What’s New in iBooks Author

Session 605
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These are confidential sessions—please refrain from streaming, blogging, or taking pictures
Today’s Agenda

• Demo iBooks for Mac
• Demo iBooks Author 2.0 interface and features
• Learn how to create interactive books for iPad and Mac
  ▪ Construct your own template
  ▪ Build interactive content
  ▪ Discover the new widgets
• See how to publish books from within iBooks Author
• Learn shortcuts to speed up the creation of your book
CHAPTER 37

Introduction to Ecology

37.1 An Ecological View
37.2 The Biology of Place: Biomes and Landscapes
37.3 The Living Web
37.4 A Guided Tour of a Dynamic Landscape: Gorongosa
37.5 Review
37.6 Project-Based Learning: Plant Wars
Think about the last meal you ate. Was it breakfast this morning? Lunch at noon? Dinner this evening? Most of us eat at regular times during the day, and most of us eat foods that require biting, chewing, and slurping. For blue whales, the entire day is mealtime, and they don’t chew their food so much as gulp it. These creatures, each the length of the two city buses and weighing as much as 40 African elephants, don’t have teeth. Instead their upper jaws are lined with 300 or so hairy plates, each roughly a yard long, called baleen plates. When they feed, the animals take in huge amounts of seawater. Their tongues force the water out of their mouths, but the baleen plates catch thousands of tiny shrimplike animals called krill, which the whales swallow whole. By the end of an average day, a blue whale has eaten as many as 40 million krill, or close to 4,000 kilograms of food.
The Events of Vision

Retina
The retina contains millions of photoreceptor cells called rods and cones that are specialized to convert light into electrical potentials. The retinal potentials are passed to layers of interneurons that process the information, performing such neural computations as detecting edges and motion. This information is transferred to the brain, where it is perceived as a visual image of the scene projected on the retina.

Rod and cone cells
Rod cells are thinner and about 100 times more sensitive to light than cone cells. A rod cell can trigger an action potential in response to a single photon of light. However, rod cells have little if any role in color vision. Cone cells have three types of photosensitive pigments that are sensitive to different wavelengths of light. Information from many cone-sensitive rhodopsin cells is processed to arrive at accurate information about color, which is passed along through the visual system.

Rhodopsin
The fundamental event of vision involves the interaction of light and matter. A photon of light is absorbed by retinal, which changes shape in response. This shape change affects the shape of rhodopsin, leading to a rapid change in polarization of the photoreceptor cell and transmission of action potential to surrounding interneurons.
Symmetry

Categorizing body plans is more meaningful for more complex animals. Is the animal symmetrical? In animals with radial symmetry, there is no left or right. Symmetry extends from the center of the organism, like the slices of a pie. Starfish have pentameric symmetry, with parts arranged around the center in five equal sections.

In bilateral symmetry, a plane through the axis of the body divides the animal into mirror halves. Humans have bilateral symmetry—our right and left sides are mirror images. With the plane of bilateral symmetry established, we can also specify the back or dorsal side of the animal and the front or ventral side. Similarly, bilaterally symmetric animals have a head or anterior end and a tail or posterior end. It may be confusing to think of the feet of a human as the posterior end; it is more obvious if you think of the posterior of a dog. Humans and dogs are both tetrapods, vertebrate animals with body plans having four limbs.
approximates the layout of the adult body. The inner layer, or **endoderm**, forms the digestive system; the external layer, or **ectoderm**, forms the outer layer of the skin and the nervous system; and the middle layer, or **mesoderm**, forms the connective tissue, muscle, and many of the body’s internal tissues and organs.

One key structure that arises during gastrulation is the **notochord**, a narrow column of mesodermal cells that elongates the body axis and acts as the embryo’s backbone. When gastrulation is complete, the ectoderm that lies above the notochord begins to shift, forming a groove with raised edges. These edges gradually roll up into a tube and pinch off from the rest of the ectoderm, a process

**Interactive 2.1.7 Three Layers from One**

The formation of distinct cell layers from a single sheet can be seen in a cutaway view of the folding gastrula. Different gene activation in each layer determines the tissue type for each germ layer.
Figure 4.11 Impolar Life

Biodiversity is not spread evenly over Earth. The map at left shows areas of South America, in red, with the largest number of bird species. But endemic bird species, those that are prevalent only in one region, cluster near the Andes Mountains.
Education Recap

• Thousands of textbooks published to the iBookstore
  ▪ Pearson
  ▪ McGraw-Hill
  ▪ Houghton Mifflin
  ▪ … and thousands of independent publishers worldwide
• 100 percent coverage of the US high school core curriculum
• Over 2500 classrooms in the US using iBooks textbooks
• iBooks textbooks are now available in US, UK, Canada, and Australia
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Introduction to Ecology
CHAPTER 57

Introduction to Ecology

- An Ecological Perspective
- The Role of Biodiversity and Landscapes
- The Living World
- A Shift to a Dynamic World: A More Complex Earth
- Project-Based Learning: Real World

17.1. An Ecological Perspective
17.2. The Biodiversity of Earth and the Living World
17.3. The Living World
17.4. A Shift to a Dynamic World: A More Complex Earth
17.5. Project-Based Learning: Real World
iBooks for Mac
For developers and readers
What Is iBooks Author?

• The tool for creating interactive experiences for iBooks
• WYSIWYG, drag-and-drop editor for creating books
  ▪ Write, import, and edit text
  ▪ Add graphics and page layouts
  ▪ Create interactive experiences using simple drag-and-drop techniques
• For single users to professional publishing pipelines
• … It’s free
Why iBooks Author?

• Immersive iPad experiences without code
• Flexibility to create unique interactive experiences with HTML
• Designed and engineered to work perfectly on the iPad, and the Mac
• True layout and typesetting
• The best platform for interactive, rich-media books
What’s New in iBooks Author 2.0

• Portrait-fixed layout books
• True math typesetting using LaTeX and MathML
• Automatic media optimization
• New widgets!
  ▪ Pop-over widget
  ▪ Scrolling sidebar widget
  ▪ Audio widget modes
• Enhanced publishing workflow
• Embedded fonts
• Versioning
Using iBooks Author

Building a template and making your book
Using iBooks Author

Five takeaways

• It’s easier than ever to create beautiful books for iPad, and now Mac
• Coding is optional (…but there if you need it)
• New features give you full control over the design of your book
  ▪ Portrait layouts
  ▪ Math typesetting with LaTeX and Math ML
  ▪ Embedded fonts
• Publish and make updates to your books within iBooks Author
• Anyone can be a published author
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