



SOCIAL STUDIES
TECHBOOK™



Transforming Social Studies Education for a Digital Era

A digital textbook from Discovery Education teaches critical thinking skills through an inquiry-based approach that uses interactive components, high-quality video, and thousands of primary-source documents.

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EXECUTIVE SUMMARY

In 2014, the National Council for the Social Studies (NCSS) released its C3 Framework, calling for schools to adopt an interdisciplinary, inquiry-based approach to social studies as a way to prepare students for college, careers, and their roles in American civic life. Now, Discovery Education has employed this same approach in its Social Studies Techbook, an all-digital textbook that incorporates video, photographs, text, and interactive components to engage students and develop their critical-thinking skills.

"Social studies is the ability to apply skills to information you receive from the world and draw conclusions," said



Daniel Byerly
Director, Social Studies

Daniel Byerly, director of the Social Studies Techbook. "We want to make sure that we constantly give students the opportunity to use varied perspectives and resources —resources that often contradict each other—to draw conclusions about meaningful topics."

Byerly believes traditional textbooks fall short of this goal because they offer only a single-thread story of what supposedly happened or how the world works.

"A textbook is limited in its number of pages and tends to tell a single narrative," he explained. "With a digital resource, there can be narrative and counter-narrative, and we can ask students to analyze the issue for themselves."

By moving away from a single-view approach, the Social Studies Techbook also addresses one of the biggest concerns among curriculum developers today: How to teach history and geography in a culturally responsive way. "Video is particularly effective at this—it has the ability to put students in someone else's shoes," said Byerly. "When we have video of younger people around the world talking about their lives, it gives students a much stronger connection to perspectives globally or historically."

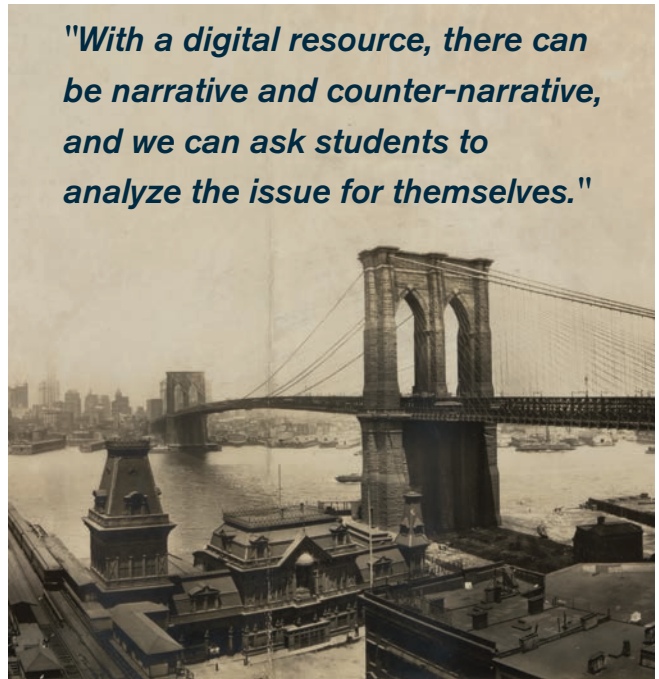
To support this multi-perspective approach, the Social Studies Techbook incorporates an immense library of resources, including copies of original documents, thousands of images, and archival footage and interviews. Part of the Techbook library is drawn from Discovery's various cable channel series. "In our World Geography course, for instance, there's nothing better than some of the Discovery content," said Byerly. "At the same time, we want to leverage the best out there, so the Techbook is a real mix of Discovery content and what we license."

Another key benefit of multimedia in the Techbook is the ability for teachers to provide students—or groups of students—with tailored assignments that suit their individual learning styles. Students who respond well to visual imagery, for instance, can be asked to watch a video and answer questions, while advanced readers might tackle an analysis of original source documents.

In keeping with the goal of fostering critical-thinking skills, the Techbook follows the 5E Instructional Model (Engage, Explore, Explain, Elaborate, Evaluate), originally developed by the Biological Sciences Curriculum Study, to facilitate inquiry-based study by students. Within each concept covered in the Techbook, such as "Causes of the Great Depression," students use a tab structure to move from one E to the next, finishing with Evaluate, where summative assessment is conducted.

In its C3 Framework, NCSS emphasized the idea that each discipline within social sciences examines events and trends using a completely different analytical framework. The Social Studies Techbook embraces this concept in many of its activities and assignments. "You want your students to switch hats constantly and look at situations from different perspectives—historical, social, economic, geographic, governmental," said Byerly. "We give them these rich resources and have them apply these different disciplinary analyses. This is how they build the skills necessary to gain novel perspectives in their college majors."

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The Social Studies Techbook consists of six courses, including "World Geography and Cultures," "World History," and two comprehensive US histories—"Prehistory to the Progressive Era" and "Prehistory to Present." For secondary students, US history is split into two courses, with the first covering from prehistory until Reconstruction, and the second tackling the period from the Civil War until today. All of the courses are accessible from any device with a browser.

WHY SOCIAL STUDIES TECHBOOK STANDS OUT

To facilitate the inquiry-based approach embraced by NCSS's C3 Framework, the Social Studies Techbook employs the 5E Instructional Model (Engage, Explore, Explain, Elaborate, and Evaluate). The model was developed by the Biological Sciences Curriculum Study, but it teaches the kind of critical-thinking skills and methods needed by all scientists, including social scientists.

"The trend in social studies is toward more rigorous teaching, asking students to do more thinking, and asking them the right questions—more important, asking them to create arguments that answer those questions," said Byerly. "That's a very positive direction, and I'm proud of the way that the Social Studies Techbook supports students and teachers in doing that."

To support faculty and students on this new instructional path, the Social Studies Techbook emphasizes five key areas:

Student Engagement

A 2013 Gallup Student Poll found that only 61 percent of middle school students felt they were engaged with their learning. The Social Studies Techbook aims to re-engage students by drawing them into the materials through the use of interactive features, multimedia, and open-ended inquiry.

"In building the Techbook, we wanted to get away from static information to create something that pushes students to interact with the content," said Byerly. "We want students to become social scientists who use critical-thinking and political-literacy skills to draw conclusions and really think for themselves about the content."

To help students develop these skills, the Techbook incorporates a range of interactive components that en-

courage them to see issues and events from multiple perspectives. In one interactive feature called Key Decisions, students learn about different policy options and then must decide for themselves how to proceed. In US history, for example, students put themselves in President Truman's shoes in 1945, weighing the ramifications of dropping the atomic bomb. "The goal is to take students through the process of making a decision, where they'll identify the advantages and disadvantages based on evidence," said Byerly.

Video is also extremely effective in engaging students, and the Social Studies Techbook has access to a wealth of content from Discovery's cable channel series. A series from Discovery's American Heroes channel, for example, tells the stories of everyday people who have won the Medal of Honor, helping to draw students into the lives of diverse communities in World War II and Vietnam.

And, in many cases, video can explain a concept far more effectively than any amount of text. "You can teach students for weeks about the impact of physical land forms on climate, but a video of clouds sweeping down on the Rockies and swirling as a giant rainstorm breaks out conveys the concept in 30 seconds," said Byerly. "What else do you need?"

While the Techbook takes full advantage of the Discovery library of materials, it also incorporates thousands of additional licensed images and videos, as well as copies of original documents. Through a partnership with the University of Southern California Shoah Foundation, for example, the Techbook has access to testimony from the survivors of the Holocaust. Another partner is *Harper's Magazine*, which has archives that go back to the Civil War.

Disciplinary Literacy

The Techbook looks to move students past the kind of rote learning epitomized by questions like, "Who was the first President?" Instead, it uses the 5E model to teach students how to think like social scientists. "If you can get quickly to a single correct answer, that shouldn't be the last question you ask," said Byerly. "You should always follow up with 'Why? Explain that answer. Have you considered this option?' We want to make sure we ingrain those deeper thinking skills."

Each course within the Social Studies Techbook is divided into concepts, such as "Britain versus the Colonists," which span anywhere from three to 10 days of instruction. On screen, every concept is organized into five tabs, with each representing one of the 5Es.

The goal of the Engage tab is to activate prior knowledge, focus on one or two elements that stimulate interest, and then pose an essential question. In another example from the Revolutionary War section, for instance, students might be asked, "What would you pledge your life for?" in an echo of the last line of the Declaration of Independence. "We want students to think about the stakes involved in jumping off that cliff into independence," said Byerly. "It helps them focus on the underlying motivations—were they largely economic, political, or social?"

The Explore tab is where students look for answers to these questions. Multiple resources that present often-contradictory viewpoints accompany a text narrative. "In our model lessons, we encourage teachers not to march straight through the text but to use collaborative strategies where students investigate different questions," said Byerly. In examining the events leading up to the Revolutionary War, for example, students are en-

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couraged to look at the motivations of the British and the colonists from the others' perspective to determine how and why events unfolded the way they did.

The Explain tab is an opportunity for students to explain what they've learned and allows teachers to check for understanding. In the case of the Revolutionary War, for example, students might design a diagram that visually represents the grievances of the opposing parties.

The Elaborate tab, on the other hand, gives students a chance to really dig into the issues. "Elaborate is where we provide in-depth projects that activate a lot more of the deep-argument and content-creation skills," said Byerly. In one activity, for example, students study the various components of a political cartoon before creating their own.

Learning Differentiation

Unlike a printed textbook, the Techbook can be tailored to individual student needs. The basic text, for example, has two different reading levels and can also be switched between English and Spanish. Furthermore, teachers have the ability to tailor assignments based on the learning style of each student—or groups of students.

"One of the wonderful advantages of having multimedia and multiple resources is that you can differentiate what students see," said Byerly. "For instance, a lot of students do very well when presented with information visually." Using the unit about the Revolutionary War as an example again, Byerly notes that visually oriented students might be assigned to watch a video about the Stamp Act three times, answering questions that become increasingly complex with each viewing.

At the same time, the highest-level readers in the class might be given a grade-level text with an assignment to work through a graphic organizer about the Intolerable Act. Meanwhile, in a third group, students in need of reading support might be given an assignment about the Tea Act. These students would read the material at a lower readability level, and perhaps have voice automation read aloud any sections they don't understand. "All these students are engaged in a lesson together and are perfectly able to educate the other

groups about their area of study," said Byerly. "This is all possible with a multimedia digital resource."

Culturally Responsive Teaching

For Byerly, traditional textbooks have generally responded to cultural sensitivities in two ways, both of them flawed. "The first is to ignore them completely and just teach the same history that students learned in 1950; the other is to do a lot of sidebars and pullouts," he said. "We very strongly believe that a wide variety of people have been a critical part of the narrative of history, and of American history in particular."

As part of this inclusive approach, the Social Studies Techbook emphasizes differing perspectives rather than a single "truth." Interactive features encourage students to step into different roles and think through problems from different angles. In their study of Colonial America, for example, students might look at the language of the Constitution from the perspective of four people from different races, genders, and regions. In Geography, students might hear people from all over the world discuss the impact of trends such as the globalization of industry. "Students can then use these perspectives to make hypotheses about how these same people might respond to other situations," said Byerly.


Video plays a key role as well, since it helps lift history—particularly Modern History—off the page and bring it to life in ways that students can better relate to. Students can see civil rights marchers in Birmingham, for example, and hear the different perspectives of interviewees on old CBS news reports from the '60s, '70s, and '80s. "It's critical for students to see that not only are they part of these events but other people are part of them, too—and their perspectives matter," said Byerly.

Formative Assessment

For assessment purposes, the Social Studies Techbook uses Technology Enhanced Items (TEI), essentially quiz applets that can be embedded throughout the content and used to gauge student comprehension. In some cases, students use these TEIs to assess their own progress, but teachers can also create their own assessments from a vast question bank. These can be multiple-choice quizzes, open-ended assignments, or writing prompts. A dashboard feature allows teachers to see student responses immediately and ascertain whether certain individuals or the whole class need to revisit certain concepts.

"The goal is to have students make their thinking visible as many times as possible throughout the lesson, so teachers can constantly check and provide feedback," says Byerly. "It allows instructors to see if someone needs skill or content support."

In the Elaborate tab, the in-depth inquiries conducted by students can be used for summative assessment, but they're also ideal for formative assessment. "There's so much scaffolding in the Elaborate activities," said Byerly. "All the thinking, all the cognitive steps, and all the drafting are visible, so it's really performance assessment built in formative steps."



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KEY FEATURES

Board Builder: Board Builder is a multimedia tool that works like a digital poster board, allowing students to present their data and explain their conclusions as part of a scientific inquiry. Students can create their own content, including video, photos, and text, and then embed it in their digital board.

Updating: As a web-based resource, the Social Studies Techbook suffers from none of the updating challenges faced by printed texts. Content is updated constantly, with the latest information available to students and teachers immediately.

Global Wrap: A weekly roundup of the week's top news stories worldwide, Global Wrap is produced in association with MacNeil/Lehrer Productions.

Interactive Atlas: Students can customize maps at the click of a button, overlaying political and physical data, including information such as demographics, climate zones, and religions.

Accessibility: The student version of the Social Studies Techbook is compliant with Section 508 of the Rehabilitation Act of 1973. Closed captioning is available for a large number of videos, while on the text side, students can change the size of the font and select from two reading levels. Text-to-speech technology can also read the text aloud, including primary sources.

"It's great for students who have sight issues, but it's also terrific for students who have fluency issues," said Byerly. "Instead of having the whole page read aloud to them, they simply highlight the words or sentences they are struggling with and the reader reads just those."

HOW THE TECHBOOK WORKS

The Social Studies Techbook is a web-based resource housed at www.discoveryeducation.com. Built entirely in HTML5, the site can be accessed from any device with a browser and automatically optimizes itself based on the device. By requiring a unique login for each student, the system can deliver differentiated assignments to individual students and track their performance. These results can then be exported to a school's learning management system.

A free iOS app is also available through Apple's app store, which allows students to download sections of the Techbook onto an iPad to take home. The app is particularly useful for students who have no Internet access at home or who rely on usage plans with data limits.



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