defining web n.o for the “library” of the future:
the next mind shift

THE INTERNET IS EVOLVING TO WEB n.o
WEB n.o IS EVOLVING TO LIBRARY n.o

THE EVOLUTION IS CONVERGENT
DIGITAL DISRUPTION HAS OCCURRED

- World’s largest taxi company owns no taxis
- Largest accommodation provider owns no real estate
- Largest phone messaging company owns no phones
- World’s most valuable retailer has no inventory
- Most popular media owner creates no content
- World’s largest movie house owns no cinemas
- World’s largest library has no books
- World’s fastest growing search engine has no text
- World’s largest producer of content has no owner

THE EVOLUTION OF WEB n.o

Web 1.0
- Read only medium
- Interlinked hypertext documents
- One way communication

Web 2.0
- Read write web
- Interactive information
- Interactive communities that share and collaborate

Web 3.0
- Read, write, execute web
- Data not owned, but shared and linked; where (vertical) searches show different views/links of the same data
- Create knowledge

The publically accepted definition for Web 3.0 is

"set of standards that turns the web into a big database of highly specialised information silos/streams;

moderated by people and machines

by a series of combined and link data and applications that act as artificial intelligent agents."

But lots of other opinions also exist.
THE EVOLUTION OF LIBRARY n.o

The publically accepted definition for Library 1.0 is

“database of hyper links”

The publically accepted definition for Library 2.0 is

“application of the interactive collaborative and multimedia web based on technology to provide library as a service”

There is NO publically accepted definition for Library 3.0 is

“borderless library where collections can be readily available to library regardless of physical location.

Turning unorganised web content/data into systematic and organised body of knowledge/streams by establishing links/sharing between content in a standardised, machine understandable manner”

so that it can be universally understand and analysed.

FEATURES OF WEB n.o

**Personalised**

**Interoperability / reusable**
- New sources of information
- Create new information
- Standardised
- Link data to create knowledge

**Intelligent**
- Natural language
- Human-machine interaction
- Machine learning
- Artificial intelligence

**Virtualised**
- Cloud computing
- IOT
- BYOD

**Intelligent agents**
- OWL ontology language
- Underlying languages and script
- RDF Model & Syntax
- XML
- XML Query
- XML Schema
- Namespaces
- URI / IRI
- Unicode
- Signature
- Encryption
- Trust
- Proof
- Logic
- Rules / Query
- Ontology
- Machine learning
More content is being created however users struggle to find and utilise information while content providers struggle to classify and catalogue content but new users, with a understanding of new technologies, are entering the market and are your clients

+ 5 years

How are you going to respond?

» Self centred (aka wants a personalised google experience)

» Instant gratification (aka wants the right answers now)

» Lazy google generation (aka one search answers all / single access point / search engine)

» Not too smart (aka anyone can use / user friendly)

» Struggles to formulate sentences (aka expects natural language searches)
USER (& CUSTOMER) OF THE FUTURE

How are you going to respond?

» Short attention span (aka rather read shorter text & view video, etc)
» “Like” generation (aka have a different value system... peer rakers really important)
» Tech savvy (aka aware of functionalities in social applications & want it in work applications)
» Always online and mobile (aka access information anywhere, any time on any device)

NEW TOYS

What are the opportunities & challenges?

» Integrate user & device generated content (combining big data; machine learning & artificial intelligence capabilities)
» New (even uniform) data format; new data sources (information about information) & ontologies will become more readily available
» Help build next generation federated search (combining big data & artificial intelligence capabilities [including chatbots])
NEW TOYS

What are the opportunities & challenges?

» Leveraging off mobile devices & app's
» Temporary downloadables with short term user rights (audio; podcasts; tedxtalks; e-books & etc.)
» Loan out new content (software; 3d printing patterns) + devices

» Need for real world interaction (gps/IoT; augmented reality; QR codes; virtual references)
» Consider risk (copyright; legislation; etc)
» Proof of providence (blockchain)

ROLE OF LIBRARIAN

How can you respond to the evolution?

» Become subject expert (identify new sources of information & make links/collections/streams)

» Anticipate user (customer) needs & create an experience
» Predict (and research) future technology (incl software) needs
» Understand new technology & ontologies

» Be part of development community (open source & local community)
ROLE OF LIBRARIAN

How can you respond to the evolution?

» Classify & standardise data (video, blogs, tweets, pod casts, Ted talks, 3D printing etc.)

» Contextualise data (not only index data)

» Define relationships & build communities (consider users needs; machine learning; artificial intelligence; ontologies; etc)

» Separate fact from fiction (content vs predatory publishers vs fake news)

» If all else fails... good cheap coffee

THE FUTURE OF KEYWORD SEARCH

Hey siri? What is library n.o? Thank you
#riaan_rudman; #vd_sterr_building;
#cnr_bosman_&_victoria_street;
#stellenbosch; #south_africa; #7600

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