

Futurology

Some emerging areas for new businesses

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Change

- Pace of change: Factor of 2 every 2 years (Moore's Law)
 - But comms growing 10x in 2 years
 - Switch points will choke
 - Technology change: memristors
- About 10 – 30 years from Lab to mass product
- We can predict the near future (10 years)
 - Hardware
 - Universal Comms
 - Software....
 - NO new “big applications”
- Anticipated failures:
 - DRM
 - Mobile TV
 - IPTV
 - New social networks sites
- Social and political change:
 - Rise of “BRIC” and Asia;
 - Decline of USA (and some of Europe - the PIGS)
 - Population issues: Global warming, resources, water...

Battles

- Fixed line vs Mobile comms
 - Wifi vs HPUD/ LTE
- Battle for the desktop
 - Google vs Microsoft vs Apple
- Who owns you?
 - Government, VISA, Microsoft, Google....

Integration of the Infosphere

- Text->Pictures->Moving Pictures-> 3D immersive environments
 - Bandwidth demand
 - Standards allow interchange
 - Evolving, e.g 3D,
 - Bump maps, YouTube 3D format
 - Cloud
- Convergence: computers, comms, communities, entertainment, etc
- Divergence by functionality e.g. ISP/line/mail provider/mail name/
- Communities of Interest, not locality

Integration of the Infosphere

- .NET/Hailstorm (www.microsoft.com/net)
 - Moving functionality into the network
 - Software as Service
 - Disintermediates ISPs, Telcos
 - SOAP & RPCs
- 7 big functions
 - Identity (MS Passport),
 - Payment (MS Wallet)
 - Diary (MS Outlook) (EPG)
 - Message delivery (Hotmail, IM, Chat)
 - Address book/ contact manager (Buddy lists, Outlook)
 - Archival Storage
 - Search /DRM/Content management/ Favourites/History
 - Geography

Integration of the Infosphere

- New services and devices
 - Smart consumers
 - Dynamically bid for bandwidth
 - Toasters bid for electricity
 - ipV6
 - Smart TVs, white goods, cars, toasters, toilets, trashcans
 - “do you want wholeweat Bagels for the creamcheese?”
 - Home nets
 - P2P stuff – death of DRM and copyright
 - Privacy issues
 - Who controls your identity?
 - Infrastructure capacity issues

Thesis/Antithesis/Synthesis

- Thesis:
 - Unlimited communications and publication
- Antithesis
 - Entropy
 - 99% of everything is crud (Theodore Sturgeon)
 - (Jargon File v4.2.2)
- Synthesis
 - No good solutions at present
 - Search engines
 - Personal Agents
 - HAL

The Trillion Dollar Market

- Effect of electronic commerce
- Customer pull, not advertising push
- Merging of computing, entertainment, communications
 - Games now gross more than films
- Disintermediation

Internet Commerce

- Works for
 - Established Brands
 - Specialist goods
 - “Specialist” goods
- 60% of accesses are to adult content
 - Driven factor: Hidden agendas
 - Communities of interest
 - Mostly male - men look at porn, women shop
 - Wide age range
- Don't believe the hype
 - Most internet ventures not profitable unless adjunct to existing business
 - Advertising model (mostly) doesn't work (except Google)
 - Micro payments don't work

Predictions

- Microsoft/Intel will remain dominant
 - Other chip manufacturers will continue to struggle
 - Except ARM for mobiles and fabless specialists like CSR
 - UNIX will remain specialist, even MACs (<5%)
 - Java will be increasingly minority interest (but not AJAX)
- Internet/ WWW/Google will dominate
 - Walled Gardens dead: No WAP, No interactive TV etc
 - Price challenge to messaging
 - Migration to remote services
 - Software as service
 - Content is not king; communication is
- Differentiation
 - “Lean forward” or 3-foot experience: chat, VoIP
 - Private
 - e.g PC, phone, PDA,
 - “Lean back” or 10-foot experience: entertainment
 - Public
 - Internet TV
 - Passive Couch mouse; server pushed experience
 - IPTV and video on demand not entertainment, so will fail