

The Future Library

Innovation roadmap for the University of Pretoria

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Agenda

- Observations
- Innovations
- University of Pretoria

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Good to realise

- Difference between the library as a space and the library as a service.
 - Strengthened by digitisation & technological developments
- Different “users”
 - Teaching / learning
 - Research

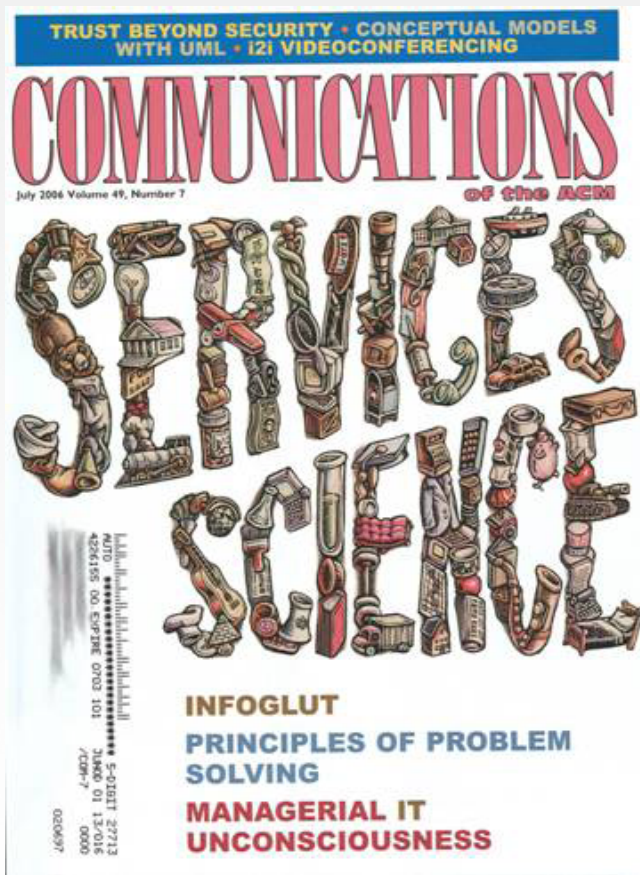
What is a “Service”?

Something like a product (adds value), but:

- it is more personal and intangible
- not necessarily transfer of ownership?
- it is created in (or by?) interaction between provider & consumer
- relationship instead of transactional
- it cannot be stored
- it links to external factors (products, other services)

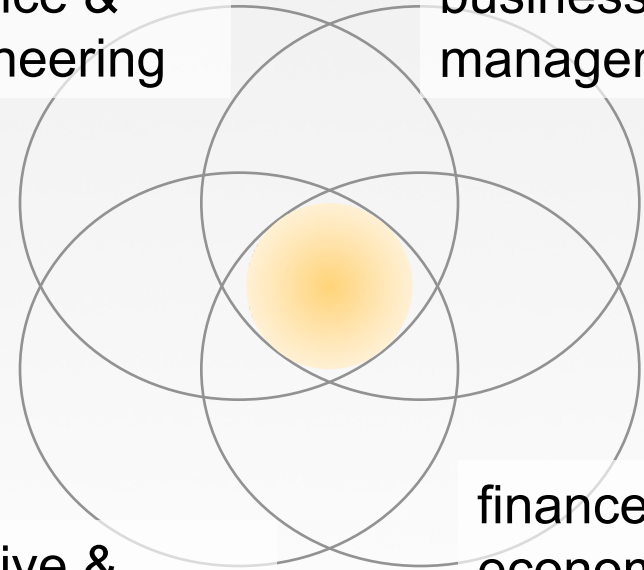
Example of service industries

- motor vehicle sales and repair
- wholesale
- retail and repair
- hotels, restaurants
- transport over land
- other transport and support
- post and telecommunications
- banking
- insurance and pension funding
- financial intermediation
- real estate, renting and business activities
- computer and related activities
- research and development
- legal and economic services
- architectural and engineering activities and consultancy
- advertising
- labor recruitment and provision of personnel



technology,
science &
engineering

business &
management



cognitive &
social sciences

finance,
economics,
markets

Responsibilities of academic library

- information

 - selection, acquisition, synthesis, navigation, dissemination, interpretation, understanding, use, application, archiving

- support

 - teaching & learning, research & scholarship

 - ⇒ high quality + most relevant

 - ⇒ negotiator for access to content

 - ⇒ successful graduates

 - ⇒ productive faculty members

Changing roles of the library

- Consumer
- Intermediary and aggregator
- Publisher
- Educator
- Research, Development, Innovation: experimentation
- Entrepreneur: new revenue streams
- Policy advocate

Shifting vision of the library

- Legacy (centuries of existing information)
- Infrastructure (facilities, content, expertise)
- Repository (persevered, stable)
- Portal (usable over time, quality)
- Enterprise (teaming up with faculties)
- Public Interest

=> Resources?

Trends relevant for academic libraries

- Customisation / personalisation
 - changing user behaviour & expectations (technology / external world)
 - social networking, collective intelligence, new literacies
 - ⇒ new marketing responsibility of library (what is the offering)
 - ⇒ tailored to individual needs
- Redundant & inefficient operations
 - Automate old workflows
 - Limited collaboration (between libraries), shallow expertise, not sharing information
 - Resistance to outsourcing

Trends relevant for academic libraries (2)

- Ineffective service paradigm
 - discovery failures (understanding why information is not found)
 - user alternatives (understanding of the many alternatives)
 - clerk at the desk
- New economic context
 - Smaller budgets, competition of resources, less political support
 - ⇒ need to demonstrate value and impact
- Accountability & assessment (rigorous & believable)
 - Institutional goals
 - User objectives (make a difference to be successful)
 - National interest
 - ⇒ Insanity RoI (measure if making a difference)

Trends relevant for academic libraries (3)

- Acceleration of innovations
 - Application revolutions (pads / smartphones)
 - Explosive growth of mobile devices and applications will drive new services.
 - Entrepreneurial (low threshold, combine data/services)
 - Location based (smart objects / spaces / tagging)
 - Seamless scalable (cloud based services)
 - Internet of people, internet of things, internet of services
- Common shared resources & focus on unique resources
 - Future of collection development (new resource & media types, like video, animation, interaction)
 - Mass digitisation (similar offerings ~ 90%)
 - Focus on special collections (will requiring increasing larger share of resources)

Trends relevant for academic libraries (4)

- **Self-servicesness**
 - Advanced technology & services do not require sophisticated expertise/skills (of e.g. a librarian)
 - New type of learner (students), well aware of the basic IT literacy skills
 - How to support teaching & learning experience?
⇒ requires different interactions with university/library
- **Scholarship**
 - Many alternative repositories (which is stable, which is cited)
- **Openness**
 - Open architecture, design, knowledge, data source, access
=> Easy access via web/internet expected by students/faculty staff

Trends relevant for academic libraries (5)

- New standards for academic library spaces
 - The definition of the library will change as physical space is repurposed and virtual space expands.
 - Learning space, social space, collaboration space, flexible, adaptable space
- Sustainability / green library
 - Reduce carbon footprint (green & smarter ict / less paper / raising awareness & behavioural change)
 - Increasing expectations for environmental and ethical responsibility from clients and organisation.

Trends relevant for academic libraries (6)

- Changes in technology & changes in higher education
 - require that librarians possess diverse skill sets.
 - Libraries will continue to lead efforts to develop scholarly communication and intellectual property services
- Radical collaborations (quality, productivity, innovation)
 - Public private partnerships
 - Cultural communities
 - Libraries (Centres of excellence, mass production, new infrastructure, new initiatives)
 - Increased collaboration will expand the role of the library within the institution and beyond.

Collaborations between libraries

- Repository requirements
 - All keep printed versions when not used?
 - What is to be held on the repository and for what purpose?
- Public Digital Library
 - Mass digitisation (much is digitised but difficult to find)
 - Born digital (archiving the web?)
 - Disaster preparedness
 - IPR for library holdings of research, and teaching and learning materials?
- Licensing programs
 - Access conditions for different users?
- E-research / Information management/usage
 - Data driven (what is happening in the library)
- International collaborations
 - foreign acquisitions, languages
- (mobile) Application development

Agenda

- Observations

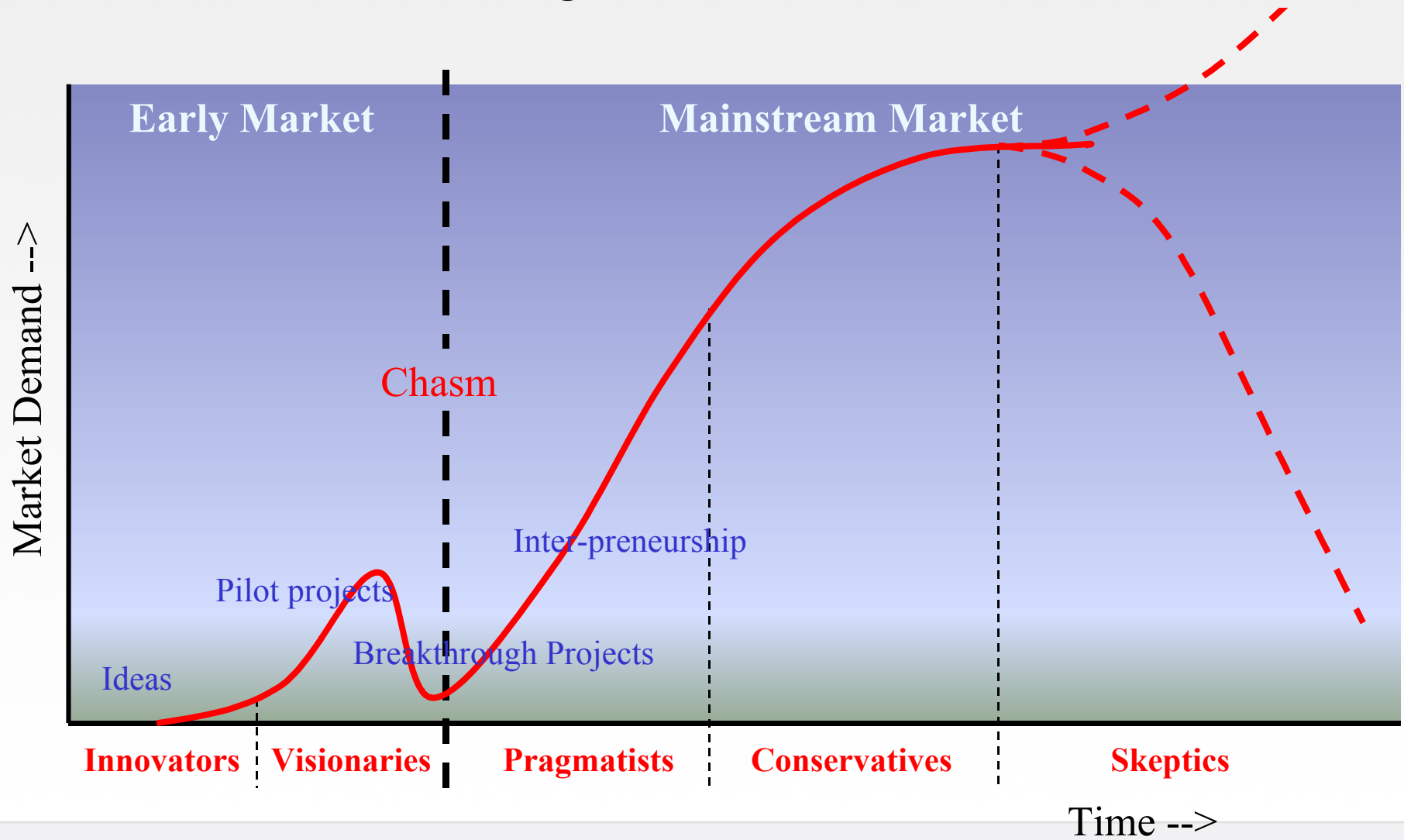
- Innovations

- University of Pretoria



"Don't bother me with new ideas, I've got a battle to fight!"

Crossing the chasm



Some observations on innovation

- Innovation is a never ending cycle
- Besides knowledge creation, knowledge sharing is extremely important
- Attention as early as possibly from high level management
- Innovation depends on the context → no single solution
- Continuous learning & (tacit) knowledge transfer important for innovations

Inspirations

- Not just look at other new or redeveloped library spaces
- Seek inspiration from almost anywhere including
 - museums, new banks, large shopping malls and retail concept stores, green buildings and businesses, experimental learning spaces and book stores.

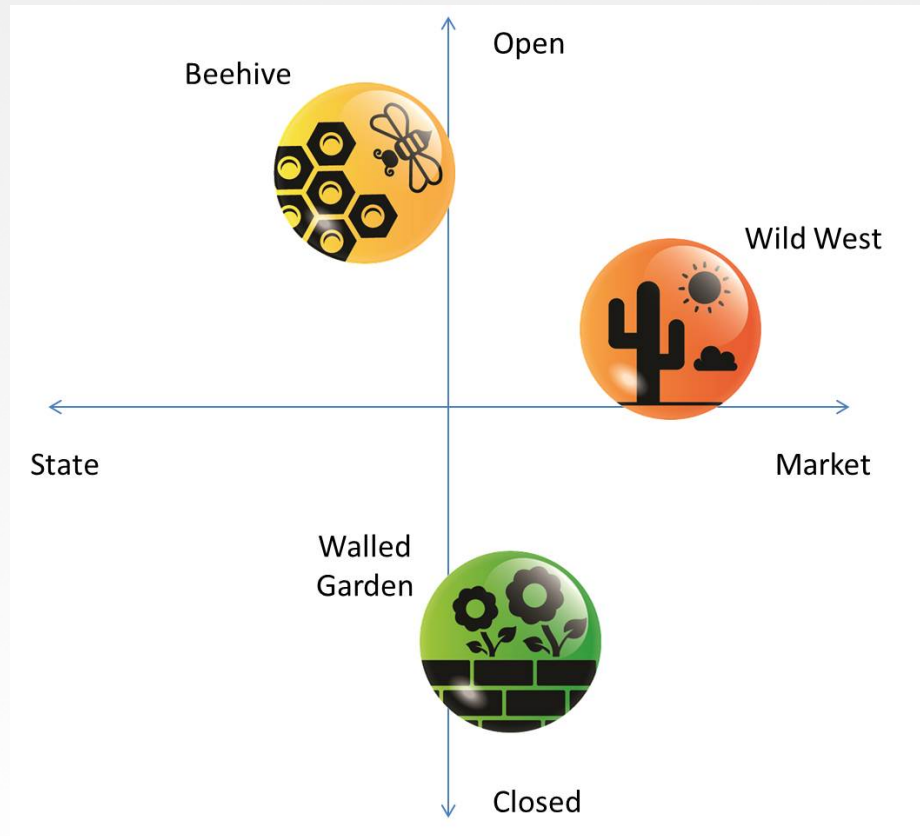
Example Apple Genius bar in Apple Stores



The Apple Genius Bar

- Expert assistance is not hidden behind the barrier of a desk, but is highly visible and a seamless part of the spaces occupied by both products and clients.
- An Apple Store user can commence their request for assistance online with tutorials and forums where help can be provided by both Apple staff and fellow users.
- The transition from the online to the physical store is relatively simple with store locators and an option to make an appointment.
- Once in the store, assistance is visible and often proactive in its approach and clients can seek assistance from ‘experts’ or have the opportunity to learn from peers in a casual atmosphere with open displays, comfortable seating and drop-in workshops.

Scenario's for 2050 (future libraries)



Wild West

Wild West' has a no-holds-barred free-for-all flavour. Specifically, this world is dominated by capitalism and corporate power, including the HE sector. Private providers compete with each other and the state to offer students educational services, including information services and learning material. The power lies in the hands of the consumer ('student' being a rather old-fashioned term) who is able to pick and choose from courses and learning materials to create a personal educational experience.

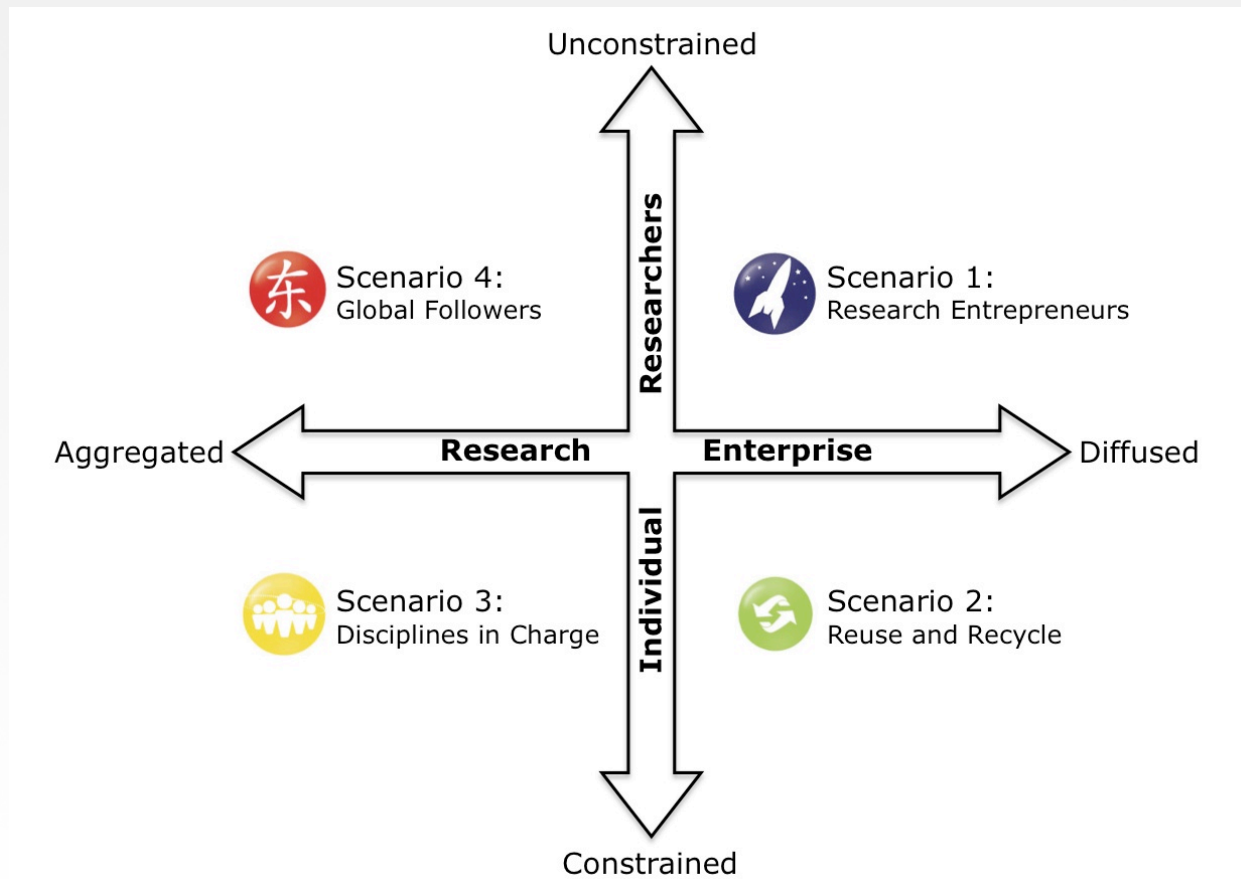
Beehive

Beehive' draws obvious parallels with the hierarchical and structured life of the bee colony, where all is ordered to ensure the common good of the whole community. The Beehive scenario is a world in which society and HE have open values and the state is the primary funder and controller of HE. Its overriding aim is the production of a skilled workforce, and to this end it has created a largely homogenous HE system for the masses while allowing the elite to attend the few traditional institutions. A limited market is used to provide competition within the HE system to drive up quality.

Walled garden

A 'Walled Garden' is an oasis, shut-off from the outside world. Inhabitants of the garden neither know nor care much about the world beyond the garden's comforting walls. After all, how could the flowers out there possibly be any better than those within the garden? HEIs in this scenario are 'Walled Gardens'. The closed nature of society makes HEIs insular and inward-looking, isolated from other institutions by competing value systems. Provision of information services in this world is as much concerned with protecting their own materials from others as it is in enabling access.

Scenario's for 2030 (ACL)



Research entrepreneurs

This scenario highlights the challenges associated with supporting the growing pool of entrepreneurial researchers who are often funded through private or venture capital. Research is increasingly a creative blend of science, social science, and the humanities. To succeed in this world, research libraries need to consider how to re-invent themselves to be indispensable partners in the research team. In this scenario, stewardship of information is still valued and involves maintaining both open and proprietary information. Research libraries need to understand what information to maintain as open and how to most effectively share and leverage that information, but they could engage with proprietary information as well. Research content collections and service provision could be delivered via independent entities offering highly specialized subject knowledge and services to a wide range of researchers, as well as through capacities embedded within private companies.

Reuse & recycle

This scenario brings into focus the dramatic impact that a decades-long economic downturn combined with the cultural devaluation of new knowledge can have on research and the role of the research library. This is the world of the researcher as rainmaker, who skillfully creates opportunities to perform research valued in a world surfeited with knowledge. The ongoing economic downturn has turned most business focus toward efficiency and cost reduction, leading to reuse, reapplication, and repurposing of data and earlier research content, and hence, the commoditization of research. With dwindling public resources, information as a public good is receiving less funding. To flourish in this scenario, research libraries will need to determine the proper balance between public mission and business endeavor. Under resource constraints, research libraries become increasingly competitive, experiencing closings and consolidation. Informatics professionals with discipline knowledge and the ability to mine data collections to answer targeted questions are valued. In a world awash in ubiquitous, low-value information, skills in creating, curating, and authenticating high value information to which access is limited retain some value.

Disciplines in charge

This scenario highlights the need for research libraries to think about new organizing structures for themselves and the community that align with new organizing structures emerging in the research enterprise. To function well in this world, research libraries need to transform themselves into more specialized research service providers based on a content discipline or area of service. A critical success factor will be the creation of a new extra-organizational capacity or federated service that serves the community of specialized research libraries and research enterprises. Programmatic research agendas will dominate and seek alignment with deep, rich research support capacity. Research fields are highly focused, and sub-disciplinary in scope. Research libraries become uniquely positioned to bridge the research field boundaries, disseminating content across fields to seed and re-invigorate research. In order to succeed, research libraries need to build new relationships with other research libraries, research service centers, and research fields—relationships that might or might not be mediated by research institutions.

Global followers

This scenario highlights the rise of eastern influence and leadership in higher education and research. In this scenario, universities still exist much as they do today. However, institutions in the West are no longer the global leaders, they are the followers. Followership requires new abilities and new roles in the research arena. Strong relationships with eastern peers and collaboration lead to access to information and to remaining an active contributor to the research enterprise. Success requires integrating library knowledge management expertise into institutional multi-national agendas and projects. Content is revalued relative to research agendas set within non-western cultural contexts. The greatest challenge for research libraries is to overcome their western mindset, freeing themselves up to reinvent intellectual property, and leverage the richness of a multi-cultural framing of the research process and content.

Technological innovations

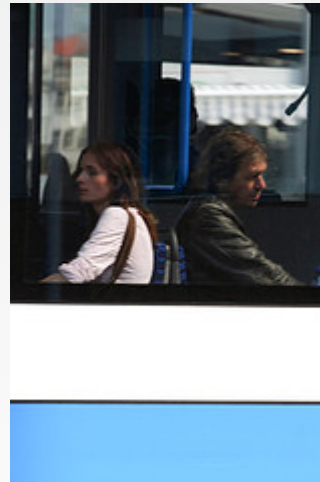
- Communications technology: affordable and robust broadband access, increased reliance on WIFI and mobile access,
- Location based (smart objects / spaces / tagging)
- Seamless scalable (cloud based services)
- Internet of people, internet of things, internet of services
- Web 2.0 / 3.0 (semantic web) will create new ways of interacting online
- Underground Automated Storage and Retrieval System, including RFID tagging of entire collection.
- Location based services (GPS)
- QR codes (two-dimensional barcodes) scanned with mobile phones/pads/e-readers, providing direct access to all related information: website/video/document



Innovations

- E-science research tools
 - Translate/integrate massive amounts of data into usable information
- E-research & development
 - Research, Development, Innovation, experimentation
 - Living Lab Approach (co-creation)
- New services
 - E.g. locate the person with the most relevant subject expertise, contact them immediately via IM, or ‘favourite’ them to set up an individual consultation later, which could take place in person or using web-conferencing technologies.

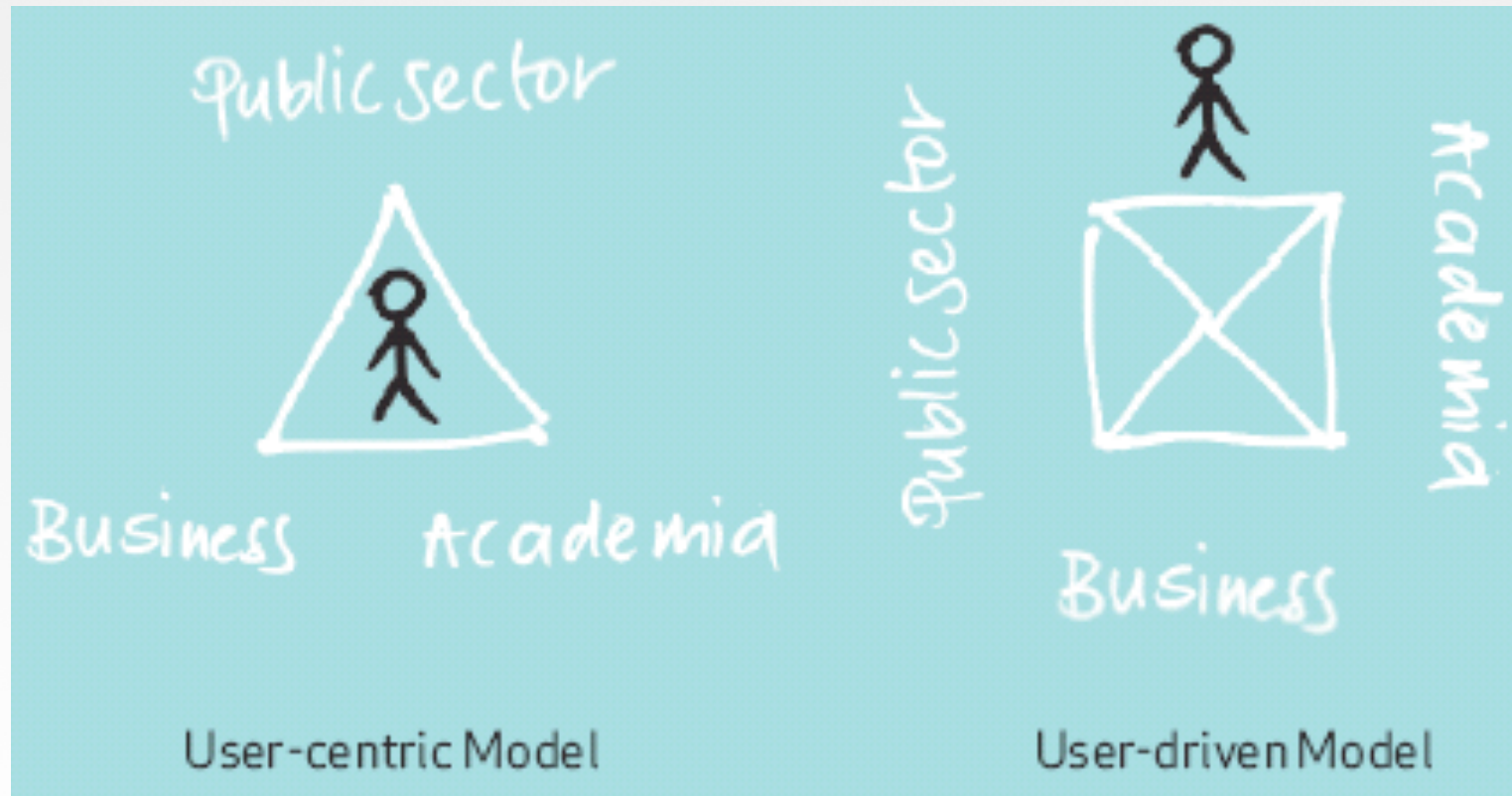
Understanding & involving the users: Living Labs



In their natural surroundings



User driven innovation



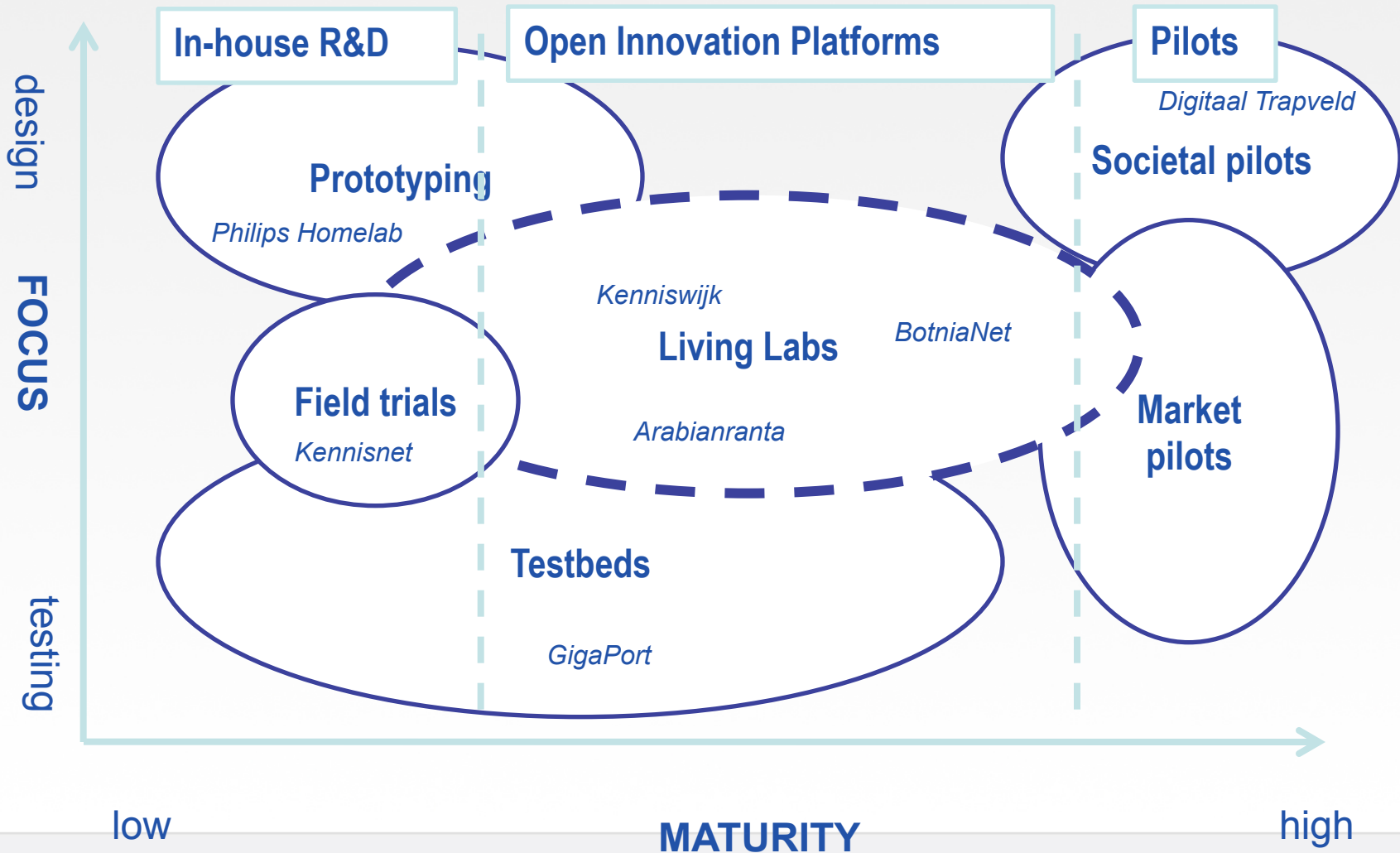
Source Helsinki Living Lab

Living Lab Core Values

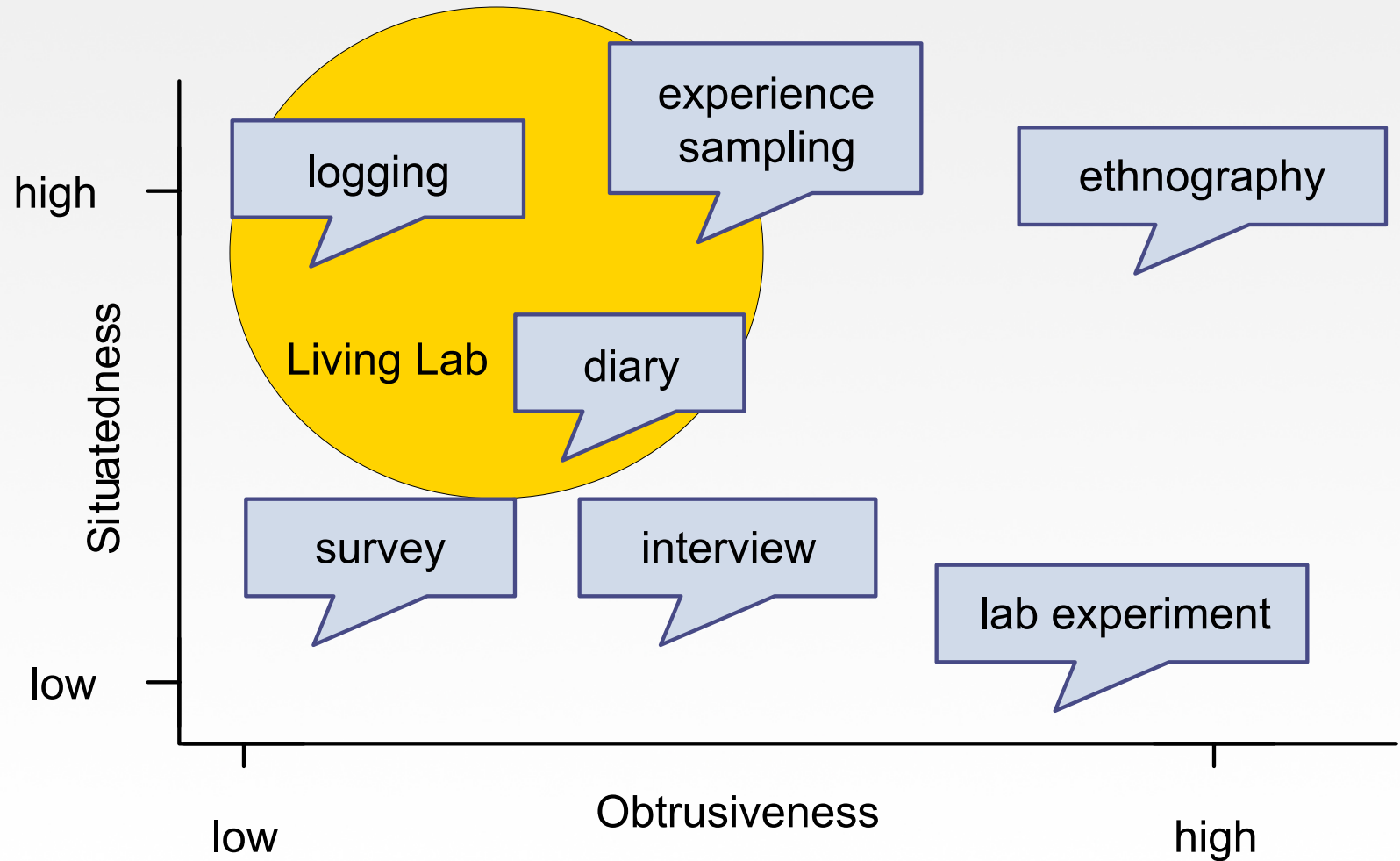
- Open Character (infrastructure, actors, users)
- User driven Approach (design for/by/with users)
- Scaling opportunity (multi-stage)
- Supporting Research instruments (multi-method)



Positioning Living Labs



“Bring the lab to the people”





Amsterdam Top City project:

Redlight Fashion

Source: Topstad Amsterdam

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UP Library Strategy 2010-2015

Vision: The University of Pretoria Library Services distinguishes itself as a **global leader** through redefining **academic librarianship**.

Mission: To achieve the vision, the UP Library Services will adopt the "**High Tech, High Touch**" scenario by focusing on Leadership, Innovation & Technology, Partnerships & Client Services, and Staff Development.

⇒ **High impact** : via collaborations (users, faculties, UP)

Implementation of High Tech High Touch

Leadership

1. Create/strengthen a climate & culture for innovation.
2. Establish leadership for innovation.
3. Adopt a Project planning approach to optimise our resources & future planning.
4. Transition to a conducive physical environment for innovation.

Innovation & Technology

1. Delivery of new technology-based services.
2. Infusion of relevant technologies into client processes.

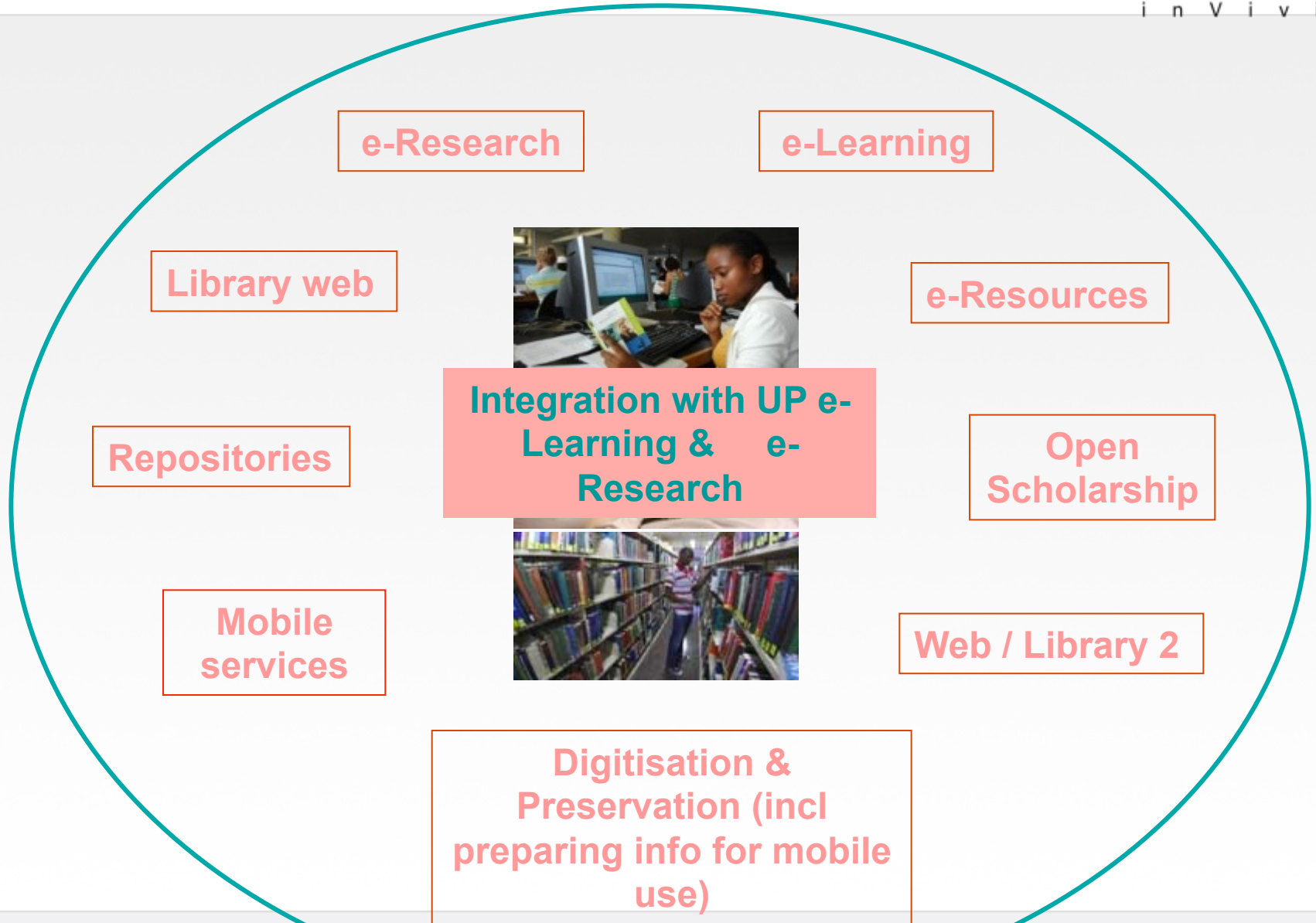
Staff Development

1. Continuing Professional Development & Workplace Learning (CPDWL) based on identified skills sets aligned to the strategies.

Partnerships and Client Services

1. High level integration with Research focus areas.
2. Embedded Librarianship.
3. Partnering with UP teaching & learning model.
4. Client Training.

Focus E-strategy



Roadmap for the UP Library Service

Focussing

- E-strategy is key
- Collaboration with University, Faculties, students, private industry
- Staff upskilling
- Implementation & Experimentation

Roadmap for the UP Library Service (2)

- Move to a 24 / 7 / 365 library service
 - technical, organisational and skill development staff
- Easy accessible via the internet anywhere, but with fast wireless access at campus provides seamless experience
 - Infrastructure?
- Mobile/pad/e-books readers supported with dedicated applications
 - Not simply a mobile website, but dedicated applications that allow search the library catalogue, select material based on reviews and ratings by fellow clients, view full text/video/books/articles online resources and reserve print materials.

Roadmap for the UP Library Service (3)

- Digitisation & collection
 - Actively include new information sources: image, video, animations, interactions (3D)
 - Focus on digitising special / unique collections
- Location based (smart objects / spaces / tagging)
- Seamless scalable (cloud based services & storage
 - outsourcing
- User-driven co-creation of new services / space usage
 - experimentation, living lab approach, usability studies
- E-research / Information management/usage
 - Data driven (what is happening in the library)

Roadmap for the UP Library Service (4)

- **Integrated personalised services**
 - customisable social media tools such as iGoogle, Facebook, my library offering a central point to login and: check borrowing history and renew loans, save searches as RSS feeds, select search result options, top databases, access a shared collaborative space, update status and share resources on Facebook and Twitter.
 - (social) tagging physical and digital resources by clients to create more intuitive resource discovery and access, that can be shared with others via social media
- **Sustainability / green library**
 - Reduce carbon footprint (green & smarter ict / less paper / raising awareness & behavioural change)
 - Reduce cost of electricity (UP level)

Roadmap for the UP Library Service (5)

- New business / entrepreneurship
 - On line public access
 - Differentiated service offerings
 - User generated content/apps/services
 - Proactive marketing of library (what is the offering)
 - Creating presence on social media sites Facebook, Twitter and YouTube with the goal of reaching clients in their online communities.
 - Negotiate at UP level (e.g. electricity bill)

E-strategy for the UP Library Service (6)

- Partnerships
 - With faculties (tailoring to the needs)
 - Public private partnerships
 - Outsourcing “standard” services
 - People partnerships (tailoring to the student’s needs)
 - With other (inter)national libraries
- Staff development
 - new technology, new services, new roles, new businesses

E-strategy for the UP Library Service (7)

- Encouraging social interaction, collaboration and networking, both via physical spaces as well as online (social media)
- Online Library service is integral part of the University Portal, with features like:
 - a single point of entry for university information and services on the mobile device;
 - a choice of single purpose tools or applications;
 - a home for online lectures and seminars; and
 - a social network that encourages sharing, collaboration and friendship.

Discussion & Questions