

Working Paper 2.0

The Functionalist Principles of Business Processes

The functionalist principles allow managing the roots of the functionality of things and the root causes of problems



The Unicist
Research Institute

Pioneers in Research since 1976

Functionalist Technologies

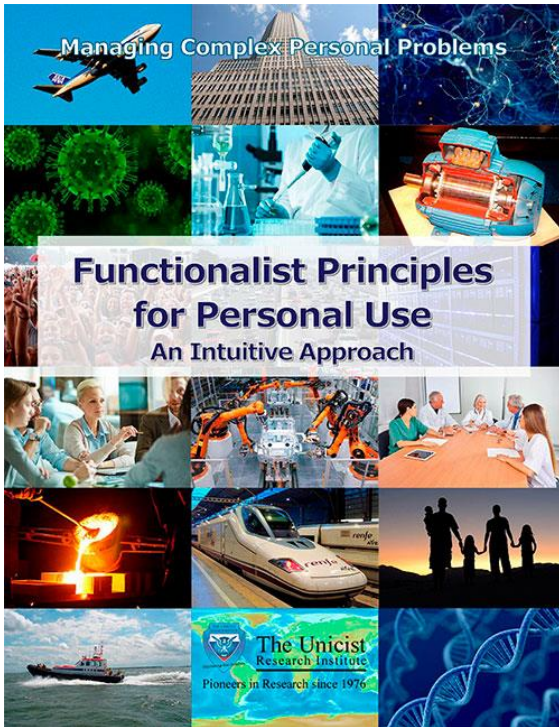
The real world is driven by binary actions that make things work. Functionalist technologies use functionalist principles to define the synchronized binary actions that make things work.

Examples of evident binary actions in business are:

- Learning + Teaching = Knowledge acquisition
- Productivity + Quality = Production
- Marketing + Selling = Generation of revenue
- Root Causes + Triggering Causes = Solutions
- Efficacy + Efficiency = Effectiveness
- Empathy + Sympathy = Influence building
- Participation + Power = Leadership
- Processes + Objects = Organization
- Desirability + Harmony = Aesthetics

Functionalist technologies manage the roots of the functionality of processes and the root causes of problems. These technologies use functionalist design to develop operational processes.

Experience Functionalist Principles



15 Minutes Read

The unicist functionalist approach uses functionalist principles to manage the roots of the functionality of things and the root causes of problems.

The professional use of functionalist principles requires managing them at a personal level.

It is a knowledge like mathematics, which is universal, but it needs to be understood and managed at a personal level to accept its universal application.

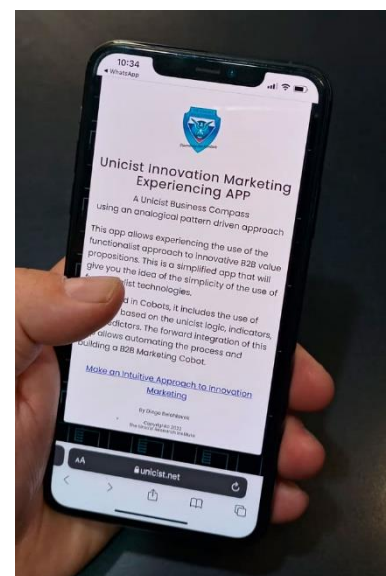
The functionalist principle defines that there is nothing in the universe, which is part of a system, that does not work with a purpose, an active and entropic function, and an energy conservation function.

The interaction of the functionalist principles defines the functionality of the binary actions that make things work.

Binary actions are two synchronized actions that, on the one hand, open possibilities establishing a functional context and, on the other hand, close processes to generate results.

The discovery of the functionalist principles of binary actions made the systematic design of synchronized binary actions possible, which simplified and ensured the results of business processes.

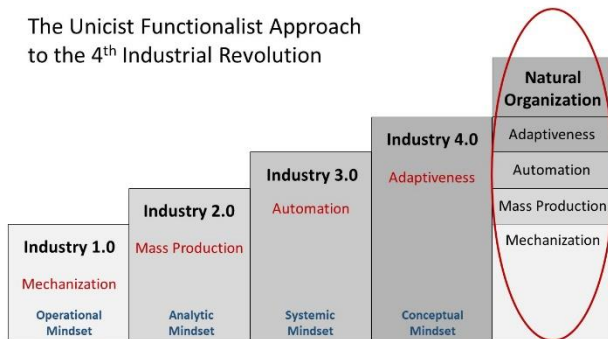
You can use the "Experiencing APP" of the Unicist Business Compass to experience the operational functionality of the functionalist principles and their binary actions.



**Experience it
on your Phone**

Functionalist Technologies in the 4th Industrial Revolution

The Unicist Functionalist Approach
to the 4th Industrial Revolution



The 4th Industrial Revolution introduced the functionalist approach to businesses based on managing the functionality of their processes to make them adaptive and customer centered.

It requires integrating the Internet of Things and the Intelligence of Things.

What are Functionalist Principles for?

The unicist functionalist principles allow approaching businesses by managing the roots of their functionality to:

1. Ensure results by defining the Functionality of Processes.
2. Ensure the effectiveness of business processes by using Synchronized Binary Actions.
3. Expand possibilities and accelerate processes by using Business Catalysts.
4. Automate using Intelligent Cobots based on Unicist AI.

How are these Technologies Installed?

The unicist functionalist technologies are installed beginning with a pilot test to evaluate their functionality.

1. The development of a Pilot Test on a real case.
2. The development of a Learning Program.
3. The installation of a Contingency Room to transform urgent problems into structural solutions.
4. The use of Functionalist Design to build processes and objects.

The Basics of the Functionalist Principles Applied to Business

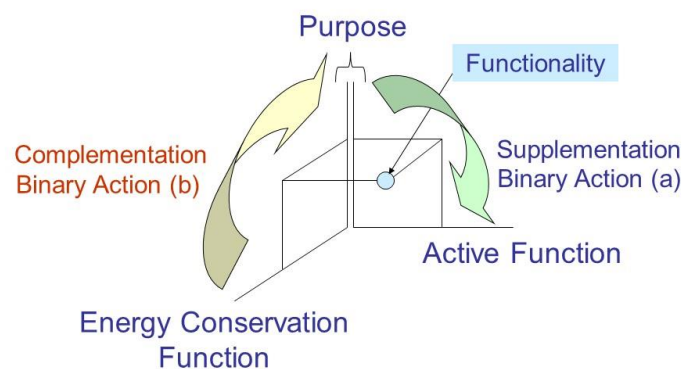
The functionalist principle defines that there is nothing in the universe, which is part of a system, that does not work with a purpose, an active and entropic function, and an energy conservation function.

These elements are integrated by the complementation and supplementation laws established by the unicist logic.

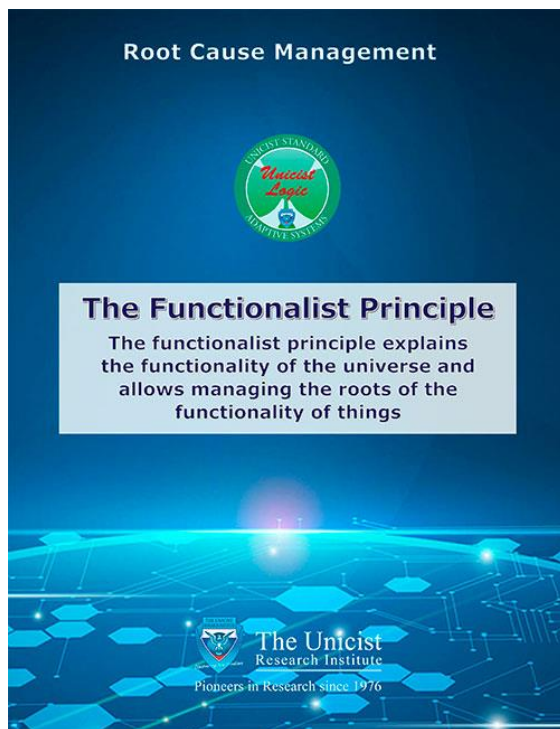
This structure works through unicist binary actions (UBA) that produce the functionality of any entity or process, whatever its kind.

The Functional Structure of Things

Ontogenetic Map in Unicist Standard Language



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12 Minutes Read

The research of functionalist principles is based on the use of unicist ontological reverse engineering of facts to find the roots of their functionality.

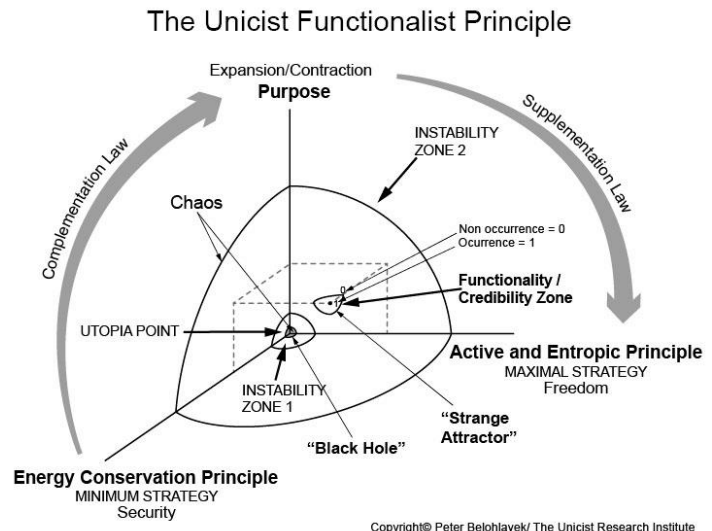
This approach is based on the discovery of the intelligence that underlies nature that defines the principles of its functionality and led to the development of the unicist logic that allows managing the intelligence that deals with the functionality of "things".

It is based on the use of functional knowledge to manage the real world that integrates the know-how and the know-why of "things".

Mathematics of the Functionalist Principles

The mathematics validates the use of functionalist principles. It is provided by the mathematics of the unicist logic that allows measuring the functionality of things. It allows measuring the intrinsic functionality of things and credibility of things in the environment.

There are functionalist principles that define the intrinsic functionality of things and explain how they work and functionalist principles that define the extrinsic functionality of things that explain their use value in the environment. The mathematics of intrinsic functions defines their possibility of working and the mathematic of extrinsic functions defines the possibilities of their use.



As it can be seen on the description of the functionalist principle, it is composed by the conjunction of a purpose (P), an active and entropic function (AF) and an energy conservation function (ECF).

This implies that the mathematics that defines the functionality of something requires the multiplication of the values of P, AF and ECF. The value of the functionality of things varies between 1 and 0.

Intrinsic Functionalist Principle (IFP) = P*AF*ECF

This defines the different values of each element of the triadic structure of a functionalist principle. The values of the elements are defined by the value generated by the operational components of things.

The instability zones 1 and 2 define the influence of the wide context, which works as a gravitational force (GF) that makes things possible. The displacement of the functionality or credibility zone is influenced by the restricted context, which works as a catalyst (C) to open possibilities and accelerate processes.

$$\text{Functionality} = \text{GF} * \text{C} * \text{IFP} / \text{EFP}$$

Mathematics to measure Functionality

Measure of the Functionality of

	Substitute	Wide Context	Restricted Context	Function	Concept of the system that transforms qualitative and quantitative indicators into mathematical algorithms.
0					1 Indicator
					2
.25					3 Indicator
					4
.50					5 Indicator
					6
.75					7 Indicator
					8
1.					9 Indicator

Substitute		
Wide Context		
Restricted Context		
Function		

Comparison with First Principles

Aspect	First Principles	Functionalist Principles
Purpose	Structural Solutions	Structural Solutions
Structure	Undefined	Triadic (*)
Initial Approach	Reverse Engineering	Ontological Reverse Engineering
The structure of solutions	Based on Cause-effect Actions	Based on Binary Cause-effect Actions
Solution Building	Abductive Reasoning	Conceptual Engineering & Abductive Reasoning
Analytical Method	Root Cause Management	Unicist Logic Driven Root Cause Mgmt.
Testing	Pilot Testing	Pilot/Destructive Testing

(*) Defined by a Purpose, an Active Function, and an Energy Conservation Function.

Comparison with Design Thinking

Aspect	Design Thinking	Functionalist Design
Purpose	Develop Solutions	Develop Solutions based on Root Causes
Structure	Undefined	Triadic (*)
Initial Approach	Empathic	Ontological Reverse Engineering
The Structure of Solutions	Based on Cause-effect Actions	Based on Binary Cause-effect Actions
Solution Building	Abductive Reasoning	Conceptual Engineering & Abductive Reasoning
Analytical Method	Inductive and Deductive	Unicist Logic Driven
Testing	Pilot Testing	Pilot Testing & Destructive Testing

Access the Business Propositions

The business arm is organized as a Confederation of partners and academic associates to develop collaborative corporate partnering with companies. [Access](#)



Access the Educational Propositions

The academic arm works as a business school and partners with companies to introduce the functionalist technologies developed. [Access](#)



Unicist Functionalist Design

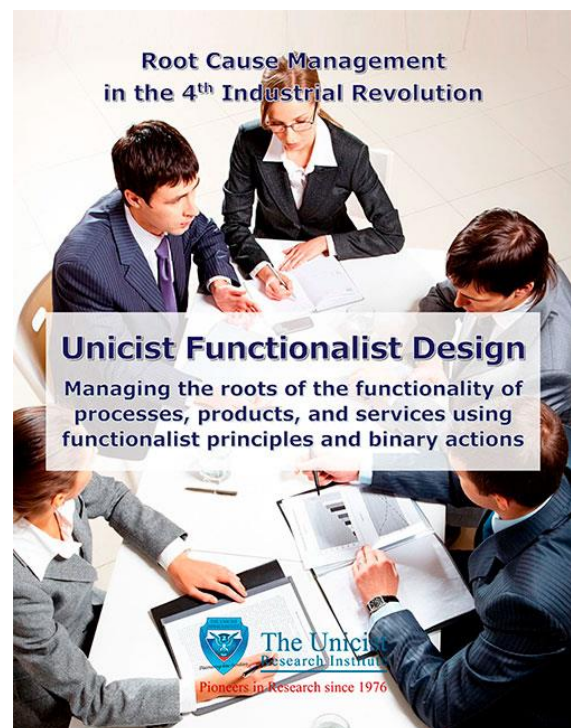
Functionalist design deals with the functionality of processes and allows managing the functionalist principles of business processes to simplify the solutions and improve the generation of value and diminish costs.

The development of the unicist logic allowed managing the intrinsic functionality and the use value of things and gave birth to the Unicist AI that emulates the intelligence of nature and human intelligence.

The unicist functionalist design was developed to enhance the functionality of business processes. The unicist functionalist design is developed in participative solution-factories to design in adaptive environments.

This approach manages the functionality, dynamics and evolution of business functions and processes and is necessary to:

- Develop the functionalist design of adaptive business processes
- Design business strategies
- Design and implement binary actions to ensure results
- Design and develop intelligent business cobots
- Design and develop intelligent systems and applications
- Design and manage R&D processes of products, devices, and processes
- Develop business objects and catalysts to manage processes
- Design market expansion processes
- Manage process improvement, innovations, and changes
- Design software that includes intelligent functions

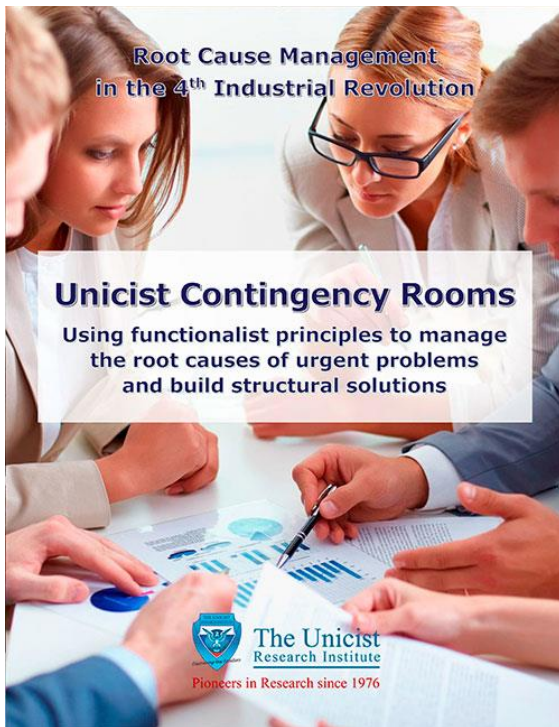


12 Minutes Read

The functionalist design process begins with the existence of a solution that needs to be built and ends with the installation of the solution.

Unicist Contingency Rooms

Unicist contingency rooms are organizational units that transform urgent problems into structural solutions. These units are basically organized as transitory teams led by a coordinator, and ombudsperson and a fallacy shooter.



Their final purpose is to solve an urgent problem. Their maximal strategy is to develop the structural solutions while the minimum strategy is to solve the urgent problems.

When they begin their teamwork, the leadership includes the participation of a coordinator, who assumes the responsibility for doing what is needed to find the solutions for the problem that needs to be solved, an ombudsman to represent the needs of the client and a fallacy shooter who ensures that the group manages valid knowledge.

10 Minutes Read

The binary actions that need to be developed at a contingency room begin by finding the necessary causes of problems in order to develop a structural solution while the second step is to find the triggering causes that generated the urgent problems in order to solve them.

It has to be considered that when a structural solution is found, the problem ceases to exist. Therefore, contingency rooms generate significant added value in their organizations because they ensure the concept of “today better than yesterday” measured in terms of results. Contingency rooms are based on the use of four basic unicist technologies:

- Managing the Root Causes of Problems
- Process Value Analysis
- Unicist Functionalist Design
- Binary Actions

The Use of Binary Actions

The use of functionalist principles is based on the installation of binary actions, that are driven by the use of unicist AI and business cobots.

Binary actions are two synchronized actions that, on the one hand, open possibilities and, on the other hand, ensure the achievement of results.

The use of unicist functionalist design allows developing the binary actions and business objects that are needed to empower business functions.

Example: The Functionalist Principle of Strategy Building

The purpose of strategy building is the achievement of goals in environments where the results depend on the feedback of actions.

The active function is based on the development of maximal strategies that aim at growth and drive towards the expansion of boundaries.

The energy conservation function is given by minimum strategies that fully depend on the actor and aim at ensuring survival or results.

The binary actions are based on the delivery of added value to have the necessary influence to expand the boundaries and, on the other hand, on the payment of prices to achieve the goal of surviving or ensuring results.



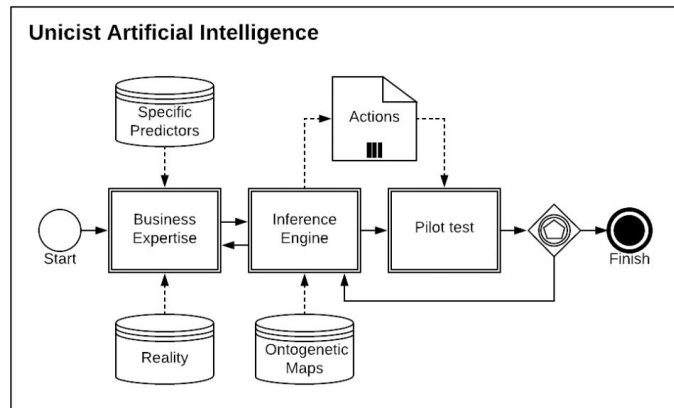
Examples of Evident Binary Actions

- Learning + Teaching = Knowledge acquisition
- Efficacy + Efficiency = Effectiveness
- Participation + Power = Leadership
- Productivity + Quality = Production
- Desirability + Harmony = Aesthetics

We suggest that you recognize the functionality of the binary actions you already use

Unicist AI & Intelligent Automation

The installation of binary actions in automation processes requires using unicist AI to manage adaptability and synchronicity. Unicist AI is based on the unicist logic that was developed emulating the intelligence that underlies nature and human intelligence.



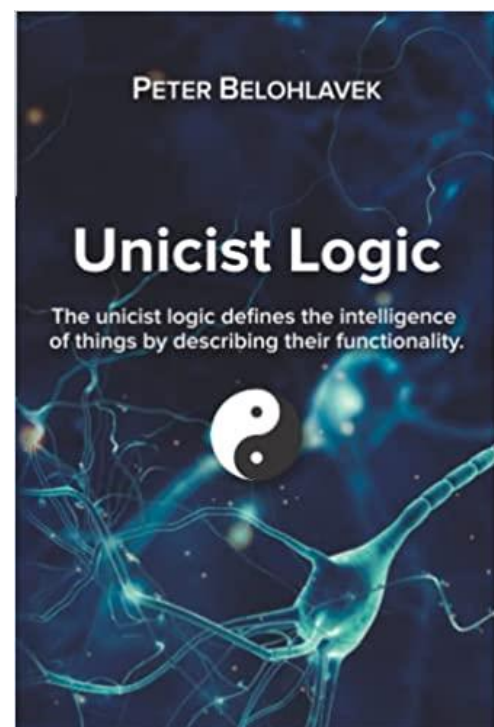
Unicist AI is based on the rules of the unicist logic that deals with the functionality of things. It is a fundamentals-based AI that allows managing the functionality of processes of any kind and building intelligent systems and cobots. When necessary, these cobots are installed in mobile applications.

The Use of Rules and Predictors

Fundamentals-based AI provides the meaning of data, its integration with data-based AI allows managing processes using adaptive automation.

Fundamentals-based AI uses indicators and predictors both to monitor the functionality of processes and as an input to the inference engine.

It uses the rules of the unicist logic and allows developing solutions and learning from the pilot tests of their implementation until their functionality has been confirmed. Fundamentals-based AI allows automating the use of binary actions, catalysts, business objects, and marketing objects to develop processes of any kind.



Access

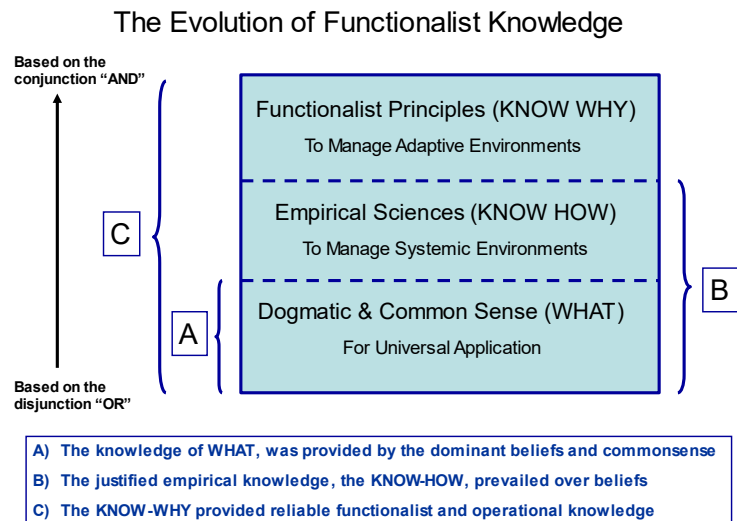
Unicist Functionalist Knowledge

To Manage the Root Causes of Problems

The unicist functionalist knowledge allows managing the root causes of problems. Functionalist knowledge deals with the functionalist principles of things that define the roots of their functionality.

Functionalist knowledge describes and defines the functionalist principles that drive things and the binary actions that make them work. It defines the roots of the functionality of things and the root causes of the problems that may exist.

Functionalist knowledge requires integrating the know-how of solutions with the know-why that is defined by the functionalist principles of the solutions, using the necessary reasoning patterns to develop functional solutions.



Levels of knowledge

There are different levels of knowledge that have different uses:

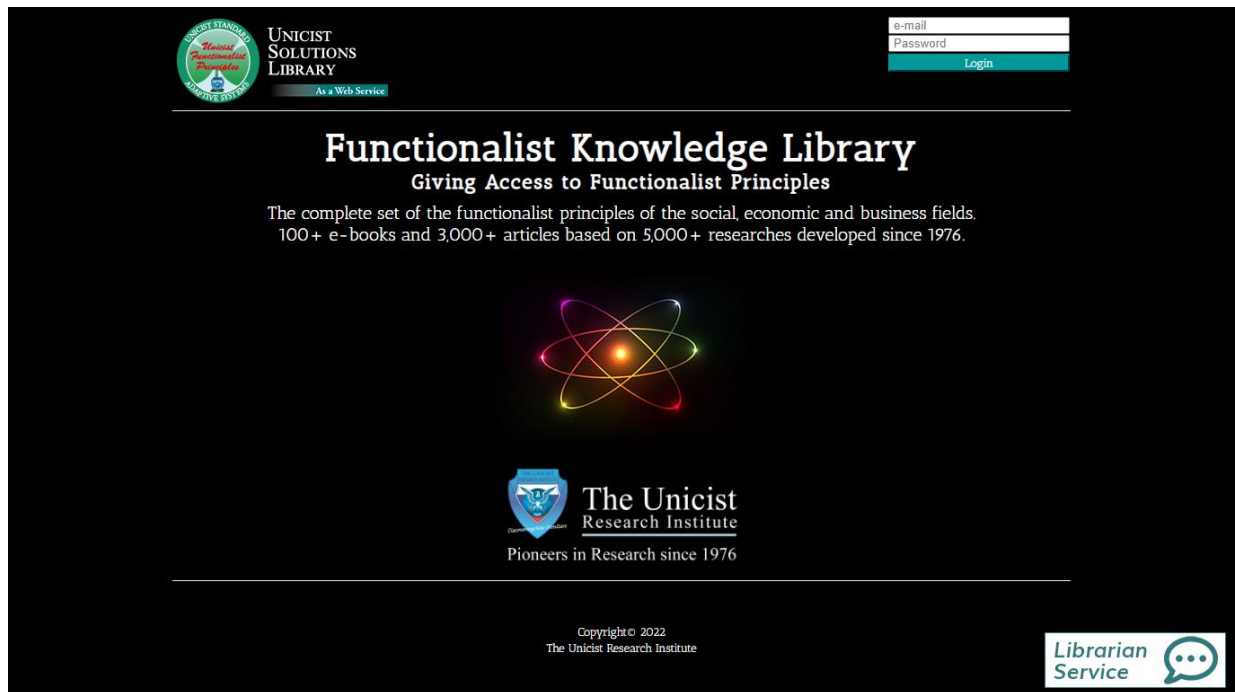
- 1) Dogmatic knowledge that establishes the subjective limits of actions. Commonsense knowledge is a type of dogmatic knowledge.
- 2) Empirical knowledge that deals with the know-how of things
- 3) Conceptual knowledge that deals with the functionalist principles of things and provides the know-why of their functionality.

Functionalist knowledge integrates these three levels of knowledge. It is the knowledge that defines and describes the functionality of things based on their functionalist principles.

It establishes the bridge between empirical knowledge and metaphysical principles.

The Knowledge Base for Functionalist Design

The Unicist Library is provided to manage functionalist design to build solutions for the adaptive aspects of businesses. It provides information on the functionalist principles in unicist standard language (USL). It is a functionalist knowledge base that provides the functionalist principles to design business solutions and the necessary binary actions to make them work.



These libraries, which are provided to companies, include the knowledge base of the specific functionalist principles and binary actions that are being installed in companies and access to more than 100 books and 3,000 articles on functionalist knowledge.

This knowledge base was developed at The Unicist Research Institute, based on the more than 5,000 research works that were developed since 1976 to find the concepts and fundamentals that define the functionalist principles in the field of social, economic, and business applications.

The use of functionalist principles structures the timing, synchronicity, and accuracy of business processes. The library also provides information on the catalysts that are needed to expand possibilities and achieve the critical mass and speed that is required to adapt to the environment.

The Functionalist Principles in Everyday Life

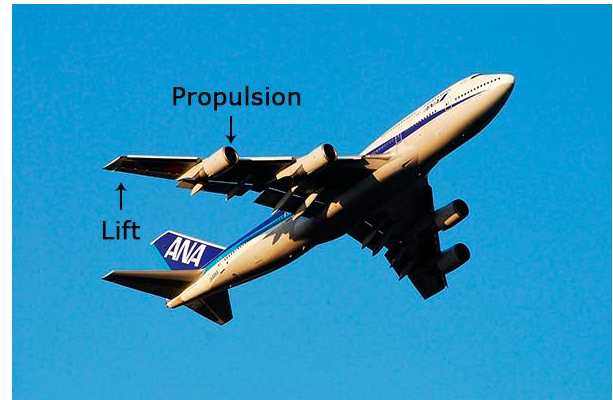
A description of the Roots of the Functionality of Things

The Functionalist Principle and Binary Actions of Airplanes

The purpose of flying an airplane can be considered to move from one airport to another.

The active function is given by their propulsion and the energy conservation function is given by the lift provided by the wings.

The binary actions to make an airplane fly begin by producing the propulsion that generates the necessary speed of the airflow on the wings of the airplane to generate the lift.



The Functionalist Principle and Binary Actions of Bicycling



The purpose of riding a bicycle is to travel from one place to another.

The active function of the riding of bicycles is given by the actions on the pedals while the body of the rider is the energy conservation function that sustains the balance to ensure their functionality.

The binary actions of riding a bicycle begin by producing the propulsion to be able to balance on it.

The Functionalist Principle and Binary Actions of Electric Motors

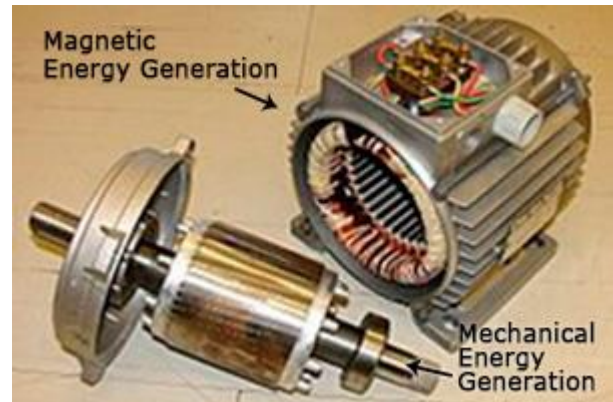
The purpose of an electric motor is to convert electrical energy into mechanical energy. DC motors and AC motors are based on the same

essential principles that define their triadic structure.

Their active function is based on transforming electrical energy into magnetic energy.

The energy conservation function transforms the magnetic energy into mechanical energy.

The binary actions of the process are, on the one hand, the transformation of electrical energy into magnetic energy and, on the other hand, the transformation of the magnetic force into mechanical energy. These processes happen within the rotor and the stator of an electric motor.



The Functionalist Principle and Binary Actions of Leadership



The purpose of leadership is ensuring the authority of a leader by driving people towards the achievement of something.

It applies to all kinds of leaderships, whether they are in familiar, social, or business environments.

The active function is given by the participation of the members of a group who aim at achieving their goals while they challenge the authority.

The energy conservation function is based on the non-exerted power the authority has to sustain the functionality of the participation and the achievement of goals.

The binary actions are, on the one hand, the participative activities between the leader and the members and, on the other hand, the existence of the necessary power to influence people without needing to exert it.

The Functionalist Principle and Binary Actions of Relationship Building

The purpose of relationship building is to establish a complementation between two or more people. This applies to all types of relationships, whether they are familiar, personal, business, or social relationships.

The active function of relationship building is the demonstration of the existence of a functional value, which means that the participation of the person who is building a relationship is necessary.

The energy conservation function is the existence of a personal common space that can be shared.



The binary actions of the process are, on the one hand, the demonstration of the value that is being added and, on the other hand, the finding of a personal common goal that integrates the participants.

The Functionalist Principle and Binary Actions of First Choice Marketing



The purpose of first choice marketing is to achieve the perception of superior subjective value propositions.

The active function is defined by the differentiation and the energy conservation function is given by the satisfaction of the needs of the client.

The basic binary actions are, on the one hand, generating expectations and then having fully segmented value propositions and, on the other hand, managing the differentiation of the segmented value propositions.

Main Markets

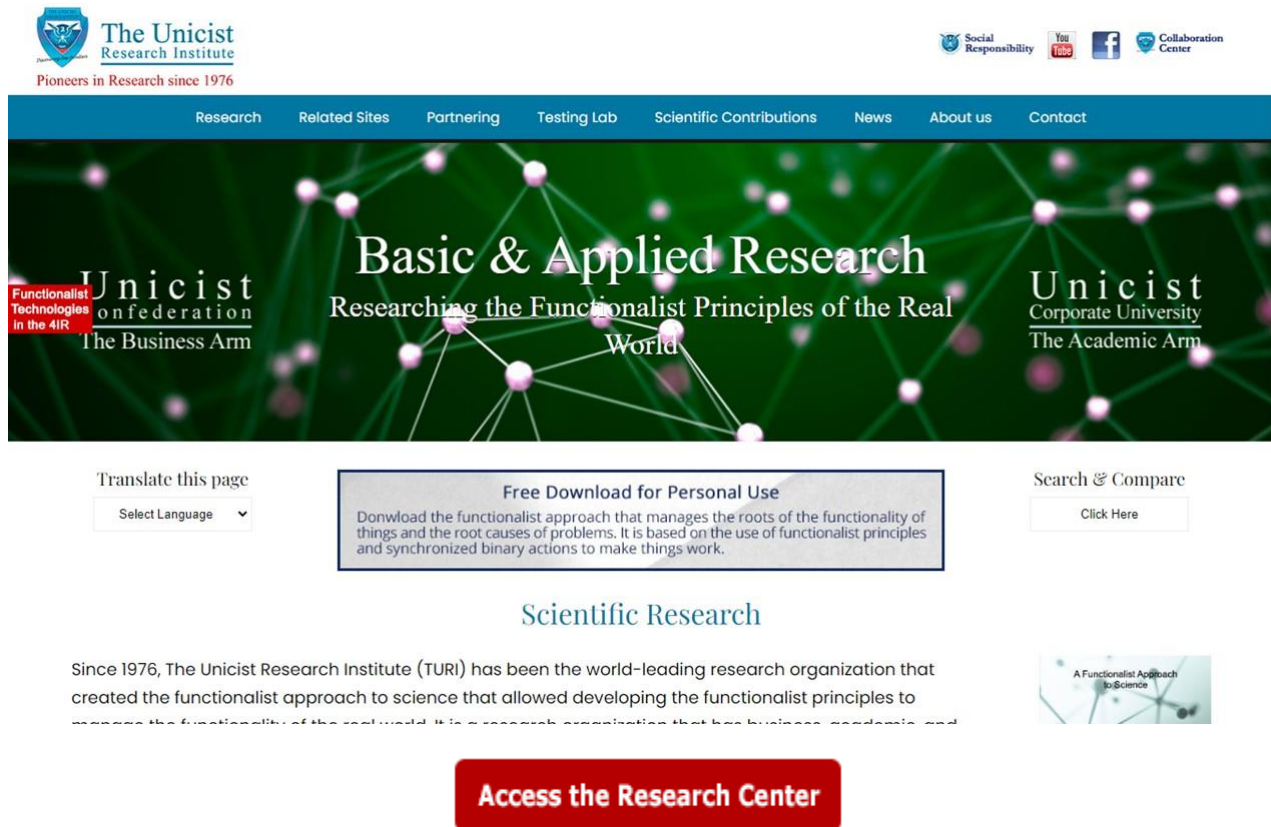
- Automobile • Food • Mass consumption • Financial • Insurance • Sports and social institutions • Information Technology (IT) • High-Tech • Knowledge Businesses • Communications • Perishable goods • Mass media • Direct sales • Industrial commodities • Agribusiness • Healthcare • Pharmaceutical • Oil and Gas • Chemical • Paints • Fashion • Education • Services • Commerce and distribution • Mining • Timber • Apparel • Passenger transportation –land, sea and air • Tourism • Cargo transportation • Professional services • e-market • Entertainment and show-business • Advertising • Gastronomic • Hospitality • Credit card • Real estate • Fishing • Publishing • Industrial Equipment • Construction and Engineering • Bike, motorbike, scooter and moped • Sporting goods

Country Archetypes Developed

- Algeria • Argentina • Australia • Austria • Belarus • Belgium • Bolivia • Brazil • Cambodia • Canada • Chile • China • Colombia • Costa Rica • Croatia • Cuba • Czech Republic • Denmark • Ecuador • Egypt • Finland • France • Georgia • Germany • Honduras • Hungary • India • Iran • Iraq • Ireland • Israel • Italy • Japan • Jordan • Libya • Malaysia • Mexico • Morocco • Netherlands • New Zealand • Nicaragua • Norway • Pakistan • Panama • Paraguay • Peru • Philippines • Poland • Portugal • Romania • Russia • Saudi Arabia • Serbia • Singapore • Slovakia • South Africa • Spain • Sweden • Switzerland • Syria • Thailand • Tunisia • Turkey • Ukraine • United Arab Emirates • United Kingdom • United States • Uruguay • Venezuela • Vietnam.

Learn about The Unicist Research Institute

Since 1976, The Unicist Research Institute has been the world-leading research organization that developed and introduced the functionalist principles of the real world to manage root causes.



The screenshot shows the homepage of The Unicist Research Institute. At the top left is the logo with the text "The Unicist Research Institute" and "Pioneers in Research since 1976". To the right are icons for Social Responsibility, YouTube, Facebook, and the Collaboration Center. A blue navigation bar contains links: Research, Related Sites, Partnering, Testing Lab, Scientific Contributions, News, About us, and Contact. The main banner features a green background with a network of white nodes and lines. It includes the text "Basic & Applied Research", "Researching the Functionalist Principles of the Real World", and "Unicist Corporate University The Academic Arm". On the left of the banner, it says "Unicist confederation The Business Arm" and "Functionalist Technologies in the 4IR". Below the banner, there is a "Translate this page" section with a "Select Language" dropdown. In the center is a "Free Download for Personal Use" box with a description of the functionalist approach. To the right is a "Search & Compare" section with a "Click Here" button. Below these is a "Scientific Research" section with a paragraph about the institute's history and a small image titled "A Functionalist Approach to Science". At the bottom is a large red button that says "Access the Research Center".

Websites

Research Center: <https://www.unicist.org>

Collaboration Center: <https://www.unicist.org/scientific-collaboration>

Business Arm: <https://www.unicist.net>

Intelligent Systems: <https://www.unicist-systems.com>

Academic Arm: <https://www.unicist.org/academic>

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