ALGIM Presentation

Boosting Local Council Productivity with the Effective use of Artificial Intelligence

to automate inhouse business processing in Local Government

Presentation by Power Business Services Ltd

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I am

Trish Spiteri

IT Manager in local government -- 16 years

MAV Council representative

Now an independent advisor to Victorian Councils on automation transition

-- 2 years’ experience working with PBS’ Australian subsidiary, eCloud Business Services on the A.I. automation of mail processing in Councils
**Power Business Services**

**Our experience and background**

Specialist automated services provider to Councils

1. 10 years experience - expert digitisation services: paper files, microfilm & digitisation rescue services

2. Born in the cloud technology – owned and designed by PBS

3. **6 years experience in incorporating A.I. in our services delivery**

4. Designers of automated inbound mail processing software (using A.I.)

5. Taking our local government cloud services software to the world:
   - 3 digitisation centres in NZ – 2 more planned
   - 2 digitisation centres in Melbourne, a London digitisation centre is next
WHAT IS AI?

▶ **Artificial Intelligence -- definition**
  ▶ The ability to take non-exact inputs and generate consistent actions and outputs
  ▶ E.g. Traditional computing requires specific data formats, data types and structures
    AI handles variable data structure and content

▶ **AI disciplines include**
  ▶ Natural Language Processing
  ▶ Machine Learning
  ▶ Image Processing/Computer Vision
The “cloud” – how AI works

- Imagine every student in a classroom each learning something different and then merging their brains together

Internet of things (IoT)

- Connect vehicles, machinery, agriculture, anything to the cloud
Applications
- Assessment speed in seconds
- Access to unprecedented data collection via the cloud for matching and scoring
- Industry-specific scoring
- Screens data for key issues or exposure, and screens applications for correct and complete supporting information
- Similarity analysis to identify content that is similar or the same as another application
- Decisions on applications made in seconds
- 24 x 7 processing

Payments
- Automated transactions taken to new heights
- Invoice / PO matching & automated authorisations
- Increased data enables electronic analysis to assist in purchasing/inventory trend predictions
ROBOTIC PROCESS AUTOMATION

- Advancement on the existing focus on automating business workflows for the processing of business
- The automation of “white-collar” jobs
- Humans will still be required to provide the high value cognitive thinking to resolve exceptions/errors and to design strategies
- Administration workers will need to be retrained and can be deployed to higher value projects

Human: $50,000/annum + overheads

Computer: $5,000 capital cost with low running costs & 24 x 7 workload

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TRANSPORT/FREIGHT

- Driverless vehicles – a small part of a bigger play

- Automatic routing, work consolidation, asset utilisation

- Improve vehicle, infrastructure efficiency significantly

- E.g. a 10% efficiency improvement – savings in infrastructure spend alone + business transformation
DEMOCRATISATION OF DATA

- Benchmarks purchase prices (e.g. electricity)

- Average height of trees in an area (likelihood of power line damage)

- Asset performance measurement (cost of ownership of a brand of equipment or vehicle compared to same type of vehicle owned by another Council – i.e. knowledge of lower total cost ownership)
Problem statement:

Manual mail processing (paper and email) took 5 people over 6 hours/day to process

100 – 120 paper mail items;
50-60 incoming emails to the central Council email address
4 – 5 consent applications from Customer Services

Reason for automation:

Free Information Services staff from processing mail to focus on more complex projects such as development and management of a digital assets register and train staff to use the document management system more effectively.

Rates cap meant that no additional staff could be hired.
Advanced automated inbound mail processing service

➢ Uses Artificial Intelligence to obtain automated detection of the incoming document types

➢ oMail enables Nillumbik Council to save valuable time and money

➢ AI drives the identification of the correct workflows and actions

oMail processes both incoming paper and also email mail items, and includes detaching & processing email attachments — all done electronically
Comparison of Old & New Methods & Time Savings

Key = daily time not spent processing mail

OLD Manual method of processing and registering incoming mail

Volume of daily individual staff time spent processing and registering incoming paper and emailed mail items

NEW automated method of processing and registering incoming mail

Volume of daily individual staff time spent processing incoming paper and emailed mail items

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USER CASE: TYPICAL MANUAL MAIL PROCESS

1. Sort mail into group
2. Open mail and sort mail items
3. Stamp each item with date stamp
4. Staple loose pages together
5. Deliver set of documents to the scanners

6. Fill in Group ID manually
7. Prepare documents for scanning; insert separator pages
8. Select scanning profile:
9. Scan document, manually rotating pages if required
10. Scan document, manually deleting pages if required

11. Check color pages have scanned correctly
12. Remove separator pages
13. Once all documents are scanned; submit & save batch
14. Documents are split into PDF’s

15. Count separator pages to check against total number of images
16. Re-staple documents after scanning
17. Release scanned documents into HPRM
18. Register each document manually into HPRM via manual metadata entry
IMPROVED PROCESSING = REDUCED NUMBER OF PROCESSING STEPS

1. OPEN MAIL
   A4 docs in combined piles of approx. 300 pages (no date stamp or category sorting required)

2. SCAN
   View any A4 docs with incomplete metadata in oMail & add data then auto-upload & auto registered into HPRM

3. METADATA
   Only required for exceptions

4. UPLOAD
   Mail item pdf with complete metadata uploaded automatically from oMail into HPRM
   Or other document / content management system
Example of Application:
Workflow and Architecture

Automated Inbound Mail Processing
Example of Application:
Workflow and Architecture

SOLUTION

Mail Automated Processing
Manual invoice processing is:

1. Slow and expensive (labour cost)
2. Usually restricted to the invoice summary data – i.e. totals, date, invoice number etc.
   Individual line items are usually excluded (due to lack of labour resources)
3. All errors in an invoice have to be detected visually = often errors go unnoticed during the data entry
4. Matching invoices to purchase orders is difficult and inexact
FINANCIAL DOCUMENT PROCESSING - INVOICES

Benefits of automation using AI

1. Data extraction, including lines, occurs in seconds, without the need to set up templates

2. Items charged on an invoice can be compared with other similar items = improved purchasing ability

3. Errors in the invoice content can be detected fast and reported on electronically
Thank you and questions