Comparing/Contrasting Document-oriented and Model-oriented Financial Reporting Systems (Brainstorming)

Charles Hoffman, CPA

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This document shows some initial brainstorming related to comparing and contrasting document-oriented financial reporting and semantic model-oriented financial reporting, accounting working papers, and auditing working papers. Another perspective of this relates to the use of reported information as is described by *Financial Knowledge Graph Based Financial Report Query System*[1].

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[1] IEEE.org, *Financial Knowledge Graph Based Financial Report Query System*, https://ieeexplore.ieee.org/document/9424591

Document-based Financial Report

Report created by typing information into a table within a Microsoft Word document; Microsoft Word does not understand financial reports, rule cannot be included within report to verify numeric relationships, information is not effectively reusable because it is presentation-oriented and not semantic in nature:

	2022-01-01 | 2022-12-31
Support and Revenue:	
Revenue:	
Contract Revenue	2,000
Other Revenue	2,000
Revenue	4,000
Support:	
Grants	1,000
Other Support	1,000
Support	2,000
Support and Revenue	6,000
Expenses:	
Program Services Expenses:	
Salaries and Related Expenses	2,000
Other Program Services Expenses	1,000
Program Services Expenses	3,000
Supporting Services Expenses:	
Management and General Expenses	1,000
Fundraising Expenses	1.000
Supporting Services Expenses	2,000
Expenses	5,000
Change in Net Assets	1,000

Report created by typing information into Microsoft Excel spreadsheet which is presentation-oriented information; Microsoft Excel does not understand financial reports, information is presentation-oriented rather than semantic in nature; rules (formulas) can be embedded within report but cannot reference external rules which can be used to verify report.

	A	B	C
1			
2		Component: (Network and Hypercube)	
3		Network	1102 - Statement - Statement of Activity, Basic
4		Hypercube	Statement of Activity, Basic [Table]
5			
6		Reporting Entity [Aspect]	GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442
7			
8			Period
9		Line Item	2022-01-01 | 2022-12-31
10		Change in Net Assets:	
11		Support and Revenue:	
12		Revenue [Roll Up]	
13		Contract Revenue	2,000
14		Other Revenue	2,000
15		Revenue	4,000
16		Support:	
17		Grants	1,000
18		Other Support	1,000
19		Support	2,000
20		Support and Revenue	6,000
21		Expenses:	
22		Program Services Expenses:	
23		Salaries and Related Expenses	2,000
24		Other Program Services Expenses	1,000
25		Program Services Expenses	3,000
26		Supporting Services Expenses:	
27		Management and General Expenses	1,000
28		Fundraising Expenses	1,000
29		Supporting Services Expenses	2,000
30		Expenses	5,000
31		Change in Net Assets	1,000
32			

Model-based Financial Report

Report created by manually entering report information into an expert system for creating financial reports that does understand financial reports. Information could also be "piped" into report creation tool using an API, information can be generated into an Excel file format and then imported into the model-based financial report creation tool.

There are many different views of the report including a view specifically designed for "viewing" the information of the model-based report:

| Rendering | Model | Fact Table | Rules | Verification | Report Elements |

| Reporting Entity [Aspect] | GH259400TOMPUOLS65II \| http://standards.iso.org/iso/17442 |

Concept [Aspect]	Period [Aspect]
	2022-01-01 | 2022-12-31
Change in Net Assets [Roll Up]	
Support and Revenue [Roll Up]	
Revenue [Roll Up]	
Contract Revenue	$ 2,000
Other Revenue	2,000
Revenue	4,000
Support [Roll Up]	
Grants	1,000
Other Support	1,000
Support	2,000
Support and Revenue	6,000
Expenses [Roll Up]	
Program Services Expenses [Roll Up]	
Salaries and Related Expenses	2,000
Other Program Services Expenses	1,000
Program Services Expenses	3,000
Supporting Services Expenses [Roll Up]	
Management and General Expenses	1,000
Fundraising Expenses	1,000
Supporting Services Expenses	2,000
Expenses	5,000
Change in Net Assets	$ 1,000

Alternatively, another human readable rendering could be used to manually make edits to the report:

Rendering	Model	Fact Table	Rules	Verification	Report Elements

Reporting Entity [Aspect] — GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442

Concept [Aspect]	Period [Aspect] 2022-01-01 | 2022-12-31
Change in Net Assets [Roll Up]	
Support and Revenue [Roll Up]	
Revenue [Roll Up]	
Contract Revenue	2000
Other Revenue	2000
Revenue	✓ 4000
Support [Roll Up]	
Grants	1000
Other Support	1000
Support	✓ 2000
Support and Revenue	✓ 6000
Expenses [Roll Up]	
Program Services Expenses [Roll Up]	
Salaries and Related Expenses	2000
Other Program Services Expenses	1000
Program Services Expenses	✓ 3000
Supporting Services Expenses [Roll Up]	
Management and General Expenses	1000
Fundraising Expenses	1000
Supporting Services Expenses	✓ 2000
Expenses	✓ 5000
Change in Net Assets	✓ 1000

Edit

Rather than being presentation-oriented; the report information is information-oriented, machine-readable, semantic-oriented and based on a global standard technical format, XBRL; the rendering on the LEFT is generated from the model shown on the RIGHT and other additional information available within the model-based financial reporting tool:

Additional information about the report model is available within the "model" view of the model-based financial report:

Label	Category	DataType	Period	Balance	PreferredLabelRole	Name
▼ Statement of Activity, Basic [Table]	Hypercube	String	Duration			report:StatementActivityBasicTable
▼ Statement of Activity [Line Items]	LineItems	String	Duration			report:StatementOfActivityLineItems
▼ Change in Net Assets [Roll Up]	Abstract	String	Duration			report:ChangeInNetAssetsRollUp
▼ Support and Revenue [Roll Up]	Abstract	String	Duration			report:SupportAndRevenueRollUp
▼ Revenue [Roll Up]	Abstract	String	Duration			report:RevenueRollUp
Contract Revenue	Concept	Monetary	Duration	Credit		report:ContractRevenue
Other Revenue	Concept	Monetary	Duration	Credit		report:OtherRevenue
Revenue	Concept	Monetary	Duration	Credit		report:Revenue
▼ Support [Roll Up]	Abstract	String	Duration			report:SupportRollUp
Grants	Concept	Monetary	Duration	Credit		report:Grants
Other Support	Concept	Monetary	Duration	Credit		report:OtherSupport
Support	Concept	Monetary	Duration	Credit		report:Support
Support and Revenue	Concept	Monetary	Duration	Credit		report:SupportAndRevenue
▼ Expenses [Roll Up]	Abstract	String	Duration			report:ExpensesRollUp
▼ Program Services Expenses [Roll Up]	Abstract	String	Duration			report:ProgramServicesExpensesRollUp
Salaries and Related Expenses	Concept	Monetary	Duration	Debit		report:SalariesAndRelatedExpenses
Other Program Services Expenses	Concept	Monetary	Duration	Debit		report:OtherProgramServicesExpenses
Program Services Expenses	Concept	Monetary	Duration	Debit		report:ProgramServicesExpenses
▼ Supporting Services Expenses [Roll Up]	Abstract	String	Duration			report:SupportingServicesExpensesRollUp
Management and General Expenses	Concept	Monetary	Duration	Debit		report:ManagementAndGeneralExpenses
Fundraising Expenses	Concept	Monetary	Duration	Debit		report:FundraisingExpenses
Supporting Services Expenses	Concept	Monetary	Duration	Debit		report:SupportingServicesExpenses
Expenses	Concept	Monetary	Duration	Debit		report:Expenses
Change in Net Assets	Concept	Monetary	Duration	Credit		report:ChangeInNetAssets

Facts reported by the model-based report are separated in the global standard technical format and therefore are easy to reuse:

		Fact Table				

Rendering | Model | **Fact Table** | Rules | Verification | Report Elements

+ Add　　　　　　　　　　　　　　　Search

ReportingEntityAspect	CalendarPeriodAspect	Concept	FactValue	Units	Rounding	ParentheticalExplantions	S
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:ContractRevenue	2000	iso4217:USD	INF	ParentheticalFormatter	2
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:OtherRevenue	2000	iso4217:USD	INF	ParentheticalFormatter	4
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:Revenue	4000	iso4217:USD	INF	ParentheticalFormatter	6
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:Grants	1000	iso4217:USD	INF	ParentheticalFormatter	8
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:OtherSupport	1000	iso4217:USD	INF	ParentheticalFormatter	10
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:Support	2000	iso4217:USD	INF	ParentheticalFormatter	12
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:SupportAndRevenue	6000	iso4217:USD	INF	ParentheticalFormatter	14
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:SalariesAndRelatedExpenses	2000	iso4217:USD	INF	ParentheticalFormatter	16
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:OtherProgramServicesExpenses	1000	iso4217:USD	INF	ParentheticalFormatter	18
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:ProgramServicesExpenses	3000	iso4217:USD	INF	ParentheticalFormatter	20
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:ManagementAndGeneralExpenses	1000	iso4217:USD	INF	ParentheticalFormatter	22
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:FundraisingExpenses	1000	iso4217:USD	INF	ParentheticalFormatter	24
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:SupportingServicesExpenses	2000	iso4217:USD	INF	ParentheticalFormatter	26
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:Expenses	5000	iso4217:USD	INF	ParentheticalFormatter	28
GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2022-01-01 | 2022-12-31	report:ChangeInNetAssets	1000	iso4217:USD	INF	ParentheticalFormatter	29

Mathematical rules that assert and verify the internal consistency of reported information can be provided directly within the report or completely separate from the report and out of the control of the creator of the report. This control mechanism can be used to verify report quality.

Rules　　　　　　　　　　　　　　　　　　　　　　　　　　　**＋ ⊕ Generate**　**＋ ⊕ Validate**

Consistency | Roll Forward | **Member Aggregation** | Adjustment | Variance | Derivation | Nonstandard

+ Add　　　　　　　　　　　　　　　　　　　　Search

RuleType	RuleCode	Rule	Concept	StructureIdentifier	Dimension	Commentary	Edit
MemberAggregationRule	MA_SFE_Salaries	$Total eq sum($Each)	report:Salaries	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_PayrollTaxesAndBenefits	$Total eq sum($Each)	report:PayrollTaxesAndBenefits	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_SalariesAndRelatedFunctionalExpenses	$Total eq sum($Each)	report:SalariesAndRelatedFunctionalExpenses	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_Communications	$Total eq sum($Each)	report:Communications	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_ContractServices	$Total eq sum($Each)	report:ContractServices	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_Insurance	$Total eq sum($Each)	report:Insurance	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_Maintenance	$Total eq sum($Each)	report:Maintenance	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_Occupancy	$Total eq sum($Each)	report:Occupancy	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_OfficeSupplies	$Total eq sum($Each)	report:OfficeSupplies	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_ProfessionalFees	$Total eq sum($Each)	report:ProfessionalFees	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_TravelAndMeetings	$Total eq sum($Each)	report:TravelAndMeetings	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_OtherFunctionalExpenses	$Total eq sum($Each)	report:OtherFunctionalExpenses	StatementOfFunctionalExpenses	report:CategoryAxis -		
MemberAggregationRule	MA_SFE_Expenses	$Total eq sum($Each)	report:Expenses	StatementOfFunctionalExpenses	report:CategoryAxis -		

Mechanisms can be used to verify report information during the report creation process and at the end of the process; this is achievable because (a) the report information is composed of hundreds if not thousands of small pieces of information that the software works with, (b) the software has a rules engine which understands how to process rules, (c) rules are made available to keep the model-based financial report within permitted boundaries. These "guardrails" can provide feedback to a report creator to help them understand the report has been created correctly:

	RuleType	Expression	Period	StructureIdentifier	Result
+	RollUpRule	Change in Net Assets==Support and Revenue-Expenses	2022-01-01|2022-12-31	StatementOfActivity	true
+	RollUpRule	Supporting Services Expenses==Management and General Expenses+Fundraising Expenses	2022-01-01|2022-12-31	StatementOfActivity	true
+	RollUpRule	Program Services Expenses==Salaries and Related Expenses+Other Program Services Expenses	2022-01-01|2022-12-31	StatementOfActivity	true
+	RollUpRule	Expenses==Program Services Expenses+Supporting Services Expenses	2022-01-01|2022-12-31	StatementOfActivity	true
+	RollUpRule	Support==Grants+Other Support	2022-01-01|2022-12-31	StatementOfActivity	true
+	RollUpRule	Revenue==Contract Revenue+Other Revenue	2022-01-01|2022-12-31	StatementOfActivity	true
+	RollUpRule	Support and Revenue==Revenue+Support	2022-01-01|2022-12-31	StatementOfActivity	true

Below is an example of the model-based report system using the available report rules and a rules engine configured as a "daemon" that operates in the background of the report to verify that the mathematical relationships of information within the report is what would be expected. Note the red folder on the left and the red bubble at the bottom of the software interface:

Report terms could be defined locally (as with this example) or they could be defined by some globally defined "base" or "primary" financial reporting scheme taxonomy or ontology. While having each report creator create their own report model can be workable; tremendous leverage is derived by having one high-quality globally available financial reporting scheme taxonomy/ontology that is then shared by report creators. For example, the 5,000 U.S. public companies that report to the U.S. Securities and Exchange Commission share the same XBRL taxonomy for US GAAP financial reporting and the 10,000 listed companies that report to the European Single Market Authority (ESMA) use the same International Financial Reporting Standards (IFRS) XBRL financial reporting taxonomy.

Using the same global standard mechanism, XBRL, the US GAAP and IFRS financial reporting XBRL taxonomies/ontologies can be enhanced by third parties.

Label	Category	Period	Balance	Name
Statement of Activity, Basic [Table]	Hypercube	Duration	-	report:StatementActivityBasicTable
Statement of Activity [Line Items]	LineItems	Duration	-	report:StatementOfActivityLineItems
Change in Net Assets [Roll Up]	Abstract	Duration	-	report:ChangeInNetAssetsRollUp
Support and Revenue [Roll Up]	Abstract	Duration	-	report:SupportAndRevenueRollUp
Revenue [Roll Up]	Abstract	Duration	-	report:RevenueRollUp
Contract Revenue	Concept	Duration	Credit	report:ContractRevenue
Other Revenue	Concept	Duration	Credit	report:OtherRevenue
Revenue	Concept	Duration	Credit	report:Revenue
Support [Roll Up]	Abstract	Duration	-	report:SupportRollUp
Grants	Concept	Duration	Credit	report:Grants
Other Support	Concept	Duration	Credit	report:OtherSupport
Support	Concept	Duration	Credit	report:Support
Support and Revenue	Concept	Duration	Credit	report:SupportAndRevenue
Expenses [Roll Up]	Abstract	Duration	-	report:ExpensesRollUp
Program Services Expenses [Roll Up]	Abstract	Duration	-	report:ProgramServicesExpensesRollUp

Showing 1 to 15 of 24 rows   15 ▲ rows per page   ‹ 1 2 ›

A model-based financial report is not one big thing, rather it is hundreds or even thousands of little things which are explicitly identified and understandable to the software application using the report model and the report. This includes any additional third party enhancements provided and leveraged for report analysis.

State Properties

Reporting scheme	1
Fact count	66
Structure count	2
⊕ **Hypercube count**	2
Hypercube (explicit)	2
Hypercube (implied)	0
Block count	2
Disclosure count	2
⊕ **Pattern count**	3
Set	
Roll Up	2
Roll Forward	
Roll Forward Info	
Adjustments	
Variances	
Text Blocks	
Member Aggregation	1
Arithmetic	
⊕ **Validation inconsistencies depending on SBRM**	2
XBRL Calculation	1
XBRL Formula	1
Model structure	0

Report Elements

	All	Local (Added)	Percent
Structure	2	2	100.00%
Hypercube	2	2	100.00%
Dimensions	1	1	100.00%
Members	4	4	100.00%
LineItems	2	2	100.00%
Abstracts	10	10	100.00%
Concepts	27	27	100.00%

Blocks

#	Block name	Patterns
1	Change in Net Assets [Roll Up]	RollUp
2	Functional Expenses [Roll Up]	MemberAggregation, RollUp

Disclosures

Reporting Style

A model-based financial report is a set of structures. Each structure works exactly the same.   A report could have one structure, 10 structures, 100 structures, or a 1000 structures and each structure works exactly the same. While structures can have different logical patterns, for example one structure could be a roll up mathematical relationship and another structure could be a roll forward mathematical relationship; the meta-model of every report model defines each of the possible logical patterns of every structure that might appear within any financial report model.

| Rendering | Model | Fact Table | Rules | Verification | Report Elements | | Edit | Tree | Details | Agenda |

Reporting Entity [Aspect] — GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442

Networks (2)
- 1102 - Statement - Statement of Activity, Basic
  - Statement of Activity, Basic [Table]
- 1104 - Statement - Statement of Functional Expenses
  - Statement of Functional Expenses [Table]

Concept [Aspect]	Program Services [Member]	Supporting Services, Management and General [Member]	Supporting Services, Fundraising [Member]	All Categories [Member]
Period [Aspect]				
2022-01-01 | 2022-12-31				
Category [Aspect]				
Functional Expenses [Roll Up]				
Salaries and Related Functional Expenses [Roll Up]				
Salaries	500	100	0	✔ 600
Payroll Taxes and Benefits	400	0	0	✔ 400
Salaries and Related Functional Expenses	✔ 900	✔ 100	✔ 0	✔ 1000
Other Functional Expenses [Roll Up]				
Communications	3000	0	1000	✔ 4000
Contract Services	0	0	0	✔ 0
Insurance	0	0	0	✔ 0
Maintenance	0	0	0	✔ 0
Occupancy	0	0	0	✔ 0
Office Supplies	0	0	0	✔ 0
Professional Fees	0	0	0	✔ 0
Travel and Meetings	0	0	0	✔ 0
Other Functional Expenses	✔ 3000	✔ 0	✔ 1000	✔ 4000
Expenses	✔ 3900	✔ 100	✔ 1000	✔ 5000

Verification rules are driven by a global standard. The rules of the global standard technical syntax specify how a verification rules engine must work and certifying that the rules engine is working consistently with the prescribed technical format, in this case XBRL. Financial reporting scheme rules, be the rules US GAAP or IFRS, prescribe additional agreed upon logic such as the core accounting equation, "Assets = Liabilities + Equity" that every financial report MUST comply with (i.e. some version of that fundamental accounting equation).

https://auditchain.infura-ipfs.io/ipfs/QmZoebbmhXC4CG8VnAcYKZn7tXvMmNBNZzmxdJtRze9dc6/

Table of Contents

		TERMS			
		Mappings			
		FACTS (technical listing)			
		Type-subtype graph			
		Type-subtype table			
		Model Structure Validation			
1	1102 - Statement - Statement of Activity, Basic | Statement of Activity, Basic [Table]		Structures	Facts	Pivots
2	1104 - Statement - Statement of Functional Expenses | Statement of Functional Expenses [Table]		Structures	Facts	Pivots
		Derivations graph			
		Blocks			
		Blocks Graph			
		Metaverse (preliminary)			
	All Rules	Calculations			
		Value Assertions			
		Messages			

Messages

xbrlValidation messages courtesy of Arelle (version 93b79b11de7cf66030650e9034918c1133927dce)

#	Type	Stage	Message
1	info	xbrlValidation(done)	XBRL syntax was verified

Summary

#	Verification Category	Result
1	XBRL Technical Syntax Verification	
2	Report Mathematical Computations Verification (XBRL Calculations)	
3	Report Mathematical Computations Verification (XBRL Formulas)	
4	Report Model Structure Verification	
5	Fundamental Accounting Concept Consistency Crosschecks Verification	
6	Type-subtype (wider-narrower) Associations Verification	
7	Disclosure Mechanics Verification	
8	Report Disclosure Checklist Verification	
9	Other	

Software can use the nature of the model-based report to enable the financial report to work somewhat like a pivot table to reconfigure a report to the preferences of the user of the report. Note below that software can navigate between two different structures of a report by leveraging the common fact that exists within both reported information structures:

Fragment 1 connected to fragment 2 per the fact "Expenses":

Fragment 2 connected to fragment 1 per the fact "Expenses":

Every taxonomy, ontology, or other technical artifact provided by a reporting economic entity or enhanced by any third party and attached to the model-based report is knowable per the rules of model-based reports:

Referenced Taxonomies			
report	**Namespace Prefix**	report	
xlink	**Namespace Identifier**	http://luca.auditchain.finance/report	
xbrldt	**Full path**	https://dev.auditchain.finance/storage/aa03cb7b-e95e-405e-b3e1-9fe4e893e5a5/8d3a6f0f/report.xsd	
nonnum	**Schema Location**	report.xsd	
num	**Target Namespace**	http://luca.auditchain.finance/report	
reference	**Language**	en	
gen	**Supported Languages**	(Collection)	
xl	**Label Roles**	(Collection)	
xl			
label			
msg			
variable			
ca			
validation			
validation			
valm			
cm-arcroles			
cm-arcroles2			
link			
ref			
formula			
ea			
va			
pf			
cf			
df			
gf			
uf			
ef			

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An Inline XBRL financial report has all the qualities of a model-based financial report plus one additional feature. The facts of the report are not automatically rendered in a "natural" logical format; rather they are mapped into an HTML (XHTML actually) document for "pixel perfect" viewing of the report information. Here is an example of a model-based report that has been further enhanced using Inline XBRL:

https://www.gleif.org/assets/components/xbrl-viewer/gleif-annual-report-2023/ixbrl-report-2023-viewer.html

Additional Resources:

- Foundation (Understanding XBRL): https://digitalfinancialreporting.blogspot.com/2024/03/foundation-understanding-of-xbrl.html
- Financial Report Pieces: https://digitalfinancialreporting.blogspot.com/2024/07/financial-report-pieces.html
- Proof: https://digitalfinancialreporting.blogspot.com/2023/12/proof.html
- Super Proof: https://digitalfinancialreporting.blogspot.com/2024/05/super-proof.html
- Assault on Poor Financial Hygiene in XBRL-based Financial Statements: https://digitalfinancialreporting.blogspot.com/2024/06/assault-on-poor-financial-hygiene-in.html
- Disclosure Design Patterns: https://digitalfinancialreporting.blogspot.com/2024/05/disclosure-design-patterns.html
- Process, Projects, Workflow in a Digital Environment: https://digitalfinancialreporting.blogspot.com/2024/05/process-projects-workflow-in-digital.html
- History of Fundamental Accounting Concepts (FAC): https://digitalfinancialreporting.blogspot.com/2024/05/history-of-fundamental-accounting.html
- XBRL is an Extra Fancy Knowledge Graph: https://digitalfinancialreporting.blogspot.com/2024/05/xbrl-is-extra-fancy-knowledge-graph.html
- Case for Semantic Oriented Accounting and Audit Working Papers: https://digitalfinancialreporting.blogspot.com/2024/02/case-for-semantic-oriented-accounting.html
- Showcase of Reports: http://www.xbrlsite.com/mastering/Part04_Chapter07.1_ShowcaseOfReports.pdf