Idea Bank

Celebrating Seren*dipity*: Connecting Chemistry and History

In today's world of social media websites and Web 2.0, people are connected like never before. Why not use these web tools in the science classroom? The American Association for the Advancement of Science's (AAAS) Benchmarks for Science Literacy call for historical perspectives in science (2009). In this Idea Bank, we propose that teachers use an online timeline called *Dipity* (see "On the web") to promote literacy and historical perspectives in the science classroom.

About Dipity

Web 2.0 tools allow users to share content, harness the power of a crowd, and control the architecture of participation (Anderson 2007). Two common examples are blogs and wikis, which are often used in classrooms to organize and improve communication among students, parents, and teachers.

Dipity is one such 2.0 resource. This free digital database allows users to create, manage, and share timelines over potentially vast periods of time (Figure 1). Within each entry, students and teachers can add descriptions and locations of events, upload pictures, and post videos from sites such as YouTube or Google Video (see "On the web"). Outside sources such as Flickr, Blogger, and Twitter can be linked to timelines as well (see "On the web").

Account settings can be customized so that only those with account information can edit a timeline; timelines are available to the public. (**Safety note:**

FIGURE 1
Timeline from Dipity.com.
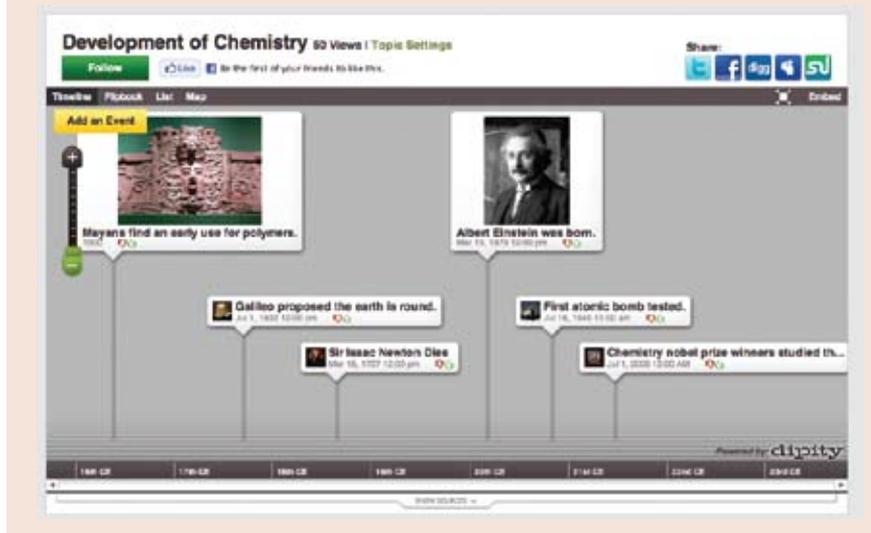
Before using this activity, check your school district's policy for acceptable computer use and review internet safety with students.)

Using Dipity

Dipity is easy for both teachers and students to use. First, create a username and password (depending on the assignment, teachers may want to create one account per class). Once you are logged in, click the "Create a Timeline" tab under the Dipity logo. Select a topic title, description, and privacy settings. After saving, view the timeline by clicking on the "My Topics" tab. Click "Add an Event" on the timeline and fill in the title, date, and description. Upload a picture, add web or video links, and select the event location via Google Maps (see "On the web"). (**Note:** More tips for using Dipity are available online [see "On the web"].)

Across the disciplines

Why should teachers use Dipity? *Science for All Americans* (AAAS 1990) provides two primary reasons for including historical perspectives. First, it reduces abstraction and humanizes the scientific enterprise. Second, it contributes to passing along a vital aspect of our cultural heritage.

Teachers can also use Dipity to celebrate the International Year of Chemistry (2011) in their classrooms. Students can create historical timelines of chemists and discuss their contributions, failures, and impact on both history and chemistry.

This type of project allows students to control which chemists they explore and also see the overlap of many chemists' research. Students can search for information about chemists' communication with one another, which may have inspired their research or findings. This also teaches

students that failure in one area may bring success in another. Students can be assessed on the completeness and accuracy of the historical information presented.

This timeline project meets a variety of the AAAS Benchmarks (2009), which state that students should be able to analyze how science and society interact from a historical, political, economic, or social perspective. It also provides a venue for integrating writing into the science curriculum: Students can share final drafts of research assignments, comment on their peers' entries, or add links and pictures to enhance their own work. Students can also be challenged to write a follow-up to their timelines (e.g., explaining how Galileo's house arrest influenced his peers' scientific works).

In addition, Dipity's online nature allows for cross-disciplinary and cross-cultural use with students in the same school, another school, or in another country. For instance, collaborating with a social studies class provides students a comprehensive look at the diverse environments in which chemists lived and the history of their lives. Students can also work with peers in another country, which encourages invaluable learning and dialogue about culture and differing perspectives of chemistry.

Conclusion

Dipity is an interactive tool that brings the history of science alive. With visually compelling timelines, students can learn more about the connectedness of science and society. Many teachers require students to complete collaborative projects, including timelines. Using Dipity al-lows students to practice their Web 2.0 skills, and reap the benefits for years to come.

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On the web

Blogger: *www.blogger.com*
Creating timelines with websearch: *www.youtube.com/watch?v=xRQ5E9eAaBQ*
Dipity: *www.dipity.com*
Dipity help and frequently asked questions: *www.dipity.com/faq*
Flickr: *www.flickr.com*
Google Maps: *www.maps.google.com*
Google Video: *www.video.google.com*
How to make a timeline in Dipity: *www.tizianoproject.org/classroom/tutorials/Tiziano-Tutorial-Dipity.pdf*
Twitter: *www.twitter.com*
YouTube: *www.youtube.com*

References

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AAAS. 2009. Benchmarks for Science Literacy. *www.project2061.org/publications/bsl/online/index.php*

Anderson, P. 2007. What is Web 2.0? Ideas, technologies, and implications for education. *Joint Information Systems Committee Technology & Standards Watch* February: 1–64. *www.jisc.ac.uk/media/documents/techwatch/tsw0701b.pdf*