Chapter 4

Using Excel to Build Chronologies

Summary: Up until this point, we have examined ways to use spreadsheets like Excel to find trends by analyzing numbers and text. However, Excel can also come in handy for organizing your notes, especially for complex stories that unfold over long periods of time. In chapter four, we chronicled how building a chronology allowed CBC News to shed new light on an issue that had huge implications for the former Conservative government of Stephen Harper, and still resonates with Justin Trudeau's Liberal government.

Building chronologies can be as time-consuming an exercise as you want it to be. It can be done in a few minutes, hours or during the course of a few days or months, as the issue continues to make news.

The chronology then becomes a handy reference point, allowing you to keep track of key details about when a decision was made, who was involved, and how the fallout from the decision unfolded over time.

Creating columns with key dates, times, briefing explanations and references allows you to spot trends, such as a briefing note instructing a cabinet minister to tell reporters that everything is fine, when in fact the day before, it was clear that all hell was breaking loose in her department. The juxtaposition of those two events can be gleaned from human sources, public records, or more likely a record such as a briefing note obtained through access to information.

So let's examine how a chronology comes in handy to help uncover a story about a security breach that affected the federal government's problem-plagued pay system for its 300,000 employees called Phoenix.

What you will learn
1. How to decide what information to input?
2. The level of detail that is needed.
3. Analysing your information.

Task 1: How to decide what information to input?

For this exercise, we will use internal records about the Phoenix pay system that CBC News obtained through the federal Access to Information Act. CBC received the records in June of 2016 at a time when the federal pay system was creating havoc for about 80,000 civil servants who were having trouble getting paid.

The first consideration when deciding to construct a chronology is when to do it. In this case, it was a national story that affected federal civil servants in every region of the country. Local CBC stations had decided to begin collecting stories about employees who weren't getting paid, and there were many of them.

So when the document arrived from Public Works and Government Services Canada, now called Public Services and Procurement Canada, the determination was made to take the time to create a chronology using key dates in order to see patterns that may have been missed otherwise, or just to get a sense of how the story unfolded, the identity of some of the key players and ideas for follow-up. (On October 12, the _Ottawa Citizen_ reported that the senior bureaucrat in charge of the initiative was shuffled out of her job.)

So, any story that looks like it have a long shelf life, is complex, affects lots of people and demands accountability is the perfect candidate for building a chronology in a spreadsheet like Excel.

## Task two: The level of detail that's needed

*** For this task, please download the "ChronologyWorksheet_PhoenixPaySystem" workbook. And refer to the record that contains the briefing material of Public Works and Government Services Canada (now known as Public Services and Procurement Canada), which has been uploaded to the cloud-based document-storing service called DocumentCloud.

Deciding on the level of detail is up to you, but at the very least, you should have three or four columns: date; a brief description of the event; a page reference if it's a document like a PDF, or an online reference that allows you to double check the information.
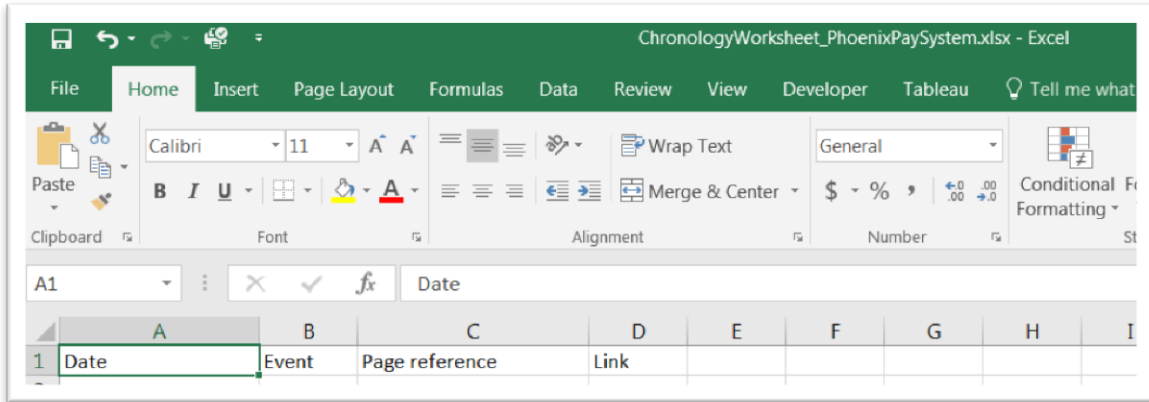
We can see the four columns of information. Typically, dates are randomly referenced, especially in records obtained through access to information. In this case, the records are a series of ministerial briefing notes and so-called media response lines, which are the suggested responses ministers are given when answering reporters' questions.

So when you're entering the dates, as we learned in the tutorial on getting data into your spreadsheet, do so as you encounter them, and conduct a chronological sort once you have a critical number to see if any initial patterns are emerging.
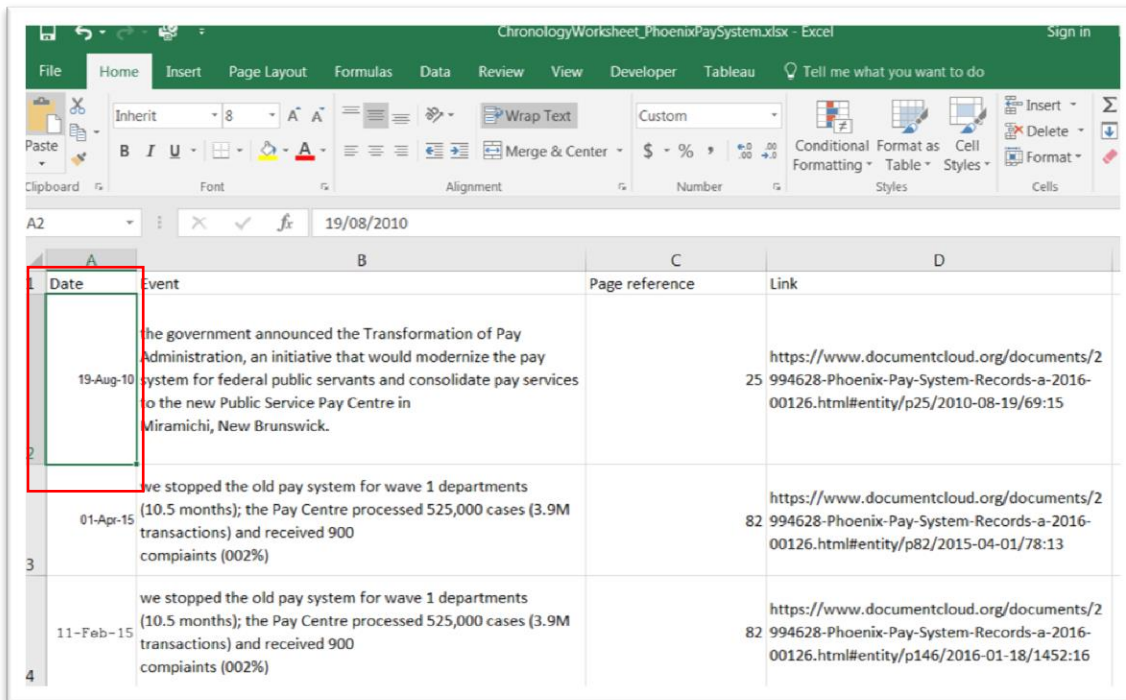
From the first date in A2, we know that this new pay system has been in the works some for some time now, since August 19, 2010. Cell B2 provides a synopsis, C2, the page reference, and D2 the link to the annotation in DocumentCloud. You can also see that in formatting the worksheet, we have used the text wrap function, which allows us to see all the text in column B once we've adjusted the width. This makes for easier reading.

Task three: Analysing the information.

Once we've plugged several more dates into the chronology, we encounter one that is of some significance: On January 18, 2016, the department discovered that there were some managers who had potential access to employees' personal record identifiers, constituting a security breach.
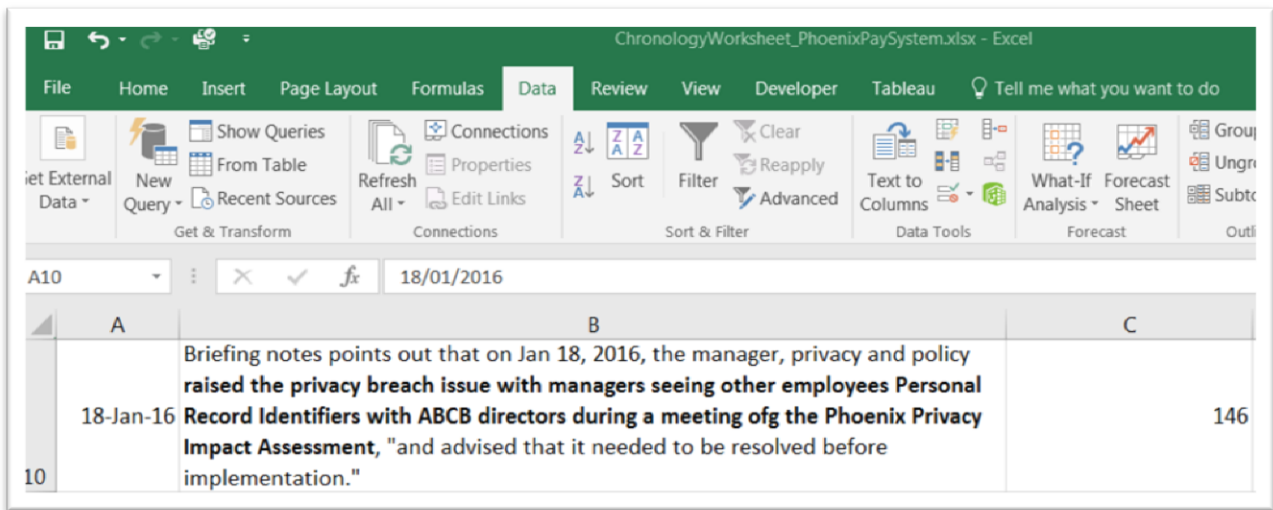

However, it wasn't until March 15, 2016, 57 days later, that the issue was flagged, involving at least two managers who had potential access to employee records across other departments than their own at the Public Service Commission.
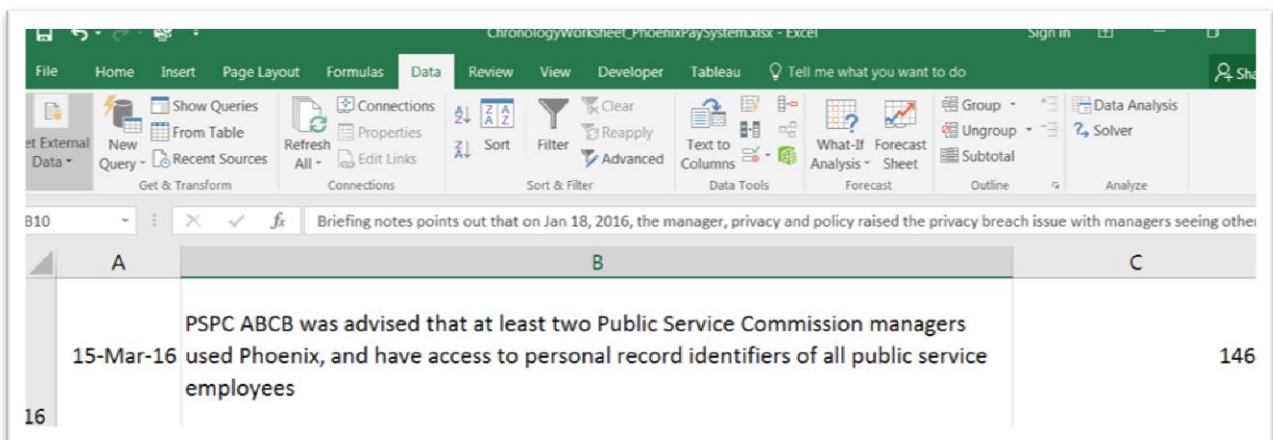
The initial sorting helped to quickly spot crucial information that led to a CBC News story on July 19, 2016, "Phoenix pay system also breached federal workers' privacy: Newly disclosed documents show troubled federal pay system had a flaw that compromised personal info".

The chronology can continue to grow as the story produces new developments, such as the bureaucrat in charge being "shuffled aside".

Also of note, is the ability to add notes to your chronology, using Excel's "Insert Comment" option.
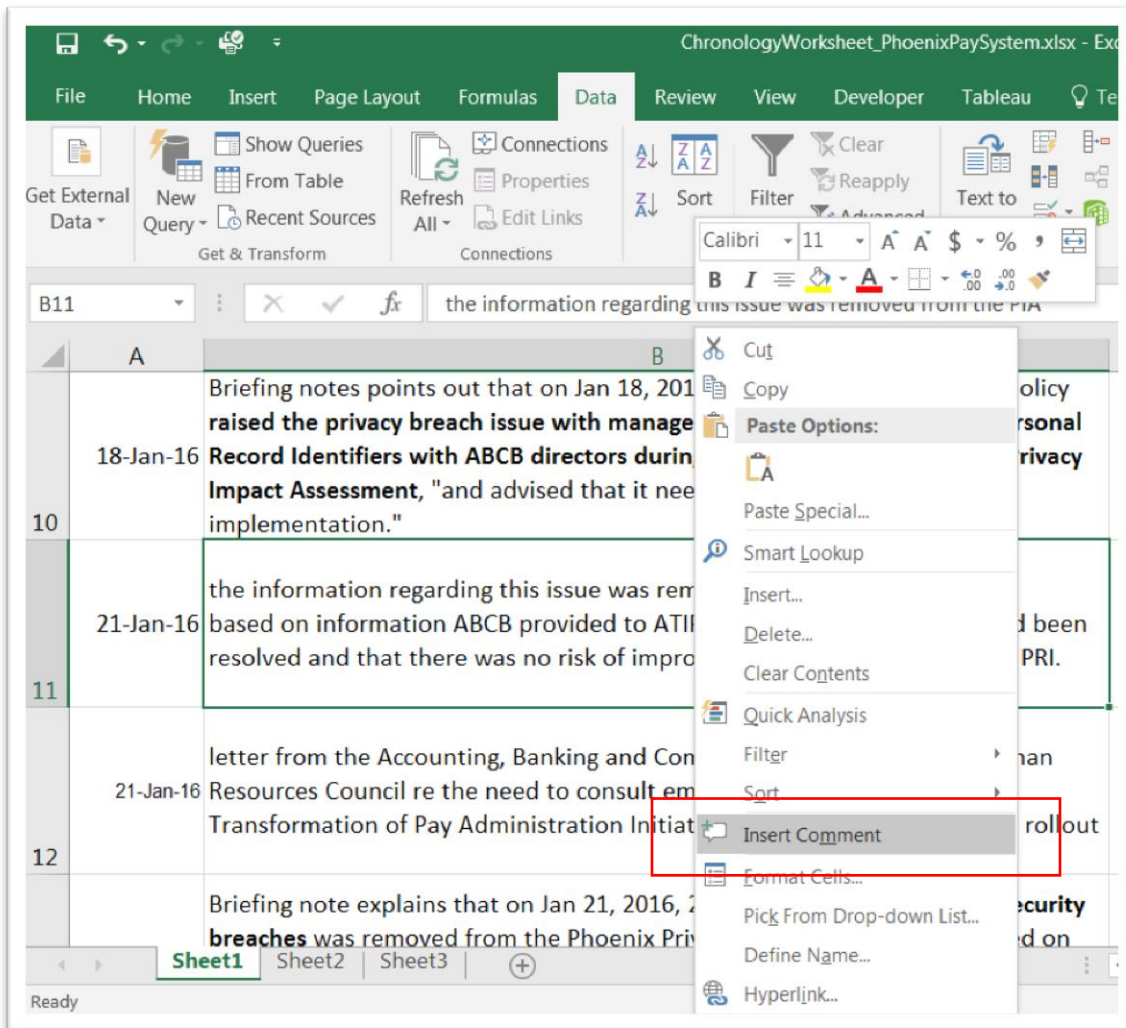
Selecting this option produces an expandable box that becomes a note pad for comments to a colleague with whom you're sharing the information on a Google Drive, for instance.
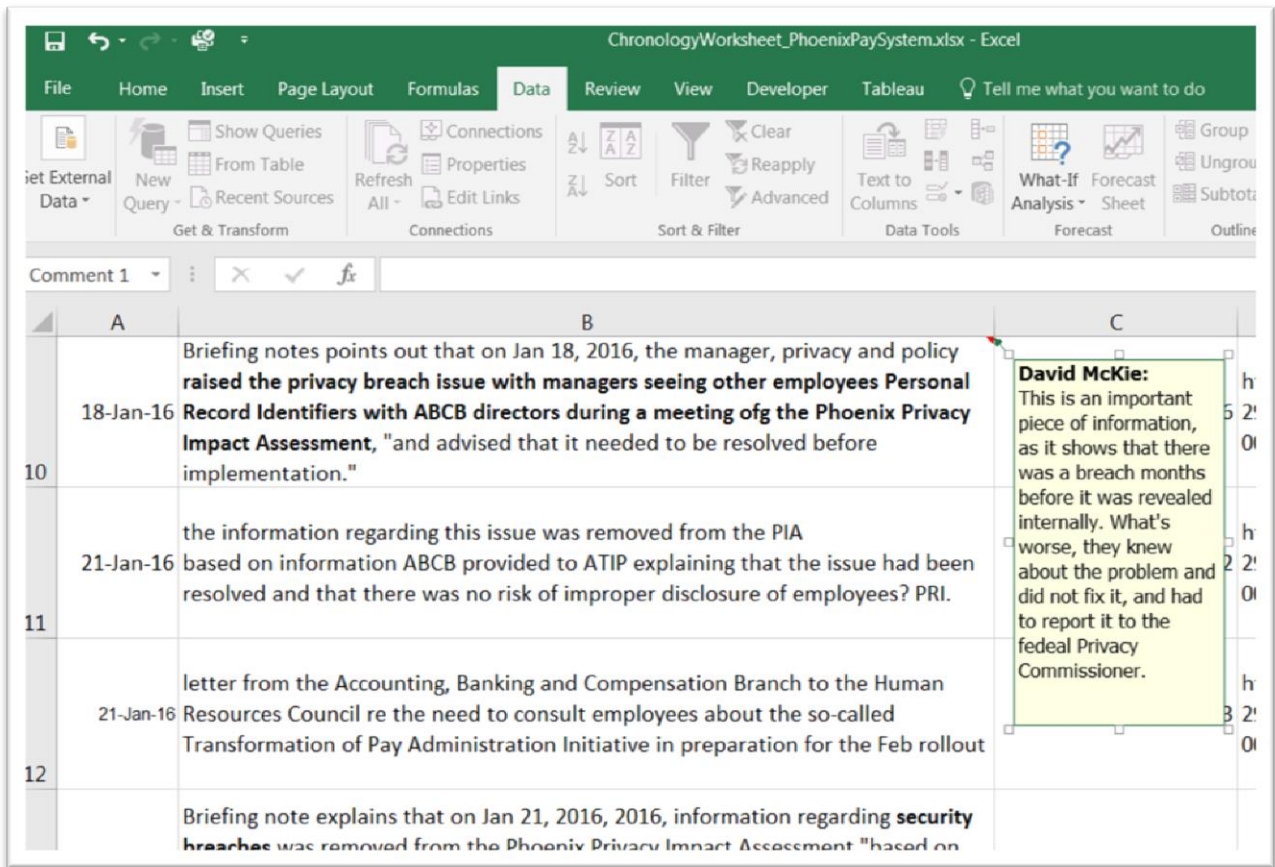
You can either choose to make the note appear, as evidenced in the screen grab above, or hide it, with only the small red triangle at the top right corner of the cell to indicate that there is a note attached.

The evolution of cloud-based services such as Google's spreadsheet, means that you can either upload this document to continue working on it, or share the workload with a colleague who is covering the same story.

In addition to using them to follow complicated and long-standing stories, chronologies are great for simply organizing your notes for big issues such as the health care debate unfolding between the federal, provincial and territorial governments.

The Health Accord, which former Liberal Prime Minister Paul Martin famously touted as a "fix for a generation", dates all the way back to 2004. In the interim, there have been key dates and events, leading up to the present talks about an important issue. These talks are sure to continue for the foreseeable future nationally, and in every region of the country. As a matter of fact, health care is an issue in many countries.

A chronology in a spreadsheet, uploaded to your Google Drive, would not only help to keep track of key events in Canada's debate, but it also becomes a handy reference point and lookup document for you and your colleagues.