

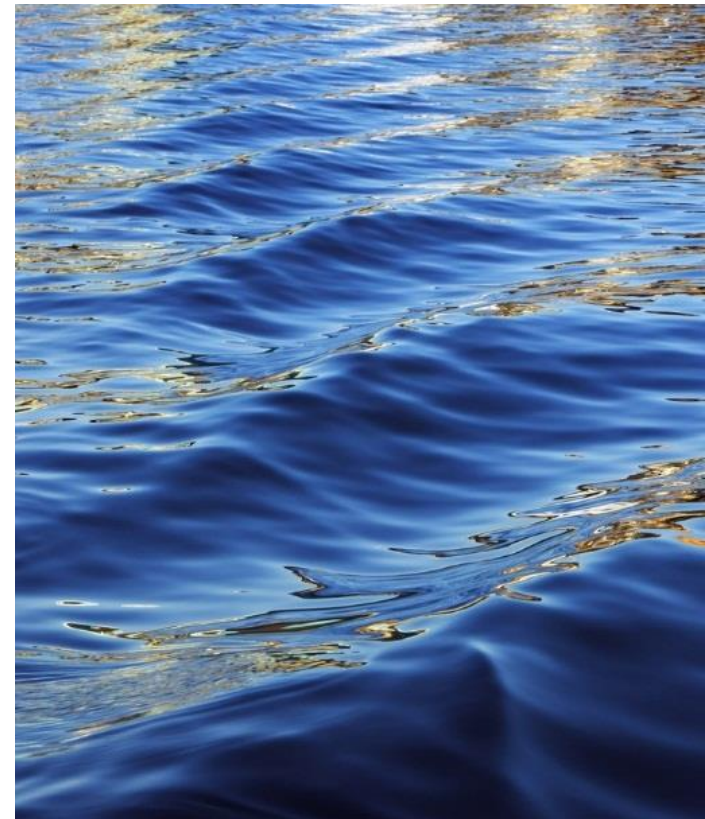


Invoicing: EDI versus AI

(Part One)

Testing and evaluating new features

By: Sharon Whittle and Matt Thomas, Wilfrid Laurier U



Introductions

Information Resources (IR) Team @ Laurier

- Ania Szablewski, IR Associate
- Caroline Houle, IR Associate
- Christina Kerr, IR Associate
- Doug Roberts IR Associate
- Sharon Whittle, Manager IR
- Matt Thomas, Head IR

Invoicing: Electronic Data Interchange (EDI) versus Artificial Intelligence (AI)

Following Laurier's responsible use and safe practices policies for AI testing and or adoption

1. Compile the needed documentation and provide to the appropriate parties for review
2. Obtain any necessary documentation from the vendor on the feature
3. Determine the level of access to secure information as per our organization's Information Governance Policy
4. Submit PSAI (privacy and security impact assessment)

This feature will, when released, be available to enable in your Alma instance; however, it may require vetting through ICT and legal departments prior to enabling

Gen AI tools can pose security and privacy risks

Our policy is that confidential, internal or restricted information must not be uploaded into public AI tools

Following the privacy and security impact assessment ICT and legal will approve or deny the feature for testing

Invoicing: Electronic Data Interchange (EDI) versus Artificial Intelligence (AI)

Defining the areas of evaluation

Understanding the criteria and parameters by which we measure AI workflows in this and future release features.

- Why are we interested in using the feature?
- What are the benefits versus the risks of using the feature?
- And can we develop a matrix to assist with rationale to AI adoption?

Defining Areas of Evaluation

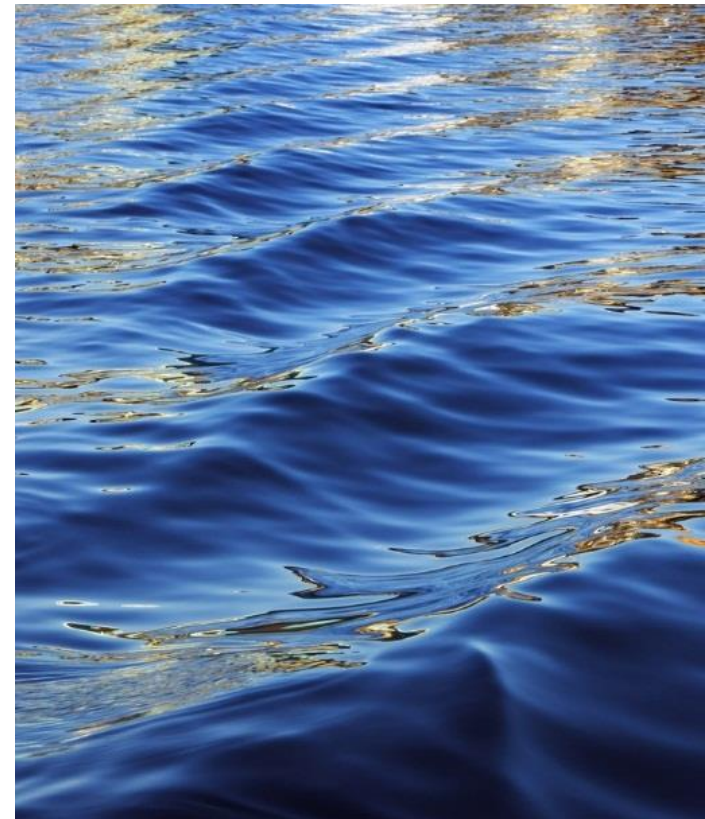
Reviewing the new AI features in Alma Acquisitions:

- A. Need for services
- B. Compare to existing capabilities
- C. Functionality versus hype
- D. Costs and impacts
- E. Efficiencies versus efficiencies



Need for Services

First area of evaluation

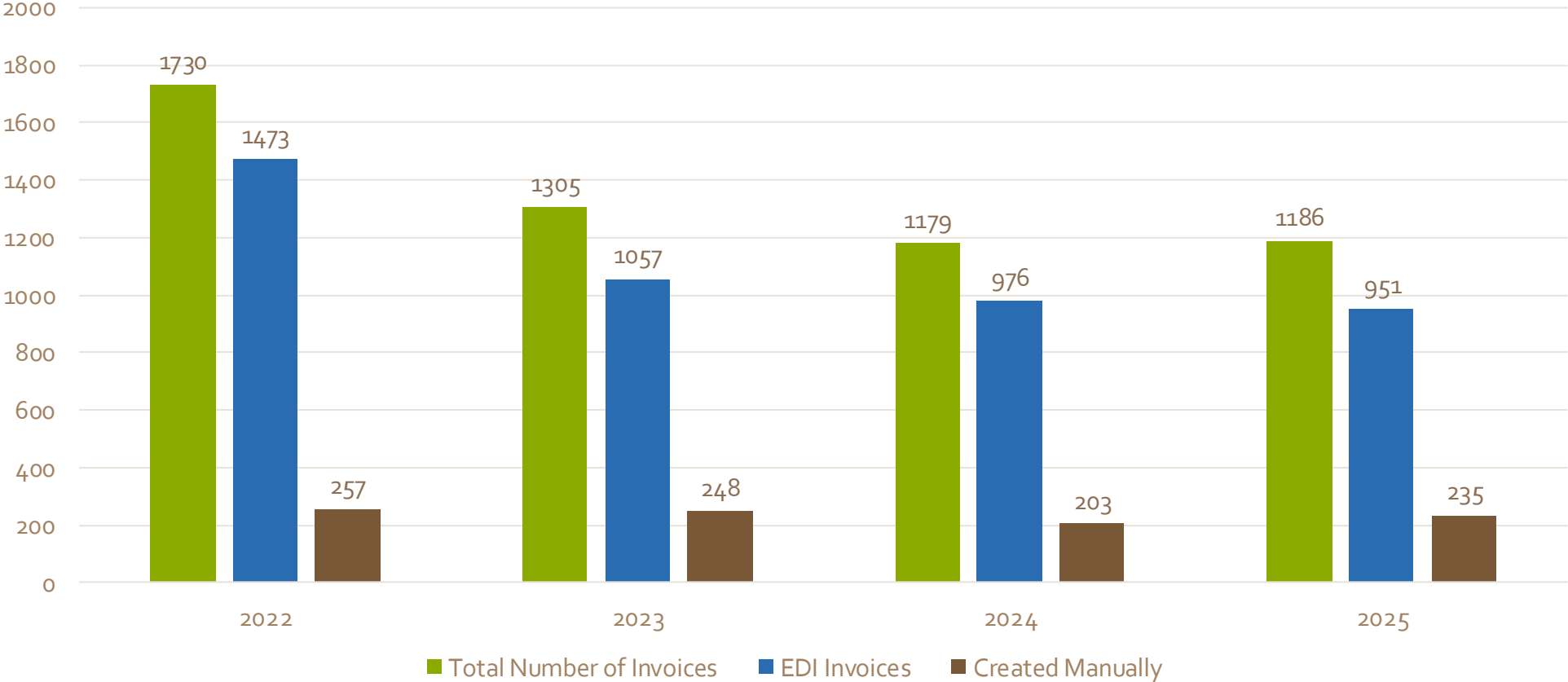


Need for Services

- a) What are the invoice types that might benefit with an alternative
 - i. EDI or Manually created are the two formats currently used
- b) What we are not considering in this investigation
 - i. Invoices NOT transferred to Accounts Payable for upload into Enterprise Resource Planning Software (ERP) such as Purchase Cards; Deposit Ledgers (OCUL); and internal transfers will not be included in the review
- c) What is the potential volume of invoices where this process would be useful
 - i. Number of invoices
 - ii. Length of invoice (number of invoice lines)
 - iii. Number of vendors

Number of invoices created via EDI versus Manually

Total number invoices 2022-2026



Vendor to invoice volume EDI and Manual

Total number of active vendors in 2025 = 115

Total number of invoices in 2025 = 1186

Vendors without EDI = 111

Invoice volume from vendor	Without EDI	Number of invoices 2025
Zero invoices	50	0
More than 1 less than 5	56	152
More than 5 less than 10	2	17
More than 10 less than 100	3	66

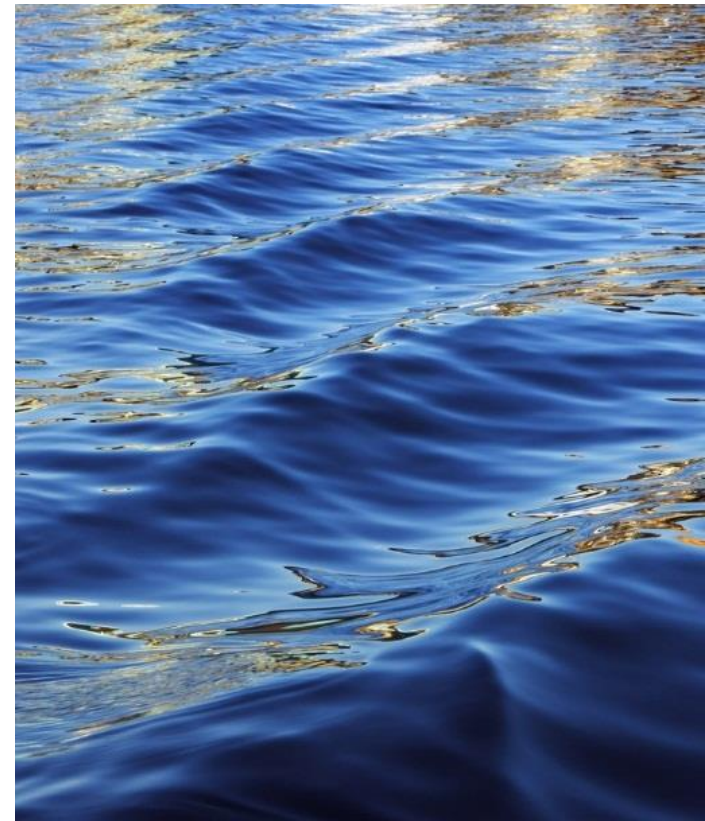
Vendors with EDI = 4

Invoice volume from vendor	With EDI	Number of invoices 2025
Zero invoices	0	0
More than 1 less than 10	2	6
More than 10	1	71
More than 100	1	874



Comparing existing features

Second area of evaluation



Existing Capabilities

- a) EDI
- b) Excel
- c) Manual
- d) XML

NOTE – all methods (except manual) convert to XML and translate the information to the fields on the invoice in Summary tabs and Invoice Line tabs therefore reviewing how the XML works is unnecessary

NOTE – Excel will not be used in trial runs

Existing methods:

- Automatically using EDI
- Manually, by uploading Excel or specific XML formats
- Manually, by typing the information

New method:

- Upload the PDF/Image of the invoice, as retrieved from the vendor
- Up to 20 PDF pages!
- Alma will generate the invoice with its lines
- The invoice will be created with "In Review" status

< Select Invoice Creation Process

- Invoice Creation
- Manually
- From PO
- From File

Handle Receiving

< Invoice From File

Create Invoice from File

Vendor *  

File type EDI XML Excel PDF/Image 

Upload file * 

Upload and Run Invoice Creation Job

EDI set up with Vendors – EBSCO example

1. Need a match point (the POL is preferred – but can also use the Order Number found in the Vendor Order No field)
2. Vendor Default EDI code
3. Customer's EDI code
 - a) Customer's EDI Code Type
4. Need the following entered in Alma (EBSCO will provide most and your ICT)
 - a) NODE NAME:
 - b) USERID:
 - c) PASSWORD:
 - d) SUB-DIRECTORY:
 - e) TRANSFER TYPE:
 - f) Port
5. And provide the vendor FTP details

< Vendor Details Cancel Save

Summary Contact Information Contact People EDI Information Usage Data System Integration Invoices PO Lines Communications Attachments Notes Analytics

Vendor EDI Attributes

EDI code	<input type="text" value="EBSCOCAD"/>	EDI type *	<input type="text" value="REDACTED"/>	EDI naming convention *	<input type="text" value="Ebsco"/>	EDI vendor format *	<input type="text" value="EBSCO"/>
Incoming	<input checked="" type="checkbox"/> Incoming	<input type="checkbox"/> Shelf Ready Parameters		Outgoing	<input type="checkbox"/> POs <input type="checkbox"/> Order Cancellation <input type="checkbox"/> Claims		

Making an invoice manually – EBSCO example

1. The path
 - Alma > Acquisitions > Receiving & Invoicing > Create Invoice > Manually > Next
2. Fill fields as required
3. On “Summary” tab
 - Fill 7 fields (Invoice number; Date; Vendor; Vendor Account; Total (XPAR); payment method; expend from fund)
4. Save and create invoice lines
5. On “Invoice line” tab
 - Add invoice line > Using POL line field look up and select POL
 - Enter additional information or change information
 - Subscription term; different price than encumbered; split funds; release encumbered funds, etc.
 - Add service fees if required
 - Add tax lines (number of tax lines varies)
6. Add and close
7. Attach PDF of invoice
8. Ensure XPAR (expect to pay after rebate) and TILA (total invoice lines amount) match
9. Vet to ensure accuracy
10. Save and Continue to send invoice to Approval queue

Taxes and Rebate Entitlements – Realities of Life

- Taxes for remittance to vendors and self-assessed amounts
- Entitled rebates from the gov't or required remittances
- Financial system capacity (Enterprise Resource Planning - ERP)
 - We use Banner
- Invoice lines and totals depending on fund
 - Separating due to accrual accounting



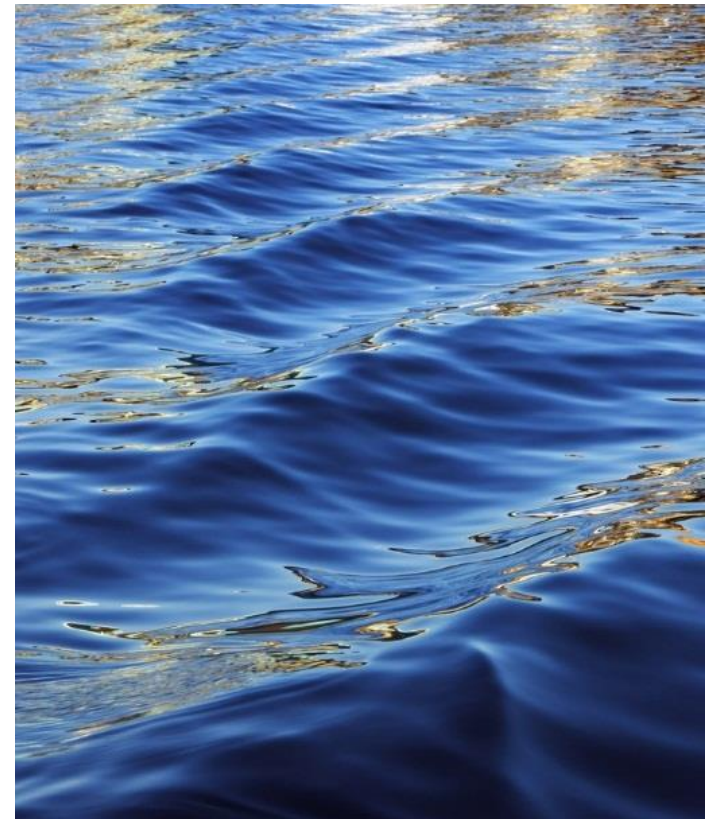
WHERE DOES ALMA FIT IN?

WHERE DO THE VENDORS FIT IN?



Functionality versus hype

Third area of evaluation



Functionality versus Hype

- a) Knowing the company's stance on AI features and their goal
 - i. Defining their principles
 - ii. Transparency in how it works
 - iii. Transparency in partners
 - iv. Transparency in environmental cost
- b) Operate as Defined in Real Time
 - i. Works as describe

AI at the Service of Libraries and Librarians



Be Beneficial

Offer helpful and ethical solutions

Identify needs and pain points

Assist librarians

Respect laws and best practices

Community collaboration

Transform & increase efficiencies

Unlock library workflow efficiencies with innovative technology

Agentic AI & assistants

Metadata using LLM & image processing

Process Automation

Data Insights

Responsible AI Use

AI Principles Informed by the Library Community

Human in charge

Opt-in features

Ethical & safe: AI not trained on uploaded data, limited web access

Academic AI Platform: Powering all Clarivate Products

Practical & Responsible AI



AI Metadata

- Create and enhance records using the Metadata Assistant
- **NEW:** Enrich Bibliographic Records job using AI title matching



AI Acquisition Assistant

- Conversational workspace, Ask questions, take actions



AI Entity Creation

- Automatically create Alma administrative entities
- **NEW:** Create an invoice from PDF/Image



AI Insights

- Actionable, data-driven recommendations that help libraries optimize workflows, collections, and decision-making



MCP Ready

- Enable MCP support in Alma to allow controlled AI agent capabilities



Alma LibOW AI

- Extensible AI integration point that allows libraries to connect Alma workflows with external AI models and agents to automate tasks

Crucial to note :

AI – Invoice from PDF Image is in the Early Access Program at present. Ex Libris staff are very receptive to questions and feedback and are working with the feedback to increase functionality and improve the service.

Our findings will be based on the Early Access and not the final product as of June 2026

<https://videos.clarivate.com/watch/tRArynqXQUCmaqHtDBmfDq>

Create invoice from PDF - DEMO

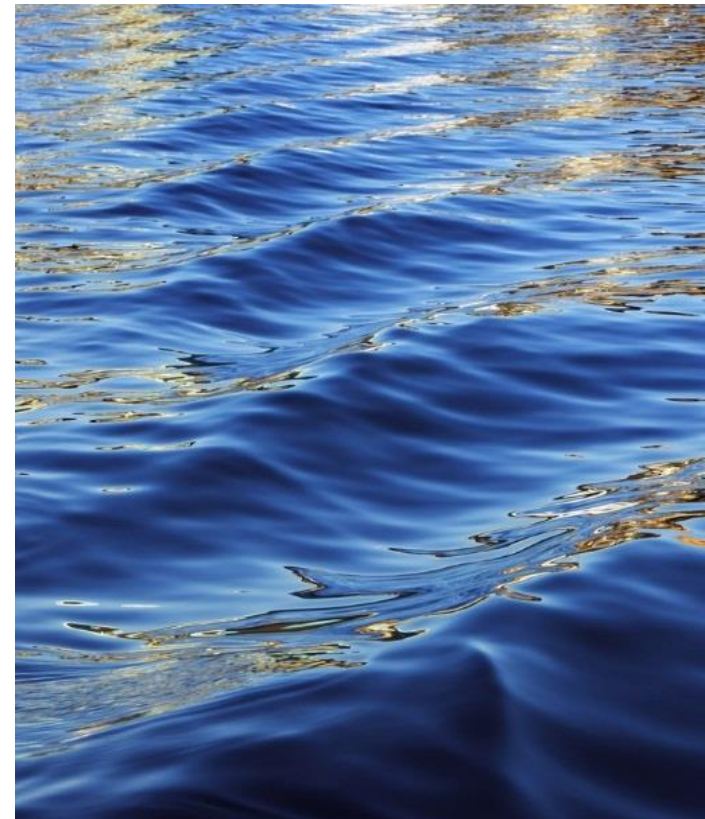
For VAT Purposes			
VAT Rate	Inclusive VAT	VAT Amt	Sub Incl VAT
0.00 %	14995.00	385.00	15380.00

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Review

Compare and ensure we are asking the right questions



Pausing for review of the first three areas of evaluation

1. Need for Service
2. Existing Capabilities
3. Functionality versus Hype

The real question is shifting to whether the AI workflow will be better than entering invoices manually, rather than can it replace EDI workflows. EDI functionality is the better set up.

Compare - Volume

EDI

- The number of vendors you can set up with is very low 4%
- The number of invoices those vendors generate is high 80%

AI

- Can use with 100% of the vendors

Compare – consistent format

EDI

- EDI is a set and consistent format from the vendor and is predictable

AI

- AI uses what is on the invoice and vendor formats are inconsistent
- Does AI consistently pull and interpret the data in the same manner every time
- Can AI misinterpret the data it is "seeing"

Compare – Links to POLs

EDI

- When EDI is set up the POL is most often the match point and therefore knows where to land and what to connect with

AI

- AI can only match to the POL if the POL is printed on the invoice
- AI can misinterpret the POL if the vendor adds (e.g., POL-51515/NR)
- Does AI attach to a closed POL
- Does AI consistently see a POL printed on the invoice

Compare – Additional Data

EDI

- Vendors can omit tax lines
- Attach to POLs for service fees
- Arrive with the vendor account linked

AI

- Can only interpret what is printed on the invoice
- How would you handle taxes appearing on the invoice
- Can a POL be linked to a service fee

Compare – Set Up

EDI

- Set and leave to autorun

AI

- Each invoice must be manipulated
- Each invoice must be scanned

Compare – ease of tracking

EDI

- Set in job parameters to run at intervals as appropriate
- Lands in the "in Review" queue when available

AI

- Need to track the arrival of the invoice
- Where does it land? "in review" once created

Compare – control of feature

EDI

- If the file doesn't attach you can delete and reload
- Consistent load parameters – pulls from the same XML provided
- Control on persistent errors – speak to vendor and sort what is needed or should be omitted in XML

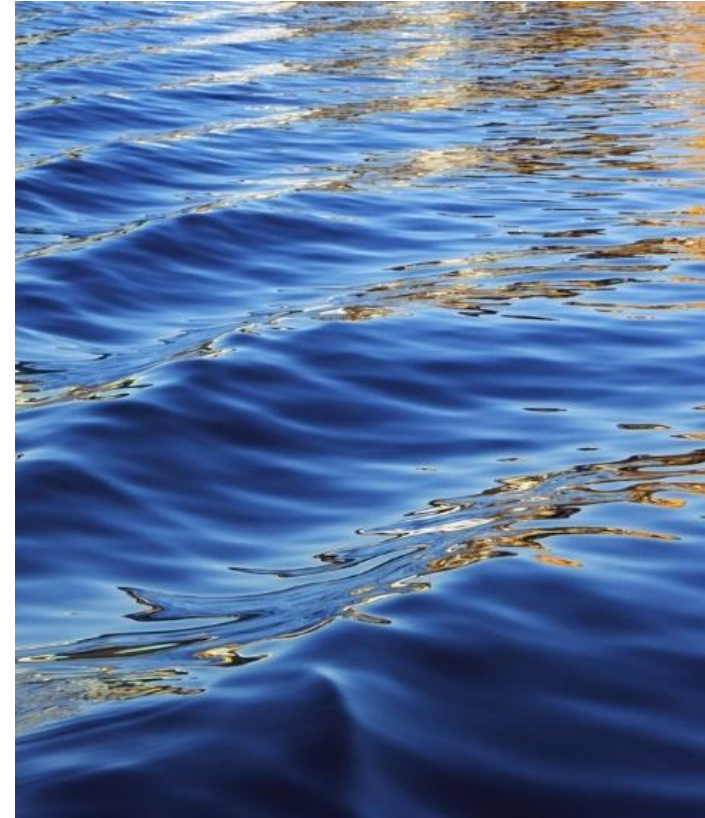
AI

- If the file doesn't attach do you start over
- Inconsistent load new interpretations of the new scanned data
- No control over persistent errors as you can't always predict what the AI is confusing



Costs & Impacts

Fourth area of evaluation



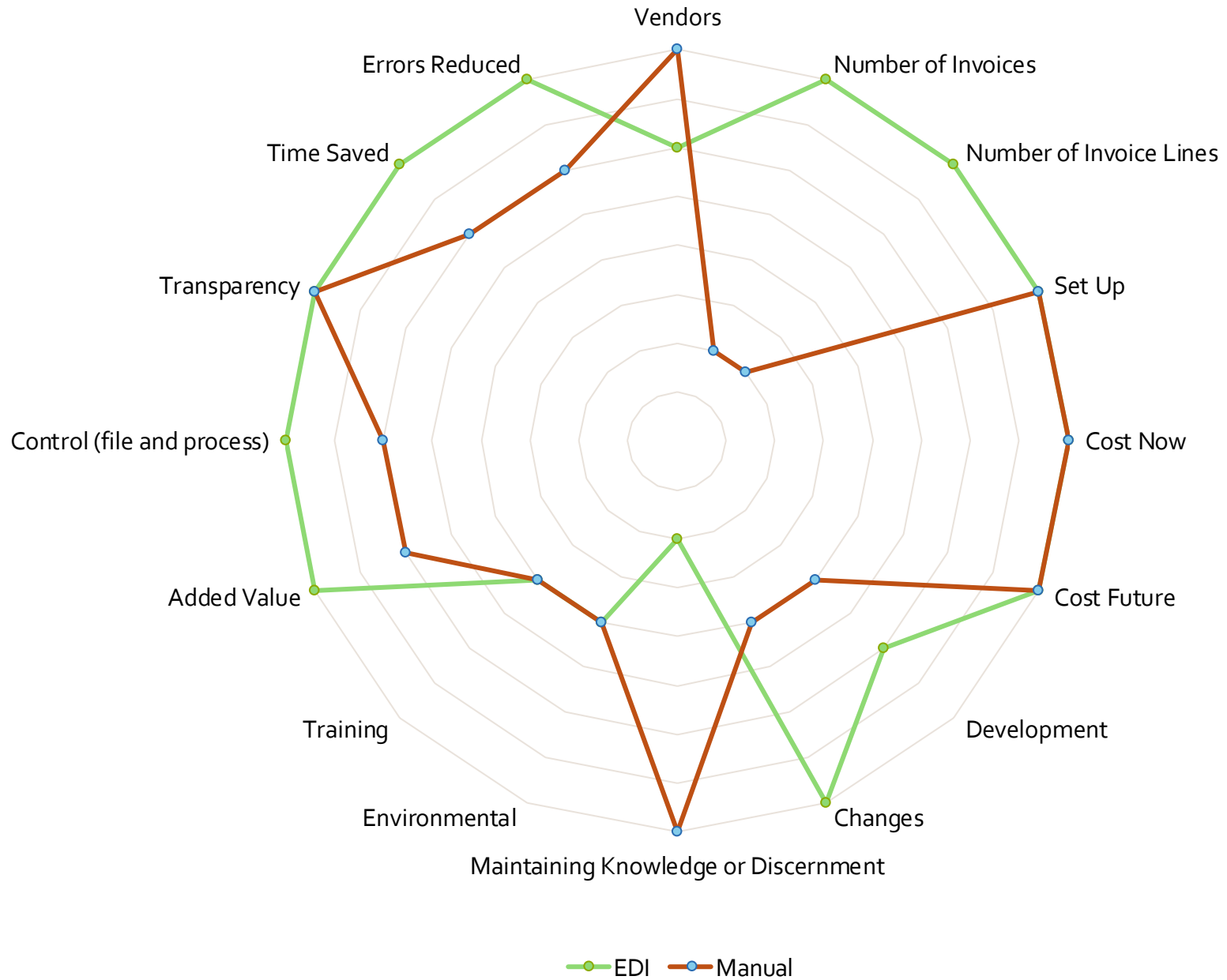
Defining Costs and Impacts

What is measurable versus what is not

- Environmental
- Privacy
- Staff time
- Staff retention
- Staff training
- Errors
- Discernment
- Cost now
- Cost later
- Transparency
- Control

Matrix Categories

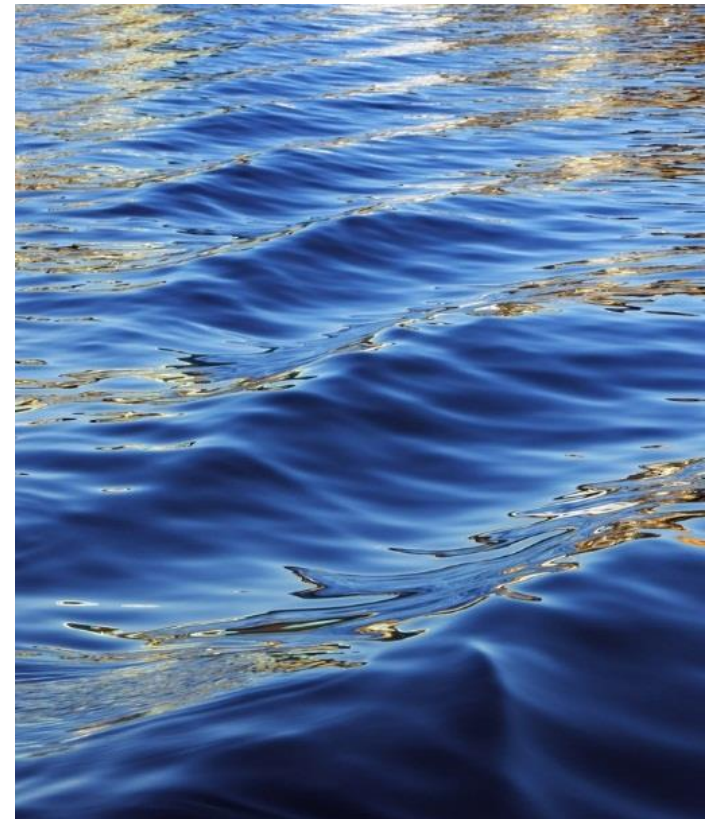
1. Number of vendors to benefit
2. Number of invoices
3. Number of invoices with multiple lines
4. Set up complexity
5. Cost now
6. Cost in future
7. Development with vendor
8. Changes by vendor
9. Maintaining knowledge and discernment
10. Environmental issues
11. Staff training
12. Added value to process
13. Control over the file and process
14. Transparency with vendor
15. Time saved
16. Errors reduced





Efficiencies versus efficiencies

Fifth area of evaluation



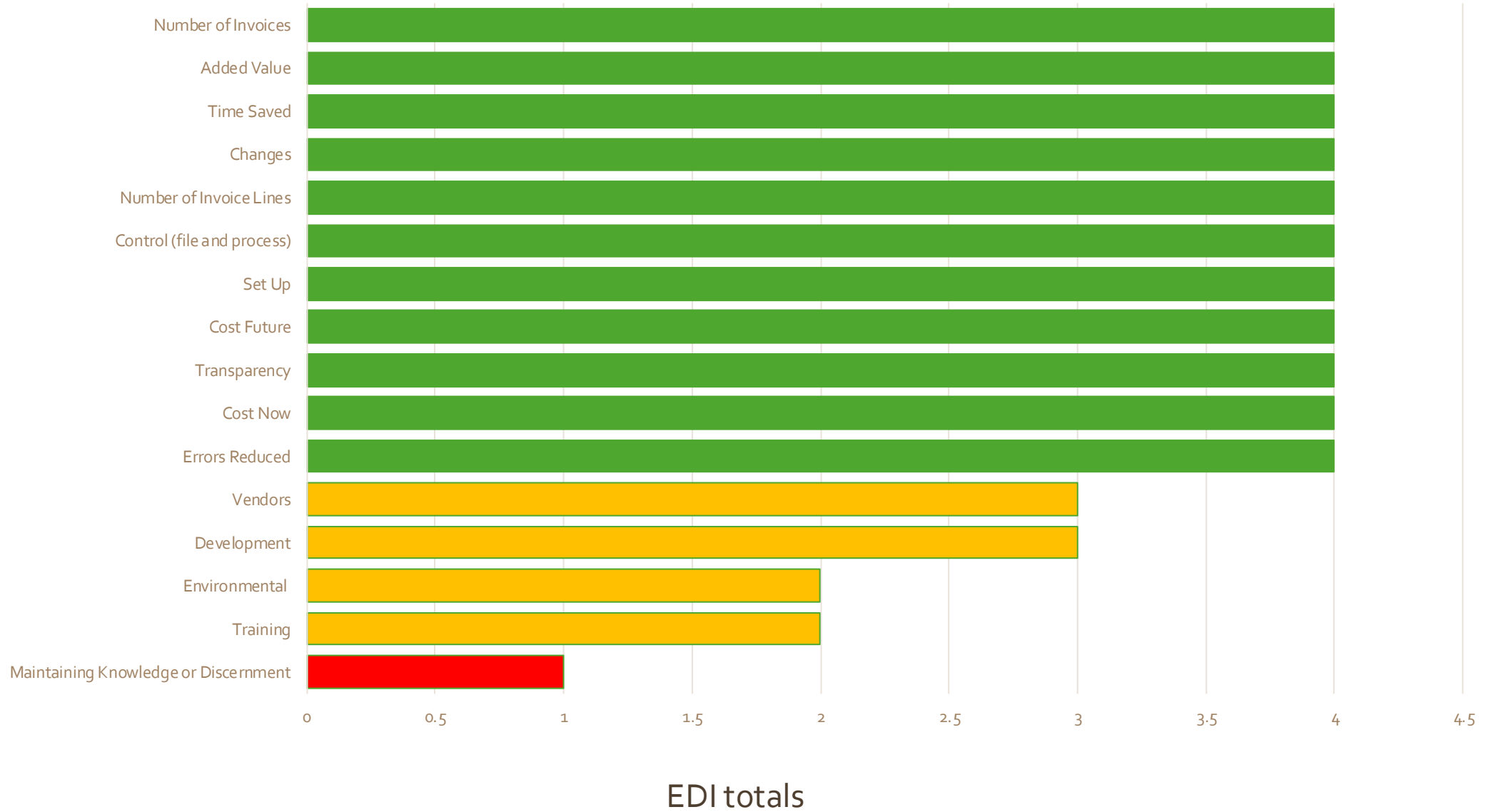
Efficiencies versus Efficiencies

AI versus EDI and Manual

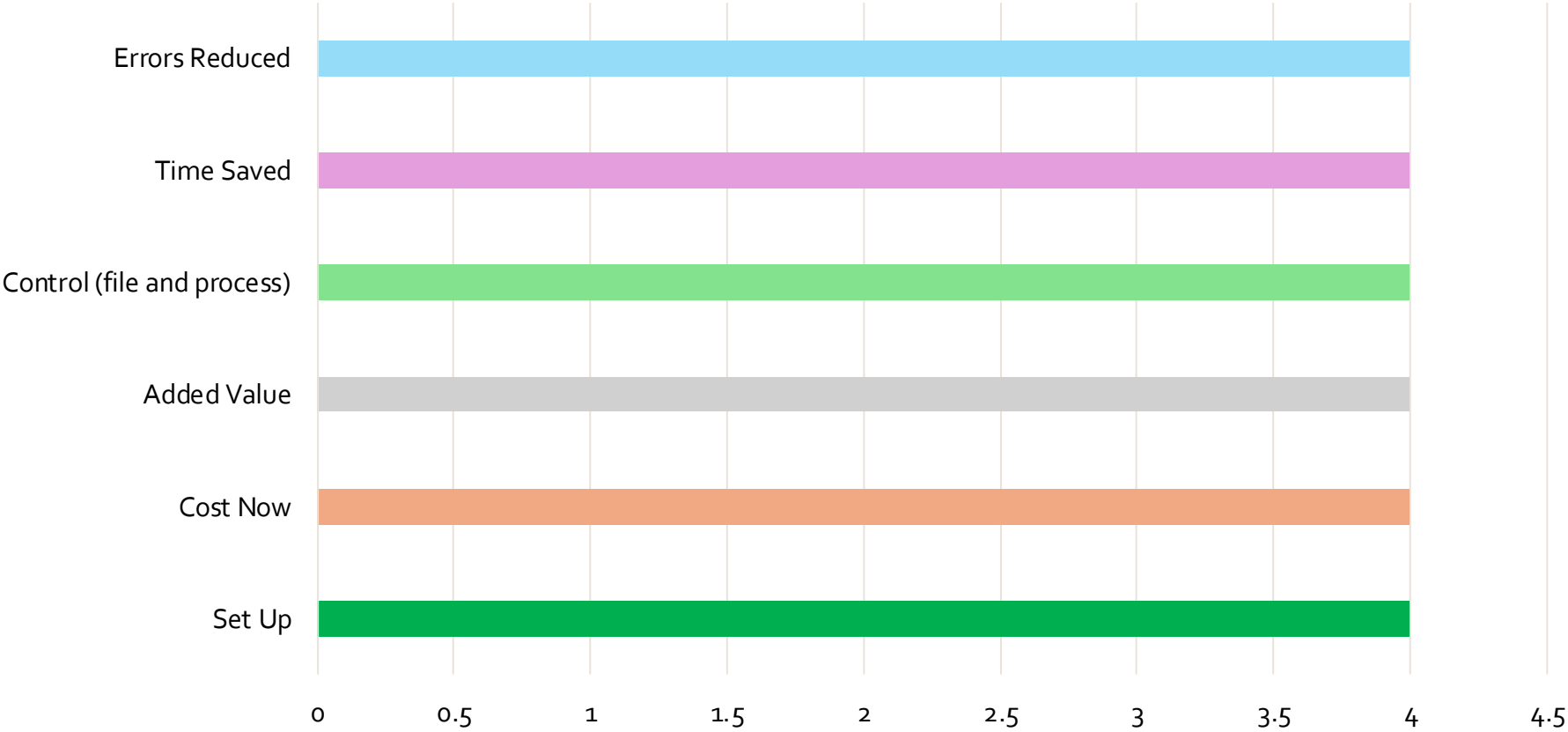
How quick is each method?

How simple is the method?

Does it create or reduce errors?



Measurable Costs



EDI totals



Recommendations and questions



Recommendation

If you haven't already set up EDI with vendors. Do it.

In anticipation of vendors pushing out more AI features we encourage everyone to develop processes for testing AI features before adoption to ensure it is advantageous and improves your process

We would highly recommend including staff in the testing process as they are impacted by AI features more immediately and are more knowledgeable about workflow realities

Questions?

Using Gobi but not set up for EDI? Contact - gobicustservice@ebSCO.com

Using EBSCO and not set up for EDI? Contact – acampbell@ebSCO.com

Want to see live examples of EDI? Contact – swhittle@wlu.ca

Interested in discussions on evaluation criteria for AI features? Contact – mthomas@wlu.ca