BIL-T CONFERENCE
ARCHITECTURE OF TOMORROW

NOV 11th 2021, US Central

An Association for All IT Architects
About Myself

- Practicing (and learning) Enterprise Architecture (EA) for over a decade
- Have worked in many industries in both Canada and Australia
- Currently work at CBH Group a WA farmers Co-Operative
- Am passionate about change and the desire to make things better
- Started my journey to improve Enterprise Architecture (EA) knowledge management back in 2011
The practice of EA synthesizes information into knowledge critical to strategic and tactical decision making.

My experience is EA departments rise and fall, and when they fall, leave large amounts of information but little accessible knowledge behind.

Knowledge is the key asset of EA yet we struggle to retain knowledge beyond the retention of good Enterprise Architects.

Enterprise Architects take a lot of time to gain knowledge and are a finite resource, making scaling the practice of EA difficult.
Where it all started…

- In 2009 I started working for a telecommunication company in Montreal, Canada.

- By late 2011, I was frustrated for a number of reasons:
  - Having to repeat the knowledge gathering process for every initiative
  - Not being able to keep up with documenting all the project changes
  - Missing out on crucial knowledge due to non-project related changes
  - Even with all the hard work, how hard it was to answer even basic EA related questions
  - EA knowledge management (not modelling) tools were non-existent or prohibitively expensive

- A colleague of mine (Doug Beeson) and I decided to cobble together our own EA knowledge management solution
Choosing the Technology

**Wiki**

- Accessible to everyone
- Capable of aggregating text, images and files
- Simple to add content and easy to search
- Low-cost or open source technology options

**Semantic Web**

- Can adapt to a growing and ever-changing EA meta-model
- Can be queried to answer questions
- Low-cost or open source technology options

**Semantic MediaWiki**

- Easy form based data entry
- Loads of extensions
- Open source solution with active development
A bit about the technology

- **Semantic Web**
  - Statement = Subject, predicate, object
    - e.g. SAP is used by Finance
  - Millions of statements can be stored and queried

- **Semantic MediaWiki**
  - A statement = Page, property, object
  - Can be queried using the parser function \#ask
  - Alternatively can store statements in an RDF triple store and use SPARQL
  - Easy form based capture of information

Statements are used to define your EA meta-model
Statement Examples

Simple EA Meta-model represented in semantic statements

- **Application**
  - **Ontario call centre contact management platform.**
  - **Yes**
  - **1**
  - **Ontario call centre contact management platform.**
  - **Michelle Goldson**
  - **Page**
  - **Property**
  - **Object**
  - **realises**
  - **Application**

- **TAM: Customer Information Management**
  - **Description**
  - **Customer Information Management**
  - **xxxx**
  - **yyy**
  - **zzz**
What did adoption look like?

Day 1

- Installed on-premise instance of MediaWiki
- Active Directory authentication enabled
- Setup the necessary properties, templates and forms to model a simple EA meta-model that included applications, functions and data flows
- 1 million statements had been captured using the basic model and questions like "How many applications had dependencies specific function?" and "Which applications on a specific application?"

3 months

- Integration team asked to extend model to support application interfaces
- Added a relationship between data flows and interfaces to answer questions like "A change to an interface will impact which applications?"
I can’t use Semantic MediaWiki

Since 2011, I have replicated this approach in other organisations and have learnt that I can’t always use Semantic MediaWiki.

In these instances I have scaled back to using only the Wiki portion for knowledge management to still help manage EA knowledge.
Something is better than nothing

- Wiki technologies are usually already accessible and supported in most organisations
- Allows the decentralisation of capturing information of interest to EA
- Although manual, allows Enterprise Architects to focus on maintaining statements using hyperlinks between pages to enforce the EA meta-model to inject meaning into information
- Its accessibility and searchability provide immediate value to users
Advice

- Start with a small meta-model to prove its value
- Be prepared to put in the data entry work at the beginning
- Consult with information policies and provide guidelines on what information should be published on the wiki
- Create an eye-catching home page that explains the wiki
- Encourage use over governance and accept that incorrect information is better than no information
- Promote the follow/watch feature
- Find and encourage page stewardship
- Try to involve its use in existing processes
For further information, please contact us@iasaglobal.org