What the future holds - e-Business in the pharmaceutical industry

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e-Business in the Pharmaceutical Industry

Welcome!

Speaker:
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Topic:
- Examining the challenges and opportunities associated with e-Business in a pharmaceutical industry context….

Note:
- EMEA = Europe, Middle East & Africa …NOT the European Medicines Evaluation Agency!
Are YOU guilty of “Original” Sin?

Nope! – all of my sins have been done before…
Introduction:

- New encounters in an “e-World” -
  - Some words & terms we’re hearing more often -

- What’s it all about?
  - And how does it relate to the pharmaceutical industry?
  - Does it apply - or is it just a passing “techno” wave?
  - What's happening in other industry sectors - can we learn from these?
  - How does it affect or influence local / global operations?
  - Can it help us meet our industry’s business goals?
...we have the technology, we can build anything, so let’s just stick an “e-” in front of everything and we’re then in e-Business. Right?

- Pharma
- R&D

...well, maybe it’s not quite that simple!

*Let’s look at what else might be involved.*
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Background (1): Generally speaking…

- **eBusiness**: The use of Internet technologies (primarily) to bring together customers, business partners, suppliers and employees.

- **eBusiness Impact**: Electronic business *causes both evolutionary and revolutionary changes* – not only for the economy at large, but for your industry, your company, as well as its customers and suppliers.

  ...eBusiness implies pro-active participation in a digital economy
A digital economy -

- What is it and who uses it?
  - It is how more and more business is being transacted today
  - It is being used in both a commercial as well as a private context
  - It brings suppliers and consumers of products & services closer…particularly in the area of information supply and demand.
  - It enables fast and accurate business decisions to be made - irrespective of industry, time-zones, geographic location, or language.

- Why is this important?
  - The rule of “supply and demand” continues to dominate a changing market place
  - A “faster, cheaper, better” syndrome increasingly determines a vendor’s market share and ultimate corporate success
  - It effects and radically changes the way we do business!
Let’s define some of the terms -

**Digital economy** -
- Business and commerce transacted electronically
- Wide-spread use of Information Technology (IT) in support business operations – internally and externally

**e-Enabled:**
- Integration of database management and information delivery systems in support of the acquisition and distribution of information.
- Enabling of management decisions based on accurate, timely and relevant information.
- Facilitating operational decisions at Internet-speed

**Portals** -
- Gateways to internal or external sources of consolidated data and information, which can be personalized according to individual need or organizational requirements
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Background (4): e-Biz - Real or imaginary?

A digital economy -

- Some familiar examples (B2C):
  - *Buying books & music*: Amazon.COM
  - *Finding products & suppliers*: AltaVista.COM, Yahoo.COM
  - *Trading Stock*: Schwab, Bloomberg, Commerce One
  - *Electronic Banking*: Deutsche Bank, Lloyds TSB, etc.

- What’s technologies are involved?
  - Internet, Intranet, Extranet, Web browsers, portals …
  - File servers, Web servers, Fire-walls, etc.
  - Diverse computing & operating systems

- In practice, the technology needed to support and participate in the digital economy is available and in use today – by all of us!
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Background (5): e-Biz - Real or imaginary?

- A digital economy -
  - Some other examples (B2B):
    - **Insurance & Banking:** Deutsche Bank, Lloyds TSB, etc.
    - **Information Brokers & Analysts:** Forrester, Meta Group, FT
    - **Global Deliveries & Carriers:** UPS, FedEx
    - **Service & Manufacturing Suppliers:** Ships, planes, cars, etc.

- So what! ...how does this translate into real money?
  - Initial focus of the digital economy has been on B2C
    - **US:** estimated Internet Healthcare Market = $206 Billion (May,00)
  - However the B2B market is much more significant - and sustainable; - it is also expanding at an incredible rate, even as we speak!
    - **PwC estimates that by taking an e-R&D approach, companies could save up to $200 Million per marketed drug!**
If e-Business is to change the course of economic and industrial history, it has to be about more than just cost savings.

It has to offer companies an opportunity to achieve growth or profits – which in a historically competitive industry is quite a challenge.

In addition, it also has to offer both suppliers and customers a chance to participate in a collaborative trading network, thereby delivering increased “added value” to them.

Without this - or if there is an absence of vision, effective strategy, or well-founded execution, many new entrants to the e-Business world will fail.

…but it’s not quite an all or nothing situation!
Electronic marketplaces may be a great way for doing business - BUT they're not ideal for behind-closed-doors negotiations and strategic collaboration between business partners.

For that, many businesses are considering, or are in the process of, building private exchanges or business-to-business interchanges / extranets.

In this way businesses can adapt to emerging e-Business technologies and create closed, close-knit “communities of practice”.

*Private exchanges will be used to gain a competitive advantage via online collaboration with partners, real-time supply-chain management, and logistics*
What does all this mean for the pharmaceutical industry and can it be profitably applied / deployed within this industry sector?

Some companies are already taking advantage of the “e-World” in the areas of:

- Procurement
- Extended Supply Chain
- Sales & Marketing

...but many have yet to consider how it can support their changing business needs!

Why?

- Regulatory constraints?
- Resistance to change?
- Information over-load?
- Vision & strategies not yet clear?
Information at your fingertips...as and how you want it
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Examples of e-Biz in action: Information

Welcome to the CenterWatch Clinical Trials Listing Service.

You can use this site to find a wealth of information related to clinical trials, such as a listing of more than 41,000 industry- and government-sponsored clinical trials as well as new drug therapies recently approved by the FDA. Our site is designed to be a resource both for patients interested in participating in clinical trials and for research professionals. Please send us any suggestions on how we can continue to improve this service.

Try out our keyword search to find information in one of the four main sections of the CenterWatch web site -- the clinical trial listings, newly approved drug therapies, research center and industry providers profiles!
Take Control of Your Back Pain

Over 90% of all adults will experience back pain at some point in their lives. Back pain is costly in terms of medical visits and missed work, but also because it can decrease your ability to perform and participate in activities you enjoy. By becoming an active participant in your treatment, you can help decrease your pain, increase your mobility, and prevent future episodes of back pain. Register now to learn more about taking control of your back pain.

Quality of Life

Back pain can prevent you from living as you want. Your personal quality of life measurement provides a measure of the effect of back pain on your life. MyBackPain uses the Aberdeen Back Pain Scale, which was specifically developed to measure the impact back pain is having on your day-to-day life, and has been used extensively in clinical trials, with strong evidence of validity and reliability.

Register now to discover your personal quality of life measurement.

Back Pain Facts

Acute low back problems are experienced by almost everyone at some point in their adult lives. Back problems rank high among the reasons for...
Welcome to AmericasDoctor.com - Microsoft Internet Explorer

Welcome to AmericasDoctor.com

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Examples of e-Biz in action: Health-care

Tuesday, June 13, 2000

A Healthy Step

As estimated 74 million people suffer from foot problems. Corns, bunions, hammertoes and sports-related injuries all threaten to take the spring out of your steps this summer. The huge number of over-the-counter foot products may offer support to those with foot pain. Then again, they may not.

AmericasDoctor.com spoke with Dr. Brigitte F. Kuhn, doctor of podiatric medicine at St. Francis Healthcare Center of Hawaii. She discusses the best ways to care for your feet this season.

Protection from pills
Can you prevent Alzheimer's?

Restoring Memory
Mind over medicine

Substitute Bladder
Regain normal urine functions

Winning the War Against Migraines
Is that headache something more?

Treating Depression
New guidelines to help diagnose

Select a Community
Click here

Clinical trials!
Find out how you can be involved in an upcoming trial.

Upcoming Events

Acid Reflux and Ulcers
Tuesday, June 13
6:00pm - 10:00pm ET
with Dr. David Peura

Dr. Peura is associated with the University of Virginia Health System in Charlottesville, Virginia.

Rhinoplasty
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Examples of e-Biz in action: Pharmaceuticals

Welcome to the new merckmedco

Get started today to enjoy:
- Prescription coverage and pricing information
- Simple, add-to-cart prescription ordering
- One-time entry of prescription (Rx) information to access website features
- 12 months of prescription history
- Option to display full drug name

Click here to get started today!

Health & Wellness

Eat well for good health

Although nutritional needs change as you age, a balanced and varied eating pattern is important through all of life’s stages.

This article and more in Health & Wellness
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Examples of e-Biz in action: R & D
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Examples of e-Biz in action: Regulatory

Welcome to Internet FDA
The Nation's Foremost Consumer Protection Agency

Buying Medical Products Online?
Shop Smart!

Foods
Human Drugs
Biologics
Animal Drugs
Cosmetics
Medical Devices/Radiological Health
Freedom of Information
Field Operations
Children & Tobacco
Regulations & Information
Toxicology Research
MEDWATCH
Medical Products Reporting & Safety Information

Department of
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Examples of e-Biz in action: Regulatory
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Examples of e-Biz in action: Legal

- FDA ANNOUNCES NEW EFFORTS TO HELP CURB ILLEGAL PRESCRIPTION DRUG MARKETING ON THE INTERNET
  - 1999... a minefield of legal, moral and regulatory issues
Jun 14, 2000:
The U.S. House of Representatives on Wednesday overwhelmingly passed the final version of a bill to make digital signatures legal, with the Senate expected to follow suit as early as Friday....
So, what’s happening in Europe with regard to e-Business in the Pharmaceutical Industry?
e-Business in the Pharmaceutical Industry
Examples of e-Biz in action: Health-care
e-Business in the Pharmaceutical Industry
Examples of e-Biz in action: Medical

- An up-to-date and authoritative resource on standards for medicines in the UK...
The European Commission has recently established a group to look at the regulation of e-commerce in healthcare....
Merck goes online for UK doctors…

British laws banning the advertising of prescription medicines are to be tested by Merck of Germany, which is setting up an internet site available only to doctors and other healthcare professionals. Until now pharmaceutical companies who have wanted to communicate with their customers (healthcare professionals) over the Internet have either had to do so without any legal certainty.

The site will offer material about Merck products only to doctors, nurses and pharmacists, who will have to identify themselves when accessing it. The Medicines Control Agency (MCA) said that it saw no problem with Merck's approach so long as it made a genuine effort to "filter out" the general public – as direct consumer advertising while acceptable and legal in America, is not (yet) legal in Europe.
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Future: Going where? ...Need what?
Information demands increasing
Data volume exploding
Integrated approach required
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Future: Integrated enterprise wide approach

Operational Environments
- Manufacturing
- Financials
- Clinical Research
- Sales & Marketing

Enterprise Data Warehouse
- Mainframe
- Enterprise Server
- Portal
- NT
- Unix
- Metadata
- Data Marts

Portal
An enterprise data warehouse has one main goal.

*Answering business questions!!*

Even the best designs do not guarantee success - if answers cannot be delivered.

A solid enterprise dimensional model is the only way to provide quick and flexible access to strategic data. If you do not address this from the beginning you will quickly reach limits in terms of:

- Technology
- Architecture
- Information & knowledge exchange
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Future: Tomorrow’s world ??

DATA – INFORMATION - KNOWLEDGE

Manufacturing Process
Suppliers
Raw materials
Submission status
Clinical Trials
Patient profiles
AE & safety reporting

Research & Develop

Manufacture & distribute

Management, Financials, & Legal

Sales & Marketing

Share price
Operational profitability
Legal & financial risk
Patents & contracts
Market research
Sales performance
Pricing
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What it can provide...

**Broadcast**
- Disease information
- Medical/Research
- CT protocols/ notification
- Regulatory/ Validation policies
- Genetic information

**Interact**
- Collaboration (partners, customers, regulators)
- CT data collection/sharing
- CT registration
- Patient condition monitoring

**Transact**
- Integration with external regulatory systems
- Collecting ADRs
- Investigator payments
- Electronic regulatory submissions

**Research & Development**
- Company/product information
- Targeted information services
- Product availability (OTC)
- Notification of new products/services
- List of sales reps/offices
- List of suppliers/physicians

**Sales and Marketing**
- Customer surveys
- Collaborative products/ services development
- Interactive marketing/ profiling
- Samples requests
- Physician referrals
- Promotion activities

**Product Supply**
- Corporate standards
- Intranet
- List of preferred products
- New product specifications

- Contract management
- Delivery Tracking

- Supply planning
- Logistics
- Procurement
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What it offers…

- More efficient ways of working…
  - clinical trials data capture
  - purchasing
  - back office effort
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What it offers…

● More responsive R&D programmes…
  ● capturing patient information
  ● clarifying R&D targets
  ● getting closer to real customer needs
    ● better product design
    ● improved quality
    ● faster time to market
Much can be achieved using innovative technology, methodologies and best practices - those SAS can provide.

However, the successful deployment of these requires -
- Vision
- Strategies
- Well thought out information delivery architecture
- As well as industry knowledge and ideas

… if we are to meet your company’s current and future business information needs

- By how much – and at what speed, is e-Business going to impact your industry & job function in the coming months?
- How do you plan to deal with this?
Questions?

Thank You!