Viewing the world systemically.

ATIS Education-Learning System Diagram

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ATIS Education-Learning System Diagram

A diagram of an Education-Learning System is presented on the following page.

This diagram shows the complexity of an education-learning system, its properties and the connectedness of the system components.

It is presented in order to provide a visualization of the types of systems that comprise education-learning systems and other such systems; e.g., corporate systems, military systems, and Terrorist Network Systems.

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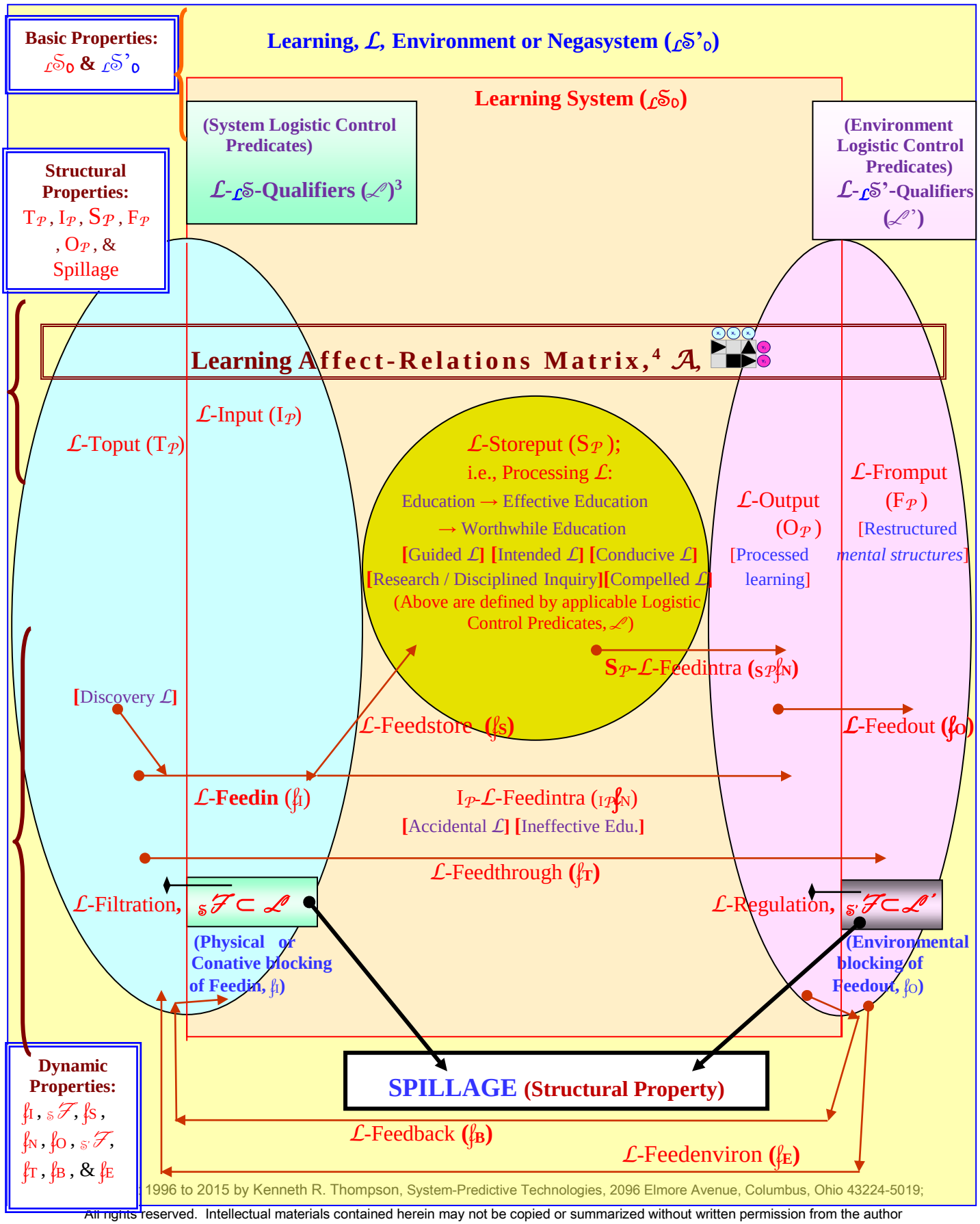
Universe of Discourse ($\mathcal{U}$) $\mathcal{G} =_{df} (\mathcal{P}, \mathcal{A}, \mathcal{T}, \mathcal{Q}, \mathcal{T}, \sigma)^{1,2}$ **(notes are on the following page)**



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[1] $\mathcal{G}$ is the *General System*, $\mathcal{P}$ is the *Object Partitioning Set*, $\mathcal{A}$ is the *Family of Affect Relations Set*, $\mathcal{T}$ is the *Linearly Ordered Time Set*, $\mathcal{Q}$ is the *Logistic Qualifier Set*, $\mathcal{T}$ is the *Transition Function Set*, and σ is the *System State Transition Function*.

[2] T_P, I_P, F_P, O_P, S_P, $\mathfrak{S}_{BX}$, $\mathfrak{S}'_{BY} \in \mathcal{P}$ ('$_{BX}$' & '$_{BY}$' are the "background components");
$\mathcal{L}, \mathcal{L}' \in \mathcal{Q}$
$\mathcal{A}_1, \mathcal{A}_2, \ldots, \mathcal{A}_n \in \mathcal{A}$;
$t_1, t_2, \ldots, t_k \in \mathcal{T}$;
$f_I, f_O, f_T, f_B, f_S \in \mathcal{T}$.

[3] *Logistic Qualifiers*, $\mathcal{L}$ and $\mathcal{L}'$, are predicates that quantify a set. For example, *Toput* becomes *Input* as the result of quantifying *Toput* with respect to the *Logistic Qualifiers*.

[4] The *general system* partition-subsets determine the "location" of system *components*, the *feed-functions* determine the movement and direction of those components, and the *affect-relations* determine the *general system structure* that defines *system properties*. The *Affect-Relations Matrix* defines the relatedness of the system components, and are normally identified by an ordered pair, (x,y) = {{x},{x,y}}.

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