

It's not my fault I cheated ! How Technology Fails Students

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The Questions...

Pair & Share

A Dismal Project

- Economics
- Large
 - 25 tabs
- Lumpy
 - Due at end of semester – graded all at once
- 51 / 91
- The New, Improved Project...
 - 18 assignments, graded early and often

Cheating Technology

- Wireless ear implants
- iPod not just for music
- Phones
- M&Ms
- Keystroke loggers (IBD 4/15/04)
- Google while testing
- Email...

Prof

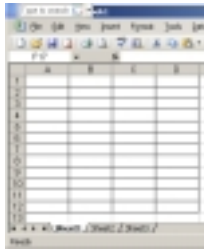
Students



Class Day 1: No Homework

Prof

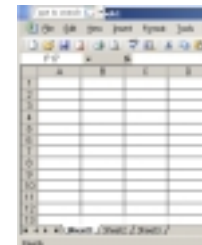
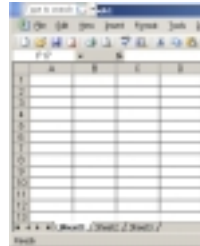
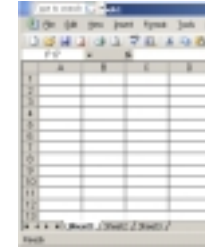
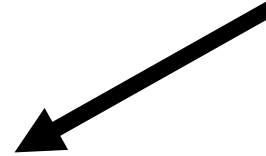
Students



Class Day 2: Homework

Prof

Students

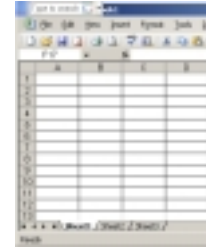


Class Day 3: Copy

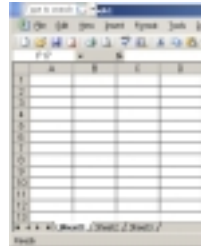
Prof

Students

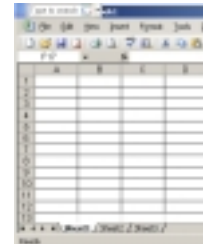
B+



B+



B-



Class Day 4: Grading

Prof

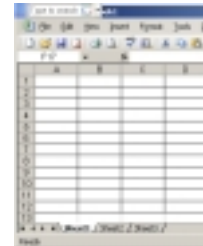
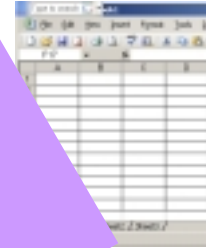
Students



What if...

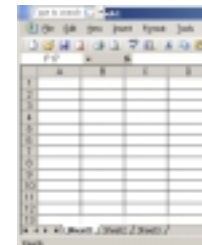
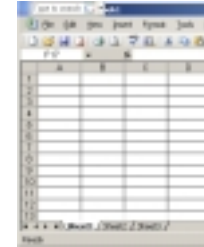
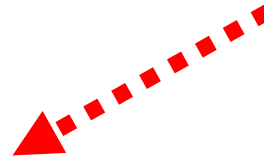
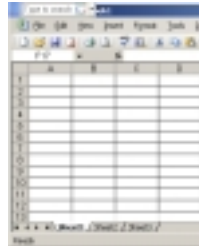
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Class Day 4: Grading



Prof

Students



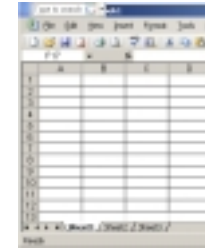
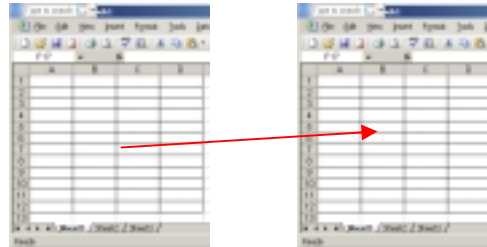
Class Day 3: Detecting Copying I

Prof

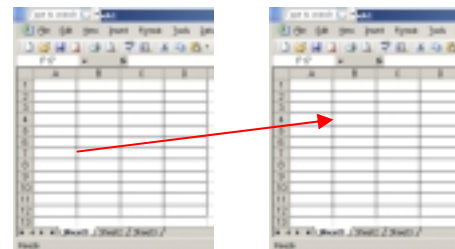
Students



Ctrl-C Ctrl-V



Ctrl-C Ctrl-V



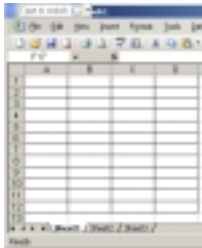
Class Day 3: Detecting Copying II

One Anti-Cheating Technology

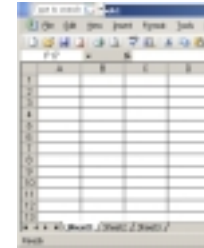
- Self tracking documents have
 - Unique assignment files for each student
 - Embedded macros

Prof

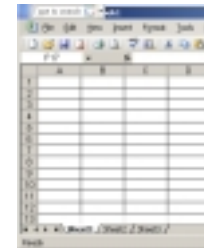
Students



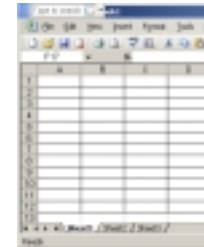
n



$n + 1$



$n + 2$

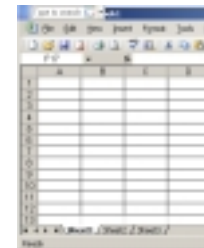
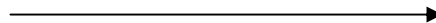
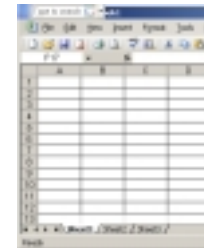
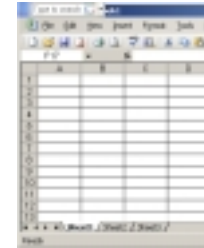
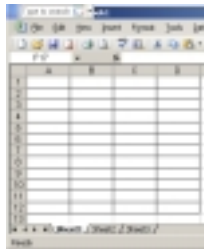


Creating Unique Assignment Files

Prof

Students

If event,
then ...

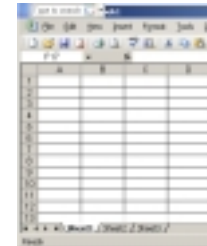
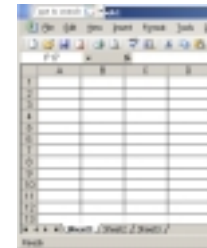
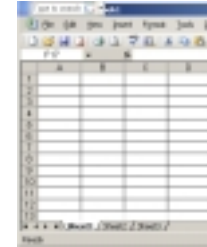


Embedding macros

Prof

Students

Cross-reference
Interaction history
Automatic grading



Receiving and Grading Assignments

Anti-Cheating Technology

- anti cheating technology → 5,860,000 hits
- “-games” → only 1,790,000 hits
- Categories
 - Desktop
 - Web
 - Web + databases + periodicals
 - Common: “similarity check”

Anti-Cheating Philosophy

- Unique Assignments
 - Syntactic
 - E.g. different test versions, keys
 - Semantic
 - Unique numbers for each student
- Challenges
 - How to generate, distribute, collect, grade

Teacher Responsibility

- Follow through with the given academic integrity policy
 - In our b-school, we noticed wide discrepancy in interpretation as well as enforcement
- Accept electronic assignments and keep them
- Check
- No, really, check. Meet Google.

Hopes

- What makes for a perfect Homework Assignment ?

So...

- Is it possible to create an environment in which cheating is just impossible?
- Have you met the Man who corrupted Hadleyburg?
- “...honesty shielded, from the very cradle, against every possible temptation, and so it`s ARTIFICIAL honesty, and weak as water when temptation comes, ...”