ExpyeZp: Constructivism Avoiding Data Redundancy

Juan Reyes

MagInvent.ORG

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Introduction

- *ExpyeZp* is a collaborative effort
- *ExpyeZp* aims for knowledge building and constructivism
- Its group efforts avoid duplication of work and efforts
- *ExpyeZp* builds upon experience thus avoiding data redundancy

Motivation

- The term *ExpyeZp* was context coined by Juan Reyes
- Word is cast by *"expy"* and *"eZp"*
- *"expy"* is $\stackrel{\Delta}{=}$ an abbreviation of "expression"
- *"exp"* is $\stackrel{\Delta}{=}$ the exponential function, key to Euler's identity
- *"eZp"* forms $\stackrel{\Delta}{=}$ the *"Z"* transform
- *ExpyeZp* $\stackrel{\Delta}{=} \int_{-\infty}^{\infty} s(t)e^{-j2\pi\omega_0 t}\ dt...$
- Composers have used math and signal processing for years now

Definition

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- rehearsing and experimenting around the concept of new music

About data

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- If a bit of data doesn't have meaning is not information
- Sequences may be:
  - series of numbers
  - voltage measurements
  - even vectors of intensities for images or sound

Avoiding Redundancy

- Different values for a single attribute generate redundancy
- Duplicated information is also a source of data redundancy
- Benign data redundancy:
  - backing up a record in a database
  - parallel signals on transmission lines
- Redundancy is inconsistent while deciphering correct values in several sources
- For *ExpyeZp's* purposes avoiding redundancy means:
  - two or more people are working on the same idea
  - individual efforts for reinventing the wheel
  - several interpretations or translations of a concept

Collaborative model :: Preamble

- Shown experience at:
  - MOX (Universidad de Los Andes)
  - CCRMA (Stanford University)
- reveals laboratory environments are optimal contexts for:
  - generating ideas
  - confronting thoughts
- There are no bad ideas in lab environments
- Furthermore there are not better ideas or worse
- Cooperation, experimentation, trial and error is good for everyone, in particular creative work

Artist's studio

- An artist as a Hacker (as coined by this author in 2004):
  1. converts studio into lab surroundings
  2. lab work is function of collaboration with hacker's communities
  3. technology is embraced as a sort of group therapy

Peter Samson exemplifies a real hacker

"A project undertaken or a product built not only to fulfill some constructive goal but also for a 'wild' pleasure in mere involvement is called a hack" - Hacker's Dictionary.

- Peter Samson exemplifies a real hacker of the sixties
- He was part of MIT's TMRC, Tech Model Railroad Club
- Wrote a program so that a MIT's mainframe will play music
- On the seventies developed the *"Samson Box"*

Other important collaborative influences

1. Connectivity first saw on ARPAnet on the seventies
2. CVS (concurrent versions system)
3. CVS and Open Source Software for Unix systems
4. Open Source community

- Open software like Pd (as in public domain)

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- Open software like Pd (as in public domain)
- Pd is widely used by the *ExpyeZp* community

Group interaction example

- Amplitude Modulation theory and application using Pd
- The Emiliano Hernandez et Paula Velez case

Problems and Constraints

1. Wish more people were collaborating
2. Given a topic there is gravitation to certain circles of people
3. Some members restraint from participation
4. Latinamerican idiosyncrasy is not used to give-and-take
5. More often is take rather than giving
6. The notion of “artist as a hacker” might not be so widespread in the region

Conclusions

- *ExpyeZp* provides a space for people gathering to engine creation
- This effort still a source for fueling other venues
- There is an archive of most posts since its beginnings
- Interactions have assisted on stirring new music and expressions
- There has been knowledge building and construction-ism
- *ExpyeZp* avoids redundancy by focusing on group and collaborative efforts

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