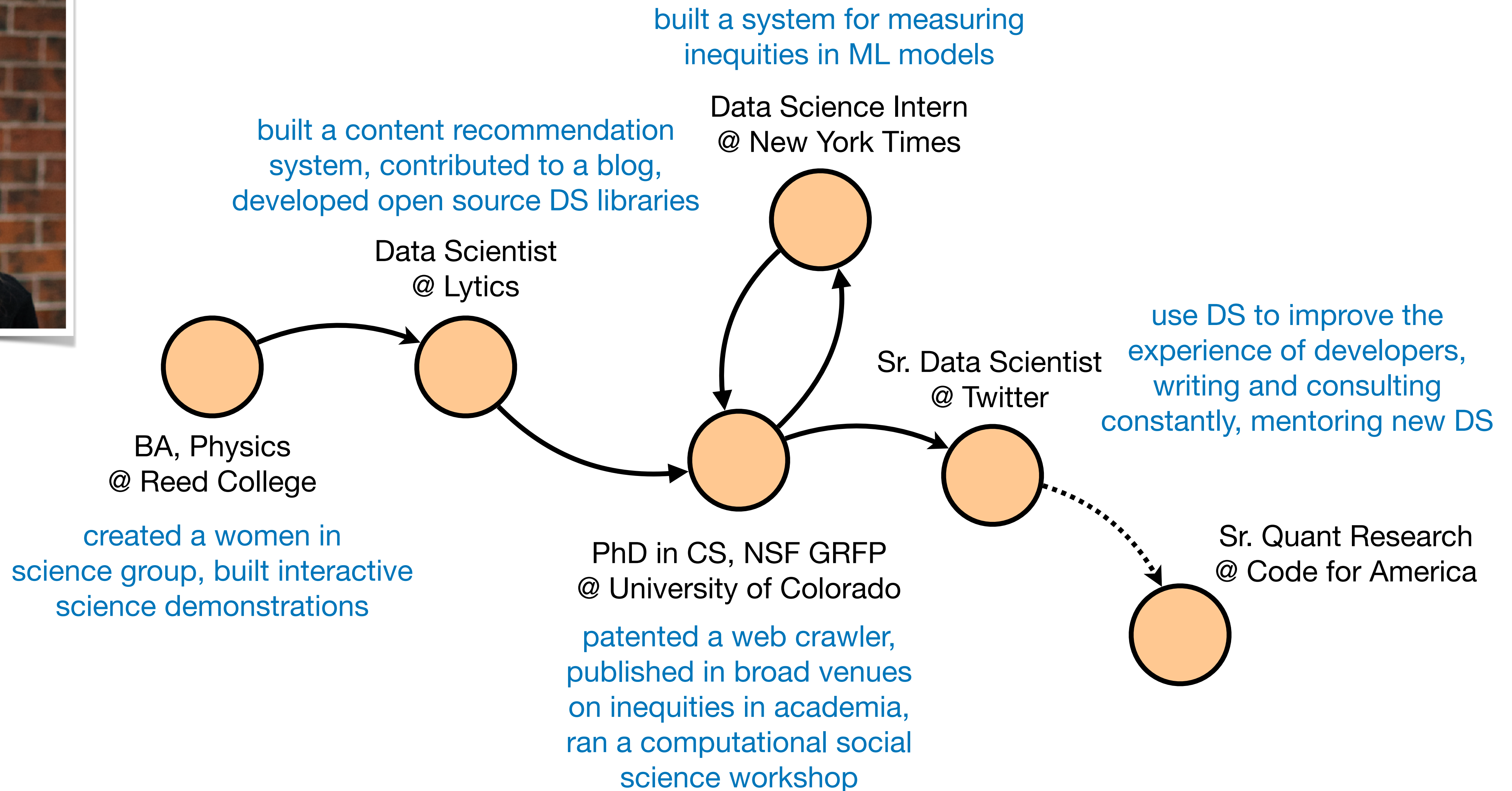




# Version Control

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I value **building systems, telling stories with data, & helping people** wherever I can.

# Outline:

1. My background
2. Automated version control
3. Setting up git
4. Creating a repository
5. Tracking changes
6. Collaborating
7. More resources



# Version Control

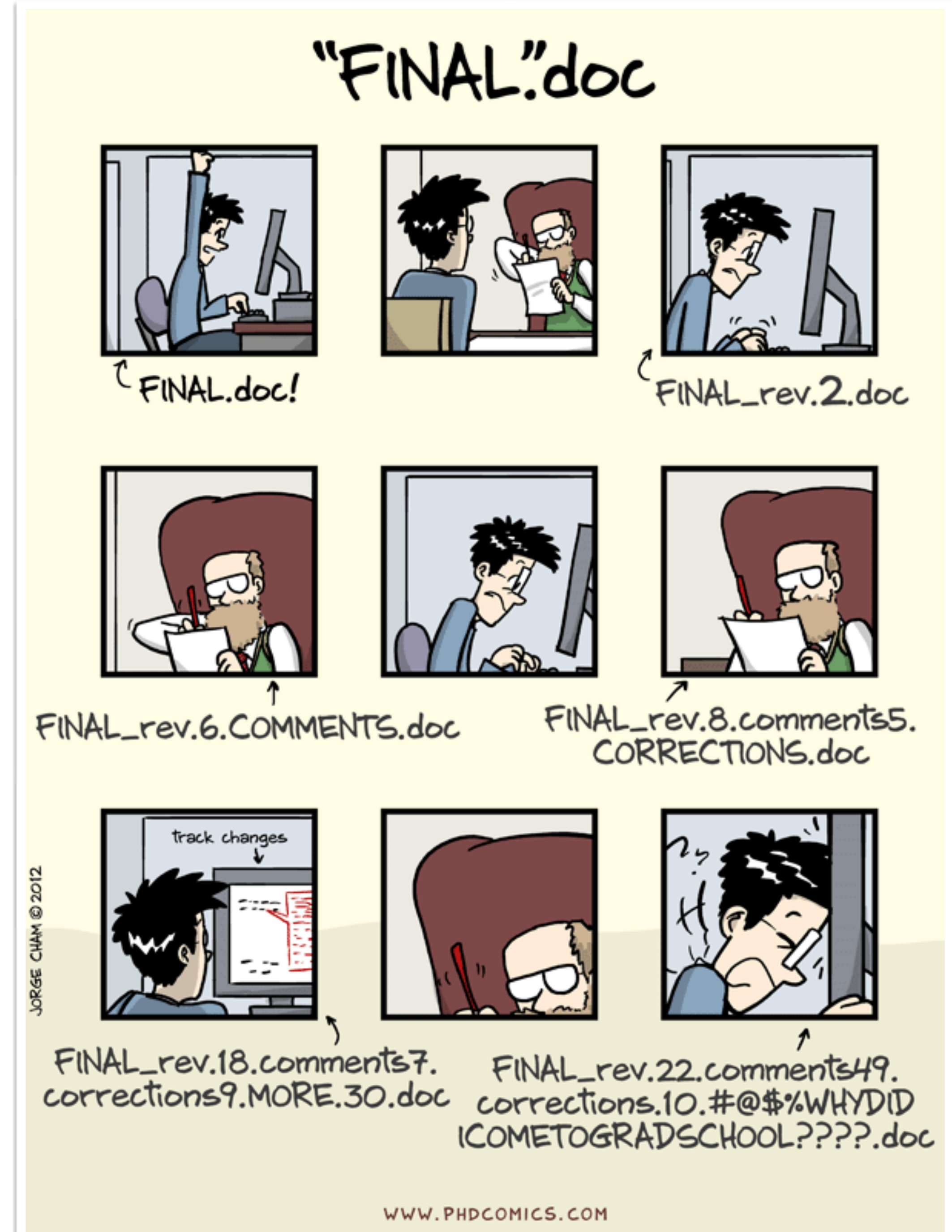
**What's hard about this method of tracking changes?**

Multiple nearly identical versions

Difficult to identify the final (or original)

Collaboration is cumbersome

**Learning objective:** Understand benefits of version control and (high-level) how it works



Version control records  
changes all along  
the way

The image displays a stack of four overlapping Google Docs browser windows, all open to the document titled "Ideas worth spreading". The windows are slightly offset to show multiple instances of the same document, illustrating the concept of version control. The topmost window shows the document's content, which includes a section header and a paragraph of text. A comment by a user named Allison is visible in the bottom right corner of the top window.

**Ideas worth spreading** ☆ 📁 Saved to Drive  
File Edit View Insert Format Tools Extensions Help [Last edit was seconds ago](#)

100% Normal text Arial - 11 + B I U A

**Prestige drives epistemic inequality in the diffusion of scientific ideas**

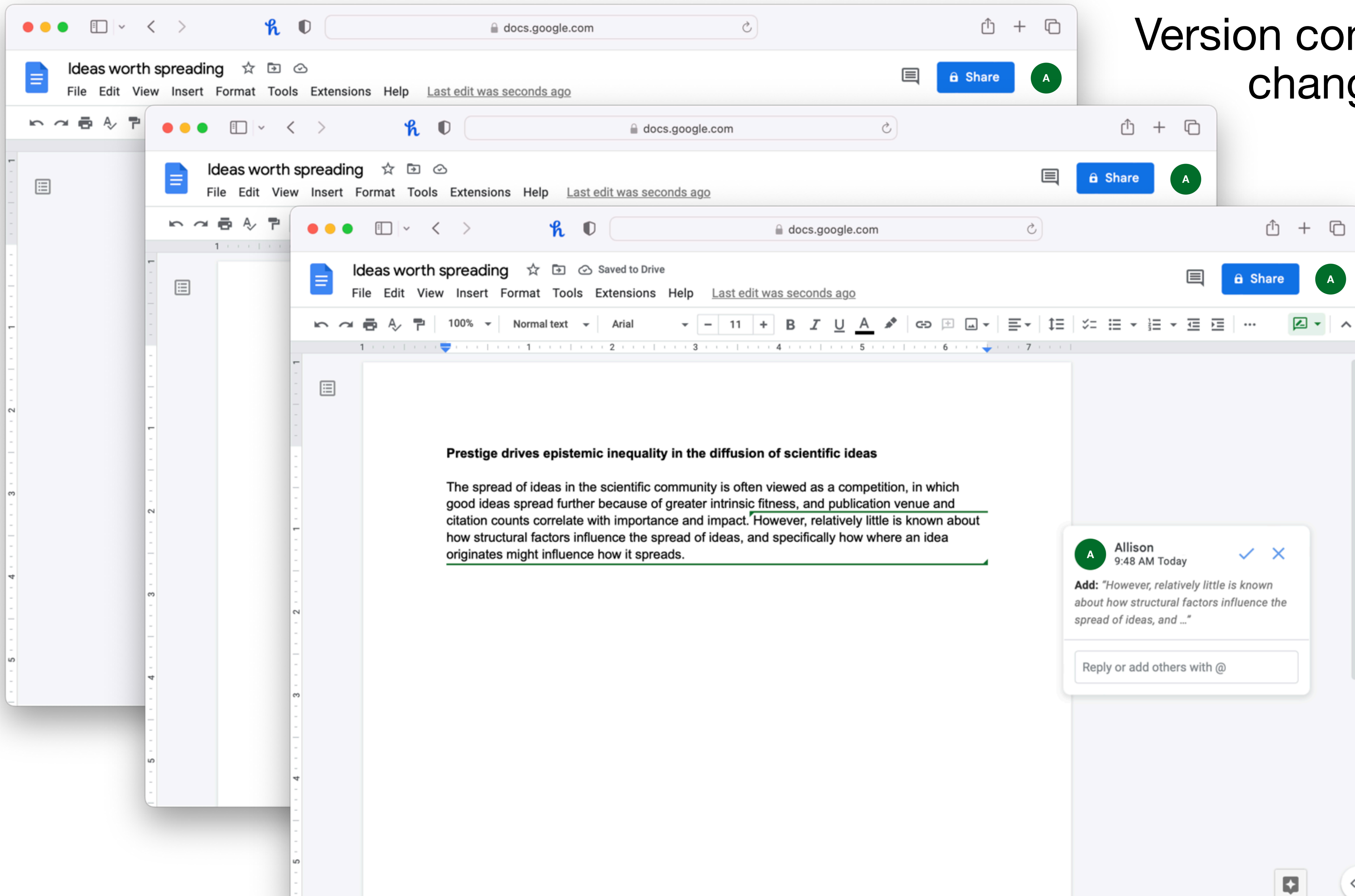
The spread of ideas in the scientific community is often viewed as a competition, in which good ideas spread further because of greater intrinsic fitness, and publication venue and citation counts correlate with importance and impact. However, relatively little is known about how structural factors influence the spread of ideas, and specifically how where an idea originates might influence how it spreads. Here, we investigate the role of faculty hiring networks, which embody the set of researcher transitions from doctoral to faculty institutions, in shaping the spread of ideas in computer science, and the importance of where in the network an idea originates.

**Allison** 9:49 AM Today ✓ ✕  
**Add:** "Here, we investigate the role of faculty hiring networks, which embody the set of researcher transit..."

Reply or add others with @

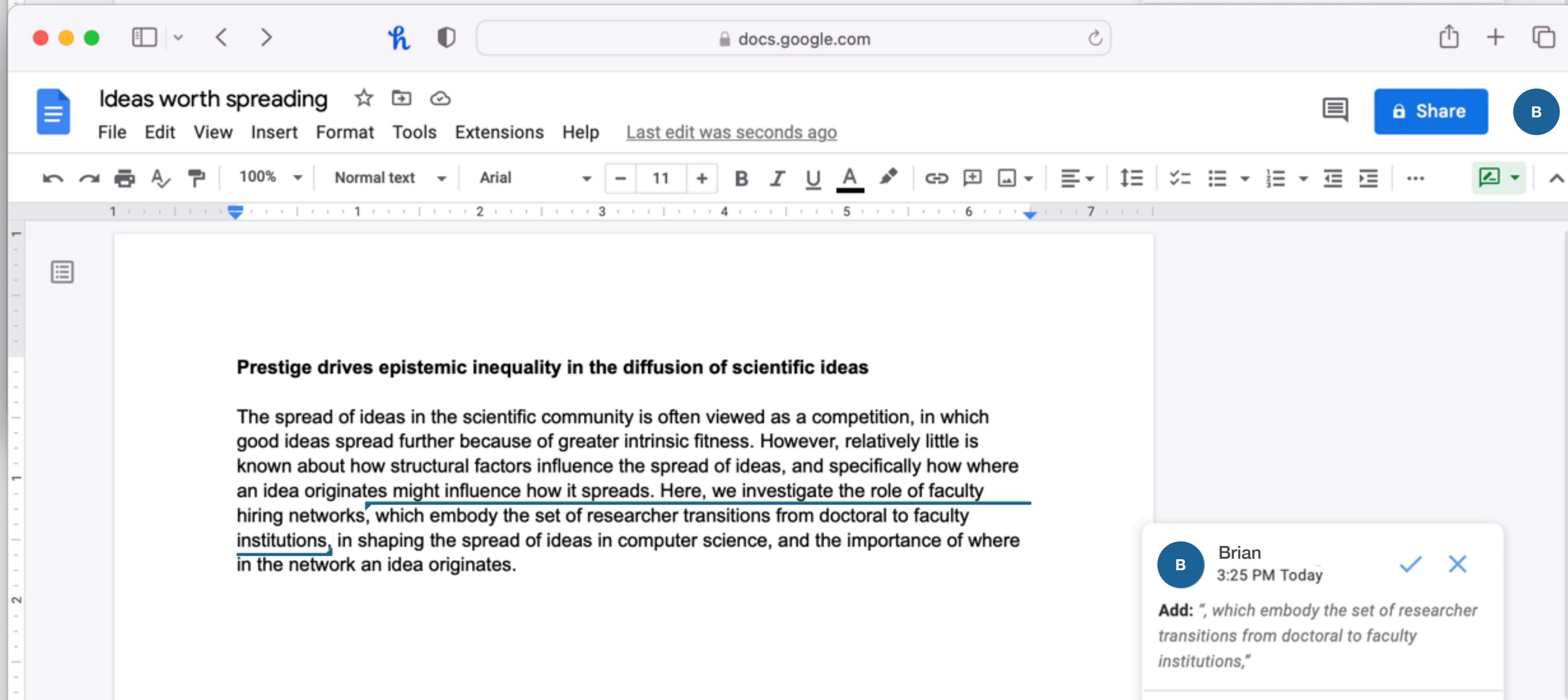
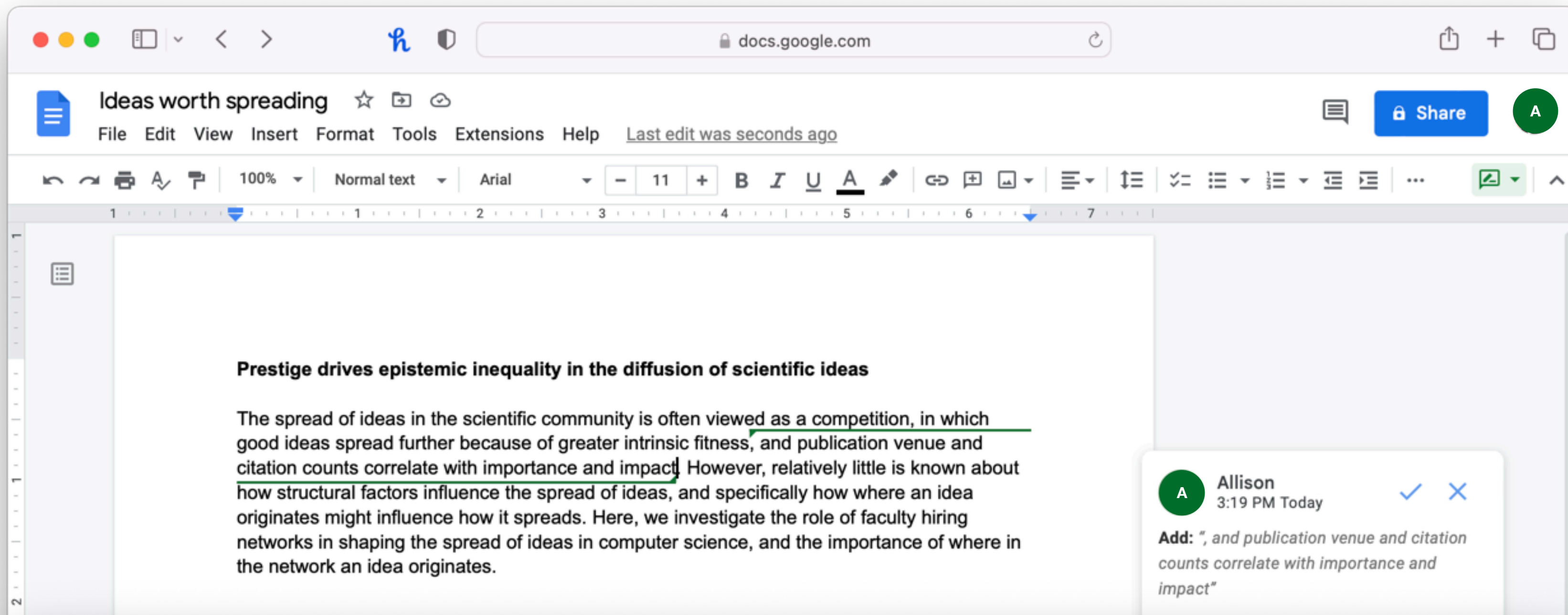


Version control records  
changes all along  
the way

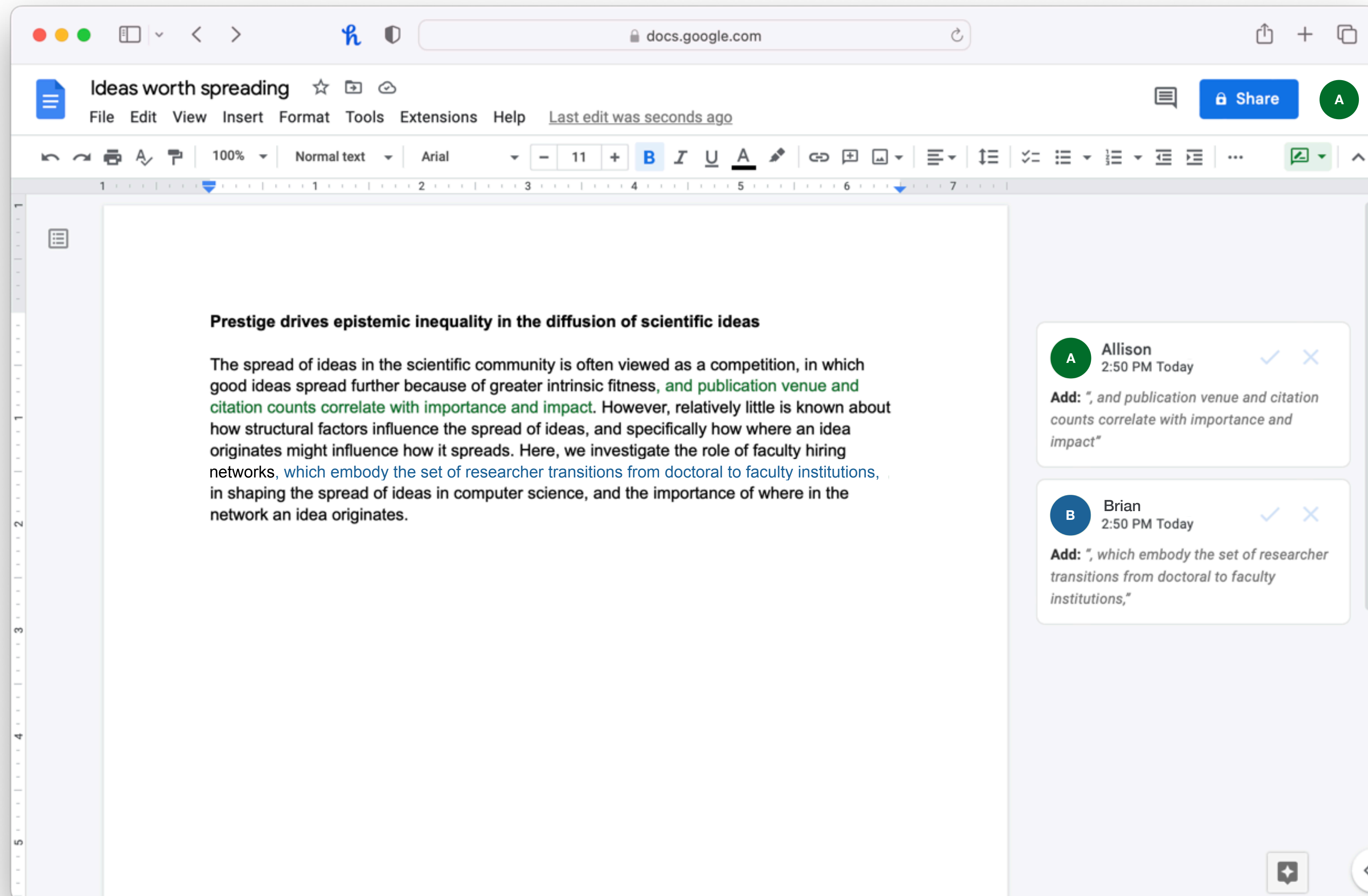


Version control records  
changes all along  
the way

Collaborators can  
make their changes  
independently







Version control records  
changes all along  
the way

Collaborators can  
make their changes  
independently

And as long as changes  
don't conflict, it's easy  
to merge them into  
the same document



# Version control definitions & takeaways

Version control is a tool that tracks changes (think unlimited undo)

With **git**, each change is called a **commit**

Complete history of commits for a particular project make up a **repository**

Repositories are synced across computers for parallel collaboration

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[https://github.com/allisonmorgan/tech\\_toolups\\_git/](https://github.com/allisonmorgan/tech_toolups_git/)

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# Thank you!

Allie Morgan  
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**Videos and reference manual:**

<https://git-scm.com/>

**Getting started with GitHub:**

<https://docs.github.com/en/get-started>

**Curriculum for learning Git:**

<https://swcarpentry.github.io/git-novice/>

**Today's materials:**

[https://github.com/allisonmorgan/tech\\_toolups\\_git/](https://github.com/allisonmorgan/tech_toolups_git/)