Project Two – Reinterpreting the Periodic Table of Elements

The printed version of the Periodic Table of Elements used in most chemistry classrooms packs a vast amount of data into a systematic grid. Written definitions that describe the table’s structure and content often accompany the printed version. Unfortunately, definitions are often abstract, data is quantitative and qualitative aspects of the table are ignored. For a chemistry novice or a student new to the table, the information often seems overwhelming, uninviting and cryptic.

Produce an interactive, screen-based interpretation of the Periodic Table of Elements. Your goal is to present the static information in a dynamic, fluid environment in an effort to improve students’ comprehension of the complex information. Use the elements of Interaction Design – motion, time, space, sound and appearance to engage the user. This is a tool so users should have the ability to customize their experience by selecting various points of entry and also control the amount of information shown at any given time.

Your design should address the following questions:
How can you motivate someone to explore the interface?
What can you do to improve accessibility and comprehension of The Periodic Table?
Knowing that your audience is students, what can you do to reach them with your tool?
How can imagery be used to convey complex information within the table?
How can sound, motion, scale and color provide multiple levels of information?
Is it possible for users to become active participants in their learning experiences?
In what context will the table be seen and how might technology support its presentation?
Does “play” become a form of intrinsic motivation and increase retention?
At what point does information overload occur?

About the table specifically:
What are the fundamental organizational aspects being used? (How is the table currently organized?)
Why does the table exist in the first place?
Are there other ways to organize the table that can help with learning?
Can size, weight, abundance, color or material change the way the information is presented?

This is not about just translating the current table into interactive form. Study the table and the reasons for it’s organization. Think about what, if anything, would help a college student learn something from it. You can be playful, scientific or serious. We know the current table works (however complex it may be). Your job is to interpret the current table and come up with an interactive piece that is engaging and that we can learn from. Build on your skills from Information Design to create something new and interesting.
Interaction Design (Art 479)
Winter 2008
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Office hours: Tuesdays 12-1pm, Art 251

Schedule (tentative)

January 24        Project Two assigned (begin research), Project One continues
January 29        Project One work session
January 31        Project One due
February 5        Project Two discussion: Q+A and brainstorming for The Periodic Table
February 7        Initial concepts for Table organization due (3-5 paper sketches)
February 12       Group A – present select ideas (working with static visuals)
February 14       Group B – present select ideas
February 19       Lecture, work session, build a series of frames for your concept (static)
February 21       Move files to Flash (possible Q+A Flash session with Collin)
February 26       Group B – class critique for animated work in progress
February 28       Group A – class critique for animated work in progress
March 4           Work session (possible Q+A Flash session with Collin)
March 6           Group A – class critique for animated work in progress
March 11          Group B – class critique for animated work in progress
March 13          Work session
March 18          Final exam 10:30 – 12:20, present files

Group A
Becky
Jesse
Leah
Kiira
Margaret
Andrew
Kristen
Autumn
Keri
Kimberly
Ryne
Andy

Group B
Owen
Megan
Brianna
Katrina
Karlyn
Albert
Maddy
Nivi
Lizzie
Sean
Janny