The Future Role of Online Hosts – Will Values of Today be valued Tomorrow?

ICIC 2012, Berlin, October 16, 2012

Rainer Stuike-Prill,

FIZ Karlsruhe

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L1    ANSWER 548 OF 572  WPIDS COPYRIGHT 2012
      THOMSON REUTERS on STN
AN    1987-192507 [198727]   WPIDS
TI    Computer access and data security - executes
      algorithm that combines root and seed producing
      password with encryption algorithm for user
      verification
DC    T01
IN    CARGILE W P
PA    (GORD-N) GORDIAN SYSTEMS INC
PI    WO 8703977      A  19870702 (198727)* EN  54[17]
      EP 253885       A  19880127 (198804)  EN
ADT   WO 8703977 A WO 1986-US2784 19861222; US 4819267 A
      US 1984-582302 19840222
PRAI  US 1987-63322         19870609
IPCR  G06F0001-00 [I,A]
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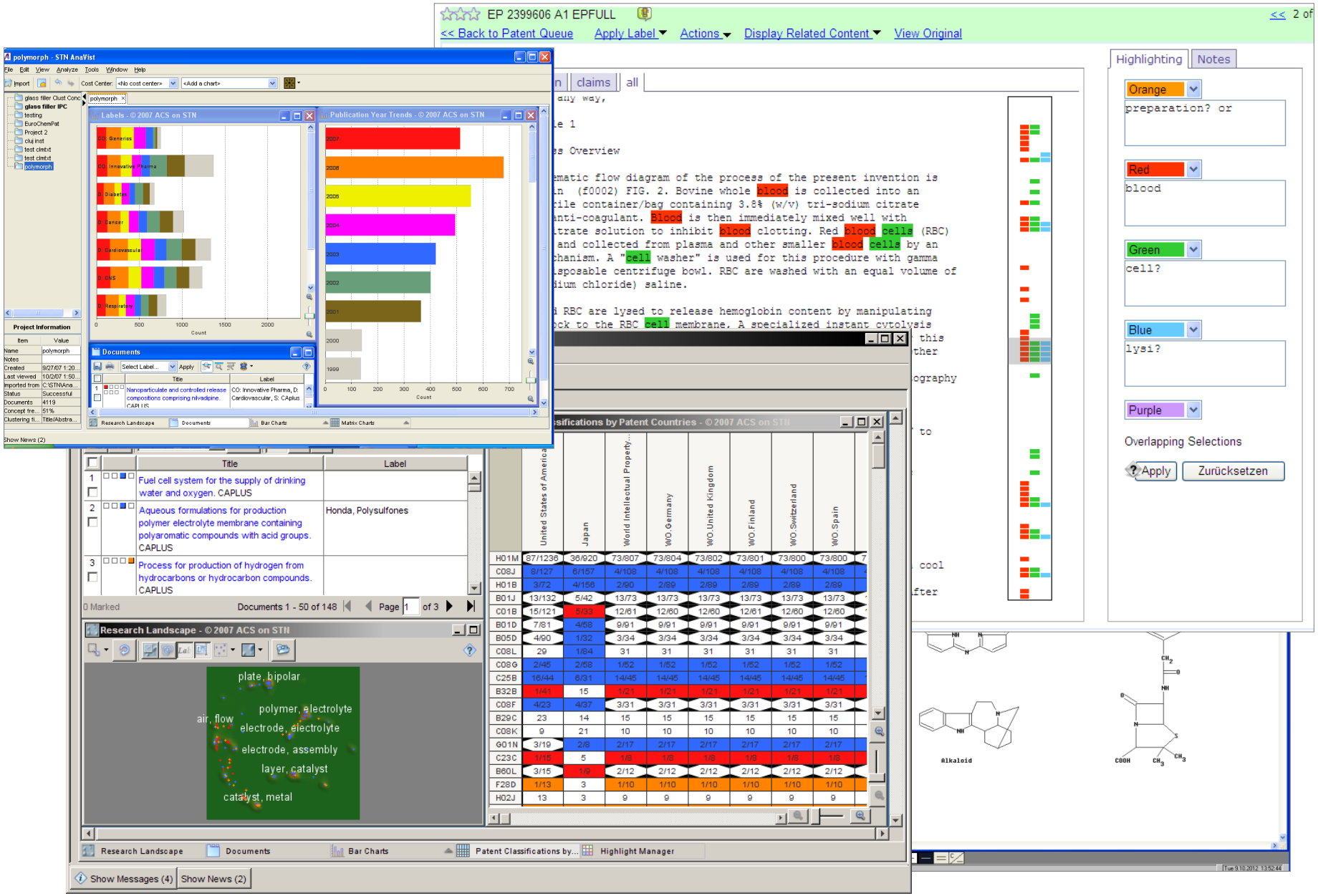

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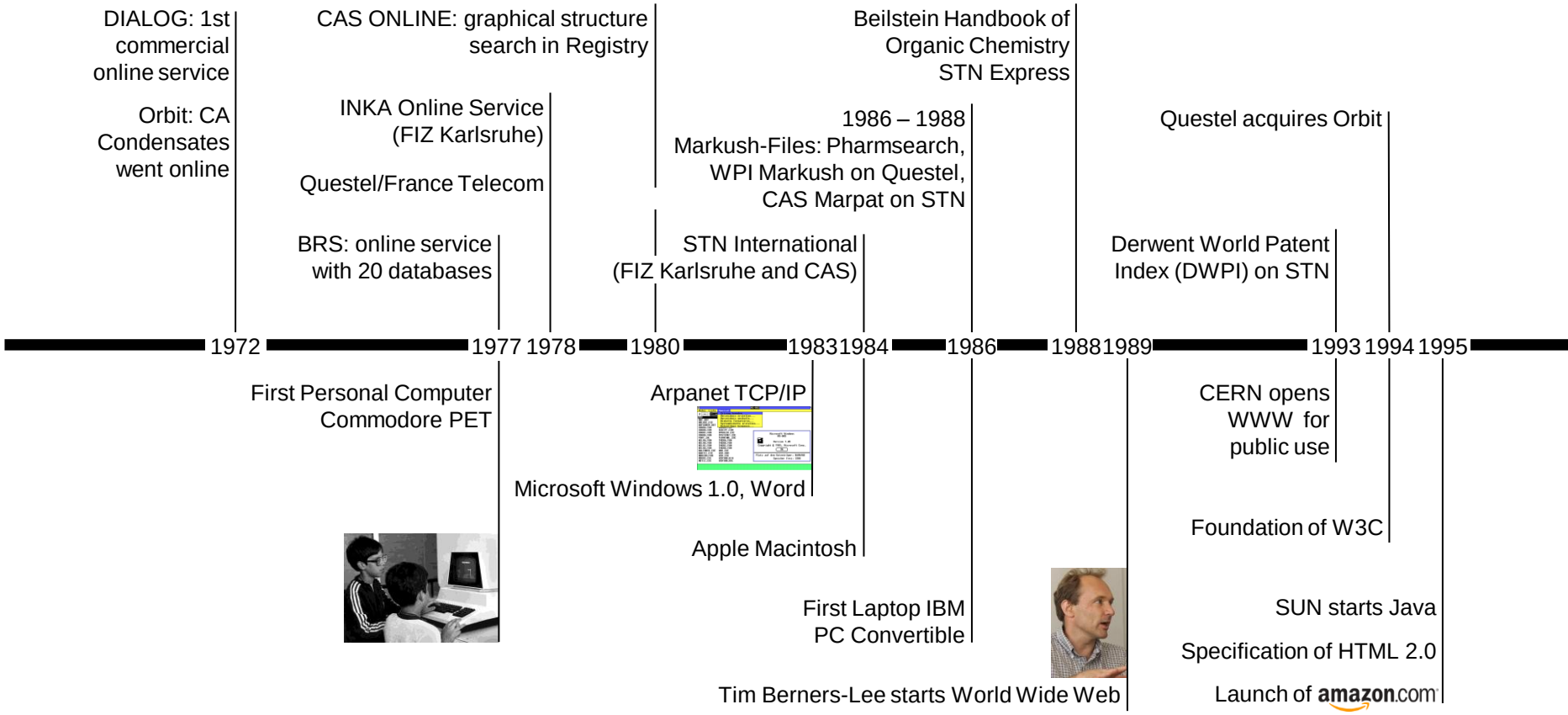
Classical online hosts pioneered electronic access to information long before the web



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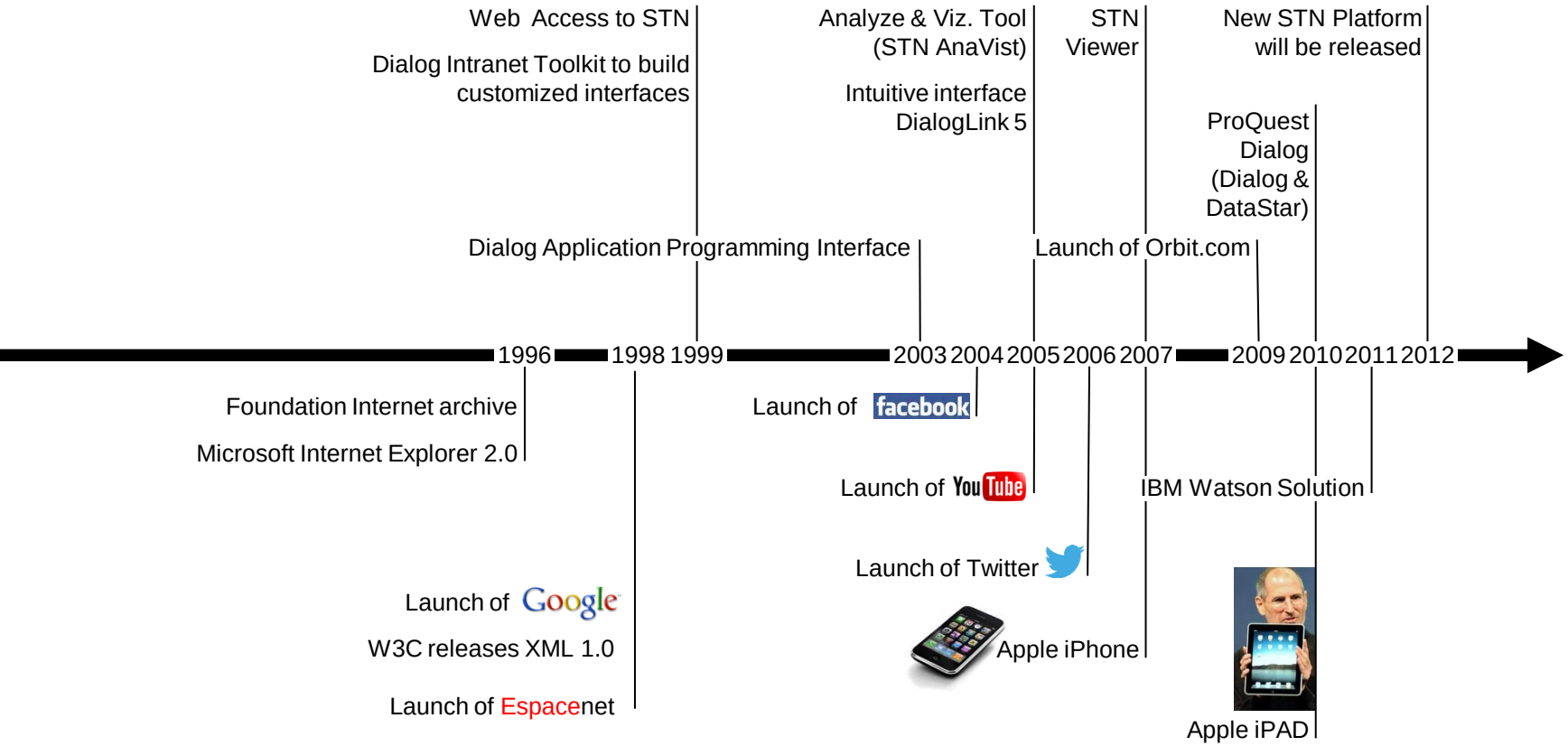

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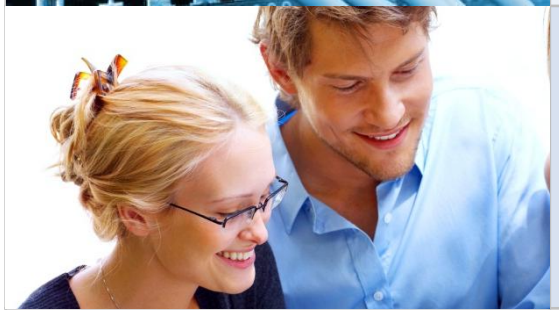
Online hosts are aggregating information and adding value through technology and service

- Sci-tech, patents and business information
- A&I and fulltext files
- Added value

- Sophisticated search & retrieval
- Quality control & standardization
- High-end IT, incl. strong security



- First class customer service
- Extensive training
- Billing options

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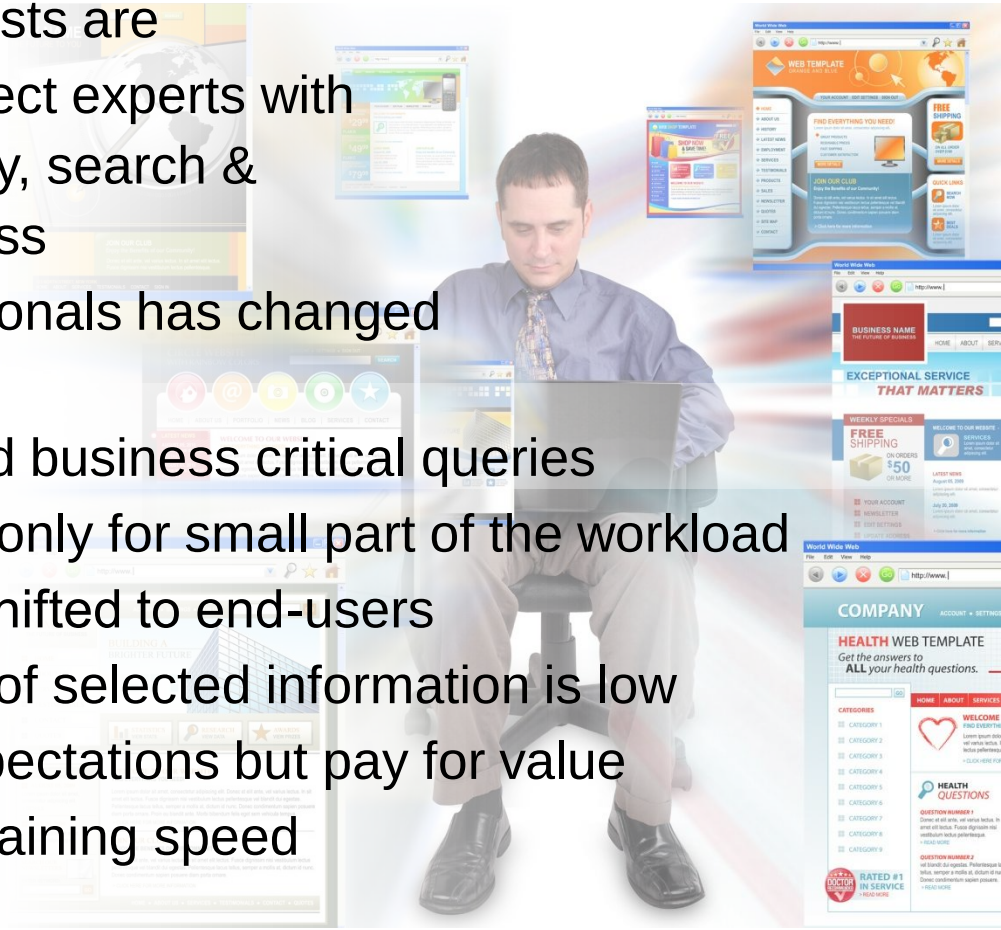
Changing business environment required online hosts to adjust

- Main target group of online hosts are
  - Info professionals and subject experts with high demand on data quality, search & retrieval, comprehensiveness
- Role and work of info professionals has changed substantially
  - Focus on patent related and business critical queries
  - Online searching accounts only for small part of the workload
  - “Standard” searching has shifted to end-users
- Entry barrier for new vendors of selected information is low
- Customers have low price expectations but pay for value
- Shift to emerging markets is gaining speed



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Forces driving the development of STM information services

- **User** needs and behaviors, particularly the extent to which needs are not fully met by present systems;
- **Market** environment and evolving business models, for example, shifting toward more usage-based models has implications for platform design and functionality;
- **Technology** pull, that is, new technologies create new opportunities

Ware, M; Ricci, L, Outsell Report (March 20, 2012): *Evolution of the STM Publishing Platform: An Industry Overview and Roadmap*

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User behavior and expectations follow trends in their business …

- Focus of information professionals continues to change
- Use of cost-free, low-cost services first, use of hosts for complex searches only
- Strong demand for higher value tools to cope with data and information overload
- Former dominance of English in STM and patent information is being replaced by a multi-language environment

… and their day-to-day experience with technology in private life

- Customer expectations for mobility and the use of social media is driven by four large companies: Google, Amazon, Facebook, and Apple
- Digital natives are using digital information and new tools naturally
- Employers have to support the BYOD trend

Foto: Matt Buchanan

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Market trends are driven by globalization and changing business models

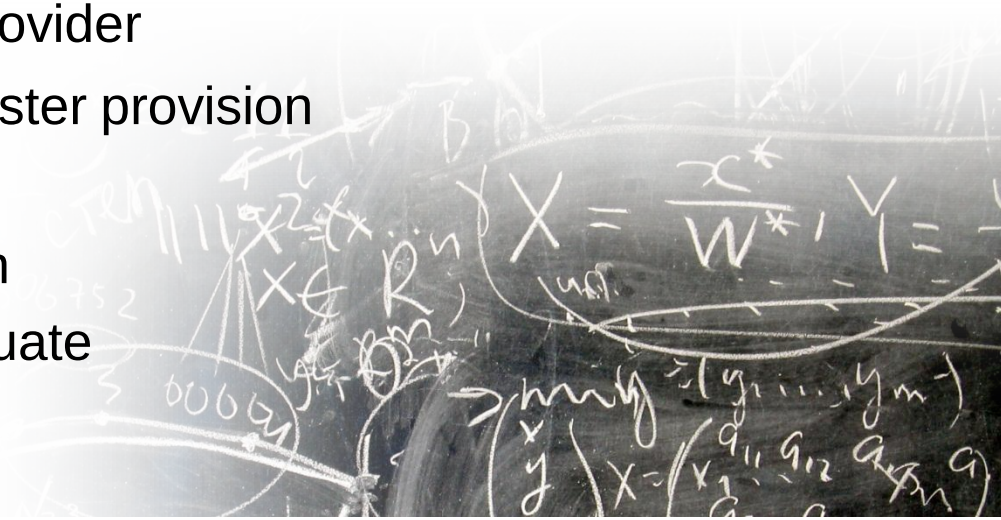
- Globalization
  - R&D sites follow market trends, i.e. to Asia and other emerging markets
  - Publishing industry and information providers engage in new markets via co-operations with local providers
  - Online hosts provide worldwide customer support
- Abundance of free information
  - Open Access to STM information
  - Google and patent offices dominate market of free information

The innovation process follows new models

- Closed innovation process within a company
  - Centralized or decentralized
- Outsourcing innovation to dedicated partners
- Open innovation: invite public to contribute to the innovation process

Consequences for information provider

- Shorter R&D cycles require faster provision of relevant information
- Customer base for information is dynamic and requires adequate information environment



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Trends and challenges of the patent system

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Technology is a very powerful business driver

- Systems and technologies become smarter with respect to user expectations
- HTML5 enables developers to create richer and more interactive applications
- New semantic technologies make text extraction and automatic indexing possible
- Tools for Data Analytics and Visualization are available for large data sets
- New consumer devices are creating a different mindset for professional applications
- *"Use of big data will become a key basis of competition and growth for individual firms"* (McKinsey Global Institute)

=> But: Quality, standardization, and integration continue to be major challenges

The future of information services – combining persisting values and evolving technologies

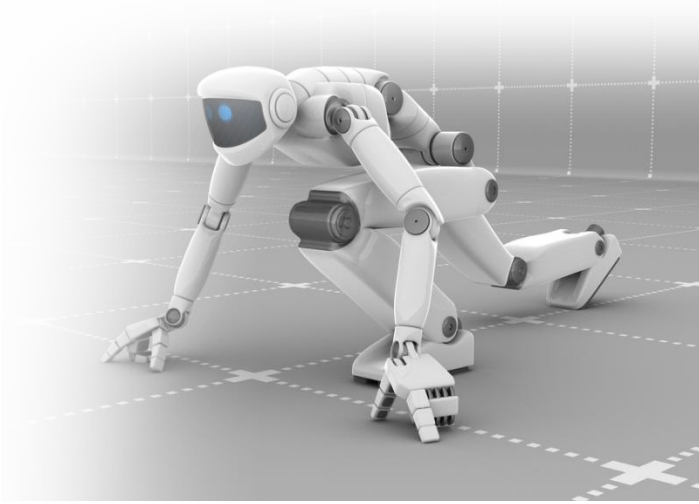
What will stay?

- Information overload
- Demand for timely, accurate, comprehensive and context related information for decision support
- Need for reliable, high quality information with comprehensive, value-add databases, deep indexing, high level standardization
- Close customer relations, quality service, incl. confidentiality and security

The future of information services – combining persisting values and evolving technologies (2)

What will evolve?

- Sophisticated state-of-the-art search and retrieval functionalities, text mining, semantics
- (Big) data analysis & visualization to leverage unstructured data
- Aggregation, integration and linking of information sources (documents, databases, web services, digital objects …)
- Increased usability and support of a variety devices
- Partnering and new business models for supplier and consumer of information



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