Mixing Illustration and Scientific Visualization in the Classroom

David Laidlaw
Brown University

IllustraVis ’09
Bergen, Norway
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noun
a picture illustrating a book, newspaper, etc. : an illustration of a yacht.
• an example serving to clarify or prove something : this accident is a graphic illustration of the disaster that's waiting to happen.
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visualize |ˈvi ʒ(ə)wəˌlĭz|
verb [trans.]
1 form a mental image of; imagine: it is not easy to visualize the future.
2 make (something) visible to the eye: the cells were better visualized by staining.
This course explores the visual and human-computer interaction design process for scientific applications in immersive virtual reality. It is cross listed at Brown (as CSCI1370) and RISD (as ILLUS5303) and is co-taught by David Laidlaw from Brown Computer Science, Fritz Drury from RISD Illustration, and Sharon Swartz from Ecology and Evolutionary Biology. Jadrian Miles is the TA.

Computer science students learn how to work effectively with each other as well as with artists and designers in creating applications targeting Brown's Cave. A Cave is an 8'x8'x8' cube whose floor and walls are covered with displays, which we will use to create interactive 3D virtual environments.
CS137 Evaluation

+ VR design experience without coding
- but real design takes too long
+ Victor learned value of crits
- but struggled with unfamiliar areas
+ Iris saw her skills apply to science
- but also struggled
- Minimal real science
- Minimal real IllustraVis collaboration
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What can we do?

Create and tweak courses
Modify curriculum
Build authoring tools that enfranchise illustrators
As visualization researchers
do more principled visual design
Model designer knowledge
Model human cognition to predict tool quality
UNIVERSITETET I BERGEN

DET PSYKOLOGISKE FAKULTET
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