

Trilateral Collaboration in Integrating
Digital Scholarship into the Curriculum:
Two Case Studies from US Academic Libraries
数字人文三方合作实践：北美高校图书馆的两个案例

Yao Chen (University of Minnesota)
Xi Chen (University of California San Diego)

Literature Review

- More participatory and collaborative approaches to library services (Delaney and Bates, 2015; Eden, 2015; Stewart, 2012)
- Challenges working with faculty
- Emerging areas of curriculum development and research



University of Minnesota Case Study

A large, multi-story brick building with many windows, likely a university building, is the background of the slide. The building is light brown or tan in color. In the foreground, there are green trees and a paved walkway. The sky is clear and blue.

- Background
- Objectives
- Project planning
- Outcomes
- Next steps

Background

The graduate-level seminar course Chinese New Media explores new media and intermediality from specific moments in the history of modern China from the late Qing Dynasty to the current digital age. Students used to be assessed by their critiques of selected readings, several short papers, and a final seminar paper.



I went to sleep one day a cultural critic and woke the next
metamorphosed into a data processor.

-Alan Liu, 2004

Liu, Alan. *The Laws of Cool : Knowledge Work and the Culture of Information*. Chicago: University of Chicago Press, 2004.

Objectives

- Explore digital scholarship tools and methods
- Investigate new classroom assessment methods
- Identify potential supports on campus
- Foster collaboration and extend outreach

5 Ws and 1 H

- Who is the audience?
- What will be created?
- When will the project start and end?
- Why do we need to do this?
- Where will the project be hosted?
- How will the project workload be supported? How will the project be maintained?

Project Planning



Scalar

Selecting Technology



Things to Consider



Preserving & Sharing



Outcomes

Header Level 1 (heading 4)

Header Level 2 (heading 5)

Header Level 3 (Arial 12 bold)

Main text (Arial 12)

Scenes of City Life (Du Shi Feng Guang 都市风光) (English translation first parenthesis) is a 1935 Chinese film directed by Yuan Muzhi (袁牧之). It is double parentheses around your citation to add a footnote; 2. leave two spaces between members of the same family. For separate a myth. For scientific, more vocabulary. Here only in the grammar, the pronunciation and the most common and desirable of a new lingua franca: On refuse to continue paying costly traffic uniform grammar.

To embed a YouTube video without slowing down the page, just add a YouTube-link for a video or an entire playlist with "httpv" instead of "http" as shown in the following example.



Outcomes



PHOTOGRAPHY IN CHINA



JANUARY – FEBRUARY

CHINESE FILM

Laborer's Love, also known as Romance of a Fruit Peddler, is the oldest extant Chinese movie. [More](#)



MODEL OPER

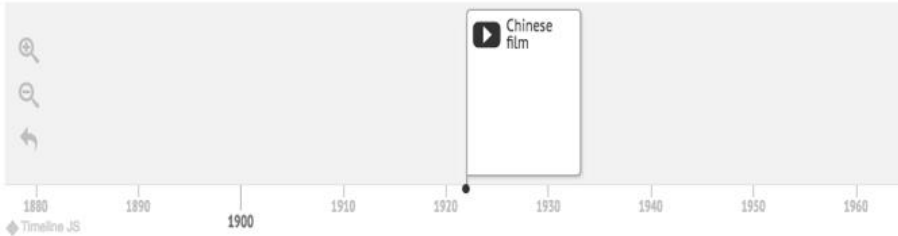
Telephone in Major Cities

Although a consensus of when and where telephone was first introduced to China has not been reached, several Chinese telecommunications history books agreed that telephone was first introduced to Shanghai in 1881. In November 1881, the Great Northern Telegraph Company (大北电报公司) signed agreement with the Shanghai International Settlement and Shanghai French Concession and built the first telephone line. On February 21, 1882, Shanghai's first telephone exchange was set up. On March 1, the company started its telephone business, and the first public telephone was installed inside of the company building located at No. 7 on the Bund. Two months later, Shanghai Telephone Mutual Aid Association (上海电话互助协会), an organization newly established by British businessmen, built the second telephone exchange in Shanghai.⁵⁾⁶⁾ Subscribers from these two companies were unable to call each other.⁷⁾ In 1883, both companies were purchased and merged by the British Oriental Telephone Company (东洋电话公司), which became Shanghai's exclusive telephone service provider for 18 years. In 1900, the British Shanghai Mutual Telephone Company (上海华洋电话公司) took over the telephone service operation in Shanghai.⁸⁾⁹⁾



THE PREMISE OF THE SHANGHAI MUTUAL TELEPHONE COMPANY

Shanghai Mutual Telephone Company⁴⁾



Next Steps

- Keep building the site in future iterations of the course
- Explore new tools (storytelling, mapping tools, etc.)
- Reach out to more faculty and graduate students
- Create awareness and promote scholarly communication issues

University of California San Diego Case Study



- Background
- Objectives
- Embedded instructions and consultations
- Outcomes
- Takeaways

Background

- A Chinese history instructor designed a new course in the spring quarter of 2018.
- It aimed to train a class of 50 undergraduate students in the standard disciplinary skills of primary source analysis and analytical writing, while also showing them how to use GIS mapping software to ask and analyze historical questions.
- The instructor had taken a previous GIS course and saw the value in applying it to History and Chinese studies. He also understood finding credible data was a critical part of the students' research process.
- After meeting with the instructor, Amy Work, GIS Librarian, and Xi Chen, Chinese Studies Librarian determined it was essential to work together to help achieve the course objectives.

Course: Mapping Rivers in Recent Chinese History: 1824 - 2017

Learning Objectives

1. Understand the relationships between rivers and China's recent ecological, economic, social, and military history
2. Use evidence to make arguments about the relationship between societies and their environment.
3. **Evaluate data from textual and quantitative sources: what can we do with it, and where should we be cautious?**
4. **Plan and execute a piece of original research to answer a question that interests you. You will use publicly available data and ArcGIS Geographic Information Systems software to do a final project about China's rivers and society.**
5. Present your findings both orally and in writing, and critically evaluate a colleague's work.

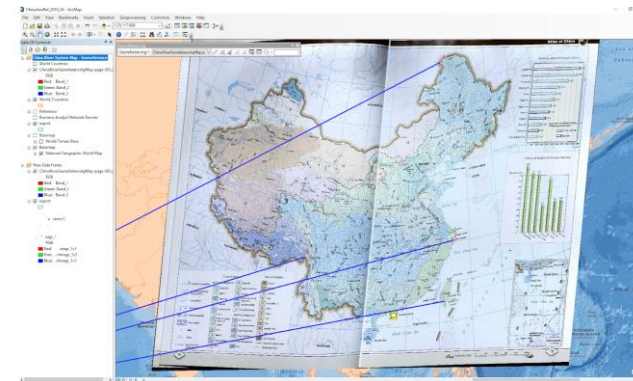
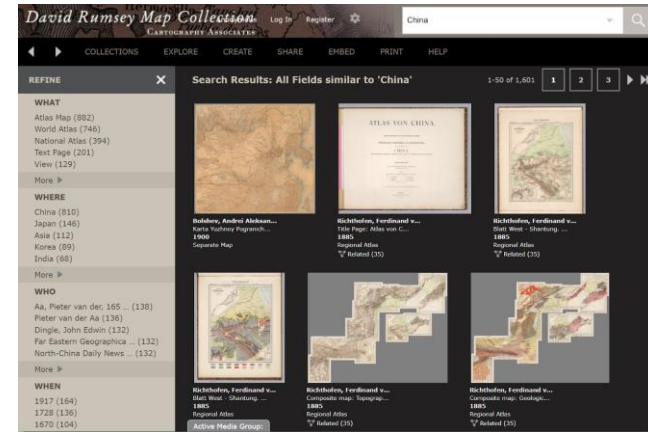
Our Objectives

Three approaches to support professor and course objectives

1. Professor support (meetings)
2. Embedded instructions
3. Student consultations for group projects

Embedded instruction: Co-teaching

- Session 1: Intro to Chinese Statistics resources and China Geo-Explorer Online
 - Statistical Resources - China Data Online, China EPS, CEIC
 - Download statistical data and Shapefiles from China Geo Explorer. Use ArcMap
- Session 2: Georeferencing of historical maps
 - [David Rumsey Map Collection](#)
 - ArcMap
- Session 3: Project Support
 - Open time for students to work on projects



Group Project and Consultations

Example project topics

- How did the construction of the Three Gorges Dam benefit crops yields in Hubei Province?
- The influence of the change of Ice-breaking time (凌汛时间) to economy along upstream yellow river, particularly in inner Mongolia.

HIEA 144 Mapping Rivers in Modern Chinese History: Final Project

How did the construction of the Three Gorges Dam increase the crop yields in Hubei Province of China?

The Three Gorges Dam is ranked today as the world's largest hydroelectric electricity capacity of 22,500 megawatts (Yardley, Nov 1997) located in Hubei province in the middle basin of Yangtze River. Fully functional in 2012, the dam body was completed after start of the construction in 2004. Upon such big-scale construction, resettlement of municipalities [that were expected to be] partially or completely submerged, including 11 county seats, 140 towns, 325 townships and 1351 villages" (Borner, 2011) in total expecting more than 1.15 million people to be relocated. Before the project started, it was expected that 23,800 hectares of arable land, 110,700 mou (15 mou = 1 hectare) of dry land were to be inundated (Boning, 575). This huge flooding of residential areas meant many were living in poverty with little economic investment from the government for flood prevention and poor education level. Out of 18 million people in the province, 18 million people were suffering poverty (Boning, 575-6) from resettlement and flood prevention. The construction of the dam were intended for useful purposes: to produce electricity

Output Value of Farming, Forestry, (yuan)	3,543.0	10,582.8
Area of Irrigated Land (th hectare)	2,305.8	2,242.4

Table 3. Hubei Provincial Data Before and After the Three Gorges Construction. While number of townships and people in farming decreased, number of paddy fields and yields of grain crops and oil-bearing crops increased. The yield of cotton and sugarcane crops decreased after the construction but the output value of farming and forestry increased by threefold. Data were collected from China Data Online and CEIC Data.

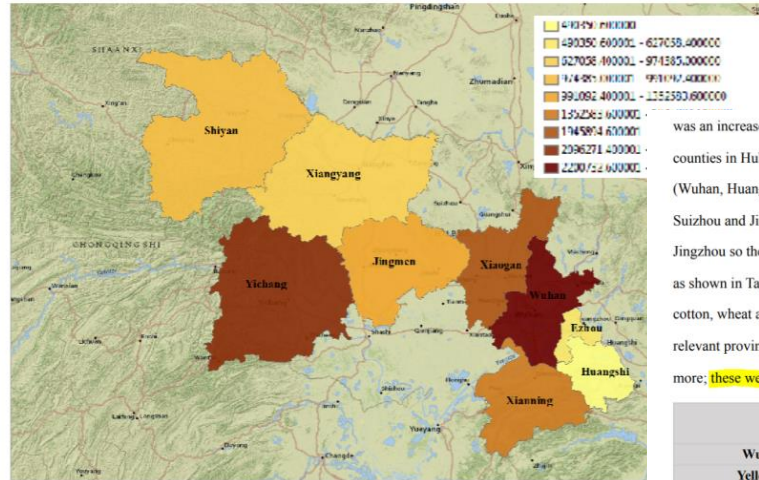


Figure 1. Growth in Vegetable Yield in 9 Prefecture Cities of Hubei Province after Construction of Three Gorges Dam. Map was generated with ArcMAP with data above.

Figure 1 displays the difference of average vegetable yields (tons) before (1990-1999) and after (2006-2010) the dam construction, mapped regionally for nine prefecture cities in Hubei province. For all nine cities, the data shows a significant increase in the vegetable output over time. An analysis on ArcMap has also showed how smaller the distance between the city and Yangtze

was an increase or decrease over time. The goal was to do this analysis county-level, there being 22 counties in Hubei, but only prefecture city data could be found. However, out of the 12 prefecture cities (Wuhan, Huangshi, Shiyang, Yichang, Xiangyang, Ezhou, Jingmen, Xiaogan, Xianning, Huanggang, Suizhou and Jingzhou), there were no data for the desired time periods for Huanggang, Suizhou and Jingzhou so the analysis was done on 9 cities in the province for respective cotton output and vegetable, as shown in Table 2. This data was found from EPS China Data. It was our goal to compare the yield of cotton, wheat and rice outputs but not sufficient data could be found for wheat and rice. Shown in Table 3, relevant provincial data were gathered for cotton yields, sugarcane crops yields, the area of irrigated and more; these were collected from China Data Online and CEIC Data.

	Average Cotton Output Before Construction, 1990-1994 (10,000 tons)	Average Cotton Output After Construction, 2006-2010 (10,000 tons)
Wuhan City	3.94	3.0542
Yellowshi City	0.078	0.43584
Shiyang City	N/A	0.00784
Yichang City	2.8	2.931
Xiangyang City	6.56	4.04748
Ezhou City	0.95	0.53212
Jingmen City	1.12	4.41372
Xiaogan City	1.79	3.25648
Xianning City	0.00235	0.25332

Table 2. Average Cotton Output of 9 Prefecture Cities in Hubei Province Before and After the Construction of Three Gorges Dam. The average data for first time period lacks information from 1992 and 1993 and were collected from EPS China Data.

Abstract

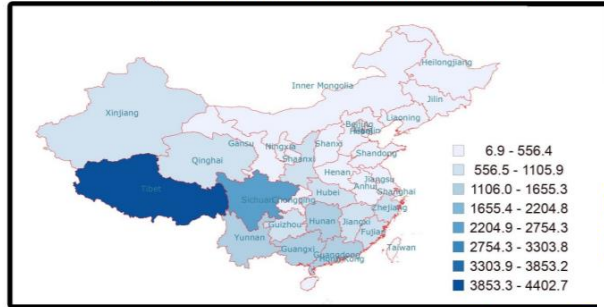
The Tibetan Plateau, which encompasses the Himalayan Mountains and provides an abundance of natural resources, faces an environmental and social dilemma. Water, as a desperately needed resource to meet increasing population and industrial demands in both

regions, has rendered it the target of the larger and much more powerful addition to global warming which has already accelerated the melting of the Tibetan Plateau, the proportion of surface water volume to population while the amount of water available to the population in China has

Historical Background

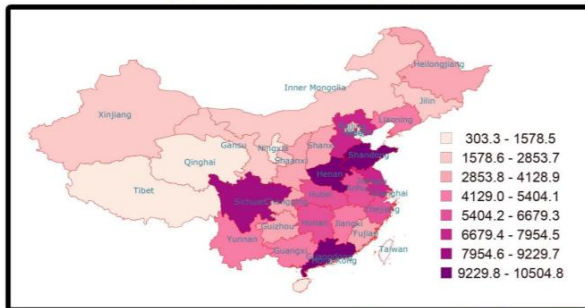
Tibet, with its abundant natural resources and strategically important location, has historically been the target of other nations. Most notably, in 1949, when the newly established Communist regime in China invaded Tibet, the province was divided into to be incorporated into neighboring Chinese provinces. Tibet continued until 1951 when it was made official (Norbu, 2001). Long before the official occupation of the Tibetan province, it

Figure 1: Surface Water Volume 2011 in China's Provinces



The legend measures in units of 10 million cubic meters of water. Data from China Data Online, Atlas of Chinese Statistics by Province. Map shows surface water volume data of each of China's provinces from the most recent year available.

Figure 2: Population 2011 in China's Provinces



The legend measures people in units of 10,000. Data from China Data Online, Atlas of Chinese Statistics by Province. Map shows population data of each of China's provinces from the most recent year available.

References

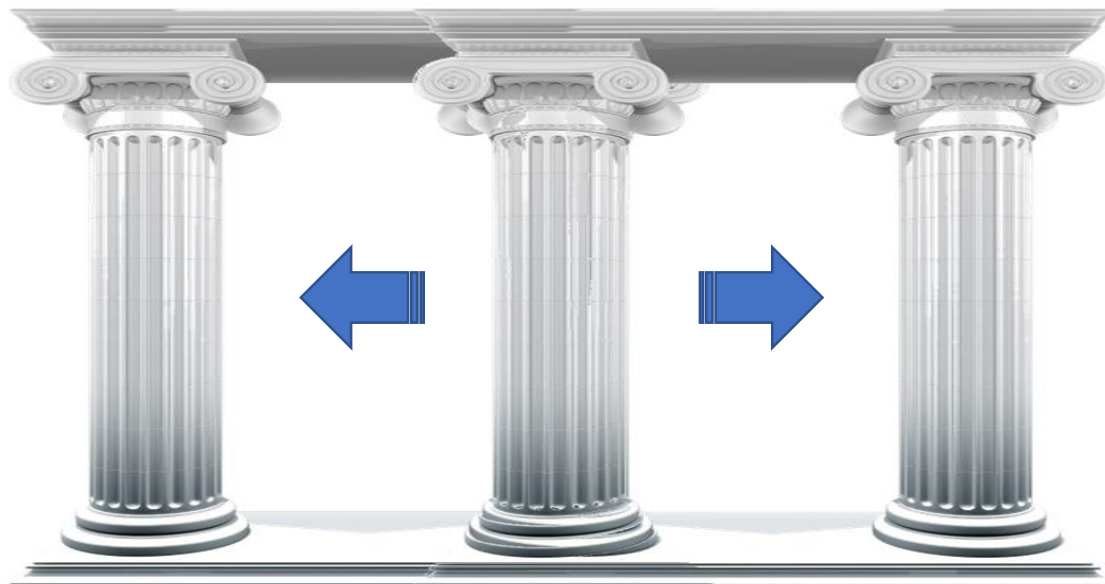
Albert, E. "Water Clouds on the Tibetan Plateau." *The New Geopolitics of China, India, and Pakistan*. (2016, May 9).
CEIC China Data. Utilities Data.
EPS China Data. Water Conservancy Statistics.
 Horier, S., Daigo, I., Matsuno, Y., Adachi, Y. *Comparison of Water Footprint for Industrial Products in Japan, China and USA*. In Finkbeiner, M. (ed.) *Towards Life Cycle Sustainability Management*, Springer.
 Horner, Charles. "The Yuan Dynasty and the Pax Mongolica." *In Rising China and Postmodern Fate*, pages 22-33. Athens, GA: University of Georgia Press, 2009.
 Needham, Joseph. *Science and Civilization in China: Volume 4, Part 2*. Taipei: Caves Books, Ltd. (1986).
 Norbu, Dawa. "China's Tibet Policy." *Psychology Press*, pages 300-301. (2001).
 The Editors of Encyclopedia Britannica. "Plateau of Tibet." *Encyclopedia Britannica*. (2011, November 14).
 "South-North Water Transfer Project." *International Rivers*. (n.d.).
 Wanpo, Huang. "Early Homo and associated artefacts from Asia." *Nature* Volume 378, pages 275-278. (16 November 1995).
 "Water." *International Center for Integrated Mountain Development (ICIMOD)*. (n.d.).

Takeaways

- Collaboration is key. Willingness to collaboration.
- Resources
 - commercial and open access
- For next time
 - Documenting the process
 - Making tutorial required work
 - Cross training, increase subject/functional specialist's competency
- Applies to other modes of collaboration

Trilateral Collaboration 三方合作

Successful Integration of Digital Scholarship into the Curriculum



Faculty and Researchers

Subject Specialist

Functional Specialist

