

Silver Linings Gradebook

Pedagogical and Administrative
Lessons to Consider
in Covid's Wake
[wonkish]



Through Line

- The pandemic continues to be a **tragedy**
 - Hopefully not for much longer
- It forced us to...
 - **learn & experiment** in order to facilitate the best learning experience we could, while...
 - trying to **survive physical & mental hardship** via unparalleled work & life challenges
- I *claim* there are **pedagogical & administrative lessons** to learn going forward
 - At least for CS-E, I *hope* not a complete waste



NU Context (Boston)

Late Spring – Summer ‘20

- Switched to online ~2wks
 - College-facilitated teacher backups
 - Students offered P/F options
- University (planned, but accelerated) transition from Blackboard -> Canvas
 - Teams++, <\$>Piazza</\$>
 - Added Zoom, Panopto, Gradescope, ...
- Exams -> online
 - Guidance re: requiring spyware/proctoring

Fall ‘20 – Summer ‘21

- Mostly hybrid flexible (sync)
 - Teacher & student choice
 - De-densified in-person (👤 + 2📖/week)
 - IAs universally available to support cross-modal interaction
 - Recording “guidance” ala student privacy
- Some online (async)
 - e.g., 1st year “NU Start” with higher production value, programming & advising, experiential projects
- *Care days* ala modified sched.



My Context (Spring '20)

DS2000 (London)

- Synchronous online
 - 3 x ✈️
- Interdisciplinary for non-majors
- Pro-tip: out-of-sync DST

(And co-chairing EAAI!?)



My Context (Summer '20)

CS2500 (NU Start , dev.)

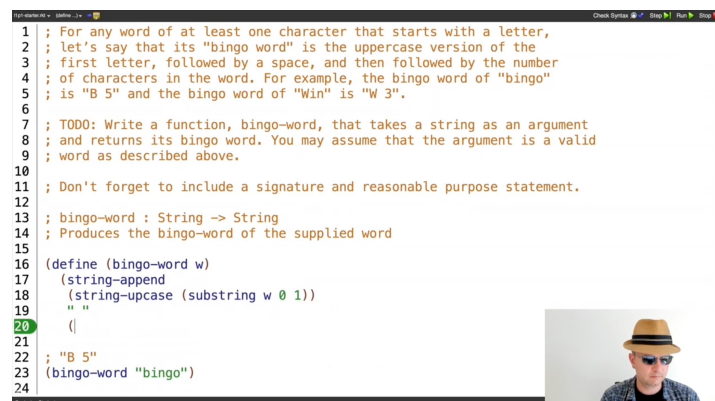
- CS1 for majors
 - Design, functional
- 159 videos
 - ~12hr, avg~4.5min
 - Check-your-knowledge
- Biggest challenge:
turning off A/C to film...
in my ONLY production-
approved shirt



My Context (Fall '20)

CS2500 (online async)

- >150 students
 - >20 countries
 - 15 time zones
- 15 staff
 - 2 countries, 3 time zones
- Additional 134 videos



```
1 ; For any word of at least one character that starts with a letter,  
2 ; let's say that its "bingo word" is the uppercase version of the  
3 ; first letter, followed by a space, and then followed by the number  
4 ; of characters in the word. For example, the bingo word of "bingo"  
5 ; is "B 5" and the bingo word of "Win" is "W 3".  
6  
7 ; TODO: Write a function, bingo-word, that takes a string as an argument  
8 ; and returns its bingo word. You may assume that the argument is a valid  
9 ; word as described above.  
10  
11 ; Don't forget to include a signature and reasonable purpose statement.  
12  
13 ; bingo-word : String -> String  
14 ; Produces the bingo-word of the supplied word  
15  
16 (define (bingo-word w)  
17   (string-append  
18     (string-upcase (substring w 0 1))  
19     " "  
20     |  
21  
22   ; "B 5"  
23   (bingo-word "bingo")  
24
```

CS3200 (hybrid flexible)

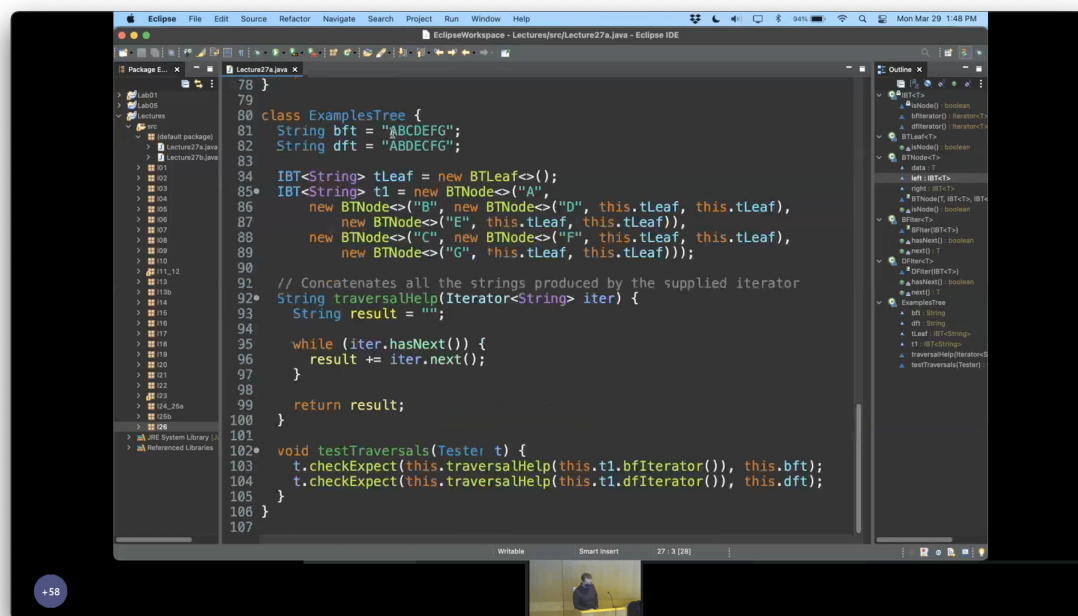
- Undergrad databases
- >80 students
 - ~10-20 in-person/day



My Context (Spring '21)

CS2510 (hybrid flexible)

- “CS2”
 - 1st time for me
- 115 students
 - ~5-15 in-person/day
- I got Covid...
 - Two days before class start
 - So, 2 months home, 1 month classroom



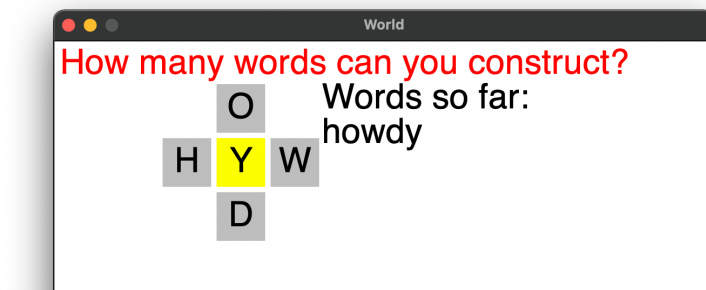
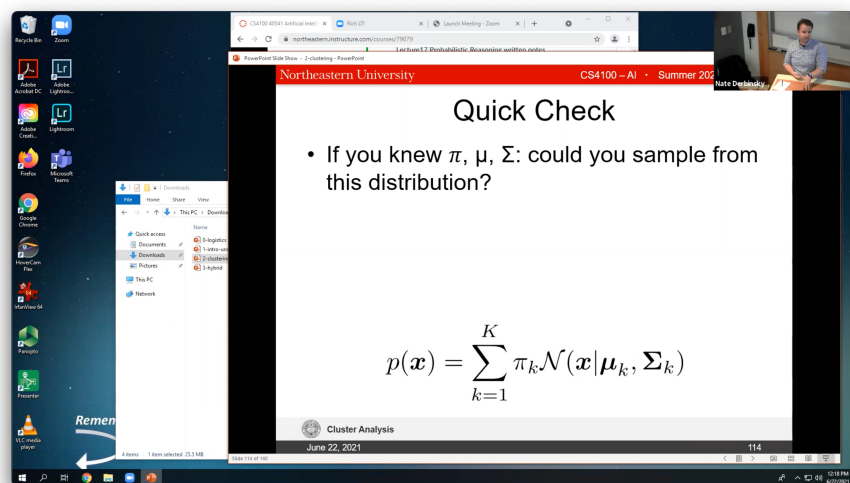
My Context (Summer '21)

CS4100 (hybrid flexible)

- Emergency cover last week + final projects

CS2500 (dev., in-person?)

- ~1000 students
- ~100 staff



My Context (College Administration)

- Worked with full leadership team to support undergrad & grad teaching (>100 instructors, multiple states/countries) + faculty affairs
- >30 teaching faculty in Boston
 - Hiring (5; 1hr + 3hr Zoom)
 - Evaluation (45 over 6 campuses)
 - Promotion (3 + mine)



Claims Overview

It worked!?

- Office Hours
- ~~Lecture~~
- Exams
- Messaging
- Instructional Assistants (IA)
- Good-Human Policies
- Virtual Hiring

It was worth a shot...

- Hybrid Flexible
- Implicit Community



It Worked!? (Office Hours)

Claim. When thoughtfully implemented (with proper tools), online office hours...

- Lower barriers for students
- Reduce (some) logistical challenges

Empirically

- Broad utilization with strong feedback
 - Requires consideration of times, individual/group support (static/dynamic), backup plans, ...



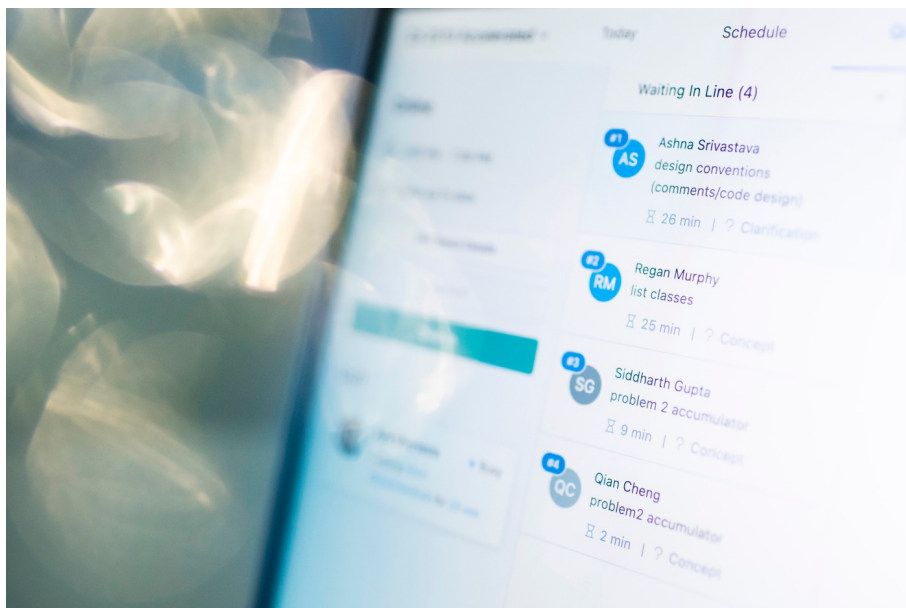
Office Hours (Before Times)



Office Hours (Pandemic)

Custom Tooling

(Manageable) Flexibility



TA Office Hours: [Teams Channel](#)

1. Click the **Instruction Team** link to see when individuals are available, overall (Boston time)...
 - Mondays: 1pm - 10pm
 - Tuesdays: 6am - 10pm
 - Wednesdays: 6am - 10pm
 - Thursdays: 8am - 10pm
 - Fridays: 10am - 10pm
2. Post a question and when a member of the instruction team can help they will 🙌 your message and then start a private chat

Professor Office Hours (by appointment in 20-minute intervals): [Sign Up via Canvas Calendar](#), generally (Boston time)...

- Mondays: 5pm - 6pm
- Tuesdays: 8am - 9am, 12pm - 4pm



It Worked!? (Lecture)

Claim. With planning & resources, possible to develop engaging & effective online materials for...

- Initial concept ingestion
- Supplementary content
 - Sample solutions/walkthroughs

Empirically

- High utilization (students *love* pause-rewind)
 - Though (tempted to) procrastinate/cram
- Good conversations around flipping multiple courses
 - Allows us to focus (fun!) time as guides vs sages
- (Positive) content re-use
 - Reflection/training



It Worked!? (Exams)

Claim. Online exams forced us to ask critical questions about...

- Frequency, format, and content
- Risks to privacy, efficacy

Empirically

- Rare *evidence* of integrity violations
- Shift in format, Bloom's
 - Projects, videos
- Comparable outcomes [citation needed]



It Worked!? (Messaging)

Claim. Thoughtful messaging plans were vital to navigate a community of teachers via...

- Timely digests
- Regular town halls

Empirically

- Fewer outgoing e-mails, fewer left behind
- Created a sense of reliability in a sea of unpredictability



It Worked!? (IA)

Claim. Deployment of students that facilitate cross-modality interaction (Instructional Assistants; IA) was...

- Vital for effective communication & learning
- Scalable

Empirically

- Students in each modality were able to engage their instructor
- Teachers could focus (more) on content, questions, interaction



It Worked!? (Good-Human Policies)

Claim. Despite challenging individual circumstances, trusting & thoughtful policies (and exceptions) allow...

- Students to succeed
- Teachers to ~~thrive~~ persist in their work


Empirically

- Little *evidence* of abuse
- Relatively high student & employee retention
 - So far...





Examples of Good-Human Policies

Students

- Class participation
 - Cameras, txt/audio
 - Recording access
- Late submission
- Exam accommodations
 - More than one from 
- Care days

Teachers

- Equipment/support
 - Supply bags, remote setup
- Flexible scheduling
 - Modality, days/time, ...
- / inclusion
- Care days (in theory)
 - Emergency backups



It Worked!? (Virtual Hiring)

Claim. Online interviews, while suboptimal...

- Helped delay pool constraint (DEI++)

Empirically

- Forced revamp of policies (in a good way!)
- Reduced overall costs/logistics
 - Though added to burden of onboarding/community-building



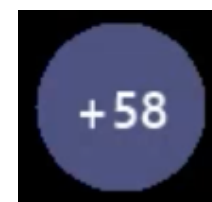
It was worth a shot... (HyFlex)

Claim. With current technology*, the added flexibility of cross-modality teaching/learning does not outweigh...

- Implementation overhead
- Loss of learning [citation needed]

Empirically

- Lower student engagement
- Higher rates of teacher frustration
 - More work, greater constraints, feeling that we could do better in either modality (vs both)



It was worth a shot... (Implicit Community)

Claim. Community/mentoring requires thoughtful allocation of resources *in the best of times* vs ...

- Loss of hallway/“water cooler”
- Decreased appetite for yet-another Zoom

Empirically

- Increased reports of isolation
 - Particularly new teachers/students



Some Gems

- Small-group virtual/outside “tea time”
 - Goal: all faces visible :)
 - Pro-tip: Gather for conference-y settings
 - Challenges: bootstrapping, maintaining
- “Open-format” virtual town halls
 - Goal: you are not alone
 - Challenges: limiting negativity, applause, not adding to Zoom-fatigue
- Group cards
 - Goals: warm fuzzies, big-group participation
 - Challenges: showing regular appreciation



Remaining Issues/Questions

- Student time-management skills
 - Primarily for early + async
- Community-building
 - (S)tudent/(T)eacher; S/S + T/T
- Achieving equitable student outcomes
 - Ala disparities in technology, Internet, space, ...
- How to effectively support teacher self-care?
 - No more snow days 🥲



Thank You :)

Let the discussion begin!

