THINKING OBJECTIVELY

MAGAZINE

Second Issue

August 20, 2023

Editor's Letter

Professor
Dr. M.E. Fayad

UWRC Goals (EBTs) and Capabilities (BOs)

Traditional Class/Concept Responsivities and Collaborator (CRC) Model

Fayad's Unified Word Responsibility Collaborations (UWRC) card format

Editor in Chief
Professor Dr. M.E. Fayad

Content Editor
Mr. A. Algenbihy

Art and Media Production
Mr. M. Assad

info.aitg@aeehitg.com

P.O.Box 21514
San Jose,CA,95151,USA

THINKING OBJECTIVELY

TABLE OF CONTENTS

P.O.Box 21514
San Jose,CA,95151,USA

info.aitg@aeehitg.com

THINKING OBJECTIVELY

Editor's Letter

Professor

Dr. M.E. Fayad

Words vs. Concepts (word masks)

PLEASE KEEP THIS IN MIND. The word synonymous is a significant disastrous notion in our research in Fayad's Unified and Stable Linguistic Engineering (ULE) and Fayad's Unified Word Engineering (UWE).

There are many differences between a word and its concepts (Word's Masks)

First: We have a new word classification:

(1) Enduring Business Themes (EBTs) that are enduring, stable, unified, continuous, and ultimate goals, each has a rule of conduct and essential discoveries words—for Example, Friendship, Love, Marriage, Thinking, Retaliation, and others.

(2) Business Objects (BOs) that are Stable internally and adaptable externally; each has a beginning and end, each has an ultimate goal that can be positive or negative, and each has a rule of conducts moderate level) and unknown to all. -- Unfortunately, many people don't know them. Words. We add "Any" to each BO. For example -- Any Project, Any Proposal, Any Culture, Any Data, any others

(3) Industrial Objects (IOs) or Application Objects (AOs) are tangible and changeable. Unfortunately, and currently building and developing everything based on them. (Disasters), Well-known to most people, Has no value -- The strange thing is people say I love my car or smoking; some have side effects or high impacts on society, such as Oil, Drugs, and other concepts—for example, Specific Novels, Conference Tables, Mac Book, etc. Concepts of BOs.

(4) EBTs + BOs = Core Knowledge. Our focus is on EBTs, BOs, and Core Knowledge words.

Second: Any word has many concepts (word's masks). Each word has many different concepts based on your education, background, beliefs, agenda, culture, etc.

Third: Any word is stable, and a concept is unstable over time.

Fourth: Any word is unified (Innovation and not known), and a concept is not. For example, any "Account" as a word, a bank account, email account, investment account, and others with different data and knowledge and unify as "an account." with more than 50 innovative keys. Each professional in the various account concepts knows an account's innovative (Creative) keys.

Fifth: Therefore, any word is stable, unified, and ultimate, and the Concepts of a word are changeable over time.

Unfortunately, all your knowledge you know is the concepts of the word "word's masks,"

info.aitg@aeehitg.com

P.O.Box 21514
San Jose,CA,95151,USA

THINKING OBJECTIVELY

Editor's Letter

Professor

Dr. M.E. Fayad

Word vs. Concepts (Masks or views of a word) – Clarification

PLEASE KEEP THIS IN MIND. The word synonymous is a significant disastrous notion in our research in Fayad's Unified and Stable Linguistic Engineering (ULE) and Fayad's Unified Word Engineering (UWE).

The word is the "Model," and concepts are the "Views" of a word.

All that we do in our life are concepts that are different word masks of a word.

Seriously! YES

Word versus Concepts (Masks or views of a word) is a significant volume of three Unified Word Engineering (UWE) volumes.

We are open to debates, discussions, collaborations, and participation in any events related to words and concepts in any field of knowledge.

You may find the word "concept' in most of my writing as a base of my publications to start breaking in the notion of "strong embedded use of concepts without thinking." We will update and rewrite our publication.

The Scenarios are unlimited.

Examples:

Words

(1) You don't know the unified word "Debate" and "Debate," as we know them as a concept, has different views, and all of them is not complete.

(2) You don't know the word "Human," which represents all of us, and the Human we understand as a concept has different views. All of them are horror, and it is not valid.

Field of knowledge: Software Engineering and Development

You don't know "Software Engineering and development (SWE)," which should be unified and stable because of all we do in SWE. The SWE, we know as concepts, have different, unlimited, bizarre views. In my 40 years of software engineering experience, I found out everyone (at any University where I worked, for example) knows SWE from all the Faculty, Chairs, Deans, VPs, Evaluators, the Reviewers, and others, they don't even know their field of knowledge. Why? Because they know only the view of their field of knowledge, which needs to be completed and contaminated by their notion of knowledge. What I am telling you here caused me a lot of collective injustice. They are gruesome scenarios of the destruction of my career, life, family, freedom, and startups. I will cover all the views that happened to me personally and to my startups in my Documentary books on Collective Injustice.

info.aitg@aeehitg.com

P.O.Box 21514
San Jose,CA,95151,USA

THINKING OBJECTIVELY

Traditional Class/Concept Responsivities and Collaborator (CRC) Model

Overview

A Traditional Class Responsibilities Collaborator (CRC) model (Beck & Cunningham, 1989; Wilkinson, 1995; Ambler, 1995) is a collection of standard index cards divided into three sections, as depicted in Figures 1 to 6 A class represents a collection of similar objects with responsibilities that a class knows or does, and collaborators are other classes that interact to fulfill their obligations. There are many models of traditional CRC cards. Unfortunately, these models have many flaws. If anyone models any project with this weak and incomplete presentation of all the system classes, the project will end up with a useless system.

Clarification 01:

A Class represents a Concept, not a word.

The basic ideas of Traditional CRC

1. Create a card for each class
2. Assign responsibilities and attributes to each card
3. Identify collaborations between cards
4. Simulate design scenarios between a set of cards.

Major Problems:

a. Responsibilities match traditional CRC operations– the most bizarre notion (Check Figure-6). Example for clarity: a Book class has the following operations – knows-whether-on-loan, knows-due-date, knows-the-title, knows-its-author(s), knows-its-registration-code, knows-if-late. Analysis: First: the operations are not the book operations. Second: The operations should be polymorphic, and all the operations are not polymorphic

Clarification 02: The same attribute names are repeated in different cards, violating operations polymorphism.

b. Responsibilities match attributes of traditional CRC, which is the most bizarre notion (Check Figures 3 & 5). Example for clarity: a Book class has the following attributes – book title, book type, book ISBN, book author, and book publisher.

Clarification 03: Show repetition of attribute names and dead data in different cards, which violates data polymorphism, and the attributes are unsuitable for the class's behavior.

c. Responsibilities are challenging to abstract.

Clarification 04: CRC cards use operations and functions as responsibilities, and this lead to repeated operations and functions violate data and operations polymorphism, and the attributes are not suitable for the class's behavior.

d. A class with multiple responsibilities leads to First: Macho Class and Second: Duplicate Functionalities

Clarification 05: Avoid Macho Data Class and Macho Operations Class altogether.

e. The only classes shown are Figure 01 – Limited to super and subclasses. Where are the rest of the classes?

Clarification 06: In this case, CRC is limited to super and sub-classes only. Add the rest of the types with CRC Cards. Other versions of traditional CRC ignore super and subclasses.

f. We cannot map the traditional well-built class diagram.

Clarification 07: We must seek a version of CRC that map nicely to the class diagram and other models in the software system.

info.aitg@aeehitg.com
P.O.Box 21514
San Jose,CA,95151,USA

Traditional Class/Concept Responsivities and Collaborator (CRC) Model

A CRC card

class name	
subclasses:	
superclasses:	
responsibilities	collaborators

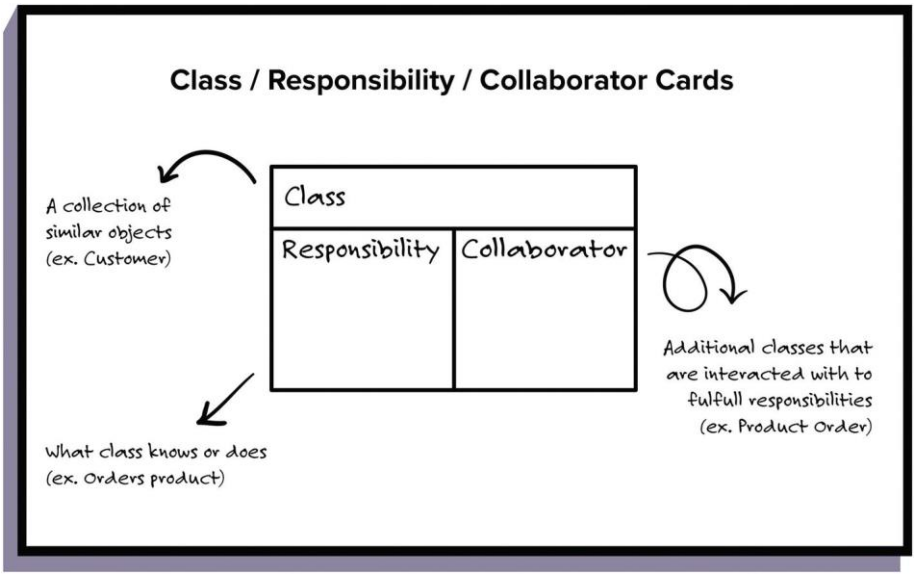
Figure (1.1) -- Traditional CRC Card

[1] Beck, K., and Cunningham "A Laboratory for Teaching Object-Oriented Thinking", OOPSLA' 89, Conference Proceedings, (1989).

[2] Jürgen Börstler, Thomas Johansson, and Marie Nordström , "Teaching OO Concepts—A Case Study Using CRC-CARDS and BLUEJ", 32nd ASEE/IEEE Frontiers in Education Conference, November 6 - 9, 2002, Boston, MA.

[3] https://en.wikipedia.org/wiki/Class-responsibility-collaboration_card, This page was last edited on 7 May 2021, at 20:12 (UTC).

Traditional Class/Concept Responsivities and Collaborator (CRC) Model

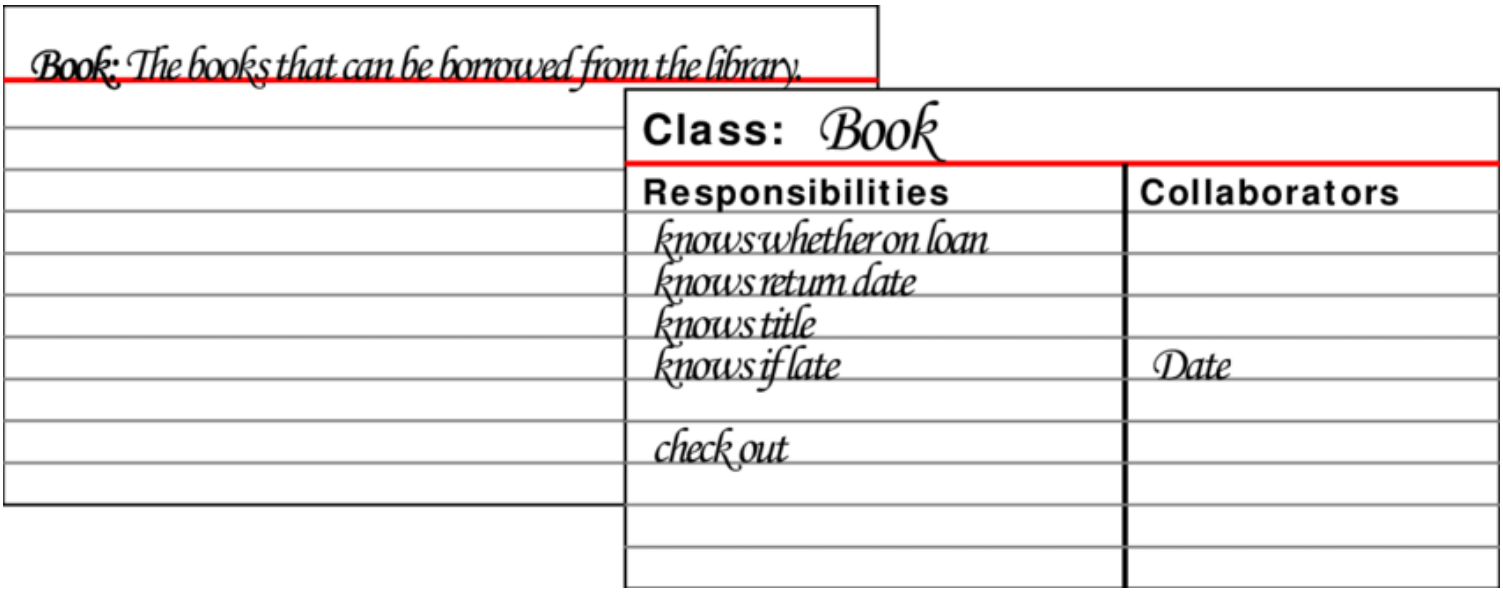


Class type is missing.

Class Role is missing.

Attributes are missing.

Figure (1.1) -- Traditional CRC Card



Class type is unknown.

Figure (1.3) -- Traditional CRC Card

The operation knows is not polymorphic.

You cannot use operations as responsibilities and each CRC should have one, unique, and within context responsibility.

You cannot have one collaborator, "Date" which lead to a dangling class.

Traditional Class/Concept Responsivities and Collaborator (CRC) Model

Student	
Student number Name Address Phone number Enroll in a seminar Drop a seminar Request transcripts	Seminar

Mixed data and operations.

Missing many properties.

Figure (1.4) -- Traditional CRC Card

Front:

Class Name: Patient	ID: 3	Type: Concrete, Domain
Description: An Individual that needs to receive or has received medical attention		Associated Use Cases: 2

Responsibilities	Collaborators
Make appointment	Appointment
Calculate last visit	
Change status	
Provide medical history	Medical history

Figure (1.5) -- Traditional CRC Card

Class: *Book*	
Responsibilities	**Collaborators**
knows whether on loan	
knows due date	
knows its title	
knows its author(s)	
knows its registration code	
knows if late	*Date*
check out	

Class: *Librarian*	
Responsibilities	**Collaborators**
check in book	*Book*
check out book	*Book, Borrower*
search for book	*Book*
knows all books	
search for borrower	*Borrower*
knows all borrowers	

Class: *Borrower*	
Responsibilities	**Collaborators**
knows its name	
keeps track of borrowed items	
keeps track of overdue fines	

Class: *Date*	
Responsibilities	**Collaborators**
knows current date	
can compare two dates	
can compute new dates	

Figure (1.6) -- Traditional CRC Card

Fayad's Unified Word Responsibility Collaborations (UWRC) card format

Fayad's Unified Word Responsibility Collaborations (UWRC) card format [1, 2, 3]

Each word is a unified and stable pattern.

The Stable Word Responsibility and Collaborations (UWRC) cards are index cards utilized to map candidates' unified word in predefined design scenarios (Use Case Scenarios). The objective of UWRC cards is to facilitate the design process while insuring an active participation of involved designers. In this section, we introduce the first step towards a unified pattern language (System of Patterns) that illustrates the core activities of writing effective UWRC cards. Each pattern focuses on a specific activity and provides a way by which this activity can be conducted. The unified pattern language is a continuation of our early effort in improving the effectiveness of UWRC cards and their role in the design process.

The UWRC Card Format

The UWRC format based on [Fayad 2000] [Fayad et al. 2003] is driven by unification and stability and includes a type and a clear role for each word, which will aid in the discovery of super classes and their respective subclasses. The word type is adapted to as many different paradigms.

For example, the word types are EBT or BO, or IO using Software Stability Model and Actor, Role, or System using traditional models, The word's role will also be useful when defining a cohesive word responsibility within context. Each word will be allowed to have only one, unique responsibility, and within context.

Front Side

Word (Type) (Role)		
Responsibility	Collaboration	
	Client	Server
Attributes:	attribute 1 , attribute 2	
Comments:		

Back Side

Fayad's Unified Word Responsibility Collaborations (UWRC) card format

References

[1] M.E. Fayad, H.S. Hamza, and H.A. Sánchez. A Pattern for an Effective Class Responsibility Collaborator (CRC) Cards, The 2003 IEEE International Conference on Information Reuse and Integration, Las Vegas, NV, October 2003

Research Gate:

https://www.researchgate.net /pattern_for_an_effective_class_responsibility_collaborator_CRC

Research Interest Score

11.0

Citations

18

Recommendations

0

Reads

2,671

Academia

https://www.academia.edu/Pattern_for_an_Effective_Class_Responsibility_Collaborator_CRC_Cards

905 Views

Semantic Scholar

https://www.semanticscholar.org/A-pattern-for-an-effective-class-responsibility-Fayad-Hamza

11 Citations

IEEE Xplore

6 Cites in Papers

1 cites by a Patent

307 Full Text Views

Google Scholar

Not Exist

[2] M.E. Fayad, H.A. Sánchez and H.S. Hamza. A Pattern Language for CRC Cards. Proceedings of Pattern Language of Programs' 2004 (PLOP'04), Monticello- Illinois, USA, Sept. 2004

Hillside Group

8 Citations

Google Scholar

Not Exist

[3] M.E. Fayad, H.A. Sánchez, and H.S. Hamza. "Enhancing Object-Oriented Design Quality with Improved CRC Cards Structure." In the Journal of Object Technology (JOT), Vol. 3, No. 5, September-October 2005.

No Exist anywhere.

Observations.

My citations are not representing my work on purpose in all citation cites.

UWRC Goals (EBTs) and Capabilities (BOs)

UWRC Card Knowledge Classification:

Our primary focus is on the higher-level patterns that conforms the underlying goals found in UWRC Card utilization: Patterns that help us to develop more understanding of UWRC Cards and their effective utilization.

It is worthwhile to mention that product of the association of higher-level patterns (Goals) and semi-tangible patterns (Capabilities) we will be able to foresee a generic skeleton for myriad of development scenarios of UWRC Cards. Figure 1 illustrates a general view of the UWRC Card knowledge stratification in relation to its goals, and capabilities. However, the domain knowledge from which UWRC Cards are made up may be enormous, therefore, for simplicity purpose we include few of them.

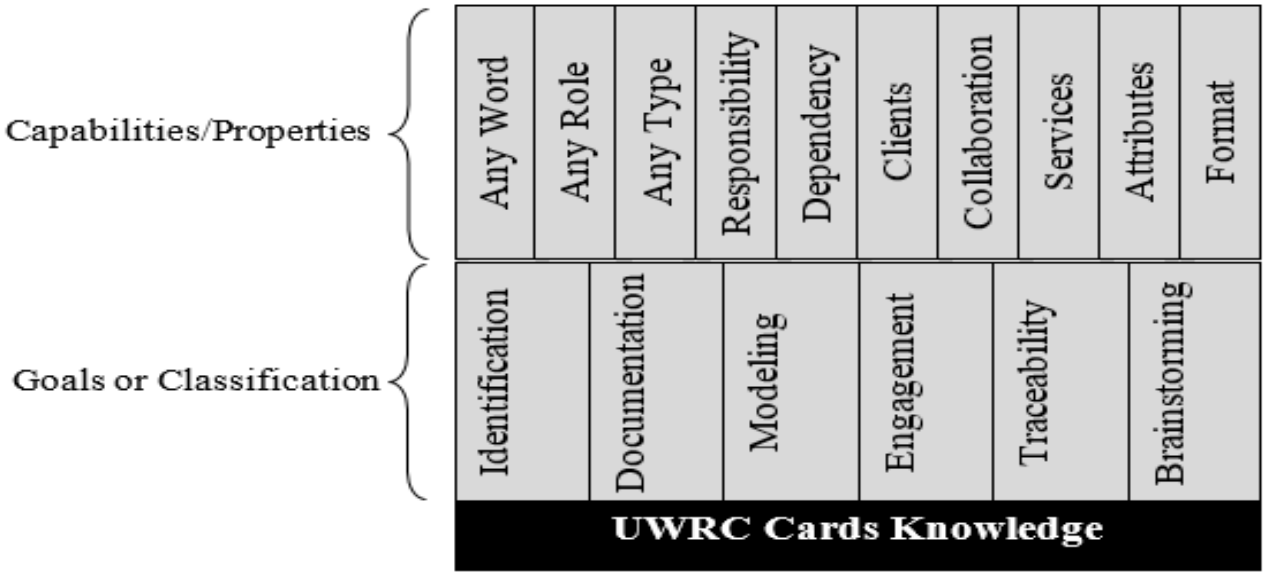


Figure 1: UWRC Card Knowledge classification

THINKING OBJECTIVELY

UWRC Essential Quality Factors

What Makes an Effective UWRC Cards?

UWRC Cards regardless of which format is used embodies a particular set of characteristics that transcend across any application. Each of these characteristics possesses essential semantics that must be taken into consideration when applying UWRC cards across any application domain. Focusing on those semantics, through the utilization of UWRC Card quality factors would be a key factor in improving its utilization during the software development life cycle.

Regardless of the structure's simplification, current UWRC-Cards have the same structure and share same elements (i.e., Word name, Responsibility, and Collaborators). However, this current structure might not always attain the essential aspects needed in future development stages (i.e., building system word diagrams, etc.). Therefore, for UWRC-Cards to aid system development, main essential quality factors need to be satisfied. The fulfillment of these quality factors will have a high impact on the UWRC Card's characteristics realization. These quality factors are provided herein:

(1) High Level of Understandability: Illustrate its sections in an orderly and specific manner by allowing an efficient distribution of its elements.
(2) Accurate Identification of Word Elements: Assure a proper Identification of the artifact/word and its related elements. This will prevent any confusion during word assignation.
(3) Well-defined Role: Include a well-defined role for the artifact/word being developed. This role has to refer to the artifact's assigned responsibility. Each word can have multiple roles according to a specific simulated design scenario.
(4) Accurate Word's Type: Include the traditional word type, such as Actor, Role, or System or Stability Word Type: such as EBT, BO, or IO
(5) One Cohesive Responsibility per Word: Represent a unique and cohesive responsibility per word. Avoiding overlapping/redundant responsibilities among words. This will prevent complex word interactions during their application in multiple design scenarios.
(6) Self-Descriptive Services: Provide a descriptive and a straightforward definition for the Services per word. These services will sustain a strong correlation with the responsibility of a word. Otherwise, it would be almost impossible to know which services to invoke to fulfill the specific job of a particular artifact.
(7) Explicit Notion of the External Collaborators: Identify the word's collaborators. A word needs to know its collaborators for the achievement of responsibilities.
(8) Explicit specifications of Attributes that needed to be operated on by the Word's Services

info.aitg@aeehitg.com
P.O.Box 21514
San Jose,CA,95151,USA

UWRC Essential Quality Factors

Based on the Effective UWRC Card format, we present in this section a table listing a summary of UWRC cards relevant Explicit Characteristics (Quality Factors)

Table 1: Explicit Characteristics (Quality Factors) of UWRC Cards and Solutions

CHARACTERISTIC	SOLUTION
Portable	No computers are required, they can be used anywhere, from the tranquility of your home to a very important meeting.
Reviewable	You can go back and review these index cards anytime after a long period without being concern of information deterioration.
Simplicity	It possesses a simple structure, easy to read, learn and understand by any person without a previous experience on UWRC Cards.
Multi-Purpose	Due to its simplicity and its portability, UWRC Cards may be utilized in different application domains, e.g. Education, Software Analysis & Design, As a Teaching Technique, etc.
Accessible	The set of UWRC index Cards are highly available during the sharing decision process done by analysts, designers, and developers in the early stages of the Software development phase.
Implementable	From the UWRC Card blueprint to its Implementation, there is a short path to take. Due to a well definition of the words within the self-described structure of UWRC Cards, developers are able to implement these cards (words) with ease.
Traceable	These cards can be traced throughout the entire specification of animated scenarios by the explicit exhibition of the words and their different roles and behavior to which it represents.
Mapping Ability	These index cards represent an exact match and definition of a word, and its elements, in a particular design scenario.
Reusable	After a project is completed, this does not mean that we cannot use our already defined index cards in another project. The words were defined with a stable and reusable core in mind; therefore, they may be utilized within several applications that share the same domain knowledge.

In this table we show the essential characteristics (Quality Factors) that are present within the core knowledge of the UWRC Card definition itself. These Quality Factors allow the proper used of these index cards across multiple domains.

UWRC Methodology

In the following section we provide a more specific view of the distinct elements involved in the UWRC Card domain knowledge by the means of using and describing a Map representation. This Map representation focuses on the realization of the dissimilar artifacts, quality factors, and how they are associated with each other within the UWRC Cards domain boundary.

TOWARDS A UNIFIED PATTERN LANGUAGE FOR UWRC CARDS

The objective of the overall Unified Pattern Language is to cover the essential aspects related to the process of writing UWRC Cards. The process of defining UWRC Cards involves four main steps: Goals or Classification, Capabilities/Properties of UWRC Cards, Development or Scenario Development of UWRC Cards, and finally Deployment of UWRC Cards across multiple domains. For each of these main steps involved in the definition of the UWRC Card knowledge, there will be a set of dissimilar patterns that interact together to accomplish those stated goals of UWRC Cards. This Unified Pattern Language will embody the core insights as a set of stable patterns and their interactions among them.

If we look at what a Unified Pattern Language is [17], our Unified Pattern Language for UWRC Cards is not just a decision tree of patterns [17]. This set of patterns constituting our Pattern Language, form a directed acyclic graph (DAG), and not a hierarchy. Therefore, product of the myriad of interactions among them, the number of distinct paths or routes taken to meet a particular purpose through a Unified Pattern Language would be very large [17].

For getting started, our Unified Pattern Language for UWRC Cards proposes twenty-one patterns out of the entire set of involved patterns in the UWRC Cards' domain knowledge. More patterns will be added in future version of this paper. These patterns would represent the reusable and stable recipes for writing UWRC Cards and how to use them in a myriad of development scenarios. As stated above, these patterns would be stratified in four main steps, each of them (main steps) addressing a particular objective within the definition of our UWRC Cards Language.

The first main step "Goals or Classification" is concerned with surfacing the implicit goals hidden within the UWRC Cards core knowledge. This process requires the capture and fully understanding of the context in where our solution would be laid down. That includes, describing the goals not from its tangible side, but focusing more on its conceptual side. In [18] they are named Enduring Business Themes (EBTs). Examples of the resulted patterns represented within this main step are Documentation goal, Identification goal, and Brainstorming goal, etc.

The second main step "Capabilities or Properties" emphasizes in the discovery on those recipes required to fulfill the stated goals and purposes of the UWRC Cards. Without those words or stable patterns there will be a vague understanding (almost none) on how these goals will be achieved. These stable patterns are known in [18] as Business Objects (BOs). For instance, within our language for UWRC Cards, we have: Any Word, Any Type, Any Role, Responsibility, Services, etc.

UWRC Methodology

The third main step "Development" is concerned with: 1- the myriad of development scenarios in where the UWRC Cards can be involved. These development scenarios are realized through the distinct routes or paths taken due to the interactions among the involved patterns (EBTs associated with BOs). The product of this association is known in [18] as Architectural Patterns. Each one the complete routes taken will represent a distinct application domain or context in where the UWRC Cards would be used. For instance, teaching Scenario, Groupware, etc. And 2 – how the UWRC Cards language would be implemented across dissimilar domains based upon the utilization of tangible artifacts that would conform the domain specific patterns. These patterns are known in [18] as Industrial Objects (IOs). An example of these patterns would be: Book-keeping, etc.

The last main step "Deployment", as its name stated, deals not only with how the UWRC Cards knowledge would be deployed across different application domains, but also with the representation of the artifacts or patterns that will aid the deployment process. For instance, we have the Blueprint pattern, etc.

The rationale of stratifying a Unified Pattern Language into four main steps or categories is to facilitate the findings, execution order, and description of the stable patterns embodying the words or building blocks of the UWRC Cards domain.

Figure 2 depicts the overall Unified Pattern Language structure. In the given figure, the main four steps are presented in light gray boxes with circle inside. The light gray boxes represent the generic aspects/recipes or stable patterns that are related to those steps. For instance, the first step is concerned with the analysis of the domain looking for hidden goals waving the domain under discussion. Each aspect is then interconnected with other set of patterns through the UWRC Card Pattern Language.

UWRC Methodology

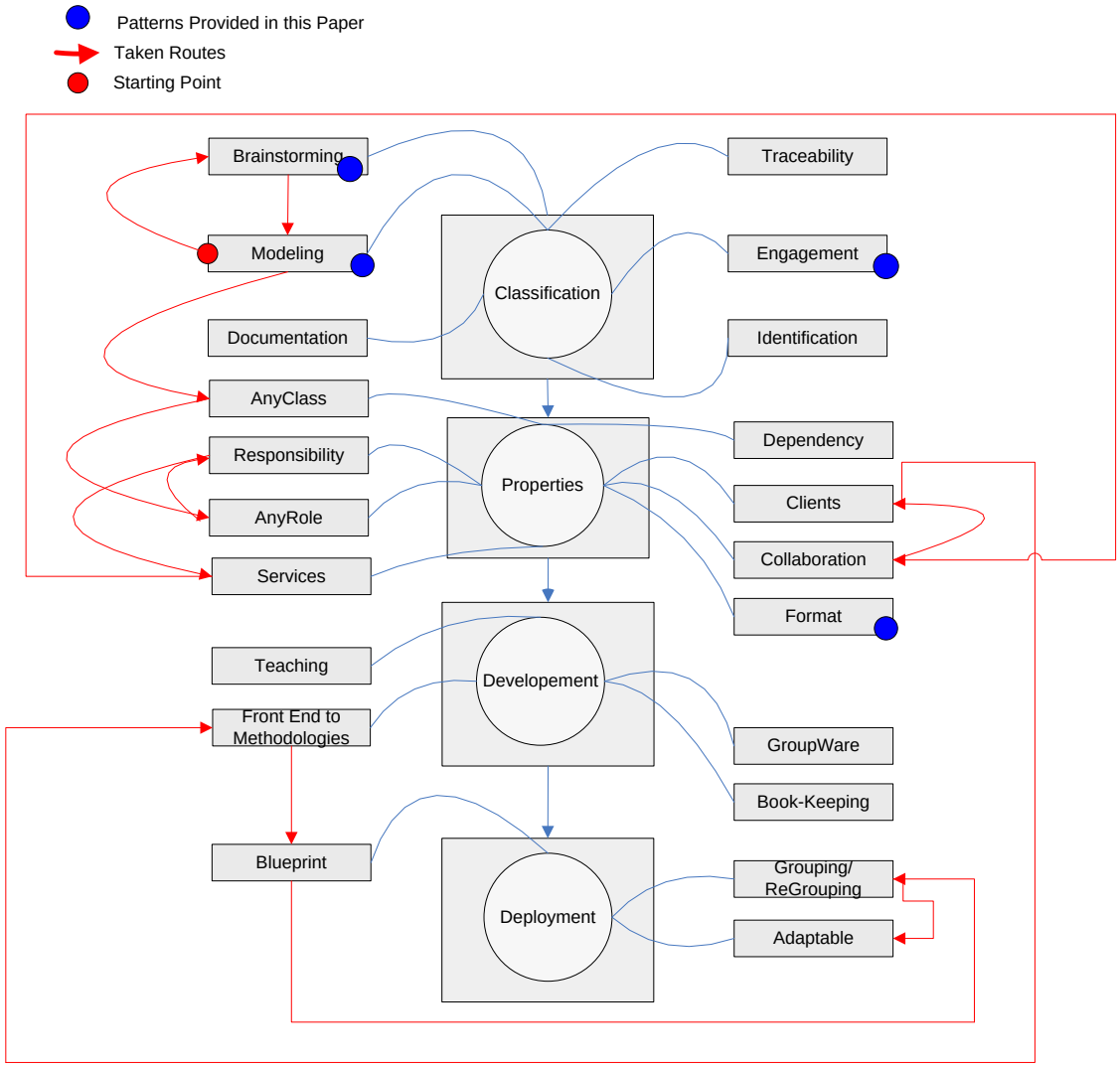


Figure 2: A Unified Pattern Language for UWRC Cards – Achieving the Modeling Goal. In summary, the routes taken when defining a new architecture would provide us the established roadmap to fulfill particular goals expected from the UWRC Cards. The outcome of these interconnections represents self-supported aspects of the generated framework that will define the order of employing UWRC Cards in dissimilar domains.

References

[17] James O. Coplien, “Software Patterns”, BellSouth Laboratories, The Hillside Group.
[18] M.E. Fayad, H.A. Sanchez, Ram Goverdhan. A Goal-Driven Software Development Life Cycle, www.activeframeworks.com , in progress.

THINKING OBJECTIVELY

News and Press Releases

[1] 4th Issue related to UWRC Cards Knowledge Maps, Stable Patterns, and Applications

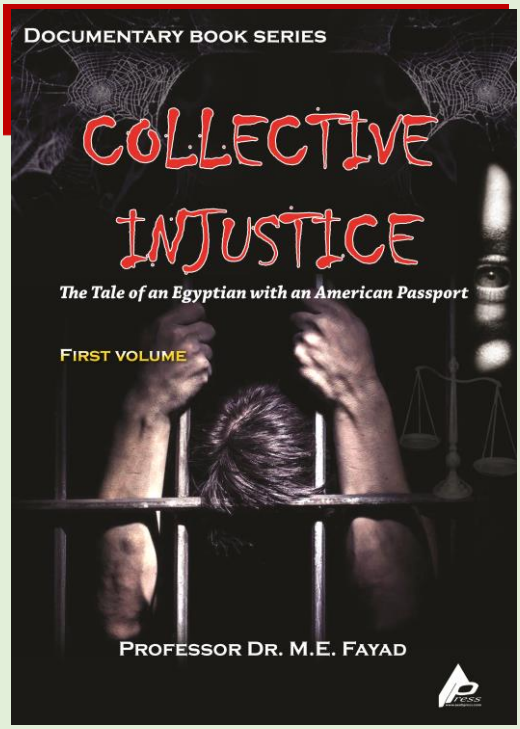
Editor's Letter – The Magic of UWRC Cards (2)

[2] 5th Issue – Samples of Collective Injustice (1 out of many)

Editor's Letter -- The Tale of an Egyptian with an American Passport

And it is the exact title of the first volume of Collective Injustice.

(The Tale of an Egyptian with an American Passport)



From Egypt, the land of the Delta and the Pyramids, the land of history and civilizations, ramified and extended over time, I came to reside in the land of dreams and the symbol of freedom, my second homeland, the United States of America. I came motivated by the love of science and the advancement of humanity as they represent a common factor in both great countries. I came carrying the bag of science to participate in the transfer and addition of some knowledge and human heritage from the Nile to the Mississippi. I came carrying in my heart the bright, authentic face of Egypt, and the developed and civilized features of the United States of America.

But, unfortunately, throughout my scientific career, I have faced and continue to face collective injustice without justification from many individuals and legal parties since August 2002 until now.

Professor Dr. M.E. Fayad

Contact us for a free copy. info.aitg@aeehitg.com

info.aitg@aeehitg.com
P.O.Box 21514
San Jose,CA,95151,USA

THINKING OBJECTIVELY

News and Press Releases

[3] 6th Issue – My Existing Eleven Theme Issues
Editor's Letter -The Ugly Business of Citations

[4] 7th Issue – My Upcoming Theme Issues
Editor's Letter -- The Ugly Face of Professional Associations and Societies

[5] 8th Issue – Fayad's Existing Books
Editor's Letter - The Ugly Face of Publishing Industries in The USA and Europe

[6] 9th Issue – Collective Injustice (2) is related to Petitions to Government, Political, Civil, Social Security, Medicare, and others.
Editor's Letter – Fake Mask in equality rights and duties
And it is the exact title of the Second volume of Collective Injustice

[7] 10th Issue – Collective Injustice (3) is related to Credit Bureaus & financial institutions.
Editor's Letter – "Credit Bureaus & financial institutions are Monkeys on the Shoulder,"
And it is the exact title of the Third volume on Collective Injustice.

[8] 11th Issue – Collective Injustice (4) is related to Wells Fargo
Editor's Letter – The Master of Denial and Spit in Your Face
And it is the exact title of the Fourth volume on Collective Injustice

[9] 12th Issue – Collective Injustice (5) is related to Avana San Jose – Rental Property
Editor's Letter – Landlord Discrimination and Abuse
And it is the exact title of the Fifth volume on Collective Injustice.

There are a lot of issues coming and related to "San Jose State University (SJSU), CFA+ (5 or 6 Issues), Divorce & Family Court (2 or more issues), Judges, Lawyers, and Paralegals in the USA and Egypt (two or more), Startups, social media, phone and internet services, Car and Health Insurance, Professional Societies, and Publishing, funded research agencies and corporations, etc.

info.aitg@aeehitg.com
P.O.Box 21514
San Jose,CA,95151,USA