

The ScaleFree Pattern Language

http://www.nooron.org/know/scalefree_pattern_language

Scale Free Patterns give us some tools to talk about things which occur across many different scales. HIV/AIDS, for example, can be viewed from various characteristic scales: genetic, cellular, immune system, person, family, community, national, or evolution of the species. ScaleFree gives us some tools for talking about things which cross many scales - the intrinsics of the situation. It allows us to link things across divergent scales, and to think in terms of Foamy Spaces, which have fractal properties, rather than dense fixed dimensions. Is there a way to build a fractal browser which gives us the ability to view things from the perspective of their intrinsics? Is there a way of using foamy spaces to understand complex, multi-scale, multidimensional systems? Can we speak about cascades of activities caused by intrinsics? Can we discover activation energies which are capable of causing a cascade of uplift?

1. The Patterns

Instances of pattern are the individual patterns in the pattern language constituted by the kb.

1.1. Cascade

1.1.1. Intent

A cascade is an action which occurs at multiple characteristic scales simultaneously. They may be created by Intrinsics. While Causality is generally discussed in terms of a single characteristic scale, cascades are based on interactions between scales which may not be recognized at a certain characteristic scale.

1.1.2. RelatedPatterns

Intrinsic

Cause

CharacteristicScale

Diachronic

1.2. Cause

1.2.1. Intent

A causal effect within a defined characteristic scale.

1.2.2. RelatedPatterns

Cascade

CharacteristicScale

1.3. Characteristic Scale

1.3.1. Intent

A portion of the continuum of scale which is used for a perspective, typically chosen in order to understand causality. For example, physics, chemistry, and biology typically have defined characteristic scales within which they are able to perform scientific experiments to establish causality. Intrinsic which cut across scales, and interact as cascades, are not necessarily prominent at specific characteristic scales, even though they may be significant contributors to a cascade. For example, the intrinsic of TRUST may not be significant at the 'patient billing' characteristic scale, but it is a very significant factor in a cascade of effects ranging from patient-physician interaction, health care system, and society as a whole. The loss of trust at one level may have cascading effects at other levels. Similarly, the reintroduction of trust mechanisms at the patient care level may have a cascading effect on the rest of society.

1.4. Diachronic

1.4.1. Intent

A perspective across time, showing the evolution or flow of an activity.

1.4.2. RelatedPatterns

Synchronic

1.5. FoamySpace

1.5.1. Intent

Foamy Spaces are those in which dimension is a dimension. As perspectives on the space move about the space or in time, different dimensionality may emerge. Foam may be caused by Named Voids describing specific Unknowledge (for example, the cells in the Period Chart of the Elements which were unknown when Mendeleev created the chart). Or, spaces may be of fractal dimensions, such as the Mandelbrot set.

1.5.2. RelatedPatterns

Intrinsic

Cascade

1.6. FractalLink

1.6.1. Intent

A way of linking objects across arbitrary ranges of scale and perspective. This may include objects in Foamy Spaces, Intrinsic, Cascades, and other scale-free phenomenon. It may link to eras (diachronic specification), or it may describe the flow of activities over time.

1.6.2. RelatedPatterns

FoamySpace

Intrinsic

CharacteristicScale

Diachronic

1.7. FractalScope

1.7.1. Intent

A perspective browser which presents knowledge and information in a scale-free manner. This browser allows the viewer to take the perspective of an intrinsic across different dimensions. A hypothetical model would be a camera with an extreme range of zoom lens. As the lens zoomed, the viewfinder would have a fixed patterns, perhaps outlining certain features, such as identity. The viewfinder may show the identity of a mountain at telephoto range, the identity of a galaxy at telescopic range, the identity of a tree, house, person, organ, cell, or chromosome.

1.7.2. RelatedPatterns

Intrinsic

FractaLink

1.8. Intrinsic

1.8.1. AKA

Scale-Free Property

1.8.2. Intent

Intrinsics are properties which are evident independent of any particular characteristic scale

1.8.3. KnownUses

Health may be viewed from a continuum of characteristic scales, such as molecular, genetic, cellular, organ, immune system, whole person/mind, family, community, nation, species. The notion of IDENTITY applies at all these levels, so that one might speak of the identity of an immune system and the identity of a community.

1.8.4. RelatedPatterns

Cascade

CharacteristicScale

1.9. OptimisticExtreme

1.9.1. Intent

The understanding that a positive action may have a cascading effect for the positive. For example, connecting people and their positive core values, coupled with effective action could trigger a general uplift cascade.

1.9.2. RelatedPatterns

PathologicalExtreme

Cascade

1.10. PathologicalExtreme

1.10.1. Intent

A rare but attention-getting extreme situation may have the effect of tipping the attention of a scale-free space. For example, a sequence of news stories about shark attacks may gather public attention, despite the fact that the prevalence of these attacks may be down. A patient complaining of a headache may be given an MRI rather than two aspirin and bed rest, simply out of the fear of the pathological extreme.

1.10.2. RelatedPatterns

Cascade

OptimisticExtreme

1.11. Synchronic

1.11.1. Intent

The perspective of a snapshot in time.

1.11.2. Motivation

Our current perspective tends to be limited to synchronic within certain characteristic scales. An alternative to this pattern, the Diachronic Intrinsic perspective, provides language to talk about the evolution of ideas and knowledge across scales, as well as provide a mechanism for communicating the role of cascades.

1.11.3. RelatedPatterns

Diachronic