

Changing the way the Enterprise works: *Operational Transformations*

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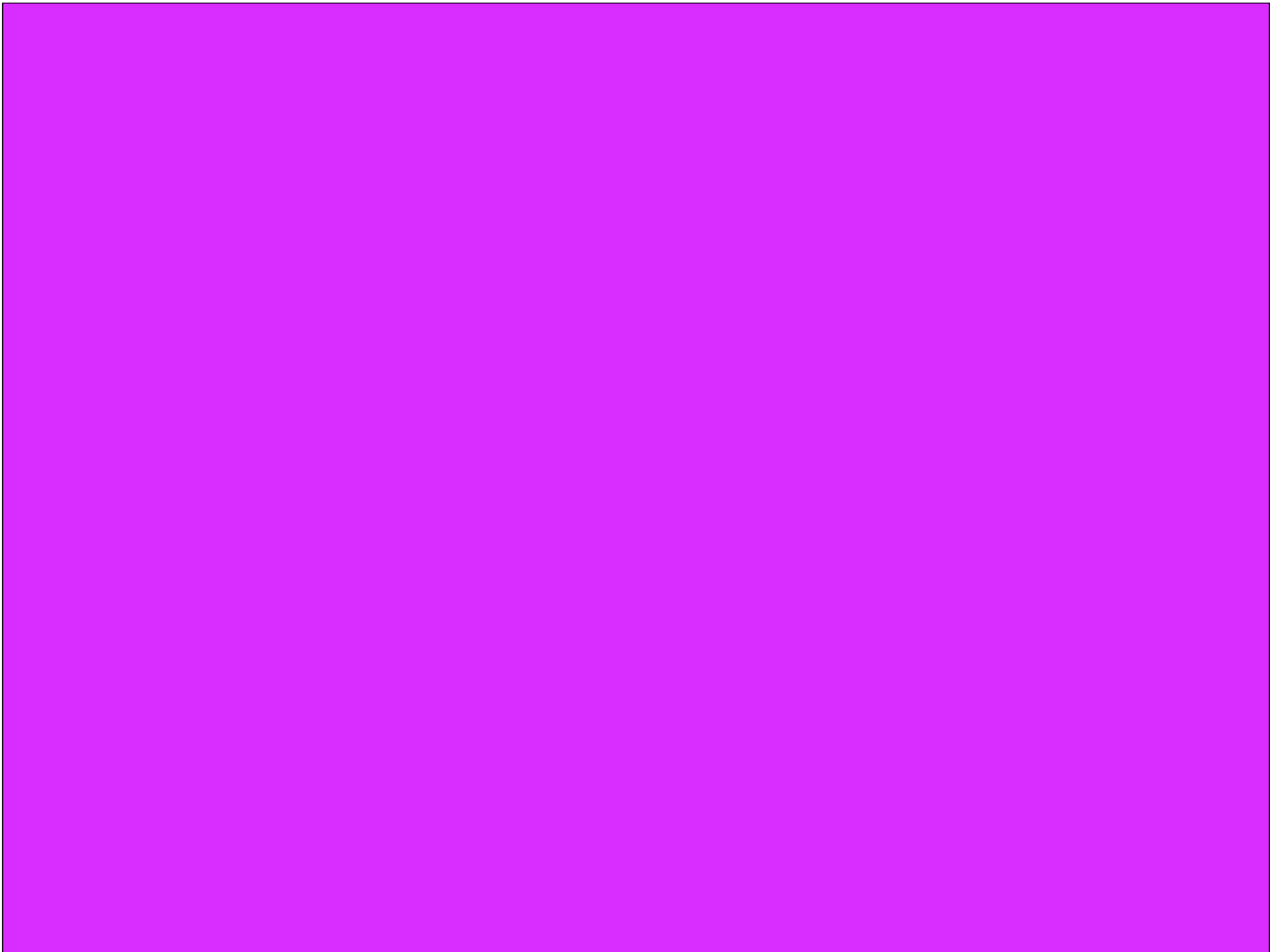
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Tom (Thomas J. Greene)

- Boston College (B.Sc.'66), Univ.of Toledo (Ph.D.'73), Harvard (Ed.M. '90)
- Built a Computer Aided Instruction Lab ('78)
- Began a Computer Science Department ('80)
- UN consulting ('88)
- Visiting Scientist at Stanford ('81), IBM ('85), MSC('70)
- W3C('94-'98)
- NSF(2000-'03)
- MIT-CSAIL (1986-present)



Outline

- **A (short) History of people and technology (From Whence?)**
- Some Abstractions for Enterprise Managers
- The Forces causing Faster Change
- Your Models now need Monitors and open design to be NIMBLE with Updates.

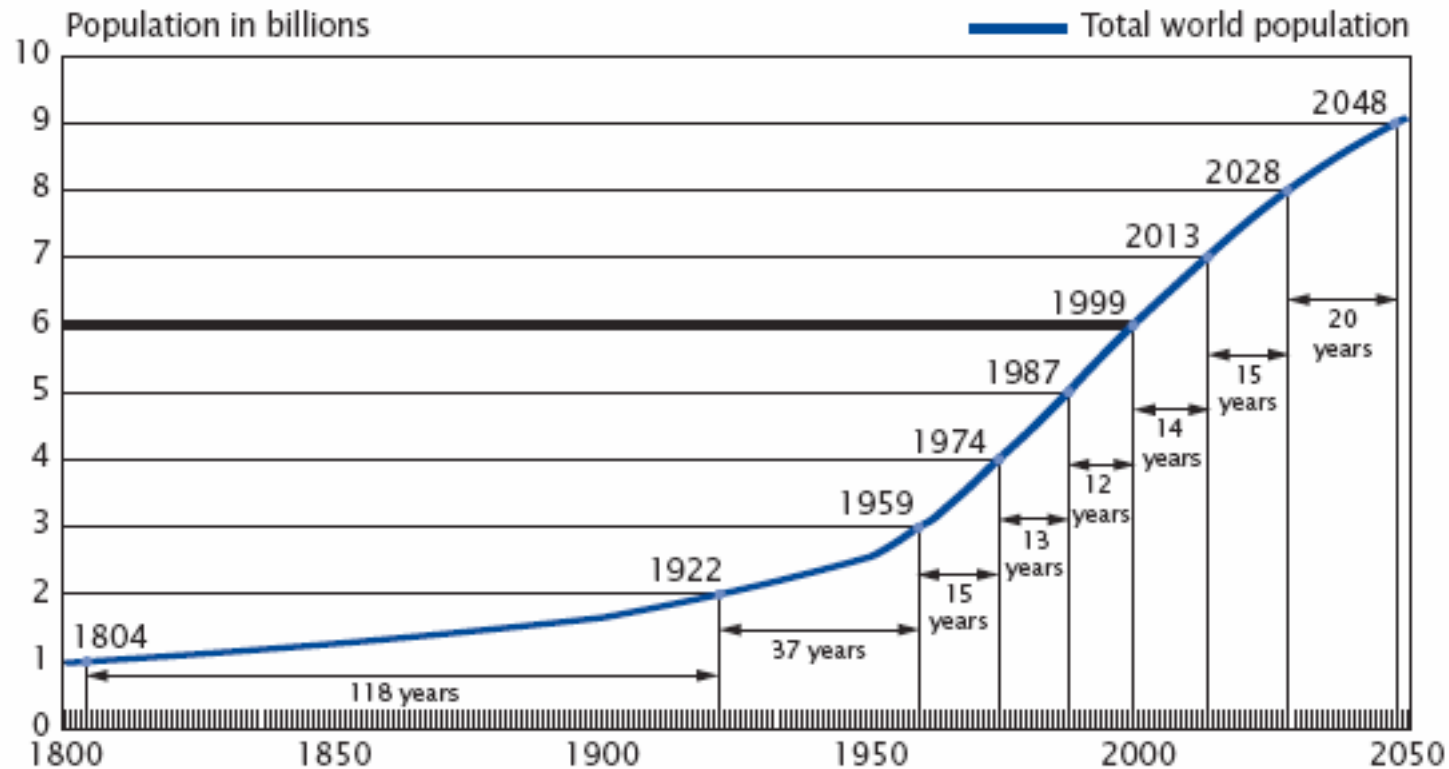
Population & Time - The Growth rate



- 35 BCE-Julius Caesar -- 150 Million people
- 1 Billion
- 2 Billion
- 3 Billion
- 2000 A.D. -- 6 Billion people

60Billion

BILLIONS OF PEOPLE



Source: United Nations, *World Population Prospects: The 1994 Revision*; U.S. Census Bureau, International Programs Center, International Data Base and unpublished tables.

SOURCE - [HTTP://WWW.UN.ORG/DEPTS/UNSD](http://www.un.org/depts/unsd)

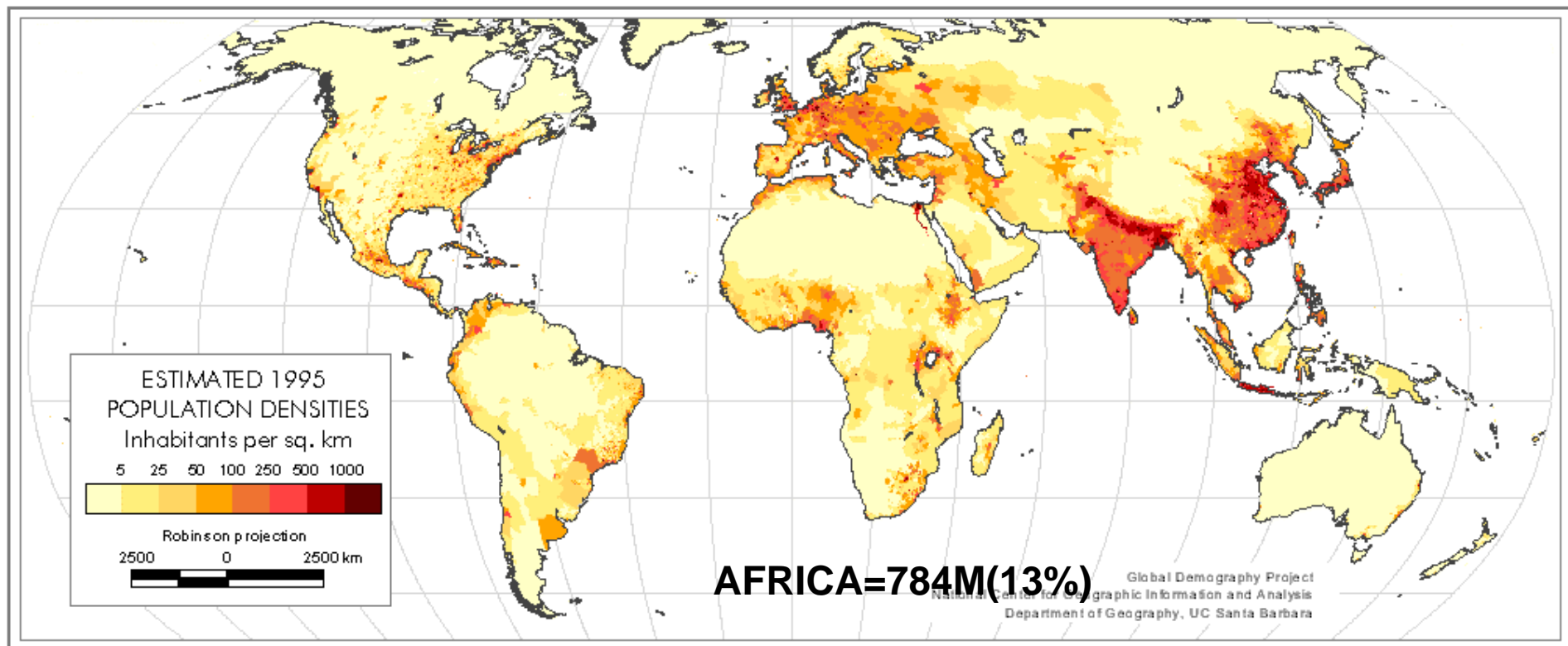


World population distribution

US&CANADA=310M(5%)

EUROPE=729M(12%)

ASIA=3.68B (61%)



AFRICA=784M(13%)

LATIN AMERICA=519M(9%)

OCEANIA =30M(.01%)

HBR-Sept 2002-

Serving the World's Poor, Profitably



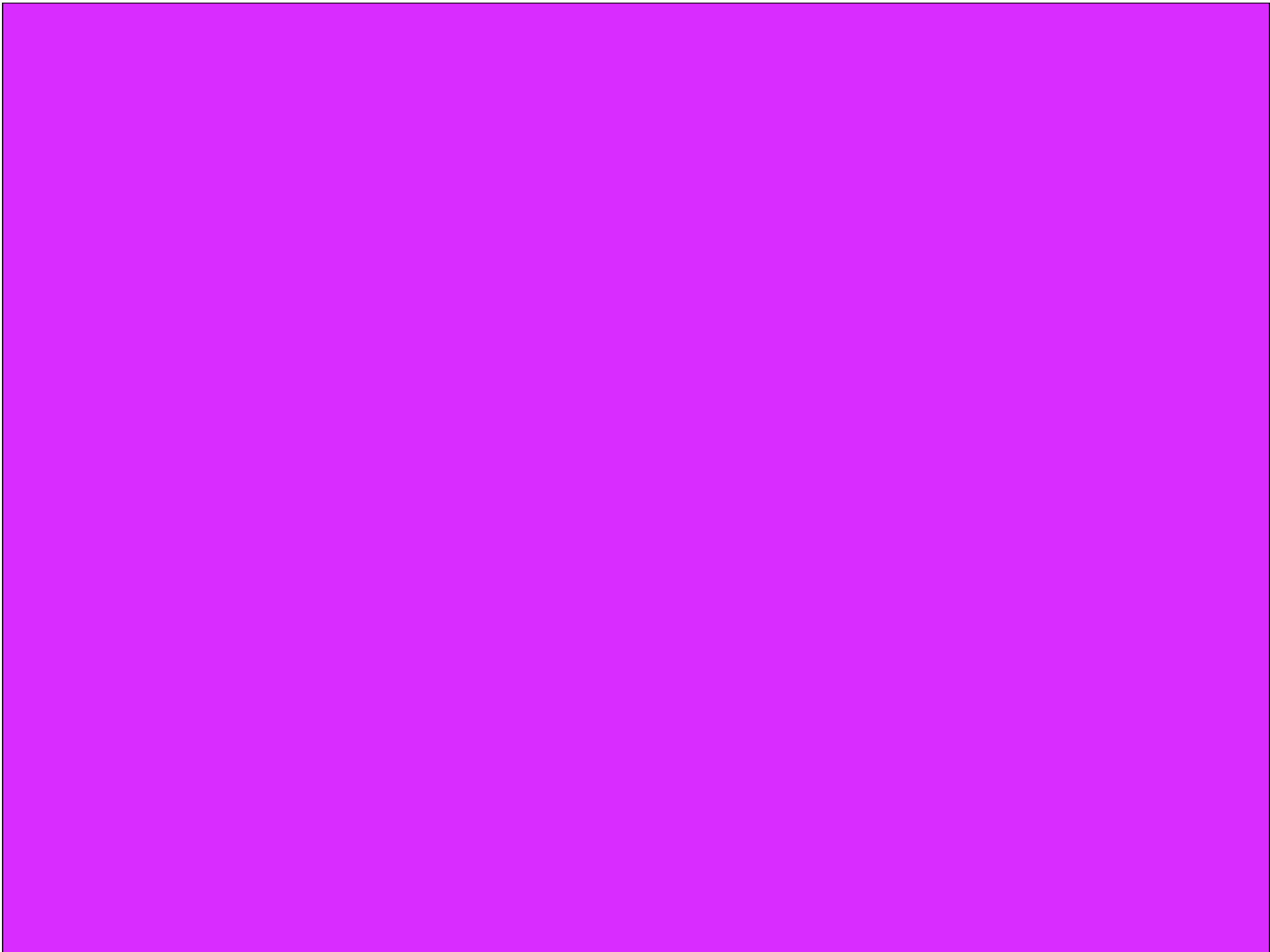
Serving the World's Poor, Profitably ----by C.K. Prahalad and Allen Hammond

By stimulating commerce and development at the bottom of the economic pyramid, multinationals could radically improve the lives of billions of people and help create a more stable, less dangerous world. Achieving this goal does not require MNCs to spearhead global social-development initiatives for charitable purposes. They need only act in their own self-interest. How? The authors lay out the business case for entering the world's poorest markets.

Fully 65% of the world's population earns less than \$2,000 per year-that's 4 billion people. But despite the vastness of this market, it remains largely untapped. The reluctance to invest is easy to understand, but it is, by and large, based on outdated assumptions of the developing world.

While individual incomes may be low, the aggregate buying power of poor communities is actually quite large, representing a substantial market in many countries for what some might consider luxury goods like satellite television and phone services. Prices, and margins, are often much higher in poor neighborhoods than in their middle-class counterparts. And new technologies are already steadily reducing the effects of corruption, illiteracy, inadequate infrastructure, and other such barriers.

Continues---

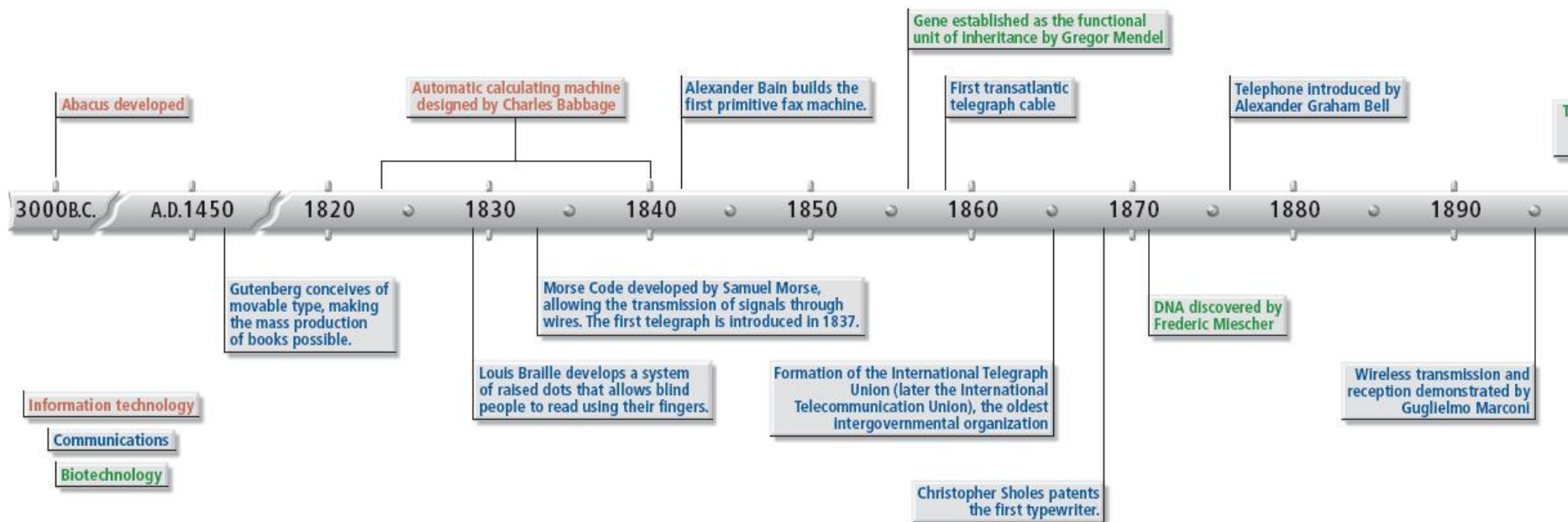


Technology & Time - The Growth rate

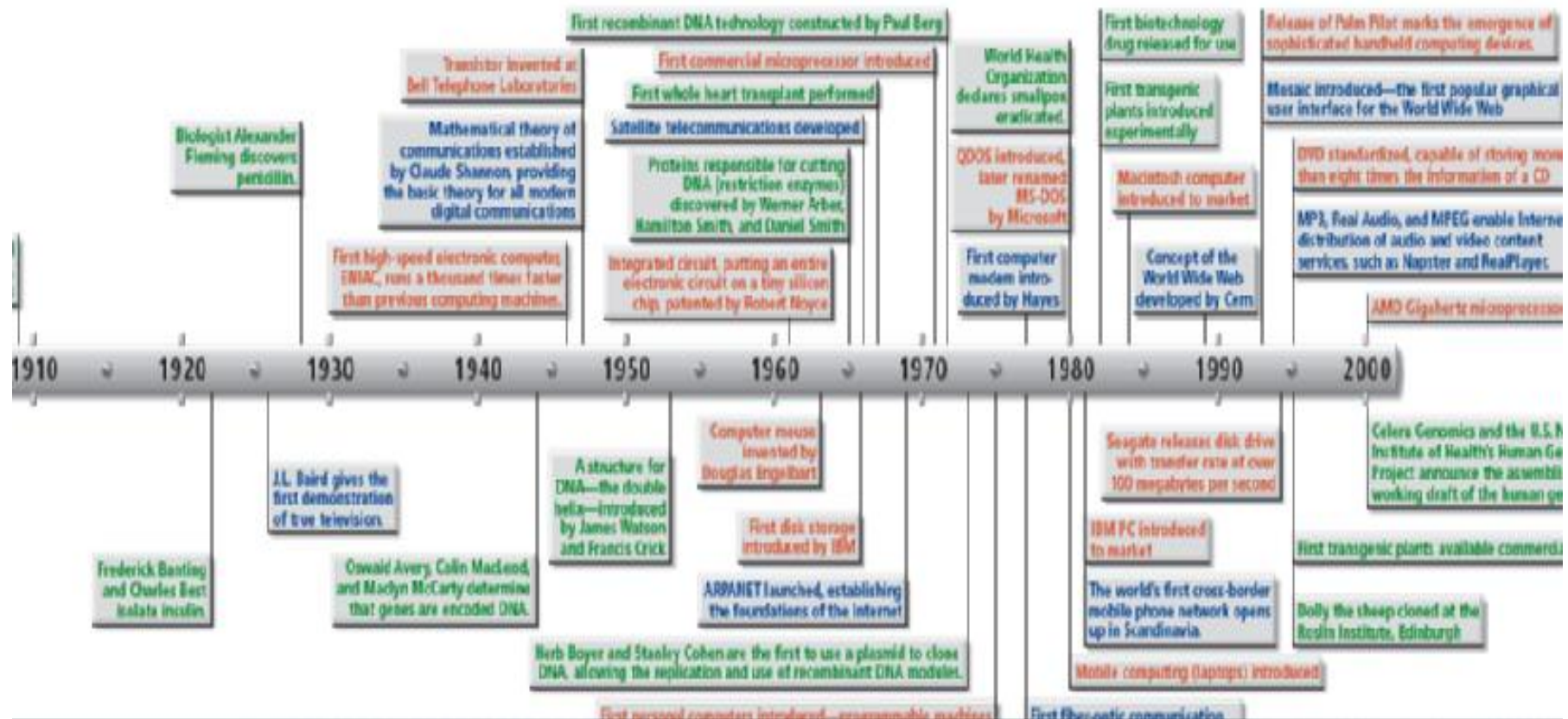


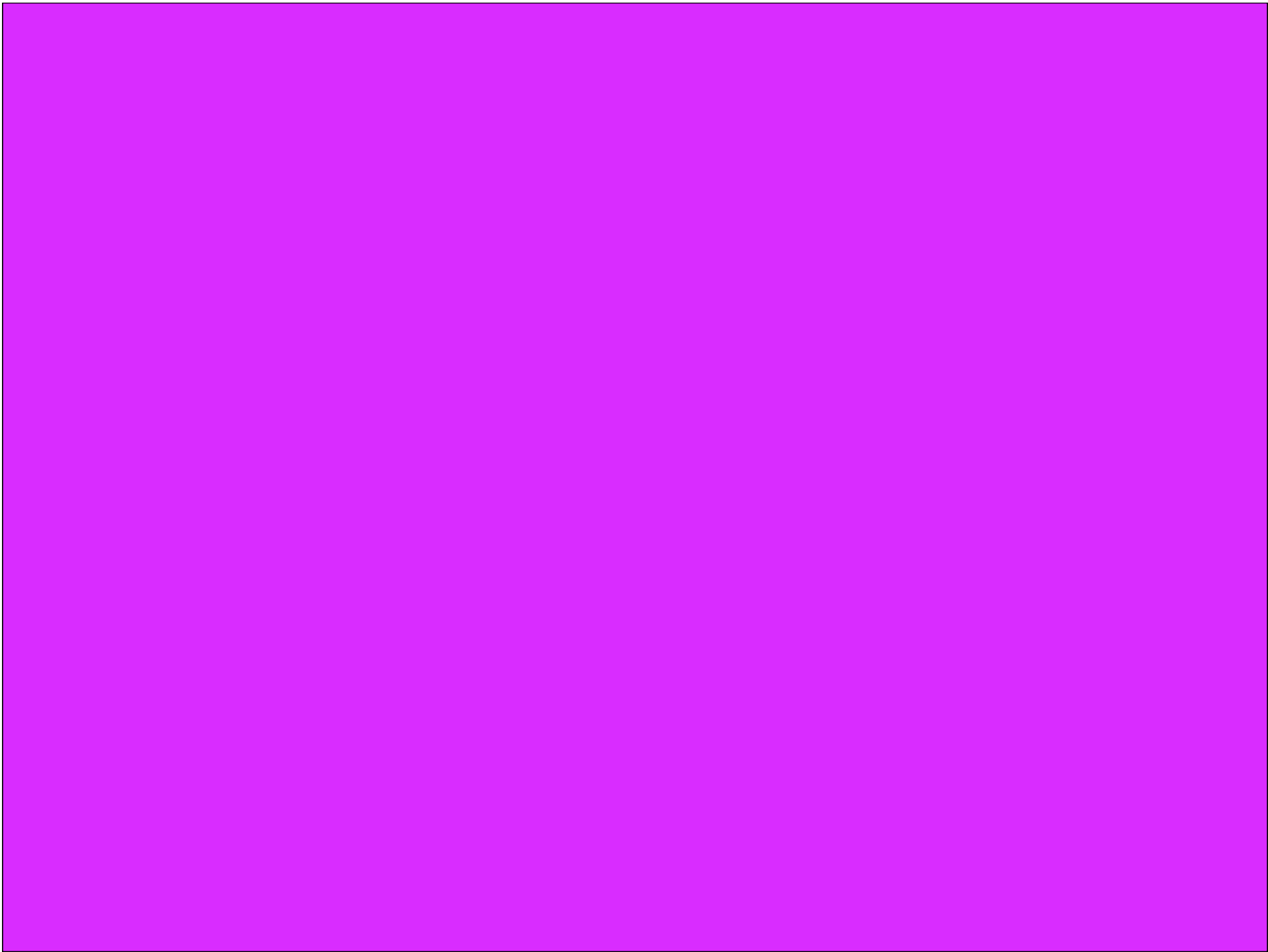
- **3000 BCE--ABACUS**
- **1450-- GUTTENBERG PRESS**
- **1837--TELEGRAPH**
- **1876--TELEPHONE**
- **1948--TRANSISTOR**
- **1994-- WWW GOES GRAPHIC**
- **2000 -- DRAFT OF HUMAN GENOME**

3500bc-1900



1900-2000





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INFORMATION SPACE -A PHASE CHANGE?



- A water molecule can exist in different phases, as it changes phases its world is very different , but only in hind-site
- Solid---->
- Liquid---->
- Gas ---->



Technology Change Rates

- Moore's law - 2 year doubling
- Network - 18 month doubling

Information speed of travel--

By spoken words, by letter, by horse, by phone

Sound speed ? (~600mph)

Network

Light speed (~186,000mps)

Abstracting the global Transformation



Perhaps think of the TRANSFORMATION
being caused by Transforms

Abstract State (color, weight, letters, people...)

A = (blue, 50, xy, 10 men ...)

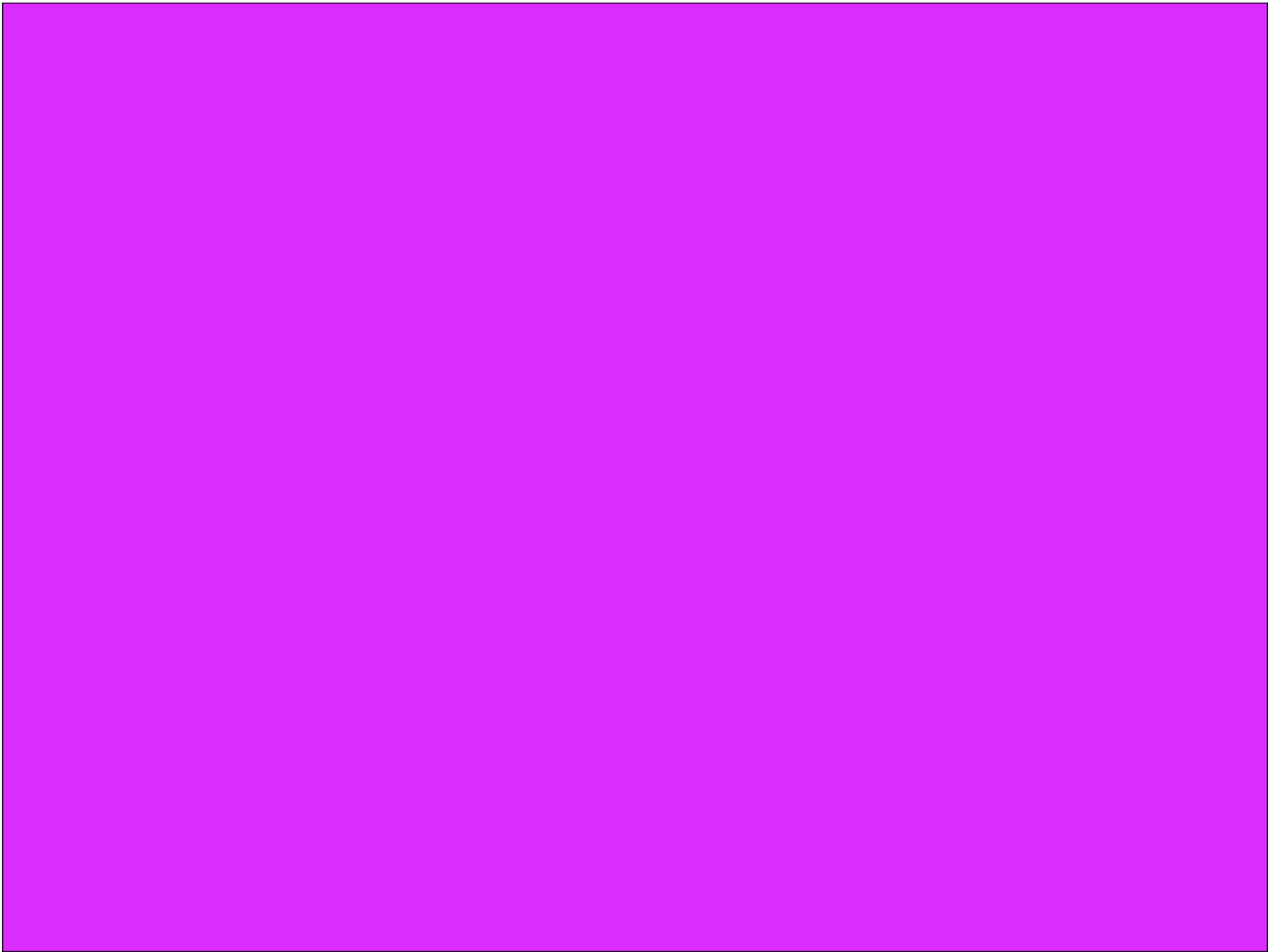
B = (red, 25, ab, 15 women)

A process has occurred that changed A to B, the process may involve
ideas, people, Machines, paint brushes call it $T(W, X, Y, Z \dots)$

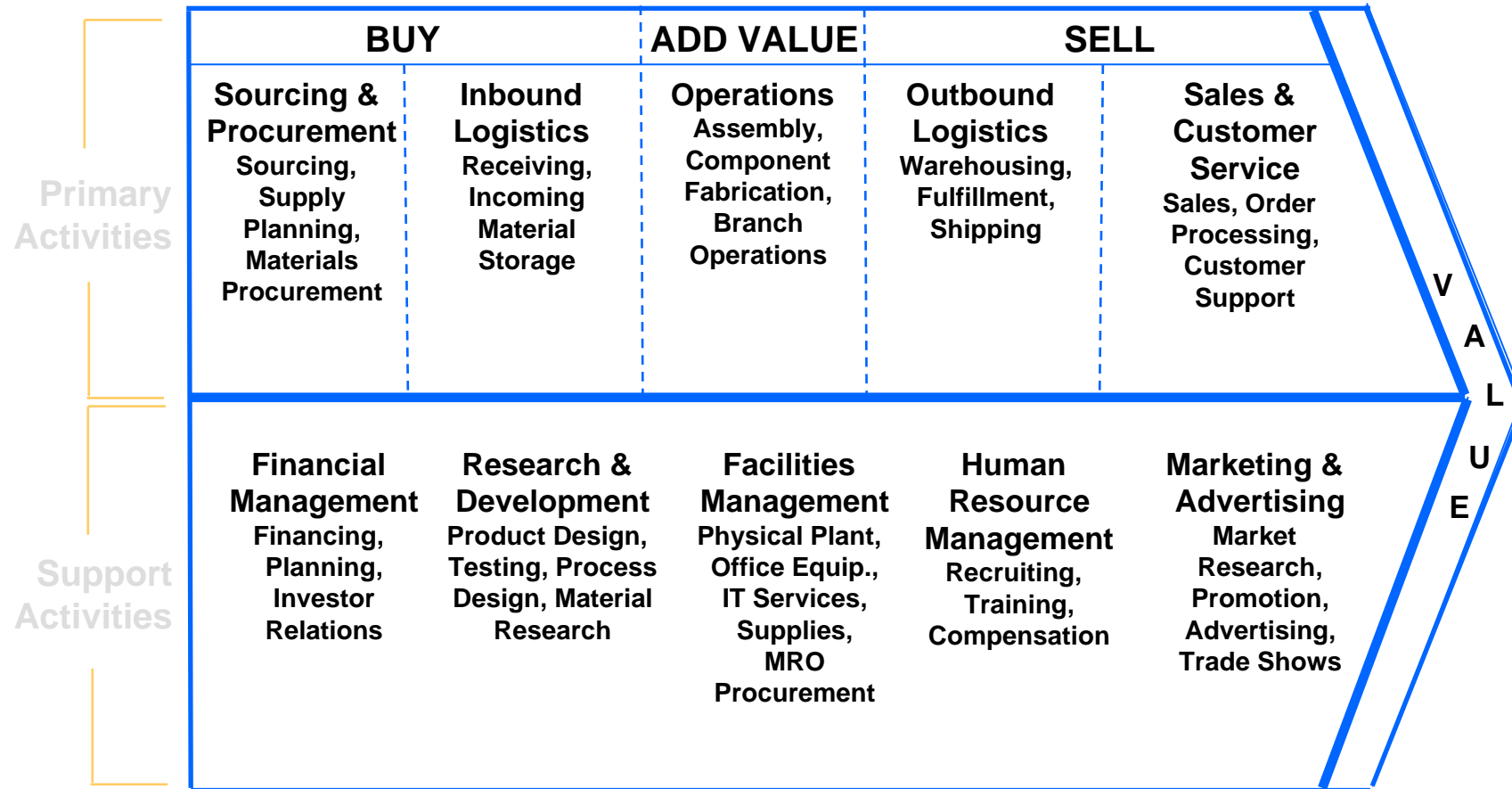
That is $B = T \text{ op } A$

Hilbert Space ? Linear Algebra ?

Just a powerful picture!



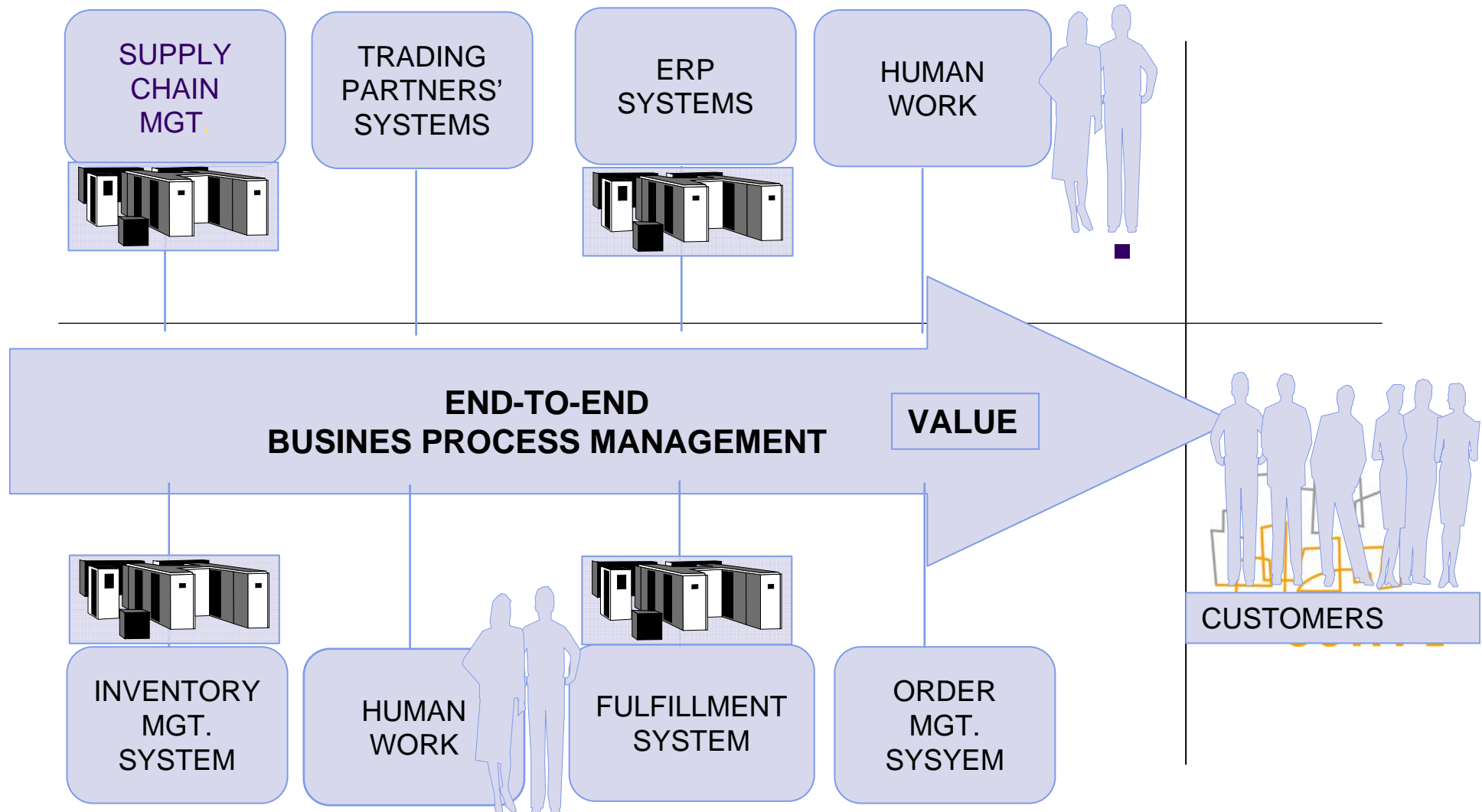
Business Roots of the Process-Managed Real-Time Enterprise: the Enterprise is its Business Processes



**Under the Hood of the Enterprise
(Porter's Value Chain Analysis)**

Source : Peter FINGAR , personal correspondence

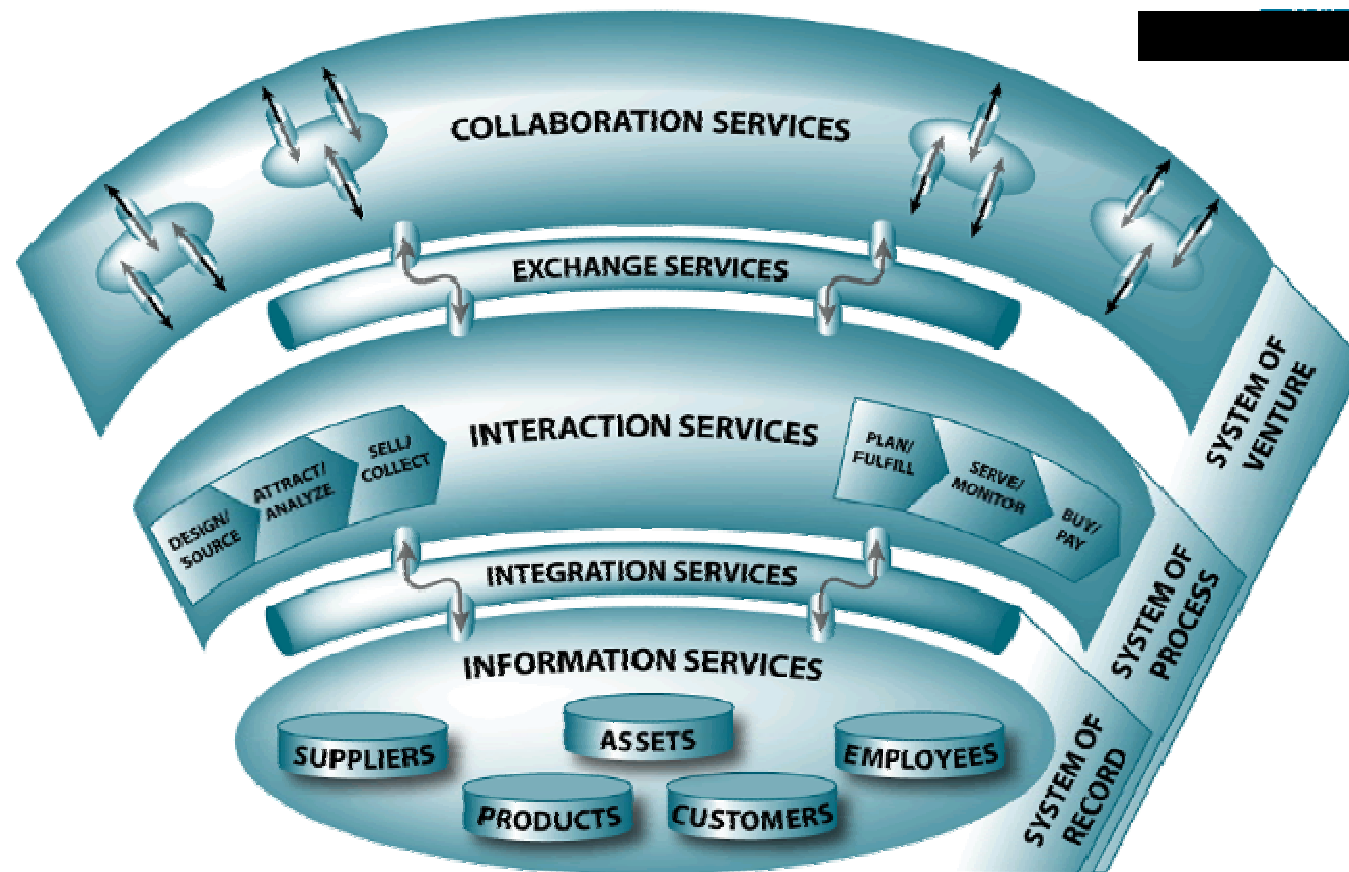
Business Process Management (BPM)



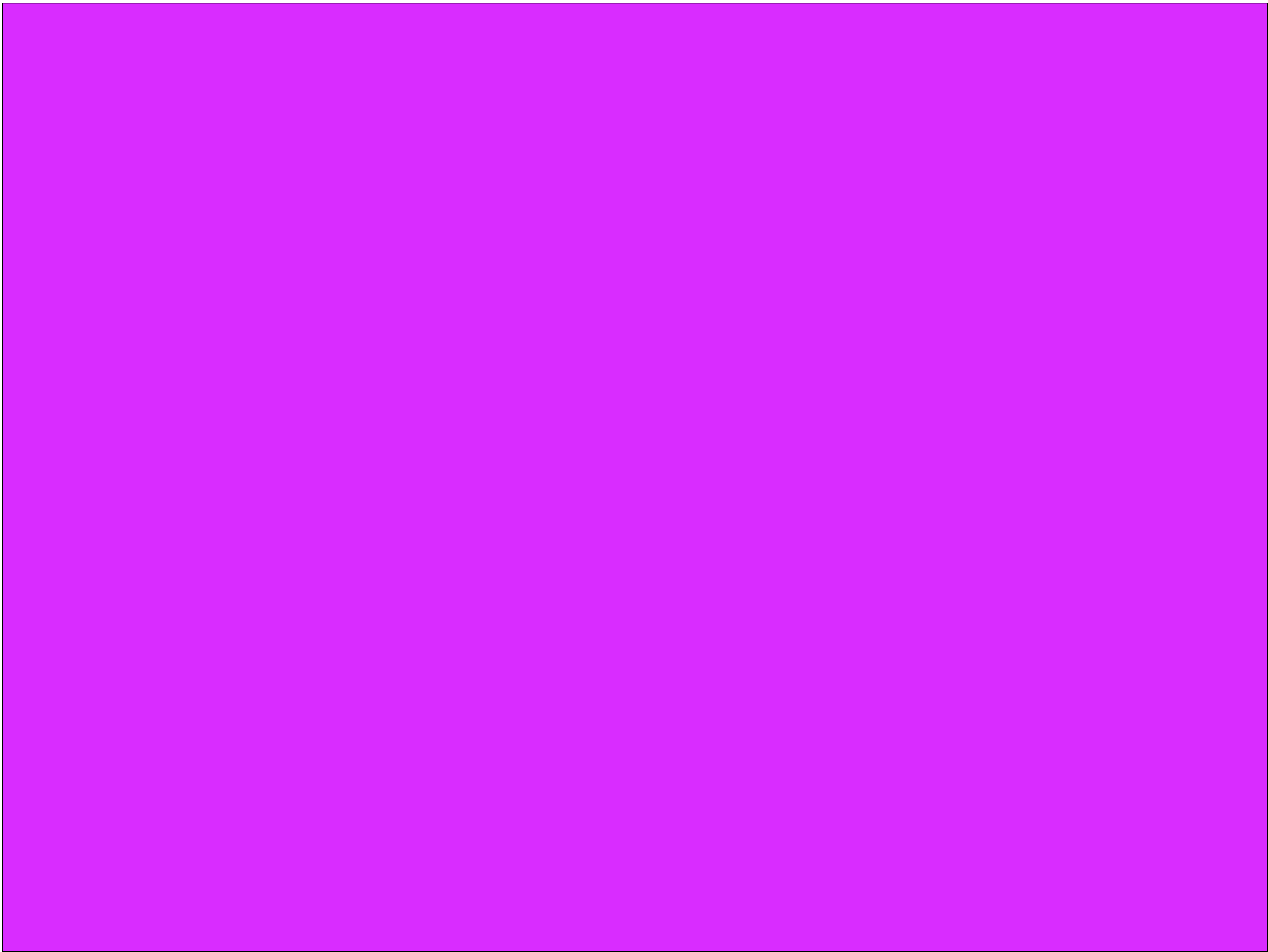
Source : Peter FINGAR , personal correspondance

Process-Oriented Architecture

From *Systems-of-Record* to *Systems-of-Process*
Scalable Real Time Agile



Source: AMR Research





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GLOBALIZATION

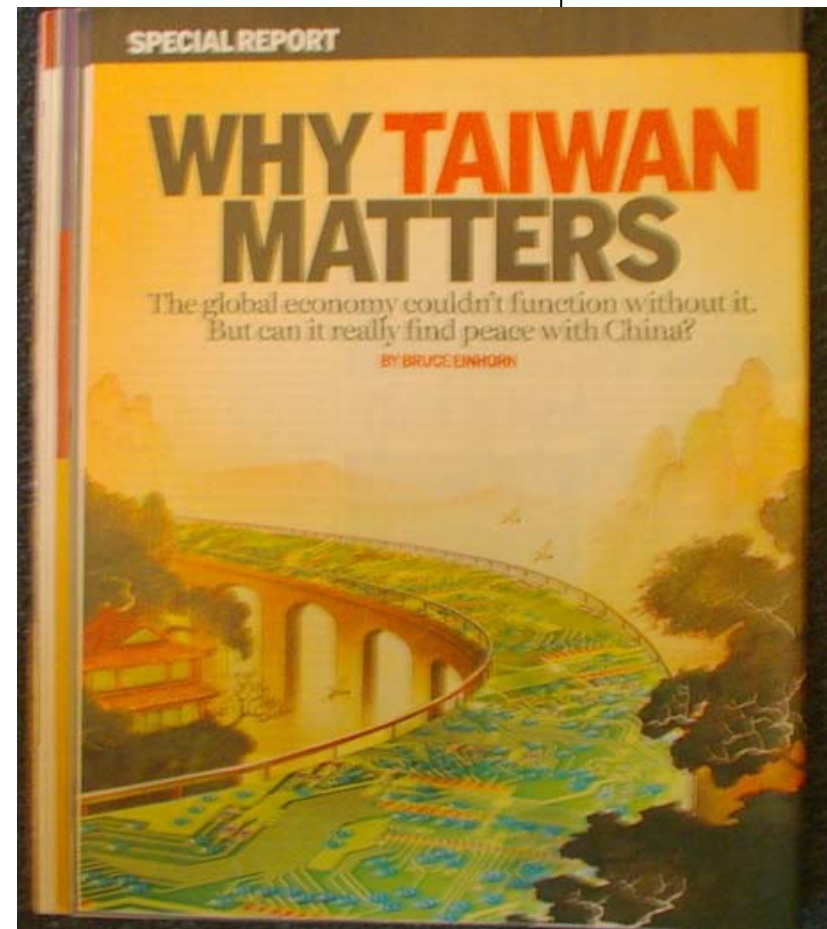
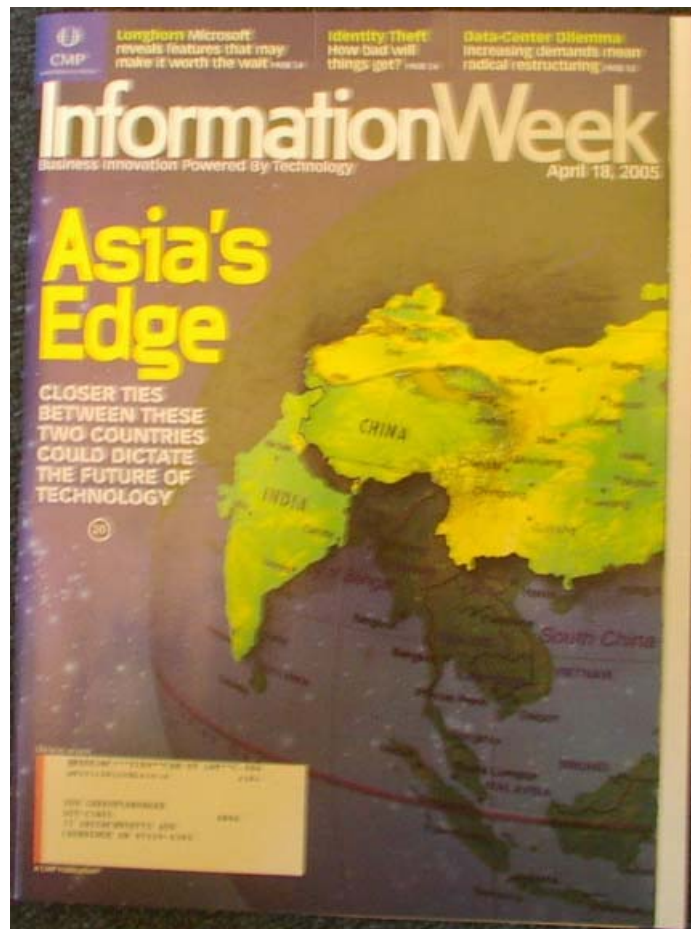
- Innovate without emigrate
 - Distance is not an issue
 - Language is not an issue
 - Design can occur any where
- AND --- An economic incident, Legislation or a strike or a medical breakthrough or a discovery , or ANYWHERE on the Globe can directly, immediately effect your Enterprise

Columbus was wrong (for information space)

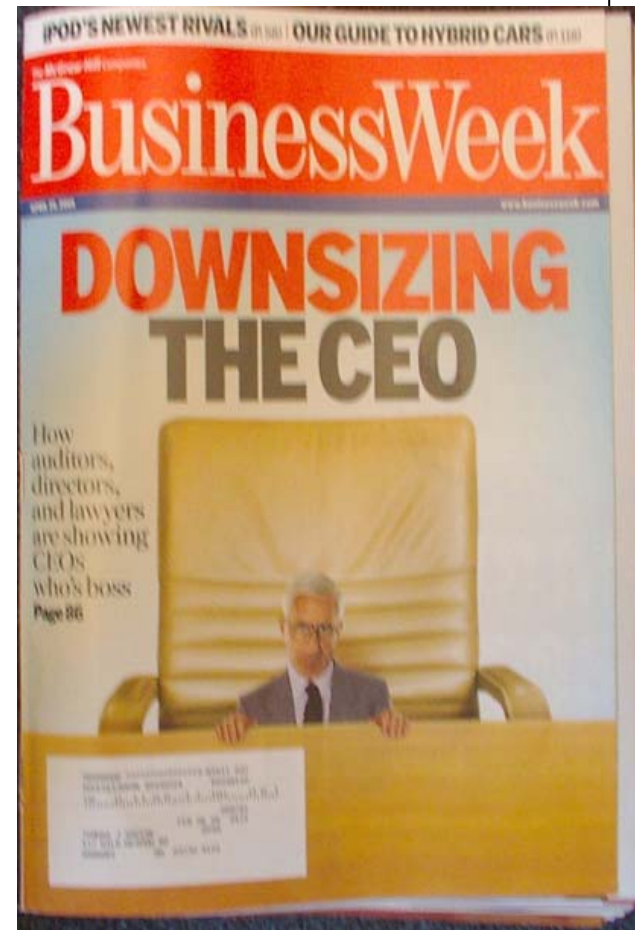
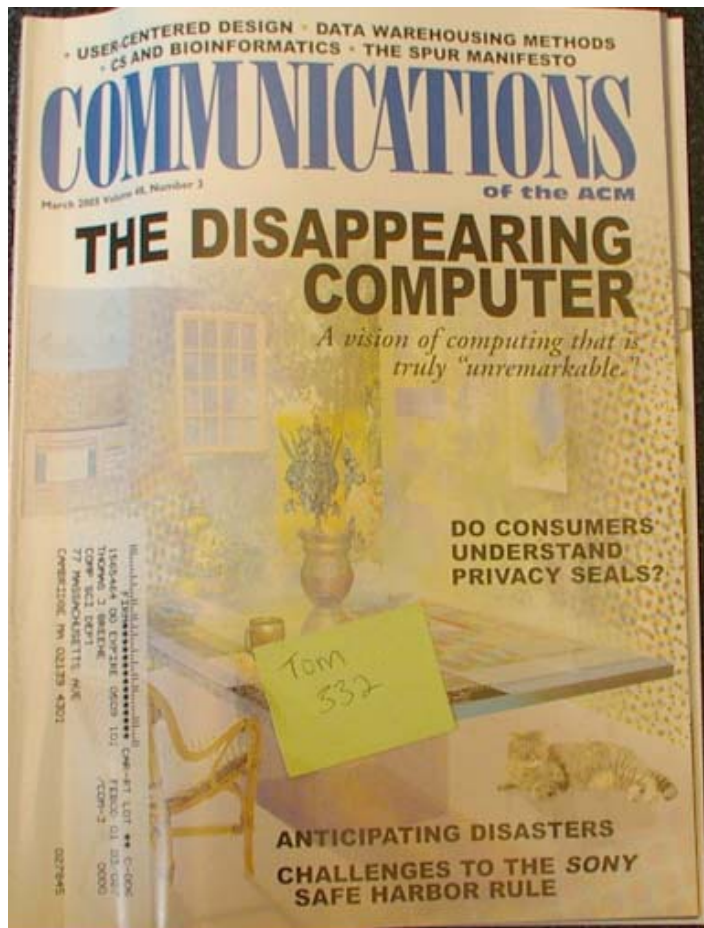


- ... WE are all INTER-connected by the NET for information across all boundaries of geography and language.
- THE WORLD IS NOT ROUND
- “THE WORLD IS FLAT”-T. Friedman
- ...and becoming flatter

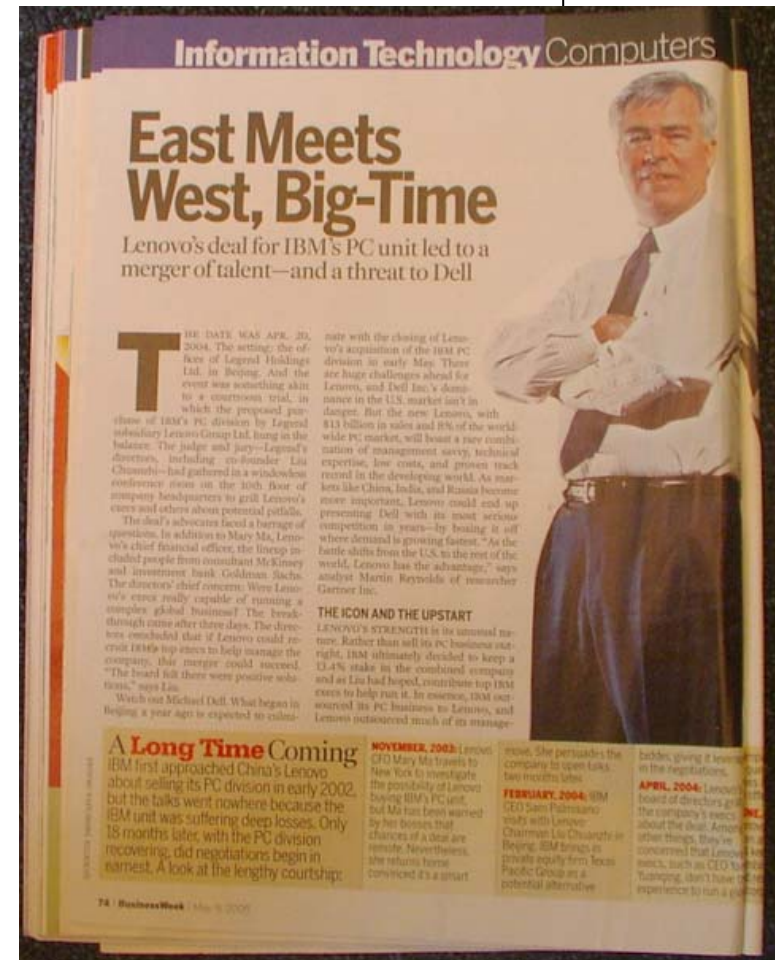
Asia-1



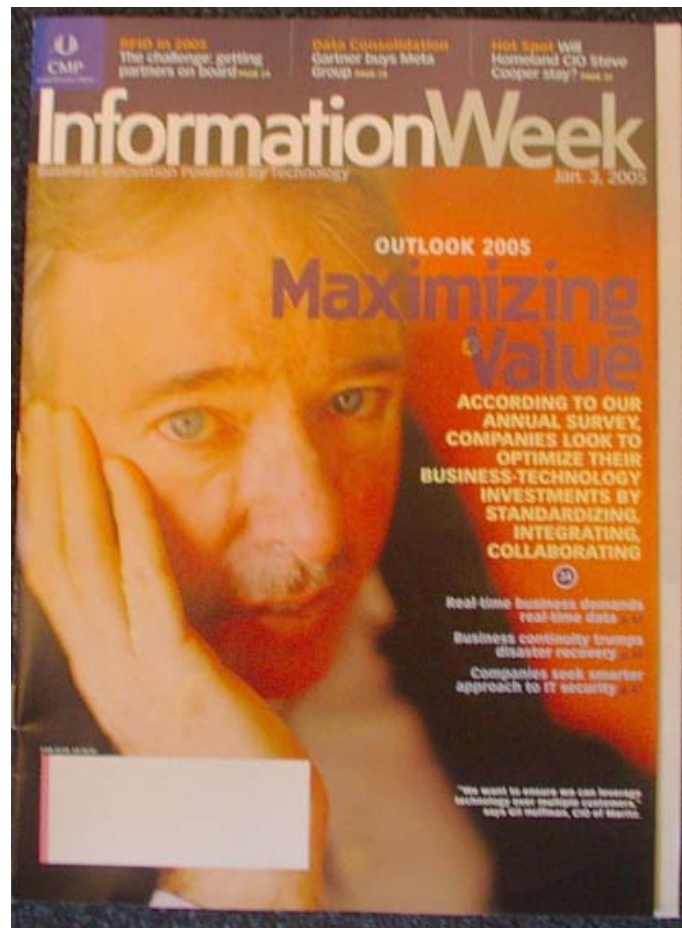
Increasing technology/Changes



Change in global landscape



Maximum value-- (Cheaper, better, ...)





Examples from the Flat Earth

- Language barriers are down (2)
- University education is free and instantly accessible (no certification) (2)--OCW OCW+
- Information is excessive - 10,000 books, 35 languages
- The BLOG
- Our Lady of Guadalupe statues in Mexico --mostly from China
- Cell phone calls from the Amazon River
- My energy bill has doubled in 12 months.

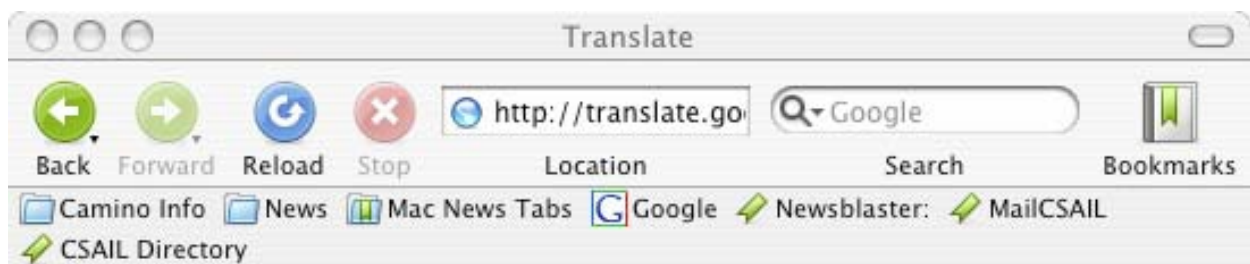


Language Barrier

INFORMATION FLOWS FREELY AND INSTANTLY
AROUND THE GLOBE

Recent examples

- Death of the pope
- 9-11
- Berlin wall
- Elections - Britain, Iraq, Palestine, etc.



This text has been [automatically translated](#) from English:

摘要：通信和信息革命有已经导致变化在企业上的快速改变的套技术。然而“顾客的”期望企业由对这个网际网络和网的其他个人用途并且改变。他们期待反应时间为任一种交易瞬间。主持步幅变动是这个问题。使能非常快速反应的技术是复杂和他们自己快速改变。使用他们要求学习新技能和改变的当前步骤。可使用变革是企业好处下个边境。由于全球性竞争在不定的时

Google Search

Translate text

ABSTRACT: The communication and information revolution has a fast changing sets of technologies that have already caused changes in the enterprise. However expectations of the "customers" of the enterprise have also changed by their personal use of the internet and web #how

from English to Chinese (Simplified) BETA Translate

or

Translate a web page

http://

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ENGLISH

ABSTRACT: The communication and information revolution has a fast changing sets of technologies that have already caused changes in the enterprise. However expectations of the "customers" of the enterprise have also changed by their personal use of the internet and web. They expect a Time of response for any transaction to be Instantaneous. Managing the pace of change is the problem. The technologies that enable very fast response are complex and themselves fast changing . To use them requires learning new skills and changing current procedures. Operational Transformation is the next frontier of business advantage. Because of global competition in uncertain times, The enterprise of all sizes must be configured to change the way they conduct business and reinvent their operations or face losing to competitors who do change. These issues will be examined and a possible solution to the problem offered.

GERMAN

A U S Z U G: D i e K o m m u n i k a t i o n u n d d i e I n f o r m a t i o n s v e r f ä h r u n g h a t s c h n e l l e ä n d e r n d e S ä t z e T e c h n o l o g i e n , d i e b e r e i t s Ä n d e r u n g e n i m U n t e r n e h m e n v e r u r s a c h t h a b e n . j e d o c h h a b e n E r w a r t u n g e n " K u n d e n " d e s U n t e r n e h m e n s a u c h d u r c h i h r e n p e r s ö n l i c h e n G e b r a u c h d e r d a s I n t e r n e t u n d N e t z g e ä n d e r t . S i e e r w a r t e n e i n e A n s p r e c h z e i t f ü r j e d e m ö g l i c h e V e r h a n d l u n g , b l i t z s c h n e l l z u s e i n . D e n S c h r i t t d e r Ä n d e r u n g z u h a n d h a b e n i s t d a s P r o b l e m . D i e T e c h n o l o g i e n , d i e s e h r s c h n e l l e r A n t w o r t e m ö g l i c h e n , s i n d k o m p l i z i e r t u n d s e l b s t s c h n e l l e s Ä n d e r n . s i e z u b e n u t z e n e r f o r d e r t n e u e F ä h i g k e i t e n d e s L e r n e n s u n d ä n d e r n d e ü b l i c h e V e r f a h r e n . F u n k t i o n s f ä h i g e U m w a n d l u n g i s t d i e f o l g e n d e G r e n z e d e s G e s c h ä f t s v o r t e i l s . W e g e n d e r g l o b a l e n K o n k u r r e n z i n d e n u n s i c h e r e n Z e i t e n , m u ß d a s U n t e r n e h m e n a l l e r G r ö ß e n z u s a m m e n g e b a u t w e r d e n , u m d i e W e i s e z u ä n d e r n , d i e s i e G e s c h ä f t l e i t e n u n d i h r e B e t r i e b e o d e r d a s G e s i c h t , d a s z u d e n K o n k u r r e n t e n v e r l i e r t r e i n v e n t , d i e ä n d e r n . D i e s e A u s g a b e n w e r d e n ü b e r p r ü f t u n d e i n e m ö g l i c h e L ö s u n g z u m P r o b l e m g e b o t e n a n .

PORTUGUESE

SUMÁRIO: A volta de um a comunicação e de informação jogos em mudança rápida de tecnologias que têm causado já mudanças na empresa. Entretanto as expectativas dos "clientes" da empresa mudaram também por seu uso pessoal do Internet da correia fotográfica. Esperamos um momento de resposta para toda a transação de ser instantâneos. Controlar o ritmo da mudança é o problema. As tecnologias que permitem a resposta muito rápida são complexas e elas mesmas mudam rapidamente. Usá-los requer habilidade e novas da aprendizagem e procedimentos atuais em mudança. A transformação operacional é a frente a seguir da vantagem do negócio. Por causa da competição global em épocas incertas, a empresa de todos os tamanhos deve ser configurada para mudar a maneira que conduz o negócio e reinventar suas operações ou cara que perderem ao concorrer que mudam. Estas edições serão examinadas e uma solução possível ao problema será oferecida.

ITALIAN

EXTRACTO: La comunicazione e la rivoluzione dell'informazione tiene sistemi che cambiano rapidamente delle tecnologie che hanno causato ya cambiamenti nella impresa. Sine embargo le aspettative dei "clienti" della impresa hanno cambiato per il suo uso personale del Internet e della tela. Contano con una epoca della risposta para cualquier transacción de ser instantáneos. El manejo del paso del cambio es el problema. Las tecnologías que permiten respuestas muy rápidas son complejas e ellos mismo se el cambio rápido. Utilizarlas requieren nuevas habilidades e el aprendizaje procesos actuales que cambian. La transformación o peracionales la frontera siguiente de la ventaja del negocio. Debido a la competición global en épocas inciertas, la empresa de todos los tamaños se debe configurar para cambiar la manera que dirigen negocio y que reinventan su operación o cara que pierde a los competidores que cambian. Estas ediciones serán examinadas y una solución posible al problema será ofrecida.

FRENCH

ABRÉGÉ: La communication e la révolution de l'information a les changements transapides de technologies qui ont déjà causé des changements de l'entreprise. Cependant les espérances des "clients" de l'entreprise ont également changé par leur utilisation personnelle de l'Internet et de l'enchaînement. Ils s'attendent à un temps de réponse pour n'importe quelle transaction pour être instantanés. La gestion du pas du changement est le problème. Les technologies qui permettent la réponse très rapide sont complexes et elles-mêmes changent rapidement. Les employés exigent de nouvelles qualifications d'étude et de processus actuels changeants. La transformation opérationnelle est la prochaine frontière de l'avantage d'affaires. En raison de la concurrence globale dans des périodes incertaines, l'entreprise doit ajuster les tailles doit être configurée pour changer la manière qu'ils conduisent des affaires et réinventer leur opération ou visager perdant aux concurrents qui changent. Ces issues seront examinées et une solution possible au problème sera offerte.

SPANISH

RIASSUNTO: La comunicación e la revolución dell'informazione ha insieme cambio de velocidades de las tecnologías que ya han causado cambios en la empresa. Entretanto las expectativas de los "clientes" de la empresa han cambiado por su uso personal de Internet y de la tela. Cuentan con una época de la respuesta para cualquier transacción de ser instantáneos. El control del paso del cambio es el problema. Las tecnologías que permiten respuestas muy rápidas son complejas e ellas mismas mudan rápidamente. Usarlas requiere habilidades nuevas e aprendizaje procesos actuales que cambian. La transformación operativa es la frontera siguiente de la ventaja de negocios. Debido a la competición global en épocas inciertas, la empresa de todos los tamaños se debe configurar para cambiar la manera que dirigen negocio y que reinventan su operación o cara que pierde a los competidores que cambian. Estas ediciones serán examinadas y una solución posible al problema será ofrecida.

Korean

요약: 전달과 정보 혁명에는 이미 기업안에 변경의 원인이 된 기술의 빠른 변경 세트가 있다. 그런데 기업의 "고객"의 기대는 인터넷 및 웹의 그들의 개인 사용에 의하여 그 리고 변경했다. 그들은 즉석 인 어떤 거래를 위해 응답의 시간을 예기한다. 변경의 걸음을 처리함것은 문제 이다. 아주 빠른 응답을 가능성을 주는 기술 복잡하다 그리고 그들 자신은 빠른 변경 이다. 그들을 사용함것은 학습 새로운 특기 및 변경 현재 절차를 요구한다. 직전 전이는 사업 이점의 다음 국경 이다. 미심쩍은 시간안에 세계적인 경쟁의, 방법을 변경하기 위하여 모든 규모의 기업이 형성되어야 하기 때문에 그들은 사업을 지휘 하고 변경하는 경쟁자에게 잃는 그들의가동 또는 마스크를 개혁 한다. 이 문제점은 시험되고 문제에 가능한 해결책은 제안될 것이다.

CHINESE

摘要: 通信和信息革命有已经导致变化在企业上的快速改变的套技术。然而"顾客的"期望企业由对这个网际网络和网的他们的个人用途并且改变。他们期待反应时间为任一种交易瞬间。主持步幅变动是这个问题。使能非常快速反应的技术是复杂和他们自己快速改变。使用他们要求学习新技能和改变的当前步骤。可使用 变革是企业好处下个边境。由于全球性竞争在不定的时期,所有大小企业必须被配置改变他们举办事务和重创他们的操作或面孔丢失 对竞争者改变的方式。这些问题将被审查并且对这个问题的一种可能的解法将被提供。

Japanese

概要: コミュニケーションに及び情報革命に技術の速い 変更セットがある既に企業の変更をもたらしてしまった。但し企業の"顧客"の予想はまたインターネット及び網の彼らの個人的 な使用によって変わった。彼らは即時であるどのトランザクションのための応答の時間でも期待する。変更のペースを管理することは問題である。技術非常に速い応答を可能にする複雑, 自身は 速い変更である。それらを使用することは勉強の新しい技術及び 変更の現在のプロシージャを要求する。操作上の変形はビジネス 利点の次のフロンティアである。不確かな時の全体的な競争のために, 彼らがビジネスを行ない, 競争相手へ失う彼らの操作か表面をreinvent 方法を変えるためにすべてのサイズの企業は形成されなければならない変える。これらの問題は検査され, 問題への 可能な解決は提供される。

ENGLISH

ABSTRACT: The communication and information revolution has a fast changing sets of technologies that have already caused changes in the enterprise. However expectations of the "customers" of the enterprise have also changed by their personal use of the internet and web. They expect a Time of response for any transaction to be instantaneous. Managing the pace of change is the problem. The technologies that enable very fast response are complex and themselves fast changing . To use them requires learning new skills and changing current procedures. Operational Transformation is the next frontier of business advantage. Because of global competition in uncertain times, The enterprise of all sizes must be configured to change the way they conduct business and reinvent their operations or face losing to competitors who do change. These issues will be examined and a possible solution to the problem offered.

MIT-3

Topics of Info openness



1. Open source -- Emacs -25 years ago,(copyleft)
2. Open Course Ware -- 5 years ago
3. Science Commons -- This year

(OOPS--W3C)



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Reflections from MIT President Susan Hockfield



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- **Susan Hockfield**, President of MIT

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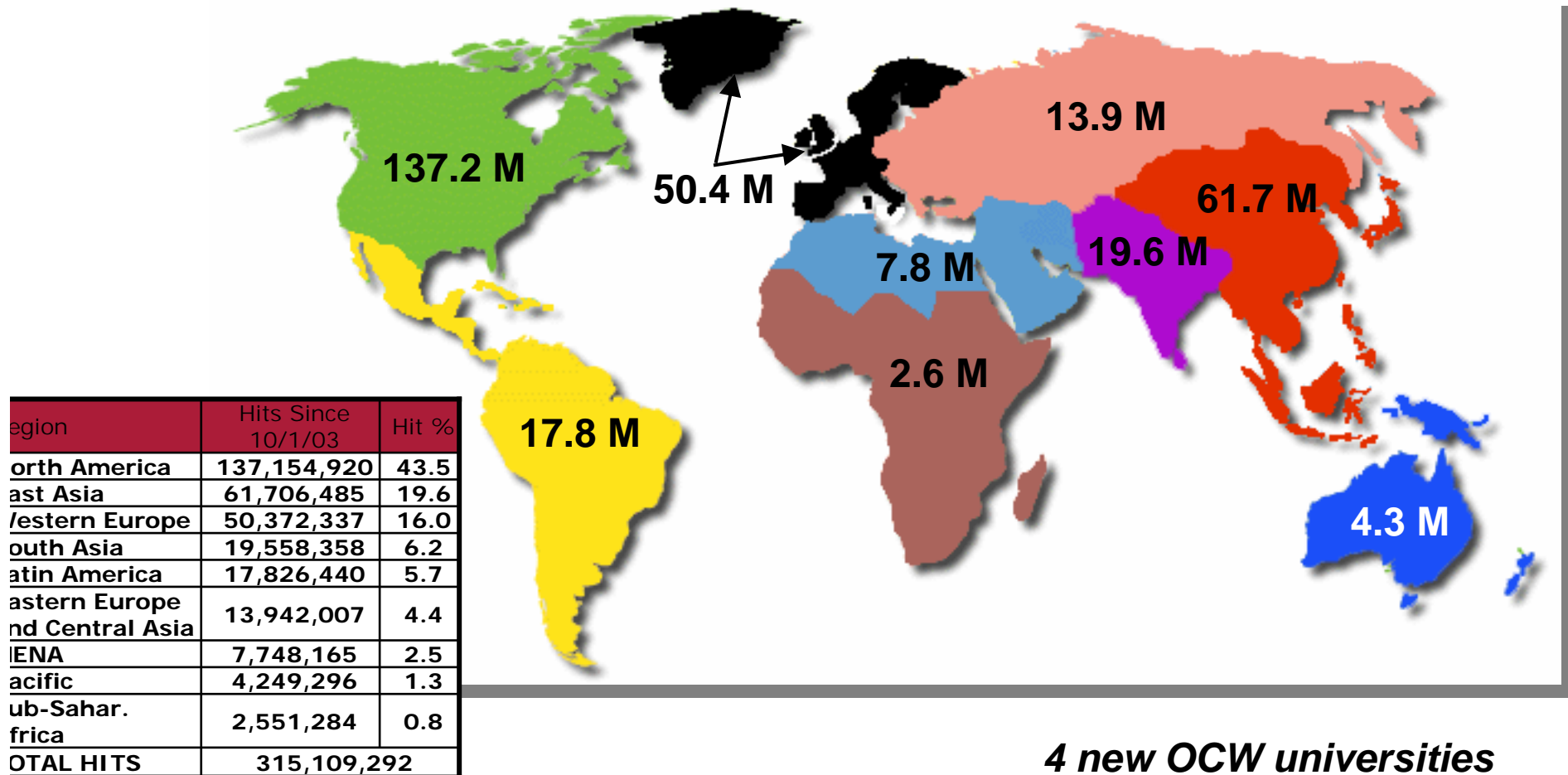
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4 new OCW universities

**The Academy should keep
Copyright -- Public domain
science- paid for by the
public, not IP gatekeepers.**

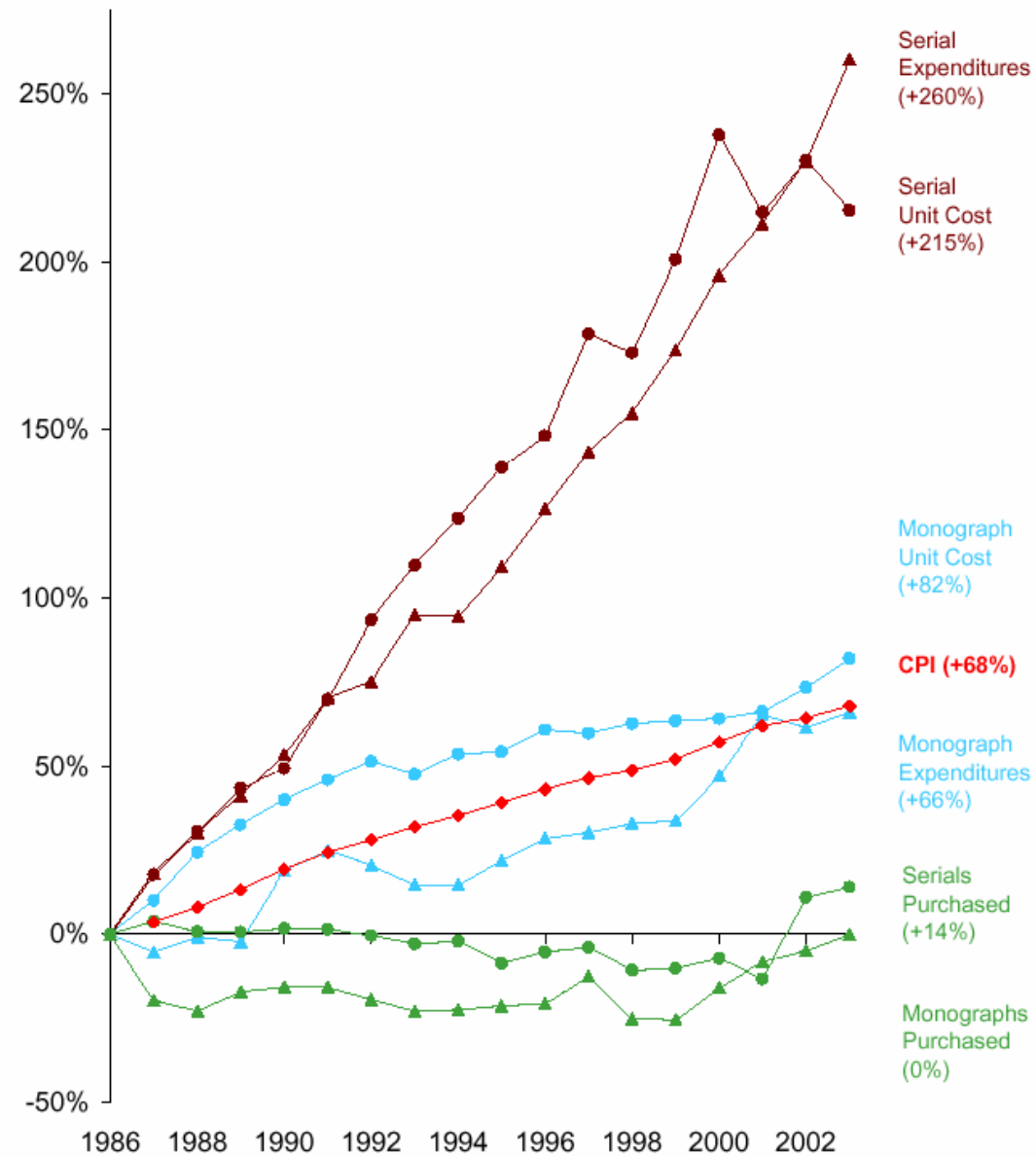


- CREATIVE COMMONS

- SCIENCE COMMONS

Double cost of Journals in 10 years

Monograph and Serial Costs in ARL Libraries, 1986-2003



Source: ARL Statistics 2002-03, Association of Research Libraries, Washington, D.C.

Federation: DSpace Federation - Mozilla Firefox

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http://dspace.org/federation/index.html

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The DSpace Federation

The DSpace Federation coordinates the planning, research, development, and distribution of DSpace, an open source digital repository system. The DSpace Federation also advocates for digital archiving initiatives open access to research literature.

At this time, there is no formal membership structure, just the collective participation of institutions using DSpace, who often face the same set of challenges. Currently participating in the DSpace Federation are research institutions, libraries, archives, cultural heritage institutions, government agencies, and corporations.

We actively encourage other institutions to use DSpace. If your organization is running a production DSpace system, please [add your URL](#) to the DSpace Wiki.

DSpace Federation Goals

Members of the Federation share the following goals:

- Sharing in the development and maintenance of the DSpace source code.
- Developing a critical corpus of content that represents the intellectual output of the world's leading research institutions.
- Promoting the continued development of the DSpace service through the open source community.
- Promoting the interoperability of archival repositories.
- Ensuring the long-term preservation of scholarly work by complying with published standards and supporting national and international initiatives to develop standards in this domain.

Supporting the DSpace Community

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[E-Mail me with Comments or Suggestions](#)

Concordance to Turn of the Screw - Henry James

This page can be accessed directly from your browser as "<http://www.concordance.com/ttur.htm>"

Search the book:

Search Input Words:

In the box above, you can type any of the following choices, then **click the Go! button**;

- (a) Put in **one word** to find all occurrences of that word in the book;
- (b) Put in **two words** to find all occurrences where those words are within 70 characters of each other;
- (c) Put in **three or more** to find all occurrences of the phrase consisting of the entered words;
- (d) Put in **a word preceded by a = sign**, e.g. **=GOOD** to find synonyms and related words;
- (e) Put in **a number** to go to that location in the text, e.g. 10000 will go to the 10000th character in the text; or 1 will go to the beginning of the book;
- (f) Enter, for instance, **L*** to get all words that begin with L

Turn of the Screw - Henry James - Microsoft Internet Explorer

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http://www.concordance.com/cgi-bin/methr.pl

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Home Page - 1000 Searchable books --- 1913 Unabridged Dictionary

Click here to return to book search page

Concordance to Turn of the Screw - Henry James

Choose a text phrase from the list and click the 'Get Surrounding Text' button below:

(Word searched is: EVIL, 7 occurrences)

1 stretch. ~ The limit of this < evil > time had arrived only when, on the
2 te as unmistakable horror and < evil > : ~ a woman in black, pale and drea
3 " ~ "For the love of all the < evil > that, in those dreadful days, ~ th
4 m. And to ply them with that < evil > still, ~ to keep up the work of de
5 ght ~ and just so bowed with < evil > things, I had seen the specter of t
6 knew, the imagination of all < evil > HAD ~ been opened up to him: all
7 her desire, ~ an inch of her < evil > that fell short. This first vividn

Get Surrounding Text

Turn of the Screw - Henry James ** (VI) ** (Character 73142 of 241137)

[Home Page - 1000 Searchable books](#) --- [1913 Unabridged Dictionary](#)

(Word searched is: EVIL --- Occurrence 1 of 7)

Next Occurrence

Prior Occurrence

Next Text Page

Prior Text Page

Return to Search Results

Choose Different Word(s) or Method



morrow's sun

was high I had restlessly read into the fact before us almost all the meaning they were to receive from subsequent and more cruel occurrences.

What they gave me above all was just the sinister figure of the living man--the dead one would keep awhile!--and of the months he had continuously passed at Bly, which, added up, made a formidable stretch.

The limit of this [evil](#) time had arrived only when, on the dawn of a winter's morning, Peter Quint was found, by a laborer going to early work, stone dead on the road from the village: a catastrophe explained--superficially at least--by a visible wound to his head; such a wound as might have been produced--and as, on the final evidence, HAD been--by a fatal slip, in the dark and after leaving the public house, on the steepish icy slope, a wrong path altogether, at the bottom of

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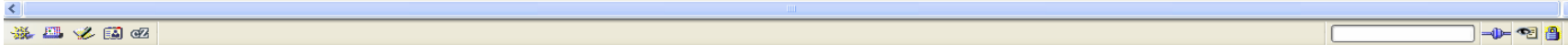
A service brought to you by the **Erasmus Electronic Publishing Initiative**

Contact: [dr. H.H. Ellermann](#)

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5 new Dspace Universities



The Challenges to the Enterprise



- Extreme competition
- Globalization
- Rapidly changing technologies
- Forces beyond your control (world events are now directly coupled to your activity)

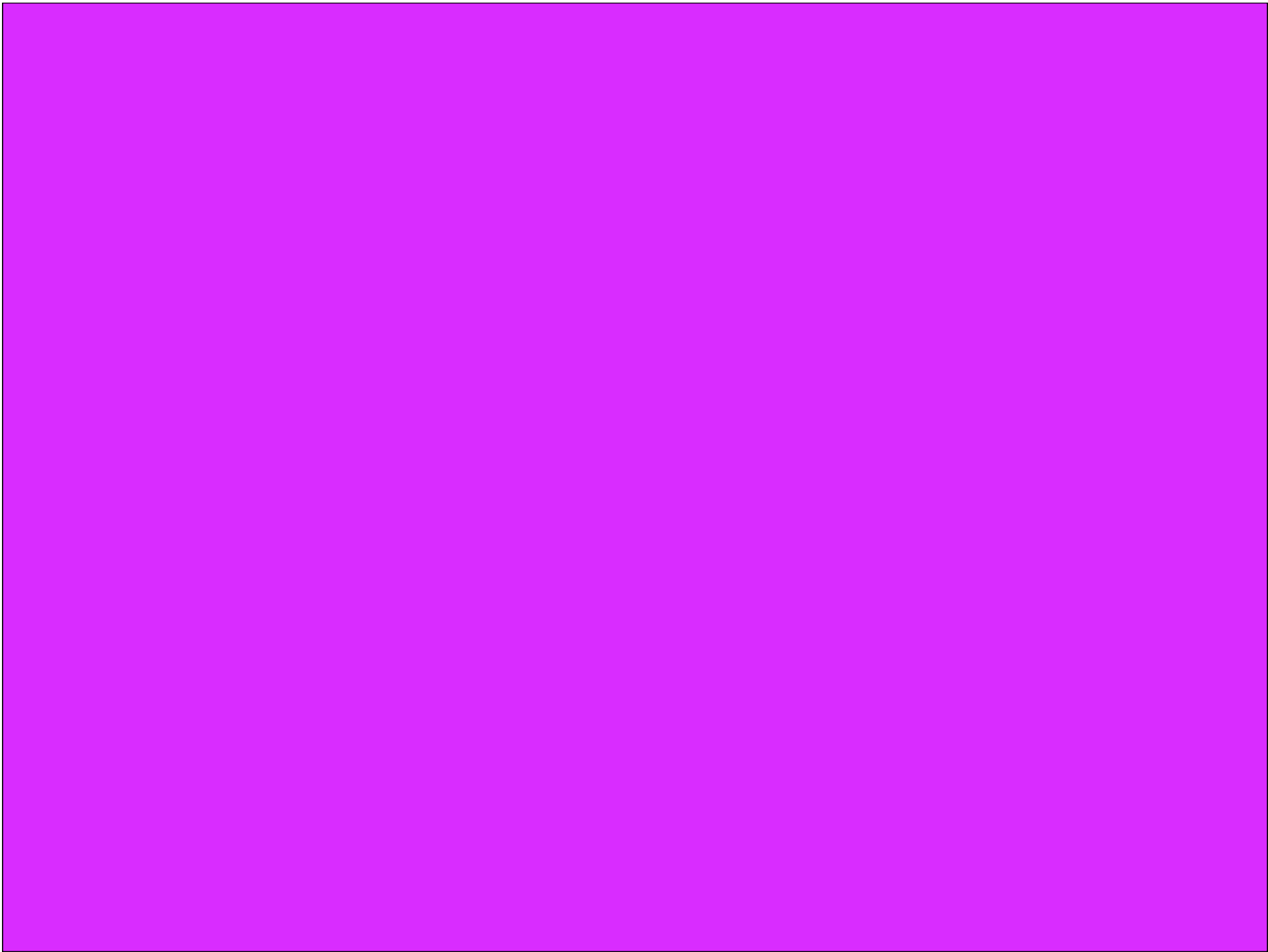
The **Response** must be-

A Flexible, Nimble, continuous self-educating,
continuous world monitoring ,new Enterprise

Extreme competition



- **Established companies should brace themselves for a future of extreme competition**, which will make the pressures of the 1980s and 1990s look tame by comparison. Incumbents must understand how powerful forces are aggregating once-distinct product and geographic markets, enhancing market-clearing efficiency, and increasing specialization in the supply chain. They should respond by adopting a new approach to strategy—one that combines speed, openness, flexibility, and forward-focused thinking.
- Mature companies must learn to be young at heart. Boundless new opportunities await executives who recognize that the **days of slow change are over**
- SOURCE: Mckinsey Quarterly, 23 May 2005
- http://www.mckinseyquarterly.com/article_abstract.aspx?ar=1564&L2=21&L3=114





Outline

- A (short) History of people and technology (From Whence?)
- Some Abstractions for Enterprise Managers
- The Forces causing Faster Change
- ***Your Models now need Monitors and open design to be NIMBLE with Updates.***

The Future of the Enterprise

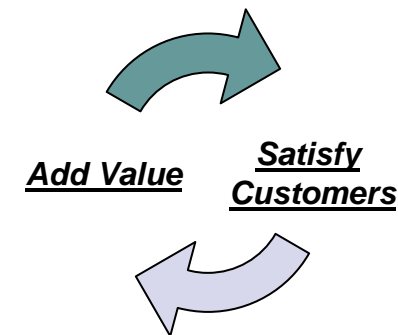
The IT revolution is just beginning.

The Technology life cycle is

- First INVENT
- Second build infrastructures
- Third-- experience the benefit

The Enterprise **MUST**
Create Almost
Real-time
Operational Change
Or
Die! (Companies,governments,
Churches--the Enterprise)

Extreme competition



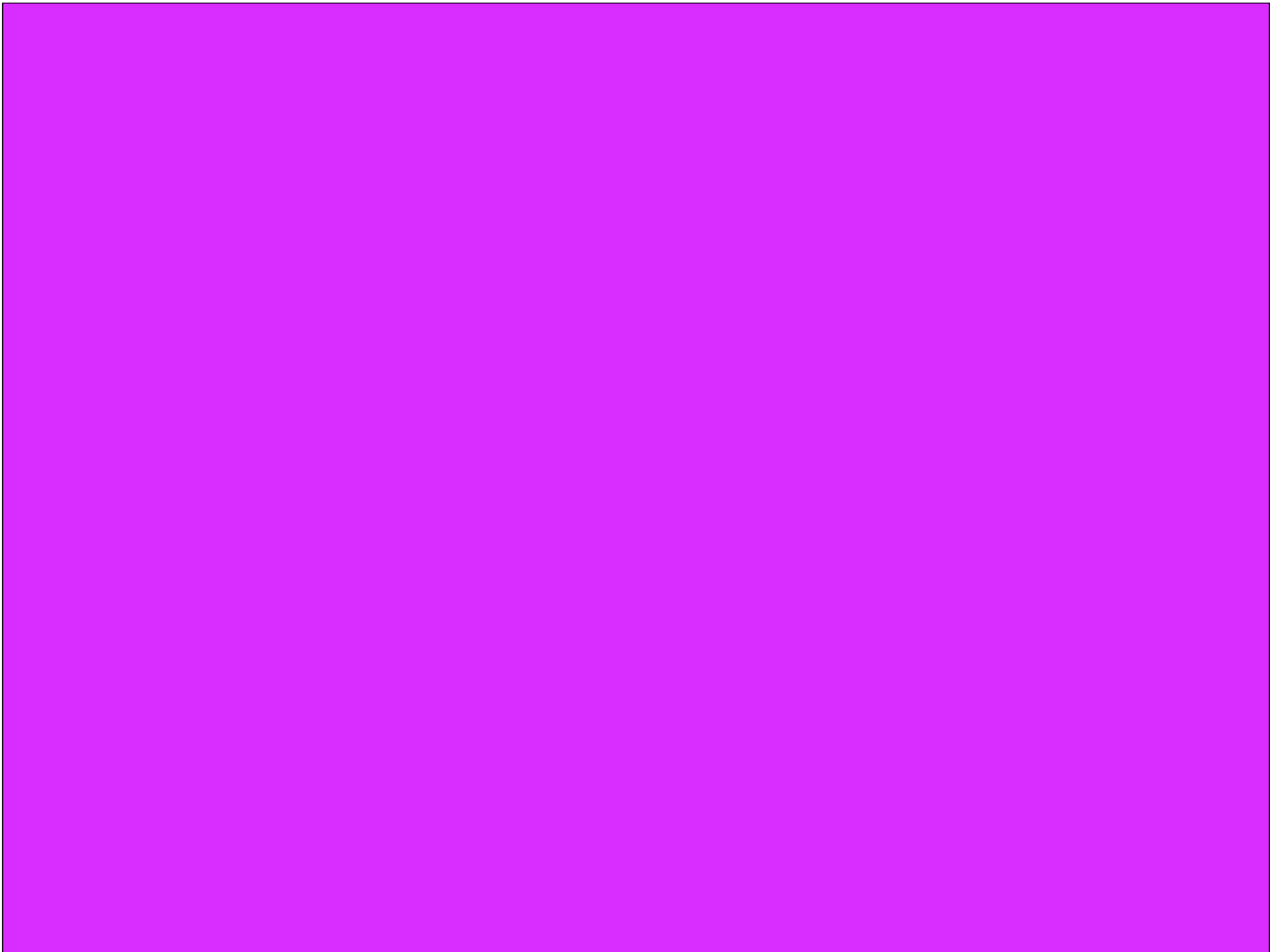
A 21st Century Value Network

Collaborative
Business
Processes



The Network is the Value-Delivery System

GLORIAD = 1st OPTICAL FIBER CIRCLING THE GLOBE



SOURCE= HBR, SEPT 2002, "SERVING THE WORLD'S POOR PROFITABLY",

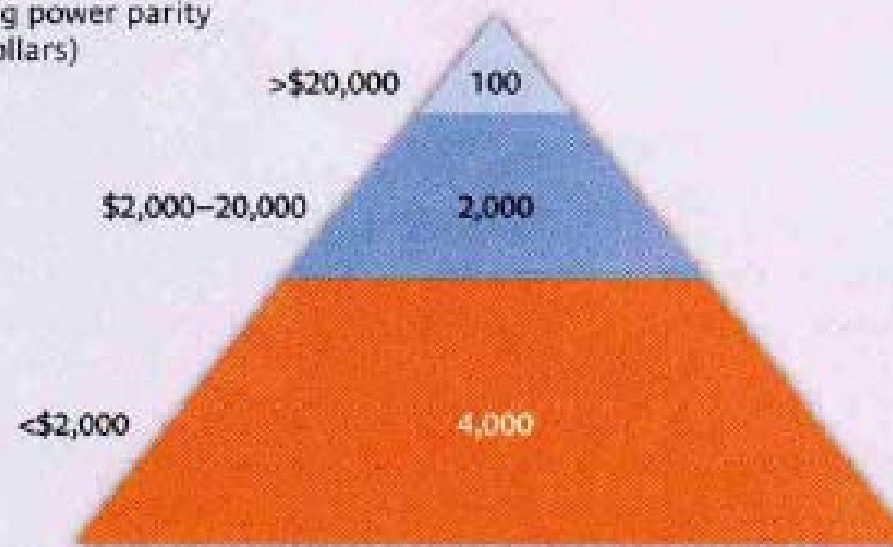
Maybe?--The world pyramid



The World Pyramid

Most companies target consumers at the upper tiers of the economic pyramid, completely overlooking the business potential at its base. But though they may each be earning the equivalent of less than \$2,000 a year, the people at the bottom of the pyramid make up a colossal market—4 billion strong—the vast majority of the world's population.

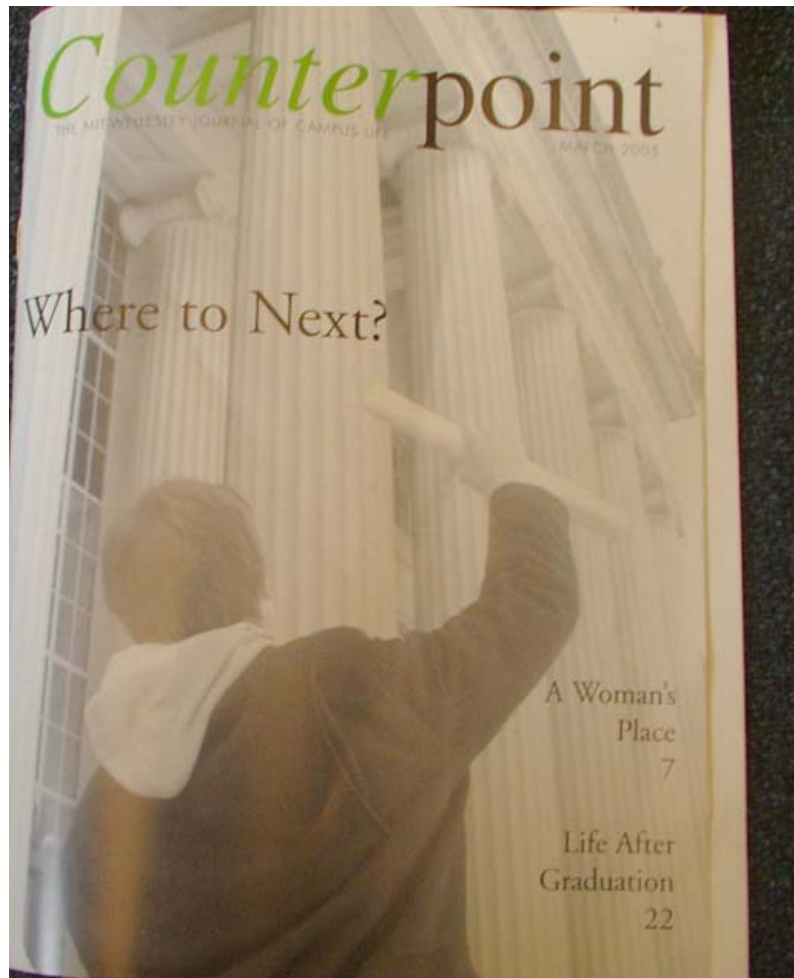
purchasing power parity
(in U.S. dollars)



population (in millions)

BY C.K. Prahalad and
Allen Hammond

Global thinking-1



6/13/2005



tjg-ICEIS 2005-FIU,FL

53

Generation Gap--accelerating change effects?



"The Generation Gap at Work," studied co-existence of four different generations of workers within the U.S. workforce and frequently, within small offices. To find a framework for understanding the gaps across generations and offered tips to manage these sometimes baffling and tense relationships smoothly. They divided the workforce into

"Matures," born between 1909 and 1945;---Matures are the silent generation. They value sacrifice, commitment, and financial and social conservatism. They remember the Depression. They're the 'Establishment.'"

"Boomers," born between 1946 and 1964;---"Boomers value themselves. They're competitive, anti-authority. They grew up with Vietnam, Watergate, Woodstock. They have high expectations. They're diplomatic, loyal and want validation. And they value privacy.

"Gen Xers," born between 1965 and 1978;---"Gen Xers were the first latchkey kids. They're entrepreneurial, pragmatic, straightforward. They grew up with AIDS, MTV, PCs, divorce.

"Millenials," born from 1979 onward.---The Millenials are neotraditionalists, optimistic and very community-centered. They're technologically adept and busy, busy. They grew up with the O.J. Simpson trial, Columbine and 9/11. They're versatile. They write blogs about their lives," said Jones.

What this means to us is that **co-workers may have fundamentally different approaches to work, teamwork, privacy, respect and authority.**

- SOURCE=February 2, 2005 issue of MIT Tech Talk (Volume 49, Number 16).

Human Change?



50% of finding strategic advantage for the Enterprise is how to use our technologies--The other 50% is how fast the human component of the Enterprise can absorb change -- Not solving both issues can be a problem.

In Conclusion...



The World is Flat in
information space and
The Enterprise must Change
to live with it!

Thank you!

On the shoulders of giants---

- HAL ABELSON --the academe
- PETER FINGAR -business perspective
- THOMAS FRIEDMAN -globalization



I SAY --- THANK YOU!