrepreneurial Energy**

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New Forces ...

- **40% of GDP growth coming from tech going to 100% out of tech (Morgan Stanley)**
- **Technology as a deflationary force**
- **Business as a powerful force for progress**
- **Entrepreneurial energy as an abundant resource**

What's going on?

- Testimony to the power of ideas in a knowledge economy
- Testimony to the power of entrepreneurship
- Testimony to the abundance of key resources – initiative, self help
- Testimony to the impact of technology – more powerful tools

A brief business history of the world...

- Circa 1900....
 - >50% employment in agriculture
 - Land ownership based wealth, power, prosperity
 - Land was the scarce commodity
- Circa 1975...
 - >50% employment in “industrial, energy driven economy”
 - Oil, and factory ownership as source of wealth , power, prosperity
 - Capital was scarce commodity
- Circa 2025...
 - Knowledge economy?
 - Massive dislocation of skills?
 - Human capital is the scarce commodity

Environmental Requirements for success

- Egalitarian
- Capitalistic & competitive
- Fluidity of resource allocation/application
- Availability of Education & knowledge capital
- Low cost, low barrier, wide range of education (eLearning)
- Internet enabled public access to worldwide resources
- Lifelong learning models
- Reverence for Research
- Role models

Government

- Easy to do business
- Transparent
- Subsidization of social objectives thru taxation NOT control
- Evolution & adaptation, NOT planning

Infrastructure requirements - Telecom

- Cheap, competitive, evolutionary
- Not just for the new economy
- The “freeways” of the 21st century
- Enabler of motivation, entrepreneurship
- Feeds education requirements
- Reduces pressure on Health , Education and other infrastructure

Oil Fueled The Industrial Revolution. Will Bandwidth Fuel The New Economy?

- **Raw Materials: Bandwidth doubling every 9 months**
- **Human Capital: Startups better talent magnets than Fortune 500!**
- **Capital: Venture Capital of \$60B+**
- **Place: Silicon Valley is state of mind: its everywhere , for everyone ...**

Resource Management

- Scarce resources in the west: Human capital
- Scarce resource in venturing: Human capital
- Scarce resource in developing world: Capital
- Abundant resource in developing world: Human capital
- Abundant resource in the west: Capital

The Power of Ideas

- **An egalitarian, non- inheritance based, equal opportunity employer**
- **Independent of race, color, sex, religion,...**
- **Most powerful asset in the knowledge economy**
- **Driven by “want” not “should”**

History of technology

- Tool using species
- Printing press – Accumulation of knowledge
- Mass communication channels – TV & radio
- Bringing the world closer – railroads, cars, airplanes
- Two way communication

The Reason for hope

- **Technology in agriculture**
- **Technology in healthcare**
- **Technology in communication**
- **Technology in transportation**

Do we have enough resources?

- How many Billions?
- Is a Trillion sufficient?
- Discover enough oil?
- The new “Reverse Pyramid”
- Beyond Fairness to reality & Pragmatism
- No one thing is enough – we need a “Miracle”
 - Trillions
 - The “new oil” equivalent
 - Trade
 - “Foundations” to subsidize half a billion people?

The Reason for Pragmatism

- Over-emphasizing the digital divide
- Address the top 5% or the bottom 50%?
- Business and ROI as a basis
- Appeal for a value system in business

*Why we don't need Rural Access...
...why we don't need rural!*

Models for nations – natural evolution.

- Polarized today – 5 mega cities + 500k villages
- Sprawling population centers with 10m+ population
- Villages
 - Lack of power
 - Lack of technical expertise
 - Lack of infrastructure
 - Lack of healthcare
 - Lack of education facilities
 - Lack of communications

Modernizing villages : Economically Untenable

- **Cost of transportation**
- **Cost of Communications**
- **Cost of Power**
- **Cost of Education**
- **Cost of healthcare**

What if....

- **Workable scale – 5000 cities (“circles”)**
 - 100,000 “neighbors”; 25000 families
 - 100 villages
 - 5000 sq. km – 40km radii circles
 - 500 million people “coverage”
- **Viable infrastructure build**
- **Viable transportation – rail**

Evolution of a nation - Distribution by design

- Economically efficiency – 5000 vs. 500,000
- Enabling natural resources – “motivated” people
 - Access to resources, education, the world of information
 - Universal access to highest use
- Socially viable
 - Family orientation
 - Rooted in tradition
 - Local support
- Gradual migration , economically driven evolution, balanced distribution, local ROI

A new view of teledensity

- **Universal access Indian style**
 - Available but shared
 - Economically “productive”, IRR Oriented
 - Allocation to the highest uses
- **Complemented by the the most initiative**
- **Powered by hard work and education**

A BUDGET

- 5000 T1's
- Existing rail/road junctions
- Relocation <40 km or “none” = bicycle “commute”
- \$1M per “circle”
 - Funds telecommunications
 - Remote Facilities - “Work Centers”, “Communication Centers”, “Worldwide Bazaars”
 - Remote services - “Education centers”, “healthcare Centers”....
- \$5B or 12% “tax” on \$8B per year + “services income”

A Model for Urban India

- **Public conduit Infrastructure**
 - A dozen+ conduits
 - Other facilities – gas, cable, power,...
 - Public right of way asset
 - Public wireless towers
 - Shared by DTS, Rail, Gas, Power,....
- **Economic efficiency with competition**
- **Public convenience & acceleration of competition**
- **Twenty year leases**
 - dynamic technology platform
 - “Revenue sharing” income for property owners

Economic Principles

- **Keep upfront investment low**
 - Revenue share for right of way
 - Universal service tax for “social or rural subsidy”
- **Encourage competition**
- **Encourage multiple modalities**
 - Optical
 - Wireless
 - VOIP
- **Dynamic Infrastructure**
 - Static elements shared among all comers : 20 yr leased conduits, wireless towers,
 - Minimal “standards”, strong interoperability , open to experimentation

New technology – next 5 years

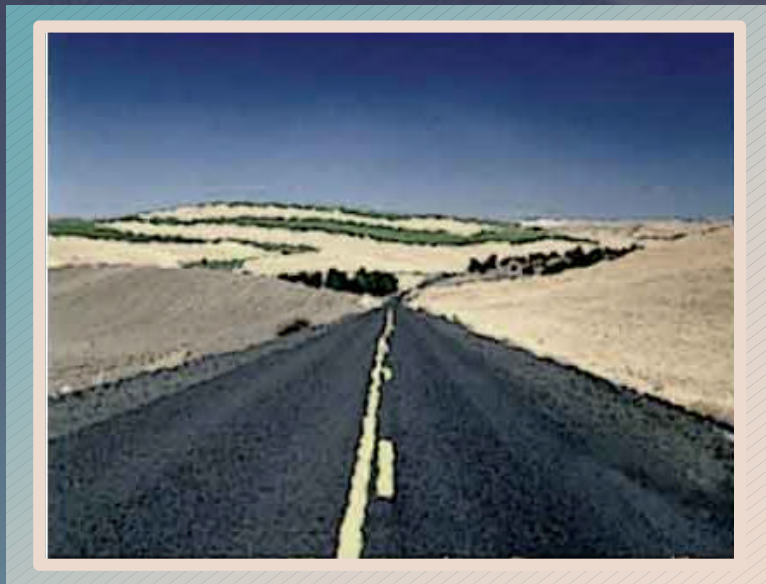
- VOIP prototype
- SIP phones, SS8,.....
- Ethernet environment
- Leverage wireless
- A different reliability/cost tradeoff
- Technology “standards” with China
- New costs, new models : service, billing, support,...

A Miracle?

- **No one thing is enough:**
 - Trillions - \$5b provide “universal access”
 - The “new oil” equivalent – entrepreneurial energy
 - Trade “access” – via Internet?
 - “Foundations” to subsidize half a billion people - Local ROI, multiplicative cycle
- **10X improvement in goals of penetration/cost/ usage possible**

Increasing return economics

- Enable “remote services” & “remote markets”
- Remote “economically sized” facilities
- Local “success models” for motivation
- Harnessing entrepreneurial energy
- Virtuous cycle



Comments?

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A Note of Caution...

- **Technology**
 - More powerful tools
 - More concentration of knowledge
 - Same people, same judgment, more leverage
- **Environment – end of the runway**
- **Polarization of wealth & power**
- **Notion of nation states**



Kleiner
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KP's Role in the New Economy

- Service organization, helping the best entrepreneurs and execs build teams and durable, global enterprises
- Partners: technical backgrounds, operating experience, market knowledge, focus on durability
- Founding investors in 11 of Forbes 500:
 - Sun, Compaq, Genentech, AOL, LSI Logic, Ascend, Juniper, Cerent, Netscape, Amazon, Excite, @HOME ...

1999 Annual Report on KPCB 350

99 Stats

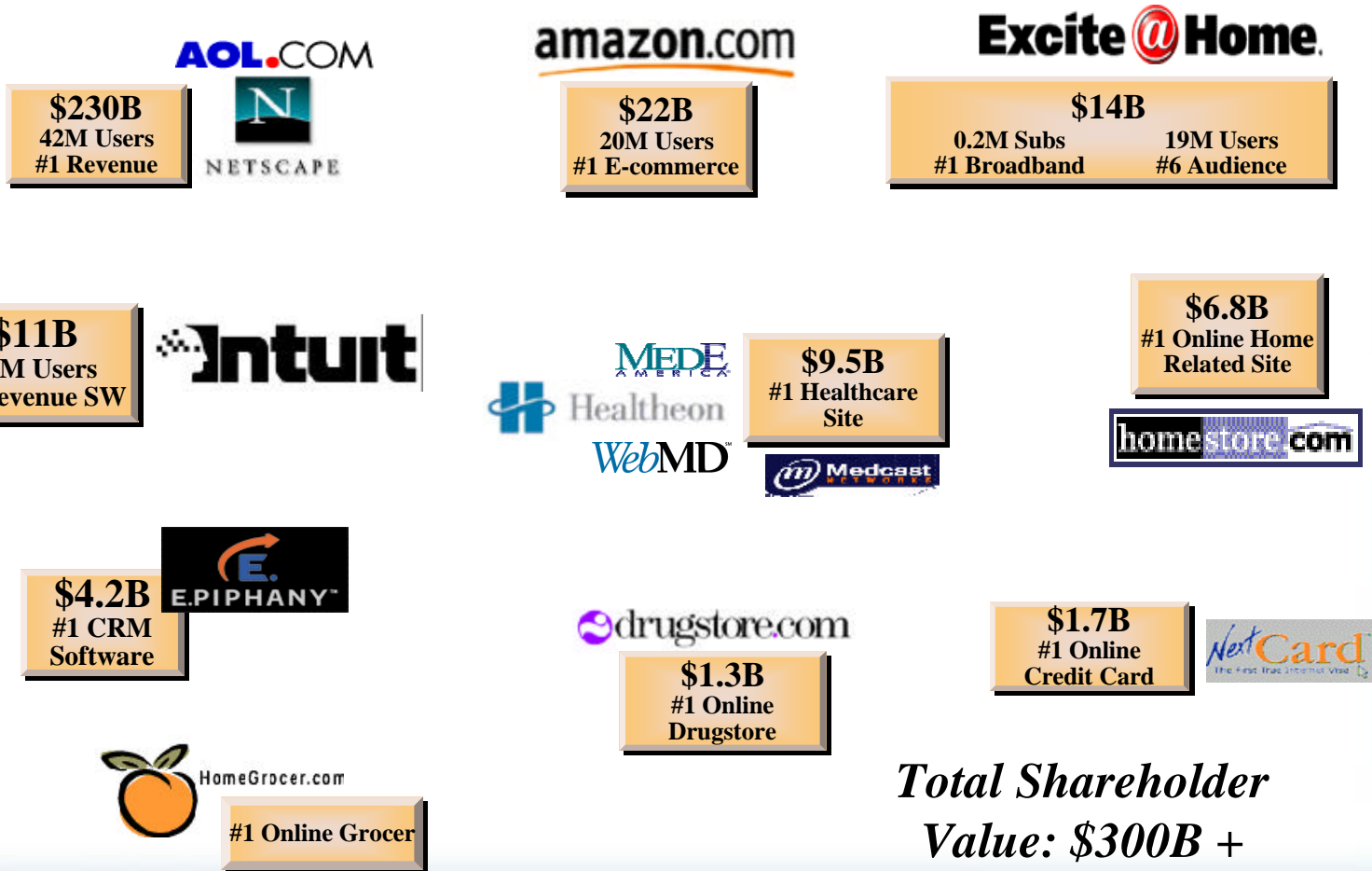
Total Revenue	\$90+ billion
Employment	250,000
Market Value	\$650+ billion

KP Annual Report

	<u>Mkt Cap</u>	<u>% Growth</u>	<u>Revenue</u>	<u>Employees</u>
1999	\$657M	170%	\$93M	252K
1998	\$224M	95%	\$74M	192K
1997	\$125M	30%	\$61M	162K
1996	\$96M	14%	\$53M	152K
1995	\$84M		\$44M	131K

Committed Capital Since Inception: >\$2B

KP Net Services Leadership



Total Shareholder Value: \$300B +

Share Price on 1/31/00

Kleiner Perkins B2B Leadership



CORIO

Vertically focused



KP's Long History of Building Big, Relevant Companies

Excite @ Home.

amazon.com

Genentech, Inc.

Electronic Arts



COMPAQ

AOL.COM

N Netscape

concentric network



Intuit

SYMANTEC.