

# Historical Contexts of Innovation and Entrepreneurship

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**Professional Education Workshop Series: Archival Research for Business PhDs  
(Recommended 2 75-min sessions)**

## **Workshop Series Learning Objectives:**

1. Through the use of archives and manuscript collections, introduce some of the core concepts of humanistic research inquiry to an audience of social-scientific researchers (i.e. doctoral students and faculty in business school). We will focus on the following core concepts<sup>1</sup>:
  - a. *Gather and contextualize information in order to convey both the particularity of past lives and the scale of human experience.*
  - b. *Recognize how humans in the past shaped their own unique historical moments and were shaped by those moments.*
  - c. *Recognize history as an interpretive account of the human past—one that historians create in the present from surviving evidence.*
  - d. *Collect, sift, organize, question, synthesize, and interpret complex material.*
  - e. *Develop empathy toward people in the context of their distinctive historical moments.*
  - f. *Welcome contradictory perspectives and data, which enable us to provide more accurate accounts and construct stronger arguments.*
  - g. *Explain and justify multiple causes of complex events and phenomena using conflicting sources.*
2. Introduce participants to the resources available at Duke's Rubenstein Library that may inform their individual interests and research agendas.
3. Participants will make connections between the experience of working with archival resources and their own research strategies and approaches.

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<sup>1</sup> Taken from the American Historical Association's 2016 History Discipline Core (proxied) <https://www-historians-org.proxy.lib.duke.edu/teaching-and-learning/tuning-the-history-discipline/2016-history-discipline-core>

# Session I: Archives as a Source of Data on Innovation and Entrepreneurship

8-10 minutes	Warm-up
25 minutes	Introduction to Archives
25 minutes	Review of archival material
8-10 minutes	Wrap-up

## Participants will:

1. Understand archives and manuscript collections as potential sources of data, with particular attention to their limitations, bias, and absences
2. Understand some of the foundations of humanistic critical source analysis, including the consideration of context and materiality
3. Evaluate how to use different types of archival materials to ask and answer a variety research questions

## Description:

In this session, participants will begin by introducing themselves and their research, and considering the particular challenges of tracing a concept like “entrepreneurship” or “innovation” across space and time. The instructor will then provide a general overview with background information on archives to get participants thinking about archives as a source of, or type of data – which is also subject to many of the same biases, limitations, but also strengths of any constructed dataset. The participants will then spend a few minutes examining very different archival collections, paying attention to its origins, materiality and format, rather than taking the time to closely examine its contents. The discussion will conclude with a few questions on how to use archival material of various types in research projects.

## Warm-up: What does the history of innovation look like?

Begin with an open-ended icebreaker discussion on big questions in innovation and entrepreneurship. The instructor can also this opportunity as a chance to get to know each participant’s research better, and what brought them into the workshop.

(\*Instructor notes: In the course of this discussion, run Google Ngrams on various terms the group associates with innovation and entrepreneurship, both in the past and present, such as innovation/invention, entrepreneur/businessman, etc.)

1. What does “innovation” or “entrepreneurship” mean to you?
2. How do you currently explore these ideas in your own research?
3. How would *you* track those ideas across time?
4. What ‘counts’ as innovation and entrepreneurship to you? What doesn’t?

### **Mini-Lecture: Introduction to Archives**

See included powerpoint for slides. In this powerpoint, instructor will distinguish archives from library holdings, and distinguish manuscripts (papers of individuals) from archives (papers of firms). The instructor will briefly explain how archives are structured, emphasizing original order of collection materials.

### **In-Class Activity: Review samples of different types of archival material**

Instructor will provide samples of different types of original archival material and manuscripts for students to examine in groups.

As participants survey materials, ask them to consider the following questions:

- What is this? Who made it? Why?
- (Why do you think it was preserved?)
- What kinds of research questions could you ask using this material?
- What else might you need to know to make sense of this material?

Recommended Materials:

- Electric and Lighting Miscellany (vols. 1-3)
- Bates Worldwide, HR2 (M&As, shareholder lists)
- AAAA Records, Box VF25 (FTC Complaints – see esp. Sears)
- Duke Office of Licensing and Ventures, Box 1 (Boxes 1-9)

### **Wrap-Up Discussion**

In the last 5-10 minutes of the session, come back together as a group and take a few minutes to compare notes or share findings from each collection.

As a group, discuss questions from earlier in the session, especially:

- What kinds of research questions could you ask using this material?
- What else might you need to know to make sense of this material?
- What might be the value of working with material like this (if any)?
- What types of insights or perspectives on entrepreneurship or innovation can we gain from these collections?

Leave time for questions that could be addressed in the subsequent session.

# Session II: Archives and Narratives of Innovation and Entrepreneurship

8-10 minutes	Warm-up
25 minutes	Archival Expeditions: Cigarette manufacturing
25 minutes	Digital Archival Expeditions: Advertising history
8-10 minutes	Wrap-up

## Participants will:

1. Interpret original archival materials with an emphasis on constructing a historical narrative of innovation and/or entrepreneurship
2. Understand how to work with a finding aid (collection guide) and how to search for archival materials at Duke and elsewhere, including digitized sources
3. Recall that different types of source material (correspondence, ephemera, formal business records, etc.) allow researchers to ask different types of questions – and can provide different types of information
4. Reflect on how the process of working through materials on business and entrepreneurship in the past can change how we think about business, entrepreneurship, and innovation in the present

## Warm-Up: Navigating the Archive with Finding Aids

The group will begin by reviewing the last session, and going back over best practices of working with archives. Instructor will then provide a walkthrough of how to use finding aids, using the collection guides for collections in use later in class as an example. This walkthrough will explain what collection guides are, and how to use them to scope archival collections prior to accessing materials.

## Archival Expeditions

### United Cigarette Records

#### Box 7 and/or 8

Blueprints – oversized

#### Box 34

Parts catalog

Audit report – 1919 (accounting in pounds sterling, German marks, and US dollars)

8x10 photographs of cigarette machines

#### Box 36

Cigarette machine model

**Rare books:**

*The Growth of Industrial Art*, Washington: US Government Printing Office, 1892, p 186.

Distribute materials around the room in the following stations:

1. Blueprints (Box 7)
2. Parts catalogs (Box 34)
3. Audit report (Box 34)
4. Photograph set of cigarette machines (Box 34)
5. Cigarette machine model (Box 36) with *The Growth of Industrial Art*

Participants will complete a “gallery walk” in which they rotate between each station and consider the following questions:

1. What strikes you as interesting about this item?
2. Why was this item made?
3. What can you imagine about the person who made or used this item?
4. How could you use this item in research?

**Digital Archival Expeditions**

- Demonstrate to participants Duke’s repositories of digitized collections
  - o Ad\*Access and other advertising collections
  - o History of Medicine Collections
- Introduce participants to WorldCat and their options for accessing original primary source materials at other archives or in other libraries, including ILL

**Wrap-Up**

Questions for discussion/review:

1. What are some strategies to evaluate the quality/relevance of an archival collection for a research question without going to see it first?
2. Why aren’t all archival collections digitized? What is the purpose of viewing the physical material?
3. What do you think might be the potential impact or value-add of machine learning on the historical profession? What can and cannot be automated?
4. To what extent do aspects of these items reveal something about “innovation”? What about production, business operations, and maintenance?

## In-Class Exercise for Undergraduates: History of Innovation (50 minutes)

# Innovation and Maintenance: Machine-Rolled Cigarettes in the Early Twentieth Century

5 minutes Introduction  
 35 minutes Gallery Walk (7 minutes per station)  
 10 minutes Wrap-up discussion

### Description

Participants will explore the practicalities and human element of mass production of cigarettes in the early twentieth century through several different types of materials. This exercise challenges students to work with primarily non-textual material to consider the connection between production, innovation, and maintenance.

### United Cigarette Records<sup>2</sup>

#### Box 7 and/or 8

Blueprints – oversized

#### Box 34

Parts catalog

Audit report – 1919 (accounting in pounds sterling, German marks, and US dollars)

8x10 photographs of cigarette machines

#### Box 36

Cigarette machine model

### Rare books:

*The Growth of Industrial Art*, Washington: US Government Printing Office, 1892, p 186.

Distribute materials around the room in the following stations:

1. Blueprints (Box 7)
2. Parts catalogs (Box 34)
3. Audit report (Box 34)
4. Photograph set of cigarette machines (Box 34)
5. Cigarette machine model (Box 36) with *The Growth of Industrial Art*

Students will complete a “gallery walk” in which they rotate between each station and answer questions. Questions will be similar for each item, but not identical:

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<sup>2</sup> NB: Instructors could consider exploring the rest of the material from the United Cigarette collection for larger groups, multi-day sessions, or student research projects.

1. Blueprints (Box 7)
  - a. What strikes you as interesting about these items?
  - b. What can you imagine about the person who made these?
2. Parts catalogs (Box 34)
  - a. What strikes you as interesting about these items?
  - b. What can you imagine about the person who made these?
3. Audit report (Box 34)
  - a. What strikes you as interesting about this volume?
  - b. What does this volume say about the business of tobacco in this time?
4. Photograph set of cigarette machines (Box 34)
  - a. What strikes you as interesting about these items?
  - b. What kind of changes do you notice in this succession of images?
5. Cigarette machine model (Box 36) with *The Growth of Industrial Art*
  - a. Why do you think this artifact was made?
  - b. What extra information does the book provide about the artifact?
  - c. What kinds of questions do you have about this artifact?

### Questions for Wrap-Up Discussion

1. What is the value of working with objects like these? What kinds of things do you learn from these objects that you can't learn from a book?
2. To what extent do these items reveal something about "innovation"? What about production, business operations, and maintenance?

**Other prospects that could be fleshed out into mini-lessons or research projects:**

The Bureaucracy of Entrepreneurship and Innovation:

Duke's Office of Licensing and Ventures records (1957-1988)

The OLV collection includes 1 box with many small folders, some of which are more engaging or interesting than others, and could be divided among small groups to examine and then compare notes in a class discussion.

In particular, a folder for an "electronic book" contains foldout patent diagrams, market research, slides, travel receipts, and extensive correspondence.

**Potential discussion questions:**

- What are the kinds of inventions being patented here? Who is doing the patenting? Would you call these ideas "innovations"?
- From these records, what can you tell about how the licensing process worked for patentees at Duke in the 1960s – 1980s?
- Is it always clear what happened to these ideas?

Innovation and War: the Confederate Patent Office, 1861-1865

Two rare books:

- Rules and directions for proceedings in the Confederate States Patent office. (1861)
- Annual report of the Confederate States of America Patent Office. (Jan 26 1865)

(Instructor's note: Found this late in the research, but could imagine pairing this with other documents, including artifacts from the History of Medicine Collections, for a larger conversation about the connections between war and innovation)

Ask students to consider these documents as objects first: size/scale, their condition, the quality of paper, the "Rebel Archives" stamp, and so on.

**Potential discussion questions:**

- *Why do you think the Confederacy set up a patent office?*
- What is the general process to gain a patent in the Confederacy, according to the rules and directions?
- Who can patent inventions in the Confederacy? (Who gets to be an inventor?)
- How does the Confederate Patent Office relate to the US Patent Office?
- What are some of the types of inventions that are patented?
- What do these documents tell us about the overall priorities of the Confederate government and society?

## Mapping the Transition from Gas to Electricity: Electric & Lighting Miscellany

“Electric and lighting miscellany” is a 3-volume set that contains a surprisingly rich assemblage of documents, court cases, articles, and annual reports depicting the transition from gas to electric lighting in the Northeast (primarily Boston). The sources provide a valuable subset of primary sources on the development of U.S. public utility regulation. Commentary on the tradeoffs between gas and electric lighting, infrastructural issues regarding costs, installations, and maintains, all provide valuable insights on the difficulties of regulating emerging technologies.

These volumes also contain foldout maps of D.C., detailed cost statements on utilities, and a marked-up list of electrified businesses in Boston with addresses that could be mapped, to reveal the degree of competition and/or service gaps in these early electrical grids.

Warning: these volumes are dirty (some kind of rust or rot), but the paper is fine.

**Background reading for instructor:** Daniel Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age*

### Initial Questions:

- These volumes are many different printed sources, bound together in a book. Why do you think were these sources might have been put together this way?
- Does there seem to be an over-arching point of view conveyed by these sources? Is the assemblage completely random?
- What other sources would you want to use to contextualize these items?

### Content Questions:

- What were the key tradeoffs in gas v. the new electric lights? (e.g. cost, safety, effectiveness, brightness of the light, etc.)
- Who were the main interests involved in electrification? Who is in favor, and who expresses opposition?
- Why did the town of Danvers want to take over its electric lighting?
- What are the types of innovations that made electric lighting of cities possible on a large scale?
- What do you make of the comparisons to European developments?