



I₁ √[3 + n(u)] - u [1/n(u) - 1] [(1/(1+u)) - 1] [(n/(1+n))u] [(1/(1+n))u] √[1 +

||| perception of [] .]]

glitch == discrepancy between ;, . ,

_apriori intention + expectation and/of system's behaviour

_intersystem context and communication

```
{  
if  
  (sys01's intention != interacting sys02's expectation )  
then  
  sys02 perceives sys01's behaviour as glitchy  
}
```

[°where sys01 is a sw || sys02 is xx/xy human]

? => can a sw sys be intentional? if yes, what is a non lethal glitch ?

[√[(n m) . t] [m n] . t [t [t [] .]] [t [n [] n [m] m [. . [t [] v [] .] . √[.] v [] .]]]]]

||| role of [] ,]

glitch | inconsistency in systems ::

_catalyst of radical global changes [phase | state of system]

_epidemic interaction [percolation | node-->node corruption]

_fragmentation [loss of connections between nodes]

_inconsistency attractors [glitch accumulation | functional paralysis]

_mutation agents [mutation | corruption of system's function]

_catastrophic events [extermination of the system]

[$\sqrt{[3 \cdot n \cdot m] + 1} \cdot [m \cdot n] + 1 \cdot [n \cdot (n + 1)] + 1 \cdot [n \cdot (n + 1) \cdot (n + 2)] + 1 \cdot [n \cdot (n + 1) \cdot (n + 2) \cdot (n + 3)] + \dots + 1 \cdot [n \cdot (n + 1) \cdot (n + 2) \cdot \dots \cdot (n + k)]}$] + 1

||| advantages | drawbacks of ||| .1]

glitch = catalyst of change

[allowing sedentary systems to oscillate]

_trial / error processes

_questioning / subverting utility of system

_mutating system's structure

glitch != goal

[becoming a sedentary system itself]

_danger of glitch aesthetics

_total system collapse

[\sqrt{[x \cdot y \cdot z]} \cdot \omega] \cdot [w \cdot x \cdot y \cdot z] \cdot [w \cdot x \cdot y \cdot z] \cdot [w \cdot x \cdot y \cdot z] \cdot [w \cdot x \cdot y \cdot z]

_output gibberish

_crash

[equally useless]

_degrades rapidly + results in non_functioning system

glitch --> position | site | origin ::

[data | protocol | system | intersystem]

__influences levels of degradation & recovery

||| sites of []])]

[data | protocol | system | intersystem]

_ physical corruption

_ program bit level corruption (very fragile)

_ program data level corruption (fragile)

_ input data corruption (can be interesting)

_ program logic level corruption (possibly fragile)

_ protocol level /exchange level /format? (translation path)

|_ system level logic (filesystem, input devices, display, storage etc+)

_ application logic (game)

_ simulation logic (game/physics)

_ interaction logic

_ human logic

[\sqrt{[3\pi\gamma(\alpha)]+1}][1/\alpha+1][1/\alpha^2][1/\alpha^3][1/\alpha^4][1/\alpha^5][1/\alpha^6][1/\alpha^7][1/\alpha^8][1/\alpha^9][1/\alpha^{10}]]\sqrt{\cdot}\cdot

|| advanced engineering || conclusion:: part 01

[engineering errors]

- physical corruption
(magnets, wires + other tools)

- program bit level corruption
(hex-editor, inserting random bits)

- input data corruption
(changing fileheaders, modifying filedata, checksums)

system-level logic

(filesystem errors, wrong input devices, display drivers,
storage devices, copy degradation, etc+)

_ application/simulation logic

(game mods, gamedata, physics/game-engine
physical/simulation constants + calculation methods)

_ interaction logic
_ human logic

```
||| communication with [ ] , [ ]  
  
_ not all glitches = destructive  
  
[lethal glitches] :: total system collapse  
[non-lethal glitches] :: distortion | mutation | change | corruption  
  
_ need for --> immune system+  
{if (gLitch == non lethal) then enable adaptation}  
  
_ output = adaptive [realities | cultures | organisms | systems]  
  
~[self healing polymers]
```

```
||| adapting to [ ] ] , ] ]  
  
complex adaptive systems [CAS]  
_composed of semi-autonomous & heterogeneous parts [agents]  
__agents (possible CAS themselves) -> receive information  
__interaction w/environment + other agents  
__agents act based on info input + internal rules [changeable]  
  
_guided by ::  
__principles [context, axiom]  
__models [data, hypothesis, situations]  
__rules [commands, processes, frameworks]  
__behaviours [actions, interactions]  
  
_influenced by::  
__info_flow between internal nodes [agents | parts | localities]  
__external stimuli [environment | other CAS]
```

||| incorporating []] . []

on avoiding system collapse [from material and cognitive science] ::

- _ when inconsistencies occur:
 - _ loosen internal molecular structure || model of reality
- = simmulated annealing
 - _ temporarily adding chaos to the system
 - _ allowing new coherent connections to form [incorporating glitch?]
 - _ stabilising fruitful connections
 - _ encouraging emergent structures

[sqrt[3][n][w].w][sqrt[n][w][t][t][t]]+t[([n][w][t][t][t])][sqrt[n][w].w]

||| direction of []] .]]

_sedentary behaviour: [glitch influenced] pattern --> noise

_emergent behaviour: [glitch influenced] pattern --> noise --> pattern

~chernobyl nature park :

-- 1986 explosive spread of nuclear pollution

-- 1987 area deserted of human influence

-- 1987-1997 mutations in flora + fauna

-- 1997 --> adaptation new balance + increase in biodiversity

--> decay of OI system [human energy plant]

--> growth of OI other system [nature reserve]

[$\sqrt{[e \cdot n \cdot m] \cdot t} \cdot [t \cdot e \cdot n \cdot m] \cdot [e \cdot n \cdot m] \cdot [t \cdot e \cdot n \cdot m] \cdot [e \cdot n \cdot m] \cdot [t \cdot e \cdot n \cdot m]$]

||| edge habitats; living with []] ,]]

_locally extremely unstable

_globally stable but continuously oscillating [connectivity in flux]

_able to 'translate' between 2 incompatible systems [~water|land]

_based on ::

--space filling processes [growth, clustering, reproduction]

--space clearing processes [glitches, accidents, climatological changes]

--both essential for global stability + robustness of the system

----robust = withstanding interactions from within
= resisting the constraints from without

||| advanced [] | engineering || conclusion:: part 02

_engineering adaptive systems [edge habitats]::

_increasingly immune to fatal glitches

—allowing less critical glitches to steer the dynamics

-- characteristics:

—distributed ctrl [open|adaptive | emergent | recursive | embedded]

able to manipulate probabilistic events + processes

—based on non-equilibrium dynamics

— allows co-evolution of divergent processes

--- able to heal/repair damaged components

[Ix starter organism::

[where the whole is more than the sum of its parts]